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IN THE UNITED STATES DISTRICT COURT

FOR THE CENTRAL DISTRICT OF CALIFORNIA

WESTERN DIVISION

STATE OF CALIFORNIA,

Plaintiff,

v.

KAREN MOURITSEN, et al.,

Defendants.

Civ. No. 2:20-cv-00371-DSF-(ASx)

CALIFORNIA'S NOTICE OF MOTION AND MOTION FOR SUMMARY JUDGMENT; MEMORANDUM OF POINTS AND AUTHORITIES

Requested Hearing: June 28, 2021 at 1:30 p.m.
Judge: Hon. Dale S. Fischer
Courtroom: 7D

NOTICE OF MOTION AND MOTION FOR SUMMARY JUDGMENT TO ALL PARTIES AND COUNSEL OF RECORD:

PLEASE TAKE NOTICE that, on June 28, 2021 at 1:30 p.m., or as soon thereafter as it may be heard, Plaintiff State of California, by and through Governor Gavin Newsom, Attorney General Xavier Becerra, the California Air Resources Board, the California Department of Fish and Wildlife, and the California Department of Water Resources (collectively, "California"), by and through their undersigned counsel, will, and hereby do, move for summary judgment pursuant to Rule 56 of the Federal Rules of Civil Procedure, Civil Local Rules 7 and 56, and this Court's October 7, 2020 Order, ECF No. 29. This motion will be made before the Honorable Dale S. Fischer, United States District Judge, First Street Courthouse, 350 West First Street, Courtroom 7D, Los Angeles, California 90012.

Pursuant to Rule 56 of the Federal Rules of Civil Procedure, California hereby moves for summary judgment on the ground that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law. In support of this motion, California submits the accompanying Memorandum of Points and Authorities and a Proposed Judgment.

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INTRODUCTION

California's action challenges the Final Supplemental Environmental Impact Statement ("Final SEIS") and Record of Decision issued by the U.S. Bureau of Land Management ("BLM") to address the environmental and public health consequences of allowing hydraulic fracturing on 400,000 acres of public lands and 1.2 million acres of federal mineral estate in eight central California counties. BLM conducted this environmental review to update its resource management plan for the Bakersfield region and, specifically, to address deficiencies in its previous review as found by this Court. However, BLM's analysis again failed to take a "hard look" at many of the significant impacts associated with hydraulic fracturing or provide sufficient evidence regarding its conclusions, in violation of the National Environmental Policy Act ("NEPA").

At the outset, BLM wholly distorted its analysis by presuming that just zero to four hydraulic fracturing operations would take place each year—contrary to its own data and evidence in the record. BLM's analysis of specific impacts then piled on many additional errors, such as failing to consider cumulative air impacts from another massive leasing plan in the same air basin and dismissing groundwater impacts based on a false assumption that most wastewater ponds are lined. Consideration of land subsidence and induced seismicity were given short shrift, while impacts from the use of other well stimulation methods, and hydraulic fracturing of existing wells, were ignored. BLM further failed to consider reasonable alternatives to action, adequate mitigation measures related to species impacts, or inconsistency with state policies or plans on many of these issues.

But perhaps most disturbing is BLM's casual disregard of its obligation to consider the environmental and human health impacts of its action on low-income communities and communities of color. BLM's action will disparately impact communities that already bear some of the highest air and water pollution burdens in the State—burdens that are due in part to existing oil and gas activities in the

region. BLM compounded this violation by failing to provide affected communities and the public with a meaningful opportunity to participate in the preparation of the Final SEIS.

For these reasons, the Court should grant California's motion and vacate the Final SEIS and Record of Decision.

STATUTORY BACKGROUND

I. FEDERAL LAND POLICY AND MANAGEMENT ACT.

The Federal Land Policy and Management Act of 1976 ("FLPMA"), 43 U.S.C. § 1701 *et seq.*, governs the management of public lands and mineral estates administered by BLM. Pursuant to FLPMA, BLM develops resource management plans ("RMPs") to guide the management of public lands and mineral estates within BLM's jurisdiction. In particular, FLPMA requires BLM to "develop, maintain, and when appropriate, revise land use plans" to ensure that land management is conducted "on the basis of multiple use and sustained yield." 43 U.S.C. §§ 1701(a)(7), 1712(a), 1732. Such plans provide standards and guidance for all site-specific activities that occur on the land at issue, effectively defining BLM's approach to management decisions for the next ten to fifteen years. BLM has issued regulations for developing and revising RMPs. 43 C.F.R. Part 1600.

In addition, FLPMA requires that public lands be managed "in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values." 43 U.S.C. § 1701(a)(8). In developing RMPs, BLM must "consider present and potential uses of the public lands; . . . the relative scarcity of the values involved[;] . . . weigh long-term benefits to the public against short-term benefits; [and] provide for compliance with applicable pollution control laws." *Id.* § 1712(c). RMPs are subject to environmental review under NEPA.

II. NATIONAL ENVIRONMENTAL POLICY ACT.

NEPA, 42 U.S.C. § 4321 *et seq.*, is the "basic national charter for the

protection of the environment." 40 C.F.R. § 1500.1(a). NEPA's fundamental purposes are to guarantee that agencies take a "hard look" at the consequences of their actions before the actions occur by ensuring that "the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts," and to ensure that "the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349-50 (1989); 40 C.F.R. § 1500.1(b)-(c). The Council on Environmental Quality ("CEQ") has issued regulations implementing NEPA, which are binding on all federal agencies. 40 C.F.R. Part 1500.[1]

To achieve its purposes, NEPA requires the preparation of a detailed environmental impact statement ("EIS") for any "major federal action significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). In taking a "hard look," NEPA requires federal agencies to consider the direct, indirect, and cumulative impacts of its proposed action. *Idaho Sporting Cong. v. Rittenhouse*, 305 F.3d 957, 973 (9th Cir. 2002); 40 C.F.R. §§ 1508.7, 1508.8(a), (b). Moreover, "an agency may not rely on incorrect assumptions or data." *Native Ecosystems Council v. U.S. Forest Serv.*, 418 F.3d 953, 964 (9th Cir. 2005) (citing 40 C.F.R. § 1500.1(b)). "The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA." 40 C.F.R. § 1500.1(b). In addition, the environmental analysis must be conducted at the "earliest reasonable time." *Id.* § 1501.2(a).

FACTUAL AND PROCEDURAL BACKGROUND

I. HYDRAULIC FRACTURING ON FEDERAL LANDS IN CALIFORNIA.

In recent years, the United States has experienced a boom in oil and gas

[1] On July 16, 2020, CEQ finalized an update to its 1978 regulations implementing NEPA, which took effect on September 14, 2020. *See* 85 Fed. Reg. 43,304 (July 16, 2020). Because the Final SEIS was finalized under the prior 1978 regulations, those regulations govern and are cited herein.

production through the use of well stimulation treatments such as hydraulic fracturing combined with horizontal drilling. Hydraulic fracturing is a procedure by which oil and gas producers inject water, sand, and certain chemicals at high pressure into tight-rock formations to create fissures in the rock and allow oil and gas to escape for collection in a well. AR9008.[2] While most of the fluid is water, an assortment of chemicals, some of which are known carcinogens or other types of toxins, are added for different purposes such as lubrication of the fracture and minimization of corrosion. AR9008. Much of the fracturing fluid, along with subsurface fluids, flows back to the surface and can be held in circulation tanks that are often open to the atmosphere. AR9008. This water is typically disposed of by subsequent injection into underground wells. AR9008.

This technology has become controversial because growing scientific evidence ties hydraulic fracturing and related activities with water and air pollution and a prolonged dependence on fossil fuels. AR9008. Inadequate well casings in groundwater zones can break during hydraulic fracturing operations and allow hydraulic fracturing fluids to infiltrate groundwater. AR9008. Air pollution can result from the handling of the hydraulic fracturing fluids, which contain toxic chemicals that could evaporate through handling and storage. AR9008.

BLM has estimated that 90 percent of new wells drilled on federal lands are now being stimulated using hydraulic fracturing. *See* 80 Fed. Reg. 16,128, 16,131, 16,190 (Mar. 26, 2015). The BLM Bakersfield Field Office manages 400,000 acres of public lands and an additional 1.2 million acres of federal mineral estate in the counties of Fresno, Kern, Kings, Madera, San Luis Obispo, Santa Barbara, Tulare, and Ventura Counties (the "Planning Area"). AR48, 9009.

