

XAVIER BECERRA
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DEPARTMENT OF JUSTICE



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November 9, 2020

Via ePlanning Website Submission

Karen Mouritsen
Bureau of Land Management
California State Office
ATTN: Oil and Gas Lease Sale
2800 Cottage Way, Suite W-1623
Sacramento, CA 95825

**RE: Protest of the U.S. Department of the Interior, Bureau of Land Management,
California State Office, December 2020 Oil and Gas Lease Sale**

Dear Ms. Mouritsen:

On behalf of the Attorney General of California, Xavier Becerra, the Governor of California, Gavin Newsom, the California Air Resources Board ("CARB"), and the California Department of Fish and Wildlife ("CDFW"), we submit the following protest of the Bureau of Land Management's ("BLM") proposed December 2020 Oil and Gas Lease Sale ("Lease Sale") involving seven parcels totaling 4,133.58 acres of Federal public lands and mineral estate within the Bakersfield Field Office in Kern County, California. BLM is proposing to make these parcels available for sale via an online open auction on December 10, 2020, and announced a 30-day public protest period ending on November 9, 2020.

Pursuant to 43 C.F.R. § 3120.1-3, we protest the inclusion of all seven parcels proposed for sale:

CACA Serial Number	Corresponding Parcel ID	Acreage
CACA 059099	CA-2020-12-0001	538.06
CACA 059101	CA-2020-12-0002	160.00
CACA 059103	CA-2020-12-0003	920.00
CACA 059102	CA-2020-12-0004	957.24
CACA 059105	CA-2020-12-0005	680.00
CACA 059104	CA-2020-12-0006	600.00
CACA 059100	CA-2020-12-0007	278.28

The mailing addresses to which correspondence regarding this protest should be directed are:

California Attorney General's Office
ATTN: George Torgun
1515 Clay Street, 20th Floor
P.O. Box 70550
Oakland, CA 94612

California Office of the Governor
ATTN: Dan Bromberg
1303 10th Street, Suite 1173
Sacramento, CA 95814

California Air Resources Board
ATTN: Jessica Gordon
1001 I Street
P.O. Box 2815
Sacramento, CA 95812

California Department of Fish and Wildlife
ATTN: Wendy Bogdan
1416 9th Street, 12th Floor
P.O. Box 944209
Sacramento, CA 95814

I, George Torgun, have been authorized to file this protest on behalf of Attorney General Becerra, Governor Newsom, and CARB.

STATEMENT OF INTEREST OF THE PROTESTING PARTIES

California Attorney General Xavier Becerra is the chief law officer of the State of California, and it is the duty of the Attorney General to see that the laws of the state are uniformly and adequately enforced. It is the policy of the State of California to conserve, protect, and enhance its environment, and to prevent destruction, pollution, or irreparable impairment of the environment and the natural resources of the state. The Attorney General has independent power and duty to protect the environment and natural resource of the State of California, including acting in the name of the people of the State of California against any person for the protection of the natural resources of the state from pollution, impairment, or destruction. All seven parcels proposed for sale are located in Kern County, which is home to more than 900,000 California residents who may be affected by the impairment of the environment caused by the proposed oil and gas leasing.

California Governor Gavin Newsom is the chief executive of the State of California and is responsible for overseeing the operations of the state and ensuring that its laws are faithfully executed. The Governor is the head of California's executive branch, which includes the state agencies—CARB and CDFW—whose interests are discussed in this protest. California has adopted extensive policies to protect public health and combat climate change, enacting groundbreaking climate policies ranging from a price on carbon to strong, enforceable renewable energy mandates and reducing community exposure to harmful air pollutants. California is committed to achieving a carbon neutral economy by 2045. In September 2020, Governor Newsom issued an executive order phasing out sales of gas-powered cars and drastically reducing demand for fossil fuel. BLM's proposed lease sale will increase oil and gas development, undermining the policies enacted by California to protect public health and combat climate change.

CARB is California's lead agency for climate change programs and oversees all air pollution control efforts in California to attain and maintain health-based air quality standards. CARB is charged with protecting the public from the harmful effects of air pollution and developing programs and actions to fight climate change. CARB's mission is to promote and protect public health, welfare, and ecological resources through effective reduction of air pollutants. The proposed lease sale would contribute to air and climate impacts that would undermine CARB's mission.

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for the people of California. In its trustee capacity, CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. CDFW is charged by law to provide biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources. BLM's proposed lease sale may result in activities that are subject to CDFW's regulatory authority, and may cause harm to species protected under California law.

STATEMENT OF REASONS TO SUPPORT THE PROTEST

On September 25, 2020, the California Attorney General, Governor Newsom, CARB, and CDFW submitted three comment letters on the Draft Environmental Assessment ("EA") and Finding of No Significant Impact issued by the BLM Bakersfield Office to address the environmental consequences of selling the above seven oil and gas leases in Kern County. As discussed in those comments, the Draft EA purports to tier its environmental analysis to a prior programmatic environmental review of the area's resource management plan, and thus conducted minimal additional analysis regarding this lease sale.

However, as the comments point out, the prior environmental review and resource management plan are themselves deficient because they rely on a flawed assumption about the amount of hydraulic fracturing in the planning area, fail to consider available data and recent

studies regarding the impacts of hydraulic fracturing, and fail to consider inconsistencies with California's state law and policies. Furthermore, the Draft EA fails to adequately consider the impacts of the proposed leasing to nearby environmental justice communities, fails to sufficiently consider and mitigate groundwater impacts, fails to include appropriate measures to protect species from harm, and insufficiently addresses potential impacts to the climate. Finally, it is unacceptable that BLM finds insignificant, and fails to mitigate, the greenhouse gas emissions of the proposed leasing at a time when California is experiencing the devastating impacts of global climate change—with record temperatures and some of the worst wildfires and resulting air pollution in state history.

All of the reasons that support this protest are discussed in detail in the September 25, 2020 comments timely submitted by Attorney General Becerra, Governor Newsom, CARB, and CDFW. BLM has not addressed those comments. Those comments are hereby incorporated and attached to support this protest.

Sincerely,



GEORGE TORGUN
YUTING CHI
Deputy Attorneys General
DAVID ZONANA
CHRISTIE VOSBURG
Supervising Deputy Attorneys General

For XAVIER BECERRA
Attorney General

GAVIN NEWSOM
Governor

CALIFORNIA AIR RESOURCES BOARD

DocuSigned by:

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WENDY BOGDAN
General Counsel

CALIFORNIA DEPARTMENT OF FISH AND
WILDLIFE

attachments: California Attorney General and Air Resources Board Comments on the December 2020 Oil and Gas Lease Sale Environmental Assessment, DOI-BLM-CA-C060-2020-0120-EA (Sept. 25, 2020)

California Governor Gavin Newsom Letter Regarding Environmental Assessment for December 2020 Oil and Gas Lease Sale, DOI-BLM-CA-C060-2020-0120-EA (Sept. 25, 2020)

California Department of Fish and Wildlife Comments Regarding Bureau of Land Management Bakersfield Field Office Oil & Gas Lease Sale Draft Environmental Assessment and Finding of No Significant Impact; DOI Control and ePlanning Number DOI-BLM-CA-C060-2020-0120-EA (Sept. 25, 2020)

Attachment 1

XAVIER BECERRA
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September 25, 2020

Via Electronic Submission

Karen Mouritsen
BLM California State Director
BLM Bakersfield Field Office
ATTN: Oil and Gas Lease Sale
3801 Pegasus Drive
Bakersfield, CA 93308

RE: Comments on the U.S. Department of the Interior, Bureau of Land Management, Bakersfield Field Office, December 2020 Oil and Gas Lease Sale Environmental Assessment, DOI-BLM-CA-C060-2020-0120-EA

Dear Ms. Mouritsen:

On behalf the Attorney General of California, Xavier Becerra¹ and the California Air Resources Board (“CARB”),² we submit these comments on the Draft Environmental Assessment (“Draft EA”) and Finding of No Significant Impact (“FONSI”) issued by the U.S. Bureau of Land Management’s (“BLM”) Bakersfield Field Office to address the environmental consequences of selling seven oil and gas leases totaling 4,333.58 acres in Kern County.

Kern County already experiences more than 95 percent of all federal oil and gas drilling in California, much of which is located close to communities that disproportionately bear the burdens of environmental pollution and its health effects. Oil and gas operations generate particulate matter, volatile organic compounds, methane (as an ozone precursor), and toxic air pollution that increase the rates and risks of asthma, heart disease, lung disease, and cancer. Oil

¹ The California Attorney General submits these comments pursuant to his independent power and duty to protect the environment and natural resources of the State. *See* Cal. Const., art. V, § 13; Cal. Gov. Code, §§ 12511, 12600-12612; *D’Amico. v. Bd. of Medical Examiners* (1974) 11 Cal.3d 1, 1415. CARB is California’s lead agency for climate change programs and oversees all air pollution control efforts in California to attain and maintain health-based air quality standards.

² CARB is California’s lead agency for climate change programs and oversees all air pollution control efforts in California to attain and maintain health-based air quality standards.

and gas development also generates greenhouse gas emissions and could deplete and contaminate groundwater.

The Draft EA purports to tier its environmental analysis to a prior programmatic environmental review (“Bakersfield EIS”) of the area’s resource management plan (“RMP”), and thus conducted minimal additional analysis regarding this lease sale. However, the Bakersfield EIS and RMP are themselves deficient because they rely on a flawed assumption about the amount of hydraulic fracturing in the RMP area, fail to consider available data and recent studies regarding the impacts of hydraulic fracturing, and fail to consider inconsistencies with California’s state law and policies. Because of these deficiencies, we have filed a legal challenge that is currently pending. BLM’s failure in this EA to provide supplemental analysis or correct for those deficiencies is in violation of the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4332(2)(C). Furthermore, the Draft EA fails to adequately consider the impacts of the proposed leasing to nearby environmental justice communities, fails to sufficiently consider and mitigate groundwater impacts, and insufficiently addresses impacts to climate. Finally, it is unacceptable that BLM finds insignificant, and fails to mitigate, the greenhouse gas emissions of the proposed leasing at a time when California is experiencing the devastating impacts of global climate change—with record temperatures and some of the worst wildfires and resulting air pollution in state history.

For these reasons, we urge BLM to withdraw its Draft EA and prepare a new analysis that adequately addresses these deficiencies.

BACKGROUND

I. The NEPA Review for the Bakersfield Resource Management Plan

BLM is the federal agency responsible for overseeing 15 million acres of federal public lands (about 15 percent of California’s total land mass) and 47 million acres of subsurface mineral estate in this state. Pursuant to the Federal Land Policy and Management Act, 43 U.S.C. § 1701 *et seq.*, BLM develops resource management plans to guide the management of public lands and mineral estate in its jurisdiction. These management plans provide standards and guidance for site-specific activities that occur on federal lands, such as oil and gas lease sales and drilling, and define BLM’s approach to management decisions for the next ten to fifteen years. Because developing a resource management plan is a major federal action significantly affecting the quality of the human environment, BLM is required to prepare a detailed EIS under NEPA to analyze and disclose to the public the direct, indirect, and cumulative impacts of the plan.

In 2014, BLM’s Bakersfield Field Office finalized the Bakersfield EIS, evaluating the environmental impacts of an RMP that would open more than one million acres of public lands in eight Central California counties, including Kern County, to oil and gas drilling. In that environmental analysis, BLM failed to address any impacts related to hydraulic fracturing, a controversial technique by which oil and gas producers inject water, sand, and 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. Some of the chemicals are known carcinogens, and growing scientific evidence has linked the technique with water pollution, air pollution, and earthquakes. BLM has estimated that hydraulic fracturing is used to stimulate 90 percent of new wells drilled on federal lands. *See* 80 Fed. Reg. 16,128, 16,131, 16,190 (Mar. 26, 2015). BLM's 2014 Bakersfield EIS was challenged by the Center for Biological Diversity and Los Padres ForestWatch in the U.S. District Court for the Central District of California, which held that BLM violated NEPA by failing to analyze the impacts of hydraulic fracturing in the area covered by the 2014 RMP and required BLM to supplement its analysis. *Los Padres ForestWatch v. U.S. Bureau of Land Mgmt.*, 2016 WL 5172009, *10-13 (C.D. Cal. Sept. 6, 2016). BLM finalized a supplemental EIS in December 2019.

Notwithstanding the supplemental analysis, the Bakersfield EIS remained deficient because it underestimated the number of wells that would annually be hydraulically fractured under the proposed RMP; failed to consider recent studies and best available science on impacts to air quality, water quality, greenhouse gas (“GHG”) emissions, earthquakes, and environmental justice communities; ignored the impacts of other well stimulation treatments that likely would be used; failed to consider reasonable alternatives to the proposed plan; and failed to consider the plan's consistency with California's state policies on the reduction of GHG emissions. For all of these reasons, the California Attorney General filed a lawsuit in January 2020 on behalf of Attorney General Becerra, Governor Gavin Newsom, CARB, the California Department of Fish and Wildlife, and the California Department of Water Resources to challenge the Bakersfield EIS in the U.S. District Court for the Central District of California. *See California v. Joe Stout*, 2:20-cv-00504 (C.D. Cal. Jan. 16, 2019) (ECF No. 1). This challenge was consolidated with a related action also filed in January 2020 by the Center for Biological Diversity, Sierra Club, Patagonia Works, Los Padres ForestWatch, Central California Environmental Justice Network, The Wilderness Society, National Parks Conservation Association, and Natural Resources Defense Council. *See Center for Biological Diversity v. U.S. Bureau of Land Mgmt.*, 2:20-cv-371 (C.D. Cal. Jan. 14, 2019) (ECF No. 1). Merits briefing is scheduled to begin in December 2020.

II. The Proposed December 2020 Lease Sale

On August 26, 2020, BLM proposed an oil and gas lease sale of seven parcels of land totaling 4,333.58 acres in Kern County in December 2020. These seven parcels range from 160 to 1,157 acres of public and split-estate lands located both within and outside of existing oil field boundaries. *See* Draft EA, Appendix A. Once a lease issues, the oil and gas operator has ten years to develop the parcel, with a possible extension of another 10 years if oil and gas can be produced in adequate quantities. *See* Draft EA at 1.

The Draft EA and FONSI rely on the flawed Bakersfield EIS and RMP for the analysis of the lease sale's environmental impacts. BLM concludes that the December 2020 lease sale will not have significant environmental impacts beyond those already analyzed in the Bakersfield EIS and RMP, that the lease sale is not a major federal action that will have significant effect on the

human environment, and that therefore no further environmental analysis is required under NEPA. FONSI at 1; Draft EA at 5. In so doing, BLM is “tiering” its EA to, or incorporating by reference, the broader Bakersfield EIS, which is flawed and the subject of ongoing litigation. *See* 40 C.F.R. § 1508.28;³ 43 C.F.R. § 46.140. Because the court is unlikely to resolve the merits of the Bakersfield EIS litigation until mid-2021, at the earliest, proceeding with the December 2020 lease sale means that oil and gas operators may begin drilling on these parcels based on an environmental review that ultimately may be invalidated.

