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**Via Email and Hand Delivery**

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**Re: Comments on the Final Environmental Impact Report for Revisions to the Kern County Zoning Ordinance 2015(C)**

Dear Chairman Couch, Honorable Supervisors, and Mr. Mynk:

These comments, submitted on behalf of Sierra Club and the Natural Resources Defense Council ("NRDC"), address the Final Environmental Impact Report ("FEIR") for Revisions to the Kern County Zoning Ordinance 2015(C) (the "Ordinance" or "Project"). These comments are offered to ensure that the County's consideration of the Ordinance complies with the California Environmental Quality Act ("CEQA"), Public Resources Code § 21000 *et seq*. and implementing guidelines, California Code of Regulations, title 14, § 15000 *et seq*. ("CEQA Guidelines"). These comments follow and supplement earlier comments submitted by Sierra Club and NRDC describing deficiencies in the Draft Environmental Impact Review ("DEIR") prepared for the Project.[1] As described below, the FEIR fails to remedy the numerous deficiencies that were identified in the DEIR. Indeed, in many instances, the FEIR fails to respond substantively—and sometimes does not respond at all—to the concerns previously

[1] Sierra Club's prior comments are attached as Exhibit 1. The Law Office of Babak Naficy submitted additional comments on behalf of the Kern-Kaweah Chapter of the Sierra Club; those comments are attached as Exhibit 2. NRDC's comments are attached as Exhibit 3.

raised by Sierra Club and NRDC. The FEIR therefore is inadequate under CEQA.

Additionally, the process employed by the County for reviewing the Ordinance and its potential environmental impacts has failed to fully inform the public and has made meaningful public participation impossible. Despite the County's intention to address with finality, in a single analysis, all new oil and gas drilling activity in the County for the next 25 years, the County only afforded the public a meager 60 days to review the highly technical, 1,800-page DEIR and its 6,000 pages of appendices. The County has provided an even smaller window for review of the FEIR, posting the FEIR just a little more than 30 days before the Board of Supervisors is set to meet and requesting, unreasonably, that comments be submitted within a few business days of the FEIR's release. Perhaps worst of all, a mere week before the Board is set to meet, County officials just released the 1,600-page cumulative health risk assessment upon which the FEIR is based along with a draft emissions reduction agreement that purportedly will mitigate air quality impacts. Such abbreviated timelines for review are particularly inappropriate because none of the decision documents has been made available in Spanish, even though Kern County is home to many community members who are monolingual Spanish speakers.

In the face of such obvious obstacles to full public participation and transparent government decision making, the Board of Supervisors should decline to make any decision on the FEIR or the Ordinance at this time. Instead, the County should extend the comment period to allow for concerned citizens to fully assess and comment upon the CEQA documentation, including documents translated into Spanish.

## I. The FEIR fails to describe fully or accurately the Project and its impacts.

The FEIR continues to employ an overly broad analytic approach that neglects to describe with adequate specificity the full range and duration of oil and gas activity and the attendant environmental consequences that will occur under the Project. As such, the FEIR fails in its basic purpose as a useful, informational document for the public and decision makers. (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.)

Though the FEIR purports to describe and prescribe mitigation measures for tens of thousands of new oils wells to be drilled within the County in the next 20 to 25 years—all with the goal of foreclosing the need for any future CEQA review of specific wells or fields—the FEIR simply does not contain the detailed, site-specific analysis required to preclude CEQA analyses for future permits. The FEIR acknowledges that

its analysis foregoes any assessment of "the precise location(s)" where future oil and gas activities will occur (FEIR, 7-104), and instead merely "informs the *policy* decisions reflected in the ordinance." (FEIR, 7-101, italics added.) The FEIR also admits that "the impact analysis has been performed on a landscape or regional scale," not on the level of particular sites or even individual oil fields. (*Ibid.*) The FEIR attempts to justify this admitted failure with the assertion that it contains "extensive analysis and mitigation measures at the micro scale." (*Ibid.*) However, assessing impacts on a "micro scale" at unidentified, hypothesized well sites simply is not the same as analyzing impacts for actual, particularized wells at specific, unique locations within the County.

The FEIR notes that the "degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR" and "[a]n EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan . . . ." (FEIR, 7-103.) The FEIR attempts to evade this bedrock CEQA requirement by contriving that the underlying activity assessed by the FEIR is, in the first instance, the Ordinance and *not* the tens of thousands of new wells that the County expects will be constructed under the Ordinance. A broad, programmatic review of the consequences of the Ordinance is not exclusive of the need to assess the consequences of individual wells themselves. The decision to adopt the Ordinance (a "general plan") and the subsequent authorization of new, individual oil and gas wells ("construction projects") require different degrees of review specificity, and the FEIR's policy- or programmatic-level review is insufficient to preclude future CEQA review of individual oil and gas fields or wells.

Stated differently, the FEIR lacks "[a]n accurate, stable and finite project description," which is essential for "an informative and legally sufficient EIR." (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193.) As the FEIR itself concedes, its analysis necessarily is limited to "the types of equipment that will be used" and "the types of activities that will be conducted" without any identification of "the precise location" where the equipment and activities will occur. (FEIR 7-104.) This failure to address particular locations is no small oversight, as future oil and gas wells may be located anywhere within an area encompassing 3,700 square miles (DEIR 3-6); this area is three times larger than the entire State of Rhode Island and larger than the State of Delaware. Lacking fundamental, site-specific details on where future oil and gas operations will occur, the FEIR's project description is neither accurate, stable, nor finite—necessitating future, site-specific CEQA analysis.

## II. The FEIR's characterization of the Ordinance as instituting a "ministerial" process for permit issuance is erroneous.

Beyond asserting, incorrectly, that the FEIR's impact analysis is sufficiently site-specific, the FEIR also seeks to exempt future well approvals from CEQA analysis on the conceit that the Ordinance establishes a purely ministerial process for authorizing future oil and gas activities in the County. The County's characterization of the oil and gas permitting process devised by the Ordinance as "ministerial" is of no moment, as the State Legislature pointedly has *not* delegated to local agencies "the prerogative to determine which projects are ministerial and hence exempt from the requirements of CEQA." (*Day v. City of Glendale* (1975) 51 Cal.App.3d 817, 821-22.)

Whether an agency action is ministerial or discretionary is an issue of law that is subject to *de novo* review by courts. (*Great Oaks Water Co. v. Santa Clara Valley Water Dist.* (2009) 170 Cal.App.4th 956, 967.) A decision will only be deemed ministerial where agency officials are required to apply "fixed standards" or "objective measurements" and precluded from using "personal, subjective judgment in deciding whether or how the project should be carried out." (CEQA Guidelines § 15369.)