II. THE DISPROPORTIONATE IMPACTS OF OIL AND GAS ACTIVITIES ON CALIFORNIA COMMUNITIES.

Much of federal oil and gas activities in California occur in close proximity

[2] The administrative record is cited as "AR[page number]" excluding lead zeros.

to the state's most vulnerable communities, who already are disproportionately exposed to pollution and its health effects. AR9018-19. In particular, the Planning Area is home to many communities that are disproportionately exposed to pollution and who are most vulnerable to pollution's effects, called "disadvantaged communities" under California law. AR9018. Many census tracts in the Planning Area meet this standard, most notably in Kern, Tulare, Kings, and Fresno counties, with pockets in Ventura and Santa Barbara counties. AR9018. This means that communities in these counties already are exposed to significantly more air and water pollution than other parts of the state, and they are more vulnerable to that exposure. AR9018. In Kern County, 35 percent of residents already live within one mile of at least one oil or gas well; a disproportionate number of them (58 percent) are people of color. AR9021.

With regard to air quality, seven of the eight counties in the Planning Area are already in non-attainment with particulate matter, ozone, or both air quality standards. Ozone is among the most widespread and significant air pollution health threats in California, including in the Planning Area. AR9019. The Central Valley in particular experiences some of the worst particulate matter pollution in the state. AR9019. The majority of residents living within five miles of an existing well in Kern County already experience greater ozone pollution than 80 percent of the state, and greater particulate matter pollution than 90 percent of the state. AR9060-62. These pollutants increase the rates and risks of asthma, heart disease, lung disease, and cancer. AR9019.

With regard to drinking water supply and quality, parts of Planning Area already suffer from some of the worst drinking water contamination problems in the state. Residents in the vast majority of the Planning Area already drink water that contains contamination from chemicals or bacteria. AR9019. The majority of public water systems in California rely on groundwater, and more than 25 percent of those systems rely on a contaminated groundwater source. AR9019-21. Kern County in

particular has the second highest number of community water systems that rely on contaminated groundwater. AR9021. Furthermore, many residents in the Planning Area rely on private, domestic (unregulated) wells for drinking water, for which there are significant contamination issues. AR9021.

In addition, California is already experiencing the adverse effects of climate change, which is aggravated by greenhouse gas emissions released through oil and gas extraction. AR9007. These effects include increased risk of wildfires, reduced average annual snowpack that provides approximately 35 percent of the State's water supply, increased erosion of beaches and low-lying coastal properties from rising sea levels, and increased formation of ground-level ozone (or smog), which is linked to asthma, heart attacks, and pulmonary problems, especially in children and the elderly. AR78-79, 223, 9023, 9511. Since 2006, California has witnessed 16 of the 20 most destructive wildfires in state history—6 of them in 2020 alone.[3]

III. CALIFORNIA'S EFFORTS TO ADDRESS HYDRAULIC FRACTURING.

In 2013, California adopted Senate Bill 4 (SB 4) (Pavley, Chap. 313), which established a regulatory regime for oil and gas well stimulation treatments, including hydraulic fracturing, and required an independent scientific study to evaluate the hazards and risk of such treatments.

In July 2015, the California Geologic Energy Management Division ("CalGEM," formerly known as the Division of Oil, Gas, and Geothermal Resources, or "DOGGR") certified an environmental impact report which found that well stimulation treatments including hydraulic fracturing, depending on site-specific conditions and well stimulation intensity, could cause significant and unavoidable impacts to the environment. AR17881-20137. For example, CalGEM's analysis found that in Kern County, air emissions from hydraulic fracturing "would occur at levels that could violate an air quality standard or contribute substantially to an existing or projected air quality violation." AR17892. CalGEM also found that "[w]ell stimulation activities could affect endangered, rare, or threatened

[3] CalFire, Top 20 Most Destructive California Wildfires (Nov. 3, 2020), https://www.fire.ca.gov/media/t1rdhizr/top20_destruction.pdf.

species of fish, wildlife or plants," and mitigation would be required to "avoid hazards such as vehicle strikes, nest disturbance, entrapment, collision, electrocution, and hazardous materials." AR19375, 19377.

The California Council on Science and Technology ("CCST") also identified several potential impacts from hydraulic fracturing in a July 2015 study, including the release of volatile organic compounds ("VOCs") from retention ponds and tanks storing well stimulation fluids or produced water, and induced seismicity (*i.e.*, earthquakes) from the disposal of wastewater in disposal wells. AR16113.

On November 19, 2019, Governor Gavin Newsom announced a series of initiatives to safeguard public health and the environment from hydraulic fracturing and other well stimulation techniques to advance California's goal to become carbon-neutral by 2045, and to manage the decline of oil production and consumption in the State.[4] The Governor also imposed a moratorium on new extraction wells that use a high-pressure cyclic steaming process to break oil formations below the ground to determine whether the process can be done safely and in compliance with state regulations. In addition, the Governor announced a process to strengthen public health and safety protections near oil and gas extraction facilities, including by evaluating a prohibition on oil and gas activities close to homes, schools, hospitals, and parks.

California law establishes targets to reduce the State's greenhouse gas emissions to 1990 levels by 2020 and 40 percent below 1990 levels by 2030, and to achieve 100 percent of electricity sales from renewable energy and zero-carbon resources by 2045. AR9023. California has also set a goal of reaching 5 million zero-carbon emission vehicles on the State's roads by 2030, a 15-fold increase from current levels. Executive Order B-48-18.

IV. PRIOR RMP UPDATE AND LEGAL CHALLENGE.

On March 4, 2008, BLM's Bakersfield Field Office published a notice of

[4] California Dep't of Conservation, California Announces New Oil and Gas Initiatives (Nov. 19, 2019), https://www.conservation.ca.gov/index/Pages/News/California-Establishes-Moratorium-on-High-Pressure-Extraction.aspx.

intent to prepare a new RMP for the Planning Area, seeking to update two existing plans from 1984 and 1997. 73 Fed. Reg. 11,661 (Mar. 4, 2008).

On August 31, 2012, BLM issued a Final EIS purporting to evaluate the environmental impacts of its proposed RMP for the Planning Area. AR1962-3034. Under the preferred alternative (B), 1,011,470 acres of federal mineral estate, or 85 percent of the Planning Area, would be open to oil and gas leasing. AR2210.

BLM also completed a Reasonably Foreseeable Development Scenario that projected the exploration, drilling, and production activities that would likely occur in the next 10 years. AR2995-3008. BLM estimated that 100 to 400 wells will be drilled on federal mineral estate each year, including 90 to 360 wells on existing leases and 10 to 40 wells on new leases. AR2321, 2997. BLM further estimated that 25 percent of these wells would be hydraulically fractured. AR1631. BLM approved the record of decision for the RMP on December 22, 2014. AR1640.

On June 10, 2015, the Center for Biological Diversity and Los Padres ForestWatch challenged that approval in this Court. *Los Padres ForestWatch v. U.S. BLM*, Case No. 2:15-cv-04378 MWF (JEMx) (C.D. Cal., complaint filed June 10, 2015). On September 6, 2016, this Court ruled on the parties' cross-motions for summary judgment, finding that BLM violated NEPA by failing to analyze the impacts of hydraulic fracturing in the Planning Area and required BLM to supplement its analysis. *ForestWatch*, 2016 WL 5172009, at *10-13 (C.D. Cal. Sept. 6, 2016). On May 3, 2017, this Court approved a settlement agreement in which BLM agreed to prepare appropriate NEPA documentation to address the deficiencies identified by the Court, and to issue a new decision document that would amend or supersede the 2014 RMP, if appropriate. AR3.

V. SUPPLEMENTAL NEPA PROCESS LEADING TO THIS LAWSUIT.

On August 8, 2018, BLM issued a notice of intent to prepare a Draft Supplemental EIS ("Draft SEIS") and potential RMP amendment for the Planning Area, and requested scoping comments. 83 Fed. Reg. 39,116 (Aug. 8, 2018).

