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DEPARTMENT OF JUSTICE



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

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RE: Comments on the Bureau of Land Management, Central Coast Field Office Oil and Gas Leasing and Development Draft Supplemental Environmental Impact Statement, DOI-BLM-CA-C090-2025-0017-RMP-EIS

Dear Ms. Matthews:

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”) Central Coast Field Office (“CCFO”) “to analyze the environmental effects of oil and gas leasing and development within the Planning Area and to determine whether changes are needed to the fluid mineral decisions based on new information or changes in circumstances in the CCFO.” 2025 Draft SEIS at ES-1. The CCFO encompasses approximately 6.8 million acres of federal, state, and private land across 12 counties in Central California, in which BLM manages approximately 284,000 acres of public land and 509,000 acres of split estate, totaling 793,000 acres of federal mineral estate. *Id.* BLM proposes to open the vast majority of that estate—725,500 acres—to oil and gas leasing.

The Draft SEIS was allegedly prepared to respond to a stipulated settlement requiring that BLM “prepare a SEIS and issue a new decision document” to address deficiencies in BLM’s 2019 resource management plan amendment (“RMPA”) and environmental impact statement (“2019 EIS”). *Id.* (citing *Ctr. for Biological Diversity v. Bureau of Land Mgmt.*, No. 3:19-cv-07155-JSC). Pursuant to the settlement, BLM also agreed to “solicit additional alternatives during the public scoping process and [] consider incorporating those alternatives into the

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, 1415 (1974).

analysis.” In addition, BLM committed to “coordinate with local governments and, to the maximum extent consistent with federal law, cooperate with local governments to ensure consistency of federal actions with local land use plans.”

BLM’s Draft SEIS, and the process undertaken to prepare it, fails to meet the requirements of the 2022 stipulated settlement and address the deficiencies in the 2019 EIS that gave rise to it. BLM failed to take a “hard look” at new information and changed circumstances affecting resources in the Planning Area, including those associated with hydraulic fracturing and other well stimulation techniques, public health impacts, listed species, and state and local laws, and provide sufficient evidence to support its conclusions regarding the severity of impacts to those resources. BLM also failed to incorporate additional alternatives solicited during the scoping process into its analysis or address inconsistencies with state law and local land use plans. These failures of analysis and disclosure not only violate the National Environmental Policy Act (“NEPA”), but they in turn also fail to support BLM’s conclusion that it does not need to pursue a new amendment to the 2019 RMPA under the Federal Land Policy and Management Act (“FLPMA”). And last, the Draft SEIS provides no evidence that BLM has consulted with the U.S. Fish and Wildlife Service (“USFWS”) as required by the Endangered Species Act (“ESA”).

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 seven hundred thousand acres of public lands in California to new oil and gas leasing.

STATUTORY BACKGROUND

Pursuant to the FLPMA, 43 U.S.C. § 1701 *et seq.*, BLM develops resource management plans (“RMPs”) to guide the management of public lands within BLM’s jurisdiction. 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. The statute mandates that BLM manage public lands “in accordance with the land use plans developed” under FLPMA. *Id.* § 1732. RMPs establish land areas for specific uses, allowable resource uses and production levels, resource condition goals and objectives, and program constraints and management practices. 43 C.F.R. § 1601.0–5.

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).

FLPMA also requires that BLM manage public lands “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).

BLM must prepare an RMP amendment when 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. The amendment process requires “an environmental assessment of the proposed change, or an environmental impact statement, if necessary, public involvement as prescribed in § 1610.2 of this title, interagency coordination and consistency determination as prescribed in § 1610.3 of this title and any other data or analysis that may be appropriate.” 43 C.F.R. § 1610.5–5. RMPs, and their amendments, are subject to environmental review under NEPA. *Cascadia Wildlands v. U.S. Bureau of Land Mgmt.*, 153 F.4th 869, 881 (9th Cir. 2025); *Ctr. for Biological Diversity v. U.S. Dep’t of Interior*, 623 F.3d 633, 647 (9th Cir. 2010) (“Amending a resource management plan ordinarily constitutes “major federal action” requiring NEPA analysis.”).

NEPA has two fundamental purposes: (1) to guarantee that agencies take a “hard look” at the consequences of their actions before the actions occur by ensuring that “the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts,” and (2) to ensure that “the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349-50 (1989).

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

BLM must supplement an EIS when it 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. Courts do not “automatically defer to” to an agency when it decides not to supplement an EIS “without 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

² Department of Interior, 516 DM 1 NEPA Handbook, Section 3.6, <https://www.doi.gov/media/document/doi-nepa-handbook>.

significance—of [] new information.” *Marsh v. Oregon Nat. Res. Council*, 490 U.S. 360, 378 (1989).

FACTUAL BACKGROUND

BLM’s NEPA Review for the Central Coast Resource Management Plan

The BLM Central Coast Field Office manages 284,000 acres of public land and 793,000 acres of federal mineral estate in San Francisco, Contra Costa, San Mateo, Alameda, San Joaquin, Santa Cruz, Santa Clara, Stanislaus, Monterey, San Benito, Merced, and Fresno Counties (the “Planning Area”). In early 2017, BLM published a draft EIS and RMPA. BLM prepared the EIS and RMPA after a court found that BLM’s environmental analysis for several oil and gas lease sales, held pursuant to the existing RMP, failed to comply with NEPA. *Ctr. for Biological Diversity et al. v. Bureau of Land Mgmt.*, 937 F. Supp. 2d 1140 (N.D. Cal. 2013).

The 2017 Draft EIS analyzed five alternatives and selected a preferred alternative (Alternative C) that would open roughly 400,000 acres of land to drilling—368,800 acres with controlled surface use stipulations and 29,800 acres with no surface occupancy stipulations. BLM relied on a 2015 Reasonably Foreseeable Development Scenario (“RFDS”) that projected the exploration, drilling, and production activity that would likely occur in the next 15 to 20 years—roughly 32 to 37 wells and 179 to 206 acres of disturbance. Well stimulation technologies and enhanced oil recovery techniques were “assumed to be used on any or all of these wells.” 2017 Draft EIS at 2-3. The California Coastal Commission and the Division of Oil, Gas, and Geothermal Resources commented on the draft EIS.

In 2019, BLM released a Final EIS (“FEIS”) and proposed RMPA. The FEIS identified an entirely new proposal as the preferred alternative (Alternative F) that would open nearly twice as much public land and mineral estate to oil and gas leasing as was considered in the draft EIS—683,100 acres with controlled surface use stipulations and 42,400 acres with no surface occupancy stipulations.