The Ordinance does not establish a ministerial permitting process that would allow the County to forego future environmental review because it requires County officials to make discretionary decisions. For example, the Ordinance requires the County to determine whether a permit applicant has provided written documentation in "sufficient detail" to allow the County to determine that the applicant "will" comply with all "applicable" mitigation measures listed in the FEIR. (Proposed Ordinance at §§ 19.98.085(F)15; 19.98.110(E).) If the County repeatedly rejects the sufficiency of the information submitted by an applicant, "a mandatory in person meeting . . . will be required to resolve the issues preventing issuance of the permit." (*Id*. at § 19.98.090(D); § 19.98.100(D) [same].)

The permitting process contemplated by the Ordinance is discretionary at every turn. Determining whether documentation is "sufficient" involves a discretionary judgment, especially when the required documentation need only sufficiently demonstrate that all "applicable" mitigation measures "will be complied with." (*Id*. at §§ 19.98.085(F)15; 19.98.110(E).) The Ordinance does not supply any fixed standard or objective measurement for assessing sufficiency of an applicant's submission. For example, must an applicant provide receipts, contracts, photographs, and other objective forms of proof of compliance, or would it be sufficient for a responsible official to merely submit a signed statement declaring in a single sentence that all mitigation

measures are in place? Likewise, how will County officials determine whether a given mitigation measure detailed in the FEIR is "applicable"? (*Id*. at §§ 19.98.090(D), 19.98.100(D).) The FEIR insists that all mitigation measures will be instituted at every new well (FEIR at 7-98), but the Ordinance suggests that measures may be applied selectively. And what are the limits, if any, on the County's authority, after several permit denials, "to resolve the issues preventing issuance of the permit" at the mandatory meeting required by the Ordinance? It is hard to see why there would be any need for a face-to-face meeting to resolve site-specific issues if, as the County insists, every permit application is held to identical, objective requirements. The Ordinance lacks the specificity and fixed standards necessary to answer these questions, meaning the implementation of the Ordinance necessarily involves the exercise of discretion.

Even more problematic, the mitigation measures that purportedly must be complied with at all new wells are themselves open-ended and lack the fixed standards or objective measurements that would establish a ministerial permitting program. In previous comments, both the Sierra Club and NRDC identified numerous examples of mitigation measures that leave the key details of site-specific mitigation to the County's judgment.[2] Although the FEIR states without specification that the "Final FEIR has made revisions to numerous mitigation measures to address concerns raised by comments," (FEIR at 7-164) most of the examples of discretionary judgments flagged by commenters have gone completely unaddressed. Of the 16 examples identified by Sierra Club and NRDC, the FEIR only reflects changes to only three. (*Compare* Exh. 1 at 7-8 and Exh. 3 at 6-7 *with* FEIR at Table 7-2.)

Moreover, despite the FEIR's broad assertion that revisions have been made "to add specificity and remove discretion" (FEIR at 7-164), the document is still rife with vague, open-ended mitigation measures that allow the County to decide whether a certain mitigation measure constitutes what is "adequate" (MMs 4.1-5, 4.8-6, 4.8-20), "appropriate" (MMs 4.3-6, 4.4-12, 4.5-1, 4.8-5, 4.8-8), "feasible" or infeasible" (MMs 4.2-2, 4.4-1, 4.4-3, 4.4-15 4.6-3, 4.6-5, 4.17-2), sufficient to "minimize" impacts (MMs 4.1-6, 4.2-1, 4.2-2, 4.3-2, 4.4-1, 4.4-15, 4.8-6, 4.9-2), "practical" (MMs 4.8-3, 4.8-6), or "proper" (MMs, 4.3-3, 4.3-4, 4.8-2, 4.8-6, 4.8-8, 4.9-2). The FEIR actually includes new, additional instances of such discretionary language, changes made after the comment period on the DEIR. (*See*, *e.g.*, MMs 4.8-3, 4.8-6, 4.8-7, 4.9-2.)

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[2] *See* Exh. 1 at 7-8; Exh. 3 at 6-7.

For the foregoing reasons, the Ordinance cannot and does not establish a ministerial permitting process that obviates the need for all future CEQA review.

## III. The FEIR improperly relies upon unenforceable mitigation measures.

Apart from rendering the Ordinance's well permitting process discretionary, the ill-defined and subjective mitigation measures described above also constitute grounds for invalidation of the FEIR. CEQA does not allow an agency to adopt mitigation measures that are "cursorily described," "nonexclusive, undefined, untested and of unknown efficacy," or that create "no objective criteria for measuring success." (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 93). The FEIR's numerous mitigation measures that turn on subjective judgments of what is "adequate," "appropriate," "feasible," *et cetera* are cursorily described, poorly defined, and lack the requisite objective criteria required by CEQA. In one particularly egregious example, the FEIR abandons any effort at instituting objective, enforceable criteria, opting instead to allow the permit applicant to determine what mitigation measures will be instituted for mitigating impacts from the transport, use, and disposal of hazardous materials. (*See* MM 4.8-6 "The determination of when and the extent to which a measure is 'practical' is to be made by the Applicant . . . "].)

The vagueness of the mitigation measures set forth in the FEIR also raises serious concerns regarding enforceability. CEQA mandates that mitigation measures must be "fully enforceable through permit conditions, agreements or other measures." (Pub. Res. Code § 21081.6(b); CEQA Guidelines § 15126.4(a)(2); *Sierra Club v. Cnty. of Fresno* (2014) 226 Cal.App.4th 704, 750, *review filed* (July 8, 2014).) Because the mitigation measures are so vague and subjective, permit applicants might avoid enforcement by arguing that the mitigation measures incorporated into the Ordinance are void for vagueness. It is also unclear how the County would enforce a mitigation measure that, in the first instance, allows an applicant to determine for itself what is practical.

The FEIR's response to comments regarding mitigation measures underscores the County's refusal to take seriously concerns regarding the certainty, enforceability, and protectiveness of mitigation measures. The FEIR neglects to address any of Sierra Club's or NRDC's comments on this topic with specificity. Instead, the FEIR highlights legal authority on CEQA's mitigation requirements and baldy asserts that "[t]he mitigation measures included in the EIR comply with these requirements." (FEIR, 7-164 to 7-165.)

A particular focus of the FEIR is a discussion of the various sources of enforcement authority that the County purportedly possesses. (FEIR 7-168 to 7-172.) The sources and scope of the County's enforcement authority, in the abstract, is no substitute for analysis of whether the mitigation measures, as written, are legally enforceable. Further, authority to enforce should not be confused with the practical ability to enforce mitigation requirements. The County has stated that a primary rationale for the permitting approach set forth in the Ordinance is a lack of resources to review the environmental consequences of individual wells or oil fields. (FEIR at 7-95; see also Response 0047-11.) If the County lacks the resources to keep up with annual permitting activity, it is unclear how the County will ensure that the tens of thousands of wells proposed for fast-track approval actually comply with the requirements of the Ordinance in the coming decades of activity purportedly covered by the FEIR.

