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Via Electronic Submission on ePlanning and to BLM_CA_BKFO_OIL_GAS_SEIS@blm.gov

Sarah Mathews
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RE: Comments on the Bureau of Land Management, Bakersfield Field Office Oil and Gas Leasing and Development Draft Supplemental Environmental Impact Statement, DOI-BLM-CA-C060-2025-0053-RMP-EIS

Dear Ms. Mathews:

On behalf the Attorney General of California, Rob Bonta,¹ we submit these comments on the 2025 Draft Supplemental Environmental Impact Statement (“Draft SEIS”) issued by the U.S. Bureau of Land Management’s (“BLM”) Bakersfield Field Office to “analyze the environmental effects of hydraulic fracturing technology for oil and gas leasing and development of new leases within the Planning Area,” which consists of 400,000 acres of public lands and 1.2 million acres of federal mineral estate in eight central California counties. Draft SEIS at ES-1.

The Draft SEIS was allegedly prepared to address the deficiencies a federal district court found in BLM’s 2014 plan to open lands to oil and gas drilling without addressing impacts related to hydraulic fracturing, as well as to respond to a 2022 stipulated settlement requiring additional analysis. However, BLM also committed in the 2022 settlement to “consider whether to amend the 2014 [resource management plan],” yet the Draft SEIS evinces no real consideration of an amendment. Given the increased knowledge and documentation of the harms drilling poses to human health, natural resources, and the climate over the last decade, the significant shifts in California’s oil and gas drilling policies, and the changes to the scope and

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*, 11 Cal.3d 1, 14 (1974).

methods of oil and gas development in the Planning Area, BLM should have revised or amended its resource management plan (“RMP”). Further, there is no legitimate justification for limiting the Draft SEIS to impacts related only to hydraulic fracturing.

Even if it were appropriate to limit the supplemental analysis to consideration of impacts from hydraulic fracturing, BLM’s analysis fails to take a “hard look” at many of the significant impacts associated with hydraulic fracturing, or provide sufficient evidence regarding its conclusions, in violation of the National Environmental Policy Act (“NEPA”). In particular, the Draft SEIS relies on the unfounded assumption that up to 4 of the 40 new wells that BLM anticipates will be drilled on new leases per year will be hydraulically fractured. Hydraulic fracturing should not occur at all in the Planning Area due to state law changes. And, even if BLM were correct that hydraulic fracturing could occur, BLM’s estimates are unsupported and contradicted by prior statements that about 90 percent of new wells drilled on public lands are hydraulically fractured. BLM’s unsupported assumption distorts its consideration of environmental impacts and findings of significance. Furthermore, the Draft SEIS fails to properly consider many issues, including potential contamination from hydraulic fracturing fluids, increased subsidence, and the use of hydraulic fracturing to extend the life of wells with declining production. BLM’s analysis of impacts to disadvantaged communities living near federal oil and gas operations, including impacts to water supply and air pollution, is particularly deficient. The Draft SEIS also fails to consider reasonable alternatives, including those that could limit or mitigate the adverse impacts of hydraulic fracturing on the environment and nearby communities.

BLM also failed to consider conflicts with state plans and policies in the Draft SEIS, including efforts by California to protect communities living near oil and gas operations and to reduce greenhouse gas (“GHG”) emissions and fossil fuel consumption to mitigate the devastating consequences of global climate change. In addition, BLM failed to supplement its analysis to address new information that oil and gas development will lead to significant harms that were not previously considered in prior environmental review documents.

Finally, BLM failed to consider impacts to species proposed for listing or formally listed under the Endangered Species Act since 2019 and it failed to consult with the U.S. Fish and Wildlife Service in violation of the Endangered Species Act.

For these reasons, Attorney General Bonta recommends that BLM withdraw its Draft SEIS and prepare a new analysis that fully considers the environmental impacts of opening over one million acres of public lands in California to new oil and gas leasing.

STATUTORY BACKGROUND

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 environmental impact statement (“EIS”) for any “major federal action significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C). In taking a “hard look,” NEPA requires federal agencies to consider the direct, indirect, and cumulative impacts of its proposed action. *Idaho Sporting Cong. v. Rittenhouse*, 305 F.3d 957, 973 (9th Cir. 2002); *Swain v. Brinegar*, 517 F.2d 766, 775 (7th Cir. 1975); *Hanly v. Kleindienst*, 471 F.2d 823 (2d Cir. 1972). 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). Supplemental EISs are required when BLM makes substantial changes to a proposed action or “there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its effects.”² Courts review decisions not to prepare supplemental EISs utilizing the “arbitrary and capricious” standard of the Administrative Procedure Act and do not automatically defer to an agency when it decides to not supplement an EIS. Instead, this analysis entails “carefully reviewing the record and satisfying themselves that the agency has made a reasoned decision based on its evaluation of the significance—or lack of significance—of [] new information.” *Marsh v. Oregon Nat. Res. Council*, 490 U.S. 360, 378 (1989).

Pursuant to the Federal Land Policy and Management Act (“FLPMA”), 43 U.S.C. § 1701 *et seq.*, BLM develops RMPs to guide the management of public lands within BLM’s jurisdiction. In particular, FLPMA requires that BLM “develop, maintain, and when appropriate, revise land use plans” to ensure that land management be conducted “on the basis of multiple use and sustained yield.” 43 U.S.C. §§ 1701(a)(7), 1712(a), 1732. FLPMA also requires that public lands be managed “in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values.” *Id.* § 1701(a)(8). BLM must, “by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of [public] lands” under its management. *Id.* § 1732(a). RMPs are revised or amended based on “monitoring and evaluation findings, new data, new or revised policy, and changes in circumstances,” and are subject to environmental review under NEPA. 43 C.F.R. §§ 1610.5-5, 1610.5-6.

FLPMA requires that BLM, in developing and revising RMPs, “provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans;” “coordinate the land use inventory, planning, and management activities of or for such lands with the land use planning and management programs” of the “local governments within which the lands are located;” and “provide for meaningful public involvement of State and local government officials, both elected and appointed, in the development of land use programs, land use regulations, and land use decisions for public lands.” 43 U.S.C. § 1712(c)(8)-(9).

² Department of Interior, 516 DM 1 NEPA Handbook, Section 3.6 (2026), <https://www.doi.gov/document-library/handbook/516-dm-1-handbook-national-environmental-policy-act-implementing>.

FACTUAL BACKGROUND

BLM's NEPA Review for the Bakersfield Resource Management Plan

The BLM Bakersfield Field Office manages 400,000 acres of public lands and an additional 1.2 million acres of federal mineral estate in Fresno, Kern, Kings, Madera, San Luis Obispo, Santa Barbara, Tulare, and Ventura Counties (the “Planning Area”). In 2012, BLM issued a Final EIS purporting to evaluate the environmental impacts of its proposed RMP for the Planning Area. This planning effort sought to update two existing plans that were finalized in 1984 and 1997. Under the preferred alternative (Alternative B), 1,011,470 acres of federal mineral estate, or about 85 percent of the Planning Area, would be open to oil and gas leasing. BLM also completed a Reasonably Foreseeable Development Scenario that projected the exploration, drilling, and production activity that would likely occur in the next 10 years. This activity was estimated to be 100-400 wells drilled on federal mineral estate each year, including 90-360 wells on existing leases and 10-40 wells on new leases. BLM estimated that 25 percent of these wells would be hydraulically fractured. BLM approved the RMP in 2014.

In 2015, the Center for Biological Diversity and Los Padres ForestWatch challenged this final approval in the U.S. District Court for the Central District of California. On September 6, 2016, the District Court ruled on the parties’ cross-motions for summary judgment, finding that BLM violated NEPA by failing to analyze the impacts of hydraulic fracturing in the Planning Area and required BLM to supplement its analysis. *Los Padres ForestWatch v. U.S. Bureau of Land Mgmt.*, 2016 WL 5172009, *10-13 (C.D. Cal. Sept. 6, 2016). On May 3, 2017, the District Court approved a settlement agreement in which BLM agreed to prepare appropriate NEPA documentation to address the deficiencies identified by the District Court, and issue a new decision document that would amend or supersede the 2014 RMP, if appropriate.

On August 8, 2018, BLM issued a notice of intent to prepare a Draft SEIS and potential RMP amendment for the Planning Area and requested scoping comments. 83 Fed. Reg. 39,116. Among other commenters, six California state agencies—the Department of Conservation, Department of Fish and Wildlife, Department of Water Resources, Department of Parks and Recreation, Air Resources Board, and State Water Resources Control Board—submitted a joint letter expressing concerns with the potential significant adverse effects of this activity and its impact on the state’s ability to meet its fossil fuel and GHG emissions reduction goals. In a cover letter, then-Governor Jerry Brown wrote that BLM “should abandon this effort and not pursue opening any new areas for oil and gas leases in this state,” given that such an approach is “contrary to the course California has set to combat climate change and to meet its share of the goals outlined in the Paris Agreement.”

On April 26, 2019, BLM issued a Draft SEIS. 84 Fed. Reg. 17,885. The purpose of that Draft SEIS, as described by BLM, was “to analyze the environmental effects of the use of hydraulic fracturing technology in oil and gas development on new leases within the Planning Area and to determine whether changes are needed to the fluid minerals decisions in the 2014 RMP.” 2019 Draft SEIS at 2. Based on the District Court’s ruling on alternatives, BLM “carried-

forward” the prior alternatives into its Draft SEIS, including Alternative B, which would open 1,011,470 acres of federal mineral estate to oil and gas leasing (the “Proposed Action”). 2019 Draft SEIS at 13-15. For its updated analysis, BLM assumed that 40 wells on new leases would be drilled each year, and that “zero to four” of these wells would be hydraulically fractured. 2019 Draft SEIS at 44. Given this low estimate, BLM concluded that no significant impacts would result, including impacts related to GHG emissions, air quality, water resources, biological resources, and induced seismic events. 2019 Draft SEIS at Chapter 4. Because BLM did not find any “notable increase in total impacts” resulting from the Proposed Action, it also determined that an amendment to the 2014 RMP was “unnecessary.” 2019 Draft SEIS at 15. The California Attorney General and several state agencies filed comments documenting the deficiencies in the 2019 Draft SEIS, which are attached and incorporated here by reference.³

The State of California as well as the Center for Biological Diversity, Central California Environmental Justice Network, Los Padres ForestWatch, National Parks Conservation Association, Natural Resources Defense Council, Patagonia Works, Sierra Club, and The Wilderness Society filed a complaint for declaratory and injunctive relief against BLM challenging the 2019 Record of Decision because the 2019 Supplemental EIS did not take a hard look at environmental impacts, consider reasonable alternatives, discuss feasible mitigation measures for impacts on special status species, or consider conflicts with state policies, and was issued without an adequate opportunity for public comment in violation of NEPA. Following summary judgment filings, the parties entered into a settlement. Under the settlement, BLM agreed to prepare a supplement to the 2019 Supplemental EIS pursuant to NEPA and consider whether to amend the 2014 RMP. As part of the public notice and comment process, BLM agreed to hold at least one meeting for the public to provide input with Spanish translation and transcription if requested, prepare certain documentation in Spanish, and translate the new decision into Spanish.

On June 23, 2025, BLM issued a notice of intent to prepare a Draft SEIS and potential RMP amendment for the Planning Area and requested scoping comments. 90 Fed. Reg. 26,605. Although BLM solicited comment on its intent to prepare a supplemental EIS, the notice also set forth the agency’s cabined view of what the Supplemental EIS would address. Specifically, BLM stated that: “Only those portions of the existing plan that need to be updated to respond to the issues and management concerns *identified in the court order and settlement agreement* will be reviewed. Other portions of the plan will be brought forward from the existing Bakersfield RMP approved on December 22, 2014, and the supplemental EIS for hydraulic fracturing approved on December 12, 2019.” *Id.* at 26,605 (emphasis added). Several state agencies commented in opposition to the proposal during the scoping period, including the California Department of Conservation, California Department of Fish and Wildlife, California Department of Parks and Recreation, State Water Resources Control Board, California Coastal Commission, and California Department of Water Resources.

³ California Attorney General, *Comments on DOI-BLM-CA-C060-2018-0082-EIS* (June 10, 2019); California EPA, *Comments on DOI-BLM-CA-C060-2018-0082-EIS* (June 10, 2019); California Department of Fish and Wildlife, *Comments on DOI-BLM-CA-C060-2018-0082-EIS* (June 6, 2019).

The Department of Interior posted a notice in the federal register on January 13, 2026, announcing that the Draft SEIS was available and the deadline for comments would be 45 days following the date the Environmental Protection Agency (“EPA”) published the Notice of Availability. 91 Fed. Reg. 1330, 1331 (Jan. 13, 2026). EPA posted the Notice of Availability on January 16, 2026. 91 Fed. Reg. 2131, 2131. The deadline was later extended to March 13, 2026. 91 Fed. Reg. 5474, 5474.

The Draft SEIS carries forward the same five alternatives identified in the 2012 Final EIS. Draft SEIS at ES-1. BLM also relies on the same Reasonably Foreseeable Development Scenario as was used in the 2012 Final EIS, projecting the same amount of exploration, drilling, and production activity (for the next ten years, 100-400 wells drilled on federal mineral estate each year, including 90-360 wells on existing leases and 10-40 wells on new leases). *Id.* at 2. BLM does not disclose projections of the number of wells that will likely be hydraulically fractured on existing leases, but notes that the Reasonably Foreseeable Development Scenario anticipates that “(up to) four (10 percent) of” the “(up to) 40 new wells on new leases per year” will be hydraulically fractured. *Id.* at 25, 35. BLM states that it identified five resource areas to consider further based on information or circumstances identified during the scoping period: air and atmospheric values, biological resources, soil resources, and water resources. *Id.* at 9-10. Additional issues identified during the scoping period were not carried forward for further analysis. *Id.* at 10-12. Except for “updated emissions inventories” based on “a review of new data related to air quality,” BLM did not update any of its modeling or analyses from prior EISs. *Id.* at ES-1. BLM also did not address any changes in state, local, or federal policy that have occurred since 2012 or explain how such changes affect oil and gas development in the Planning Area.

Hydraulic Fracturing on Public Lands

In recent years, the United States has experienced a boom in oil and gas production through the use of well stimulation treatments such as hydraulic fracturing and horizontal drilling. 80 Fed. Reg. 16,128, 16,131 (Mar. 26, 2015). Hydraulic fracturing is a process by which oil and gas producers inject water, sand, and certain chemicals at high pressure into rock formations to create fissures and allow oil and gas to escape for collection in a well. While most of the fluid is water, an assortment of chemicals, some of which are known carcinogens or other types of toxins, are added for different purposes such as lubrication of the fracture and minimization of corrosion. Much of the fracturing fluid, along with subsurface fluids, flows back to the surface and can be held in open pits or circulation tanks at the well site prior to disposal. This water is typically disposed of by subsequent injection into underground wells.

A growing body of science connects hydraulic fracturing with water and air pollution, increased seismic activity, and a prolonged dependence on fossil fuels. For example, inadequate well casings that run through groundwater zones can break during hydraulic fracturing operations and allow hydraulic fracturing fluids to infiltrate groundwater. Air pollution can occur due to the handling of the flowback fluids, which contain toxic chemicals that could evaporate

through handling and storage. Lastly, some areas of heavy hydraulic fracturing operations have seen a pronounced increase in the frequency of seismic events.

BLM is the agency responsible for overseeing oil and gas development on over 245 million acres of public lands and 700 million acres of subsurface mineral estate across the United States, including 15 million acres of public lands and 47 million acres of subsurface mineral estate in California. Most hydraulic fracturing on federal lands occurs in nine states, and California historically had the fifth or sixth largest number of fracking operations per year. *See* 80 Fed. Reg. at 16,206. In 2015, BLM estimated that ninety percent of new wells drilled on federal lands are now being stimulated using hydraulic fracturing. *Id.* at 16,131, 16,190.

One relevant development is that the California Geologic Energy Management Division (“CalGEM”) has not approved a state permit for hydraulic fracturing since 2021, and hydraulic fracturing was entirely phased out by CalGEM regulations that went into effect on October 1, 2024. Cal. Code Regs. tit. §1780(d). BLM has historically respected state regulation of oil and gas extraction methods on federal land and consistently acknowledged CalGEM’s jurisdiction to regulate hydraulic fracturing operations on federal lands within the state. Draft SEIS at 18 (“BLM does not have regulatory authority over hydraulic fracturing in California; that authority rests with the California Department of Conservation’s Geologic Energy Management Division (CalGEM), which oversees all well stimulation activities in the state.”) Other state law changes to protect human health and the environment have occurred and are discussed in detail below, but are not addressed by BLM in the Draft SEIS.

BLM’S DECISION NOT TO REVISE OR AMEND THE 2014 RMP WAS ARBITRARY AND CAPRICIOUS

BLM argues that no amendment to the 2014 RMP is warranted because its consideration of hydraulic fracturing “did not show notable increase in total impacts” and its range of alternatives has not changed since 2012. Draft SEIS at 13-14. This reasoning is arbitrary and capricious because it is divorced from the criteria for determining whether to revise or amend an RMP. BLM was required to consider whether to amend the 2014 RMP by the 2022 settlement, and the amendment must be prepared if there is a “need to consider monitoring and evaluation findings, new data, new or revised policy, a change in circumstances or a proposed action that may result in a change in the scope of resource uses or a change in the terms, conditions and decisions of the approved plan.” 43 C.F.R. § 1610.5-5. Similarly, an RMP “shall be revised as necessary, based on monitoring and evaluation findings, new data, new or revised policy and changes in circumstances.” *Id.* § 1610.5-6. Notably, an amendment is initiated “by the need to consider” new information and changes in circumstances, which is certainly the case here. BLM “need[ed] to consider” new information and changes in circumstances as a court in 2016 found it had “failed to analyze the environmental concerns unique to fracking,” and thus needed to analyze information specific to hydraulic fracturing to comply with NEPA. *ForestWatch v. United States Bureau of Land Mgmt.*, No. CV154378MWFJEMX, 2016 WL 5172009, at *13 (C.D. Cal. Sept. 6, 2016). This need to consider new information and changes in circumstances

continued to the current SEIS because BLM agreed in a 2022 settlement to supplement its prior environmental review.

A decade has elapsed since the 2016 court decision. During this time, there have been significant new developments in the knowledge and evidence of the harms caused by drilling to human health, natural resources, and the climate, significant shifts in California policies, and significant changes to the oil and gas development in the Planning Area (described in detail, *infra*). Given these changes, BLM was required to amend or revise its 2014 RMP and prepare a supplemental EIS to account for issues that go beyond hydraulic fracturing. In particular, the recent prohibition of hydraulic fracturing in California renders BLM's decision to focus on potential impacts of hydraulic fracturing nonsensical. It also makes BLM's reasoning for failing to prepare an RMP amendment arbitrary and capricious. BLM cannot limit its analysis to consideration of hydraulic fracturing, despite the fact that hydraulic fracturing should no longer occur, to claim that there will be no "notable increase in total impacts" in the Planning Area.

THE DRAFT SEIS FAILS TO TAKE A HARD LOOK AT THE IMPACTS OF HYDRAULIC FRACTURING IN THE PLANNING AREA

Even if it were appropriate for BLM to limit its supplemental analysis to consideration of hydraulic fracturing, BLM's analysis fails to take a "hard look" at many of the significant impacts associated with hydraulic fracturing, or provide sufficient evidence to support its conclusions.

I. The Draft SEIS Relies Upon an Incorrect Assumption Regarding the Number of Hydraulic Fracturing Operations.

NEPA requires agencies to take a "hard look" at the environmental consequences of proposed agency actions before those actions are undertaken. *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 993 (9th Cir. 2004); *see* 42 U.S.C. § 4332. "To take the required 'hard look' at a proposed project's effects, an agency may not rely on incorrect assumptions or data." *Native Ecosystems Council v. U.S. Forest Service*, 418 F.3d 953, 964 (9th Cir. 2005); *see also* DOI Handbook (Feb. 2026), pp. 16-17, 23 (NEPA requires agencies to ensure that the analysis and assumptions of any existing EIS they rely on remains adequate). Here, rather than providing the sufficient analysis or evidence required by NEPA to take a "hard look" at its Proposed Action, BLM's findings in the Draft SEIS are based on an unfounded assumption about the number of wells that will be hydraulically fractured.