Alternative F stripped no surface occupancy (“NSO”) stipulations from categories of lands that, under all the other alternatives, were protected by an NSO stipulation or closed to leasing. Under Alternatives A through E, all Recreation and Public Purpose leased lands were either closed to leasing or had NSO stipulations. 2017 Draft EIS at 2-8 – 2-12 and Figures 2-1 – 2-5.³ Alternative F, by contrast, removed NSO stipulations from nearly 12,600 acres, including from public lands within state parks and a regional preserve. Parks affected include the Mount Diablo and Henry W. Coe State Parks. 2019 FEIS at Figure 2-6 (map of Alternative F). The

³ NSO stipulations applied to Recreation & Public Purpose lease lands under Alternatives A and D, and “state and county park lands” under Alternative C. Because Alternative B would close all land beyond a 0.5 mile buffer around existing oil and gas fields, no public lands within, or mineral estate below, state or county parks would be available for lease under this alternative. Also, because Alternative E would apply NSO stipulations applied to mineral estate overlapping certain groundwater resources, NSO stipulations would be incidentally applied to all Recreation & Public Purpose lease lands under this alternative.

FEIS continued to rely on the 2015 RFDS and stated that “[w]ell stimulation technologies and enhanced oil recovery techniques are assumed to be used on any or all of these wells.” 2019 FEIS at ES-4.

Several environmental groups and the Counties of Santa Cruz and Monterey filed a lawsuit (Case No. 3:19-cv-07155-JSC) alleging that, in approving the RMPA and FEIS, BLM violated NEPA, FLPMA, and the Administrative Procedure Act because it failed to: (1) identify and analyze reasonable alternatives; (2) take a hard look at the impacts of oil and gas development, including the use of hydraulic fracturing and enhanced oil recovery techniques, on greenhouse gas (“GHG”) emissions and climate, groundwater, surface water, air quality, seismicity, and wildlife and plant species; (3) prepare and circulate a supplemental EIS (“SEIS”); and (4) discuss possible conflicts with local land use policies and coordinate planning efforts with local governments. The case was stayed in June 2021 before motions for summary judgment were filed. The case settled in 2022. Pending issuance of a final decision, BLM also agreed to defer any oil or gas lease sale in the Planning Area. Under the settlement, BLM agreed to prepare a supplement to the 2019 FEIS pursuant to NEPA, “coordinate with local governments,” and “cooperate with local governments to ensure consistency of federal actions with local land use plans.” Stipulated Settlement Agreement, *Ctr. for Biological Diversity v. Bureau of Land Mgmt.*, No. 3:19-cv-07155-JSC (Nov. 29, 2022).

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. 26,602. BLM solicited comment on its intent to prepare a SEIS and stated that: “Only those portions of the existing plan related to land use decisions for management of Federal fluid minerals resources that need to be updated to respond to the issues and management concerns will be reviewed.” *Id.* at 26,603. Numerous 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.

The Department of Interior posted a notice in the federal register on January 13, 2026, announcing that the Draft SEIS was available on eplanning and the deadline for comments would be 45 days following the date the U.S. Environmental Protection Agency (“EPA”) published the Notice of Availability. 91 Fed. Reg. 1329, 1329 (Jan. 13, 2026). EPA posted the Notice of Availability on January 16, 2026. 91 Fed. Reg. 2131, 2131. BLM later extended the deadline to March 13, 2026. 91 Fed. Reg. 5474, 5474.

The Draft SEIS carries forward the same six alternatives identified in the 2019 FEIS, and again chooses Alternative F as the preferred alternative. Draft SEIS at ES-1. BLM also relies on the same 2015 RFDS, projecting the same amount of exploration, drilling, and production activity for all alternatives (for the next 15-20 years, 3-5 exploratory wells outside of existing oilfields and 0-32 wells in existing oilfields and up to 206 acres of disturbance). *Id.* at 2, 16. BLM states that “all these potential wells could employ hydraulic fracturing or other well stimulating technology.” *Id.* at 3. BLM identified five resource areas to consider further based on

information or circumstances identified during the scoping period: air quality and GHG emissions, water resources, special status species, and recreation. *Id.* at 7-8. Additional issues identified during the scoping period were not carried forward for further analysis. *Id.* at 8-13. 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. And BLM does not address any changes in state, local, or federal policy that have occurred since 2019 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 enabled by well stimulation treatments, such as hydraulic fracturing and horizontal drilling used in combination with hydraulic fracturing. 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 flow back 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.

The State of California’s Geologic Energy Management Division (“CalGEM”) has not approved a state permit for hydraulic fracturing since 2021 and has phased out hydraulic fracturing pursuant to regulations that went into effect on October 1, 2024. Cal. Code Regs. tit. 14 § 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 72-73 (“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.”).

BLM'S DECISION NOT TO AMEND THE 2019 RMPA IS ARBITRARY AND CAPRICIOUS

BLM argues that no amendment to the 2019 RMPA is warranted because the SEIS “did not show notable increase in total impacts” and its range of alternatives has not changed since 2019. Draft SEIS at 14. This reasoning is arbitrary and capricious because it is divorced from the criteria for determining whether to revise or amend an RMP. An RMP amendment shall be initiated “by the need to consider monitoring and evaluation findings, new data, new or revised policy, and 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.” 43 C.F.R. § 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 where BLM prepared a SEIS pursuant to the 2022 stipulated settlement.

In the time that has passed since the adoption of the 2019 RMPA, there have been significant new developments in the knowledge and evidence of the harms drilling poses to human health, natural resources, and the climate, significant shifts in California policies, and significant changes in the landscape of oil and gas development in the Planning Area (described in detail, *infra*). Given these changes, BLM was required to amend or revise its RMPA.

THE DRAFT SEIS DOES NOT COMPLY WITH NEPA

A. The Draft SEIS Provides Contradictory Statements Concerning Hydraulic Fracturing and other Well Stimulating Technology.

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 (June 26, 2025), pp. 17-18, 24 (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 regarding hydraulic fracturing and other well stimulating technology are internally contradictory, thereby rendering its analysis of the likely impacts associated with these drilling activities unsupported.

In the Draft SEIS, BLM relies on the 2015 RFDS to project the amount of oil and gas exploration, drilling, and production activity in the Planning Area (for the next 15-20 years, 3-5 exploratory wells outside of existing oilfields and 0-32 wells in existing oilfields and up to 206 acres of disturbance). Draft SEIS at 2, 16. BLM states that “all these potential wells could

employ hydraulic fracturing or other well stimulating technology.” *Id.* at 3. And in its 2019 EIS, which BLM continues to rely upon to support the Draft SEIS analysis, BLM assumed that well stimulation technologies and enhanced oil recovery techniques would “be used on any or all” new exploratory and development wells drilled on federal oil and gas leases over the next 15 to 20 years.⁴

However, BLM recognizes elsewhere in the Draft SEIS that California in October 2024 “implemented a ban on the issuance of new hydraulic fracturing permits” Draft SEIS at 30. BLM further states that it “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.” *Id.* at 72-73. BLM’s assumption that hydraulic fracturing will occur at all in the Planning Area is thus contrary to California law.