## IV. The FEIR's impacts analyses are severely flawed.

As both Sierra Club and NRDC pointed out in previous comments on the DEIR, whether assessed at a programmatic level or at the site-specific level for the tens of thousands of new oil and gas wells expected under the Project, the County's analysis fails to provide an adequate or lawful review of the Project's impacts and appropriate mitigation measures.[3]

Relatedly, the FEIR is invalid because it fails to respond substantively to the concerns raised by Sierra Club and NRDC, and the County's analysis remains flawed. Consider, for example, the FEIR's response to criticisms that the County has neglected to provide a "worst case" analysis of environmental impacts, as required by CEQA. According to the County, the FEIR has satisfied this requirement by making some "conservative assumptions." (FEIR, 7-96 to 7-97.) Selectively identifying a handful of purportedly "conservative assumptions" does not mean, however, that the "worst case" impacts of the Project have been analyzed. Even the FEIR admits that its assumptions were "often," but not always, conservative. (FEIR, 7-98.) We do not agree that the assumptions made in the FEIR are sufficiently conservative. (*See*, *e.g.*, *infra* at [CUP alternative discussion]). In any event, making conservative assumptions for only some variables but not others—as the FEIR admits it does—falls short of CEQA's worst case impact analysis requirement.

Likewise, the FEIR fails to address the overarching concern that the County's admittedly "landscape" and "regional scale" analysis of the Project (FEIR, 7-101) is

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[3] *See* Exh. 1 at 11-17; Exh. 2 at 11-17; Exh. 3 at 11-22.

inadequate to identify or mitigate the full range and intensity of environmental impacts that likely will result from the tens of thousands of new wells expected to be drilled under the Ordinance. The FEIR does not confront the need for well-specific CEQA review squarely or substantively. Instead, the FEIR offers a conclusory statement that the Ordinance will effectuate an "environmentally superior" system to well- or field-specific CEQA review. According to the FEIR:

> Since individual oil and gas projects seeking ministerial approval would be required to comply with every applicable mitigation requirement established by this EIR, in exchange for streamlined approval, most projects will be required to mitigate for some impacts that they don't actually cause. In contrast, oil and gas projects subject to a discretionary approval process can only be required to mitigate for environmental impacts when there is evidence such impacts are likely to occur. In this sense, the Amended Zoning Ordinance's ministerial approval process is environmentally superior to the typical discretionary approval process because its comprehensive mitigation program applies even when on-the-ground impacts may not occur.

(FEIR at 7-98 to 7-99.)

The FEIR's rationale for a self-described "comprehensive" review and mitigation program—to the exclusion of site-specific CEQA analysis and mitigation—is not supported by substantial evidence and is wholly illogical. According the County, the chief environmental benefit of its proffered approach is that "most projects will be required to mitigate for some impacts that they don't actually cause." (FEIR, 7-98.) But a mitigation measure implemented to prevent a non-existent impact achieves no net environmental benefit. In fact, requiring mitigation measures that are ill-suited to the "actual" expected impacts at a particular site conceivably could be counter-productive. Requiring the kind of cookie-cutter and potentially pointless mitigation touted by the FEIR, *i.e.*, mitigation for "for some impacts that [certain permit applicants] don't actually cause," also has a negative effect on the permit applicants, who will be forced to expend resources that may achieve little or no environmental return. Consequently, conducting site-specific environmental reviews and developing site-specific mitigation measures can be expected to produce superior environmental outcomes. In contrast to the "one size fits all" and "lowest common denominator approach" reflected in the

FEIR, site-specific review would facilitate a more focused analysis of impacts and the development of tailored and cost-effective mitigation measures. (*See also infra* at 23.)

The FEIR also asserts that "[i]t is not practical for individual environmental review to be conducted on every single well or group of wells" because the County purportedly "lacks the resources to process potentially thousands of oil and gas Negative Declarations or EIRs each year." (FEIR, 7-95; *see also* Response 0047-11.) This is a self-made problem, however, and offers no justification for favoring the rubber-stamp approach of the Ordinance over a more searching, discretionary review of wells or oil fields. The Board of Supervisors should not seek "to substantially expand the County's oversight and enforcement role" (FEIR, 7-105) and then adopt half measures on the grounds that it cannot fulfill the very legal responsibilities it has actively sought. Also, whatever administrative burden might be associated with the discretionary review of thousands of new wells annually, there are only "approximately 75 active oil and gas fields" (FEIR, 7-361) and nowhere does the FEIR explain why the burden of analyzing new developments in each existing field or in a small number of new fields is infeasible.

In support of the County's limited, high-level CEQA analysis of the Ordinance, the FEIR cites *Court of Appeal in San Diego Citizenry Group v. County of San Diego* (2013) 219 Cal.App.4th 1. That case undermines the approach taken by the FEIR. As the FEIR itself explains, the CEQA review upheld in *San Diego* "properly disclosed that the county's streamlined zoning process would cause significant environmental effects that might be otherwise avoided if each winery project was instead subject to a discretionary approval process that included individual CEQA review." (FEIR at 7-94.) In other words, the CEQA review candidly acknowledged and documented the expected harm from foregoing individual, discretionary reviews at particular sites. Here, by contrast, the County has neglected to analyze the potential tradeoffs between a streamlined permitting process and discretionary approval, and the FEIR's unsupported assertion that a streamlined process necessarily is environmentally superior is contradicted by the analysis performed and upheld in *San Diego*.

**A. The FEIR's air quality analysis is flawed and inadequate.**

In previous comments, Sierra Club and NRDC identified the glaring failures of the DEIR's air quality impact analysis, supported by an expert review. The FEIR fails to address the identified shortcomings. In fact, now that the County has released additional information on its analyses and its proffered approach to mitigation, it is

even more evident that the FEIR underestimates air quality impacts and fails to provide adequate mitigation measures.

Most fundamentally, the FEIR is inadequate because an informative and useful assessment of air quality impacts simply is not possible given the enormity of the Project. The FEIR does not address this fundamental problem, articulated by expert Dr. Ron Sahu. As Dr. Sahu stated: "given the broad spatial and temporal scale of the Project and even its annual scope of drilling over 2500 wells per year for the next 20+ years . . . *no reasonable analysis* . . . can substitute for the more appropriate, detailed analysis that can only be done when appropriate individual project-specific details are known contemporaneous with their installation."[4]

Dr. Sahu and other commenters also pointed out that many of the assumptions in the County's air quality analysis are unsupported if not flatly erroneous.[5] The FEIR is dismissive of such criticisms, asserting that "[n]o commenter provides any evidence that actual emissions from the Project are higher than projected in the DEIR." (FEIR, 7-219). Putting aside that data on "actual emissions" does not exist for future projects, there is no need for commenters to produce evidence of higher emissions when the FEIR itself lacks any substantiation, in the first instance, for its assumptions. Such unsupported assumptions do not satisfy the requirement that the FEIR assess "worst case" impacts. Further, in some instances, the FEIR's analysis is based on assumptions that are demonstrably false. For example, Dr. Sahu pointed out that higher emissions are generated from drilling deeper wells, and that the DEIR declined to address the heightened emissions that can be expected from wells drilled deeper than 10,000 feet.[6] The FEIR defends its analytical assumption that no wells will be drilled deeper than 10,000 feet despite admitting that, in fact, some wells in Kern County are already drilled at a depth deeper than 10,000 feet. (FEIR, 7-220 to 7-221.) If deeper wells currently are drilled in the County, then it is wholly irrational to conclude, as the FEIR does, "that the emissions resulting from the drilling of a 10,000 foot well . . . represent the maximum emissions that might result from the drilling of an oil and gas well in Kern County." (FEIR, 7-221.)