Among other commenters, six California state agencies—including the California Department of Fish and Wildlife ("CDFW"), California Department of Water Resources ("CDWR"), and California Air Resources Board ("CARB")—submitted a joint letter expressing concerns with the potential significant adverse effects of this activity and its impact on the State's ability to meet its fossil fuel and greenhouse gas emissions reduction goals. AR8132-51. In a cover letter, then-Governor Jerry Brown wrote that BLM "should abandon this effort and not pursue opening any new areas for oil and gas leases in this state," given that such an approach is "contrary to the course California has set to combat climate change and to meet its share of the goals outlined in the Paris Agreement." AR8132-33.

On April 26, 2019, BLM issued a Draft SEIS "to analyze the environmental effects of the use of hydraulic fracturing technology in oil and gas development on new leases within the Planning Area and to determine whether changes are needed to the fluid minerals decisions in the 2014 RMP." AR1449. BLM "carried-forward" the prior alternatives into its Draft SEIS, including Alternative B, which would open 1,011,470 acres of federal mineral estate to oil and gas leasing (the "Proposed Action"). AR1479. For its updated analysis, BLM assumed that 40 wells on new leases would be drilled each year, and that "zero to four" of these wells would be hydraulically fractured. AR1510. Given this low estimate, BLM concluded that no significant impacts would result, including impacts related to greenhouse gas emissions, air quality, water resources, biological resources, and induced seismic events. AR1509-69. Because BLM did not find any "notable increase in total impacts" resulting from the Proposed Action, it also determined that an amendment to the 2014 RMP was "unnecessary." AR1481.

On June 6, 2019, CDFW submitted comments on the Draft SEIS, followed by the California Attorney General, CARB, and CDWR on June 10, 2019. AR9006, 12028, 14728. These comments identified numerous deficiencies in the Draft SEIS and recommended that BLM withdraw its Draft SEIS and prepare a new analysis

that fully considers the impacts of opening over one million acres of public lands in California to oil and gas leasing. AR9006-10105, 12028-38, 14728-57.

On November 1, 2019, BLM issued a notice of availability of the Final SEIS. 84 Fed. Reg. 58,739 (Nov. 1, 2019). BLM stated that "no amendment to the 2014 RMP is necessary" because the Final SEIS "did not show a notable increase in total impacts," "[n]o conflicts were found between the estimated impacts of hydraulic fracturing and the resource or program management goals and objectives stated in the 2014 RMP," and "[t]he range of alternatives has not changed between the approved 2014 RMP and its 2012 Final EIS" and the Final SEIS. *Id.* at 58,739. Consequently, BLM determined that "[b]ecause there are no changes to the RMP, no protest period is required and none is given." *Id*.

Other than providing some additional discussion on a few topics, the Final SEIS did not materially differ from the Draft SEIS. On December 12, 2019, BLM issued its Record of Decision for the Final SEIS. AR1-7.

On January 14, 2020, eight environmental justice and conservation groups, including the Center for Biological Diversity and Los Padres ForestWatch ("Environmental Plaintiffs"), filed a complaint in this Court challenging BLM's flawed environmental review. ECF No. 1. California filed its complaint three days later. *California v. Stout*, No. 2:20-cv-504, ECF No. 1 (complaint filed Jan. 17, 2020). On April 2, 2020, the Court consolidated these cases.

STANDARD OF REVIEW

The Administrative Procedure Act ("APA"), 5 U.S.C. § 706(2)(A), governs the procedural requirements for agency decision-making and provides the standard of review for assessing compliance with NEPA and FLPMA. The Record of Decision and Final SEIS are final agency actions that must be set aside under the APA if they are found to be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *See Bennett v. Spear*, 520 U.S. 154, 174 (1997); 5 U.S.C. § 706. A final agency action is arbitrary and capricious if the

agency (i) has relied on factors which Congress has not intended it to consider; (ii) has not "considered the relevant factors"; (iii) entirely failed to consider an important aspect of the problem; (iv) offered an explanation for its decision that runs counter to the evidence before the agency; (v) failed to "articulate a rational connection between the facts found and the conclusions made"; or (vi) is so implausible that it could not be ascribed to a difference of view or the product of agency expertise. *See Or. Nat. Res. Council Fund v. Goodman*, 505 F.3d 884, 889 (9th Cir. 2007); *Pac. Coast Fed'n of Fishermen's Ass'ns, Inc. v. Nat'l Marine Fisheries Serv.*, 265 F.3d 1028, 1034 (9th Cir. 2001); *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins.*, 463 U.S. 29, 43 (1983).

In reviewing an EIS under NEPA, this Court must ensure that the agency has taken a "hard look" at the environmental consequences of its proposed action. *Kern v. BLM*, 284 F.3d 1062, 1071 (9th Cir. 2002).

ARGUMENT

I. BLM FAILED TO TAKE A HARD LOOK AT THE ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION.

NEPA requires agencies to take a "hard look" at the environmental consequences of proposed agency actions before those actions are undertaken. *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 993 (9th Cir. 2004); *see* 42 U.S.C. § 4332. "To take the required 'hard look' at a proposed project's effects, an agency may not rely on incorrect assumptions or data," may not defer the analysis to a later date "when meaningful consideration can be given now," and must consider all foreseeable direct, indirect, and cumulative impacts of its proposed action. *Native Ecosystems Council*, 418 F.3d at 964 (citing 40 C.F.R. § 1500.1(b)); *Kern*, 284 F.3d at 1075; *see N. Alaska Env't Ctr. v. Kempthorne*, 457 F.3d 969, 975 (9th Cir. 2006); *Ctr. For Biological Diversity v. Salazar*, 695 F.3d 893, 916-17 (9th Cir. 2012). Furthermore, an agency must provide sufficient evidence and analysis to support its conclusions. *See* 40 C.F.R. § 1502.1. As the Ninth Circuit has stated,

"general statements about 'possible effects' and 'some risk' do not constitute a 'hard look' absent a justification regarding why more definitive information could not be provided." *Blue Mountains Biodiversity Project. v. Blackwood*, 161 F.3d 1208, 1213 (9th Cir. 1998).

Here, BLM failed to consider several environmental impacts of its Proposed Action, or to support its conclusions with adequate analysis. This failure violates NEPA's "hard look" requirement and is arbitrary and capricious under the APA.

A. BLM'S UNFOUNDED ASSUMPTION THAT ONLY "ZERO TO FOUR" FRACKING EVENTS WILL OCCUR DISTORTED ITS CONSIDERATION OF IMPACTS AND THEIR SIGNIFICANCE.

Rather than providing the sufficient analysis or evidence required by NEPA to take a "hard look" at its Proposed Action, BLM's findings in the Final SEIS are based an unfounded assumption that only "zero to four" hydraulic fracturing events will occur in the Planning Area each year, or "0 to 40" over the 10-year life of the RMP. AR87, 97. This assumption is not backed by any underlying data or analysis, and is contrary to BLM's own prior estimates.

For example, in the 2012 Bakersfield Proposed RMP, BLM estimated that 25 percent of new wells in the Planning Area are expected to use hydraulic fracturing. *ForestWatch*, 2016 WL 5172009 at *1, 11 ("[T]he prominent role fracking is expected to play in the future is undisputed in the record."). Moreover, BLM has previously stated that about 90 percent of new wells drilled on public lands are hydraulically fractured. 80 Fed. Reg. at 16,190 ("BLM estimates that 90 percent of the wells drilled on Federal and Indian land are hydraulically fractured."). While BLM now cites to a report by the CCST regarding this "low rate" of hydraulic fracturing, the CCST found that "[a]bout 150 wells per month undergo hydraulic fracturing," primarily in the southwestern San Joaquin Valley, including oil fields within the Planning Area. *Cf.* AR15775-77, *with* AR50, 87.

Moreover, in a May 2019 Final EIS released by BLM's Central Coast Field

Office for another RMP, BLM noted that "hydraulic fracturing has been used as a production stimulation method in California since the late 1960s and is considered a standard technique for production." AR69483 n.3. For its analysis in the Central Coast Final EIS, BLM assumed that well stimulation technologies and enhanced oil recovery techniques would "be used on any or all" new exploratory and development wells drilled on federal oil and gas leases over the next 15 to 20 years. AR69477, 69494, 69812, 69847.