BLM does not acknowledge this internal contradiction regarding hydraulic fracturing anywhere in the Draft SEIS. Agency decisionmakers and the public are thereby left guessing about the assumptions underlying the BLM’s analysis, demonstrating that it has neither “carefully consider[ed] detailed information” concerning the potential impacts of drilling in the Planning Area nor ensured that “the relevant information” is made available to the public, contrary to NEPA’s fundamental purposes. *Robertson*, 490 U.S. at 349-50.

B. The Draft SEIS Fails to Properly Consider the Significant Environmental Impacts Related to Oil and Gas Operations, Including Hydraulic Fracturing and Other Enhanced Recovery and Well Stimulating Technologies.

To fulfill NEPA’s “hard look” requirement, an agency must consider all foreseeable direct, indirect, and cumulative impacts of its proposed action. *See N. Alaska 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 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).

BLM states in the Draft SEIS that all “wells could employ hydraulic fracturing or other well stimulating technology.” Draft SEIS at 3. If BLM continues to maintain this assumption that hydraulic fracturing may be used on all wells in the Planning Area despite California’s ban, it must analyze the impacts that it may create. As discussed below, it has not done so.

Even if there is an absence of hydraulic fracturing in the Planning Area, the Draft SEIS must provide a full analysis of all the potential impacts from all types of production wells. The

⁴ BLM, Proposed Resource Management Plan Amendment and Final Environmental Impact Statement for Oil and Gas Leasing and Development, Central Coast Planning Area (May 2019) at ES-4, 2-3, 4.17-1, 4.20-2.

Draft SEIS continues to rely on the 2015 RFDS and the analysis contained in the 2019 FEIS, which stated that “[w]ell stimulation technologies and enhanced oil recovery techniques are assumed to be used on any or all of these wells.” 2019 FEIS at ES-4. The use of enhanced oil recovery for new wells must be analyzed since it is currently used in the Planning Area, especially in Fresno and Monterey Counties.⁵ BLM must accordingly analyze other enhanced recovery techniques used in California for potential impacts to the environment. These recovery techniques include water flood, steam flood, cyclic steam, and dual type that alternates between steam and water flood. These techniques may in turn increase the need for wastewater treatment, percolation ponds, and injection wells.

1. Air Quality Impacts

Protecting public health is fundamental to NEPA’s purpose. NEPA was enacted in part to “stimulate the health and welfare of man,” 42 U.S.C § 4321, and mandates that agencies consider the degree to which their proposed actions affect public health and safety. NEPA requires federal agencies “to use all practicable means, consistent with other essential considerations of national policy” to “assure for all Americans safe, healthful, productive and aesthetically and culturally pleasing surroundings.” *Id.* § 4331(b).

The Proposed Action is likely to 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 80 percent of anthropogenic volatile organic compounds (“VOCs”) in the San Joaquin Valley, which in turn react with nitrogen oxides (“NOx”) to create ozone.⁶ 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 Central Valley.⁷ 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.⁸ In addition, the ponds that store produced water from hydraulic fracturing operations have the potential to generate significant emissions of toxic air contaminants.⁹

⁵ California Energy Commission, *Petroleum Watch: California Oil Fields with Thermal Enhanced Oil Recovery* (Dec. 2021) available at https://www.energy.ca.gov/sites/default/files/2021-12/2021-12_Petroleum_Watch_ADA.pdf.

⁶ Brandt, A., Millstein, D., Jin, L., & Englander, J., *Air Quality Impacts from Well Stimulation* at 182 (2015), available at <https://ccst.us/wp-content/uploads/160708-sb4-vol-II-3-1.pdf>.

⁷ Shonkoff et al., *Response to CalGEM Questions for the California Oil and Gas Public Health Rulemaking Scientific Advisory Panel* at 10 (Oct. 2021), available at https://www.conservation.ca.gov/calgem/Documents/public-health/Public%20Health%20Panel%20Responses_FINAL%20ADA.pdf.

⁸ Natural Resources Defense Council, *Fracking Fumes* (Dec. 2014), available at <https://www.nrdc.org/sites/default/files/fracking-air-pollution-IB.pdf>.

⁹ 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* at 191-92 (July 2022), available at <https://www.psehealthyenergy.org/wp-content/uploads/2022/07/CCST-SB-1281-Phase-II-Full-Report-FINAL.pdf>.

The effects of air pollution resulting from the oil and gas development contemplated in the Draft SEIS, including new information concerning the same, requires further analysis. As noted in EPA's scoping comments for the Draft SEIS, the "air quality analysis for this supplemental Draft EIS is particularly important given the large number of wells, potential use of hydraulic fracturing and the associated emissions proposed in an area where the ambient air quality is already compromised and includes areas in nonattainment for ozone and fine particulate matter." EPA Scoping Comments at 5. BLM recognizes in the Draft SEIS that oil and gas extraction contributes to air pollution in the Planning Area, including particulate matter, hazardous air pollutants, and ozone precursors, but fails to analyze the full scope of impacts from its Proposed Action. Draft SEIS at 59.

Oil and gas operations, including traditional exploration, drilling, and production, produce ozone by way of NO_x and VOCs that react in air and sunlight. Ozone pollution "is a powerful lung irritant," that, when inhaled, "reacts with the delicate lining of the small airways, causing inflammation and other damage that can impact multiple body systems."¹⁰ Ozone exposure can cause a number of health effects including asthma, various respiratory and cardiovascular diseases, and premature death.¹¹ Long-term exposure to ambient ozone is "significantly associated with multiple causes of mortality, including cardiovascular disease, ischemic heart disease, respiratory disease, and [chronic obstructive pulmonary disease]."¹²

The American Lung Association's "State of the Air" 2025 report card marked Alameda County, Santa Clara County, Fresno County, and Merced County with "F" grades based on unhealthy levels of ozone pollution.¹³ At risk groups and rates of lung disease occurrences (including pediatric asthma, adult asthma, chronic obstructive pulmonary disease, and lung cancer) are higher for Central Coast communities than elsewhere in the country.¹⁴ In Alameda County, for example, over 130,000 residents, including over 20,000 children, have asthma.¹⁵ In Santa Clara County, over 155,600 people, including nearly 24,000 children, have asthma.¹⁶

¹⁰ American Lung Association, *State of the Air 2025 Report* (2025) at 28-29, available at

<https://www.lung.org/getmedia/5d8035e5-4e86-4205-b408-865550860783/State-of-the-Air-2025.pdf>.