The FEIR's air impacts analysis is also invalid owing to obvious and unlawful shortcomings with mitigation measure 4.3-8 ("MM 4.3-8"). This mitigation measure, which is critical to the FEIR's determination that such substantial new oil and gas activity may be allowed in an area with some of the worst air quality in the country,

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[4] Exh. 1 at Exh. B ("Sahu Comments") at 2.
[5] *See* Sahu Comments at 7-11.
[6] *Id*. at 7-8.

purportedly requires indirect sources of emissions to be offset fully via an Oil and Gas Emission Reduction Agreement ("OG-ERA"). According to the FEIR, "[t]he requirement for each operator to pay for emission reductions through the OG-ERA or to undertake direct emissions reductions will generate emissions reductions at a level equal to expected Project actual emissions. In this way, compliance with the OG-ERA will result in a net zero emissions increase . . . ." (FEIR, 7-184.)

Dr. Sahu questioned the feasibility of MM 4.3-8, noting that the County has provided "no quantitative analysis discussing how many tons of emissions of specific pollutants would actually be diminished . . . via this measure."[7] The FEIR asserts that "the DEIR need not state the precise amount of emissions reductions because it commits to mitigating all Project emissions, no matter the amount." (FEIR, 7-184.) The quantity of emissions that the County expects to be reduced through the OG-ERA is critical information, however, as it is possible that more emissions may be generated by the Project than can be offset through the OG-ERA mechanism. As Dr. Sahu explained, "it is more likely than not that there are simply not enough sources in the Project area from which any meaningful further reductions can be extracted – especially as far into the future as 2035 – thus making a mockery of this so-called mitigation measure."[8] The FEIR did not address Dr. Sahu's comment but did substantiate his concern, noting that in the past decade, the San Joaquin Valley Air Pollution Control Board has only been able to secure 98,000 tons of lifetime emissions reductions through emissions reductions agreements. (FEIR, 7-186.)

The OG-ERA authorized by MM 4.3-8 is not a valid mitigation measure as it defers actual mitigation of air quality impacts, which CEQA disallows. Though the FEIR asserts that "[t]he OG-ERA is not impermissible deferred mitigation," the FEIR concedes that there will be a "lag time" between "commencement of emitting activities for well development in advance of the offsetting emission reductions." (FEIR, 7-188.) The FEIR does not meaningfully estimate or, more importantly, limit the allowable lag time; the "Draft Emissions Reduction Agreement" made publicly available this week as Appendix M-3 to the FEIR also neglects to limit the duration between Project emissions and offsetting reductions. Simply put, this is impermissible deferred mitigation.

Separately, owing to the scale of the Project, the OG-ERA authorized by MM 4.3-8 fails to accomplish actual mitigation. Under MM 4.3-8, emissions at a particular well site may be offset by the institution of a pollution-reducing activity anywhere

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[7] *Id*. at 6.
[8] *Id*. at 7.

"within the San Joaquin Valley Air Basin," a vast area that includes portions of Kern County as well as the entirety of seven other counties: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, and Tulare.[9] The FEIR asserts that "[t]his is appropriate in light of the regional nature of [nitrogen oxide pollution]" (FEIR, 7-188), but nowhere does the FEIR address the appropriateness of this approach for reducing the other air pollutants that will be addressed pursuant to MM 4.3-8. This silence is telling. Particulate matter pollution (PM), for example, depending on particle size, may result in local impacts at the emissions source. MM 4.3-8 therefore is invalid, because reducing coarse particle pollution (PM-10) or fine particle pollution (PM-2.5) as far away as San Joaquin County may produce an environmental benefit, but it may not mitigate the impacts from new oil and gas operations experienced by nearby community members in Kern County.

MM 4.3-8 is also invalid because, as is further detailed in the attached expert report prepared by Dr. Petra Pless, it treats as interchangeable the various forms of particulate matter pollution, which affect human health differently and therefore are regulated separately and necessitate distinct approaches to mitigation.[10] The FEIR and OG-ERA also would encourage road paving, which may increase air pollution, instead of reducing it.[11]

One of the first pollutants for which the U.S. Environmental Protection Agency ("EPA") adopted national standards was PM. (*See* 36 Fed. Reg. 8186 (Apr. 30, 1971).) In 1987, EPA concluded that particles larger than 10 micrometers were largely filtered and removed in the nose and throat and did not pose the same health concerns as smaller particles that are able to penetrate deeper into the respiratory tract, where they pose "markedly greater" risks. (52 Fed. Reg. 24634, 24639 (July 1, 1987).) EPA therefore decided to revise the standards for PM to include only "particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers," frequently denominated as "PM-10." (*Id*. at 24634.) At the time, EPA recognized that within PM-10, "[p]articles in ambient air usually occur in two overlapping size distributions, fine (diameter less than 2.5 μm) and coarse (diameter larger than 2.5 μm)" and that "[t]he two fractions tend to have different origins and composition" as well as distinct health risks. (*Id*. at 24639 n.2, 24639.) Fine particulate matter ("PM-2.5") is particularly dangerous as it can penetrate deep into a person's lungs and may even enter a person's bloodstream.[12] Consequently,

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[9] A map of the air basin is available at www.valleyair.org/General_info/aboutdist.htm.

[10] *See generally* Pless Environmental, Inc., *Review of Final Environmental Impact Report for Revisions to the Kern County Zoning Ordinance – 2015(C), Focused on Oil and Gas Local Permitting* (Nov. 8, 2015), attached as Exhibit 4 ("Pless Comments").

[11] *Ibid*.

[12] *See* EPA Website, "Particulate matter: Basic Information," http://www.epa.gov/pm/basic.html.

in 1997, EPA established the first separate standards for PM-2.5. (62 Fed. Reg. 38652 (July 18, 1997).) The San Joaquin Valley, including Kern County, currently is not attaining the national ambient air quality standard adopted by EPA for PM-2.5 in 1997 or the revised national standard adopted in 2006.