More than 95 percent of federal drilling in California already occurs in Kern County, much of which is in nonattainment with the federal 8-hour ozone standard and federal fine particulate matter standards, as well as numerous state ambient air quality standards. Excess pollution in this part of California—including particulate matter, volatile organic compounds (VOCs), methane (as an ozone precursor), and toxic air pollution from oil and gas operations—significantly increases the rates and risks of asthma, heart disease, lung disease, and cancer. Much of federal oil and gas activities occur near California’s most vulnerable communities, who already are disproportionately exposed to pollution and its health effects. The seven parcels proposed for sale in Kern County are no exception—these parcels are located near communities that bear some of the highest environmental pollution burdens in California.

COMMENTS ON THE DRAFT EA

I. NEPA’s Requirements

NEPA is the “basic national charter for protection of the environment.” 40 C.F.R. § 1500.1(a). NEPA has two fundamental purposes: (1) 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 (2) 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).

NEPA requires the preparation of a detailed EIS for any “major federal action significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C). In

³ On July 16, 2020, the Council on Environmental Quality (“CEQ”) finalized an update to its 1978 regulations implementing NEPA, which took effect on September 14, 2020. 85 Fed. Reg. 43,304 (July 16, 2020). According to this rule, for NEPA reviews that have already begun “before the final rule’s effective date, agencies may choose whether to apply the revised regulations or proceed under the 1978 regulations and their existing agency NEPA procedures. Agencies should clearly indicate to interested and affected parties which procedures it is applying for each proposed action.” *Id.* at 43,340. In the Draft EA, BLM states that it “will process the environmental review under the prior regulations.” Draft EA at 5. Consequently, only the 1978 regulations are referenced here.

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).

To determine whether an EIS is necessary for a project, the agency may prepare an EA, which should provide sufficient evidence and analysis to justify the agency’s determination whether to prepare an EIS or make a finding of no significant impact (“FONSI”). 40 C.F.R. §§ 1501.4, 1508.9; *see also Bob Marshall All. v. Hodel*, 852 F.2d 1223, 1225 (9th Cir. 1988). An EA prepared to support an individual proposed action can be “tiered” to, or incorporate by reference, a broader or programmatic EIS. 43 C.F.R. § 46.140(c). However, an EA is appropriate and a FONSI may issue only if that programmatic EIS “fully analyzed” the proposed action’s significant effects, including the direct, indirect, or cumulative effects. *See id.* “Tiering to the programmatic or broader-scope environmental impact statement would allow the preparation of an environmental assessment and a finding of no significant impact for the individual proposed action, *so long as any previously unanalyzed effects are not significant.*” *Id.* (emphasis added). Where the relevant analysis in the EIS is not sufficiently comprehensive or adequate, the EA must explain this and provide the necessary analysis. *See id.* § 46.140(b).

II. The Draft EA Is Tiered to the Inadequate Bakersfield EIS that Did Not Fully Analyze the Significant Environmental Impacts of the Proposed Lease Sale, and the Draft EA Fails to Supplement That Analysis.

A. The Draft EA Fails to Correct for the Unsubstantiated Assumption Regarding the Amount of Hydraulic Fracturing on These Leases.

To take the “hard look” required by NEPA at a proposed action’s effects, “an agency may not rely on incorrect assumptions or data.” *Native Ecosystems Council*, 418 F.3d at 964 (citing 40 C.F.R. § 1500.1(b)). However, the Bakersfield EIS analyzed the impacts of hydraulic fracturing based on an unfounded assumption that only “zero to four” hydraulic fracturing events will occur in the Bakersfield RMP area. Bakersfield EIS at 6, 44. The Draft EA appears to adopt the same unfounded assumption, in violation of NEPA. The Draft EA, like the Bakersfield EIS, assumes that BLM would hold four lease sales per year in the RMP area, and that ten new wells would be developed as a result of each lease sale. Draft EA at 30. The EA goes on to state, citing the Bakersfield EIS, that “(up to) 40” new wells on new leases per year would be developed in the RMP area, and that “(up to) 4,” or 10 percent, of these new wells would be hydraulically fractured. Draft EA at 30. Under this assumption, only one new well per year, per lease sale, would be hydraulically fractured.

As articulated in California’s complaint in the ongoing legal challenge to the Bakersfield EIS and in the comments to the 2019 Bakersfield Draft EIS, this assumption is not backed by any

underlying data or analysis, and it is contrary to BLM's own prior estimates. 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"). BLM had estimated in the 2012 Bakersfield RMP that 25 percent of new wells would be hydraulically fractured. A 2019 EIS released by BLM's Central Coast Field Office for another RMP in California 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." In that EIS, BLM assumed that well stimulation technologies and enhanced oil recovery techniques like hydraulic fracturing 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. BLM's assumption, here, that 10 percent or less of the new wells in the Bakersfield RMP area would be hydraulically fractured is inconsistent with BLM's estimates from other recent analysis and environmental reviews.

This incorrect assumption undermines BLM's analysis of the environmental impacts of this lease sale. For example, with regard to water resources, this assumption leads BLM to calculate the groundwater consumed by hydraulically fracturing only one well in this Draft EA, and to conclude that the lease sale would result in the consumption of only "0.00003" percent of Kern County's annual water usage and have "at most, minor negative effects" on the area's water resources. Draft EA at 42, 46. Similarly, assuming that only one new well will be hydraulically fractured annually due to this lease sale, BLM concludes that the sale will have negligible impacts on threatened and sensitive species in the area. Draft EA at 53.

Accordingly, BLM must revise this EA with the proper assumption about the amount of hydraulic fracturing that is supported by the evidence before the agency, and analyze the environmental impacts of the lease sale based on that assumption.

B. The Draft EA Fails to Consider Recent Science and Data Regarding the Significant Environmental Impacts Linked to Hydraulic Fracturing.

To fulfill NEPA's "hard look" requirement, an agency must consider all foreseeable direct, indirect, and cumulative impacts of its proposed action. *See N. Alaska Envtl. 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). An agency must provide sufficient evidence and analysis to support its conclusions. *See* 40 C.F.R. § 1502.1 (EIS "shall be supported by evidence that the agency has made the necessary environmental analyses"). 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). BLM's Bakersfield EIS on which the Draft EA relies failed to consider several environmental impacts related to hydraulic fracturing, and the Draft EA fails to supplement that analysis.

For example, with regard to impacts to groundwater from the management and disposal of flowback fluids, the Bakersfield EIS noted that produced water from hydraulic fracturing is

stored in “tanks or in lined impoundments” (ponds) and concluded that “[i]mpacts to groundwater ... would be negligible.” Bakersfield EIS at 89-90. But the EIS failed to 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.⁴ According to the Board’s latest report dated January 31, 2019, the Central Valley region had 561 active ponds and 533 inactive ponds (which may become active), or 1,093 total.⁵ Most of these ponds (1037 of 1093) were unlined.⁶ The report also noted that 161 ponds were under active enforcement actions.⁷ Moreover, 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.⁸ As with the Bakersfield EIS, the Draft EA failed to consider this data.

The Draft EA also fails to consider the recent science connecting the underground injection of hydraulic fracturing waste fluids, and hydraulic fracturing itself, to increased seismic activity. The Bakersfield EIS dismissed the notion that oil and gas development in the RMP could result in impacts related to hydraulic fracturing-induced earthquakes, stating that “[t]hree cases of hydraulic fracturing–induced earthquakes in the United States have been reported” and “only a few more worldwide.” Bakersfield EIS at 91-92. However, recent science has connected hundreds of earthquakes in Oklahoma, Ohio, and other areas to hydraulic fracturing events.⁹ The Bakersfield EIS also found “negligible impacts related to earthquake potential from oil and gas disposal wells associated with hydraulic fracturing.” Bakersfield EIS at 92.

⁴ State Water Resources Control Board, Water Quality in Areas of Oil and Gas Production - Produced Water Ponds, https://www.waterboards.ca.gov/water_issues/programs/groundwater/sb4/oil_field_produced/produced_water_ponds/index.html (last visited Sept. 25, 2020).

⁵ State Water Resources Control Board, Produced Water Ponds Status Report: January 31, 2019, https://www.waterboards.ca.gov/water_issues/programs/groundwater/sb4/docs/pwpondsreport_january2019.pdf.

⁶ *Id.*

⁷ *Id.*

⁸ *See, e.g.*, Central Valley Regional Water Quality Control Board, Oil Field Pond 13267 Order Responses, Information Requested by 13267 Order, Lost Hills Oil Field, https://www.waterboards.ca.gov/centralvalley/water_issues/oil_fields/information/disposal_ponds/aera_energy/2015_0616_com_lost_hills.pdf.

⁹ Skoumal, R. J., *et al.* (2018). Earthquakes induced by hydraulic fracturing are pervasive in Oklahoma. *Journal of Geophysical Research: Solid Earth*, 123, <https://doi.org/10.1029/2018JB016790>; Skoumal, R.J., *et al.*, Earthquakes Induced by Hydraulic Fracturing in Poland Township, Ohio. *Bulletin of the Seismological Society of America* (2015) 105 (1): 189-197, <https://doi.org/10.1785/0120140168>; Xuwei Bao and David W. Eaton (2016). Fault activation by hydraulic fracturing in western Canada. *Science* 354 (6318), 1406-1409, <https://science.sciencemag.org/content/354/6318/1406>.

However, more recent studies linked wastewater disposal wells to earthquake activities in the southern region of California's Central Valley.¹⁰ The California Council on Science and Technology ("CCST") recommended further analysis of the link between hydraulic fracturing and seismic activity, warning that, while hydraulic fracturing as currently carried out in California is not considered to pose a high seismic risk, "it can be very difficult to distinguish California's frequent natural earthquakes from those possibly caused by water injection into the subsurface."¹¹ Further analysis is especially warranted given California's many active earthquake faults and the fact that over 1,000 wastewater disposal wells are located within 1.5 miles of a mapped active fault in central and southern California.¹²

Because the Bakersfield EIS failed to fully analyze the environmental impacts of hydraulic fracturing in the RMP area by disregarding available data and recent studies, and because the Draft EA fails to address that deficiency by considering those evidence, the Draft EA fails to take a "hard look" at the environmental impacts of the lease sale in violation of NEPA.

C. The Draft EA Fails to Consider Whether the Lease Sale Would Conflict with State Policies.

Under NEPA, an agency must include a discussion of "[p]ossible conflicts between the proposed action and the objectives of" state plans and policies in an EIS. 40 C.F.R. § 1502.16(c). The EIS must also "[d]iscuss any inconsistency of a proposed action with any approved State or local plan and laws." *Id.* § 1506.2(d). However, the Bakersfield EIS failed to sufficiently analyze the conflicts with California state plans and policies posed by new oil and gas development in the RMP area, and the Draft EA does not address that deficiency.

California has a statutory target of reducing GHG emissions by 40 percent below 1990 levels by 2030, Cal. Health & Safety Code § 38566, and a plan to reduce fossil fuel consumption by 45 percent by 2030 to meet this target.¹³ On November 19, 2019, Governor 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 2045.¹⁴ The Governor also imposed a moratorium on new extraction wells that use a

¹⁰ Goebel, T. H. W., *et al.* (2016). Wastewater disposal and earthquake swarm activity at the southern end of the Central Valley, California, *Geophys. Res. Lett.*, 43, 1092–1099, <https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2015GL066948>.

¹¹ CCST, *An Independent Scientific Assessment of Well Stimulation in California*, Volume II at 30-32, 267 (July 2015), <https://ccst.us/wp-content/uploads/160708-sb4-vol-II-7.pdf>.

¹² *Id.* at 277-295.

¹³ California Air Resources Board, *California's 2017 Climate Change Scoping Plan* (Nov. 2017), <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>.

¹⁴ 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>.

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.¹⁵ 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.¹⁶ On September 23, 2020, the Governor signed an Executive Order that will require all new cars and passenger trucks sold in California to be zero-emission vehicles by 2035.¹⁷ Increasing oil and gas operations and opening new lands to leasing is contrary to and inconsistent with these targets, plans, and policies.

California has enacted several statutes to protect the state's most disadvantaged communities from air and water pollution, and the expansion of oil and gas activity on federal lands would have significant adverse impact on the state's ability to meet these goals. California State Assembly Bill 617 (2017) created a Community Air Protection Program overseen by CARB that is focused on reducing exposure in communities most impacted by air pollution.¹⁸ CARB has selected the Shafter community—located within ten miles of the 160-acre Poso Unit (Parcel 5)—as one of its initial ten communities for focused emissions reduction and air monitoring.¹⁹ Draft EA at 21, 75. In September 2019, the San Joaquin Valley Air Pollution Control District adopted Shafter's Community Emissions Reduction Plan, which cites residents' proximity to oil and gas operations as a top source of concern in the community.²⁰ As part of the Plan, the Shafter community is evaluating how to fund emissions reductions from oil and gas production operations, noting the community's exposure to significant levels of existing air pollution.²¹ CARB will select additional communities for focused air emissions reduction annually, and it will consider communities that regional air districts initially recommended, including communities located close to the proposed parcels, such as North Bakersfield.²² The

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ Governor Gavin Newsom, Executive Order N-79-20 (Sept. 23, 2020), <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-text.pdf>.

¹⁸ California Air Resources Board, Community Air Protection Blueprint, October 2018 (hereafter, "CARB Blueprint"), https://ww2.arb.ca.gov/sites/default/files/2018-10/final_community_air_protection_blueprint_october_2018.pdf.

¹⁹ CARB, Community Air Protection Program, 2018 Community Recommendations Staff Report, Sept. 11, 2018, at 7, https://ww2.arb.ca.gov/sites/default/files/2018-09/2018_community_recommendations_staff_report_revised_september_11.pdf.

²⁰ Community Emissions Reduction Program – Shafter at 43 (Sept. 2019), <http://community.valleyair.org/media/1515/01-finalshaftercerp-9-19-19.pdf>.

²¹ *Id.* at 74-78.

²² CARB, *supra* note 18 at 7; San Joaquin Valley Air Pollution Control District AB 617 Final Community Recommendations (July 2018), <https://ww2.arb.ca.gov/sites/default/files/2018-08/SJVAPCD%20AB%20617%20Final%20Community%20Recommendations.pdf>; Ventura County Air Pollution Control District, Prioritized AB 617 Community Recommendations for

ability of the state to meet and implement emissions reduction program goals will be inhibited by and is inconsistent with the proposed lease sale.