BLM's assumption that only "zero to four" hydraulic fracturing events will occur in the Planning Area each year distorted its consideration of several environmental impacts and significance factors. For example, in analyzing the greenhouse gas and other air pollution anticipated to result from the Proposed Action, BLM calculated the emissions based on the development of just 40 wells over the 10-year life of the 2014 RMP. *See* AR97-107. Similarly, with regard to water resources, BLM found this amount of hydraulic fracturing would consume just 8.0 million gallons (25 acre-feet) of water during the 10-year planning period, and that "[t]he risk of impacts to groundwater due to spills of fracturing fluids from the completion of an average of zero to four wells per year would be negligible." AR128-130. And because of the small number of anticipated hydraulic fracturing events and related wastewater disposal, BLM summarily concluded that "negligible impacts related to earthquake potential from oil and gas disposal wells associated with hydraulic fracturing alone would be expected." AR135.

Given that BLM's quantification regarding the number of wells which may be hydraulically fractured is significantly underestimated, it is likely that the Proposed Action will result in exceedances of the applicable significance thresholds. For example, BLM anticipates that the Proposed Action's emissions will approach the applicable general conformity *de minimis* thresholds for certain pollutants in the San Joaquin Valley air basin, including nitrogen oxides ("NOx") and reactive organic gases ("ROG"), two critical contributors to ozone formation.

AR105. The San Joaquin Valley is already classified as extreme nonattainment for 8-hour ozone. AR105. If the number of hydraulically fractured wells is even slightly underrepresented, then one or both of these thresholds would likely be exceeded, resulting in significant air quality impacts. The Proposed Action's greenhouse gas emissions would also likely exceed the 25,000 metric tons of carbon dioxide equivalent ("MTCO2e") annual threshold for the U.S. Environmental Protection Agency's mandatory reporting program for greenhouse gases, which the Final SEIS appears to use as a greenhouse gas significance threshold. AR100.

Rather than revising the "zero to four" assumption in the Final SEIS as requested by commenters, BLM's response to comments regarding this unfounded assumption simply remarked that BLM "integrated data from DOGGR (2018b) and FracFocus (2018) databases." AR87, 408-10. This response is insufficient to meet NEPA's requirement that agencies "articulate a rational connection between the facts found and the conclusions made." *See Or. Nat. Res. Council Fund*, 505 F.3d at 889. BLM gestured vaguely toward these databases, neither identifying the datasets on which it relied nor providing any analysis on how they are relevant to the "zero to four" assumption. *See* 40 C.F.R. § 1502.1 (requiring an agency to provide sufficient evidence and *analysis* to support its conclusions). Its vagueness thwarts NEPA's purpose to make available relevant information to the public to support an informed decisionmaking process. *See Robertson*, 490 U.S. at 349-50.

Moreover, it is unclear what BLM means by "DOGGR (2018b)" because the name of this document or dataset does not seem to exist in the administrative record. Furthermore, the second dataset that BLM referenced, "FracFocus (2018)" indicates that at least 60 wells were hydraulically fractured each year in Kern County alone from 2011 to 2018. AR22362-460. From 2012 to 2015, between 600 and 800 wells were hydraulically fractured in Kern County. AR22382-447. The records do not indicate, and BLM does not explain, how this data set relates to

BLM's projections for the amount of oil and gas development that will occur in the Planning Area. Rather, the large volume of hydraulic fracturing described in this dataset indicates that BLM's assumption—that only "zero to four" wells would be hydraulically fractured each year in the Planning Area—has no basis.

Therefore, BLM's reliance on the unfounded "zero to four" assumption is arbitrary and capricious, in violation of NEPA and the APA. *See Native Ecosystems Council*, 418 F.3d at 964 (holding that reliance on incorrect assumption violates the "hard look" requirement of NEPA) (citing 40 C.F.R. § 1500.1(b)).[5]

B. BLM FAILED TO ADEQUATELY ANALYZE AND DISCLOSE AIR POLLUTION IMPACTS, INCLUDING CUMULATIVE IMPACTS.

In addition to severely underestimating air pollution effects under its unfounded "zero to four" assumption, the Final SEIS failed to consider other air pollution impacts, including emissions from toxic air contaminants. Ponds that store water from hydraulic fracturing operations have the potential to generate significant emissions of toxic air contaminants. AR12034. There are more than 1,000 produced water ponds in California, and most are located in the Planning Area. AR12034. In addition, the Final SEIS failed to consider the cumulative air impacts of this Planning Area combined with oil and gas development in the adjacent Central Coast region.

In its response to comments, BLM argues that it did not consider the potential impacts of toxic air contaminants from storage ponds because the Court's decision in *ForestWatch* required it to consider only impacts from future hydraulic fracturing operations. AR407. This justification is beside the point. Because produced water from the Proposed Action's hydraulic fracturing operations foreseeably are stored in existing or new ponds in the Planning Area, consideration of these ponds' emissions is very much relevant to the inquiry of whether future hydraulic fracturing operations would foreseeably impact air quality in an already

[5] For reasons articulated by Environmental Plaintiffs, BLM's inexplicable decision to limit its analysis of hydraulic fracturing impacts to only new leases—ignoring the hundreds of new wells that would be drilled on *existing* leases in the Planning Area—is also arbitrary and capricious. ECF No. 59-1 at 22-26 ("Env't Pls. Br.").

polluted basin. *See* 40 C.F.R. § 1508.25; *N. Alaska Env't Ctr. v.*, 457 F.3d at 975 (finding that the "hard look" requirement of NEPA includes "considering all foreseeable direct and indirect impacts").

Furthermore, the Final SEIS failed to adequately analyze and disclose the cumulative air pollution impacts related to this issue. A cumulative impact is defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions . . . . Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7.

BLM is well aware of the RMP Amendment and Final EIS for oil and gas leasing in the neighboring Central Coast region, which involves considerable new well development, including a BLM-estimated 37 new wells annually that would involve hydraulically fracturing. AR69498-99. Yet, inexplicably, the Final SEIS for Bakersfield failed to mention that other major BLM planning effort, which would involve the development of new hydraulically-fractured wells during the same timeframe as the Proposed Action. Moreover, most or all of these wells are expected to be developed in the San Joaquin Valley. AR69534, 69485, 69544-45.

Indeed, the regional air basin regulated by the local California Air District—the San Joaquin Valley Air Pollution Control District—includes portions of four counties covered by the Central Coast Final EIS (San Joaquin, Stanislaus, Merced, and Fresno) and five counties covered by the Final SEIS (Fresno, Kern, Kings, Madera, and Tulare). AR9017. The San Joaquin Valley is in extreme ozone nonattainment status, and smog is very much a cumulative air pollution concern—NOx and ROG emissions are both ozone precursors which generate smog by reacting in the atmosphere across the entire air basin. Despite these facts, BLM failed to consider the cumulative NOx and ROG related effects of these two major planning efforts—both undertaken by BLM, and both of which involve approving

new hydraulic fracturing and other well development activities which would occur during the same timeframe and in the same extreme-nonattainment air basin.

BLM's response to comments on this issue suggests that the Final SEIS is "additive" to the 2012 Final EIS analysis and that because of the "conservative impact assumptions" used to analyze impacts in the Final SEIS, "actual maximum potential impacts will most likely be much smaller." AR622. BLM's justification misses the point. The 2012 Final EIS was prepared prior to the Central Coast oil and gas planning effort, which was finalized in 2019. *See* AR69448. As such, the 2012 Final EIS could not have accounted for the air impacts associated with the Central Coast planning effort. Only BLM's Final SEIS, conducted alongside the May 2019 Central Coast EIS, could have adequately examined the cumulative impacts of these two planning efforts, but inexplicably, it did not.

The agency's failure to consider the full extent of air pollution impacts from its planning efforts—including emissions of toxic air contaminants and cumulative impacts—is in violation of NEPA and the APA. *Robertson*, 490 U.S. at 349.