While the County has a responsibility to mitigate both PM-10 and PM-2.5 emissions from the Project, it has a heightened obligation to mitigate PM-2.5 emissions because community health is already burdened by exceedances of the relevant air quality standards for PM-2.5. Nonetheless, neither MM 4.3-8 nor the draft OG-ERA differentiate between the two forms of PM. The text of MM 4.3-8, for example, mentions PM-10 but not PM-2.5. The oversight is even more pronounced in the draft OG-ERA, wherein the County only proposes methods for mitigating the effects of PM generally. (*See generally* FEIR at Appendix M-3.)

Based on its unlawful failure to distinguish between PM generally, PM-10, and PM-2.5, the FEIR and draft OG-ERA propose to accept mitigation measures for PM-2.5 that do not actually address PM2.5. For example, the FEIR states that road paving may be credited (either through the OG-ERA or through an applicant's own effort) to meet an applicant's obligation to offset emissions not otherwise offset in an air quality permit. (FEIR, 7-212.) Road paving reduces some airborne dust and may be used to offset increases in some coarser sizes of particle pollution. Road paving, however, is not an effective strategy for offsetting PM-2.5.[13] Road paving, in fact, may increase levels of PM-2.5.[14]

The County's responsibility to address PM-10 and PM-2.5 separately in its CEQA mitigation efforts is made plain by the Court's decision in *California Unions for Reliable Energy v. Mojave Desert Air Quality Mgmt. Dist.*, (2009) 178 Cal.App.4th 1225. That case challenged the Mojave Desert Air Quality Management District's adoption of a rule that would allow for the use of road paving to offset increases in PM-10 from power plants and other new stationary sources. Describing at length the differences between PM-10 and PM-2.5, as well as the potential for road paving to reduce PM-10 but exacerbate PM-2.5, the Court rejected the air district's claim that its offset paving rule should be categorically exempted from CEQA as beneficial to the environment. MM 4.3-8 and the draft OG-ERA suffer from an even more fundamental shortcoming than the one that was fatal for the management district's rule in *California Unions for Reliable Energy*. Here, not only has the County offered road paving as a mitigation measure without

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[13] *See generally* Pless Comments.

[14] *Ibid*.

analyzing its environmental consequences, it also would accept reductions in PM and PM-10 to "fully offset" equal quantities of PM-2.5 (FEIR, 7-186)—*even though they are different air pollutants* that pose separate health impacts and, therefore, are regulated separately. MM 4.3-8, therefore, not only wholly fails to mitigate PM-2.5 emissions from the operation of oil and gas wells, it also threatens separate, additional environmental impacts that the County has not analyzed.

Beyond the obvious flaws of MM 4.3-8 and the draft OG-ERA, the mitigation measures set forth in the FEIR to address air pollution generally—and PM-10 and PM-2.5 in particular—are inadequate in other respects. These deficiencies are described at length in the attached report of Dr. Pless. Among other critical shortcomings, the FEIR neglects to account for all sources of so-called "criteria" air pollution; fails to require all feasible mitigation measures to address fugitive dust from construction; and fails to identify the full range of environmental impacts caused by its proposal to accept road paving as a mitigation measure, including adverse impacts upon biological resources.[15]

**B. The FEIR's analysis of impacts to water quality and supply is flawed and inadequate.**

In previous comments, Sierra Club and NRDC identified significant failures in the DEIR's assessment of the Project's impacts on water quality and the water supply. The FEIR fails to address the identified shortcomings. For example, the FEIR continues to underestimate water quality and supply impacts based on projections of future well activity that were derived exclusively from voluntarily reported industry data. Although the County asserts that for forecasting purposes it was appropriate to rely on "the business forecasts of the companies who would carry out the oil and gas development" (FEIR, 7-142), the DEIR elsewhere avers that the business forecasts are too uncertain for the development of future mitigation measures, declaring that it "cannot predict which companies will drill wells in the coming years, or even roughly approximate the proportion of wells that will be drilled by different companies ten or twenty years from now." (FEIR, 7-189.) This admission underscores that the industry data are too uncertain for the County to accept as the basis for projecting future well activity. Alternatively, it suggests that the County arbitrarily has elected to use the industry data to minimize its portrayal of impacts but declined to use the information to develop meaningful mitigation measures.

[15] *Ibid*.

Likewise, the FEIR fails to grapple with recent revelations that the Division of Oil, Gas & Geothermal Resources (DOGGR) has been authorizing underground injections into non-exempt aquifers in Kern County, in violation of the federal Safe Drink Water Act. The County notes that investigations into this unlawful practice are ongoing but assumes that there will be no consequences for the Project or otherwise. Until DOGGR's evaluation of its past, unlawful practices is complete, it is premature for the FEIR to assume that no non-exempt aquifers have been impacted. In addition, in the discussion of the improperly permitted injection wells, the FEIR only discusses disposal wells permitted in the 11 aquifers historically treated as exempt. DOGGR identified a total of 532 disposal wells improperly permitted to inject into non-exempt aquifers. Only 98 of those are injecting into the 11 aquifers historically treated as exempt. Thus, the vast majority of the improperly permitted disposal wells are injecting into non-exempt aquifers other than the 11 aquifers historically treated as exempt (the total number of impacted aquifers is not clear). The failure of the FEIR to discuss these 434 wells and the aquifers into which they are injecting indicates that the authors may not be aware of the full scope of the problem. In any event, they certainly have not accounted for it.

The FEIR still fails to adequately disclose, analyze, and mitigate the impacts to hydrology and water quality from percolation pits/ponds. The recent statewide scientific study completed by the California Council on Science and Technology ("CCST") highlighted the significant risk that these pits pose to groundwater and recommended that the practice should be stopped.[16] The FEIR includes a description of steps being taken by the Central Valley Regional Water Quality Control Board ("CVRWQCB") to bring these facilities into compliance, but does not independently analyze the environmental and human health risks posed by this outdated practice, nor does it include mitigation measures beyond requiring operators to comply with existing law, which is wholly inadequate.

The three future water supply and demand scenarios considered in the FEIR still do not adequately assess the range of possible activity under the Project, in particular the possibility of development of unconventional resources within the Project area and resultant impacts on water demand and waste water handling needs and methods. None of the three scenarios considers the potentially significant increase in water demand and wastewater management needs that could result from development of the Monterey Formation source rock play. A limited number of wells that target Monterey

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[16] *See* California Council on Science and Technology, *An Independent Scientific Assessment of Well Stimulation in California, Volume II, Potential Environmental Impacts of Hydraulic Fracturing and Acid Stimulations* (2015).

Formation unconventional resources exist in California, and these wells use up to 21 times the average water volume used for hydraulic fracturing in California. The analysis of hydrology and water quality is still incomplete due to the failure to analyze a scenario that considers development of unconventional resources.

The claims made in the FEIR that the incidence of spills and volumes are expected to be low are still completely unsupported. The FEIR does not include any mitigation measures to address impacts to hydrology and water quality from spills, beyond stating that operators must comply with existing law. This is inadequate.