BLM carries forward its estimate from more than fifteen years ago that up to 4 of the 40 new wells on new leases (or 10 percent) will be hydraulically fractured. Draft SEIS at 25. This estimate entirely ignores the fact that state permits from CalGEM are required for operators to drill or hydraulically fracture wells in California, and hydraulic fracturing was entirely phased out by CalGEM regulations that went into effect on October 1, 2024. Cal. Code Regs. tit. §1780(d). Hydraulic fracturing cannot occur in the Planning Area.

Moreover, even if hydraulic fracturing could occur, BLM has greatly underestimated the number of events that would occur. BLM's assumption that zero to four hydraulic fracturing events will occur on new leases in the Planning Area each year is not backed by any underlying data or analysis, and it is contrary to BLM's own prior estimates. For example, in the 2012 Bakersfield Proposed RMP, BLM acknowledged that 85 percent of the Decision Area (the portion of the Planning Area with public lands managed by BLM) would be "open" to well stimulation technologies such as fracking and estimated that *25 percent of new wells* in the Decision Area would be fracked in the future. *Los Padres ForestWatch*, 2016 WL 5172009 at *11 ("the prominent role fracking is expected to play in the future is undisputed in the record"). In addition, 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"). The 2015 California Council on Science and Technology report commissioned by BLM noted that "[h]ydraulic fracturing supports about *one quarter* of California oil production" and "about 125 to 175 wells of the approximately 300 new oil wells installed per month [41-58%] in California" were fractured.⁴ "Nearly all" hydraulic fracturing occurred in four oil fields in southwestern San Joaquin Valley that are within the Planning Area.⁵ Further, in the May 2019 Final EIS released by BLM's Central Coast Field Office for an amendment to another RMP, BLM noted that "hydraulic fracturing has been used as a production stimulation method in California since the late 1960s and is considered a standard technique for production."⁶ For its analysis in the Central Coast Final EIS, BLM assumed that well stimulation technologies and enhanced oil recovery techniques would "be used on *any or all*" new oil and gas wells drilled on federal leased land over the next 15 to 20 years.⁷

A district court invalidated a previous BLM environmental assessment ("EA") for the Central Coast region that relied on unfounded assumptions about the frequency of hydraulic fracturing. *See Ctr. for Biological Diversity v. Bureau of Land Mgmt.*, 937 F. Supp. 2d 1140, 1148, 1155 (N.D. Cal. 2013). The plaintiffs in that case challenged an EA regarding four oil and gas leases on approximately 2,700 acres in Monterey and Fresno counties. 937 F. Supp. 2d at 1144. Despite the growing use of fracking nationwide, BLM had assumed for purposes of the EA, based on data from 2006, that "no more than one exploratory well would be drilled in total on the land within the leases," and BLM did not discuss fracking beyond noting it was "not relevant to the analysis of impacts . . . because the reasonable foreseeable development scenario anticipates very little (if any) disturbance to the human environment." *Id.* at 1148. The court found that "this projection fails to take into account all 'reasonably foreseeable' possibilities as required by NEPA," as evidenced by the record and the defendants' own acknowledgment "that fracking activity in the United States has increased dramatically in recent years." *Id.* at 1155.

⁴ California Council on Science and Technology, *An Independent scientific Assessment of Well Stimulation in California: Summary Report* ("CCST Summary Report") 11-13 (July 2015).

⁵ *Id.* at 12.

⁶ BLM, *Proposed Resource Management Plan Amendment and Final Environmental Impact Statement for Oil and Gas Leasing and Development, Central Coast Planning Area* 1-1 n.3 (May 2019).

⁷ *Id.* at ES-4, 2-3, 4.17-1, 4.20-2.

Thus, the court concluded that “it was not reasonable for BLM to consider only a single exploratory well scenario based on past data.” *Id.* at 1156.

The court then determined that “[t]his unreasonable lack of consideration of how fracking could impact the development of the disputed parcels went on to unreasonably distort BLM’s assessment of at least three of the ‘intensity’ factors in its FONSI.” *Id.* at 1157. First, “BLM erroneously held that the leases were not highly controversial,” even though “[t]here was clearly a controversy here regarding the nature of the drilling to occur on the leases and the potential impacts drilling would impose on the nearby communities.” *Id.* at 1157-58. “Second, BLM erroneously analyzed the potential effect of the leases on public health and safety” by ignoring the risks posed by fracking. *Id.* at 1158. “Third, BLM erroneously discounted the uncertainty from fracking that may be resolved by further data collection” by “instead opting to summarize general data about fracking (much of it raising substantial concerns about the impact of fracking) before dismissing the issues as outside of its jurisdiction.” *Id.* at 1159.

Similarly, here, BLM’s assumption that only “zero to four” hydraulic fracturing events will occur in the Planning Area each year distorts its consideration of several environmental impacts and significance factors, which in turn compromises the public’s ability to meaningfully participate in the NEPA process. For example, BLM estimates surface impacts from the hydraulic fracturing of up to 4 wells per year for 10 years to be up to 208.6 acres. Draft SEIS at 36. In analyzing the air pollution that will result from the Proposed Action, the calculated emissions are based on the hydraulic fracturing of four wells per year. *Id.* at 43-48. Similarly, with regard to water resources, BLM refers back to the 2019 Final SEIS, *id.* at 60, where it found that this amount of hydraulic fracturing would consume just 8.0 million gallons (25 acre-feet) of water during the 10-year planning period, and that “[t]he risk of impacts to groundwater due to spills of fracturing fluids from the completion of an average of zero to four wells per year would be negligible.” 2019 Final SEIS at 85-87. And because of the small number of anticipated hydraulic fracturing events and related wastewater disposal, BLM summarily concluded that it expected “there would be negligible impacts related to hydraulic fracturing–induced earthquakes.” *Id.* at 92.

Given that BLM’s quantification regarding the number of wells which may be hydraulically fractured is significantly underestimated, there is serious potential that the Proposed Action would result in exceedances of applicable significance thresholds. For example, as quantified in the Draft SEIS, anticipated emissions increases associated with the Proposed Action approach the applicable general conformity *de minimis* thresholds for certain pollutants in the San Joaquin Valley air basin, including 10 tons per year of nitrogen oxides (“NOx”) and 10 tons per year of reactive organic gases (“ROG”), two critical contributors to ozone formation. The Draft SEIS does not present the well development and production emissions associated with hydraulic fracturing, making it impossible to determine if such operations would lead to emissions increases that exceed the thresholds. But the combined tables in the 2019 and 2026 SEISs indicate that the combination of hydraulic fracturing and conventional well development and operations would exceed the thresholds. 2019 Final SEIS at 62 (well development ROG emissions are 6.99 tons per year and NOx emissions are 4.8); 2025 Draft SEIS at 44, 48 (production operation NOx emissions are 67.6 tons per year and VOC/ROG emissions are 102.6

tons per year). The San Joaquin Valley Air Basin is already classified as extreme nonattainment for 8-hour ozone and has not yet attained the 1997 PM_{2.5} National Ambient Air Quality Standard.⁸ If the number of wells that would be hydraulically fractured is even slightly underrepresented, then one or both of these thresholds would likely be exceeded, resulting in significant air quality impacts.

A revised analysis may also show that the Proposed Action's GHG emissions would exceed the 25,000 metric tons of carbon dioxide equivalent ("MTCO_{2e}") annual threshold for mandatory reporting of GHGs in the U.S. Environmental Protection Agency's ("EPA") mandatory reporting program for GHGs, which the 2019 Supplemental EIS appears to use as a GHG significance threshold (the GHG emissions associated with hydraulic fracturing are not presented in the 2025 Draft SEIS). 2019 Final SEIS at 57. Any revision to the Draft SEIS must accurately quantify and mitigate any significant air quality and GHG impacts.

Finally, BLM's assumption that "zero to four" events will occur does not take into account any hydraulic fracturing of new or existing wells drilled on existing leases. BLM estimates that as many as 360 new wells will be drilled each year on *existing* federal leases in the Planning Area, under the control and guidance of the 2014 RMP. Draft SEIS at 2. BLM did not predict how many of these wells would be hydraulically fractured, even while it acknowledged that hydraulic fracturing in the overall Planning Area occurs on existing leases. BLM anticipated that at least "some" of the 360 new wells that BLM expected on existing leases would be hydraulically fractured. Indeed, it stated that "hydraulic fracturing usually occurs in oil fields on existing leases, many of which have been continuously developed over the last 100 years." 2019 Final SEIS at 7. BLM should have analyzed whether hydraulic fracturing of these new wells or of existing wells would cause cumulative significant environmental impacts in conjunction with hydraulic fracturing of wells on new leases.

In sum, BLM's assumption that hydraulic fracturing will occur at all in the Planning Area is contrary to California law. Even if BLM were correct that hydraulic fracturing could occur, BLM's estimate that up to four hydraulic fracturing events will occur in the Planning Area each year is unsupported by the evidence before the agency. This assumption has resulted in a misleading discussion of environmental impacts in the Draft SEIS, rather than the "hard look" required by NEPA.

II. The Draft SEIS Fails to Properly Consider the Significant Environmental Impacts Related to Hydraulic Fracturing Operations.

To fulfill NEPA's "hard look" requirement, an agency must consider all foreseeable direct, indirect, and cumulative impacts of the action. *See N. Alaska Env'tl. 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

⁸ San Joaquin Valley Air Pollution Control District, *Ambient Air Quality Standards & Attainment Status*, <https://www.valleyair.org/air-quality-information/ambient-air-quality-standards-valley-attainmnet-status/>.

conclusions. As the Ninth Circuit has stated, “general statements about ‘possible effects’ and ‘some risk’ do not constitute a ‘hard look’ absent a justification regarding why more definitive information could not be provided.” *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1213 (9th Cir. 1998). Here, BLM has failed to consider several environmental impacts related to its Proposed Action, or to support its conclusions with adequate analysis.

A. Water and Other Land Impacts

For example, with regard to impacts to groundwater from the management and disposal of flowback fluids, BLM generally acknowledges that there are “possible risks to groundwater and surface water, particularly amid spill events, aging infrastructure, and cumulative extraction effects.” Draft SEIS at 60. However, BLM insinuates that it cannot perform an analysis to assess disposal impacts more specifically because hydraulic stimulation has not occurred since 2019, *id.*, and the prior 2019 analysis it defers to summarily concludes that “[i]mpacts to groundwater from the completion of an average of zero to four wells in any given year ... would be negligible.” 2019 Final SEIS at 90. BLM never discusses data collected by the State Water Resources Control Board, which produces a report every six months on the regulation of oil field produced water ponds within its regions with oil and gas drilling.⁹ According to the most recent report dated January 31, 2019, the Central Valley region had 561 active ponds, 501 of which were permitted and 60 unpermitted.¹⁰ Moreover, most of the active ponds (530 of 560) were unlined.¹¹ The report also identified additional inactive ponds (507 of which were unlined), and noted that 161 ponds were under active enforcement actions.¹² An updated list of ponds developed in 2021 still shows many active ponds.¹³ 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.¹⁴ Compounds used in hydraulic fracturing fluids, including polynuclear aromatic hydrocarbons, affect pulmonary, gastrointestinal, and renal systems in humans, and a few compounds are considered carcinogens.¹⁵ The California Council on Science and Technology (“CCST”) also expressed concern about the regular use of unlined pits for the disposal of produced water,

⁹ 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.

¹⁰ 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.

¹¹ *Id.*

¹² *Id.*

¹³ Central Valley Regional Water Quality Control Board, *Pond List* (Feb. 2021), https://www.waterboards.ca.gov/centralvalley/water_issues/oil_fields/information/disposal_ponds/20210211_pondlist.pdf.

¹⁴ 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* (June 16, 2015), https://www.waterboards.ca.gov/centralvalley/water_issues/oil_fields/information/disposal_ponds/aera_energy/2015_0616_com_lost_hills.pdf.

¹⁵ California Council on Science and Technology, *An Assessment of Oil and Gas Water Cycle Reporting in California Evaluation of Data Collected Pursuant to California Senate Bill 1281, Phase II Report 150* (July 2022), <https://www.psehealthyenergy.org/wp-content/uploads/2022/07/CCST-SB-1281-Phase-II-Full-Report-FINAL.pdf>.

finding that such practices could “introduce contaminants into the food web and expose human populations to known and potentially unknown toxic substances.”¹⁶ The EPA has also found that hydraulic fracturing and other well stimulation techniques can adversely impact water resources, including both the supply of drinking water and the quality of the water.¹⁷ Produced water disposal could have serious impacts on water supply given that many of the communities in the Planning Area rely on groundwater as their primary source of drinking water.

Fracking itself also poses a risk to water supply because it occurs at shallower depths—where groundwater occurs—than in other parts of the United States.¹⁸ Fracking in California also tends to occur in oilfields with many existing active and inactive wells that can serve as leakage pathways.¹⁹ The potential for water contamination demands further study. As EPA recommended during the comment period on the last Supplemental EIS for this RMP, BLM should include a map of drinking water sources, aquifer exemptions, and existing and proposed wells so that BLM may develop necessary stipulations. Commenters in the last round already did some of this work for BLM by identifying drinking water sources specifically at risk, including Santa Barbara County’s groundwater aquifers, wells that supply the California Army National Guard, Ojai Valley Basin’s groundwater supply, and the City of Lompoc’s drinking water well field. EPA also specifically suggested that BLM require a stipulation “that identified fresh water zones are to be sampled and analyzed so that pre-fracking background levels of those fresh water zones (drinking water supply) can establish whether any existing contamination exists before fracking has been introduced in the vicinity,” and require operators to prove that the geologic confining zone is sufficient to prevent migration of fracking fluids into usable water.

Similarly, with respect to water supply, BLM acknowledges that “fracturing operations require substantial volumes of water, which can impose stress on local supplies in arid or drought prone regions.” Draft SEIS at 60; *see also id.* at 61 (oil and gas development can lead to a lower baseflow in wetlands and streams, which can impair beneficial uses). However, BLM makes no effort to identify which groundwater basins and surface waters in or near the Planning Area are susceptible to water supply stresses, where they are situated relative to potential hydraulic fracturing operations, and what mitigation measures should be undertaken to address this issue. As CCST has explained, these impacts could be significant to ecosystems supported by small waterways,²⁰ as well as the small communities and domestic users that rely on local groundwater.²¹ Thus, to determine whether water use will cause a significant impact, the

¹⁶ California Council on Science and Technology, *An Independent Scientific Assessment of Well Stimulation in California, Vol. II* (“CCST Report, Vol. II”) 403 (2015), http://cst.us/projects/hydraulic_fracturing_public/SB4.php.

¹⁷ U.S. Environmental Protection Agency, Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States - Executive Summary, https://www.epa.gov/sites/default/files/2016-12/documents/hfdwa_executive_summary.pdf.

¹⁸ *Id.* at 121, 406.

¹⁹ *Id.* at 122-25.

²⁰ *Id.* at 347,

²¹ *Id.* at 65, 161.

Supplemental EIS must evaluate the impact on the scale of the local communities where drilling and hydraulic fracturing are expected.

In addition, the depletion of groundwater for use in hydraulic fracturing, and the extraction of oil and gas from the ground that hydraulic fracturing enables, both have the potential to cause land subsidence—the gradual caving in or sinking of land—which in turn can damage water delivery infrastructure such as the California Aqueduct and other state water project facilities located in the Planning Area. Surveys provided by the California Department of Water Resources have shown an already alarming increase of land subsidence and other topographic changes in the Central Valley, which can cause significant and costly damage to state water infrastructure.²² Increased oil and gas extraction in water basins within the Central Valley, for example, would foreseeably lead to land subsidence. Indeed, oil and gas production is known to be the primary driver of subsidence in the Lost Hills Oil Field.²³ Yet subsidence impacts are not addressed at all in the Draft SEIS beyond one paragraph noting such effects are “possible” but “difficult to predict.” Draft SEIS at 61.

BLM says it will “consider site specific conditions and data during project level review.” Draft SEIS at 61. But consideration of water contamination, water supply, and subsidence impacts may not be deferred, as that would violate NEPA’s mandate that agencies confront the full extent of environmental impacts from a proposed action at the earliest reasonable time. *Robertson*, 490 U.S. at 349; see *Kern v. BLM*, 284 F.3d 1062, 1072 (9th Cir. 2002). Hydrologic regions and water basins do not obey the boundaries of oil and gas leases, so impacts to them are best analyzed at the level of the Planning Area instead of in a segmented and cabined review later in the development process. Moreover, BLM states that the Draft SEIS *is* the relevant analysis for seven parcels, betraying its vague promise to conduct additional review at the leasing phase. Draft SEIS at ES-1. The Attorney General and California state agencies’ comments on the deficiencies in the 2020 Environmental Analysis for those seven parcels is attached and incorporated here by reference.²⁴

The Draft SEIS also fails to adequately consider science connecting the underground injection of hydraulic fracturing waste fluids, as well as hydraulic fracturing itself, to increased seismic activity. For example, BLM dismisses the notion that the Proposed Action could result in impacts related to hydraulic fracturing-induced earthquakes, failing to evaluate this issue at all, Draft SEIS at 11, even though it states in the 2019 Supplemental EIS that other industrial activities can induce seismicity and “few” wells that are “hydraulically fractured or are waste water wells result in induced earthquakes.” 2019 Final SEIS at 91-92. Also, recent scientific studies have connected hundreds of earthquakes in Oklahoma, Ohio, and other areas to hydraulic

²² Cal. Dept. of Water Resources, *Comment Letter on BLM’s NOI for Supplemental EIS and Potential RMP Amendment*, Published FR Doc. 2025–11481 (July 23, 2025).

²³ *Id.* at 3-5.

²⁴ State of California and California Air Resources Board, *Comments on DOI-BLM-CA-C060-2020-0120-EA* (Sept. 25, 2020); California Department of Fish and Wildlife, *Comments on DOI-BLM-CA-C060-2020-0120-EA* (Sept. 25, 2020); State of California and California Agency Protest Letter (Nov. 9, 2020).

fracturing events.²⁵ More recent studies have also connected oil and gas disposal wells associated with hydraulic fracturing to induced seismicity.²⁶ Although CCST stated that “hydraulic fracturing as currently carried out in California is not considered to pose a high seismic risk,”²⁷ it also warned that “it can be very difficult to distinguish California’s frequent natural earthquakes from those possibly caused by water injection into the subsurface” and recommended further analysis of this issue.²⁸ This 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.²⁹

B. Air Pollution Impacts

As noted previously, and despite BLM’s statements to the contrary, there is substantial potential that the Proposed Action may significantly increase air pollution. Oil and gas facilities emit significant air pollution, including 30 percent of all sulfur oxides, over 70 percent of hydrogen sulfide, and 8 percent of anthropogenic volatile organic compounds in the San Joaquin Valley, which in turn react with nitrogen oxides to create ozone.³⁰ Oil and gas development is also responsible for the majority of emissions of multiple toxic air contaminants including acetaldehyde, benzene, formaldehyde, hexane and hydrogen sulfide in the Valley.³¹ Fracking on public lands produces significant air pollution emissions including nitrogen oxides, sulfur dioxide, fine particulate matter, volatile organic compounds, silica dust, and toxic air contaminants like benzene.³² In addition, the ponds that store produced water from hydraulic fracturing operations have the potential to generate significant emissions of toxic air

²⁵ Skoumal, R. J., et al., “Earthquakes induced by hydraulic fracturing are pervasive in Oklahoma,” *Journal of Geophysical Research: Solid Earth* 123:12 (2018), at 10918-35, <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* 105:1 (2015), at 189-197, <https://doi.org/10.1785/0120140168>; Xuewei Bao and David W. Eaton, “Fault activation by hydraulic fracturing in western Canada,” *Science* 354:6318 (2016), at 1406-1409, <https://science.sciencemag.org/content/354/6318/1406>.

²⁶ Goebel, T. H. W., et al., “Wastewater disposal and earthquake swarm activity at the southern end of the Central Valley, California,” *Geophys. Res. Lett.* 43 (2016), at 1092–1099, <https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2015GL066948>.

²⁷ CCST Report, Vol. II. at 267.

²⁸ *Id.* at 30-32.

²⁹ *Id.* at 277-293.

³⁰ Brandt, A., Millstein, D., Jin, L., & Englander, J., *Air Quality Impacts from Well Stimulation* 182 (2015), <https://ccst.us/wp-content/uploads/160708-sb4-vol-II-3-1.pdf>.