CARB also has created a Study of Neighborhood Air near Petroleum Sources to better understand air quality in communities near oil and gas operations.²³ This project will inform the Community Air Protection Program and state policy around air emissions in these communities. The California Office of Environmental Health Hazard Assessment (“OEHHA”) will analyze all data from the Study and conduct a health risk assessment. Communities that are expected to receive air monitoring under the Study include McKittrick and Derby Acres, which are near the McKittrick Oil Field and Midway-Sunset Oil Field and within six miles of both the 538.6-acre Crocker Flat Unit (Parcel 6) and the 278.27-acre Buena Vista Unit (Parcel 7).²⁴ Draft EA at 23, 75. Any future BLM decisionmaking should consider results from these studies as they become available.

In 2012, California enacted Water Code section 106.3, making California the first state in the nation to recognize the human right to water.²⁵ Water Code section 106.3 established the state’s policy that every person has the right to safe, clean, affordable, and accessible water adequate for drinking, cooking, and sanitary purposes.²⁶ Thus, preventing and addressing discharges that could threaten human health by contributing to contamination of drinking water sources are among the state’s highest priorities. Many of the disadvantaged and marginalized communities residing near the proposed leases do not have access to clean, safe, and affordable water.²⁷ Thus, any risk of additional contamination or reduction in water supplies resulting from hydraulic fracturing on these proposed leases is significant and inconsistent with the state’s human right to water policy. Finally, the California Sustainable Groundwater Management Act, Cal. Water Code § 10720 *et seq.*, provides for the conservation, development, and utilization of California’s water resources, including by prioritizing the management of basins that are subject to critical conditions of overdraft. Hydraulic fracturing on these leases has the potential to

Ventura County (July 31, 2018, https://ww2.arb.ca.gov/sites/default/files/2018-08/VCAPCD_AB617_Submittal.pdf).

²³ California Air Resources Board, Study of Neighborhood Air near Petroleum Sources (SNAPS) Fact Sheet (Feb. 2019), https://ww2.arb.ca.gov/sites/default/files/2019-02/SNAPS_QA_2-6-19.pdf.

²⁴ California Air Resources Board, Communities Selected for First Round of Air Monitoring (Sept. 2018), <https://ww2.arb.ca.gov/resources/documents/snaps-first-round-communities>.

²⁵ California State Assembly Bill 685 (2012).

²⁶ California State Water Resources Control Board, Resolution No. 2016-0010; California Regional Water Quality Control Board, Central Valley Region, Resolution R5-20161-0018.

²⁷ *See also* University of California, Berkeley School of Law, International Human Rights Law Clinic, The Human Right to Water Bill in California: An Implementation Framework for State Agencies (May 2013), https://www.law.berkeley.edu/files/Water_Report_2013_Interactive_FINAL.pdf.

produce water that may be connected to groundwater aquifers, causing an overdraft of the local basin, and thus conflicts with the protections of the Act.

Because the Bakersfield EIS failed to articulate these inconsistencies with California laws and policies, and because the Draft EA does not discuss them, the Draft EA must be revised to address these deficiencies.

III. The Draft EA Fails to Consider the Environmental and Public Health Impacts to Environmental Justice Communities Near the Proposed Leases.

The Draft EA fails to discuss the disproportionate impacts of oil and gas operations on communities nearby, which already are burdened by environmental pollution, stating that BLM would identify environmental justice communities at a later stage, and that any “site-specific impacts on environmental justice populations would be considered and mitigated as needed on a project basis at the development application stage.” Draft EA at 31. The Draft EA also lacks any analysis of how this lease sale would add to the existing air and water pollution, as well as the existing public health concerns in these communities, determining instead to analyze cumulative impacts on these communities “at the development application stage.” Draft EA at 58.

NEPA requires an analysis of the cumulative effects of a federal action, defined as “the impact on the environment which results from the incremental impact of the action when added with other past, present, and reasonably foreseeable future actions, regardless of what agency . . . or person undertakes such other action.” 40 C.F.R. § 1508.7. To do so, BLM must consider the impact of its proposed lease sale on the existing baseline condition of the communities and environment nearby. *See* Council on Environmental Quality, *Considering Cumulative Effects Under the National Environmental Policy Act*, 1997. Potential impacts to these communities should not be deferred to a later stage when a greater commitment of resources toward oil and gas development could undermine the reasoned analysis of impacts. In the Draft EA, BLM provides the concrete locations of the parcels for sale; therefore, the locations of the nearby affected communities are also known.

Several parcels proposed for sale are near “disadvantaged communities” (“DACs”) which are defined under California law as those that reside in areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effect, exposure, or environmental degradation. Cal. Health & Safety Code § 39711. To designate disadvantaged communities, the California Environmental Protection Agency uses the OEHHA CalEnviroScreen 3.0 Tool to rank all census tracts in the state using 21 environmental, socioeconomic, and health “indicators,” such as air and water quality, that measure the communities’ exposure to pollution and the communities’ vulnerability to the effects of pollution.²⁸ Census tracts that are in the most burdened quartile overall in CalEnviroScreen 3.0

²⁸ OEHHA, CalEnviroScreen 3.0 Report (Jan. 2017), <https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3report.pdf>.

are “disadvantaged communities” under California law.²⁹ Three proposed parcels are located within census tracts that are in the most burdened quartile overall on CalEnviroScreen, meaning that communities in these locations already are exposed to significantly more air and water pollution than other parts of the state, and they are more vulnerable to that exposure.³⁰

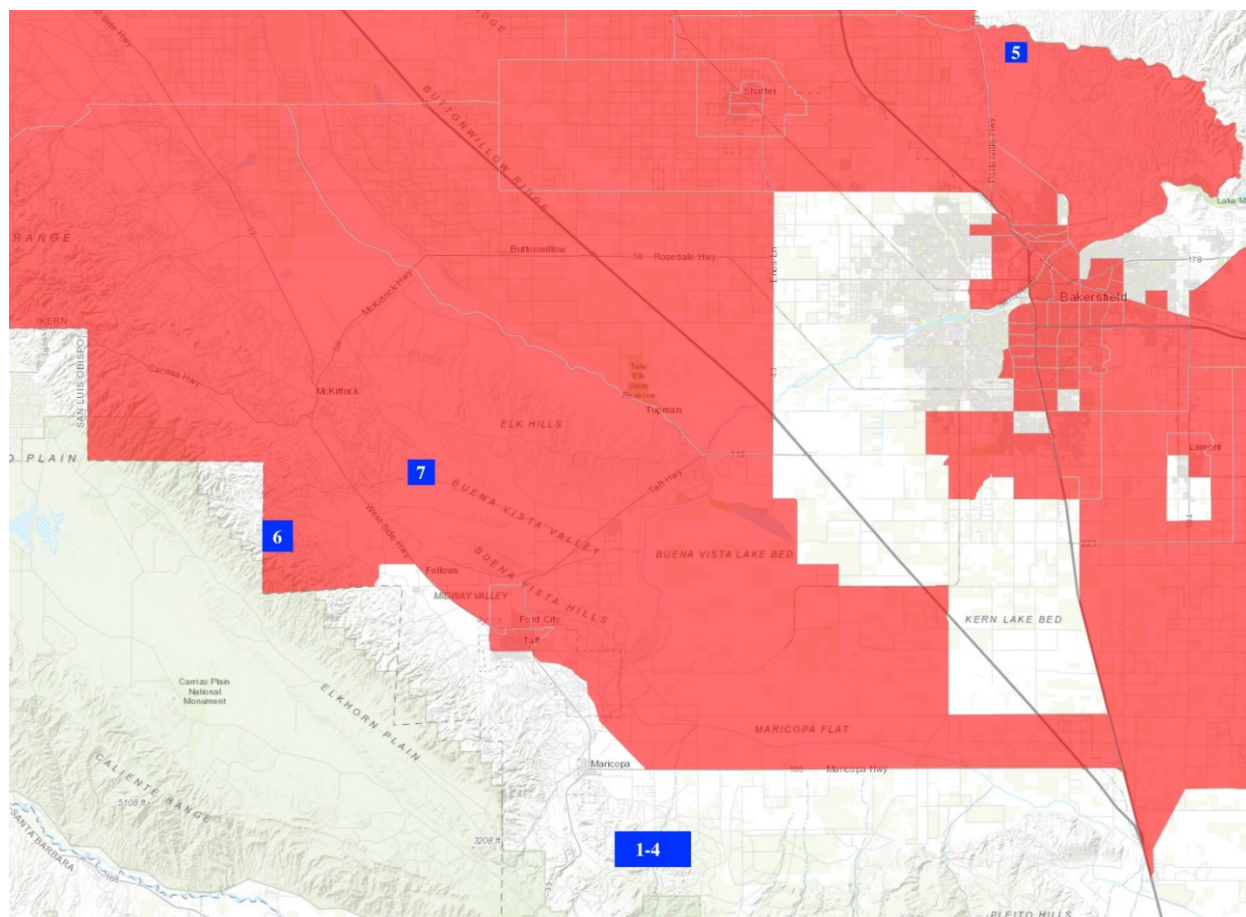


Figure 1 – Proposed parcels (blue) in context of DACs (red) as designated by the California Environmental Protection Agency for the purpose of SB 535. The red areas represent census tracts that are in the highest quartile for pollution burdens on CalEnviroScreen 3.0.³¹

²⁹ See California Environmental Protection Agency, Designation of Disadvantaged Communities Pursuant to Senate Bill 535 (De Leon) (Apr. 2017), <https://calepa.ca.gov/wp-content/uploads/sites/6/2017/04/SB-535-Designation-Final.pdf>.

³⁰ See OEHHA, CalEnviroScreen 3.0 Tool, <https://oehha.ca.gov/calenviroscreen> (last visited Sept. 24, 2020). See also OEHHA, SB 535 Disadvantaged Communities Webpage, <https://oehha.ca.gov/calenviroscreen/sb535> (last visited Sept. 21, 2020).

³¹ SB 535 Disadvantaged Communities (map) (June 2018 Update), <https://oehha.maps.arcgis.com/apps/View/index.html?appid=c3e4e4e1d115468390cf61d9db83efc4>.

Much of Kern County is already in nonattainment with fine particulate matter and ozone air quality standards. Ozone is among the most widespread and significant air pollution health threats in California, including in areas next to the proposed leases.³² Kern County also experiences some of the worst particulate matter pollution in the state.³³ Any additional emissions of volatile organic compounds, nitrogen oxides, and other air pollutants in these areas from expanded oil and gas production may be significant and should be mitigated. Furthermore, the public health risk exposure to toxic air contaminants is greatest near active oil and gas sites. Because many residents in Kern County already live near oil and gas activity, any new oil and gas development in the County must take into account the health impacts to nearby sensitive receptors.

In addition, Kern County already suffers from some of the worst groundwater threats and drinking water contamination problems in California. CalEnviroScreen's Groundwater Threat Indicator tracks the locations where groundwater may be threatened and contaminated by sources of pollution such as hazardous chemicals that are often stored in, and leak from, containers on land or underground storage tanks.³⁴ Contaminated groundwater can expose people to contaminated soil, air, and drinking water supplies.³⁵ All proposed parcels are located in census tracts that rank among the top 20 percent in threats to groundwater.³⁶ CalEnviroScreen's Drinking Water Indicator, which combines drinking water quality data for public and non-public drinking water systems, indicate that Kern County residents rely on drinking water that already contains significant contamination from chemicals or bacteria.³⁷ The small community water systems that serve the majority of the residents near the leasing area lack the infrastructure and economies of scale of larger water systems to afford necessary treatment or identification of

³² OEHHA, CalEnviroScreen 3.0 Tool, Air Quality: Ozone Indicator, <https://oehha.ca.gov/calenviroscreen/indicator/air-quality-ozone> (last visited Sept. 25, 2020).

³³ OEHHA, CalEnviroScreen 3.0 Tool, Air Quality: PM 2.5 Indicator, <https://oehha.ca.gov/calenviroscreen/indicator/air-quality-pm25> (last visited Sept. 25, 2020). Particulate matter that is 2.5 micrometers or less in diameter (PM 2.5) causes many serious health effects, including heart and lung disease.

³⁴ OEHHA, CalEnviroScreen 3.0 Tool, Groundwater Threats, <https://oehha.ca.gov/calenviroscreen/indicator/groundwater-threats> (last visited Sept. 24, 2020).

³⁵ *Id.*

³⁶ OEHHA, CalEnviroScreen 3.0 Tool, *supra* note 30 (Census Tract Nos. 6029003303, 6029003304, 6029003306, 6029005103).

³⁷ OEHHA, CalEnviroScreen 3.0 Tool, Drinking Water Indicator, <https://oehha.ca.gov/calenviroscreen/indicator/drinking-water-contaminants> (last visited Sept. 25, 2020); State Water Resources Control Board, Report to the Legislature: Communities That Rely on a Contaminated Groundwater Source for Drinking Water (Jan. 2013), <https://www.waterboards.ca.gov/gama/ab2222/docs/ab2222.pdf>. *See also* OEHHA, Methodology for a Statewide Drinking Water Contaminant Indicator (Jan. 2017), <https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3dwm methodology.pdf>.

alternative water supplies for a contaminated groundwater source.³⁸ Furthermore, many residents in Kern County rely on private, domestic (unregulated) wells for drinking water, and data available for these wells indicates significant contamination issues in areas surrounding the proposed leases.³⁹ According to CalEnviroScreen, four proposed parcels (Parcels 2-5) are located in census tracts that rank among the top 10 percent in the lack of access to clean drinking water.⁴⁰ Given the existing groundwater threats and drinking water contamination in these areas, any additional impacts from oil and gas development on these leases should be identified and mitigated.

The Draft EA fails to discuss the close proximity of the proposed leases to residents. In Kern County, 35 percent of the county's 290,000 residents already live within a mile of at least one oil or gas well. One of the proposed parcels—the Poso Unit (Parcel 5), at 160 acres—is within a mile of a disadvantaged community of at least 10 residences. Draft EA at 22-23. Residents near this parcel already experience more ozone pollution than 91 percent of California and the most fine particulate matter pollution in the state.⁴¹ A cluster of four parcels—the Cienega Unit (Parcels 1-4) totaling 3,357.24 acres and 75% of the total acreage proposed for lease sale—is within three miles of two schools and a community with more than 1,000 residents, who already experience more ozone pollution than 85 percent of California. Draft EA at 22-23. And Parcels 6 (Crocker Flat Unit) and 7 (Buena Vista Unit), at 816.34 acres combined, are within five miles of a disadvantaged community with over 300 residents who already experience more ozone pollution than 85 percent of California and more fine particulate matter pollution than 93 percent of the state.⁴² Draft EA at 23, 75. Studies increasingly show links between exposure to oil and gas operations and public health impacts,⁴³ including cancer,⁴⁴

³⁸ State Water Resources Control Board, *supra* note 36.

³⁹ OEHHA, CalEnviroScreen 3.0 Tool, Drinking Water Indicator, *supra* note 37. OEHHA, Drinking Water Results by Contaminant Spreadsheet (Excel), *accessible at*: <https://oehha.ca.gov/calenviroscreen/indicator/drinking-water-contaminants>.