¹¹ Air & Waste Management Assn., *Air Pollution Issues Associated with Natural Gas and Oil Operations* at fn. 3-4 (2012),

<https://www.edf.org/sites/default/files/AWMA-EM-airPollutionFromOilAndGas.pdf>; 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>.

¹² 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/>.

¹³ American Lung Association, *State of the Air 2025 Report* *supra* n.10 at 58-59.

¹⁴ *Id.*

¹⁵ American Lung Association, *State of the Air 2025 Report Card Alameda County*, available at <https://www.lung.org/research/sota/city-rankings/states/california/alameda>.

¹⁶ American Lung Association, *State of the Air 2025 Report Card Santa Clara County*, available at <https://www.lung.org/research/sota/city-rankings/states/california/santa-clara>.

Given that ozone is thus among the most widespread and significant air pollution health threats in the Planning Area, which includes populations already at higher risk of lung disease, any additional emissions of VOCs, NO_x, and other air pollutants in these areas from expanded oil and gas production are therefore significant and should be mitigated.

Oil and gas activities also emit multiple types of hazardous air pollutants. These pollutants have the potential to cause cancer or other serious health effects, such as reproductive or developmental effects, along with adverse environmental impacts. For this reason, EPA recommended that the Draft SEIS evaluate the potential for exceedances of relevant health-based risk thresholds for hazardous air pollutants including acetaldehyde, benzene, ethyl benzene, ethylene glycol, formaldehyde, methanol, n-hexane, toluene, xylene (mixture), and any other compounds that the BLM identifies as potential hazardous air pollutants in the Planning Area. EPA also suggested that BLM discuss the potential reasonably foreseeable impacts of any exceedances on human health. It did neither, and this failure to analyze hazardous air pollutants and their public health impacts renders the discussion of air quality impacts inadequate.

In addition, the California Air Resources Board (“CARB”) has initiated an ongoing study on air quality in neighborhoods near oil production, referred to as the Study of Neighborhood Air Near Petroleum Sources (“SNAPS”). California also passed a law in 2017, Assembly Bill (“AB”) 617, that created a program to monitor and reduce air pollution at a local level.¹⁷ The Draft SEIS should include a conservative consideration of potential toxic air contaminant emissions and the impact on nearby communities, including results from CARB’s SNAPS and a discussion of any AB 617 communities in the Planning Area.

The Draft SEIS also fails to account for the air quality-related public health impacts from living near oil and gas activities in the Planning Area. Studies have found that the health risk exposure for toxic air contaminants is greatest near active oil and gas sites.¹⁸ One study conducted in California found significant concentrations of VOCs and other toxic pollutants near oil and gas operations.¹⁹ Another study published in California assessed data from the EPA Air Quality System from 2006 to 2019, and documented higher concentrations of air pollutants including particulate matter 2.5, nitrogen dioxide, VOCs, and ozone as far away as four kilometers (13,123 feet) from well sites.²⁰ Another study indicates that populations residing in

¹⁷ Assembly Bill 617 (C. Garcia, Chapter 136, Statutes of 2017), adding Cal. Health & Safety Code §§ 39607.1, 42705.5, 44391.2.

¹⁸ California Council on Science and Technology, *An Independent Scientific Assessment of Well Stimulation in California*, Vol. II (2015) at 407-412, available at http://ccst.us/projects/hydraulic_fracturing_public/SB4.php.

¹⁹ J. Arbelaez & B. Baizel, *Californians at Risk: An Analysis of Health Threats from Oil and Gas Pollution in Two Communities* (2015), available at <https://www.cleanwaterfund.org/sites/default/files/docs/publications/CaliforniansAtRiskFINAL.pdf>.

²⁰ D.J. Gonzalez et al., *Upstream Oil and Gas Production and Ambient Air Pollution in California*, SCIENCE OF THE TOTAL ENVIRONMENT 806 (2022) 150298, available at <https://doi.org/10.1016/j.scitotenv.2021.150298>.

close proximity to oil and gas activity have almost four times the risk of asthma exacerbation than those that do not.²¹

The potential harm to the public health posed by nearby oil and gas drilling prompted EPA to recommend in their scoping comments that the Draft SEIS include an updated map to show the locations of residences and production wells to assist in determining the potential for exposure to air pollutants, and implement an oil and gas surface occupancy buffer from occupied structures such as homes, schools, and office buildings sufficient to minimize the potential for public health impacts associated with exposure to near-field criteria pollutants, hazardous air pollutants, and any other potential toxic emissions such as hydrogen sulfide releases, and potential emissions associated with well blowouts or other explosive events. The Draft SEIS should give special consideration to the effects of the proposed activities on sensitive receptors such as residences, worksites, schools, daycare centers, playgrounds, and medical facilities. See Pub. Res. Code §§ 3280(c), 3281(b).

2. Water Quality Impacts

BLM has failed to take a hard look at the impacts to water quality in the Draft SEIS. Hydraulic fracturing and other well stimulation techniques can adversely impact drinking water resources, including private residential water wells, as well as agricultural water sources, via a number of different pathways.²² BLM recognizes that “[s]ince the release of the 2019 FEIS, both national and California-specific studies have highlighted the potential impacts of hydraulic fracturing on water resources” and that “oil and gas development, including hydraulic fracturing, remains a dynamic water resources concern.” Draft SEIS at 72-73. BLM goes on to say that “updates are provided here in the consideration of new, best information.” *Id.* at 73. However, BLM does not discuss whether the “updates” provide new information or demonstrate changed circumstances that could cause different or more severe impacts than those included in BLM’s analysis of impacts to water resources in the 2019 FEIS. Instead, BLM provides the excuse that because “no hydraulic stimulation has occurred on federal lands in California since the 2019 FEIS, limited opportunity exists in performing new impact analyses” and that “[s]ignificant scientific uncertainty, however, persists regarding the frequency and severity of impacts.” *Id.* at 72-73. But under NEPA, scientific uncertainty is not an excuse for failing to analyze potential impacts. *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1079 (9th Cir. 2011). Having identified new information, BLM must go beyond a mere summary of what the cited sources say to analyze whether their findings change the agency’s analysis of impacts.