³¹ Shonkoff et al., *Response to CalGEM Questions for the California Oil and Gas Public Health Rulemaking Scientific Advisory Panel* 10 (Oct. 2021), <https://www.gov.ca.gov/wp-content/uploads/2021/10/Public-Health-Panel-Memo.pdf>.

³² Natural Resources Defense Council, *Fracking Fumes* (Dec. 2014), <https://www.nrdc.org/sites/default/files/fracking-air-pollution-IB.pdf>.

contaminants.³³ There are more than 1,000 produced water ponds in California, and most are located in the Planning Area.³⁴

BLM attempts to diminish the significance of air pollution impacts from oil and gas production by presenting tables with sources of criteria emissions and hazardous air pollutant emissions in the Planning Area from oil and gas production relative to other sources. Draft SEIS at 21-22. But this presentation is misleading in several respects. First, lumping all criteria and hazardous air pollutants together across all counties in the Planning Area makes it impossible to understand how oil and gas operations contribute to the harmful pollutants most associated with those operations, including sulfur oxides, hydrogen sulfide, and volatile organic compounds. Different pollutants are emitted at different tonnage rates, which explains why the total emissions of “wildfire” dwarf other source categories. For example, when isolating the EPA National Emissions Inventory data for sulfur dioxide from Kern County, oil and gas production is the second highest category, with 20 percent of the emissions (See Table 1 below). Similarly, isolating the data to volatile organic compound emissions from Kern County, oil and gas production is the fourth highest category (See Table 1). One study similarly estimates that VOC emissions from oil and gas extraction in the Central Valley as akin to total transportation emissions in the region.³⁵ Bakersfield in particular attributes 22 percent of all anthropogenic emissions during the spring and summer months to petroleum operations, and 8 percent of all total potential ozone precursors.³⁶ This study and the CCST report noted above suggest that petroleum operations are responsible for significant amounts of relevant criteria pollutant emissions in the San Joaquin Valley. In Kern County, oil and gas development is expected to make up a large share of all air pollution emitted by 2035—40 percent of fine particulate matter emissions, 70 percent of nitrogen oxide emissions, and 97 percent of sulfur dioxide emissions.³⁷ Similarly with hazardous air pollutants, a science advisory panel recently noted that oil and gas development is “responsible for the majority of emissions of multiple toxic air contaminants including acetaldehyde, benzene, formaldehyde, hexane and hydrogen sulfide” in the already overburdened San Joaquin Valley.³⁸

³³ California Council on Science and Technology, *An Assessment of Oil and Gas Water Cycle Reporting in California Evaluation of Data Collected Pursuant to California Senate Bill 1281, Phase II Report* 191-92 (July 2022), <https://www.psehealthyenergy.org/wp-content/uploads/2022/07/CCST-SB-1281-Phase-II-Full-Report-FINAL.pdf>.

³⁴ *Id.*

³⁵ Gentner et al., “Emissions of Organic Carbon and Methane from Petroleum and Dairy Operations in California’s San Joaquin Valley,” *Atmos. Chem. Phys.* 14 (2014), at 4971, <https://doi.org/10.5194/acp-14-4955-2014>.

³⁶ *Id.*

³⁷ Kern County Planning & Community Development Department, *Supplemental Recirculated Environmental Impact Report for Revisions to the Kern County Zoning Ordinance*, 4.3-164 (Oct. 2020), https://psbweb.kerncounty.com/UtilityPages/Planning/EIRS/OG_SREIR/aVol1/Oil_Gas_SREIR_Oct%202020_Vol%201_04.03_Air%20Quality.pdf.

³⁸ Shonkoff et al., *Response to CalGEM Questions for the California Oil and Gas Public Health Rulemaking Scientific Advisory Panel* 10 (Oct. 2021), <https://www.gov.ca.gov/wp-content/uploads/2021/10/Public-Health-Panel-Memo.pdf>.

Table 1: VOC and SO2 emissions in Kern County³⁹

Source	VOCs (tons)	SO2 (tons)
Agriculture - Livestock Waste	1072	
Biogenics - Vegetation and Soil	43130	
Bulk Gasoline Terminals	37	
Commercial Cooking	47	
Fires - Agricultural Field Burning	647	
Fires - Prescribed Fires	80	
Fires - Wildfires	1747	
Fuel Comb - Comm/Institutional - Biomass	0	1
Fuel Comb - Comm/Institutional - Natural Gas	38	11
Fuel Comb - Comm/Institutional - Oil	40	4
Fuel Comb - Comm/Institutional - Other	1	1
Fuel Comb - Electric Generation - Biomass	1	1
Fuel Comb - Electric Generation - Natural Gas	40	37
Fuel Comb - Electric Generation - Oil	3	1
Fuel Comb - Industrial Boilers, ICEs - Biomass	6	8
Fuel Comb - Industrial Boilers, ICEs - Coal	4	0
Fuel Comb - Industrial Boilers, ICEs - Natural Gas	214	23
Fuel Comb - Industrial Boilers, ICEs - Oil	6	36
Fuel Comb - Industrial Boilers, ICEs - Other	2	0
Fuel Comb - Residential - Natural Gas	26	9
Fuel Comb - Residential - Oil	0	2
Fuel Comb - Residential - Other	3	0
Fuel Comb - Residential - Wood	326	9
Gas Stations	403	0
Industrial Processes - Cement Manuf	39	395
Industrial Processes - Chemical Manuf	143	0
Industrial Processes - Mining	1	0
Industrial Processes - NEC	577	49
Industrial Processes - Non-ferrous Metals	1	1
Industrial Processes - Oil & Gas Production	3157	178
Industrial Processes - Petroleum Refineries	229	19
Industrial Processes - Pulp & Paper	5	
Industrial Processes - Storage and Transfer	529	0
Miscellaneous Non-Industrial NEC	2723	0
Mobile - Aircraft	54	8
Mobile - Locomotives	94	2
Mobile - Non-Road Equipment - Diesel	379	5
Mobile - Non-Road Equipment - Gasoline	2525	1
Mobile - On-Road Diesel Heavy Duty Vehicles	270	20
Mobile - On-Road Diesel Light Duty Vehicles	40	1
Mobile - On-Road non-Diesel Heavy Duty Vehicles	16	1
Mobile - On-Road non-Diesel Light Duty Vehicles	1551	27
Solvent - Consumer & Commercial Solvent Use	4019	
Solvent - Degreasing	357	
Solvent - Dry Cleaning	2	

³⁹ U.S. Environmental Protection Agency, *National Emissions Inventory (NEI) Online 2020 NEI Data Retrieval Tool*, <https://www.epa.gov/air-emissions-inventories/2020-air-emissions-data>.

Solvent - Graphic Arts	410	
Solvent - Industrial Surface Coating & Solvent Use	677	0
Solvent - Non-Industrial Surface Coating	281	
Waste Disposal	4620	27

Second, BLM does not provide the underlying data to help the reader understand its charts. If BLM had, that data would reveal that the EPA inventory is full of catch-all categories like “miscellaneous” and “biogenics,” which make the oil and gas emissions look relatively small. Third, and most importantly, it does not matter what the relative contribution of emissions is from each source category. It matters that oil and gas operations, and hydraulic fracturing in particular, would add pollution in an already overburdened air basin that is not in attainment with regional air quality standards.

C. Cumulative Impacts

In addition to direct air pollution impacts, the Draft SEIS fails to adequately analyze and disclose the cumulative impacts from the Proposed Action. As BLM is well aware, the agency has also prepared a Draft SEIS for Oil and Gas Leasing and Development in the Central Coast Planning Area. That proposal itself involves considerable new well development, including an estimated 37 new wells that would involve hydraulically fracturing. Central Coast Draft SEIS at 2-3. Yet, inexplicably, the Draft SEIS fails to mention that other major BLM planning effort, which would involve the development of new hydraulically fractured wells during the same timeframe as the Proposed Action. Moreover, many of these wells in both Planning Areas are expected to be developed in the San Joaquin Valley, which is within a connected and significantly impacted air basin. *Id.* at 6, 30. Indeed, the regional air basin regulated by the San Joaquin Valley Air Pollution Control District includes portions of four counties covered by the Central Coast Draft SEIS (San Joaquin, Stanislaus, Merced, and Fresno) and five counties covered by the Draft SEIS (Fresno, Kern, Kings, Madera, and Tulare). The San Joaquin Valley is in extreme ozone nonattainment status, and smog is very much a cumulative air pollution concern (NO_x and ROG emissions are both ozone precursors which generate smog by reacting in the atmosphere across the entire air basin). BLM’s refusal to consider the related effects of two major BLM planning efforts raises serious cumulative impact concerns, as does BLM’s failure to look at the total effects of its planning efforts in light of the overall oil and gas development in the area.

NEPA requires an analysis of the cumulative effects of a federal action as part of its mandate that agencies consider the reasonably foreseeable effects of an action “to the fullest extent possible.” 42 U.S.C. § 4332(2)(C). NEPA recognizes that “each ‘limited’ federal project is part of a large mosaic of thousands of similar projects and that cumulative effects can and must be considered on an ongoing basis.” *Swain v. Brinegar*, 517 F.2d 766, 775 (7th Cir. 1975). Courts have also recognized that cumulative impacts analysis is necessary to put a proposed action’s effects into meaningful context and fulfill NEPA’s informed decision-making purpose. *Hanly v. Kleindienst*, 471 F.2d 823 (2d Cir. 1972). A sufficient cumulative impacts analysis requires an assessment of the actual impact in light of background effects—e.g., how will increased emissions affect air quality in light of existing emissions—not merely a comparison of

the relative increase in emissions against total background emissions. These analyses are required since NEPA reviews “must give a realistic evaluation of the total impacts and cannot isolate a proposed project, viewing it in a vacuum. *Grand Canyon Trust v. FAA*, 290 F.3d 339, 342 (D.C. Cir. 2001).

For example, it is arbitrary for BLM to ignore the environmental impacts of hydraulic fracturing in concert with conventional development as well as other types of well stimulation treatments and enhanced oil recovery techniques in the Planning Area, given their likely utilization in the future. These techniques include acidizing, water flooding, steam flooding, cyclic steam injection, and a dual type that alternates between steam and water flooding. NEPA requires that an agency consider the full scope of activities encompassed by its Proposed Action. *See N. Alaska Envtl. Ctr. v. Kempthorne*, 457 F.3d 969, 975 (9th Cir. 2006) (the “hard look” requirement of NEPA includes “considering all foreseeable direct and indirect impacts.”). For the Proposed Action, this should include not only hydraulic fracturing activities, but also other types of well stimulation treatments that will be foreseeably used in the Planning Area. In the former Central Coast Final EIS, BLM assumed that “[w]ell stimulation technologies (e.g., hydraulic fracturing, acid matrix stimulation, acid fracturing) and enhanced oil recovery techniques (e.g., cyclic steam, steam flood, water flood) may be used on any or all” wells drilled on federal mineral estate. *See, e.g.*, Central Coast 2019 Final EIS at 4-17.1. The Draft SEIS contains no analysis of these issues. In addition, as noted above, BLM limited its impacts analysis to the “zero to four” hydraulic fracturing events each year it anticipated would occur on *new* wells on *new* leases. BLM therefore ignored the impacts associated with extending the life of existing wells and leases. BLM also entirely ignores how its proposal will interact with other projects in the area, like Kern County’s resumption of oil and gas development permitting.⁴⁰

Finally, hydraulic fracturing is associated with significant GHG emissions, including carbon dioxide, methane, NO_x, VOCs, and black carbon.⁴¹ GHG emissions also result from fuel combustion by the equipment used to prepare oil and gas well pads and drill wells, from fugitive leaks of methane from production equipment, as well as from fuel used to power boilers and steam generators used in enhanced oil recovery operations.⁴² “The impact of GHG emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct.” *Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008). Although BLM spends several pages estimating potential GHG emissions from oil and gas development associated with the Reasonably Foreseeable Development Scenario generally, then minimizing those emissions and stating that most emissions should either be studied in more detail later or are out of BLM’s authority and control, Draft SEIS at 57, BLM nowhere evaluates GHG emissions associated with hydraulic fracturing or explores related mitigation measures. BLM also fails to consider the reasonably foreseeable cumulative climate change impacts of the Proposed Action together with other wells on existing federal leases, all

⁴⁰ CalGEM, *Senate Bill 237*, <https://www.conservation.ca.gov/calgem/Pages/SB237.aspx>.

⁴¹ Brandt, A., Millstein, D., Jin, L., & Englander, J., *Air Quality Impacts from Well Stimulation* 185-86 (2015), <https://ccst.us/wp-content/uploads/160708-sb4-vol-II-3-1.pdf>.

⁴² Bureau of Land Management, *2023 BLM Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends* (Aug. 2024), <https://www.blm.gov/sites/default/files/docs/2025-04/BLM-2023-Base-GHG-Report.pdf>.

wells in the Bakersfield Planning Area (including on non-BLM land), and other reasonably foreseeable pending projects (like oil and gas development pursuant to the Central Coast RMP Amendment).

III. The Draft SEIS Fails to Consider Environmental and Public Health Impacts to Low-Income Communities and Communities of Color.

The Draft SEIS also fails to consider how the Proposed Action will impact low-income communities and communities of color in the Planning Area, whether resulting from increased air pollution, groundwater contamination, or other impacts. While BLM has historically acknowledged that the Planning Area contains minority populations and low-income populations, *see* 2012 Final EIS at 388, the Draft SEIS fails to consider the disproportionate impacts of the Proposed Action on these populations in any way.

BLM argues it does not need to consider environmental justice impacts under NEPA due to the repeal of executive orders that required agencies to make achieving environmental justice part of their mission. Draft SEIS at 12. But the consideration of environmental justice has long been a part of the required NEPA analysis, *see, e.g., Mid States Coalition for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 541 (8th Cir. 2003); *Sierra Club v. Fed. Energy Regulatory Comm'n*, 867 F.3d 1357, 1370 (D.C. Cir. 2017), and the statute itself rather than executive orders drives this requirement. NEPA makes it the federal government's responsibility to "assure for *all* Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings," 42 U.S.C. § 4331(b)(2) (emphasis added), and states "that *each person* should enjoy a healthful environment," *id.* § 4331(c) (emphasis added). Consideration of how a proposed federal action might disproportionately affect *some* Americans more than others is thus a highly relevant consideration under the statute. NEPA's focus on "the quality of the *human* environment," *id.* § 4332(c) (emphasis added), is also a concern advanced by analyzing the distribution of environmental burdens in the human environment.

Many federal oil and gas activities in California occur in close proximity to the state's most vulnerable communities. In particular, the Planning Area is home to many communities that are disproportionately exposed to pollution and who are most vulnerable to pollution and its health effects, called "disadvantaged communities" under California law.⁴³ To designate disadvantaged communities, the California Environmental Protection Agency uses the California Office of Environmental Health Hazard Assessment ("OEHHA") CalEnviroScreen Tool to rank census tracts in the state using indicators that measure the communities' exposure to pollution and the communities' vulnerability to the effects of pollution. Many census tracts in the Planning Area meet the state's definition of disadvantaged community, most notably in Kern, Tulare,

⁴³ Cal. Health & Safety Code § 39711; *SB 535 Disadvantaged Communities Webpage*, <https://oehha.ca.gov/calenviroscreen/sb535>.

Kings, and Fresno Counties, with other smaller areas in Ventura and Santa Barbara Counties.⁴⁴ This means that communities in these counties already are exposed to significantly more air pollution, water pollution, and other pollution sources that cause significant health risks than other parts of the state, and they are more vulnerable to these exposures.

With regard to air quality, seven of the eight counties (Fresno, Kern, Kings, Madera, San Luis Obispo, Tulare, and Ventura) in the Planning Area already have a non-attainment status for particulate matter, ozone, or both air quality standards. Ozone is among the most widespread and significant air pollution health threats in California, including in the Planning Area.⁴⁵ The Central Valley in particular experiences some of the worst particulate matter pollution in the state.⁴⁶ Ozone can cause and worsen asthma and has additional long-term health effects, including respiratory and cardiovascular diseases, and premature death.⁴⁷ In Kern County, over 70,000 residents (almost eight percent of the population) have asthma.⁴⁸ Any additional emissions of volatile organic compounds, nitrogen oxides, and other air pollutants in these areas from expanded oil and gas production are therefore significant and should be mitigated. Furthermore, the public health risk exposure to toxic air contaminants is greatest near active oil and gas sites.⁴⁹ Since many residents in the Planning Area live near oil and gas activity, any new oil and gas production activity must take into account the health impacts to nearby sensitive receptors.

With regard to drinking water supply and quality, parts of the Planning Area already suffer from some of the worst drinking water contamination problems in the state. According to

⁴⁴ See CalEnviroScreen 3.0, Overall Percentile Score for Bakersfield Hydraulic Fracturing Planning Area, attached as Exhibit 1. Source data for this map is from the OEHHA CalEnviroScreen 3.0 Tool, <https://oehha.ca.gov/calenviroscreen>. Updated maps using CalEnviroScreen 5.0 Draft (updated in 2026) are also provided. See also OEHHA, *SB 535 Disadvantaged Communities Webpage*, <https://oehha.ca.gov/calenviroscreen/sb535>. Census tracts that are in the top 25 percentile overall in CalEnviroScreen are “disadvantaged communities.” See California Environmental Protection Agency, *Designation of Disadvantaged Communities Pursuant to Senate Bill 535 (De Leon)* (April 2017), <https://calepa.ca.gov/wp-content/uploads/sites/6/2017/04/SB-535-Designation-Final.pdf>.

⁴⁵ See CalEnviroScreen 3.0 Ozone Percentile for Bakersfield Hydraulic Fracturing Planning Area, attached as Exhibit 2. Source data for this map is from the OEHHA CalEnviroScreen 3.0 Tool, Air Quality: Ozone Indicator, <https://oehha.ca.gov/calenviroscreen/indicator/air-quality-ozone>. Updated maps using CalEnviroScreen 5.0 Draft (updated in 2026) are also provided. Ozone causes lung irritation and worsening of chronic health conditions, increases asthma emergency room visits, and can increase mortality. Children are most sensitive to the effects of ozone exposure.

⁴⁶ See CalEnviroScreen 3.0 PM 2.5 Percentile for Bakersfield Hydraulic Fracturing Planning Area, attached as Exhibit 3. Source data for this map is from the OEHHA CalEnviroScreen 3.0 Tool, Air Quality: PM 2.5 Indicator, <https://oehha.ca.gov/calenviroscreen/indicator/air-quality-pm25>. Updated maps using CalEnviroScreen 5.0 Draft (updated in 2026) are also provided. Particulate matter that is 2.5 micrometers or less in diameter (PM 2.5) causes many serious health effects, including heart and lung disease.

⁴⁷ U.S. EPA, Health Effects of Ozone in the General Population, <https://www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-general-population>; Lim, Chris, et al., *Long-Term Exposure to Ozone and Cause-Specific Mortality Risk in the United States* (2019) at 1027, <https://pubmed.ncbi.nlm.nih.gov/31051079/>.

⁴⁸ American Lung Association, *State of the Air 2025*, <https://www.lung.org/research/sota/city-rankings/states/california/kern>.

⁴⁹ CCST Report, Vol. II at 407-412.

CalEnviroScreen 3.0's Drinking Water Indicator, which combines drinking water quality data for public and non-public drinking water systems, residents in the vast majority of the Planning Area already drink water that contains contamination from chemicals or bacteria.⁵⁰ Residents served by the vast majority of public water systems in California rely on groundwater, and more than 25 percent of those systems rely on a contaminated groundwater source.⁵¹ Kern County in particular has the second highest number of community water systems that rely on contaminated groundwater.⁵² Small community water systems, which serve residents in parts of the Planning Area, typically lack the infrastructure and economies of scale of larger water systems to afford necessary treatment or identification of alternative water supplies for a contaminated groundwater source.⁵³ Furthermore, many residents in the Planning Area rely on private, domestic wells for drinking water that are unregulated, and data available for private wells indicates significant contamination issues in the Planning Area.⁵⁴ Given the scope of the existing drinking water contamination in the Planning Area, any additional impacts from hydraulic fracturing should be identified and mitigated.