⁴⁰ OEHHA CalEnviroScreen 3.0 Tool, *supra* note 30 (Census Tract Nos. 6029003306, 6029005103).

⁴¹ *See id.* (Census Tract No. 6029005103).

⁴² *See id.* (Census Tract No. 6029003304).

⁴³ Intrinsic Environmental Sciences Inc. Phase 2- Human Health Risk Assessment of Oil and Gas Activity in Northeastern British Columbia: Task 3 – Literature Review. Prepared for British Columbia Ministry of Health (Apr. 2013), <https://www.health.gov.bc.ca/library/publications/year/2013/health-risk-assessment-literature-review.pdf>.

⁴⁴ *See, e.g.,* McKenzie, Lisa M., *et al.*, Childhood Hematologic Cancer and Residential Proximity to Oil and Gas Development, PLoS ONE 12(2): e0170423 (2017), <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0170423>.

adverse birth outcomes,⁴⁵ and preterm births.⁴⁶ Residents living near oil and gas operations, because of exposures to ozone and fine particulate matter, can experience acute respiratory, neurological, and gastrointestinal symptoms from exposure to the operations, such as headaches, fatigue, burning eyes and throats, nausea, and nosebleeds.⁴⁷ Residents also experience sleep disturbance from noise levels from oil and gas activity.⁴⁸ The health effects for residents exposed to oil and gas activity is particularly concerning in the leasing areas, particularly around Parcels 5-7, where many residents already experience the highest rates of cardiovascular disease⁴⁹ and low birth weights⁵⁰ in California, in addition to the existing significant levels of air and water pollution and high poverty levels.⁵¹ The community near Parcels 6 and 7 already experiences higher rates of low birth weight than 80 percent of the state.⁵² And the community next to Parcel 5 already experiences higher rates of asthma, low birth weight, and cardiovascular disease than 83, 98, and 84 percent of California, respectively.⁵³

⁴⁵ Balise, *et al.*, Systematic Review of the Association between Oil and Natural Gas Extraction Processes and Human Reproduction, 106 Fertility & Sterility 4, 795-819 (Sept. 2016), [https://www.fertstert.org/article/S0015-0282\(16\)62529-3/fulltext](https://www.fertstert.org/article/S0015-0282(16)62529-3/fulltext).

⁴⁶ Casey, *et al.*, Unconventional Natural Gas Development and Birth Outcomes in Pennsylvania, 27 Epidemiology 163-172 (2016), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4738074/>.

⁴⁷ Liberty Hill Foundation, Drilling Down: The Community Consequences of Expanded Oil Development in L.A. (2015), https://www.libertyhill.org/sites/libertyhillfoundation/files/Drilling%20Down%20Report_1.pdf; Los Angeles County Department of Public Health, Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County, February 2018, http://publichealth.lacounty.gov/eh/docs/PH_OilGasFacilitiesPHSafetyRisks.pdf.

⁴⁸ Hays, *et al.*, Public Health Implications of Environmental Noise Associated with Unconventional Oil and Gas Development, 580 Science of the Total Environment 448-456 (2017), <http://www.hpaf.co.uk/wp-content/uploads/2018/06/Public-health-implications-of-environmental-noise-associated-with-unconventional-oil-and-gas-development.pdf>.

⁴⁹ See OEHHA, CalEnviroScreen 3.0 Tool, Cardiovascular Disease Indicator, <https://oehha.ca.gov/calenviroscreen/indicator/cardiovascular-disease> (last visited Sept. 25, 2020). Cardiovascular disease is linked to exposure to pollution, and the effects of pollution may be greater for people with cardiovascular disease or previous heart attack.

⁵⁰ See OEHHA CalEnviroScreen 3.0 Tool, Low Birth Weight Infant Indicator, <https://oehha.ca.gov/calenviroscreen/indicator/low-birth-weight-infants> (last visited Sept. 25, 2020). Low birth weights are linked to exposure to pollution, and low birth weight babies are more likely to die as infants or develop asthma or other chronic diseases later in life when compared to babies who weigh more.

⁵¹ OEHHA, CalEnviroScreen 3.0 Tool, *supra* note 30 (Census Tract Nos. 6029003304, 6029005103).

⁵² *Id.* (Census Tract No. 6029003304).

⁵³ *Id.* (Census Tract No. 6029005103).

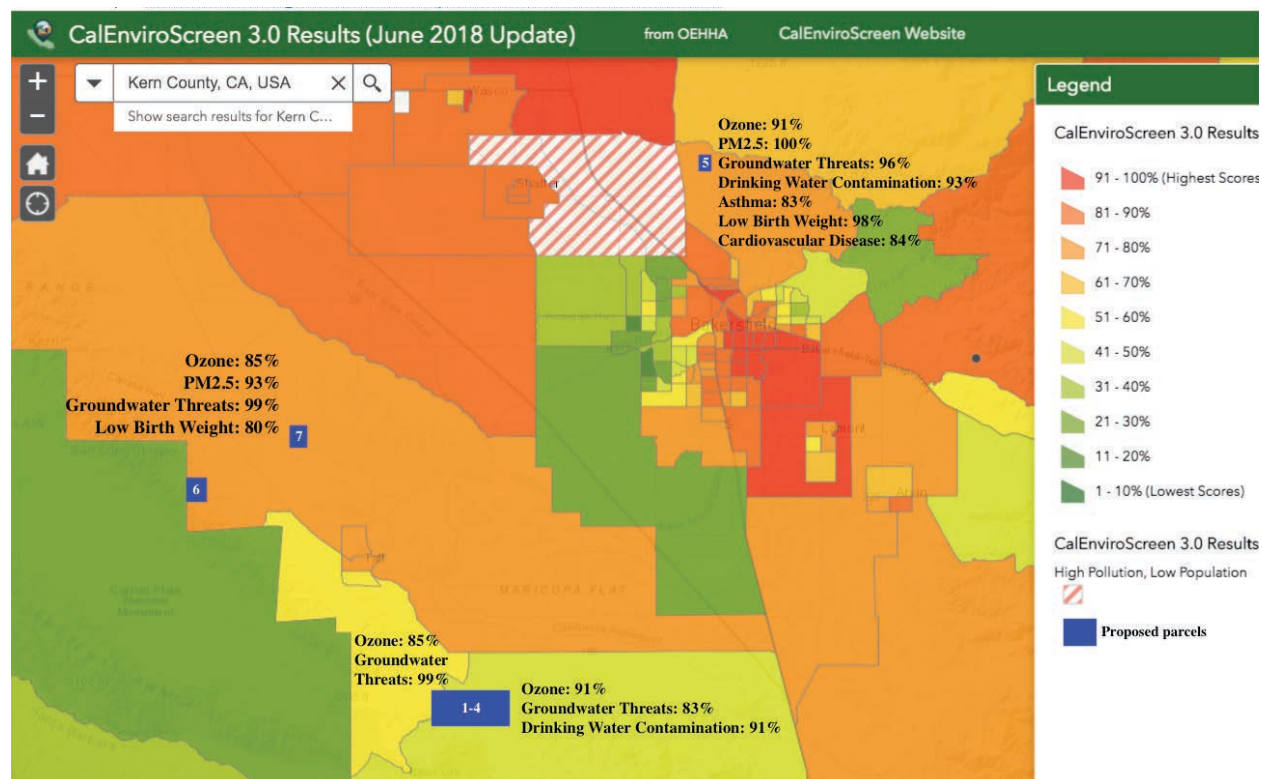


Figure 2 – Pollution indicators for the census tracts in which proposed parcels are located.⁵⁴

BLM can and should analyze and mitigate the potential impacts on these communities at the leasing stage. BLM therefore should supplement the analysis in the Draft EA to determine the air quality and water impacts to the communities next to these seven parcels, and implement measures that would mitigate any significant impacts.

IV. The Draft EA Fails to Adequately Consider Impacts to Groundwater.

The Draft EA fails to adequately consider the potential for local groundwater and drinking water to be contaminated by oil and gas activities on these proposed leases. As discussed in Part II.B, the Draft EA fails 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. The Draft EA does acknowledge that all but one of the proposed parcels are located along the western edge of the Kern Subbasin, which lacks an impermeable layer of Corcoran clay, thus allowing contaminated water to move from shallow aquifers to the deeper aquifers supplying local agricultural and drinking water. Draft EA at 21. However, there is no discussion of the increased risk to the water supply posed by the lack of the clay barrier and the unlined storage of produced water resulting from these proposed leases.

⁵⁴ See *id.*

The Draft EA also fails to adequately consider the impacts of produced water on groundwater use by failing to distinguish among the various sources of water. For example, the Draft EA notes that in the eastern and western sides of the Kern Subbasin, a substantial amount of the water used for operations of the oil wells comes from produced water. Draft EA at 43. The Draft EA assumes that every hydraulically fractured well would consume about 200,000 gallons, or approximately 0.00003 percent of Kern County’s annual water consumption. Draft EA at 43. However, the Draft EA does not differentiate whether that amount is associated with water production from a groundwater basin, out-of-basin areas, or all areas within Kern County. Water production that occurs outside of a groundwater basin may have a dramatic effect on that area’s water supply and adversely affect communities for which that is the sole source of water. The California Department of Water Resources has estimated that the total 2014 out-of-basin water production for the Tulare Lake hydrologic region is about 64,000 acre-feet. Bulletin 160, California Water Plan (2018). The Draft EA states that 8,358 acre-feet of well water was produced on the west side of the Kern County for oil and gas operations—that is 13 percent of the total out-of-basin water production for the entire hydrologic region, posing significant overdraft risks. Draft EA at 43. Therefore, for the Draft EA to adequately consider potential impacts of produced water on groundwater use, impacts must be considered with respect to the localized areas of the groundwater basin, as well as to the groundwater produced from areas located outside of the basin.

In addition, the Draft EA ignores other foreseeable adverse impacts from the increased extraction of “produced water” from developing the proposed leases. The Draft EA notes that Kern County encourages the reuse of produced water and suggests that this would reduce dependence on groundwater. Draft EA at 59. This reasoning erroneously assumes that “produced water” is different from groundwater and therefore mistakenly suggests that reusing produced water would decrease the reliance on aquifers that supply the area’s drinking water. The Draft EA’s analysis also neglects to discuss the effects of land subsidence caused by the produced water. 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. Re-injecting produced water back into the oil producing strata can partly mitigate that loss of volume and pressure, but a reduction in the amount of re-injected fluids would increase the effects of subsidence. California’s State Water Project infrastructure is located along the western edge of the Kern Subbasin where these leases are located.⁵⁵ Increased regional subsidence caused by increase oil and gas production (and associated extraction of “produced water”) would increase the risk of structural damage to that infrastructure.

⁵⁵ California Department of Water Resources, SWP Facilities, <https://water.ca.gov/Programs/State-Water-Project/SWP-Facilities> (last visited Sept. 24, 2020).

The Draft EA fails to discuss the potential for hydraulic fracturing and other extraction activities on these leases to deplete and contaminate groundwater and the drinking water supply. BLM should provide a technical analysis of the potential impacts of developing the proposed leases on the local aquifer systems, land uses, land subsidence, and conveyance, and clarify how and where additional water supply would be obtained to mitigate the depleted or contaminated water supply.

V. The Draft EA Fails to Adequately Consider Climate Impacts.

The Draft EA also fails to adequately consider or mitigate the significant climate impacts of opening up more than 4,000 acres of public lands to new oil and gas leasing. In the Draft EA, BLM estimates that the lifecycle GHG emissions resulting from the proposed leasing action, assuming the drilling of ten wells per year, would be 23,207 metric tons of carbon dioxide equivalent (“MTCO₂E”) per year.⁵⁶ Draft EA at 39. BLM then claims that because “[t]here are currently no established thresholds of significance for GHG,” and this action “would represent 0.05 percent of the 2017 statewide inventory,” such emissions “would not cause a substantial change to the cumulative impact of California’s GHG emissions on global climate.” Draft EA at 40.⁵⁷

There are several problems with these findings. As an initial matter, and contrary to BLM’s assertion, there are established thresholds of significance for greenhouse gas emissions in California. For example, in 2010, the Bay Area Air Quality Management District set a threshold of 1,100 MTCO₂E per year for land use projects other than stationary sources for the review of projects under the California Environmental Quality Act (“CEQA”),⁵⁸ a level that the proposed leasing exceeds more than 20 times. Several other air districts, including the South Coast Air Quality Management District,⁵⁹ the San Luis Obispo County Air Pollution Control District,⁶⁰ the

⁵⁶ To the extent that these calculations assume compliance with the U.S. Environmental Protection Agency’s “New Source Performance Standards” for the control of greenhouse gases, volatile organic compounds, and sulfur dioxide (40 C.F.R. 60 Subpart OOOOa), *see* Draft EA at 18, EPA has published a rescission rule that largely repeals those standards. *See* 85 Fed. Reg. 57,018 (Sept. 14, 2020) (Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review; Final Rule).

⁵⁷ BLM’s draft FONSI does not mention or discuss climate impacts.

⁵⁸ Bay Area Air Quality Management District, “California Environmental Quality Act Air Quality Guidelines” (May 2017) at 2-2, 2-4, https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf. For stationary source projects, the threshold is 10,000 MTCO₂E per year, which the proposed leasing also exceeds.

⁵⁹ South Coast Air Quality Management District, “South Coast AQMD Air Quality Significance Thresholds” (Apr. 2019), <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>.

⁶⁰ San Luis Obispo County Air Pollution Control District, “CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA

Santa Barbara County Air Pollution Control District,⁶¹ the Sacramento Metro Air Quality Management District,⁶² and the Monterey Bay Unified Air Pollution Control District,⁶³ have since established similar thresholds. Moreover, since 2017, CARB's Scoping Plan has recommended "achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts" as an appropriate overall objective for new projects.⁶⁴

While the San Joaquin Valley Unified Air Pollution Control District does not yet have a numerical significance threshold for GHGs, its guidance for addressing GHG impacts provides that:

The effects of project specific GHG emissions are cumulative, and unless appropriately reduced or mitigated their incremental contribution to global climatic change could be considered significant. Valley land-use agencies adopting this guidance as policy for addressing GHG impacts under CEQA, as a lead agency will require all new projects with increased GHG emissions to implement performance based standards, or otherwise demonstrate that project specific GHG emissions have been reduced or mitigated by at least 29%.⁶⁵

In the Draft EA, BLM admits that it has not attempted to comply with this guidance, nor has it made any effort to reduce or mitigate the GHG impacts of this action. *See* Draft EA at 59.

Review" (updated Nov. 14, 2017) at 3-6, https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20Map2019%29_LinkedwithMemo.pdf.

⁶¹ Santa Barbara County Air Pollution Control District, "Environmental Review Guidelines for the Santa Barbara County Air Pollution Control District" (Apr. 30, 2015), at 11-12, <https://www.ourair.org/wp-content/uploads/APCDCEQAGuidelinesApr2015.pdf>.