C. BLM Failed to Adequately Consider Potential Water Contamination and Land Subsidence.

The Final SEIS failed to adequately consider the potential for local groundwater and drinking water to be contaminated by oil and gas activities in the Planning Area. First, BLM failed to consider the prevalent use of unlined ponds in the Central Valley to store produced water, or that water in these ponds can contain hazardous chemicals. With regard to impacts to groundwater from the management and disposal of flowback fluids, the Final SEIS noted that produced water is stored in "tanks or in lined impoundments" prior to disposal, reinjection, or recycling, but summarily concluded that "[i]mpacts to groundwater from the completion of an average of zero to four wells in any given year . . . would be negligible." AR132-33. Yet nowhere does BLM discuss data collected by the California State Water Resources Control Board, which produces a report every six months on the

regulation of oil field produced water ponds within each region. AR9015, 9027-55. According to the report dated January 31, 2019, the Central Valley region had 561 active ponds, 501 of which were permitted and 60 unpermitted. AR9028. Moreover, most of the active ponds (530 of 561) were unlined. AR9028. The report also identified an additional 532 inactive ponds (507 of which were unlined), and noted that 161 ponds were under active enforcement actions. AR9028.

Furthermore, recent testing of these ponds, as required by the Central Valley Regional Water Quality Control Board, has identified numerous hazardous compounds that could pose a threat to groundwater for municipal and agricultural uses. AR9015, 9056-141. Many of the communities in the Planning Area rely on groundwater as their primary source of drinking water. AR9019-12. The CCST expressed concern about the regular use of unlined pits for the disposal of produced water, finding that such practices could "introduce contaminants into the food web and expose human populations to known and potentially unknown toxic substances." AR16505. Compounds used in hydraulic fracturing fluids, including "various aromatic hydrocarbons," AR129, affect pulmonary, gastrointestinal, and renal systems in humans, and a few polycyclic aromatic hydrocarbons are considered carcinogens, AR267, 529. However, the Final SEIS failed to consider the foreseeable groundwater and drinking water contamination associated with the produced water from hydraulic fracturing.

BLM's response to comments indicated that it will impermissibly defer the consideration of these water contamination impacts to a site-specific analysis at the leasing stage. AR629. Punting the analysis of foreseeable impacts to a later stage violates NEPA's mandate that agencies confront the full extent of environmental impacts from a proposed action at the earliest reasonable time. *Robertson*, 490 U.S. at 349; 40 C.F.R. § 1501.2(a); *see Kern* 284 F.3d at 1072. Water contamination impacts are reasonably analyzed at the level of the Planning Area, rather than in segmented analyses later on, because only analysis at this stage can capture the full

extent of impacts on hydrologic regions and water basins, whose boundaries are not defined by oil and gas leases. In contrast, waiting until the leasing stage to consider these impacts, when the scope of the action has shrunk, is a myopic approach that would overlook or underestimate the extent of water contamination impacts, in violation of NEPA. *See Kern* 284 F.3d at 1072.

In addition, the depletion of groundwater for use in hydraulic fracturing and the extraction of oil and gas from the ground has potential to cause land subsidence—the gradual caving in or sinking of land—which in turn can damage water delivery infrastructure such as the California Aqueduct and other state water project facilities located in the Planning Area. AR185, 284, 445. The extraction of produced water, along with the extraction of oil and gas, lowers static confining pressures in the oil producing strata, potentially causing the consolidation of the formation materials and resulting in land subsidence. Surveys conducted by CDWR have shown an already alarming increase of land subsidence and other topographic changes in the Central Valley, which can cause significant and costly damage to the structural integrity of state water infrastructure. AR445, 473, 476. Nearly three-quarters of California's 21 critically overdrafted basins are located within the Planning Area, and increased oil and gas extraction in these basins would foreseeably lead to land subsidence. AR51, 412, 473. Furthermore, the Planning Area is characterized by highly variable precipitation, often occurring as a flash flood. AR573. Alterations in topography could cause changes in flood patterns and increased risk to life and property. None of these impacts are addressed in the Final SEIS or BLM's response to comments. BLM's failure to consider them violates NEPA and the APA. *Robertson*, 490 U.S. at 349.

D. BLM FAILED TO CONSIDER INDUCED SEISMICITY.

BLM failed to adequately consider the connection of the underground disposal of hydraulic fracturing waste fluids, as well as hydraulic fracturing itself, to increased seismic activity. Following public comments pointing out recent

science that hydraulic fracturing events are connected to hundreds of earthquakes in the United States, AR9014, BLM in the Final SEIS acknowledged that "California has a long history of induced seismicity," including wastewater injection induced seismicity and hydraulic fracturing induced seismicity. AR134. However, instead of engaging in further analysis, BLM stated that "the expectation is there would be negligible impacts related to hydraulic fracturing-induced earthquakes," and that because the probability of induced earthquakes during hydraulic fracturing depends on site-specific conditions, this impact would be evaluated "in future site-specific NEPA analysis as necessary" for future leasing. AR135, 628.

The Final SEIS also failed to adequately analyze induced seismicity associated with wastewater disposal, ignoring relevant information before the agency. Despite acknowledging "that wastewater disposal is responsible for the majority of, and the most damaging, induced earthquakes associated with oil and gas development," AR135-36, BLM seems to conclude that wastewater disposal would have negligible seismic impacts based on its observations that wastewater volumes in California are less than those from hydraulic fracturing operations elsewhere, and that there has been only one documented case of an earthquake associated with hydraulic fracturing operations in California. AR40, 77, 135-36. The Final SEIS failed to take into account a study highlighted by California's comments recommending further analysis of wastewater disposal impacts because the state's frequent natural earthquakes may be difficult to distinguish from those caused by wastewater injection into the subsurface. AR9016, 16132-34. This is especially warranted given California's many active earthquake faults, and the fact that more than 1,000 wastewater disposal wells are located within 1.5 miles of a mapped active fault in central and southern California. AR9016, 16379-95. In refusing to analyze how California's seismic activities can be aggravated by wastewater disposal, BLM failed to consider an important aspect of the problem, in violation of NEPA and the APA. *State Farm*, 463 U.S. at 43.

Furthermore, BLM suggested in the response to comments that additional, site-specific analysis may be conducted at a later stage, such as leasing or well development, with regard to hydraulic fracturing's seismic impacts. AR628. As previously discussed, waiting until a later stage to determine the environmental impacts from an agency action is in violation of NEPA and undermines the statute's intent. NEPA is intended as a tool for the agency to confront the full extent of environmental impacts from a proposed action, and to make that information available for public review. *Robertson*, 490 U.S. at 349. The site-specific analysis BLM proposes would shrink the geographic scope of the environmental analysis down to a fraction of its proper size, and ignores all the environmental consequences that accumulate in a widespread application of hydraulic fracturing throughout the Planning Area. This approach violates NEPA's mandate "that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast," *id.*, and impacts be analyzed as soon as meaningful consideration can be given, *Kern*, 284 F.3d at 1075.

By deferring this analysis to the leasing stage, BLM has chosen to overlook the potential impacts of hydraulic fracturing induced seismicity as it begins to determine the locations of new leases in the Planning Area. Having failed to do its homework to obtain relevant information at this stage, BLM has limited its options down the line to mitigate significant impacts by, for example, understanding which areas are more susceptible to induced seismicity and choosing not to offer leases at those locations.

BLM's arbitrary and capricious decision to defer analysis of seismic impacts to a later stage is in violation of NEPA and the APA.

E. BLM Disregarded Other Types of Well Stimulation and Hydraulic Fracturing on Existing Wells.

It was also arbitrary and capricious for BLM to ignore the environmental impacts of other types of well stimulation treatments and enhanced oil recovery

techniques in the Planning Area, given their likely utilization in the future. These techniques include acidizing, water flooding, steam flooding, cyclic steam injection, and a dual type that alternates between steam and water flooding. AR9016-17. In the Central Coast Final EIS, for example, BLM assumed that "[w]ell stimulation technologies (e.g., hydraulic fracturing, acid matrix stimulation, acid fracturing) and enhanced oil recovery techniques (e.g., cyclic steam, steam flood, water flood) may be used on any or all" wells drilled on federal mineral estate. AR69812. But here, the Final SEIS contained no analysis of such issues.

In addition to limiting its analysis to "zero to four" hydraulic fracturing events on new wells each year, BLM ignored the fact that hydraulic fracturing is commonly used to extend the life of existing oil wells with declining production and related infrastructure, resulting in additional significant impacts from the continued production of fossil fuels in these areas. AR9017. As BLM itself stated in the Final SEIS, "hydraulic fracturing usually occurs in oil fields on existing leases, many of which have been continuously developed over the last 100 years." AR50. Yet nowhere does BLM consider the impacts of using hydraulic fracturing or other well stimulation treatments on existing wells within the Planning Area.