The Draft SEIS also fails to account for the close proximity of oil and gas activities to residents. More than three million people are known to live within one kilometer (approximately 3,200 feet) of the State's 83,000 active-producing oil and gas wells.⁵⁵ Compared to the overall California population, Hispanic, non-Hispanic Black, and non-Hispanic Asian communities, as well as populations of lower socioeconomic status, are more likely to live within 1 km (3,281 ft) of at least one active well and live in areas with the highest density of oil and gas wells.⁵⁶ In Kern County alone, as of 2014, 35 percent of the county's residents (290,000) lived within a mile of at least one oil or gas well, and nearly 58 percent of those residents living within a mile of a well were people of color.⁵⁷

⁵⁰ See CalEnviroScreen 3.0 Drinking Water Percentile for Bakersfield Hydraulic Fracturing Planning Area, attached as Exhibit 4. Updated maps using CalEnviroScreen 5.0 Draft (updated in 2026) are also provided. Source data for this map is from the OEHHA CalEnviroScreen 3.0 Tool, Drinking Water Indicator,

<https://oehha.ca.gov/calenviroscreen/indicator/drinking-water-contaminants>. See also OEHHA, *Methodology for a Statewide Drinking Water Contaminant Indicator* (Jan. 2017),

<https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3dwm methodology.pdf>.

⁵¹ 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>.

⁵² *Id.* at 33.

⁵³ *Id.*

⁵⁴ See CalEnviroScreen 3.0 Drinking Water Percentile for Bakersfield Hydrologic Fracturing Planning Area. Source data for this map is from the OEHHA CalEnviroScreen 3.0 Tool, Drinking Water Indicator, <https://oehha.ca.gov/calenviroscreen/indicator/drinking-water-contaminants>, attached as Exhibit 4. Updated maps using CalEnviroScreen 5.0 Draft (updated in 2026) are also provided.

⁵⁵ Shonkoff et al, *Public Health Dimensions of Upstream Oil and Gas Development in California and Synthesis to Inform Science-Policy Decision Making* ES-5 (June 21, 2024),

https://www.conservation.ca.gov/calgem/Documents/Public_Health_Panel_Final_Report_20240621.pdf.

⁵⁶ *Id.* at ES-2.

⁵⁷ Natural Resources Defense Council, *Drilling in California: Who's at Risk?* 13-15 (Oct. 2014).

Studies increasingly show links between exposure to oil and gas operations and public health impacts, including cancer, adverse birth outcomes, and preterm births.⁵⁸ Residents living near oil and gas operations can experience acute respiratory, neurological, and gastrointestinal symptoms from exposure to the operations, such as headaches, fatigue, burning eyes and throats, nausea, and nosebleeds.⁵⁹ Residents also experience sleep disturbance from noise levels from oil and gas activity.⁶⁰ A state-commissioned public health expert panel that worked with CalGEM, California's oil and gas regulatory agency, recently released a report affirming that proximity to oil and gas production increases the likelihood of adverse health outcomes, and those outcomes get worse where the density of wells is greater.⁶¹ The report concludes with a "high level of certainty" that there is a causal relationship between close proximity to oil and gas development and negative health impacts, particularly adverse perinatal and respiratory outcomes like reduced fetal growth, preterm birth, asthma, and reduced lung function.⁶² It cites research estimating that, in 2025, nearly 100 premature deaths in California will be attributed to oil and gas pollution.⁶³

⁵⁸ See, e.g., Intrinsic Environmental Sciences Inc., Prepared for British Columbia Ministry of Health *Phase 2- Human Health Risk Assessment of Oil and Gas Activity in Northeastern British Columbia: Task 3 – Literature Review* (April 2013); 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>; Balise, et al., "Systematic Review of the Association between Oil and Natural Gas Extraction Processes and Human Reproduction," *Fertility & Sterility* 106:4 (Sept. 2016) at 795-819, <https://www.sciencedirect.com/science/article/pii/S0015028216625293>; McKenzie, Lisa M., et al., "Birth Outcomes and Maternal Residential Proximity to Natural Gas Development in Rural Colorado," *Environmental Health Perspectives* 122 (2014) at 412-417, <https://pmc.ncbi.nlm.nih.gov/articles/PMC3984231/>; Casey, et al., "Unconventional Natural Gas Development and Birth Outcomes in Pennsylvania," *Epidemiology* 27 (2016) at 163-172, <https://pubmed.ncbi.nlm.nih.gov/26426945/>; Li, X., et al., "Association between Ambient Fine Particulate Matter and Preterm Birth or Low Birth Weight: An Updated Systematic Review and Meta-Analysis," *Environmental Pollution* 227 (2017) at 596-605, <https://pubmed.ncbi.nlm.nih.gov/28457735/>; Shonkoff et al, *Public Health Dimensions of Upstream Oil and Gas Development in California and Synthesis to Inform Science-Policy Decision Making* Chapter 3 (June 21, 2024), https://www.conservation.ca.gov/calgem/Documents/Public_Health_Panel_Final_Report_20240621.pdf.

⁵⁹ Webb, et al., "Potential Hazards of Air Pollutant Emissions from Unconventional Oil and Natural Gas Operations on the Respiratory Health of Children and Infants," *Reviews on Environmental Health* 31 (2016) at 225-243, <https://pubmed.ncbi.nlm.nih.gov/27171386/>; Tustin, et al., "Associations between Unconventional Natural Gas Development and Nasal and Sinus, Migraine Headache, and Fatigue Symptoms in Pennsylvania," *Environmental Health Perspectives* 125 (2016) at 189-197, <https://pmc.ncbi.nlm.nih.gov/articles/PMC5289909/>; Los Angeles County Department of Public Health, *Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County* (Feb. 2018), http://publichealth.lacounty.gov/eh/docs/PH_OilGasFacilitiesPHSafetyRisks.pdf; Shonkoff et al, *Public Health Dimensions of Upstream Oil and Gas Development in California and Synthesis to Inform Science-Policy Decision Making* Chapter 3 (June 21, 2024), https://www.conservation.ca.gov/calgem/Documents/Public_Health_Panel_Final_Report_20240621.pdf.

⁶⁰ Hays, et al., "Public Health Implications of Environmental Noise Associated with Unconventional Oil and Gas Development," *Science of the Total Environment* 580 (Feb. 2017) at 448-456.

⁶¹ Shonkoff et al, *Public Health Dimensions of Upstream Oil and Gas Development in California and Synthesis to Inform Science-Policy Decision Making* ES-2 – ES-14 (June 21, 2024), https://www.conservation.ca.gov/calgem/Documents/Public_Health_Panel_Final_Report_20240621.pdf.

⁶² *Id.* at ES-8.

⁶³ *Id.* at 2-3, 4-17.

The increasing evidence of public health effects for residents exposed to oil and gas activity is particularly concerning in the Planning Area, where many residents already experience the highest rates of cardiovascular disease⁶⁴ and low birth weights⁶⁵ in the state, in addition to the existing significant levels of air and water pollution and high poverty levels. BLM must redo its analysis to consider how the Proposed Action will impact low-income communities and communities of color.

IV. The Draft SEIS Fails to Consider Reasonable Alternatives to the Proposed Action.

The Draft SEIS also fails to consider a reasonable range of alternatives to the Proposed Action. NEPA requires project proponents to provide a “detailed statement” regarding the “alternatives to the proposed action.” 42 U.S.C. § 4332(2)(C)(iii). The requirement to consider reasonable alternatives “lies at the heart of any NEPA analysis.” *California ex rel. Lockyer v. U.S. Dept. of Agric.*, 459 F. Supp. 2d 874, 905 (N.D. Cal. 2006). The alternatives requirement also “ensures that each agency decision maker has before him and takes into proper account all possible approaches to a particular project (including total abandonment of the project) which would alter the environmental impact and the cost-benefit balance.” *Calvert Cliffs Coordinating Committee v. United States Atomic Energy Commission*, 449 F.2d 1109, 1114 (D.C. Cir. 1971). “The existence of a viable but unexamined alternative renders” an EIS inadequate. *Western Watersheds Project v. Abbey*, 719 F.3d 1035, 1050 (9th Cir. 2013) (internal quotations and citations omitted).

In the Draft SEIS, BLM “brings forward” the same alternatives that it previously considered in the 2012 Final EIS, claiming that the district court “upheld the range of alternatives” in that document. Draft SEIS at ES-1, 1. These alternatives include “No Action” (Alternative A), the Proposed Action to open 1,011,470 acres to fluid mineral leasing (Alternative B), as well as three additional alternatives (Alternatives C-E) that are similar to the Proposed Action but differ slightly in terms of their emphasis on conservation, livestock grazing, or the production of natural resources. *Id.* at 15-16. However, given that the stated purpose of the Draft SEIS is to analyze the environmental impacts of hydraulic fracturing, Draft SEIS at 2, BLM must consider additional alternatives that relate to this purpose and which could potentially reduce the significant impacts of such operations.

⁶⁴ See CalEnviroScreen 3.0 Cardiovascular Rate Percentile for Bakersfield Hydraulic Fracturing Planning Area, attached as Exhibit 5. Source data for this map is from the OEHHA CalEnviroScreen 3.0 Tool, Cardiovascular Disease Indicator, <https://oehha.ca.gov/calenviroscreen/indicator/cardiovascular-disease>. Updated maps using CalEnviroScreen 5.0 Draft (updated in 2026) are also provided. 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.

⁶⁵ See CalEnviroScreen 3.0 Low Birth Rate Percentile for Bakersfield Hydraulic Fracturing Planning Area, attached as Exhibit 6. Source data for this map is from the OEHHA CalEnviroScreen 3.0 Tool, Low Birth Weight Infant Indicator, <https://oehha.ca.gov/calenviroscreen/indicator/low-birth-weight-infants>. Updated maps using CalEnviroScreen 5.0 Draft (updated in 2026) are also provided. 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.

BLM's reliance on the same alternatives that were included in the 2012 Final EIS based on the district court's decision in *Los Padres ForestWatch* misses the mark. In that decision, the district court found that BLM had provided a reasonable justification for excluding "an alternative that would have closed substantially more lands" to oil and gas leasing, given that "nearly all anticipated development is expected to occur on existing leases" and BLM had "properly considered the mix of tools available in its arsenal to balance the competing priorities of developing federal lands and protecting the environment." *Los Padres ForestWatch*, 2016 WL 5172009 at *14.

However, as the district court also stated, "[c]onsideration of reasonable alternatives is necessary to ensure that the Bureau has before it and takes into account all possible approaches to, and potential environmental impacts of, a particular project." *Id.* at *13; *see id.* at *14 (BLM is "obligated to examine reasonable alternatives to mitigate or reduce the overall *environmental impact* and not specifically the overall oil and gas activity on federal lands") (emphasis in original). Given that the court found that BLM must conduct this supplemental EIS to take a "hard look" at the environmental impacts of hydraulic fracturing, simply "bringing forward" the same alternatives from an environmental review that entirely failed to consider such operations precludes BLM from considering approaches that could actually reduce the overall environmental impact of fracking activities, in direct violation of NEPA. In other words, BLM cannot simply "bring[] forward" the same alternatives from a prior, defective review that entirely failed to consider such hydraulic fracturing operations.

Additional alternatives that BLM should consider to mitigate or reduce the environmental impacts of hydraulic fracturing include:

- (1) Clarifying that hydraulic fracturing operations are prohibited in California;
- (2) Limiting the number of hydraulic fracturing operations in a given year;
- (3) Closing more public lands to mineral leasing;
- (4) Placing ecologically sensitive areas off limits to hydraulic fracturing;
- (5) Prohibiting leasing in areas with low or no potential for oil and gas development (this is an alternative that BLM itself evaluated in the Supplemental EIS for the Central Coast Oil and Gas RMP Amendment, *see* Central Coast Draft SEIS at 17-18); and
- (6) Limiting oil and gas development near communities.

Without a consideration of alternatives that are actually related to the environmental consequences of hydraulic fracturing, BLM's alternatives fail to allow for "informed decision-making and informed public participation," in violation of NEPA. *See California v. Block*, 690 F.2d 753, 767 (9th Cir. 1982).

V. BLM Failed to Identify or Discuss Adequate Mitigation Measures

NEPA requires that an agency identify feasible mitigation measures for any adverse environmental impacts resulting from a proposed action and its alternatives. *Robertson*, 490 U.S. at 351-52 ("[O]ne important ingredient of an EIS is the discussion of steps that can be taken to mitigate adverse environmental consequences."). Mitigation of environmental impacts must "be

discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated.” *City of Carmel-By-The-Sea v. U.S. Dep’t of Transp.*, 1 123 F.3d 1142, 1154 (9th Cir. 1997) (quoting *Robertson*, 490 U.S. at 353). Moreover, “[a]n essential component of a reasonably complete mitigation discussion is an assessment of whether the proposed mitigation measures can be effective.” *S. Fork Band Council of W. Shoshone of Nev. v. U.S. Dep’t of the Interior*, 588 F.3d 718, 727 (9th Cir. 2009) (finding that the EIS violated NEPA by failing to “assess the effectiveness of the mitigation measures relating to groundwater”).

Throughout the Draft SEIS, BLM declines to consider mitigation measures and instead indicates that such measures will be evaluated later in the development process:

- Page 3 – “During this project-specific [APD] review, BLM would finalize project mitigation measures, Best Management Practices (BMPs), and apply appropriate stipulations from the 2014 RMP.”
- Page 28 – “BLM will consider water-quantity risks during APD review . . . Mitigation may be required through design features and enforceable conditions of approval (COA), for example, source-water selection, pumping limits, and metering/monitoring and reporting.”
- Page 29 – “BLM will assess water-quality risks during project-level authorization review . . . Mitigation may be required through design features and enforceable COAs (e.g., produced-water handling and disposal controls, secondary containment, spill prevention/response, and monitoring/reporting).” Coordination with state and federal entities is also deferred to that time.
- Page 57 – “Approval of future development may include the application of BMPs within BLM’s authority, included as COA, to reduce or mitigate GHG emissions. Additional measures proposed at the project development stage may be incorporated as applicant-committed measures by the project proponent or added to necessary air quality permits.”
- Page 58 – Potential impacts to newly proposed for listing or newly listed species “would be mitigated by the CSU stipulations. Site specific review would be conducted at the APD phase, and consultation would be conducted on a case-by-case basis, if needed.”
- Page 58 – “Potential direct and indirect impacts to special status species from hydraulic fracturing activities depend on species occurrence within a potential leasing area and would therefore be further analyzed at the leasing stage and protective measures and lease stipulations would be applied at that stage.”
- Page 60 – “Valley Fever represents a risk to worker safety. However, with the application of appropriate BMPs and adherence to regulatory guidance, the risk is substantially mitigated.”

This deferral of mitigation and best management practices is inappropriate. *S. Fork Band Council*, 588 F.3d at 727; *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1380 (9th Cir. 1998). As the Ninth Circuit has frequently stated in NEPA cases, it is “not appropriate to defer consideration” of impacts to a future date “when meaningful consideration can be given now.” See *Kern v. U.S. BLM*, 284 F.3d 1062, 1075 (9th Cir. 2002). BLM is also in a better position now to evaluate and mitigate impacts that will result from the collective increase

in oil and gas development and hydraulic fracturing enabled by the 2014 RMP than it will be when it considers Approval to Drill (“APD”) applications. For example, air pollution increases that contribute to nonattainment are better assessed holistically rather than when operators seek APDs for one well at a time. Similarly, impacts to special status species from habitat loss cannot be addressed only at the site-specific scale of APDs. Mitigation is especially critical if BLM and operators expect CalGEM to rely on BLM’s Supplemental EIS for approval of oil and gas permits without conducting additional environmental review pursuant to CEQA, as CEQA requires a separate discussion of mitigation measures. *See* Cal. Code Regs., tit. 14, § 15221.

Mitigation Measures Regarding Impacts to Special Status Species and Their Habitats

BLM’s Proposed Action has the potential to adversely impact numerous special-status species and the habitats that support these species. However, the Draft SEIS fails to adequately identify or discuss feasible mitigation measures regarding these adverse impacts. Instead, the Draft SEIS simply refers back to impacts analyzed in the 2012 Final EIS and 2019 Final SEIS and notes that mitigation may be applied during project-specific analyses. *See* Draft SEIS at 58. This treatment of mitigation of species impacts is inadequate.

As CDFW noted in their 2019 comments, “the 2014 RMP does not include mitigation measures, BMPs, or stipulations that are adequate to conserve, protect, and manage” certain special status species and their habitats.⁶⁶ In particular, the mitigation measures included in Appendix 3 of the 2014 RMP (and Appendix L of the 2012 Final EIS) are not specific enough, only cover a small subset of protected species in the Planning Area, and even allow for the take of species that are covered, including the Blunt-nosed Leopard Lizard, San Joaquin Kit Fox, Giant Kangaroo Rat, and San Joaquin Antelope Squirrel. Unauthorized “take” of species is prohibited by state and federal law, and subject to criminal enforcement. *See* Cal. Fish & Game Code §§ 2000, 2080, 12000(a), 12008, 12008.1; *see also* 16 U.S.C. §§ 1532(19), 1538(a).

CDFW in 2019 asked for the inclusion of additional mitigation measures, including: state-recommended survey protocols to avoid the taking of protected species; implementing no-disturbance buffers to minimize ground disturbance; conducting habitat surveys in the Planning Area to proactively protect suitable habitats; ensuring the restoration of normal water flow immediately after disruptive activities to maintain the integrity of streams; and habitat compensation to account for impacts to lands from the Proposed Action. In comments submitted during the Scoping Period in 2025, CDFW identified additional needed mitigation measures, including decreasing impacts of artificial outdoor lighting through installation of only motion sensitive lighting; mounting light fixtures as low as possible to minimize light trespass; use of light fittings that direct and confine the spread of light directly downward; use of long-wavelength light sources; installing lighting only in areas that are not in or near Sensitive Natural Communities and habitats used by special-status species, and avoiding use of the white/blue wavelengths of the light spectrum. BLM’s failure to identify and discuss feasible mitigation

⁶⁶ California Department of Fish and Wildlife, *Comments on DOI-BLM-CA-C060-2018-0082-EIS* (June 6, 2019).

measures in the SEIS regarding sensitive species and their habitat is arbitrary and capricious and contrary to the requirements of NEPA and the APA.

Mitigation Measures Regarding Impacts to Public Health and Safety

BLM has also punted review and mitigation of other issues to the development application stage, despite acknowledging the “potential for [the RMP and subsequent lease sales] to add to a cumulative, disproportionate impact on environmental justice populations.” 2020 Bakersfield Lease Sale Final Environmental Assessment at 71. BLM knows that its Proposed Action will induce more drilling within or near large oil fields in Kern County, for example, that have long established practices and data regarding types of operations, equipment, and other sources of impacts. BLM is also able to determine the exact location of potential lease parcels relative to environmental justice communities. It is therefore appropriate for BLM to analyze and mitigate health and safety impacts on nearby communities now. As discussed, *infra*, BLM should not allow drilling with 3,200 feet of environmental justice communities or any other sensitive locations and should implement relevant safety measures identified in Senate Bill 1137. Relevant measures include leak detection and repair of sites including pipelines, suspension of operations in the event of a leak, vapor venting prevention, water sampling, sound controls, lighting controls, and dust controls. A 2024 public health expert panel report also sets out reasonable mitigation measures even outside of the public health and safety setback zone, including improved air quality monitoring and leak detection that is more specifically tailored to the variety of extraction processes and equipment that produce VOCs, additional setbacks between oil and gas wells and potential sources of drinking water, prohibitions on disposal of produced water into unlined ponds, better access to information about produced water disposal, restriction of chemicals with the greatest health risks, and chemical disclosure requirements.⁶⁷

THE DRAFT SEIS FAILS TO CONSIDER CONFLICTS WITH STATE AND LOCAL POLICIES.

The Draft SEIS fails to properly consider conflicts between the Proposed Action and directly applicable California laws and policies. BLM’s RMPs “shall” be consistent with state and local government resource-related plans, policies, and programs. 43 C.F.R. § 1610.3-2. BLM is “accountable for ensuring consistency if they have [] been notified, in writing, by State and local governments or Indian tribes of an apparent inconsistency” with state policies, plans, and programs. *Id.* To effectuate these requirements, BLM must identify inconsistencies and also provide the Governor the opportunity to identify inconsistencies and provide recommendations. *Id.* BLM must also document how inconsistencies between the proposed plan and state and local plans were “addressed and, if possible, resolved.” *Id.* at § 1610.3-1(f).