⁶² Sacramento Metro Air Quality Management District, "SMAQMD Thresholds of Significance Table" (Apr. 2020), <http://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable4-2020.pdf>.

⁶³ Monterey Bay Unified Air Pollution Control District, "Guidelines for Implementing the California Environmental Quality Act" (Feb. 2016) at 4-5, https://www.mbard.org/files/50d38962a/Attachment_Guidelines-for-Implementing-CEQA.pdf.

⁶⁴ CARB, *supra* note 13 at 101.

⁶⁵ San Joaquin Valley Unified Air Pollution Control District, "Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA" (Dec. 17, 2009), http://www.valleyair.org/Programs/CCAP/ghg/ghg_idx.htm.

There are also several inaccuracies and unexplained assumptions in BLM's estimated range of lifecycle GHG emissions resulting from the leasing action. *See* Draft EA at 39-40 and Table 10. First, BLM fails to explain how it calculated production figures separately for conventional and hydraulically fractured wells. The California Geologic Energy Management Division source cited for annual production per well only shows total wells and production for each county, and does not separate out conventional and hydraulically fractured wells. Second, it is unclear how BLM is calculating an annual total of GHG emissions, given that emissions under this proposal would differ significantly in Year 1 compared to Year 10. For example, BLM fails to explain how it is considering changes in production over a well's lifetime, given that wells tend to produce far more oil early in their lives than later on. If overall average per well production of existing fields is used to estimate the production rate of newly drilled wells, this would likely lead to an underestimate of the production rate, especially in Year 1. And given BLM's estimate that ten new wells would be drilled each year, emissions would likely increase significantly over time.

Third, the calculation of direct emissions using the average carbon intensity of crude oil production from the Midway-Sunset and Cienega Canyon fields is oversimplified, given that the carbon intensity (29.3 gCO₂e/MJ vs. 5.8 gCO₂e/MJ, respectively) and production (19.6 million bbl/yr vs. 12,100 bbl/yr) at these fields is vastly different. This analysis also fails to consider the carbon intensity values from other oilfields, such as Kern Front or Asphalto, where leasing will occur under this project. Fourth, BLM fails to adequately explain the "Year 10 Range" in its analysis. It is unclear if this figure represents emissions in year 10, cumulative emissions through year 10, or some kind of average. Since the Draft EA assumes 10 new wells are drilled on each lease each year, it is unclear why this figure is presented as a range instead of a single value and why that range starts at 0. Finally, BLM's calculation of indirect emissions erroneously excludes transport. This row of Table 10 is labeled "Indirect Emissions: Refining and Product Transport." However, the carbon intensity listed is extracted from CARB's CA-GREET 3.0 model for the refinery portion only; the transport portion from CA-GREET 3.0 should also be added.

Furthermore, there is no basis for disregarding the impacts of even a 0.05 percent increase in statewide greenhouse gas emissions. This "drop in the bucket" type approach to considering incremental greenhouse gas impacts is a dangerous and irresponsible way to consider a cumulative impact that exists precisely because of similar incremental GHG increases worldwide. CEQA rejects this approach, stating that "[a] project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions."⁶⁶

⁶⁶ 14 Cal. Code Regs. § 15064.4(b).

California is already dealing with the adverse effects of climate change, including increased risk of wildfires, longer and more frequent droughts, a decline in the 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.⁶⁷ In the past few weeks alone, California has experienced: (1) multiple extreme heat events, causing record breaking temperatures throughout the State and potentially the highest temperature ever recorded on Earth, as well as the hottest month of August in history;⁶⁸ (2) hundreds of wildfires, including five of the ten largest fires in State history, and an already record number of acres burned statewide;⁶⁹ and (3) severe air pollution throughout the State resulting from these fires, including weeks at unhealthy and even hazardous air pollution levels.⁷⁰ These events have caused widespread evacuations, destroyed thousands of homes and other structures, resulted in power outages, and put a huge strain on California's firefighting resources and residents. Further increases in greenhouse gas emissions, especially those that exceed established significance thresholds, will only exacerbate these significant impacts.

Moreover, BLM is incorrect that "methods to correlate specific projects or emission sources to specific impacts have not been sufficiently developed to use in assessing administrative actions such as lease sales." Draft EA at 33. The Draft EA makes no attempt to use the social cost of carbon—or any other meaningful cost metric—to accurately assess the greenhouse gas impacts of this action. The social cost of carbon is a federally-developed tool to assist agencies in evaluating the social benefits of reducing greenhouse gas emissions when analyzing the costs and benefits of agency action. *See California v. Bernhardt*, -- F. Supp. 3d --, 2020 WL 4001480, *23 (N.D. Cal. July 15, 2020). BLM's refusal to even consider such a method to evaluate the impacts of its proposed leasing is arbitrary and capricious. *See id. at*

⁶⁷ State of California, "California's Fourth Climate Change Assessment: Statement Summary Report," (Jan. 16, 2019), https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf.

⁶⁸ Hayley Smith, "A sizzling summer: Hottest August on record in California," Los Angeles Times (Sept. 10, 2020), <https://www.latimes.com/california/story/2020-09-10/a-sizzling-record-august-was-hottest-month-on-record-in-california>.

⁶⁹ Michael McGough, "5 of the 6 largest California wildfires in history started in the past 6 weeks," Sacramento Bee (Sept. 22, 2020), <https://www.sacbee.com/news/california/fires/article245917915.html>.

⁷⁰ Michael Cabanatuan, "Very unhealthy air blankets Bay Area as historic wildfires spread noxious smoke," San Francisco Chronicle (Sept. 11, 2020), <https://www.sfchronicle.com/california-wildfires/article/Very-unhealthy-air-blankets-Bay-Area-15559693.php>; Kellie Hwang, "Yes, the Bay Area just suffered some of its worst-ever air quality days: Charts show how bad," San Francisco Chronicle (Sept. 14, 2020), <https://www.sfchronicle.com/california-wildfires/article/Yes-the-Bay-Area-just-suffered-some-of-its-15567137.php>.

**24-28 (finding BLM’s failure to utilize social cost method in rulemaking to be arbitrary and capricious); *Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1200 (9th Cir. 2008) (even where “there is a range of values, the value of carbon emissions reduction is certainly not zero”); *High Country Conservation Advocates v. U.S. Forest Serv.*, 52 F. Supp. 3d 1174, 1192 (D. Colo. 2014) (explaining that even with “a wide range of estimates about the social cost of GHG emissions,” federal agencies acted arbitrarily in not quantifying the costs).

Finally, nowhere does BLM consider the cumulative climate impacts of this lease sale “when added to other past, present, and reasonably foreseeable future actions,” such as other oil and gas leasing conducted by the Bakersfield Field Office or by BLM within the State of California. *See* 40 C.F.R. § 1508.7. While the Draft EA contains two paragraphs under the heading “Cumulative Impacts to Climate Change,” BLM simply refers back to the emissions estimates for the proposed action and restates its conclusion there. Draft EA at 58.⁷¹ This is insufficient to satisfy the “hard look” required by NEPA. *See San Juan Citizens All. v. BLM*, 326 F. Supp. 3d 1227, 1247-48 (D.N.M. 2018) (finding that BLM violated NEPA by failing to take a hard look at the cumulative effects of oil and gas leases in connection with other past, present, and reasonably foreseeable future actions).

In sum, to restate the September 2018 scoping comments from then-Governor Jerry Brown, 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.”

CONCLUSION

At minimum, BLM may not proceed without first remedying these serious deficiencies in the Draft EA. Given these deficiencies and the impacts of these leases, however, BLM should withdraw its current proposal to open 4,333.58 acres of public lands in California to new oil and gas leasing.

⁷¹ To the extent that BLM is relying upon its prior analysis in the Bakersfield EIS, *see* Draft EA at 59, this is insufficient for the reasons discussed above.

Sincerely,

A handwritten signature in black ink, appearing to read "George Torgun".

GEORGE TORGUN
Deputy Attorneys General
DAVID ZONANA
CHRISTIE VOSBURG
Supervising Deputy Attorneys General

For XAVIER BECERRA
Attorney General

A handwritten signature in blue ink, appearing to read "R. W. Corey".

RICHARD W. COREY
Executive Officer
CALIFORNIA AIR RESOURCES BOARD

Attachment 2



OFFICE OF THE GOVERNOR

September 25, 2020

Nora DeDios
Project Lead
BLM Bakersfield Field Office
ATTN: Oil and Gas Lease Sale
3801 Pegasus Drive
Bakersfield, CA 93308

Re: Environmental Assessment for December 2020 Oil and Gas Lease Sale, DOI-BLM-CA-C060-2020-0120-EA

Dear Ms. DeDios:

In January of this year, the State of California challenged the Bureau of Land Management's (BLM) Hydraulic Fracturing Final Supplemental Environmental Impact Statement for the Bakersfield region for failing to consider the environmental and public health consequences of a plan to allow hydraulic fracturing on public lands. Rather than fix the plan, BLM has begun to implement it by proposing to sell oil and gas leases in areas of Kern County that already suffer disproportionately from the effects of environmental pollution. I am writing in strong opposition to the proposal and the Draft Environmental Assessment and Finding of No Significant Impact that BLM's Bakersfield Field Office issued for it.

The proposal would allow for the development of oil and gas operations on lands next to certain disadvantaged communities, where residents are exposed to significantly more air and water pollution than other parts of the state and currently experience high rates of cardiovascular disease and low birth weights. The proposed leases would only worsen these problems, as studies have demonstrated connections between oil and gas activities and public health impacts such as cancer and preterm birth.

The proposal would also compound our climate crisis. Today, California first responders are grappling with the worst fire season on record. **Seventy-five percent of California's population lives in coastal counties, and our communities** are working to cope with sea level rise. Schools, hospitals, and nursing homes are faced with the need to protect vulnerable populations from increasing high heat days. California residents cannot reliably depend on safe, available water as our snowpack melts earlier and earlier each year.

California has adopted extensive policies to protect public health and combat climate change. We have enacted groundbreaking climate policies, ranging from a price on carbon to strong, enforceable renewable energy mandates and reducing community exposure to harmful air pollutants. At the same time, our economic growth has consistently outpaced that of the rest of the country. As our greenhouse gas emissions fall, our GDP increases. Not only are we **investing in today's innovative low carbon technologies and policies**, we have committed to achieving a carbon neutral economy by 2045 and, just this week, I issued an executive order phasing out sales of gas-powered cars and drastically reducing demand for fossil fuel. California is living proof that addressing climate change and building a powerful economy are complementary, achievable goals.

Yet BLM has proposed to increase oil and gas development on the very lands that the federal government is responsible for preserving and protecting, thereby hurting present and future generations. California state agencies, including the California Department of Fish and Wildlife, and the California Air Resources Board together with the Office of the Attorney General, have submitted comments **that describe the shortcomings of the proposal's** environmental review in greater detail. **BLM's action is at odds with California's** priority to ensure the protection of our natural resources and the health and safety of our residents. I encourage BLM to review **our agencies' input** closely and to work with California to take action **that reflects our state's commitment** to a more sustainable and equitable future.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Gavin Newsom', with a long horizontal flourish extending to the right.

Gavin Newsom
Governor of California

Attachment 3



September 25, 2020

Nora DeDios
Realty Specialist/Project Lead
BLM Bakersfield Field Office
Attn: Oil and Gas Lease Sale
3801 Pegasus Drive
Bakersfield, California 93308
BLM_CA_OG_Lease@blm.gov

Bureau of Land Management Bakersfield Field Office Oil & Gas Lease Sale Draft Environmental Assessment and Finding of No Significant Impact; DOI Control and ePlanning Number DOI-BLM-CA-C060-2020-0120-EA

Ms. DeDios:

The California Department of Fish and Wildlife (CDFW) has reviewed the Draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the December 2020 Oil and Gas Lease Sale from the United States Department of Interior Bureau of Land Management (BLM) Bakersfield Field Office.

Thank you for the opportunity to provide comments and recommendations regarding the activities stemming from the Lease Sale described in the Draft EA/FONSI that may affect California fish and wildlife. We appreciate the opportunity to provide comments regarding the Lease Sale and related activities that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code. We offer our comments as described below as California's Trustee Agency for fish and wildlife.

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish &G. Code, §§ 711.7, subd. (a), 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)).¹ CDFW, in its trustee capacity, has jurisdiction in California over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Fish & G. Code, § 1802). CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on

¹ The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW expects the need to exercise its regulatory authority as provided by the Fish and Game Code for future project-specific activities that will be authorized, in part, if BLM approves all or any portion of the Lease Sale described in the EA/FONSI. As proposed, for example, these future activities may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent these activities will result in otherwise prohibited "take" as defined by State law of any species protected under the Fish and Game Code, including under the California Endangered Species Act (CESA) (*Id.*, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required. (See also *Id.*, §§ 86 (take defined), 2000 (general take prohibition), 2080 (CESA take prohibition), 2085 (same).)

Fully Protected Species: CDFW has jurisdiction over species of birds, mammals, amphibians, reptiles, and fish designated by statute as "fully protected" pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Take and possession of any fully protected species is prohibited, and the Fish and Game Code prohibits CDFW from issuing any related authorization for a general project like the activities described in the Lease Sale EA/FONSI, except as provided by a Natural Community Conservation Plan (NCCP) approved by CDFW. (See generally Fish & G. Code, § 2835.) None of the parcels proposed by BLM as part of the Lease Sale fall within or are covered by a CDFW approved NCCP. The fully protected blunt-nosed leopard lizard (*Gambelia sila*), California condor (*Gymnogyps californianus*), white-tailed kite (*Elanus leucurus*), American peregrine falcon (*Falco peregrinus anatum*), and golden eagle (*Aquila chrysaetos*) are known to occupy habitat within the parcels subject to BLM's proposed Lease Sale. The CDFW EA/FONSI should be revised, at a minimum, to include appropriate measures to ensure prohibited take and possession of all fully protected species is avoided and does not occur. Additional comments on potential impacts to these species are provided below.

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include, 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird). The EA/FONSI should be revised to include appropriate measures to ensure compliance with these provisions of the Fish and Game Code.

Water Pollution: Pursuant to Fish and Game Code section 5650, it is unlawful to deposit in, permit to pass into, or place where it can pass into "Waters of the State" any substance or material deleterious to fish, plant life, or bird life, including non-native species. It is possible that without mitigation measures, implementation of the subsequent development could result in pollution of Waters of the State from storm water runoff or development-related erosion. Potential impacts to the wildlife resources that utilize these watercourses include, but are not limited to, the following: increased sediment input from vegetation removal and ground disturbance causing increased erosion; toxic runoff associated with oil and gas development; temporal or permanent loss of wildlife habitat; and/or impairment of wildlife movement along riparian corridors. The Regional Water Quality Control Board also has jurisdiction regarding discharge and pollution to Waters of the State. The EA/FONSI should be revised to include

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appropriate measures to ensure compliance with this provision of the Fish and Game Code, along with other relevant state law.