The Draft SEIS also fails to consider additional new information providing data regarding the likelihood and severity of these impacts. For example, data collected by the State Water Resources Control Board, which produces a report every six months on the regulation of oil field

²¹ S.G. Rasmussen et al., *Association Between Unconventional Natural Gas Development in the Marcellus Shale and Asthma Exacerbations* (2016) JAMA INTERN MED. 2016 September 01; 176(9): 1334–1343, <https://pubmed.ncbi.nlm.nih.gov/27428612/>.

²² 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*, available at https://www.epa.gov/sites/default/files/2016-12/documents/hfdwa_executive_summary.pdf.

produced water ponds within each region, illustrates the potential impacts ignored by BLM. 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.²³ Moreover, most of the active ponds (530 of 560) were unlined.²⁴ The report also identified additional inactive ponds (507 of which were unlined), and noted that 161 ponds were under active enforcement actions.²⁵ An updated list of ponds developed in 2021 still shows many active ponds.²⁶ 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 and domestic water wells.²⁷ 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.²⁸ The California Council on Science and Technology (“CCST”) also expressed concern about the regular use of unlined pits for the disposal of produced water, finding that such practices could “introduce contaminants into the food web and expose human populations to known and potentially unknown toxic substances.”²⁹

In addition, BLM arbitrarily ignores the environmental impacts of other types of well stimulation treatments and enhanced oil recovery techniques in the Planning Area given their likely utilization in the future. These techniques include acidizing, water flooding, steam flooding, cyclic steam injection, and a dual type that alternates between steam and water flooding. NEPA requires that an agency consider the full scope of activities encompassed by its Proposed Action. *See N. Alaska Env'tl. 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 and enhanced oil recovery techniques that will be foreseeably used in the Planning Area. BLM assumes 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. FEIS at 4-17.1. But the Draft SEIS contains no analysis of the impacts from using these techniques, as it is required to do.

BLM also fails to consider that hydraulic fracturing, other well stimulation technologies, and enhanced recovery techniques are commonly used to extend the life of existing oil wells with declining production and related infrastructure, resulting in additional significant impacts

²³ State Water Resources Control Board, Produced Water Ponds Status Report: January 31, 2019, available at https://www.waterboards.ca.gov/water_issues/programs/groundwater/sb4/docs/pwpondsreport_january2019.pdf.

²⁴ *Id.*

²⁵ *Id.*

²⁶ Central Valley Regional Water Quality Control Board, Pond List (Feb. 2021), available at https://www.waterboards.ca.gov/centralvalley/water_issues/oil_fields/information/disposal_ponds/20210211_pondlist.pdf.

²⁷ *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.

²⁸ *See supra* n. 9 at 153-156.

²⁹ *See supra* n. 18 at 403.

from the continued production of fossil fuels in these areas. As BLM itself states in the Draft SEIS for the Bakersfield Planning Area, “hydraulic fracturing usually occurs in oil fields on existing leases, many of which have been continuously developed over the last 100 years.” Bakersfield Field Office Oil and Gas Leasing and Development Draft Supplemental Environmental Impact Statement, DOI-BLM-CA-C060-2025-0053-RMP-EIS at 6. Yet nowhere does BLM consider the environmental impacts of using hydraulic fracturing and other well stimulation treatments on *existing* wells within the Central Coast Planning Area.

It is imperative that BLM comply with its legal obligations to complete a full and accurate analysis of water quality impacts from the Proposed Action because many parts of the Planning Area already suffer from drinking water contamination problems. Of the 15 counties in California with the greatest number of water systems known to rely on contaminated groundwater sources for drinking water, three are in the Central Coast Planning Area: Fresno, San Joaquin, and Monterey.³⁰ The vast majority of public water systems in California rely on groundwater, and more than 25 percent of those systems have to provide drinking water from a contaminated groundwater source.³¹ 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 the necessary treatment or identification of alternative water supplies to replace a contaminated groundwater source.³²

Additional oil and gas production is likely to cause further contamination of both surface water and groundwater in and near the Planning Area. Studies show that oil and gas operations contaminate groundwater through the common practice of disposing wastewater in unlined pits, which are prone to leaking.³³ The contaminants, which include arsenic, uranium, and other naturally occurring toxic elements, make their way into water used for human consumption and agricultural crop irrigation and are potentially carcinogenic chemicals.³⁴ BLM must consider how oil and gas development may impact already degraded water supplies near agricultural land in the Planning Area and the possible carcinogenic effects of oil and gas contaminants mixed with agricultural contaminants. BLM must also consider whether oil and gas development near agriculture could provide new pathways for agricultural toxic byproducts to enter water tables.

In its scoping comments, EPA advises that to ensure that public drinking water supply sources (e.g., surface water sources, including groundwater under the direct influence of surface

³⁰ Cal. State Water Resources Control Board, *Report to the Legislature: Communities that Rely on a Contaminated Groundwater Source for Drinking Water* (2013) at 11-12, available at <https://www.waterboards.ca.gov/gama/ab2222/docs/ab2222.pdf>.

³¹ *Id.*

³² *Id.*

³³ EPA, *Hydraulic Fracturing for Oil and Gas*, *supra* n. 22; Graham, *Unlined Waste Disposal Pits Endanger Groundwater in San Joaquin Valley* (2021), available at <https://www.digitaljournal.com/techscience/unlined-waste-disposal-pits-endanger-groundwater-in-san-joaquin-valley/article>.

³⁴ S.B.C. Shonkoff et al., *Hazard Assessment of Chemical Additives Used in Oil Fields that Reuse Produced Water for Agricultural Irrigation, Livestock Watering, and Groundwater Recharge in the San Joaquin Valley of California: Preliminary Results* at 9 (2016), available at https://www.psehealthyenergy.org/wp-content/uploads/2022/11/Preliminary_Results_13267_Disclosures_FINAL-1.pdf.

water sources, and groundwater sources) are protected from potential impacts associated with BLM-authorized activities in the Planning Area, it is important to identify where these sources are located. For that reason, EPA recommended that the Draft SEIS include an updated map that identifies source water protection areas for public water supply wells and surface water intakes (streams, rivers, and reservoirs) as well as reservoirs that are drinking water sources. After identifying the water resources, BLM should include an analysis of the potential impacts to those drinking water sources and consider NSO lease stipulations to ensure public drinking water supply sources are fully protected from potential impacts associated with oil and gas leasing.