BLM attempted to justify this omission by claiming that the Court's decision in *ForestWatch* required that it consider only the impacts of hydraulic fracturing on new wells in the Planning Area. AR625. BLM's position is misguided. NEPA's "hard look" requirement mandates that an agency consider the full scope of activities encompassed by its Proposed Action. *See* 40 C.F.R. § 1508.25; *N. Alaska Env't Ctr.*, 457 F.3d at 975 ("hard look" requirement of NEPA includes "considering all foreseeable direct and indirect impacts"). For the Proposed Action, foreseeable impacts include not only those from hydraulic fracturing new wells, but also hydraulic fracturing on existing leases as a technique to extend the life of the well, and other types of well stimulation treatments that will foreseeably be used in the Planning Area. BLM's failure to analyze impacts from these techniques is

arbitrary and capricious, in violation of NEPA and the APA.

F. BLM Failed to Adequately Consider Impacts to Low-Income and Minority Communities.

The Final SEIS also failed to consider how the Proposed Action will impact low-income communities and communities of color in the Planning Area, whether resulting from increased air pollution or groundwater contamination. While the 2012 Final EIS noted that the Planning Area contains minority populations and low-income populations, AR2391, BLM—egregiously—failed altogether to acknowledge impacts to these communities in the Final SEIS despite the environmental harms these communities already disproportionately bear, due in part to existing nearby oil and gas extraction.

Federal agencies are obligated to consider the environmental and human health impacts of their actions on low-income communities and communities of color in their NEPA analyses. Executive Order 12898, 59 Fed. Reg. 7,629 (Feb. 16, 1994). In addition, NEPA requires that both the context and the intensity of an action be considered to evaluate whether the impacts are significant. 40 C.F.R. § 1508.27. An evaluation of the action's context requires an examination of "the affected region, the affected interests, and the locality," *id.* § 1508.27(a), and an evaluation of intensity requires consideration of "[t]he degree to which the possible effects on the human environment . . . involve unique . . . risks," *id.* Furthermore, NEPA requires an analysis of the cumulative effects of a federal action, or the incremental environmental impact of the current action when added with other past, present, and reasonably foreseeable future actions, "regardless of what agency . . . or person undertakes such other action." *Id.* § 1508.7. To properly evaluate the significance of the direct and cumulative impacts caused by the Proposed Action, BLM must therefore consider the Proposed Action in the context of current baseline conditions of the communities and environment in the Planning Area.

However, the Final SEIS failed to account for the affected interests and

locality of the Proposed Action and the unique risks faced by communities in the Planning Area. In Kern County alone—where hydraulic fracturing from this Proposed Action will most likely occur—35 percent of the residents (290,000) live within a mile of at least one oil or gas well. AR9021. The impacts of these oil and gas operations are disproportionately being endured by people of color. Of the residents living within one mile of a well *and* suffering from existing health threats from pollution, 76 percent (nearly 92,000) are people of color, AR9079-80, while communities that are less impacted by pollution and not near oil and gas wells are majority white, AR9480. The majority of residents living within five miles of a well experience greater ozone pollution than 80 percent of the state, and greater particulate matter pollution than 90 percent of the state. AR9060-62. Furthermore, the majority of residents living within two miles of a well experience greater levels of drinking water contamination than 80 percent of the state. AR9164.

Studies increasingly show links between exposure to oil and gas operations and public health impacts, including cancer, adverse birth outcomes, and preterm births. AR9021-22. Residents living near oil and gas operations can experience acute respiratory, neurological, and gastrointestinal symptoms from exposure to such operations, such as headaches, fatigue, burning eyes and throats, nausea, and nosebleeds, as well as sleep disturbance from noise levels. AR9022. The evidence of these health effects is particularly concerning in the Planning Area, where many residents already experience the highest rates of cardiovascular disease and low birth weights in the state, in addition to the existing significant levels of air and water pollution. AR9022-23. Exposure to ozone emissions from oil and gas operations can cause lung irritation, worsen chronic health conditions, increase asthma-related emergency room visits, and increase mortality. AR9019. These operations also generate particulate matter that is 2.5 micrometers or less in diameter, which can cause heart and lung disease. AR9019. Furthermore, many residents within the Planning Area live at or below the state poverty line, and

therefore are among the least likely to afford medical care if they fall ill. AR9023.

Despite the conditions endured by these vulnerable communities in the Planning Area, BLM's response to comments failed even to mention these communities, and offered only inapposite stock responses. AR1404-05; *see* Env't Pls. Br. at 18-21. The failure of the Final SEIS to take into account the air, water, and public health impacts, including the cumulative impacts, of the Proposed Action to nearby low-income communities and communities of color, violates NEPA and the APA.

II. BLM FAILED TO CONSIDER REASONABLE ALTERNATIVES.

The Final EIS failed to consider a reasonable range of alternatives to the Proposed Action. NEPA requires that an agency provide a "detailed statement" regarding the "alternatives to the proposed action." 42 U.S.C. § 4332(2)(C)(iii); *see* 40 C.F.R. § 1502.14(a). Agencies should "[r]igorously explore and objectively evaluate all reasonable alternatives" that relate to the purposes of the project, and briefly discuss the reasons for eliminating any alternatives from detailed study. 40 C.F.R. § 1502.14. The requirement to consider reasonable alternatives "lies at the heart of any NEPA analysis." *California ex rel. Lockyer v. U.S. Dep't of Agric.*, 459 F. Supp. 2d 874, 905 (N.D. Cal. 2006). "The existence of a viable but unexamined alternative renders" an EIS inadequate. *W. Watersheds Project v. Abbey*, 719 F.3d 1035, 1050 (9th Cir. 2013).

In the Final SEIS, BLM "brings forward" the same alternatives that it previously considered in the 2012 Final EIS, claiming that the district court "upheld the range of alternatives" in that document. AR56. These alternatives include "No Action" (Alternative A), the Proposed Action to open 1,011,470 acres to fluid mineral leasing (Alternative B), as well as 3 additional alternatives (Alternatives C-E) that are similar to the Proposed Action but differ slightly in terms of their emphasis on conservation, livestock grazing, or the production of natural resources. AR56-77. However, given that the purpose of the Final SEIS was to analyze the

environmental impacts of hydraulic fracturing, AR45, BLM must consider additional alternatives that relate to this purpose and which could potentially reduce the significant impacts of such operations. *See* 40 C.F.R. § 1500.2(e) (requiring agencies to "[u]se the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment"); *id.* § 1502.14 ("[A]gencies shall . . . [r]igorously explore and objectively evaluate all reasonable alternatives.").

Public comments on the Draft SEIS recommended additional reasonable alternatives to mitigate or reduce the impacts of hydraulic fracturing, including: (1) closing more public lands to mineral leasing; (2) placing ecologically sensitive areas off limits to hydraulic fracturing; (3) prohibiting leasing in areas with low or no potential for oil and gas development—an alternative that BLM itself evaluated in its 2019 Final EIS for the Central Coast Oil and Gas RMP amendment, *see* AR69508-09; (4) limiting oil and gas development near communities; and (5) limiting the number of hydraulic fracturing operations in a given year. AR9013-17.

The Final SEIS rejected the alternatives recommended by the public and failed to give consideration to a reasonable range of alternatives. As justification for "bringing forward" only the alternatives from the 2012 Final EIS, BLM's response to comments offered only that the "District Court . . . upheld the range of alternatives analyzed in the 2012 Final EIS." AR1399. BLM's reliance on the same alternatives that were included in the 2012 Final EIS based on the Court's decision in *ForestWatch* misses the mark. The Court found that BLM had provided a reasonable justification for excluding "an alternative that would have closed substantially more lands" to oil and gas leasing, given that "nearly all anticipated development is expected to occur on existing leases," and BLM had "properly considered the mix of tools available in its arsenal to balance the completing priorities of developing federal lands and protecting the environment." *ForestWatch*, 2016 WL 5172009 at *14.