PROJECT DESCRIPTION SUMMARY

Proponent: BLM Bakersfield Field Office

Objective: The Draft EA documents the BLM Bakersfield Field Office review of seven parcels totaling 4,333.58 acres nominated through Expressions of Interest for the proposed December 2020 Competitive Oil and Gas Lease Sale. All the Federal mineral estate proposed for leasing is within the jurisdiction of the BLM California, Bakersfield Field Office. All parcels are within Kern County, California. One parcel contains only split-estate (private surface with Federal subsurface minerals). Six parcels contain both split-estate and public lands (public surface with Federal subsurface minerals). Of the total acreage proposed for lease; 3,167.72 acres are privately owned split estate and 1,165.86 acres are publicly owned lands. One parcel is entirely within an existing, administrative oil field boundary and six parcels are within three miles of an existing oil field boundary. The seven parcels analyzed are within lands identified within the Bakersfield Field Office 2014 Approved Resource Management Plan (RMP) as open to oil and gas leasing and the EA/FONSI indicates that the proposed action is in conformance with the 2014 Approved RMP.

Location: The seven parcels proposed for lease are located within Kern County, California. Parcels 1-4, the Cienega Unit, are nearly contiguous and consist of 3,357.24 acres located in the southwestern most region of the San Joaquin Valley, south of Maricopa and the Midway-Sunset Oil Field boundary. Parcel 5, the Poso Unit, consists of 160 acres located in the Sierra foothills on the east side of the San Joaquin Valley, north of Bakersfield and within the Kern Front Oil Field. Parcel 6, the Crocker Flat Unit, consists of 538.06 acres located in the Temblor foothills, on the western side of the San Joaquin Valley, adjacent to the San Luis Obispo County line and approximately ½-mile north and east of the Carrizo Plain National Monument and west of the Midway-Sunset Oil Field boundary. Parcel 7, the Buena Vista Unit, consists of 278.28 acres located on the western side of the San Joaquin Valley at the northern end of the Buena Vista Valley and adjacent to the Asphalto Oil Field boundary on the western border and the Naval Petroleum Reserve 2 and Elk Hills Oil Field on the eastern border. This parcel is also located within the BLM designated Lokern-Buena Vista Area of Critical Ecological Concern (ACEC).

I. General Comments and Recommendations

CDFW offers the comments and recommendations below to assist the BLM Bakersfield Field Office in adequately identify and/or mitigate the significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions detailed below are also included to improve the document.

While BLM, as the Federal Lead Agency, has prepared the EA/FONSI to satisfy the requirements of the National Environmental Policy Act (NEPA), please be advised that private entities conducting oil and gas extraction activities on federal lands and federal mineral estate lands still need to comply with all State laws, including CESA and the Fish and Game Code

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generally. Likewise, to the extent those activities are subject to the regulatory and permitting requirements of any California state or local agency, related review under the California Environmental Quality Act (CEQA) will also be required in most instances. (Pub. Resources Code, § 21000 *et seq.*) The State's regulatory and permitting authority and processes apply to third party (e.g. non-federal) oilfield operations in California on all land administered by BLM whether that land is owned in total by the federal government or land that is under private ownership with federal mineral estate (split-estate). The Draft EA explicitly states that BLM requires lessees to comply with all State and local laws and regulations for oil and gas extraction, but it does not state this is required for all relevant State laws and regulations, such as CESA and Fish and Game Code.

As a State Agency, the issuance of any CDFW permit, agreement, or other entitlement under the Fish and Game Code for project-specific activities related to oil and gas development occurring on federal lands (BLM surface) or private lands with federal mineral estate (non-BLM surface or split-estate) is subject to CEQA. Such permits may include, for example, an incidental take permit (ITP) pursuant to Fish and Game Code section 2081 subdivision (b), if those activities would result in otherwise prohibited take of species protected by CESA. Those activities may also be subject to the notification and other regulatory requirements with a Lake or Streambed Alteration Agreement (LSAA) pursuant to Fish and Game Code section 1600 *et seq.*, if there is potential to change the bed, bank, and channel of streams or lakes, including alterations to riparian vegetation. Based on the information contained within the Draft EA, BLM's approval of leases and projects within these seven parcels have the potential to impact numerous special-status species and could have significant impacts on the sensitive habitats that support these species.

This Draft EA discloses potential environmental impacts associated with the December 2020 Competitive Oil and Gas Lease Sale, not at a site- or project-specific level. Oil and gas leasing and development on federal lands and federal mineral estate requires multiple stages of environmental analysis and authorization. Pursuant to NEPA, BLM is required to review and address the direct, indirect, and cumulative effects of the specific action proposed at each of these stages. During project-specific analyses, BLM will finalize project mitigation measures, Best Management Practices (BMPs), and stipulations from the 2014 Approved RMP. However, as currently written, the RMP does not include mitigation measures, BMPs, or stipulations that are adequate to conserve, protect, and manage the fish, wildlife, native plants, and habitats necessary for biologically sustainable populations of those species within the parcels proposed for lease, specifically for State-listed threatened, endangered, and fully protected species. BLM should revise the EA/FONSI and commit for all subsequent environmental analyses and authorizations to address, avoid, minimize, and mitigate all impacts to State-listed threatened, endangered, fully protected, and species of special concern as described in more detail below.

Furthermore, a major assumption for this environmental analysis is the number of new wells on new leases analyzed in the 2012 Final Environmental Impact Statement (EIS) that would be developed per year. The Draft EA states that 2012 EIS/Proposed Resource Management Plan (RMP), the 2014 Approved RMP, and the 2019 Final Supplemental EIS (SEIS) predicts (up to) 40 new wells on new leases per year with (up to) 4 of those new wells hydraulically fractured, and that BLM would hold four lease sales per year. From there, the EA provides a "step down to the analysis assumption" of (up to) 40 new wells on new leases per year divided by (up to) 4

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lease sales per year equals 10 new wells on new leases per year per lease sale, so this EA assumes 10 wells per year would be drilled as a result of this proposed lease sale, comprised of 1 well that is hydraulically fractured and 9 wells that are not. However, the Draft EA is unclear if these 10 new wells per year would be split between the seven parcels being offered in this lease sale and if these limitations in the number of wells drilled per year are made conditions of the lease sale for each parcel. The Draft EA is also unclear as to whether BLM would deny the Application for Permit to Drill or if BLM would continue to permit additional wells per year on a particular parcel.

From the assumption on the number of wells drilled per year, the Draft EA provides a calculation of the estimated surface disturbance that would result from 10 wells per year based on analysis in the 2019 Final SEIS. This calculation results in 18.6 acres used for disclosure of potential environmental effects resulting from this proposed lease sale. The Draft EA from this point forward in the document drops that this 18.6 acres is *per year*, including numerous times within the Biological Resources section where the Draft EA states “it is estimated that effects would be limited to up to 10 wells with up to 18.6 acres of habitat disturbance”. However, for lease terms of 10 years as the Draft EA states, this would result in 186 acres for this proposed lease sale.

The Draft EA is also unclear if this 18.6 acres per year is split between the seven parcels being offered in this lease sale and if these limitations are made conditions of the lease sale for each parcel. The Draft EA is also unclear where the disturbance calculation for new well pads was obtained. Most well pads sizes in the Incidental Take Permits CDFW has issued recently have been 100 feet by 200 feet, 0.46 acre per well pad, with exploratory well pads generally requiring a larger size, up to one to two acres. At the smallest, CDFW has permitted well pads of 170 feet by 75 feet (0.3 acre), but these were within an already developed oil field where the operator did not need to install much new infrastructure (access roads, pipelines, etc.). The EA is unclear as to whether BLM would deny an Application for Permit to Drill if the total disturbance acreage is projected to exceed the predicted 18.6 acres across the seven parcels in a given calendar year or if BLM would continue to permit development of larger well pads, additional wells and infrastructure that would result in larger disturbance. CDFW recommends that a cap on disturbance acreage per year be clearly delimited and that a system for tracking and identifying where the disturbance occurred be discussed in the EA. Further, CDFW advises that once the disturbance cap is met, that no other Application(s) for Permit to Drill will be approved and that this is included as a measure in the EA to ensure that surface disturbance does not exceed what is predicted and analyzed in the EA.

The Draft EA acknowledges that impacts to streams are possible with oil and gas development within all of the parcels, but states in the Water Resources Section, Surface Water subsection, that “Well locations and related infrastructure (roads, tanks, powerlines, etc.) would be sited to avoid direct impact or alteration of waterways (under the BLM standard lease stipulations, a proposed well can be offset up to 200 meters), and every effort would be made to avoid features requiring the discharge of dredge or fill materials into waters of the US. Furthermore, if a “blue line” drainage cannot be avoided, California Department of Fish and Wildlife (CDFW) notification would be required, and CDFW may require the applicant to apply for a Lake and Streambed Alteration Agreement (Section 1600)”. Please be advised that any activity that may divert or obstruct the natural flow of any stream, change the bed, channel, or bank of any stream, use material from any stream, or deposit or dispose of material into any stream, not only “blue line”

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streams, requires notification to CDFW. This notification requirement, pursuant to Fish and Game Code section 1602, includes streams that are ephemeral or intermittent and regardless of whether they are perennial or flow episodically and includes activities that occur within the lateral-most extent of flow at the streams' highest flow levels. As noted above, CDFW's issuance of a Lake or Streambed Alteration Agreement may require CEQA compliance.

Also, as stated above, pursuant to Fish and Game Code section 5650, it is unlawful to deposit in, permit to pass into, or place where it can pass into "Waters of the State" any substance or material deleterious to fish, plant life, or bird life, including non-native species. It is possible that without appropriate mitigation measures activities associated with oil and gas development could result in pollution of Waters of the State from construction-related erosion.

The Draft EA states that impacts to streams will be minimized by following Best Management Practices and Mitigation Measures stated in the Hydrology and Water Quality Sections of the Kern County Supplemental Recirculated Environmental Impact Report (EIR) for Revisions to Title 19 – Kern County Zoning Ordinance – (2020 A), Focused on Oil and Gas Local Permitting. This Recirculated EIR is currently in draft, has not been finalized, and these measures are subject to change. Additionally, the Revised Kern County Zoning Ordinance Chapter 19.98 only applies to oil and gas activities within Kern County, and the Ordinance (and associated BMPs) only apply on lands over which Kern County has land use jurisdiction, specifically non-federal (e.g., non-BLM owned) lands.

The Draft EA states that stipulations will be applied to all parcels proposed for lease as part of this lease sale. The stipulation 'Controlled Surface Use (CSU) – Sensitive Species' is for the purpose of minimizing or eliminating adverse effects associated with fluid mineral development on federal candidate, State-listed, and BLM sensitive species. This stipulation is not sufficient to protect State-listed threatened, endangered, State candidate for listing, and State fully protected species because it includes the statement "Presence of habitat or species may result in the proposed action being moved more than 200 meters but not more than a quarter-mile or off of the lease and prohibition of activities during seasonal use period". CDFW is aware that BLM can grant exceptions and modifications and does not require coordination with CDFW on State-listed and fully protected species. While the Draft EA states that processing times for proposed actions may be delayed beyond established standards to accommodate species surveys, and coordination with the USFWS and California Department of Fish and Game, the 2014 RMP states "BLM policy *may* (emphasis added) also require coordination with the USFWS or California Department of Fish and Game". It does not require lessees to consult with CDFW if State-listed, candidate, or fully protected species are present to determine if appropriate avoidance measures are feasible, or if avoidance of a State-listed or candidate species is not feasible to obtain a State ITP, or if avoidance of a State fully protected species is not feasible to immediately consult with CDFW. This stipulation is also unclear if the species surveys are species-specific protocol-level surveys.

The Draft EA states, "measures to minimize impacts, such as those contained in Appendix H would reduce the amount of habitat and species impacted". However, CDFW notes that there is no Appendix H for the circulated Draft EA. It is presumed that BLM is referring to measures listed in Appendix G which are to be implemented to *minimize* the potential for take of individuals of federally listed species, but not avoid it. CDFW is aware that the federally listed

Nora DeDios
BLM Bakersfield Field Office
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threatened and endangered species are provided take authorization under the United States Fish and Wildlife Service San Joaquin Valley Oil and Gas Programmatic Biological Opinion issued to BLM. However, since most of these species are also listed as threatened or endangered by the State, implementation of these measures could allow lessees to engage in take of State-listed species in violation of the CESA. Further, there are multiple species that are not federally listed but are State fully protected, listed, or are a candidate species for listing that could be impacted and have been documented to occur within many of the seven parcels. CDFW recommends as part of the subsequent site-specific environmental analysis of potential impacts from a proposed project, BLM revise the EA to require that lessees consult with CDFW regarding the potential for State fully protected, endangered, threatened, and candidate species occurrence on the parcel, survey needs, take avoidance measures, or to discuss how to acquire an ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b) for State listed and candidate species.

In the Cumulative Impacts Section - Biological Resources of the Draft EA, the assumption that the cumulative effect of compensating and replacing habitat as development occurs will slow the rate of habitat loss, degradation, and fragmentations is flawed. As habitat is incrementally disturbed, habitat is not always incrementally conserved, and it does not necessarily help to prevent substantial habitat losses as the Draft EA states. Further, the Draft EA states that the requirement for compensation and replacement acres on BLM lands will help secure lands for the reserve and corridor system. CDFW understands that the reserve and corridor system are lands that are managed to maintain 90 percent of the habitat in reserves and 75 percent of the habitat in the corridors. However, CDFW also understand that very little, if any, acreage of these reserve and corridor lands placed in this system will be permanently protected from future development through the recordation of a conservation easement. Allowing development on these lands that are required as compensation or replacement adds to habitat fragmentation and degradation for the species listed below and does not constitute mitigation when a permanent land protection instrument, such as a conservation easement that stipulates and restricts where and how much development (e.g., no more than 10 percent of the acreage) can occur, is not recorded.

Finally, the FONSI is based on the information contained in the Draft EA and it was determined that the Proposed Action of offering a competitive oil and gas lease auction for seven parcels encompassing 4,333.58 acres of federal mineral estate will not have significant environmental impacts beyond those analyzed in the 2012 Final EIS/Proposed RMP and 2019 SEIS and is in conformance with the 2014 Approved RMP. While the act of leasing the parcels has no direct effect on the environment, it is reasonably foreseeable that leasing could lead to oil and gas development, thus a reasonable level of development analysis was included in the environmental analysis. Therefore, the last item in the Ten Significance Criteria described in 40 CFR 1508.27 of the FONSI regarding the response to whether the proposed action threatens to violate Federal, State, or local law or requirements for the protection of the environment is not correct. As written, the Draft EA, 2012 Final EIS/Proposed RMP, 2019 SEIS, 2014 Approved RMP, includes measures that could result in lessees violating Fish and Game Code and/or CESA.