The FEIR still fails to adequately disclose, analyze, or mitigate the potential impacts to hydrology and water quality from drilling fluids. The well-by-well identity of the chemical components of drilling fluids, and therefore the potential environmental or human health impacts, are unknown. This is a significant undisclosed and unmitigated impact to hydrology and water quality.

The FEIR likewise still fails to adequately disclose, analyze, or mitigate the potential impacts to hydrology and water quality from improperly designed, constructed, or maintained wells. California's current well construction rules are outdated and inadequate and must be updated to reflect technological advancements in oil and gas extraction techniques. The FEIR does not include mitigation measures to ensure proper well design, construction, and maintenance.

The FEIR neglects to respond substantively to criticisms that reliance upon the use of "produced water" to mitigate the Project's groundwater impacts is risky and uncertain. The FEIR seems to assume that earthquakes are the only risk with this practice, but unrelated technical and logistical concerns exist.

Further, the FEIR fails to adequately disclose, analyze, and mitigate the potential impacts to hydrology and water quality from the use of produced water for irrigation. The aforementioned statewide scientific study of well stimulation by the CCST found that the currently required testing and treatment of produced water destined for reuse may not detect or remove contaminants of concern. The FEIR does not include adequate mitigation measures requiring disclosure, testing, and treatment of produced water destined for reuse to detect and remove chemicals of concern, including but not limited to those that are naturally present and also chemicals used in drilling, stimulation, maintenance, workover, and enhanced recovery operations.

The FEIR still fails to adequately disclose, analyze, and mitigate the impacts to hydrology and water quality from well stimulation operations including hydraulic fracturing and acidizing. The FEIR fails to disclose or analyze the significant impacts detailed in the statewide study of the environmental impacts of well stimulation conducted by the CCST, or to implement the mitigation measures recommended in that study.

Finally, the FEIR still fails to accurately account for the level of groundwater use by other industrial and agricultural activities.

## V. The FEIR's alternatives analysis impermissibly rejects feasible alternatives.

In the FEIR, the County defends its limited evaluation in the DEIR of the six proffered alternatives, including the "No Project" alternative. However, the County's evaluation of these alternatives remains flawed, eliminating feasible alternatives as infeasible, discounting environmentally preferable alternatives without substantial evidence, and failing to analyze several additional alternatives. As we noted in our comments on the DEIR, an agency's finding that an alternative is infeasible must be supported by substantial evidence in the record. (*See* Pub. Res. Code §§ 21081.5, 21081(a)(3).) And, "an agency may not approve a proposed project if feasible alternatives exist that would substantially lessen its significant environmental effects." (*Save Panoche Valley v. San Benito Cnty*. (2013) 217 Cal. App. 4th 503, 520 [citations omitted]; *see also* Cal. Pub. Res. Code § 21081 (a); CEQA Guidelines, § 15091 (a)(3).)

### A. The Drilling Ban on All Land, Reduced Ground Disturbance, No Hydraulic Fracturing, Agricultural Lands, Fewer Wells, and Zero Net Gain alternatives were impermissibly dismissed as legally infeasible.

The FEIR impermissibly dismisses several alternatives as infeasible that, if appropriately analyzed and characterized, could reduce environmental impacts. In particular, the County discounts two of the six alternatives considered and eliminates four other possible alternatives without further consideration because each would in some way restrict the amount of oil and gas development in Kern County. This, the County claims, renders these alternatives legally and economically infeasible. This conclusion is made without sufficient basis and is contradicted by the case law.

The County's principle argument for rejecting the Reduced Ground Disturbance Alternative (Alt. 3) and the No Hydraulic Fracturing Alternative (Alt. 4), as well as for refusing to consider and analyze the Drilling Ban Alternative, the Drilling Ban on

Agricultural Lands Alternative, the Fewer Wells Alternative, and the Zero Net Gain Alternative, is that these alternatives either reduce the number of wells permitted to be drilled per annum in Kern County or restrict in some way the location of where wells could be drilled. In each case, the County argues that such a reduction or restriction would lead to legal challenges that would inflict such economic harm on the County as to render said alternative, for purposes of CEQA, legally and economically infeasible. (*See*, *e.g.*, FEIR, 7-350 [finding the Reduced Ground Disturbance Alternative infeasible because "this alternative would arguably destroy all economically beneficial or productive use of such mineral interests, thus exposing the County to economic harm and unreasonable legal liability"]; *ibid.* ["[The Fewer Wells Alternative] was rejected for analysis, however, on the basis that it is legally infeasible due to legal restrictions on the County's authority to prohibit access to subsurface mineral interests without liability."].)

For purposes of CEQA, "feasible" is defined to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." (CEQA Guidelines § 15364.) While it is true that "feasible" includes consideration of legal challenges and economic costs, the County overstates them here. The fact that a change in zoning might upset one party, who could therefore sue, cannot excuse a robust alternatives analysis, which is the recognized "heart" of CEQA review. If that were the case, any changes to land use could avoid consideration of more restrictive, but environmentally preferable, alternatives.

Furthermore, it is simply not the case that the County has no authority to zone oil and gas exploration in a way that limits the location or rate of oil development in order to protect the public and environment. It is well established by the courts of this state that "[t]here is no question that the county has the right to regulate the drilling and operation of oil wells within its limits and to prohibit their drilling and operation within particular districts if reasonably necessary for the protection of the public health, safety and general welfare." (*Friel v. Los Angeles Cnty*. (1959) 172 Cal.App.2d 142, 157; *see also Marblehead Land Co. v. City of Los Angeles* (9th Cir. 1931) 47 F.2d 528; *Pac. Palisades Ass'n v. City of Huntington Beach* (1925) 196 Cal. 211; *Wood v. City Planning Comm'n of City of San Buenaventura* (1955) 130 Cal.App.2d 356.) The cases that the County points to in support of its argument to the contrary are inapposite. In *Kavanau v. Santa Monica Rent Control Bd*. (1997) 16 Cal.4th 761, the court found that the plaintiff in that case had "not lost 'all economically beneficial or productive use of' his property," and therefore there was no taking which required compensation. (*Id.* at 780 [citing *Lucas v. South Carolina Coastal Council* (1992) 505 U.S. 1003, 1015].). *Bernstein v. Bush* (1947) 29 Cal.2d 773 and

*Braly v. Board of Fire Com'rs. of City of Los Angeles* (1958) 157 Cal.App.2d 608 concerned discriminatory application of a law, such that a landowner was deprived of equal protection under the law and thus entitled to just compensation. That is not the situation anticipated here. Finally, *Pennsylvania Coal Co. v. Mahon* (1922) 260 U.S. 393 concerned a challenge to a law that forbade all mining in order to protect a single residence. As the Court noted, it was significant that it was "a single private house," and that the law forbidding the subsurface mining at issue was not responding to a harm or "damage" that was "common or public." (*Id.* at 413.) In this case, the County is asked to consider alternatives that are in the public and common good but refusing to do so out of a purported fear that the well-funded oil industry will cripple the local coffers with takings claims. Fear of oil industry litigation—especially given the fact that industry's claims are hypothetical, legally dubious, and would be contrary to the public interest—is not a permissible reason to stop short of a full alternatives analysis for purposes of CEQA.