However, as the Court also stated, "[c]onsideration of reasonable alternatives is necessary to ensure that the Bureau has before it and takes into account all possible approaches to, and potential environmental impacts of, a particular project." *Id.* at *13-14 (finding BLM is "obligated to examine reasonable alternatives to mitigate or reduce the overall *environmental impact* and not specifically the overall oil and gas activity on federal lands") (emphasis in original). Given that Court found that BLM must conduct this SEIS to take a "hard look" at the environmental impacts of hydraulic fracturing, BLM cannot simply "bring[] forward" the same alternatives from a prior, defective review that entirely failed to consider such operations.

In sum, BLM's failure to consider alternatives that are actually related to the environmental consequences of hydraulic fracturing did not allow for "informed decisionmaking and informed public participation," and failed to "consider the relevant factors," in violation of NEPA and the APA. *See California v. Block*, 690 F.2d 753, 767 (9th Cir. 1982); *State Farm*, 463 U.S. at 43.

III. BLM FAILED TO IDENTIFY OR DISCUSS ADEQUATE MITIGATION MEASURES REGARDING IMPACTS TO SPECIAL-STATUS SPECIES AND THEIR HABITATS.

NEPA requires that an agency identify feasible mitigation measures for any adverse environmental impacts resulting from a proposed action and its alternatives. *Robertson*, 490 U.S. at 351-52 ("[O]ne important ingredient of an EIS is the discussion of steps that can be taken to mitigate adverse environmental consequences."); *see* 40 C.F.R. §§ 1502.14(f) (requiring alternatives section of EIS to "[i]nclude appropriate mitigation measures not already included in the proposed action"); 1502.16(h) (requiring environmental consequences section of EIS to include "[m]eans to mitigate adverse environmental impacts (if not fully covered under § 1502.14(f)").[6] Mitigation of environmental impacts must "be discussed in sufficient detail to ensure that environmental consequences have been fairly

[6] Mitigation includes avoiding, minimizing, rectifying, reducing over time, or compensating for an impact. 40 C.F.R. § 1508.20 (defining "mitigation").

evaluated." *City of Carmel-By-The-Sea v. U.S. Dep't of Transp.*, 123 F.3d 1142, 1154 (9th Cir. 1997) (quoting *Robertson*, 490 U.S. at 353). Moreover, "[a]n essential component of a reasonably complete mitigation discussion is an assessment of whether the proposed mitigation measures can be effective." *S. Fork Band Council of W. Shoshone of Nev. v. U.S. Dep't of the Interior*, 588 F.3d 718, 727 (9th Cir. 2009) (finding that EIS violated NEPA by failing to "assess the effectiveness of the mitigation measures relating to groundwater").

Here, BLM's Proposed Action has the potential to adversely impact numerous special-status species and the habitats that support these species. AR14732; *see* AR112 ("Potential impacts to special status fish and wildlife species may include direct mortality and reduction or extirpation of a population; habitat loss or modification; habitat fragmentation or disturbance; and interference with movement pattern"). However, the Final SEIS failed to adequately identify or discuss feasible mitigation measures regarding these adverse impacts. Instead, the Final SEIS simply referenced preexisting mitigation requirements in the 2014 RMP, current federal and state regulations, a Kern County Zoning Ordinance, and measures that may be included in future project-specific analysis. *See* AR32-33, 74, 114, 115. In response to comments regarding the inadequacy of this discussion, BLM simply noted that the 2014 RMP established mitigation measures "that could be applied to areas identified as open to leasing," and that mitigation may be applied during project-specific analyses. AR586-608. This response is inadequate.

First, as CDFW noted in its comments, "the 2014 RMP does not include mitigation measures, BMPs, or stipulations that are adequate to conserve, protect, and manage" certain special status species and their habitats. AR14732, 14737. In particular, the mitigation measures included in Appendix 3 of the 2014 RMP (and Appendix L of the 2012 FEIS) are not specific enough to provide adequate mitigation for special status species, only cover a small subset of protected species in the Planning Area, and even allow for the take of species that are covered.

AR14733. For example, measures to minimize "take" (*i.e.*, harm) of protected species like the Blunt-nose Leopard Lizard, San Joaquin Kit Fox, Giant Kangaroo Rat, and San Joaquin Antelope Squirrel, would actually *allow for* the take of such species. AR14737-41. Unauthorized "take" of species is prohibited by state and federal law, and subject to criminal enforcement. *See* Cal. Fish & Game Code §§ 2000, 2080, 12000(a), 12008, 12008.1; *see also* 16 U.S.C. §§ 1532(19), 1538(a).

Moreover, the Kern County Zoning Ordinance only applies to oil and gas activities within Kern County (the Proposed Action covers seven other counties), and only on lands over which Kern County has jurisdiction, specifically, non-federal lands. AR14734. For these reasons, CDFW asked for the inclusion of additional mitigation measures, including: state-recommended survey protocols to avoid the taking of protected species; implementing no-disturbance buffers to minimize ground disturbance; conducting habitat surveys in the Planning Area to proactively protect suitable habitats; ensuring the restoration of normal water flow immediately after disruptive activities to maintain the integrity of streams; and habitat compensation to account for impacts to lands previously set aside for protection. AR14737-53. None of these measures were added to the Final SEIS.

Furthermore, with regard to future site-specific analysis, NEPA does not allow BLM to simply ignore consideration of mitigation measures now by listing steps that might be taken in the future. *See S. Fork Band Council*, 588 F.3d at 727 ("[T]hat these individual harms are somewhat uncertain due to BLM's limited understanding of the hydrologic features of the area does not relieve BLM of the responsibility under NEPA to discuss mitigation of reasonably likely impacts at the outset."); *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1380 (9th Cir. 1998) (finding a "mere listing of mitigation measures" is not enough to satisfy NEPA); *Nat'l Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 734 (9th Cir. 2001) ("A perfunctory description, or mere listing of mitigation measures, without supporting analytical data, is insufficient to support a finding of no

significant impact.") (internal quotations and citations omitted). As the Ninth Circuit has frequently stated in NEPA cases, it is "not appropriate to defer consideration" of impacts to a future date "when meaningful consideration can be given now." *See Kern*, 284 F.3d at 1075.

In sum, BLM's failure to identify and discuss feasible mitigation measures in the Final SEIS regarding sensitive species and their habitat was arbitrary and capricious and contrary to the requirements of NEPA and the APA.

IV. BLM FAILED TO CONSIDER CONFLICTS OR INCONSISTENCIES WITH STATE POLICIES AND PLANS.

When preparing an EIS, NEPA requires that an agency include a discussion of "[p]ossible conflicts between the proposed action and the objectives of" state plans and policies. 40 C.F.R. § 1502.16(c). An EIS must also "[d]iscuss any inconsistency of a proposed action with any approved State or local plan and laws," and "[w]here any inconsistency exists, the [EIS] should describe the extent to which the agency would reconcile its proposed action with the plan or law." *Id.* § 1506.2(d); *see, e.g., Quechan Tribe of Ft. Yuma Indian Rsrv. v. U.S. Dep't of the Interior*, 927 F. Supp. 2d 921, 946 (S.D. Cal. 2013) (finding BLM did not violate NEPA where "numerous provisions" in EIS and record of decision examined the project's consistency with local laws and regulations, and California determined there were no inconsistencies between the project and state or local laws).

Here, the Proposed Action will open up more than one million acres of the Planning Area to new oil and gas leasing, and extend the life of existing leases through the use of well stimulation treatments such as hydraulic fracturing. AR45-48. According to the Final SEIS, the total direct and indirect greenhouse gas emissions resulting from this activity (production and end use) are expected to be 221,119 $MTCO_2e$ per year, AR101, a figure which likely underestimates the emissions that will result from the Proposed Action. *See* AR9012-13, 12030-31.

Yet the Final SEIS failed to consider conflicts or inconsistencies with state

plans and policies, including efforts by California to reduce greenhouse gas emissions and fossil fuel consumption to mitigate the devastating consequences of global climate change. *See* AR8133 ("The Bureau's proposal to open up new areas of the state to oil and gas production . . . is contrary to the course California has set to combat climate change and to meet its share of the goals outlined in the Paris Agreement."), AR8135, 8144, 12019-21. As discussed in the Attorney General's comment letter, these plan and policies include: (1) California's statutory target of reducing greenhouse gas emissions by 40 percent below 1990 levels by 2030, Cal. Health & Safety Code § 38566; (2) CARB's plan to reduce fossil fuel consumption by 45 percent by 2030 to meet this target; and (3) California's policy to achieve carbon neutrality by 2045, Executive Order B-55-18. AR9023; *see also* AR12028 ("Expanding the availability of over 1.2 million acres of public lands in the Central Valley for hydraulic fracturing is contrary to California's efforts to combat climate change and will result in significant adverse impacts to California's residents and the environment.").