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II. Specific Special-Status Species Comments

As currently drafted, the measures in the Draft EA described to mitigate impacts to biological resources may not be sufficient to reduce impacts to a level that is less than significant. In particular, CDFW is concerned regarding adequacy of mitigation measures for special-status species in the parcels proposed for lease, including, but not limited to, the State fully protected and State and federally endangered blunt-nosed leopard lizard (*Gambelia sila*), the State fully protected and State and federally endangered California condor (*Gymnogyps californianus*), the State and federally endangered giant kangaroo rat (*Dipodomys ingens*), the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*), the State threatened San Joaquin antelope squirrel (*Amмосpermophilus nelsoni*), the State threatened Swainson's hawk (*Buteo swainsoni*), the State fully protected golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*), the State species of special concern burrowing owl (*Athene cunicularia*), the State and federally endangered and California Rare Plant Rank (CRPR) 1B.1 Bakersfield cactus (*Opuntia basilaris* var. *treleasei*) and the State and federally endangered and CRPR 1B.1 California jewelflower (*Caulanthus californicus*). In addition, CDFW is concerned regarding adequacy of measures for oil and gas activities which are subject to CDFW's lake and streambed alteration regulatory authority.

Blunt-nosed leopard lizard (BNLL)

Issue: BNLL are known to occur within the parcels proposed for lease (CDFW 2020). Suitable BNLL habitat includes areas of grassland, upland scrub, and intermittent washes that contain requisite habitat elements, such as small mammal burrows. BNLL also use open space patches between suitable habitats, including disturbed sites and unpaved access roadways. Aerial imagery indicates suitable habitat is present within the lease area. Therefore, ground disturbance within these parcels proposed for lease has the potential to significantly impact BNLL, a Fully Protected Species. The Draft EA states BLM would require pre-construction surveys and implementation of mitigation measures to reduce the potential for these impacts to BNLL, however some of the measures may allow take such as "installing a flashing barrier around the project footprint and escorting vehicles through BNLL activity areas". Installation of flashing or exclusion fencing around a project footprint could result in take of BNLL by capture or direct mortality if they cannot escape. As stated above, project related take of any fully protected species is prohibited outside of authorization pursuant to an NCCP; the parcels proposed for lease are not within an approved NCCP area.

Specific impact: Without appropriate avoidance and minimization measures for BNLL, potentially significant impacts associated with ground-disturbing activities associated with oil and gas development include burrow collapse, reduced reproductive success, reduced health and vigor of eggs and/or young, and capture within a fenced area in addition to direct mortality in violation of Fish and Game Code.

Evidence impact is potentially significant: The BNLL, endemic to California, historically occurred throughout the San Joaquin Valley and adjacent foothills of central California. The species now inhabits only scattered locations within the Valley, less than 15% of their former range (USFWS 2010). Threats to the BNLL include habitat destruction,

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fragmentation, and degradation; pesticides; alterations of vegetation communities including spread of invasive plants that restrict movement of the BNLL (USFWS 2010a). Habitat loss resulting from agricultural, urban, and industrial development, including petroleum and mineral extraction, is the primary threat to BNLL (ESRP 2019a). Therefore, ground disturbance associated with oil and gas extraction activities has the potential to significantly impact local BNLL populations.

Recommended Potentially Feasible Mitigation Measures

To evaluate potential impacts to BNLL associated with future project development, CDFW recommends conducting the following evaluation of project areas and including the following mitigation measures in subsequent environmental analysis and that these measures be made conditions of approval for future project development.

BNLL Surveys

Prior to initiating any vegetation- or ground-disturbance activities, CDFW recommends conducting surveys in accordance with the “Approved Survey Methodology for the Blunt-nosed Leopard Lizard” (CDFW 2019). This recommended survey protocol, designed to optimize BNLL detectability, reasonably assures CDFW that ground-disturbance will not result in take of this fully protected species when surveys are negative.

CDFW advises completion of BNLL surveys no more than one year prior to initiation of ground disturbance. Please note that protocol-level surveys must be conducted on multiple dates during late spring, summer, and fall and that within these time periods there are specific protocol-level date, temperature, and time parameters which must be adhered to. As a result, protocol-level surveys for BNLL are not synonymous with 30-day “preconstruction surveys” often recommended for other wildlife species. In addition, the BNLL protocol specifies different survey effort requirements based on whether the disturbance results from maintenance activities or if the disturbance results in habitat removal (CDFW 2019).

BNLL Take Avoidance

BNLL detection during protocol-level surveys warrants consultation with CDFW to discuss how to implement ground-disturbing activities and avoid take, if possible.

Giant kangaroo rat (GKR)

Issue: GKR and their habitat is known to occur within the parcels proposed for lease (CDFW 2020). These species inhabit sandy-loam soils located in open grassland habitat containing widely scattered shrubs and alkali desert scrub. Aerial imagery indicates suitable habitat is present within the lease area therefore, there is potential for GKR to occur within and/or colonize project areas. The Draft EA states BLM would require preconstruction surveys and implementation of mitigation measures to reduce the potential for impacts to this species, including, trapping to temporarily remove animals from the construction site, and designing project footprints to avoid burrows when possible. It is unclear if the “preconstruction surveys” are protocol-level trapping surveys to determine presence of GKR or if these are a habitat assessment to identify sign of GKR. Further, trapping and relocation

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activities is a form of take which is prohibited under Fish and Game Code section 2080 except as otherwise authorized pursuant to Fish and Game Code section 2081.

Specific impact: Without appropriate avoidance and minimization measures for GKR, significant impacts resulting from ground-and vegetation-disturbing activities associated with construction of the Project include burrow collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals.

Evidence impact is potentially significant: Habitat loss resulting from agricultural, urban, and industrial development, including petroleum and mineral extraction is the primary threat to GKR. Very little suitable habitat for these species remains along the western edge of the San Joaquin Valley (USFWS 1998). As a result, if the parcels proposed for lease are occupied by GKR, ground disturbance associated with oil and gas extraction activities have the potential to significantly impact local populations of the species.

Recommended Potentially Feasible Mitigation Measures

To evaluate potential impacts to GKR associated with future project development, CDFW recommends conducting the following evaluation of project areas and including the following mitigation measures in subsequent environmental analysis and that these measures be made conditions of approval for future project development.

GKR Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of any subsequent environmental analysis to determine if the project area or its immediate vicinity contains suitable habitat for GKR.

GKR Trapping Surveys

If suitable habitat for GKR is identified on the Project site CDFW recommends that a trapping plan for determining presence of GKR be submitted to and approved by CDFW prior to subsequent trapping efforts. CDFW recommends these surveys be conducted by a qualified biologist who holds a Memorandum of Understanding for GKR. CDFW further recommends that these surveys be conducted between April 1 and October 31, when kangaroo rats are most active and well in advance of ground-disturbing activities to determine if impacts to GKR will occur.

GKR Avoidance

If suitable habitat is present and trapping is not feasible, CDFW advises maintenance of a 50-foot minimum no-disturbance buffer around all small mammal burrows of suitable size for GKR.

GKR Take Authorization

If GKR are found within the project area during surveys or construction-related activities, consultation with CDFW is advised to discuss how to implement the Project and avoid take, or if avoidance is not feasible, to discuss how to acquire an ITP prior to any ground-disturbing activities, pursuant Fish and Game Code section 2081 subdivision (b).

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San Joaquin kit fox (SJKF)

Issue: SJKF is known to occur within the parcels proposed for lease (CDFW 2020). Presence/absence in any one year is not necessarily a reliable indicator of SJKF potential to occur on a site. SJKF may be attracted to project areas due to the type and level of ground-disturbing activities and the loose, friable soils resulting from intensive ground disturbance. As a result, there is potential for SJKF to colonize the project area or to occupy adjacent grassland. Detection of San Joaquin kit fox dens that cannot be avoided by the no-disturbance buffers described in the USFWS's 2011 "Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance" also warrants consultation with CDFW to discuss how to avoid take or to discuss how to acquire an ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b).

Specific impact: Without appropriate avoidance and minimization measures for SJKF, potential significant impacts associated with oil and gas development activities include den collapse, inadvertent entrapment, entombment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals.

Evidence impact is potentially significant: San Joaquin kit foxes are endemic to California and were historically distributed throughout the San Joaquin Valley, adjacent foothills, and valleys in the coastal mountains of central California (CDFG 1995). Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to SJKF (Cypher et al. 2013). Therefore, ground disturbance associated with oil and gas development have the potential to significantly impact local SJKF populations.

Recommended Potentially Feasible Mitigation Measures

To evaluate potential impacts to SJKF associated with future project development, CDFW recommends conducting the following evaluation of project areas and including the following mitigation measures in subsequent environmental analysis and that these measures be made conditions of approval for future project development.

SJKF Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of any subsequent environmental analysis to determine if individual Project sites or their immediate vicinity contains suitable habitat for SJKF.

SJKF Surveys

If suitable habitat is present, CDFW recommends assessing presence/absence of SJKF by conducting surveys following the USFWS "Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance" (2011). Specifically, CDFW advises conducting these surveys in all areas of potentially suitable habitat no less than 14 days and no more than 30 days prior to beginning of ground disturbing activities. In addition, CDFW advises that these surveys extend out to 200-feet from the project area boundaries.

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SJKF Avoidance

CDFW recommends implementing no-disturbance buffers, as described in the USFWS “Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance” (2011) around den sites.

SJKF Take Authorization

SJKF detection warrants consultation with CDFW to discuss how to avoid take, or if avoidance is not feasible, to discuss how to acquire an ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b).

San Joaquin antelope squirrel (SJAS)

Issue: SJAS are known to occur within the parcels proposed for lease (CDFW 2020). Suitable SJAS habitat includes areas of grassland, upland scrub, and alkali sink habitats that contain requisite habitat elements, such as small mammal burrows. Aerial imagery indicates suitable habitat is present within the lease area. Therefore, ground disturbance associated with oil and gas development has the potential to significantly impact local SJAS populations. The Draft EA states BLM would require pre-construction surveys and implementation of mitigation measures, such as monitoring for SJAS activity patterns, avoidance of potential burrows, hand removal of shrubs to increase visibility, checking below vehicles and equipment, and destruction of potential burrows only when animals are observed to be away from the burrow, to reduce potential impacts to these species. The Draft EA also states that “these measures are currently being reviewed by the California Department of Fish and Game (CDF&G)”, however, CDFW is unaware that these measures have been provided for review. It is also unclear if the pre-construction surveys are being conducted during appropriate temperature conditions for this species to maximize detectability.

Specific impact: Significant impacts resulting from ground-and vegetation-disturbing activities associated with construction include burrow collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals.

Evidence impact is potentially significant: Habitat loss resulting from agricultural, urban, and industrial development, including petroleum and mineral extraction, is the primary threat to SJAS. Very little suitable habitat for this species remains along the western floor of the San Joaquin Valley (ESRP 2019b). As a result, ground-disturbing activities associated with oil and gas development have the potential to significantly impact local populations of SJAS.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to SJAS associated with future project development, CDFW recommends conducting the following evaluation of project areas and including the following mitigation measures in subsequent environmental analysis and that these measures be made conditions of approval for future project development.

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SJAS Surveys

In areas of suitable habitat, CDFW recommends that a qualified biologist conduct focused daytime visual surveys for SJAS using line transects with 10- to 30-meter spacing. CDFW further advises that these surveys be conducted between April 1 and September 30, during appropriate conditions. Conditions considered appropriate for SJAS include daytime temperatures between 68–86° F (CDFG 1990).

SJAS Avoidance

If suitable habitat is present and surveys or trapping are not feasible, CDFW advises maintenance of a 50-foot minimum no-disturbance buffer around all small mammal burrows of suitable size for SJAS.

SJAS Take Authorization

SJAS detection warrants consultation with CDFW to discuss how to avoid take, or if avoidance is not feasible, to discuss how to acquire an ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b).

Swainson's hawk (SWHA)

Issue: SWHA have the potential to nest and/or forage within the parcels proposed for lease. Without appropriate mitigation measures, there is the potential for SWHA to be significantly impacted by oil and gas development activities.

Specific impacts: Without appropriate avoidance and minimization measures, potential significant impacts that may result from oil and gas activities include nest abandonment, loss of nest trees and habitat, loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), displacement caused by human activity, and direct mortality.

Evidence impact is potentially significant: SWHA exhibit high nest-site fidelity year after year and lack of suitable nesting habitat in the San Joaquin Valley limits their local distribution and abundance (CDFW 2016). The activities associated with oil and gas development involve noise, ground disturbance, movement of workers, and potential vegetation/tree removal that could affect nests and has the potential to result in nest abandonment which could significantly impacting local nesting SWHA.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to SWHA associated with future project development, CDFW recommends conducting the following evaluation of project areas and including the following mitigation measures in subsequent environmental analysis and that these measures be made conditions of approval for future project development.

SWHA Surveys

To evaluate potential impacts, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting following the species-specific SWHA survey methodology (SWHA TAC 2000) prior to project implementation. The survey protocol includes early season surveys to assist the project proponent in implementing necessary avoidance and minimization measures, and in identifying active nest sites prior to initiating ground-disturbing activities.

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SWHA No-disturbance Buffer

If ground-disturbing activities are to take place during the typical bird breeding season (March 1 through September 15), CDFW recommends additional pre-activity surveys for active nests be conducted by a qualified biologist no more than 10 days prior to the start of Project implementation. CDFW recommends a minimum no-disturbance buffer of ½ mile be delineated around active nests until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.

SWHA Take Authorization

Detection of an active SWHA nest warrants consultation with CDFW to discuss how to avoid take, or if avoidance is not feasible, to discuss how to acquire an ITP prior to project implementation, pursuant to Fish and Game Code section 2081 subdivision (b).

Fully Protected Raptors

Issue: The State fully protected and State and federally endangered California condor, the State fully protected golden eagle, and the State fully protected white-tailed kite have the potential to nest and/or forage in the parcels proposed for lease, in particular within the Cienega and Crocker Flat Units (CDFW 2020). Without appropriate mitigation measures, Project activities conducted within occupied territories have the potential to significantly impact these species. As discussed in BLM Oil & Gas guidelines (Appendix D) and the sample provisions from the Oil and Gas PBO (Appendix H), implementation guidelines were designed to eliminate or minimize hazards to California condors, but there is no requirement to consult with CDFW regarding these activities. We recommend CDFW be contacted well in advance of any oil and gas development activities in areas where these species may occur to determine appropriate avoidance measures as there can be no take of these species.

Specific Impacts: Potentially significant impacts that may result from Project activities include nest abandonment, loss of nest opportunities, and/or loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), displacement caused by human activity, and direct mortality.

Evidence impact would be significant: The Project will involve noise, ground disturbance, and movement of workers that may occur directly adjacent to habitat features with potential to serve as nest sites have the potential to significantly impact fully protected raptor populations.