BLM has acknowledged that “[a]ll state laws apply on Federal lands, except those that are preempted by Federal law.” 80 Fed. Reg. at 16,179; *see also id.* (the requirement that

⁶⁷ Shonkoff et al, *Public Health Dimensions of Upstream Oil and Gas Development in California and Synthesis to Inform Science-Policy Decision Making* ES-8 – ES-19, (June 21, 2024), https://www.conservation.ca.gov/calgem/Documents/Public_Health_Panel_Final_Report_20240621.pdf.

operators “comply with all applicable laws,” “includes other Federal and state and local laws, rules, and regulations,” and is “repeated in the existing regulations at sections 3162.1(a) and 3162.5-1(a).”). Specifically with respect to hydraulic fracturing, operators “must comply” with “any applicable state requirements, just as they already must comply with both BLM rules and state rules on a variety of drilling and completion issues.” *Id.*

NEPA also requires that an agency discuss possible conflicts between the proposed action and state plans or policies. *See, e.g., Quechan Tribe of Ft. Yuma Indian Reservation v. U.S. Dep’t of the Interior*, 927 F. Supp. 2d 921, 946 (S.D. Cal. 2013) (finding that BLM did not violate NEPA where “numerous provisions” in EIS and ROD examined the project’s consistency with local laws and regulations and California determined there were no inconsistencies between the Project and state or local laws). In addition, NEPA requires supplementation when there “are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” *Marsh v. Oregon Nat. Res. Council*, 490 U.S. 360, 372 (1989).⁶⁸

BLM entirely fails to acknowledge relevant new information and changes in circumstances related to state and local laws and policies that address environmental concerns related to oil and gas drilling. Most significantly, the Draft SEIS ignores two state policy developments that significantly affect oil and gas activities in the Planning Area: a ban on hydraulic fracturing and a law establishing a 3,200-foot setback between new and reworked oil and gas wells and all sensitive locations. All oil and gas wells located on lands within California (including federal, state, local, and private lands) are permitted, drilled, operated, maintained, and plugged and abandoned under legal requirements and administrative procedures that CalGEM enforces and administers. CalGEM’s permitting authority and process applies to oilfield operations in California on all land administered by BLM whether that land is owned in total by the federal government or is a “split-estate.”⁶⁹

Regulations prohibiting new permits for well stimulation treatments such as hydraulic fracturing and acid matrix stimulation went into effect in October 2024. Cal. Code Regs., tit 14, § 1780(d). The regulations were developed following a 2020 Executive Order from Governor Newsom announcing that the State would cease issuing fracking permits due to health and safety harms to communities and workers.⁷⁰ Although BLM acknowledges that CalGEM has “regulatory authority over hydraulic fracturing in California,” and that California has a ban on the issuance of new hydraulic fracturing permits, Draft SEIS at 18, there is no affirmation that well stimulation is disallowed in the Planning Area.

⁶⁸ Department of Interior, 516 DM 1 NEPA Handbook, Section 3.6 (Feb. 2026), <https://www.doi.gov/document-library/handbook/516-dm-1-handbook-national-environmental-policy-act-implementing>.

⁶⁹ *See* Public Resources Code §§ 3008, 3013, 3106, 3203, and 3204; Cal. Code of Regs., title 14, §§ 1712, 1714; DOGGR Notice to Operators 2017-03.

⁷⁰ Executive Department, State of California, Executive Order N-70-20, Gavin Newsom (Sept. 23, 2020), <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf>.

In 2022, California Senate Bill (“SB”) 1137 established 3,200-foot drilling setback requirements (known as health protection zones) and other statutory requirements, including engineering controls for all wells, to protect the health and safety of adjacent communities, including residences and schools.⁷¹ SB 1137 sets forth a variety of new requirements related to health protection zones and to wells and production facilities based on their location relative to a health protection zone. CalGEM is no longer authorized to approve a notice of intention for any well with a wellhead (i.e., a surface location) situated within a health protection zone, unless a specific exception applies. Cal. Pub. Resources Code, §§ 3281, 3281.5. Construction and operation of new production facilities within a health protection zone is also prohibited unless a specific exception applies. *Id.*, § 3280(b). To implement SB 1137, CalGEM adopted emergency regulations establishing the administrative framework for the statutory prohibition of new wells and facilities within a 3,200-foot setback area from certain sensitive locations.⁷² CalGEM is currently undertaking a rulemaking process to permanently adopt those regulations.⁷³ In addition, by January 1, 2027, operators of oil and gas production wells and production facilities within a health protection zone will be required to submit a leak detection and response plan that contains four key components: installation of a continuously operating emission detection system to provide rapid detection of leaks; an effective and reliable alarm system that alerts the operator of leaks when triggered; a response protocol that provides for the rapid identification and repair of leaks; and provisions for notifying local communities when the leak source cannot be identified or fixed within 48 hours.⁷⁴ There is no acknowledgment in the Draft SEIS that this law exists, let alone any attempt to ensure consistency by evaluating a compliant alternative or mitigation that would apply to wells within 3,200 feet of sensitive receptors. This is despite the fact that CalGEM has created a mapping tool that allows users to easily view the health protection safety zone relative to BLM leases and areas where BLM is the surface management agency (See Exhibit 7).

Other recent regulatory updates directly affect oil and gas operations. In 2019, updated underground injection control regulations went into effect that increase testing, monitoring, and disclosure requirements, as well as set automatic triggers that require operators to cease injections to protect groundwater and public safety. Cal. Code Regs., tit 14, §§ 1724.5-1724.13. Effective in 2019 and updated in 2025, there are also requirements for testing and elimination of idle wells. Pub. Resources Code, § 3206; Cal. Code Regs., tit. 14, §§ 1772-1772.7. BLM must evaluate if its Proposed Action is consistent with these requirements.

⁷¹ SB 1137, 2022 Leg., Reg. Sess. (Cal. 2022).

⁷² SB 1137 First Emergency Implementation Regulations, Cal. Code Regs., tit. 14, § 1765 et seq., <https://www.conservation.ca.gov/calgem/Documents/Final%20Text%20SB%201137%20First%20Emergency%20Regulations%2020230106.pdf>.

⁷³ SB 1137 Notice of Proposed Action (Aug. 1, 2025), https://conservation.ca.gov/calgem/Documents/SB%201137%20Notice%20of%20Proposed%20Action%20v2_Clean.pdf.

⁷⁴ California Air Resources Board, *Senate Bill 1137: Establishment of Health Protection Zones, Oil and Gas Production Wells and Production Facilities*, <https://ww2.arb.ca.gov/our-work/programs/senate-bill-1137-establishment-health-protection-zones-oil-and-gas-production>.

There are a number of additional state plans and policies that conflict with BLM's Proposed Action. The use of hydraulic fracturing would open up previously unproductive hydrocarbon formations and extend the life of existing formations, with resulting significant impacts. California has a statutory target of reducing GHG emissions by 40 percent below 1990 levels by 2030, Cal. Health & Safety Code § 38566, and net zero GHG emissions by 2045 (Assembly Bill 1279), *id.* § 38562.2; Executive Order B-55-18. CARB's 2022 Scoping Plan for Achieving Carbon Neutrality lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by Assembly Bill 1279. This path includes reduction of oil and gas extraction by approximately 89 percent in 2045 from 2022 levels.⁷⁵ Each scenario the California Air Resources Board studied incorporated a phaseout of 90 to 100 percent of oil extraction and oil refining by 2045.⁷⁶ Increasing oil and gas operations and opening new lands to leasing is contrary to and inconsistent with these statutory targets and the 2022 Scoping Plan.

California has also 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 a significant adverse impact on the state's ability to meet these goals. California State Assembly Bill 617 (2017) created a California Air Resources Board ("CARB") Community Air Protection Program that is focused on reducing exposure in communities most impacted by air pollution.⁷⁷ CARB selected its initial ten communities for focused emissions reduction and air monitoring in 2018, two of which are located in the Planning Area: Shafter and South Central Fresno.⁷⁸ CARB selected Arvin/Lamont as an additional community for focused air emissions reduction in the Planning Area.⁷⁹ The San Joaquin Valley Air Pollution Control District has adopted emissions reduction programs for this community.⁸⁰ The ability of the state to meet emissions reduction program goals in the Planning Area will be inhibited by and is inconsistent with BLM's Proposed Action.

CARB also created a Study of Neighborhood Air near Petroleum Sources ("SNAPS") to better understand air quality in communities near oil and gas operations.⁸¹ This project informs the Community Air Protection Program and state policy around air emissions in these

⁷⁵ California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality* 102 (Nov. 16, 2022), <https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf>.

⁷⁶ *Id.* at 24, Table 1.

⁷⁷ California Air Resources Board, *Community Air Protection Blueprint* (Oct. 2018), https://ww2.arb.ca.gov/sites/default/files/2018-10/final_community_air_protection_blueprint_october_2018.pdf.

⁷⁸ California Air Resources Board, *Community Air Protection Program, 2018 Community Recommendations Staff Report* 7 (Sept. 11, 2018), https://ww2.arb.ca.gov/sites/default/files/2018-09/2018_community_recommendations_staff_report_revised_september_11.pdf.

⁷⁹ California Air Resources Board, *Selected Communities in the Program*, <https://ww2.arb.ca.gov/capp/com/selected-communities-in-the-program>.

⁸⁰ *Arvin/Lamont Community Emissions Reduction Program* (June 16, 2022), https://community.valleyair.org/media/4014/6-final_arvinlamont-cerp_610.pdf (identifying as measures rules for crude oil production sumps and leak detection and repair rules for oil and gas industrial processes).

⁸¹ 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.

communities. The first community selected by CARB for an intensive air monitoring study, Lost Hills, is in the Planning Area, and monitoring commenced in May 2019.⁸² The final report summarizing the findings of the study noted that “Oil and gas-related sources are also a major source category impacting Lost Hills,” and recommended additional inspections of oil and gas facilities.⁸³ The Draft SEIS and any future BLM decision-making should consider the results from this study.

There are also several state water laws and policies that are largely ignored by the Draft SEIS. In 2012, California enacted Water Code section 106.3, making California the first state in the nation to recognize the human right to water.⁸⁴ 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.⁸⁵ 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. The California Sustainable Groundwater Management Act, enacted in 2014, also requires implementation of groundwater sustainability plans to avoid undesirable groundwater impacts and mitigate overdraft within 20 years. Cal. Water Code § 10720 *et seq.* As discussed above, many of the disadvantaged and marginalized communities residing in the Planning Area do not have access to clean, safe, and affordable water.⁸⁶ In addition, there are potentially significant impacts to groundwater from contamination, overdraft, and land subsidence resulting from the Proposed Action, which would compound the significant water contamination and overdraft issues many communities in the Planning Area are already dealing with. Thus, any risk of additional contamination or reduction in water supplies resulting from hydraulic fracturing on BLM lands is significant and would be inconsistent with the state’s laws and policies.

The Metropolitan Bakersfield Habitat Conservation Plan (MBHCP) is another source of inconsistency. The MBHCP required that many acres of habitat within the Planning Area be protected in perpetuity; these lands were acquired and then transferred to California Department of Fish and Wildlife ownership as permanent compensatory habitat mitigation to offset the impacts of past development activities within the MBHCP planning boundary. *See* Fish & G. Code § 2050 *et seq.*; 14 Cal. Code Regs. §§ 550, 550.5, 630. These MBHCP mitigation lands, and specifically those within Kern County in the California Department of Fish and Wildlife’s Lokern and Semitropic Ecological Reserves (14 Cal. Code Regs. § 630(b)(78), (124)), support species that are critically imperiled and whose range does not extend much beyond the

⁸² California Air Resources Board, *Lost Hills Air Monitoring Plan (SNAPS)* (May 2019),

<https://ww2.arb.ca.gov/resources/documents/lost-hills-air-monitoring-plan-snaps>.

⁸³ California Air Resources Board, *SNAPS Lost Hills Summary Report* (Oct. 2025),

https://ww2.arb.ca.gov/sites/default/files/2025-10/SNAPS_Lost_Hills_Summary_Report.pdf.

⁸⁴ California State Assembly Bill 685 (2012).

⁸⁵ *California State Water Resources Control Board*, Resolution No. 2016-0010; *California Regional Water Quality Control Board, Central Valley Region*, Resolution R5-2016-0018.

⁸⁶ *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%281%29.pdf.

boundaries of the Southern San Joaquin Valley. The Draft SEIS does not discuss the MBHCP and potential direct and indirect impacts to MBHCP mitigation lands from the Proposed Action.

BLM must revise the Draft SEIS to properly consider conflicts between the Proposed Action and relevant state and local laws and policies.

BLM FAILS TO SUPPLEMENT ITS ANALYSIS TO ACCOUNT FOR NEW CIRCUMSTANCES AND INFORMATION

After nearly a decade and a half, BLM’s 2012 EIS needs a refresh that goes beyond addressing the specific deficiencies addressed by the court in *Los Padres ForestWatch v. U.S. Bureau of Land Mgmt.*, 2016 WL 5172009 (C.D. Cal. Sept. 6, 2016). Post-decision supplemental impact statements are not “expressly addressed in NEPA,” but the U.S. Supreme Court has held that they are sometimes necessary given the statute’s approach to environmental protection and concern with preventing uninformed agency action. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 370-71 (1989). Supplementation is required: “[1] If there remains ‘major Federal action’ to occur,” and [2] if there are significant new circumstances or information relevant to environmental concerns that will “affect the quality of the human environment” in a significant manner or to a significant extent not already considered.” *Id.* at 372-74 (quoting 42 U.S.C. § 4332(2)(C))⁸⁷.

BLM claims that its Draft SEIS was prepared to “determine whether changes are needed to the fluid minerals decisions in the 2014 RMP based on new information or changes in circumstance.” Draft SEIS at ES-1. However, statements elsewhere confirm that BLM was not open to considering any changes except those related to “analyz[ing] the environmental effects of hydraulic fracturing technology for oil and gas leasing and development of new leases within the Planning Area.” Draft SEIS at ES-1. For example, the notice of intent stated that: “Only those portions of the existing plan that need to be updated to respond to the issues and management concerns *identified in the court order and settlement agreement* will be reviewed. 90 Fed. Reg. 26,605, 26,605 (emphasis added).

Given the time that has lapsed since BLM prepared the 2014 RMP, 2012 Final EIS, and 2019 Final SEIS, additional significant new information and circumstances have emerged that will “affect the quality of the human environment” in a significant manner or to a significant extent not already considered.

This significant new information includes unacknowledged data and studies detailed in this comment above. In particular:

⁸⁷ See also Department of Interior, 516 DM 1 NEPA Handbook, Section 3.6 (2026), <https://www.doi.gov/document-library/handbook/516-dm-1-handbook-national-environmental-policy-act-implementing>.

Public Health

- Information presented by the Public Health Rulemaking Scientific Advisory Panel that worked with CalGEM prior to the passage of SB 1137. This information included a response to questions and report detailing that: (1) proximity to oil and gas production increases the likelihood of adverse health outcomes—particularly adverse perinatal and respiratory outcomes like reduced fetal growth, preterm birth, asthma, and reduced lung function—and those outcomes get worse where the density of wells is greater; (2) oil and gas development is responsible for the majority emissions of multiple of toxic air contaminants in the San Joaquin Valley; and (3) science strongly supports the need for health and safety setbacks for communities in close proximity to oil and gas development. The Panel also concluded that there is support for improved air quality monitoring and leak detection that is more specifically tailored to the variety of extraction processes and equipment that produce VOCs, additional setbacks between oil and gas wells and potential sources of drinking water, prohibitions on disposal of produced water into unlined ponds, better access to information about produced water disposal, restriction of chemicals with the greatest health risks, and chemical disclosure requirements.
- Information about where health and safety setbacks are located within the State.

Air Quality and GHG Emissions

- Information about emissions of significant air pollution from oil and gas operations, particularly sulfur oxides, hydrogen sulfide, volatile organic compounds, particulate matter, and toxic air contaminants including acetaldehyde, benzene, formaldehyde, hexane, and hydrogen sulfide.
- Information about GHG emissions associated with hydraulic fracturing.
- Information about the significant consequences of climate change, which led the State of California to pass laws setting GHG reduction targets and adopt a Scoping Plan with a path to reduce oil and gas extraction by approximately 90 percent by 2045.

Water Quality and Quantity

- Information about the prevalent use of unlined ponds in the Central Valley to store produced water, and that water in these ponds can contain hazardous chemicals that can threaten water supplies.
- Information about the need to analyze water quality and supply issues on a localized level.
- Information linking injection of hydraulic fracturing waste fluids to subsidence and seismic activity.

Cumulative Impacts

- Information about cumulative impacts from oil and gas operations, including from conventional and enhanced oil recovery operations on BLM lands in the Planning Area, the Central Coast RMP Amendment and Supplemental EIS for Oil and Gas Leasing, and Kern County's resumption of oil and gas development permitting.

Environmental Justice

- Information about the proximity of areas open for leasing to particular environmental justice communities, and about the increased health burdens from living near oil and gas activity.

Significant new circumstances include changes in state law and changes in oil and gas development in the broader Planning Area. First, with respect to state law, BLM ignores that CalGEM permits are required for operators to drill or hydraulically fracture wells in California. Hydraulic fracturing was entirely phased out by CalGEM regulations that went into effect on October 1, 2024, Cal. Code Regs. tit. §1780(d), and CalGEM may not approve a notice of intention for any well with a wellhead situated within the 3,200-foot health protection zone, Cal. Pub. Resources Code, §§ 3281, 3281.5. BLM does not acknowledge these changes or make any attempt to conform its Proposed Action to comport with them. BLM also ignores California’s climate plans and other state laws and policies discussed above.

Second, with respect to changes in oil and gas development in the Planning Area, BLM’s analysis fails to account for cumulative air pollutant and GHG emissions from wells on existing leases, private and state land in the planning area, and BLM’s nearby Central Coast Field Office RMP Amendment. BLM also fails to consider the use of enhanced oil recovery (“EOR”) methods in recent years. These methods present environmental concerns not sufficiently addressed in the Draft SEIS or earlier EISs it is supplementing. The California Energy Commission explained in 2021 that EOR is a process of injecting pressurized steam into oil reservoirs to thin heavy oil and increase the flow and the amount of recoverable crude oil.⁸⁸ Steamflooding uses wells to inject steam that will heat up the oil and allow it to flow to an extraction well. Cyclic steaming injects steam into an oil well, leaves it in place to soak, then pumps the steam out before crude is extracted. Steam is generated using boilers or combined heat and power, which are fueled by natural gas. Steamflooding and cyclic steaming increase the amount of recoverable crude oil from fields with heavy crudes, like those typically found in California. These techniques are needed to extend the life of production wells, particularly given that California has some of the nation’s oldest oil wells. According to a 2017 International Energy Agency survey, 96.5 percent of thermal EOR performed in the United States is performed in California and approximately 77 percent of California’s oil production comes from fields with steam wells.⁸⁹ In particular, EOR occurs in Fresno, Kern, San Luis Obispo, Santa Barbara, and Ventura Counties. Lost Hills, which is an oil field BLM identified as a “likely place for locating new wells on new federal oil and gas leases” in the Planning Area, Draft SEIS at 6, has the fifth highest number of EOR wells in California.⁹⁰ EOR has the potential to significantly impact water quantity, and also increases the impacts already associated with oil and gas development because EOR extends oil and gas development in areas where it would otherwise cease. Related to water quantity, EOR utilizes significantly more water than well stimulation.⁹¹

⁸⁸ California Energy Commission, *Petroleum Watch: California Oil Fields with Thermal Enhanced Oil Recovery* (Dec. 2021), https://www.energy.ca.gov/sites/default/files/2021-12/2021-12_Petroleum_Watch_ADA.pdf.

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ CCST Summary Report at 18, CCST Report, Vol. II at 61.

In 2013, the total volume of water injected by operators for EOR totaled 443 million cubic meters (360,000 acre-feet).⁹² This compares to about 1 million cubic meters (800 acre-feet) per year for hydraulic fracturing.⁹³ EOR also generates more air pollution and GHG emissions.⁹⁴

The court in *ForestWatch v. United States Bureau of Land Mgmt.*, No. CV154378MWFJEMX, 2016 WL 5172009 (C.D. Cal. Sept. 6, 2016), found that plaintiffs had waived claims that EOR techniques carried potentially harmful environmental impacts that were not considered in the 2012 Final EIS because they had not identified any documents or information about the harms of EOR in the comment period to make BLM aware of the issue. *Id.* at *10. Since 2016, BLM has been made aware of this issue, requiring BLM to supplement its analysis to consider the possible significant environmental harms from EOR.