In addition, EPA notes that the Planning Area may include important areas of alluvial aquifer recharge that are more susceptible to contamination. To ensure that future BLM-authorized activities are protective of groundwater resources, the agency should accordingly identify and characterize both the existing and potential groundwater drinking water resources in the Planning Area by including: a description of all aquifers in the planning area, noting which aquifers are underground sources of drinking water; water quality and water yield information for each aquifer, if available; maps depicting the location of sensitive groundwater resources such as municipal watersheds, source water protection zones, sensitive aquifers, and recharge areas; descriptions and locations of groundwater use (e.g., public water supply wells, domestic wells, springs, and agricultural and stock wells); and a map and analysis of proposed oil and gas wells, existing producing wells, and nonproducing wells in the area including their status (e.g., idle, shut-in, plugged, and abandoned). BLM should prepare this information and include it in the final EIS to support an analysis of groundwater impacts.

3. Groundwater Quantity Impacts

The Draft SEIS's consideration of impacts to groundwater quantity is similarly deficient. EPA put BLM on notice in its scoping comments that water demand associated with oil and gas development can be substantial and has the potential to impact environmental resources. For that reason, it recommended that the SEIS include a discussion of: a range of estimated water demand per well developed in the Planning Area (based on reasonably foreseeable development, predicted well depths, formation characteristics, and well designs, as well as hydraulic fracturing operations, if used); possible sources of water for oil and gas development; and potential impacts of the water withdrawals (e.g., drawdown of aquifer water levels, reductions in stream flow, impacts to groundwater dependent ecosystems, impacts on aquatic life, wetlands, springs and other aquatic resources). EPA also recommended that BLM consider measures to encourage operators to use recycled produced water in well drilling and stimulation and for produced water management and disposal facilities, thereby decreasing the need for water withdrawals and minimizing the associated impacts. However, BLM included none of this analysis in the Draft SEIS.

An analysis of water quantity impacts is necessary to comply with NEPA. As the CCST has explained, water use from fracking and other well stimulation techniques is significant: the authors "estimate that well stimulation in California uses 850,000 to 1,200,000 cubic meters

(690–980 acre-feet) of water per year.”³⁵ Most of this water is sourced from a nearby irrigation district: “Operators obtained the water needed for well stimulation from nearby irrigation districts (68 percent), produced water (13 percent), operators’ own wells (13 percent), a nearby municipal water supplier (4 percent), or a private landowner (1 percent).”³⁶ Around 90 percent of the total water volume used for oil and gas extraction in California would otherwise be suitable for irrigation or domestic use.³⁷ In places where fracking has occurred in California, like in the San Joaquin Valley, water extractions have stressed an already receding water table and caused an 8-meter drop in the land surface.³⁸

Like fracking and other well stimulation treatments, enhanced oil recovery methods such as steam injection, water flooding, and steam flooding involve the injection of large volumes of water underground to increase the flow of oil or gas to the surface. The CCST notes that cyclic steam injection for enhanced oil recovery uses between 2-15 times as much freshwater as well stimulation operations.³⁹ These methods are increasingly used both to expand the productivity of existing wells in California and to maximize production from new wells.⁴⁰

There are unique concerns about water quantity across all of the basins and subbasins in the Central Coast Planning Area. For example, in San Benito County, a portion of its water management areas rely on imported water from the Central Valley Project.⁴¹ BLM must coordinate with local water districts like the San Benito County Water District to ensure it has the best and most up-to-date data available on water levels. As another example, in Monterey County, the vast majority (95 percent) of water used is drawn from underground aquifers.⁴² The total amount of water pumped per year is approximately 500,000 acre-feet, of which 450,000 acre-feet are used for agriculture.⁴³ Excessive water pumping can lead to seawater intrusion in certain areas, an issue felt particularly in the Salinas Valley of Monterey County.⁴⁴

BLM must meaningfully consider these unique issues and whether oil and gas development paired with extensive agricultural development will overdraw already strained water tables in the Central Coast Planning Area.

³⁵ See *supra* n. 18 at 65.

³⁶ *Id.* at 57.

³⁷ *Id.*

³⁸ *Id.* at 65.

³⁹ *Id.* at 61.

⁴⁰ 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.

⁴¹ San Benito County Water District, *Annual Groundwater Report* (Water Year 2023), <https://sbcwd.ca.gov/wp-content/uploads/2024/04/SGMA-Annual-Report-WY23-FINAL-03252024.pdf>.

⁴² Monterey County Water Resources Agency, *Groundwater Level Monitoring*, available at <https://www.countyofmonterey.gov/government/government-links/water-resources-agency/programs/groundwater-level-monitoring/overview>.

⁴³ *Id.*

⁴⁴ *Id.*

4. Subsidence

In addition, the depletion of groundwater for use in well stimulation techniques and enhanced oil recovery, and the extraction of oil and gas from the ground that those technologies enable, both have the potential to cause land subsidence, the gradual caving in or sinking of land. BLM recognizes that such subsidence “can permanently reduce the amount of storage available in a groundwater aquifer,” further reducing groundwater levels. Draft SEIS at 74. It also notes that the “principal aquifers of the Central Valley portion of the Planning Area are in general described as being in chronic groundwater overdraft.” But despite saying that the SEIS “includes updated ... land subsidence analysis,” BLM fails to provide any analysis of subsidence, noting only that it is “difficult to analyze and predict.” *Id.* This deficiency must be resolved in the SEIS.

5. Deferral of Analysis

BLM says it will “consider site specific conditions and data during project level review.” Draft SEIS at 72. But consideration of 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. As the Ninth Circuit has frequently stated, it is “not appropriate to defer consideration” of impacts to a future date “when meaningful consideration can be given now.” *Kern v. U.S. BLM*, 284 F.3d 1062, 1075 (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 Planning Area level instead of in a segmented and cabined review later. Moreover, BLM states that the SEIS *is* the relevant analysis document for two suspended leases issued in 2011 and 2012. Draft SEIS at ES-1. Its failure to do what it said it would do for these leases, namely “consider site specific conditions and data,” belies the agency’s assurances that it will conduct further analysis before offering leases in the future.

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

The Draft SEIS 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.