The Drilling Ban on All Land, Reduced Ground Disturbance, No Hydraulic Fracturing, Agricultural Lands, Fewer Wells, and Zero Net Gain alternatives each offer substantial potential environmental benefits that warrant full consideration. These alternatives were impermissibly discounted or not considered based on a fear that industry would "expos[e] the County to economic harm and unreasonable legal liability." (FEIR, 7-350.) However the FEIR does not explain why the Project—which does impose some limits on both the location and number of wells in Kern County—would not be subject to the same threat of litigation. There is no compelling rationale to distinguish between the "cap" set forth in the Project and the limit on drilling proposed in, for example, the Fewer Wells or Zero Net Gain alternatives. It cannot be a matter of degree, because each alternative excluded on the basis of legal and economic infeasibility is treated as if it would expose the County to the very same legal liability, without consideration of the relative amount of activity that would be limited by the proposed alternative.

The FEIR also fails to consider an alternative that would combine the benefits of the various alternatives. Segmentation of the benefits from, *e.g.*, alternative energy, recycled water, reduced impact to agriculture, and a smaller footprint, reduces the combined benefits and improperly skews any environmental comparison in favor of the Project.

## B. The Agricultural Lands and Reduced Ground Disturbance alternatives were impermissibly discounted without substantial basis and based on a purported risk of increased horizontal drilling.

The FEIR, like the DEIR, discounts the Agricultural Lands and Reduced Ground Disturbance alternatives first for their legal infeasibility, as discussed above, and second because they would purportedly lead to drilling more horizontal wells, which the County states have greater environmental impacts. (*See* FEIR, 7-350, 7-361.) However, that conclusion is based on a series of assumptions that are not supported or explained. As an initial matter, there is an assumption that the same number of oil wells would be drilled under the Project as in either of these alternatives; and that the wells would simply be concentrated under the alternative scenarios, which include land-based restrictions, in the zones where drilling is permitted. However, this ignores the reality that a horizontal well costs more to drill and so there would likely be fewer wells drilled if horizontal drilling was indeed the only means of reaching certain reserves. Furthermore, the FEIR assumes, like the DEIR, that horizontal drilling always has a greater environmental impact than vertical drilling. However, the FEIR does not provide adequate information regarding the magnitude of the increase of these potential impacts from horizontal drilling, making it impossible to consider such impacts against the admitted benefits of restricting drilling in some sensitive locations, such as productive agricultural lands. Because the FEIR fails to weigh the reduced environmental impacts against the potential increased impacts in any detailed way, it fails to inform decision makers and the public as required by CEQA.

As commenters pointed out for the DEIR, the FEIR also still fails to consider an alternative that is identical to these alternatives but does not allow horizontal and directional drilling to access oil and gas outside of the Administrative Boundary areas.

## C. The Alternative Energy and Zero Net Gain alternatives were rejected without substantial basis.

With respect to the alternative energy alternatives, which were not considered, the FEIR now provides numbers for the estimated acres of land that would be required to supply wind or solar energy. But the FEIR's estimates assume, without foundation, that every additional well will require new, additional wind or solar capacity. (*See* FEIR, 7-353 to 7-355.) Unless each new well operates for an extended duration (for a full 20 to 25 years in the case of wells permitted in the first year), it is possible that the same wind or solar capacity might serve multiple, successive wells over the Project's 20 to 25-year lifespan. In any event, beyond the discussion of acreage, no further analysis has

been conducted on the public health and environmental impacts of wind and solar development. Without a more comprehensive analysis, it remains impossible to understand fully the range of benefits and costs of using alternative energy.

The Zero Net Gain Alternative also is discounted on general bases without adequate analysis. As the FEIR agrees, although "this alternative would not increase oil and gas exploration and production in the County at the same rate as the Project, it would nevertheless provide for industry growth over time and would not substantially conflict with the basic objective to establish a primarily ministerial administrative process governing the issuance of County well permits." (FEIR, 7-355.) In addition, "this alternative would also reduce the marginal harm resulting from the addition of thousands of new wells per year under Project conditions." (*Ibid.*) The FEIR rejects this alternative, however, on the unexplained and unanalyzed bases (1) that it would not increase employment opportunities and economic prosperity to the County's residents, business, and local government to the same extent as would the Project and (2) because "many of the Project's environmental impacts would still occur under this alternative, though at a slower rate over a longer period of time." (*Ibid.*) The hypothetical marginal benefit to the local economy of any wells above the Zero Net Gain cap is never considered or weighed here. Nor is there any analysis of the environmental benefits of holding the number of total wells to the current number or of the benefit to the environment and public health of reduced impacts and impacts at a slower rate. These failings deprive decision makers and the public the information needed to make a sound environmental decision, as required by CEQA.

### D. No Project Alternative is rejected on at least two impermissible bases: one that DOGGR is unlikely to adhere to CEQA, and two because the objective of the project is to do less, not more, environmental review.

The FEIR continues to find the No Project Alternative environmentally inferior to the Project. However, the FEIR's description of the No Project Alternative is incomplete and inaccurate because it does not adequately consider the CEQA review and mitigation measures and conditions that new wells would be subject to—in the absence of the Ordinance—by DOGGR on an individual, case-by-case basis. Furthermore, the FEIR claims that the mitigation it includes is "consistent with, or more protective than, the mitigation measures described in the DOGGR EIR." (FEIR, 7-357.) First, a comparison of the mitigation measures in the two EIRs belies this claim. Second, the DOGGR statewide review cannot be judged simply based on the mitigation prescribed in the statewide EIR, since that document is not meant to act as a final CEQA document but a programmatic EIR off of which project-level review would be tiered. Therefore, it

would allow for the possibility of further site-specific review, which purportedly is not available under the County's FEIR for the Ordinance.

In defense of is failure to consider alternative CEQA review, the FEIR states that "DOGGR has never prepared an EIR for an individual well permit and, in fact, typically approves individual permits with either no CEQA review or on the basis of a negative declaration that imposes no mitigation requirements (other than mandating compliance with existing DOGGR regulations, which apply in any case)." (FEIR, 7-357.) The state's failure to follow the law in the past cannot be the basis of a conclusion that it will continue to do so in the future.

The FEIR continues to ignore, in its No Project Alternative analysis, the fact that the proposed Project aims to increase oil and gas development in the County, which would have negative environmental and public health impacts, and to "streamline" regulations – *i.e.*, preclude true project-level, site-specific environmental review that could reduce the impacts of individual drilling projects.

In its final consideration of the No Project Alternative, the County states:

> The Board of Supervisors directed that this ordinance update process be procedurally structured to avoid imposing excessive administrative burdens, while assuring effective implementation and enforceability. This is the basic Project objective to be met. It goes without saying that this basic objective cannot be achieved if the Project is not approved and future well permits continue to be processed in accordance with existing zoning regulations.