In the Final SEIS, BLM claimed—without any analysis—that these increased emissions "would not be likely to conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions." AR102. BLM stated that "California's regulatory setting . . . provides oversight and management of GHGs directly emitted during development and production and indirectly emitted by end users of the petroleum products." AR102 (citing Section 3.6.2, Regulatory Framework of the BLM Central Coast Field Office, Draft Resource Management Plan Amendment and Draft Environmental Impact Statement for Oil and Gas Leasing and Development). Yet the plans and policies discussed above were never addressed in the Final SEIS.[7] In fact, BLM's response to comment on this issue consisted entirely of the following statement: "Thank you for participating in the Draft Bakersfield Field Office Hydraulic Fracturing

[7] While the Central Coast draft EIS from 2017 describes some of these policies, it provides no discussion or analysis regarding the consistency of this Proposed Action with such measures. *See* AR67962-64.

Supplemental Environmental Impact Statement (Draft SEIS) public comment process." AR622.

California has also enacted several statutes to protect the state's most vulnerable communities from air and water pollution, including Assembly Bill 617 and California Water Code § 106.3. AR9023-25. Assembly Bill 617 requires CARB to establish a statewide strategy to reduce emissions of toxic air contaminants and criteria pollutants in communities affected by a high cumulative exposure burdens. Cal. Health & Safety Code § 44391.2. California Water Code § 106.3 declares the state policy that "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." As discussed above, many of the marginalized communities residing in the Planning Area are already suffering from some of the worst air quality in the nation, and do not have access to clean, safe, and affordable water. *See supra* Background Part II; Argument I.F. The increased oil and gas development resulting from the Proposed Action is contrary to and inconsistent with these requirements. However, other than to acknowledge California's comments, the Final SEIS failed to consider these requirements. *See* AR629.

Nor did BLM take into account the requirements of the California Sustainable Groundwater Management Act, Cal. Water Code § 10720 *et seq. See* AR12037, 8146. This is particularly crucial given the potentially significant impacts to groundwater from contamination, overdraft, and land subsidence resulting from the Proposed Action, as well as the fact that many communities in the Planning Area are already dealing with significant water contamination and overdraft issues. *See supra* Argument Part I.C; AR9019-21. Yet BLM's response to comments on this issue simply made vague references to "subsequent processes" and "site-specific NEPA analysis" without providing any consideration of this issue. *See* AR411, 535, 577.

Finally, BLM failed to consider inconsistencies with the Metropolitan

Bakersfield Habitat Conservation Plan, which set aside many acres of CDFW lands within the Planning Area as permanent compensatory habitat mitigation to offset the impacts of past development activities. *See* Fish & G. Code § 2050 *et seq*.; 14 Cal. Code Regs. §§ 550, 550.5, 630; AR14729. These lands, and specifically those within Kern County in the Lokern and Semitropic Ecological Reserves (14 Cal. Code Regs. § 630(b)(78), (124)), contain species that are critically imperiled and whose range does not extend much beyond the boundaries of the Southern San Joaquin Valley. AR14729. The Final SEIS did not discuss this plan.

In sum, BLM's failure to consider the many conflicts and inconsistencies between the Proposed Action and state plans and policies was arbitrary and capricious and contrary to the requirements of NEPA and the APA.

V. BLM FAILED TO ALLOW FOR ADEQUATE PUBLIC PARTICIPATION IN THE NEPA PROCESS.

BLM's regulations implementing FLPMA require that the agency provide a 90-day public comment period for any draft EIS relating to a RMP. 43 C.F.R. § 1610.2(e) ("Ninety days shall be provided for review of the draft plan and draft environmental impact statement."). BLM's NEPA procedures also specifically require that a supplemental EIS be circulated for public comment in the same fashion as a draft EIS. AR67109 (BLM NEPA Handbook H-1790-1 at 102 (citing 40 C.F.R. § 1502.9)). Moreover, "[t]he public shall be provided opportunities to meaningfully participate in and comment on the preparation" of such plans. 43 C.F.R. §1610.2(a); *see* 40 C.F.R. § 1506.6 (requiring agencies to "[m]ake diligent efforts to involve the public in preparing and implementing their NEPA procedures"); *see* 43 U.S.C. § 1712(f) (requiring the Secretary of Interior to "allow an opportunity for public involvement and by regulation shall establish procedures . . . to give Federal, State, and local governments and the public, adequate notice and opportunity to comment upon and participate in the formulation of plans and programs relating to the management of the public lands").

Here, BLM failed to provide the public with a meaningful opportunity to participate in the preparation of the Final SEIS, in violation of these requirements. First, BLM provided the public with just 45 days to comment on the Draft SEIS, only half the time required by its own regulations. *See* AR28. In response to comments, BLM stated that it "is not able to accommodate requests to extend the public comment period on the Draft SEIS . . . [i]n order to complete the supplemental analysis following the guidance of Secretarial Order 3355." AR519. Yet this Secretarial Order contains no such limitation on the public comment period for a draft EIS, and providing 45 extra days for comments would not significantly affect BLM's ability to meet the Order's "target" of completing each Final EIS within one year from the issuance of a notice of intent (a target that BLM did not meet regardless). *See* AR64631. In any event, the Order specifically provides that "[t]o the extent there is any inconsistency between the provisions of this Order and any Federal laws or regulations, the laws or regulations will control." AR64633.

Second, although BLM held three public meetings relating to the Draft SEIS, BLM failed to provide "at least 30 calendar days" for written responses, and refused to accept oral comments into the record at those hearings. 43 C.F.R. § 1610.2(e) ("At least 15 days' public notice shall be given for public participation activities where the public is invited to attend. Any notice requesting written comments shall provide for at least 30 calendar days for response."). In particular, BLM published the notice of availability for the Draft SEIS on April 26, 2019, but held its public meetings on May 21, 22 and 23, 2019. AR152-53. Moreover, despite community requests for interpretation services and BLM's knowledge of significant Hispanic populations in the Planning Area, BLM did not provide interpretation services at its hearings. *See* AR9025-26; AR20309 (Council on Environmental Quality, Environmental Justice Guidance under the National Environmental Policy Act, 1997, at 13) (agency should provide translators at meetings to ensure that limited-English speakers affected by a proposed action have an understanding of

the proposal and its impacts). In response to comments, BLM simply stated that it "was not able to accommodate specific needs and provide language interpreters for all potential non-English speakers who may have attended the public meetings on the Draft SEIS." AR482. Yet BLM failed to explain why this step was not provided to allow for meaningful public participation in the NEPA process. *See, e.g.*, *W. Watersheds Project v. Zinke*, 441 F. Supp. 3d 1042, 1083 (D. Idaho 2020) (finding that BLM's failure to follow notice and comment procedures "improperly constrain[ed] public participation," rendering action "procedurally and substantively invalid under the APA, FLPMA, and NEPA.").

Third, BLM failed to provide to the public the documents or data supporting its core assumption that "zero to four wells" per year in the Planning Area will be hydraulically fractured, thus precluding fully-informed public comment. AR12034-35. The data and analysis behind this assumption was not provided, identified, or explained in the Draft SEIS, and BLM never made public the reference cited for this assumption. AR12035; *see supra* Argument Part I.A. Given that this assumption is foundational to the rest of BLM's analysis, the agency's failure to justify the assumption and to provide the underlying data precluded informed comment on much of the Draft SEIS. 43 C.F.R. § 1610.2(a) (requiring that "[t]he public shall be provided opportunities to *meaningfully* participate in and comment on the preparation" of agency decision documents) (emphasis added).

In sum, BLM's failure to provide a meaningful opportunity for public participation in the NEPA process was arbitrary and capricious, an abuse of discretion, and contrary to requirements of FLPMA, NEPA, and the APA.

CONCLUSION

For the foregoing reasons, California respectfully requests that the Court grant their motion for summary judgment, and declare unlawful and vacate the Final SEIS and Record of Decision until BLM complies with applicable law.

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Respectfully submitted,

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