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. The Planning Area is home to several communities that are disproportionately exposed to pollution and who are most vulnerable to pollution and its health effects, called “disadvantaged communities” under California law.⁴⁵ To designate disadvantaged communities, the California Environmental Protection Agency uses the California Office of Environmental Health Hazard Assessment’s (“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 for a disadvantaged community, but disadvantaged communities in Contra Costa, Fresno, Santa Clara, and Stanislaus Counties are most likely to be impacted by the expanded oil and gas drilling contemplated in the Proposed Action.⁴⁶ This means that these communities are already 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. For example, residents in Fresno County’s City of Coalinga already experience more pollution from oil and gas wells than 96 percent of census tracts in the state and more drinking water contamination than 89 percent of census tracts in the state.⁴⁷ These residents are also more vulnerable to pollution burdens than 80 percent of census tracts in the state due to factors like socioeconomic status and chronic disease prevalence.⁴⁸

Furthermore, much of the Planning Area is located in agricultural areas of the state, where farmworkers labor long hours outside and will be exposed to air pollution from oil and gas drilling. In Monterey County, known as the salad bowl of the world, around 30,000 individuals work in crop production.⁴⁹ And farmworkers in several Monterey County census tracts are already exposed to more air toxics from oil and gas wells than more than 90 percent of census tracts in the state.⁵⁰ Because farmworkers spend their days outside, they have no protections from air pollution. In addition, farmworkers are also more likely to live in substandard housing

⁴⁵ Cal. Health & Safety Code § 39711; SB 535 Disadvantaged Communities Webpage, <https://oehha.ca.gov/calenviroscreen/sb535>.

⁴⁶ See Cal 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. See also CalEnviroScreen 5.0 Draft, attached as Exhibit 1 and available at <https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-50>.

⁴⁷ See CalEnviroScreen 5.0 Draft, Drinking Water Contaminants Percentile, attached as Exhibit 2 and Small Air Toxics Site Percentile, attached as Exhibit 3.

⁴⁸ See CalEnviroScreen 5.0 Draft, Population Characteristics, attached as Exhibit 4.

⁴⁹ County of Monterey Agricultural Commissioner’s Office, Economic Contributions of Monterey County Agriculture (Nov. 2025) at 7, available at <https://montereycfb.com/wp-content/uploads/2025/11/Economic-Contributions-of-MoCo-Ag-2025.pdf>.

⁵⁰ See CalEnviroScreen 5.0 Draft, Small Air Toxic Sites Indicator, attached as Exhibit 5.

with poor ventilation and water quality.⁵¹ Thus, even once they return home, they are more likely to be exposed to the air and water quality impacts from oil and gas production.

Studies increasingly show links between exposure to oil and gas operations and other public health impacts,⁵² including cancer,⁵³ adverse birth outcomes,⁵⁴ and preterm births.⁵⁵ 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.⁵⁶ Residents also experience sleep disturbance from noise levels from oil and gas activity.⁵⁷ Further, a state-commissioned public health expert panel that worked with CalGEM, the state'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 that those outcomes get worse where the density of wells is greater.⁵⁸ 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

⁵¹ University of California, Merced, *Farmworker Health in California: Health in a Time of Contagion, Drought, and Climate Change* (2022) at 24, 27, available at https://clc.ucmerced.edu/sites/g/files/ufvvh626/f/page/documents/fwhs_report_2.2.2383.pdf.

⁵² Intrinsic Environmental Sciences Inc., *Phase 2- Human Health Risk Assessment of Oil and Gas Activity in Northeastern British Columbia: Task 3 – Literature Review*. Prepared for British Columbia Ministry of Health, April 2013.

⁵³ See, e.g., McKenzie, Lisa M., et al., *Childhood Hematologic Cancer and Residential Proximity to Oil and Gas Development*, PLoS ONE 12(2): e0170423 (2017), available at <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0170423>.

⁵⁴ Balise, et al., *Systematic Review of the Association between Oil and Natural Gas Extraction Processes and Human Reproduction*, 106 FERTILITY & STERILITY 4, 795-819 (September 2016), available at <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*, 122 ENVIRONMENTAL HEALTH PERSPECTIVES 412-417 (2014), available at <https://pubmed.ncbi.nlm.nih.gov/20923742/>; Lupo, P.J., et al., *Maternal Exposure to Ambient Levels of Benzene and Neural Tube Defects Among Offspring: Texas, 1999–2004*, 119 ENVIRONMENTAL HEALTH PERSPECTIVES 397-402 (2011), available at <https://pubmed.ncbi.nlm.nih.gov/20923742/>.

⁵⁵ Casey, et al., *Unconventional Natural Gas Development and Birth Outcomes in Pennsylvania*, 27 EPIDEMIOLOGY 163-172 (2016), available at <https://www.sciencedirect.com/science/article/pii/S0015028216625293>; Li, X., et al., *Association between Ambient Fine Particulate Matter and Preterm Birth or Low Birth Weight: An Updated Systematic Review and Meta-Analysis*, 227 ENVIRONMENTAL POLLUTION 596-605 (2017), available at <https://pubmed.ncbi.nlm.nih.gov/28457735/>.

⁵⁶ Webb, et al., *Potential Hazards of Air Pollutant Emissions from Unconventional Oil and Natural Gas Operations on the Respiratory Health of Children and Infants*, 31 REVIEWS ON ENVIRONMENTAL HEALTH 225-243 (2016), available at <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*, 125 ENVIRONMENTAL HEALTH PERSPECTIVES 189-197 (2016), available at <https://pmc.ncbi.nlm.nih.gov/articles/PMC5289909/>; Liberty Hill Foundation, *Drilling Down: The Community Consequences of Expanded Oil Development in L.A.* (2015) available at https://libertyhill-assets-2.s3-us-west-2.amazonaws.com/media/documents/Drilling_Down_Report_-_Full.pdf; Los Angeles County Department of Public Health, *Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County*, February 2018, available at http://publichealth.lacounty.gov/eh/docs/PH_OilGasFacilitiesPHSafetyRisks.pdf.

⁵⁷ Hays, et al., *Public Health Implications of Environmental Noise Associated with Unconventional Oil and Gas Development*, 580 SCIENCE OF THE TOTAL ENVIRONMENT 448-456 (2017).

⁵⁸ Shonkoff et al, *Public Health Dimensions of Upstream Oil and Gas Development in California* (June 21, 2024), available at https://www.conservation.ca.gov/calgem/Documents/Public_Health_Panel_Final_Report_20240621.pdf.

and respiratory outcomes like reduced fetal growth, preterm birth, asthma, and reduced lung function. It cites research estimating that in 2025, nearly 100 premature deaths in California will be attributed to oil and gas pollution.

The increasing evidence of public health effects for residents exposed to oil and gas activity is particularly concerning in the Planning Area given the existing pollution burdens and vulnerabilities. BLM thus must revise its analysis to include a consideration of how the Proposed Action will impact low-income communities and communities of color.

D. The Draft SEIS Fails to Consider Cumulative Impacts.

The Draft SEIS fails to adequately analyze and disclose the cumulative impacts from the Proposed Action. 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, 4332(2)(C). This requirement stems from NEPA’s recognition 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). Cumulative impacts analysis requires an assessment of the actual impact in light of background effects—e.g., how increased emissions affect air quality in light of existing emissions—not merely a comparison of the relative increase in emissions against total background emissions. 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).