BLM FAILED TO PROVIDE AN ADEQUATE OPPORTUNITY FOR PUBLIC COMMENT AND IGNORED SCOPING COMMENTS IT RECEIVED

The public is entitled to meaningful opportunities to participate in and comment on the preparation of BLM's planning activities. 43 C.F.R. § 1610.2(e). Accordingly, BLM is required to provide a 90-day public comment period for a draft EIS relating to a RMP, and it is expected to circulate a supplemental EIS in the same fashion as a draft EIS. 43 C.F.R. § 1610.2(e); BLM NEPA Handbook H-1790-1 at 102.

BLM provided the public with 49 days to comment on the Draft SEIS from when the EPA posted the Notice of Availability,⁹⁵ then extended the deadline to 56 days.⁹⁶ Even if counting from the date the notice was posted in the federal register by the Department of Interior,⁹⁷ the comment period was 59 days, not the full 90 days required by BLM's own regulations and NEPA handbook.

BLM also failed to adequately consider comments it received during the scoping period. For example, the Public Scoping Summary Report indicates that many comments submitted during the scoping period addressed "other laws" that BLM should consider for consistency when deciding whether to amend the RMP and how to supplement the EIS. Several of these comments addressed SB 1137, yet the Draft SEIS never mentions SB 1137. Comments from state agencies addressed changes in state laws and policies, requested that impacts to certain

⁹² CCST Report, Vol. II at 59.

⁹³ CCST Summary Report at 18.

⁹⁴ CCST Report, Vol. II at 40; *see also* Milleman, et al, "Enhanced oil recovery: Environmental issues and state regulatory programs," *Environment International* 7:3 (1979) at 165-177, <https://www.sciencedirect.com/science/article/pii/0160412082901039?via%3Dihub>.

⁹⁵ 91 Fed. Reg. 2131, 2131 (Jan. 16, 2026) (start date of January 16, end date of March 6).

⁹⁶ BLM, National NEPA Register, *Bakersfield Office Oil and Gas Leasing and Development Supplemental EIS*, <https://eplanning.blm.gov/Project-Home/?id=270babe9-a7f2-f011-8406-001dd802fdea> (noting comment deadline of March 13); 91 Fed. Reg. 5474, 5474.

⁹⁷ 91 Fed. Reg. 1330, 1331 (Jan. 13, 2026) (noting deadline of 45 days following the date the EPA publishes the Notice of Availability).

special status species and recreational areas be evaluated, and provided information on state water resources. These comments and issues were also not addressed in the Draft SEIS.

BLM'S FAILURE TO CONSULT WITH THE U.S. FISH AND WILDLIFE SERVICE VIOLATES THE ENDANGERED SPECIES ACT

The ESA provides that, “[e]ach federal agency shall ... insure that any action authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species.” 16 U.S.C. § 1536(a)(2).

Section 7 of the ESA establishes an interagency consultation process to assist federal agencies in complying with their duty to ensure against jeopardy to listed species or destruction or adverse modification of critical habitat. An agency must initiate consultation with the U.S. Fish and Wildlife Service (“FWS”) whenever it takes an action that “may affect” a listed species or its critical habitat. *See* 50 C.F.R. § 402.14(a). Agencies also must consult with FWS “on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under [ESA Section 4] or result in the destruction or adverse modification of critical habitat proposed to be designated for such species.” 16 U.S.C. § 1536(a)(4); *see also* 50 C.F.R. § 402.10.

“The minimum threshold for an agency action to trigger consultation with FWS is low.” *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 496 (9th Cir. 2011). “Section 7(a)(2) consultation is required so long as a federal agency retains ‘some discretion’ to take action for the benefit of a protected species.” *Nat. Res. Def. Council v. Jewell*, 749 F.3d 776, 784 (9th Cir. 2014) (en banc). “Actions that have any chance of affecting listed species or critical habitat—even if it is later determined that the actions are ‘not likely’ to do so—require at least some consultation under the ESA.” *Karuk Tribe v. U.S. Forest Serv.*, 681 F.3d 1006, 1027 (9th Cir. 2012) (en banc). Even effects that are mitigated or “trivial” may meet the ‘may affect’ threshold. *Swan View Coal. v. Weber*, 52 F. Supp. 3d 1133, 1145–47 (D. Mont. 2014).

The amendment of an RMP is an “agency action” to which the obligation to consult applies if the amendment “may affect” listed species. 50 C.F.R. § 402.02; *All. for the Wild Rockies v. United States Dep’t of Agric.*, 772 F.3d 592, 598-99 (9th Cir. 2014); citing *Lane Cty. Audubon Soc’y v. Jamison*, 958 F.2d 290, 293 (9th Cir. 1992) (BLM land use plans that designate areas for particular uses are agency action to which section 7 applies); *Pac. Rivers Council v. Thomas*, 30 F.3d 1050, 1055 (9th Cir. 1994).

BLM accordingly cannot make a decision unless and until it consults with FWS regarding protected species in the Bakersfield Field Office Planning Area. It is particularly important for BLM to consult with FWS regarding the species listed and provided candidate status since 2019, including the Fisher, Kern Canyon slender salamander, monarch butterfly, Northwestern pond turtle, and Southwestern pond turtle, and their critical habitat. BLM did not evaluate impacts to these five species, dismissing out hand potential impacts because BLM claims that proposed or designated critical habitat does not occur in relevant lease areas or the

supplemental analysis areas, which represent just a fraction of unleased lands in the planning Area. Draft SEIS at 6, 26. BLM's finding of non-occurrence is elsewhere contradicted when BLM states that "monarch butterflies may occur within the lease parcels" due to the prevalence of the milkweed plant. *Id.* at 27.

CONCLUSION

Given the serious deficiencies in the Draft SEIS, BLM should withdraw its current proposal, circulate an RMP amendment or revision, and prepare a new analysis that fully considers the environmental impacts of opening over one million acres of public lands in California to oil and gas leasing.

Sincerely,



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**Index of Materials Submitted in Support of Comments of the California Attorney General
on the Bureau of Land Management, Bakersfield Field Office Oil and Gas Leasing and
Development Draft Supplemental Environmental Impact Statement
DOI-BLM-CA-C060-2025-0053-RMP-EIS**

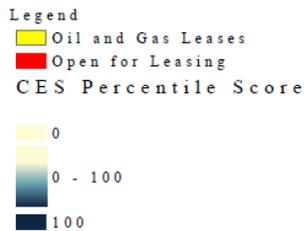
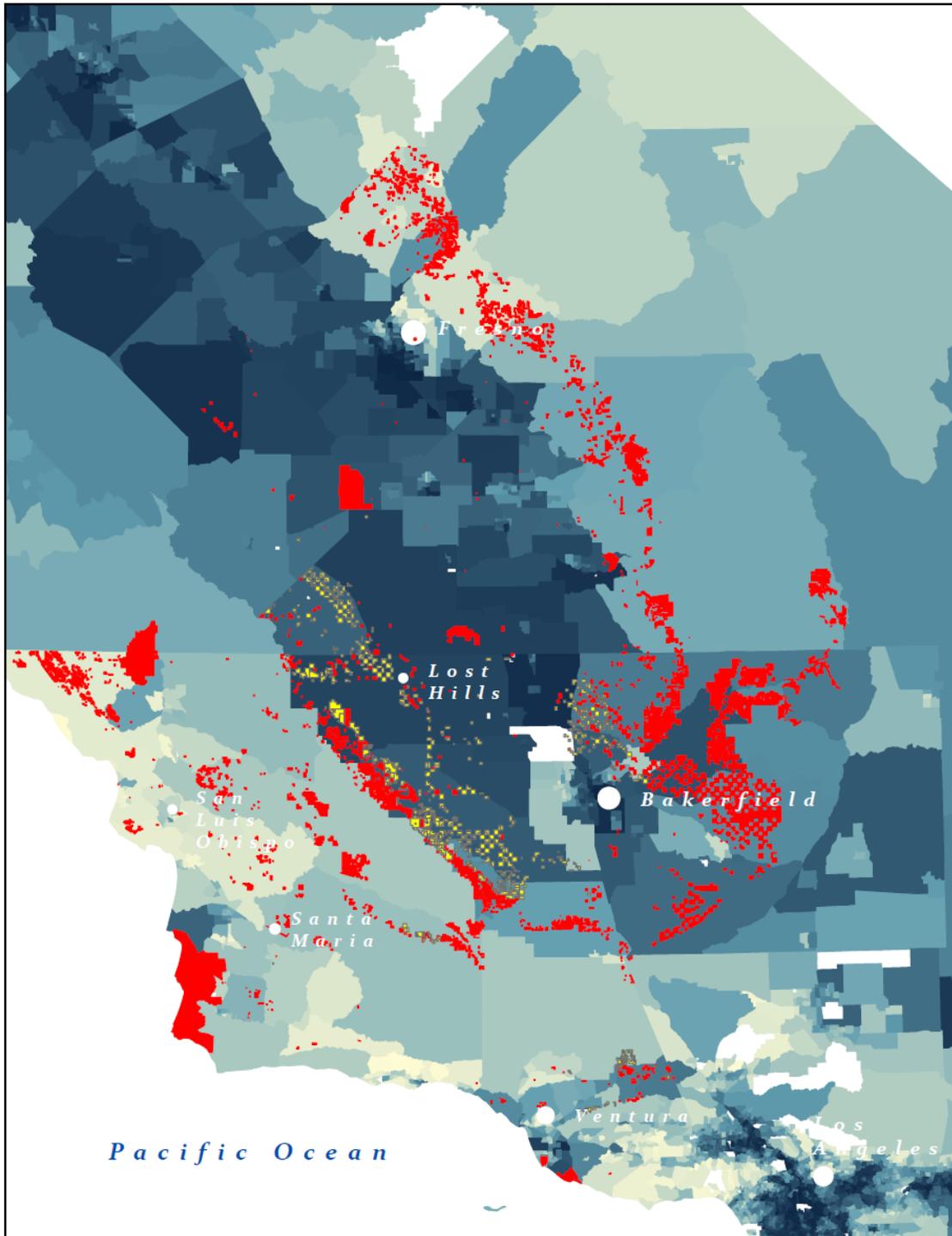
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21	California Air Resources Board, Senate Bill 1137: Establishment of Health Protection Zones, Oil and Gas Production Wells and Production Facilities, https://ww2.arb.ca.gov/our-work/programs/senate-bill-1137-establishment-health-protection-zones-oil-and-gas-production

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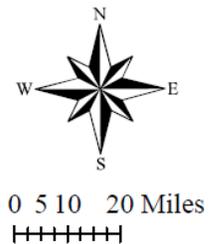
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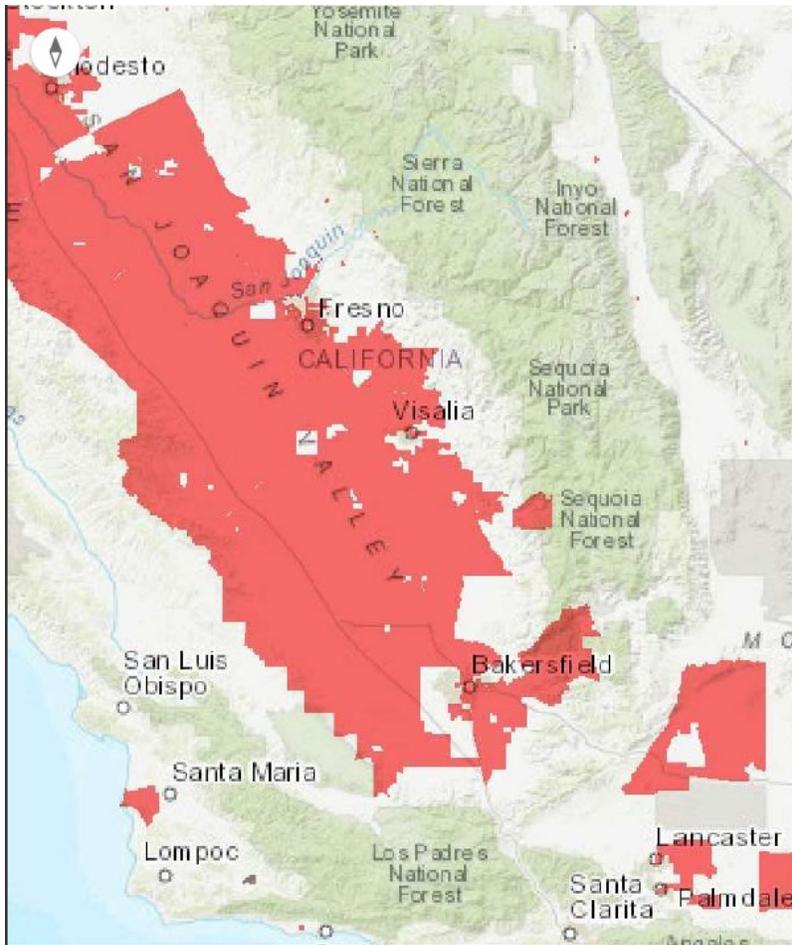
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Exhibit 1



**CalEnviroScreen 3.0 Overall
Percentile Score for
Bakersfield Hydraulic
Fracturing Planning Area**



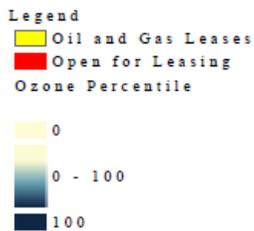
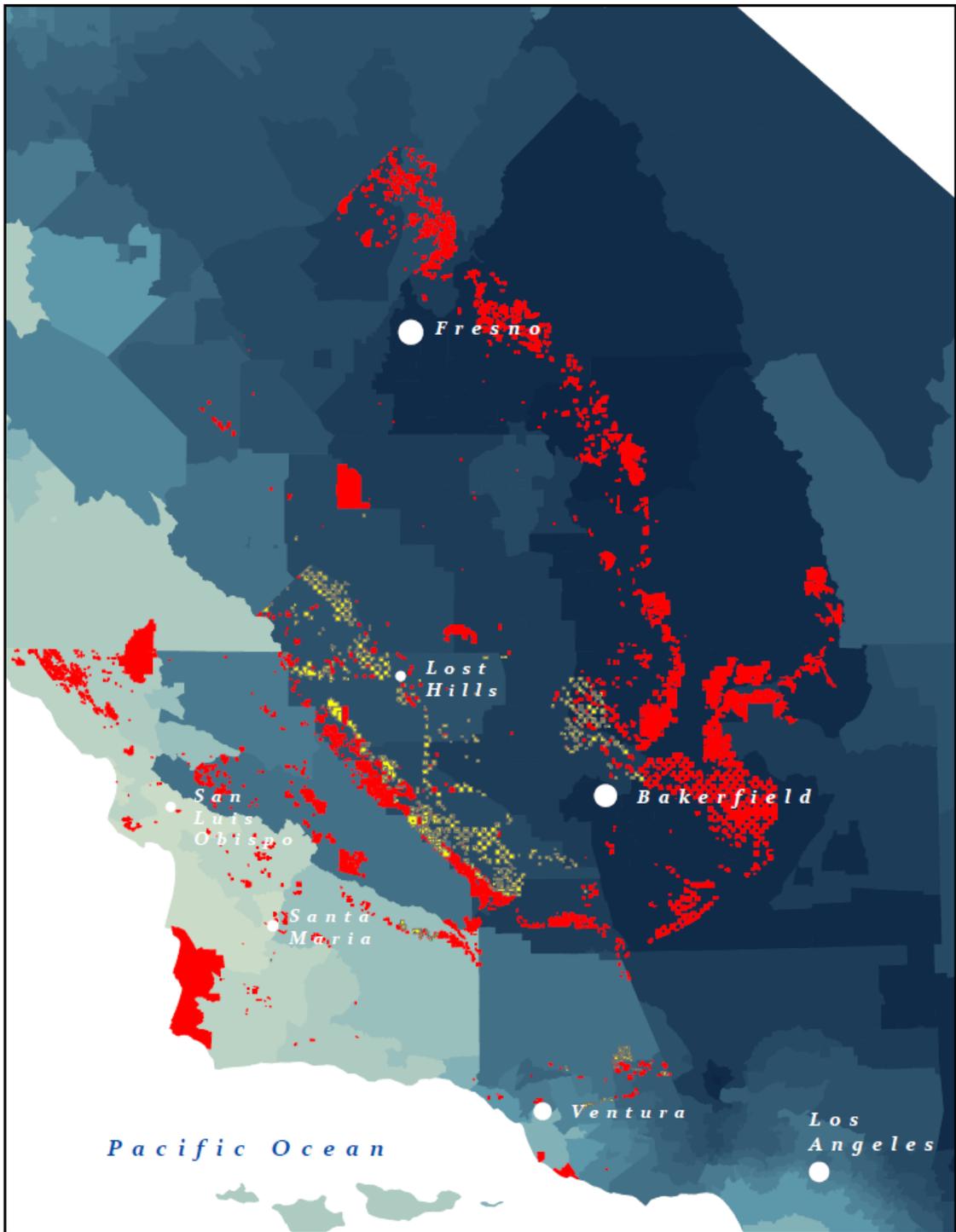


Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS

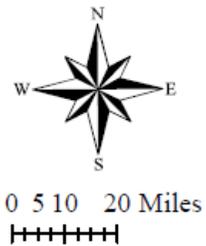
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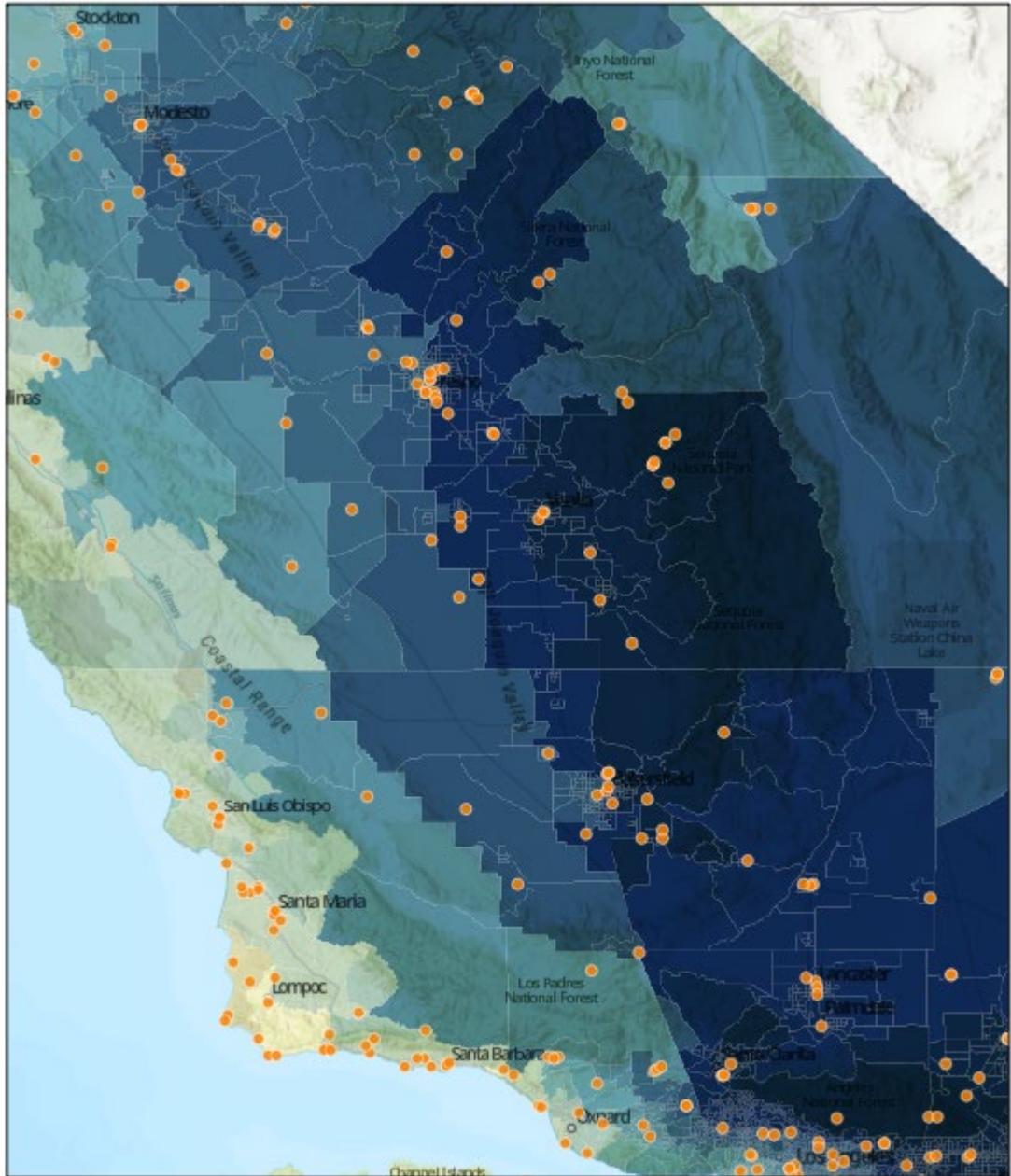