Recommended Mitigation Measure(s)

To evaluate potential impacts to fully protected raptors associated with future project development, CDFW recommends conducting the following evaluation of project areas and including the following mitigation measures in subsequent environmental analysis and that these measures be made conditions of approval for future project development.

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Fully Protected Raptor Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of any subsequent environmental analysis to determine if the Project site or its vicinity (within ½ mile) contains suitable habitat features for fully protected raptors.

Fully Protected Raptor Surveys

CDFW recommends that focused surveys be conducted by experienced biologists at the Project site prior to Project implementation. To avoid impacts to these species, CDFW recommends conducting these surveys in accordance with any appropriate species-specific protocols developed for these species (e.g., USFWS 2010b). If Project activities are to take place during the typical bird breeding season (March 1 through September 15), CDFW recommends that additional pre-activity surveys for active nests be conducted by a qualified biologist no more than 10 days prior to the start of Project activity.

Fully Protected Raptor Avoidance

In the event that a fully protected raptor species is found within ½ mile of the Project site, implementation of avoidance measures is warranted. CDFW recommends that a ½-mile no-disturbance buffer be implemented and that a qualified wildlife biologist be on-site during all Project-related activities. If the ½-mile no-disturbance buffer cannot feasibly be implemented, contacting CDFW to assist with providing and implementing additional avoidance measures is recommended. Fully addressing potential impacts to fully protected raptor species and requiring measurable and enforceable mitigation in the Final EA is recommended.

Burrowing Owl (BUOW)

Issue: BUOW have been documented to occur within the parcels proposed for lease (CDFW 2020). BUOW inhabit open grassland containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover. The parcels proposed for lease supports grassland habitat, therefore, there is potential for BUOW to occur within or colonize the Project areas. The Draft EA states that burrowing owl burrows would be treated like potential kit fox dens in that they would be monitored for use before destruction or plugging, allowing detection of burrowing owl use. The Draft EA also states that if burrowing owl use is detected and the burrow cannot be avoided, burrow destruction or plugging would occur only after the owl has vacated the site and some burrows sites may be lost, but individual owls should avoid becoming entrapped inside burrows. CDFW does not concur that this is appropriate to avoid impacts to this species.

Specific impact: Potentially significant direct impacts associated with Project construction include burrow collapse, inadvertent entrapment, nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.

Evidence impact is potentially significant: BUOW rely on burrow habitat year-round for their survival and reproduction. Habitat loss and degradation are considered the greatest threats to BUOW in California's Central Valley (Gervais et al. 2008). Therefore, subsequent ground-disturbing activities associated with the Project have the potential to significantly

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impact local BUOW populations. In addition, and as described in CDFW's "Staff Report on Burrowing Owl Mitigation" (CDFG 2012), excluding and/or evicting BUOW from their burrows is considered a potentially significant impact under CEQA.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to BUOW associated with future project development, CDFW recommends conducting the following evaluation of project areas and including the following mitigation measures in subsequent environmental analysis and that these measures be made conditions of approval for future project development.

BUOW Surveys

CDFW recommends assessing presence/absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium's "Burrowing Owl Survey Protocol and Mitigation Guidelines" (CBOC 1993) and CDFW's Staff Report on Burrowing Owl Mitigation" (CDFG 2012). Specifically, CBOC and CDFW's Staff Report suggest three or more surveillance surveys conducted during daylight with each visit occurring at least three weeks apart during the peak breeding season (April 15 to July 15), when BUOW are most detectable. In addition, CDFW advises that surveys include a 500-foot buffer around the project area.

BUOW Avoidance

Should a BUOW be detected, CDFW recommends no-disturbance buffers, as outlined in the "Staff Report on Burrowing Owl Mitigation" (CDFG 2012), be implemented prior to and during any ground-disturbing activities. Specifically, CDFW's Staff Report recommends that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

* meters (m)

BUOW Passive Relocation and Mitigation

If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that according to the Staff Report (CDFG 2012), exclusion is not a take avoidance, minimization, or mitigation method and is considered a potentially significant impact under CEQA. However, if necessary, CDFW recommends that burrow exclusion be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. CDFW recommends replacement of occupied burrows with artificial burrows at a ratio of 1 burrow collapsed to 3 artificial burrows constructed (3:1) as

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mitigation for the potentially significant impact of evicting BUOW. Because BUOW may attempt to colonize or re-colonize an area that will be impacted, CDFW recommends ongoing surveillance at a rate that is sufficient to detect BUOW if they return.

Other State Species of Special Concern and Watch List Species

Issue: LeConte's thrasher, prairie falcon (*Falco mexicanus*), short-nosed kangaroo rat (*Dipodomys nitratooides brevinasus*), Tulare grasshopper mouse (*Onychomys torridus tularensis*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*), California legless lizard (*Anniella* spp.), coast horned lizard (*Phrynosoma blainvillii*), and American badger (*Taxidea taxus*) can inhabit grassland and upland scrub habitats (Shuford and Gardali 2008, Thomson et al. 2016). All the species mentioned above have been documented to occur in the vicinity of the parcels proposed for lease, which support requisite habitat elements for these species (CDFW 2020).

Specific impact: Without appropriate avoidance and minimization measures for these species, potentially significant impacts associated with ground disturbance include nest/den/burrow abandonment, which may result in reduced health or vigor of eggs and/or young, and direct mortality.

Evidence impact is potentially significant: Habitat loss threatens all of the species mentioned above (Shuford and Gardali 2008, Thomson et al. 2016). As a result, ground- and vegetation-disturbing activities associated with development of the Project have the potential to significantly impact local populations of these species.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to special-status species associated with future project development, CDFW recommends conducting the following evaluation of project areas and including the following mitigation measures in subsequent environmental analysis and that these measures be made conditions of approval for future project development.

Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of any subsequent environmental analysis to determine if project areas or their immediate vicinity contain suitable habitat for the species mentioned above.

Surveys

If suitable habitat is present, CDFW recommends that a qualified biologist conduct focused surveys for applicable species and their requisite habitat features to evaluate potential impacts resulting from ground- and vegetation-disturbance.

Avoidance

Avoidance whenever possible is encouraged via delineation and observance a 50-foot no-disturbance buffer around occupied dens of mammals, like the American badger outside of the maternity season, as well as burrows which can provide refuge for small mammals, reptiles, and amphibians, and 250 feet around nests of special-status bird species or natal American badger dens.

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Special-Status Plant Species

Issue: Bakersfield cactus and California jewelflower have potential to occur in the parcels proposed for lease (CDFW 2020). The Draft EA states that under the oil and Gas Programmatic BO, any populations discovered will be avoided by a 50-foot buffer, however, there is no requirement to conduct protocol-level botanical surveys or to consult with CDFW regarding potential impacts to these species from oil and gas development activities.

Specific impact: Without appropriate avoidance and minimization measures for Bakersfield cactus and California jewelflower, potential significant impacts associated with subsequent construction include loss of habitat, loss or reduction of productivity, and direct mortality.

Evidence impact would be significant: Bakersfield cactus and California jewelflower are threatened by habitat loss, development, vehicles, foot traffic, recreational activities, grazing, invasive, non-native plants, herbicides, and road creation and maintenance (CNPS 2020). Many of these threats have the potential to occur as a result of the oil and gas activities.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to special-status plants associated with future project development, CDFW recommends conducting the following evaluation of project areas and including the following mitigation measures in subsequent environmental analysis and that these measures be made conditions of approval for future project development.

Special-Status Plant Habitat Assessment

CDFW recommends that a qualified botanist conduct a habitat assessment in advance of any subsequent environmental analysis to determine if individual Project sites or their immediate vicinity contain suitable habitat for special-status plant species.

Focused Botanical Surveys

CDFW recommends that the Project site(s) be surveyed for special-status plants by a qualified botanist following the "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities" (CDFW 2018). This protocol, which is intended to maximize detectability, includes the identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period.

Special Status Plant Avoidance

CDFW recommends special-status plant species be avoided whenever possible by delineating and observing a no-disturbance buffer of at least 50 feet from the outer edge of the plant population(s) or specific habitat type(s) required by special-status plant species. If buffers cannot be maintained, then consultation with CDFW is warranted to determine appropriate minimization and mitigation measures for impacts to special-status plant species.

State-listed Plant Take Authorization

If a plant species listed pursuant to CESA or the Native Plant Protection Act is identified during botanical surveys, consultation with CDFW is warranted to determine if the Project

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can avoid take. If take cannot be avoided, take authorization prior to any ground-disturbing activities may be warranted. Take authorization would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code section 2081 subdivision (b).

Nesting birds

Habitat within the parcels proposed for lease likely provides nesting habitat for birds. CDFW encourages future oil and gas development activities occur during the avian non-nesting season. However, if ground- or vegetation-disturbing activities must occur during the breeding season (generally February through mid-September), the oil and gas operators are responsible for ensuring that implementation of oil and gas activities does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above.

To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground disturbance to maximize the probability that nests that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the work site to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. In addition to direct impacts (i.e. nest destruction), noise, vibration, odors, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends halting the work causing that change and consulting with CDFW for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified wildlife biologist is not feasible, CDFW recommends a minimum 250-foot no-disturbance buffer around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography. CDFW recommends that a qualified wildlife biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

III. Lake and Streambed Alteration Authority

Issue: There are numerous streams within the parcels proposed for lease. As stated above, according to Draft EA, if a “blue line” drainage cannot be avoided, California Department of Fish and Wildlife (CDFW) notification would be required, and CDFW may require the applicant to apply for a Lake and Streambed Alteration Agreement (Section 1600)”. Any activity that may divert or obstruct the natural flow of any stream, change the bed, channel, or bank of any stream, use material from any stream, or deposit or dispose of material into any stream, not only “blue line” streams, requires Notification to CDFW. This notification

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requirement pursuant to Fish and Game Code section 1602 includes streams that are ephemeral or intermittent and regardless of whether they are perennial or flow episodically and includes activities that occur within the lateral-most extent of flow at the streams' highest flow levels.

Specific impact: Work within stream channels has the potential to result in substantial diversion or obstruction of natural flows; substantial change or use of material from the bed, bank, or channel (including removal of riparian vegetation); deposition of debris, waste, sediment, toxic runoff or other materials into water causing water pollution and degradation of water quality.

Evidence impact is potentially significant:

Lake and Streambed Alteration

Oil and gas development activities may occur within the bed and bank of creeks and streams. Activities within these features are subject to CDFW's LSA regulatory authority. Construction activities within these features have the potential to impact downstream waters. Although some of the features within the Project area may be only intermittently wetted, studies have shown that biodiversity and habitat values of dryland streams are considerably higher than in the adjacent uplands, transporting and delivering water, and providing linear habitat connectivity and refuge, and concentrating seeds, organic matter and sediment. Moreover, the ecological viability of the dryland environment depends on the sustainability of the physical/hydrological processes that form and maintain episodic streams and the habitat they support (Brady and Vyverberg 2013).

Streams function in the collection of water from rainfall, storage of various amounts of water and sediment, discharge of water as runoff and the transport of sediment, and they provide diverse sites and pathways in which chemical reactions take place and provide habitat for fish and wildlife species. Disruption of stream systems such as these can have significant physical, biological, and chemical impacts that can extend into the adjacent uplands adversely effecting not only the fish and wildlife species dependent on the stream itself, but also the flora and fauna dependent on the adjacent upland habitat for feeding, reproduction, and shelter. Water diversions can impact flow regimes. Prolonged low flows can cause streams to become degraded and cause channels to become disconnected from floodplains (Poff et al. 1997).

Recommended Potentially Feasible Mitigation Measures

To evaluate potential impacts to streams associated with future project development, CDFW recommends conducting the following evaluation of project areas and including the following mitigation measures in subsequent environmental analysis and that these measures be made conditions of approval for future project development.

Notification of Lake or Streambed Alteration

Oil and gas development-related activities that have the potential to change the bed, bank, and channel of streams, including but not requiring alterations to riparian vegetation, are subject to CDFW's regulatory authority pursuant to Fish and Game Code section 1600 et seq.; therefore, Notification may be warranted. Fish and Game Code section 1600 et seq.

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requires an entity to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake (including the removal of riparian vegetation); (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. "Any river, stream, or lake" includes those that are ephemeral or intermittent as well as those that are perennial. The issuance of an LSA agreement by CDFW is potentially subject to CEQA. For additional information on notification requirements, please contact our staff in the LSA Program at (559) 243-4593.

Water Diversion

In the event that stream diversion is necessary, CDFW advises that diversions (a) be conducted in a manner that prevents pollution and/or siltation; (b) provides flows to downstream reaches during all times that the natural flow would support aquatic life; (c) that said flows are of sufficient quality and quantity, and of appropriate temperature to support aquatic life, both above and below the diversion; and (d) that normal flows be restored to the affected stream immediately upon completion of work. With regards to cofferdams, CDFW recommends that they not be made of silt, sand and gravel, or other substances subject to erosion unless first enclosed by protective material and that the enclosure and supportive material be removed as soon as the work is completed. With regards to dewatering, CDFW recommends (a) that water pumped from the Project site be discharged to a location outside the wetted channel to allow sediment to drop out; (b) water be allowed to return to the stream below the Project site to maintain water flow; (c) temporary diversion structures used to isolate the Project site be constructed in a manner that prevents seepage into the Project site; and (d) the structure, including all fill, enclosure material, and trapped sediments, be removed when the Project is completed.

Please note that implementation of the above recommendations does not eliminate the need to obtain the appropriate permitting prior to the start of stream diversion or dewatering activities.

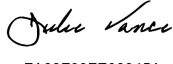
In conclusion, CDFW does not consider that the EA/FONSI addresses and cures the issues regarding the defects identified in the SEIS and raised in detail in our earlier comment letter dated June 2019. Specifically, CDFW is concerned that the EA/FONSI does not provide sufficient information to analyze impacts to sensitive habitat and the species dependent on these habitat types, and that it erroneously concludes that no significant effects would occur to these resources as a result of the lease sale. CDFW recommends that the additional information included in this letter be included and analyzed in a new Environmental Impact Statement (EIS), which would analyze and adequately inform the reviewing agencies and public of the impacts of the lease sale to biological resources and species. Further, the EIS should include specific, quantifiable, and enforceable avoidance, minimization, and avoidance measures that will be implemented to reduce the project related impacts to less than significant. Lastly, the EIS should clearly specify that all leaseholders are obligated to comply with all State laws, regardless of surface or mineral estate ownership.

CDFW appreciates the opportunity to comment on the Draft EA and FONSI to assist the BLM Bakersfield Field Office in identifying and mitigating the impacts on biological resources. More information on survey and monitoring protocols for sensitive species can be found at CDFW's

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website (<https://www.wildlife.ca.gov/Conservation/Survey-Protocols>). If you have any questions, please contact me at the address provided on this letterhead, or by electronic mail at reg4assistant@wildlife.ca.gov.

Sincerely,

DocuSigned by:

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