(FEIR, 7-357.) The County is attempting an end-run around CEQA's required alternatives analysis by (1) creating a project objective that is to reduce CEQA analysis and then (2) using CEQA to say that it has met its project's objective, when it has omitted an alternative that requires greater environmental review. This is an abuse of CEQA and not what the law intends.

### E. The CUP Alternative is rejected for unsupported reasons.

The FEIR claims, without a credible basis, that the CUP Alternative would be environmentally inferior to the Project. It bases its claim on two grounds: (1) that the impact analysis in the FEIR is conservative and (2) that mitigation in the FEIR is more

conservative than would be required under the alternative. Neither claim withstands scrutiny. To use an example highlighted in the FEIR, the limited and minimal setback requirements in the FEIR are not "extremely conservative" as claimed. (FEIR, 7-360.) Indeed, the setbacks are only triggered for deep wells and will likely not even apply to the majority of wells in Kern County. And, most of the mitigation identified in the FEIR is reliant on laws that would remain applicable and in effect under a CUP Alternative.

The benefit of individual review is that the impact analysis would be conducted in a site-specific and timely manner. The fact that some of the mitigation identified in the FEIR might not be required under a CUP does not mean it could not be required. And mitigation above-and-beyond what the FEIR contemplates might be included. For example, the FEIR rejects the Low Emission Enhanced Oil Recovery Technology and Recycled Water alternatives for lack of technical and economic feasibility. However, the calculus of whether those are feasible will likely change over time, and a CUP process could be responsive to such changes and advancements. There are obvious potential environmental benefits to having a mitigation program that is responsive to such advancements in science and that is also tailored to the unique impacts of a particular well. It is of no assurance that the FEIR is overly broad in the application of its mitigation in such a way that it would potentially over-mitigate. Over mitigation produces no net environmental benefit, risks counter-productive consequences, and adds expenses unnecessarily. (*See supra* at 7-9.) This is little more than an admission that the FEIR is an ill-fitted tool to contemplate the impacts of tens of thousands of wells across a huge and varied county for decades.

Finally, the FEIR rejects the CUP Alternative for the conflicting bases that it (1) "lacks the resources to process thousands of oil and gas Negative Declarations and/or EIRs each year" and (2) the permits would be "highly repetitive." (FEIR, 7-361.) The administrative strain of doing adequate CEQA review cannot be a basis for failing to do CEQA review, particularly when the County is affirmatively seeking to assume the burden. Furthermore, the contention that the analysis would often be similar is a strong rebuttal to the argument that it is unduly burdensome. The County would develop an expertise that it could apply to individual wells or groups of wells.

**F. The No Hydraulic Fracturing Alternative is impermissibly rejected on the basis of legal infeasibility.**

The FEIR argues that any restriction on hydraulic fracturing is legally infeasible because such a restriction is preempted by SB 4. This assertion has no basis in law. Indeed, the opinion of the Attorney General cited in the FEIR encourages, not

discourages, local regulation of oil and gas activity. Furthermore, DOGGR has already proven itself to be disinclined from making such a claim. San Benito County passed an ordinance that banned hydraulic fracturing last year, and that ban has never been challenged beyond one complaint that was withdrawn shortly after being filed.

The FEIR also argues that if well stimulation, including fracking, were disallowed, more oil and gas would be required from other fields in California, which would likely result in an increase in greenhouse gas ("GHG") emissions. This line of reasoning assumes first that oil use would remain constant and second that any replacement of energy from fracking would be with heavier, more GHG-intensive crude. This assumption is not explained or founded, and it ignores the increased movement towards alternative energy sources and increased efficiency in our energy use. Furthermore, this analysis only weighs the relative GHG impact of hydraulic fracturing compared to cyclic steam. It does not consider the full suite of environmental harms that are particular to hydraulic fracturing. For example, hydraulic fracturing imposes a unique risk of inducing seismic activity, and is known to employ a wide array of often toxic chemicals that can threaten groundwater and public health.

### G. The Low-Emission Enhanced Oil Recovery (EOR) Technology Alternative is eliminated for lack of technical and economic feasibility, highlighting the inherent flaw of attempting to conduct CEQA review deep into the future, and the Recycled Water Alternative is rejected for unsupported reasons.

The FEIR argues that the technology required by Low-Emission EOR has not yet been achieved in practice, has not been shown to be presently achievable, and is not technologically feasible. This technology is in development, and the failure to consider its use is a shortcoming of this EIR's overbroad scope that weighs in favor of the CUP Alternative and individual site-specific review.

The FEIR similarly rejects the Recycled Water Alternative for, among other reasons, alleged problems related to "equipment corrosion or damage and potential chemical interactions," *e.g.*, "silica buildup or tube failures in boilers." (FEIR, 7-366.) These are essentially technical problems that may be solved in the future and which could be responded to under a CUP or traditional CEQA tiering method of analysis. The Recycled Water Alternative is also rejected for a string of reasons that are never fully analyzed and so therefore cannot be weighed or inform decision makers or the public. For example, there is a purported "lack of infrastructure linking sources of produced water to the locations where water may be used, particularly in cases of new

exploration," but no support is offered for this claim. (*Ibid*.) The FEIR further claims that "pilot EOR projects typically cannot use recycled water due to the early stage of project development, which results in a lack of available recycled water." (*Ibid.*) This ignores the possibility that "pilot" projects could be near other projects, which would be able to supply produced water. Furthermore, the possibility that a few projects might not be able to utilize recycled water is not a reason to throw out the entire alternative. But the FEIR never analyzes the relative environmental benefits of using recycled water in all other projects. Instead, the FEIR summarily concludes, without citation or support, that "the treatment of water for reuse requires specialized equipment, consumes energy, and generates waste." (*Ibid*). The FEIR also cites the fact that requiring recycled water would result in the cancellation of contracts with local water purveyors, which it says "would also create negative financial impacts for the region." (*Ibid.*) This economic conclusion is reached without support and ignores the obvious possibilities that there remains a market for the contracted-for fresh water; another entity might purchase it, especially in this time of historic statewide drought. It also does not consider whether companies using produced water in lieu of paying for fresh water might save money over time, producing an economic benefit that most likely would be realized in the region.

Finally, the FEIR points to the concern that if produced fluids are redirected to other beneficial uses, there may not be fluid available to put to use in subsidence abatement, as a reason to reject this alternative. This ignores the fact that the FEIR assumes the source of water used for the wells will be groundwater. Thus, whether a new well pulls fresh water from underground or utilizes produced water from another well is of no net difference to the aquifer with respect to subsistence. In sum, the rationale for finding the Recycled Water Alternative infeasible is not supported.

## VII. Conclusion

For the reasons stated above, we urge the Board of Supervisors to reject both the FEIR and the Ordinance at this time.

Sincerely,

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