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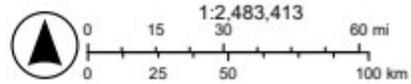
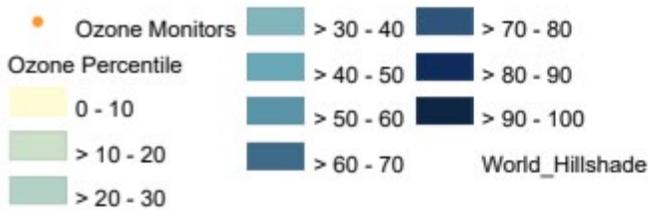


CalEnviroScreen 3.0 Ozone
Percentile for Bakersfield
Hydraulic Fracturing Planning
Area





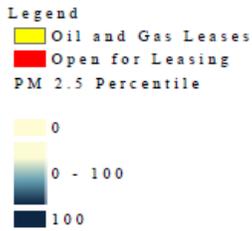
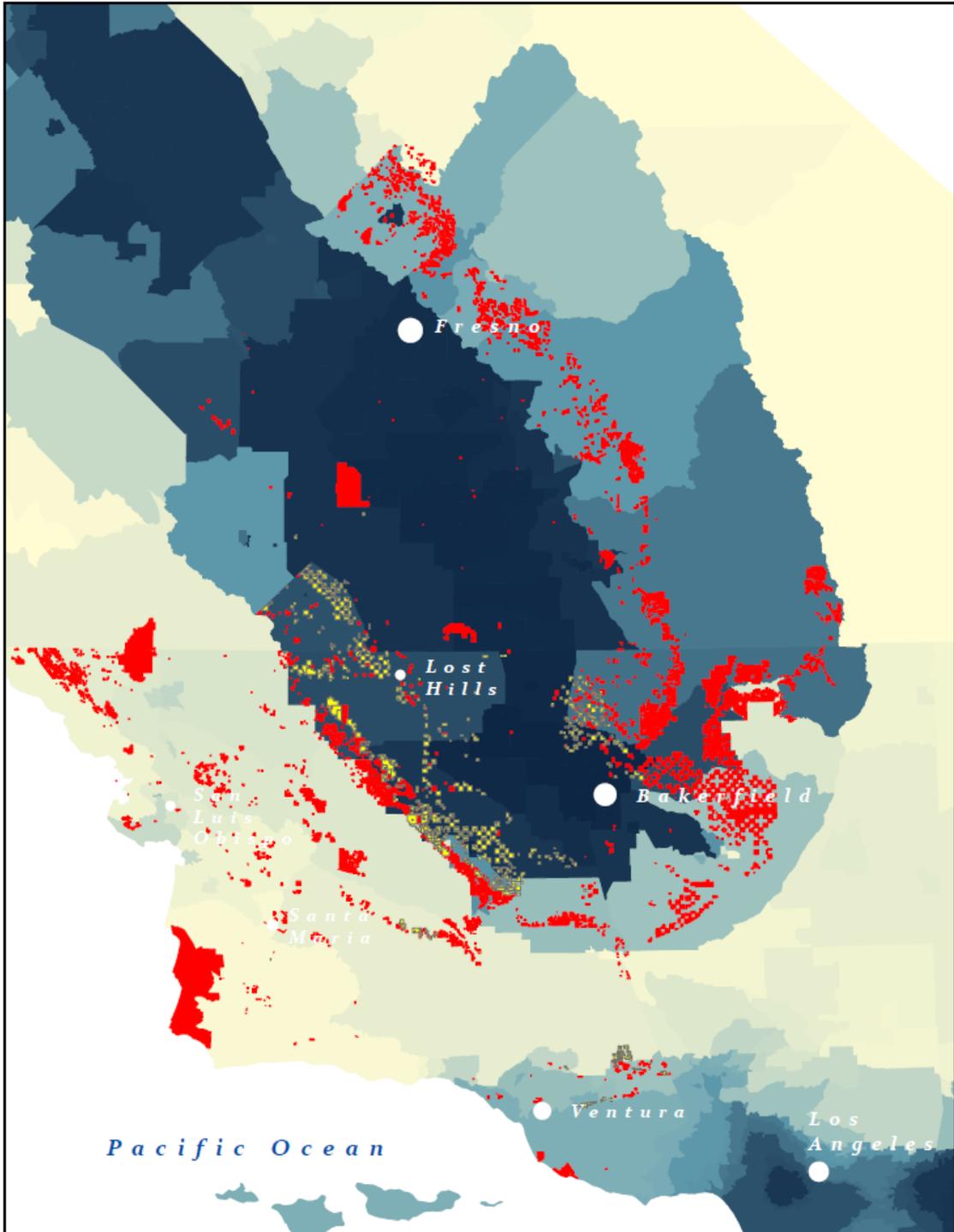
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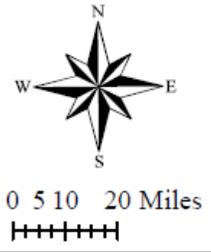
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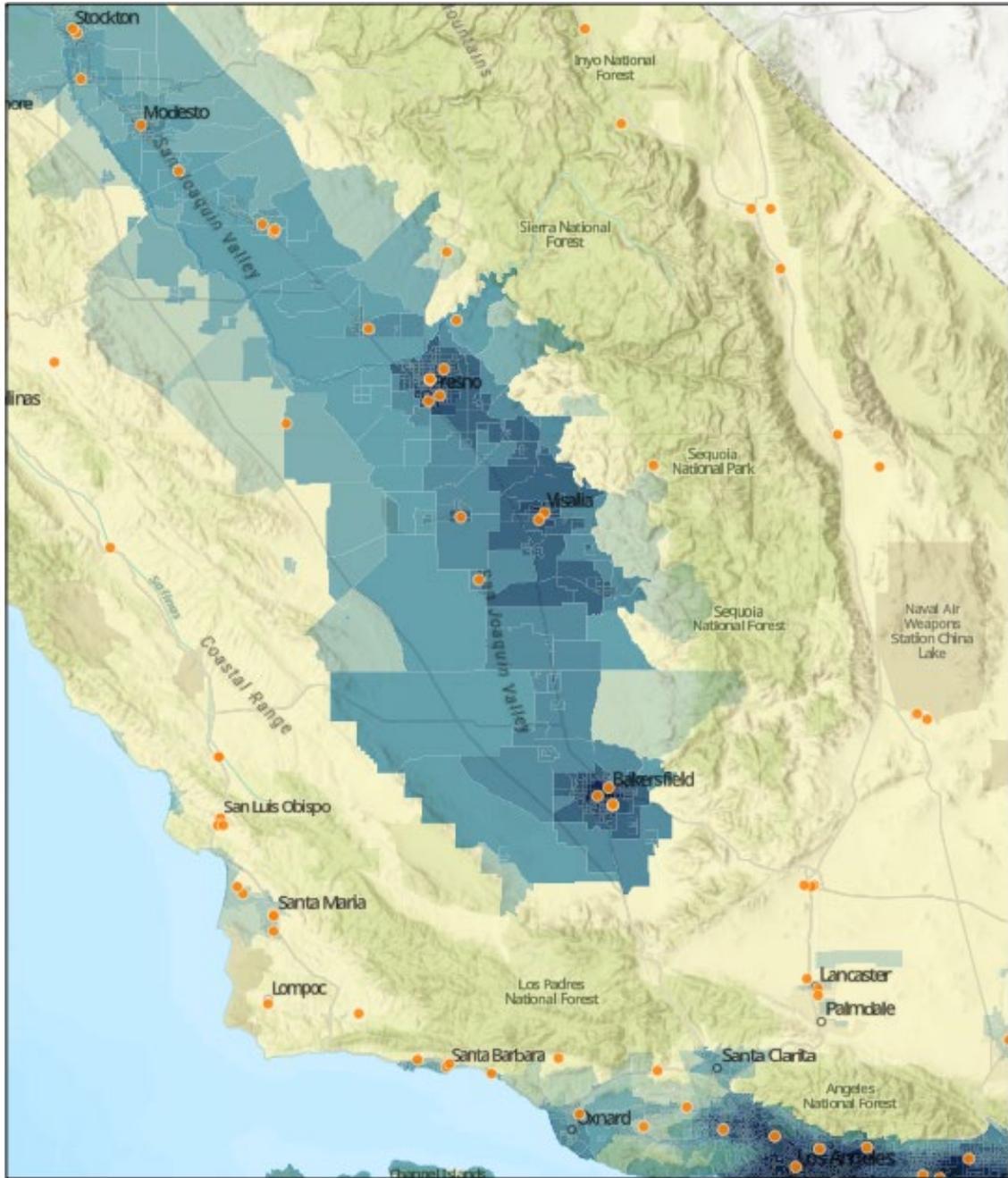
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Exhibit 3

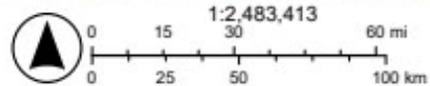
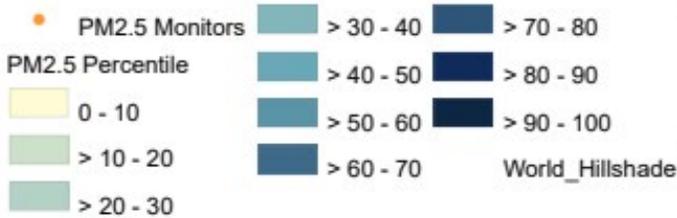


CalEnviroScreen 3.0 PM 2.5
Percentile for Bakersfield
Hydraulic Fracturing Planning
Area





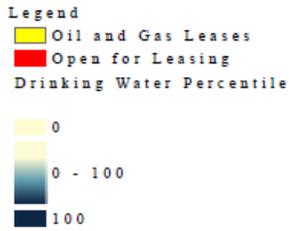
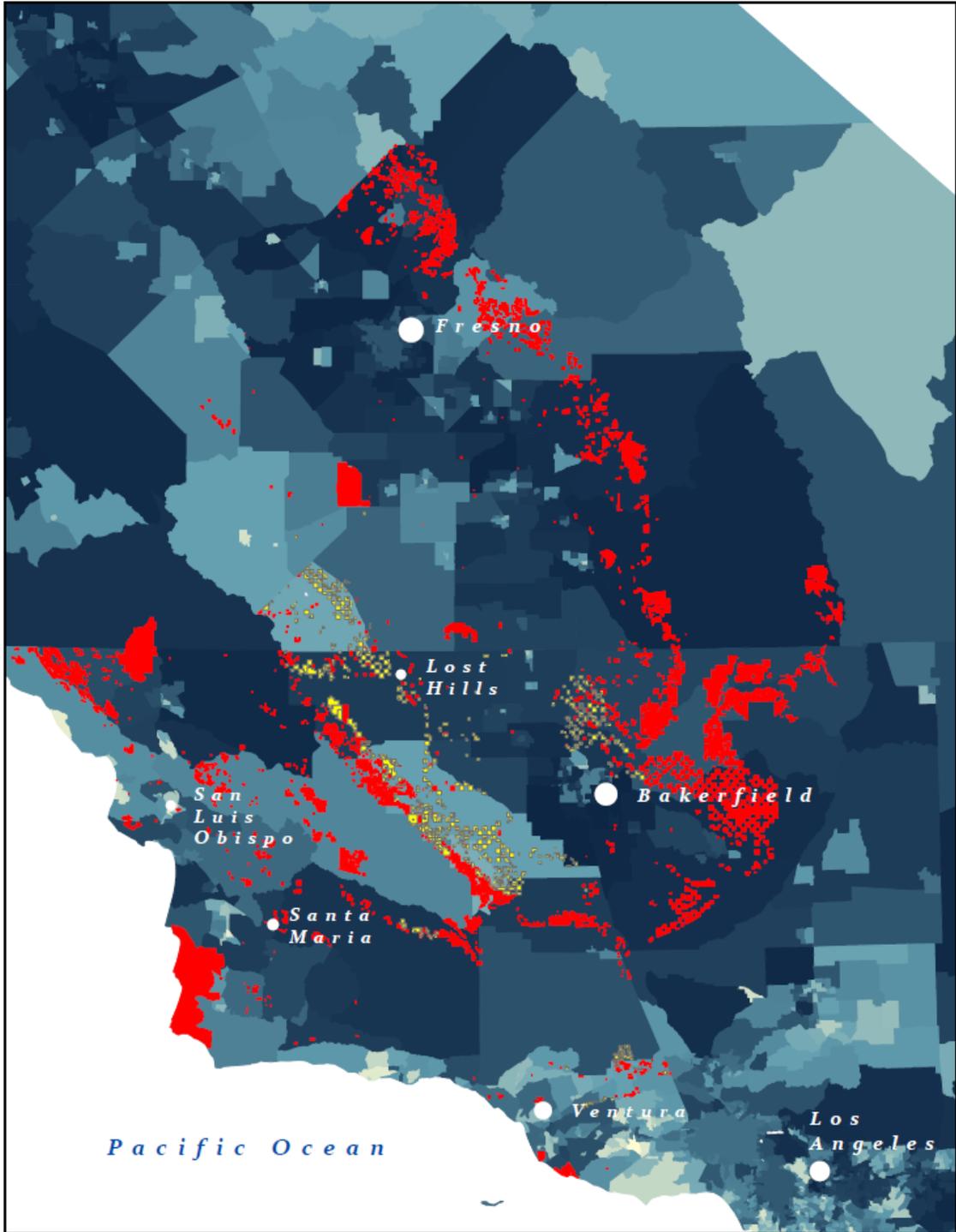
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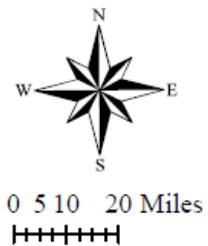
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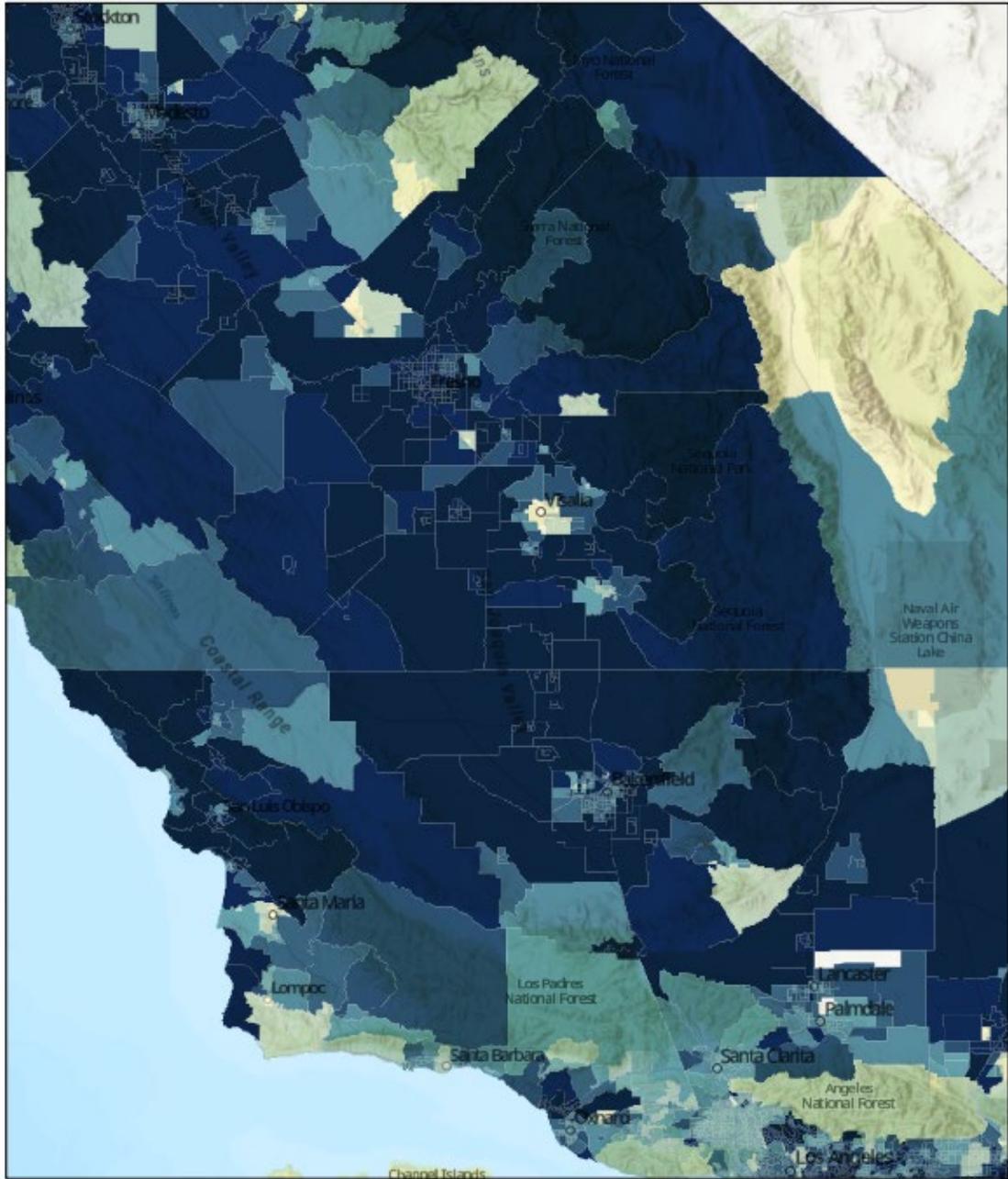
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Exhibit 4

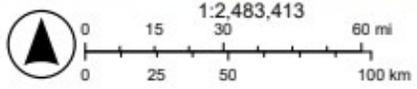
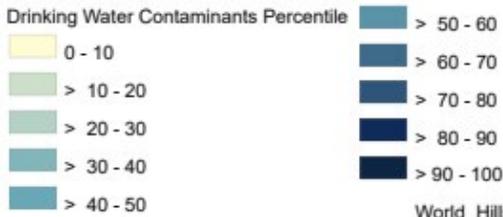


CalEnviroScreen 3.0 Drinking
Water Percentile for
Bakersfield Hydraulic
Fracturing Planning Area





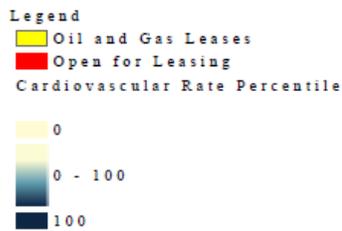
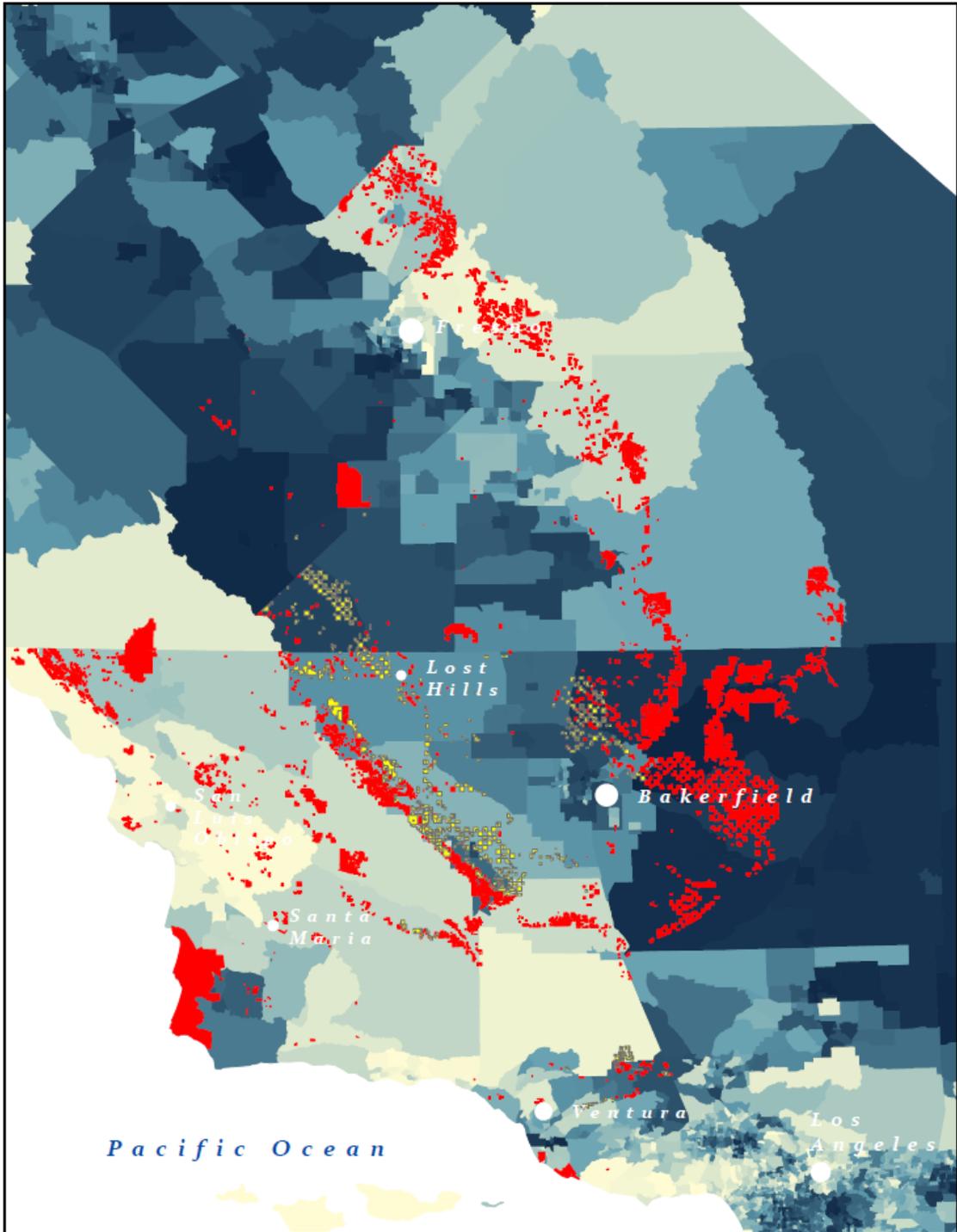
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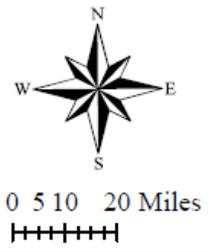
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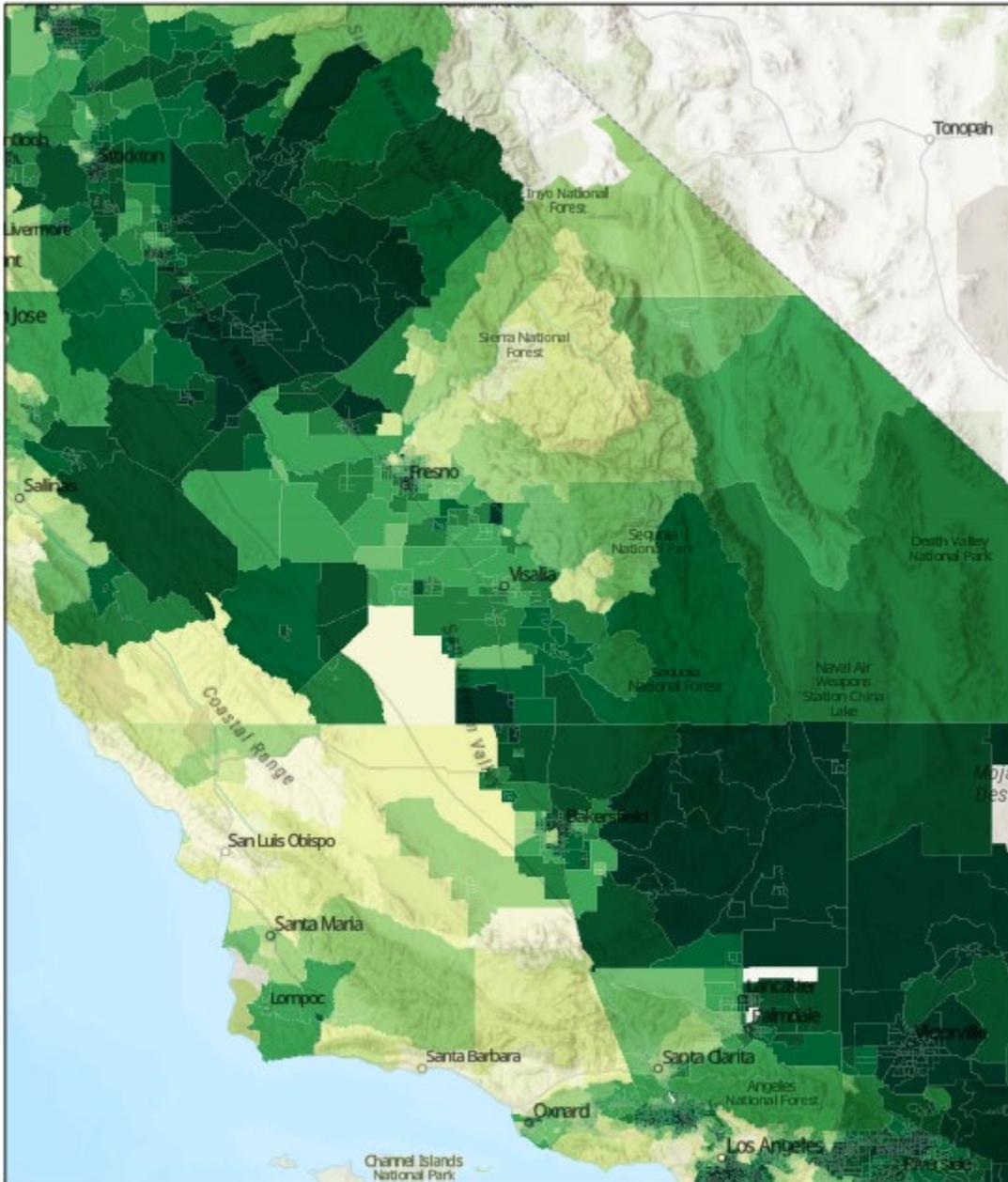
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Exhibit 5

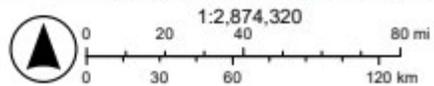
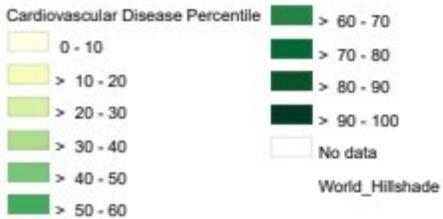


CalEnviroScreen 3.0
 Cardiovascular Rate
 Percentile for Bakersfield
 Hydraulic Fracturing Planning
 Area





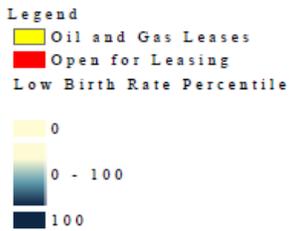
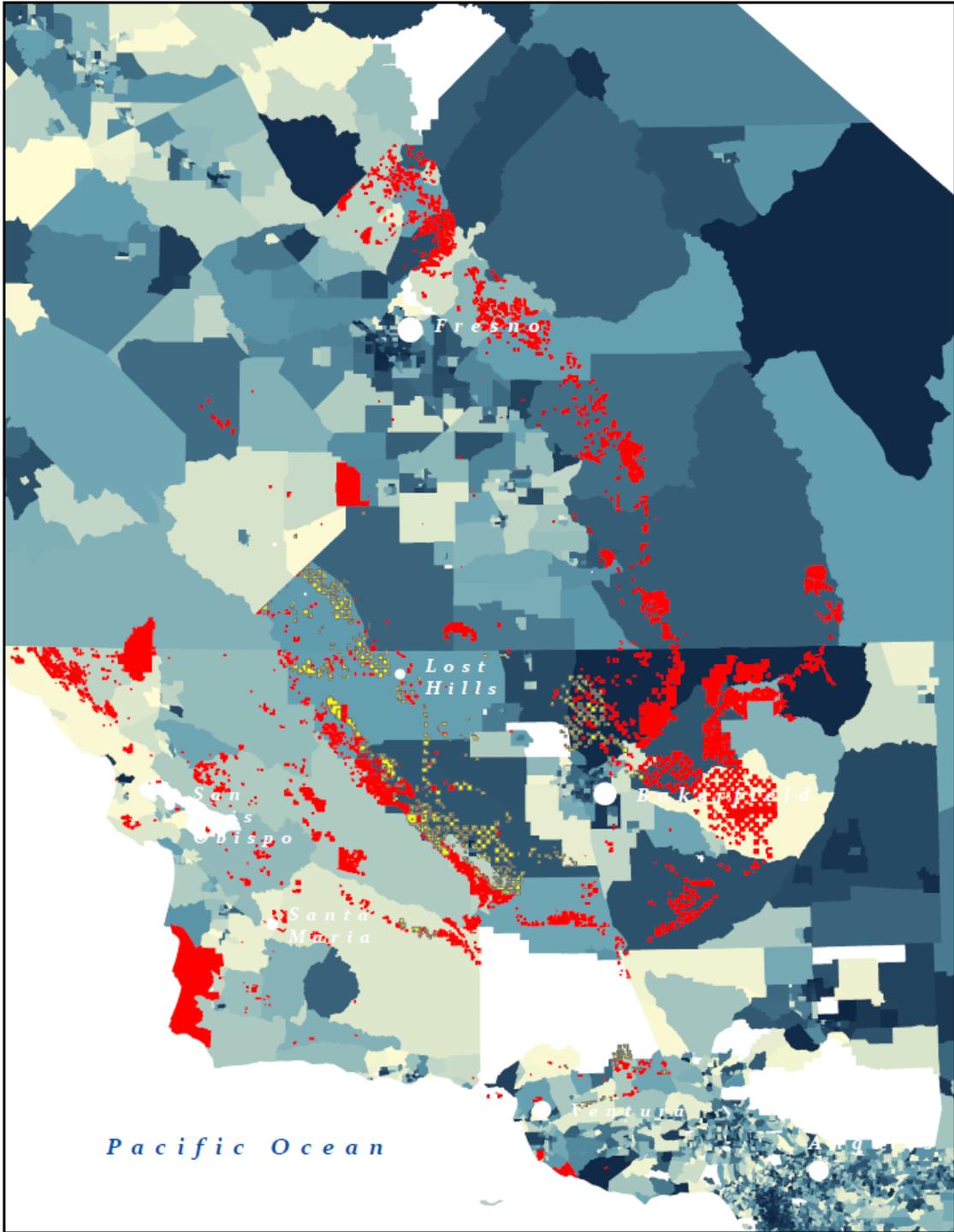
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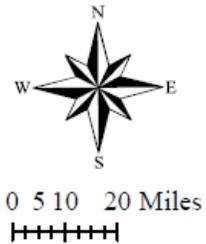
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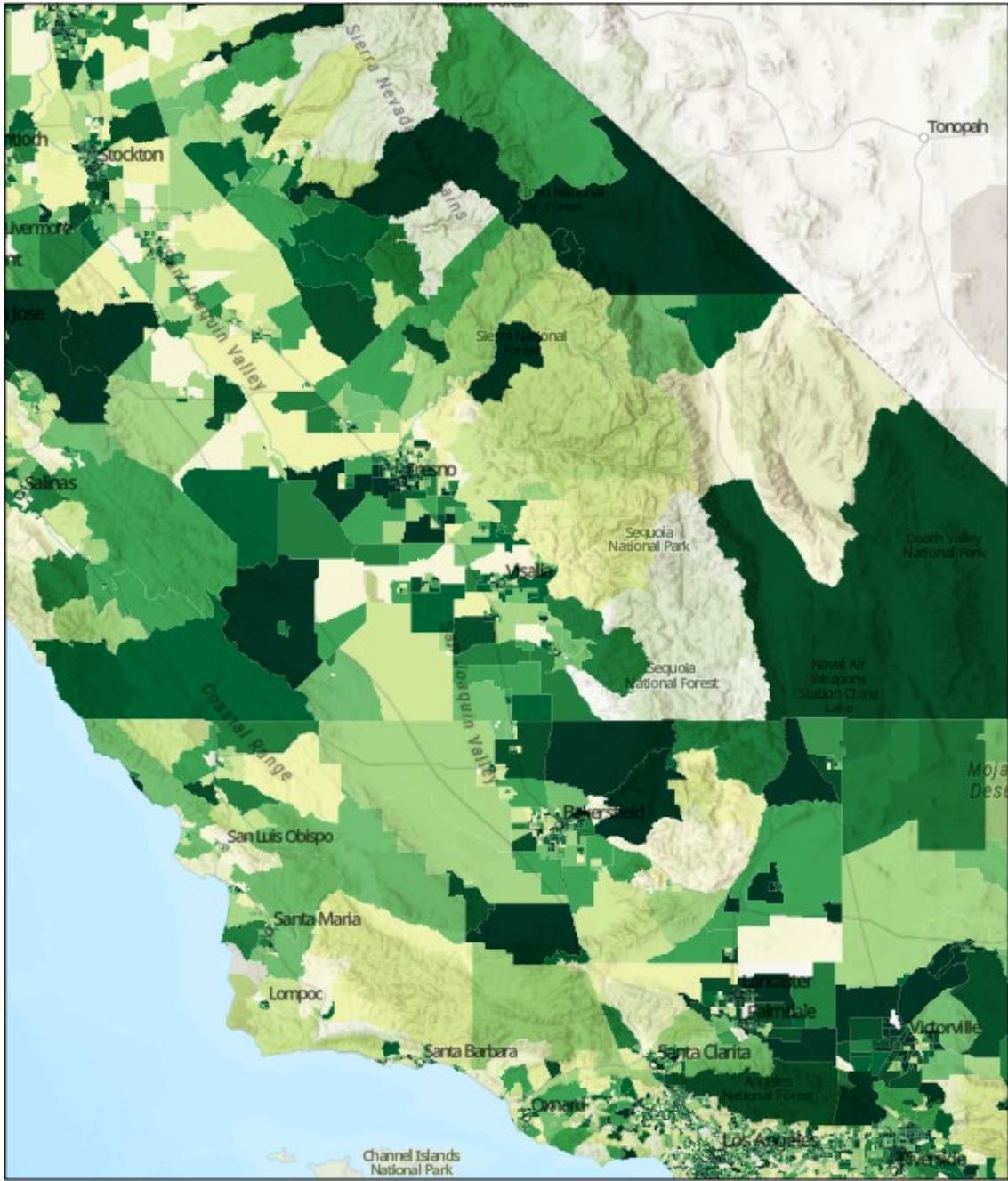
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Exhibit 6

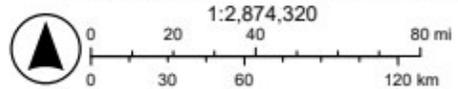
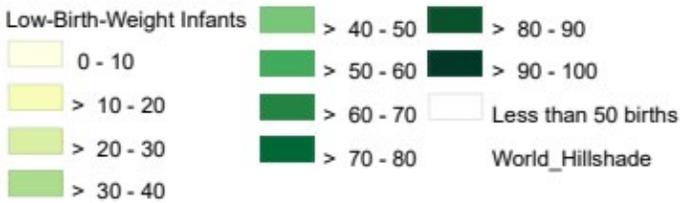


CalEnviroScreen 3.0 Low Birth Rate Percentile for Bakersfield Hydraulic Fracturing Planning Area





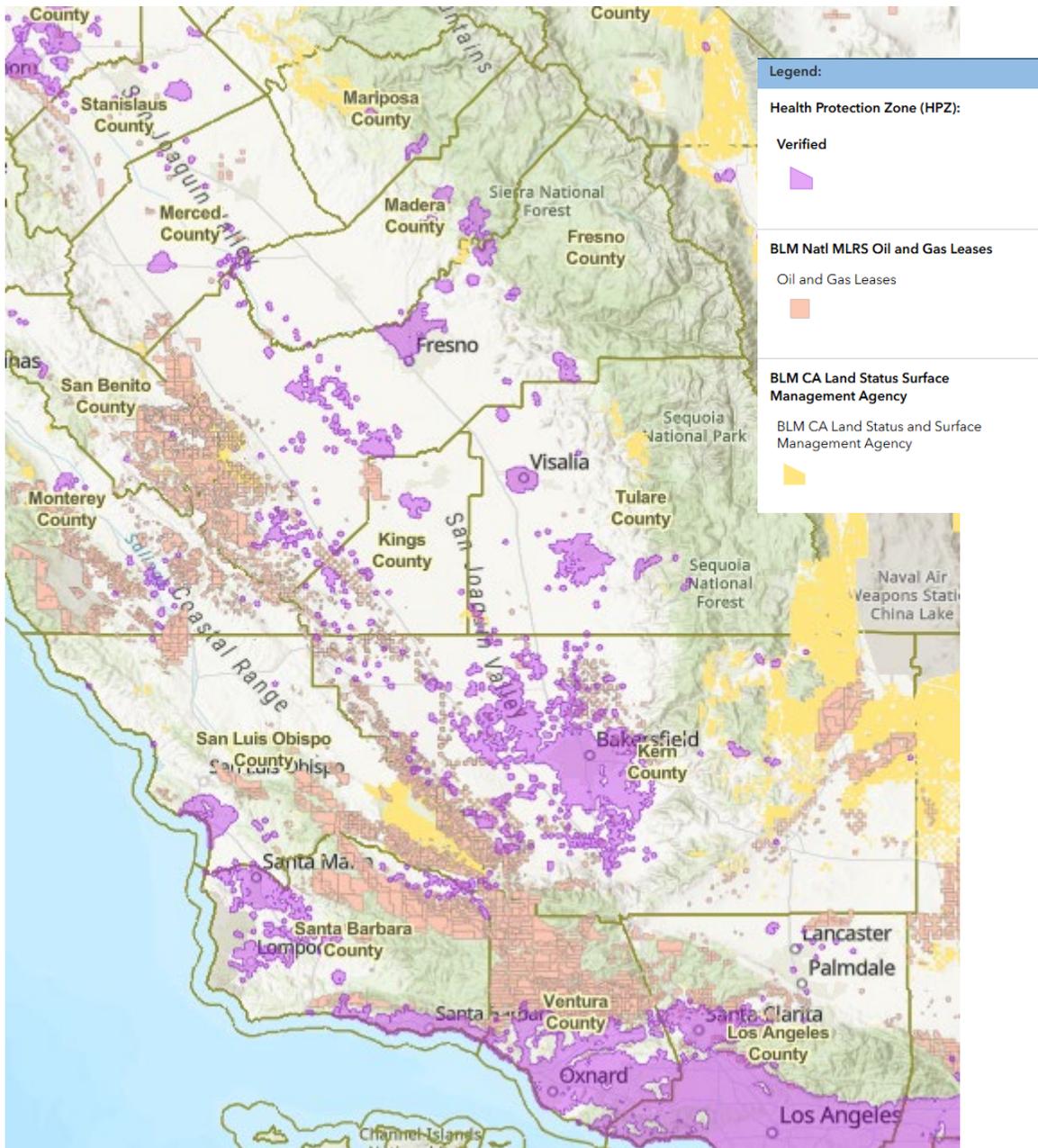
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CalEnviroScreen 5.0 Draft

Exhibit 7



<https://maps.conservation.ca.gov/calgem/HPZ/>