As BLM is well aware, the agency is also currently proposing a RMP Amendment and Draft SEIS for Oil and Gas Leasing and Development in the neighboring Bakersfield Planning Area. That proposal involves considerable new well development. Yet, inexplicably, the Central Coast Draft SEIS fails to mention that other major BLM planning effort, which would ostensibly involve the development of new wells, including new hydraulically-fractured wells, during the same timeframe as the Proposed Action.

This raises serious cumulative impact concerns. Cumulative impacts result from the incremental impact of an action combined with past, present, and reasonably foreseeable future actions. The San Joaquin Valley is in extreme ozone nonattainment status, and smog is very much a cumulative air pollution concern (NO_x and reactive organic gas (“ROG”) emissions are both ozone precursors which generate smog by reacting in the atmosphere across the entire air basin). Despite these facts, BLM fails to consider the cumulative NO_x and ROG related effects of two major planning efforts—both undertaken by BLM at the same time, and both of which involve approving new hydraulic fracturing and other well development activities which would occur during the same timeframe and in the same extreme nonattainment air basin.

Finally, hydraulic fracturing is associated with significant GHG emissions, including carbon dioxide, methane, NO_x, VOCs, and black carbon.⁵⁹ 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.⁶⁰ “The impact of greenhouse gas 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).

E. The Draft SEIS Fails to Consider Impacts to Listed Species.

BLM must take a hard look at the impacts of oil and gas development, including those from hydraulic fracturing and other drilling techniques, on sensitive species and habitats in the Planning Area. New species have been listed, and their critical habitat designated, within the Planning Area since the 2019 FEIS that implicate both existing oil and gas leases and unleased oil and gas areas. BLM’s SEIS must take into account these newly-protected species and consider the impacts of oil and gas activities on them and their habitats.

These include the following actions under the federal Endangered Species Act (“ESA”):

- The Central Coast Distinct Population Segment (“DPS”) and South Coast DPS foothill yellow-legged frogs were listed as threatened and endangered, respectively, on September 28, 2023. On January 14, 2025, the U.S. Fish and Wildlife Service (“FWS”) proposed a final rule designating 249,942 acres of critical habitat for the Central Coast DPS and 10,077 acres of critical habitat for the South Coast DPS;
- The FWS proposed to list the northwestern pond turtle and the southwestern pond turtle as threatened on October 3, 2023;
- The FWS proposed to list the Northern DPS western spadefoot as threatened on December 5, 2023; and
- The FWS proposed to list the monarch butterfly and designate 4,395 acres of critical habitat on December 12, 2024.

Under the California Endangered Species Act (“CESA”):

- The Central Coast DPS and South Coast DPS foothill yellow-legged frogs were listed as endangered on March 20, 2020;
- The Temblor legless lizard was given endangered candidate status on July 1, 2022; and
- The burrowing owl was given candidate status on October 10, 2024.

⁵⁹ Brandt, A., Millstein, D., Jin, L., & Englander, J., *Air Quality Impacts from Well Stimulation* at 185-86 (2015), available at <https://ccst.us/wp-content/uploads/160708-sb4-vol-II-3-1.pdf>.

⁶⁰ Bureau of Land Management, 2023 BLM Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends (Aug. 2024), available at <https://www.blm.gov/sites/default/files/docs/2025-04/BLM-2023-Base-GHG-Report.pdf>.

- On February 12, 2026, the Fish and Game Commission voted to list the Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lion. The actual listing date is pending adoption of regulation. Key protected regions and subpopulations are located in the Planning Area.

The Draft SEIS fails to assess potential impacts to federally listed and candidate species. First, BLM has not evaluated impacts to all species that have been either proposed for listing or formally listed under the ESA and CESA since 2019. In particular, BLM ignores impacts to monarch butterflies, despite finding in its Draft SEIS for the Bakersfield Planning Area that “monarch butterflies may occur within the lease parcels” due to the prevalence of the milkweed plant, which is also present in the Central Coast Planning Area. Bakersfield Draft SEIS at 27.

Second, BLM arbitrarily discounts the possibility of impacts to the other species. It recognizes that keeping the Clear Creek Serpentine Area of Critical Environmental Concern (ACEC) closed to oil and gas leasing under all alternatives considered in this SEIS would prevent any potential impacts to foothill yellow-legged frog habitat on those lands. But BLM dismisses the possibility of impacts to the foothill yellow-legged frog and other species and their critical habitats outside the ACEC because their habitats “are outside of areas where the RFDS suggests oil and gas development would occur.” Draft SEIS at 75. This ignores the fact that the agency’s preferred alternative would open critical habitat for these species to oil and gas drilling in the Planning Area.

The Draft SEIS contains no discussion of the Temblor legless lizard or the burrowing owl. In considering impacts to these species, BLM should discuss studies prepared by state agencies and other relevant stakeholders. These include a 2019 conservation assessment prepared for the California Department of Fish and Wildlife (“CDFW”) in which scientists recommended federal and state ESA protection for the Temblor legless lizard.⁶¹ In its candidate review, CDFW noted that the Temblor legless lizard has a “very small range, making its continued existence especially vulnerable to threats.”⁶² CDFW found sufficient evidence that oil and gas development “result[s] in habitat loss, degradation and fragmentation and can restrict the species’ ability to carry out essential functions such as feeding, burrowing, and reproduction.”⁶³ Further, given the threats and small range of the species, along with its specialized habitat requirements, these factors “could be immediately threatening to the species’ continued survival and reproduction.”⁶⁴ BLM should also consider that a CDFW staff report on burrowing owl mitigation says that the potential displacement of burrowing owls poses a serious concern for the

⁶¹ Parham, J.F. et al., *Conservation Assessment of the California Legless Lizard (Anniella)*, prepared for California Department of Fish and Wildlife (2019), available at https://meridian.allenpress.com/jfwm/article-supplement/501241/pdf/refs1_parham_et_al_2019/.

⁶² California Dept. of Fish and Wildlife, Evaluation of the Petition From the Center For Biological Diversity to List the Temblor Legless Lizard (*Anniella Alexanderae*) As Threatened or Endangered Under the California Endangered Species Act (March 25, 2022) at 1, available at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=201997&inline>.

⁶³ *Id.* at 18.

⁶⁴ *Id.*

survival of the species.⁶⁵ Further, burrowing owls are often observed foraging along roads, and sometimes nest near them, making them especially vulnerable to vehicle collisions.⁶⁶

BLM must also consider new information concerning already listed species in the Planning Area that has been published after the 2019 FEIS. For example, the U.S. Fish and Wildlife Service in 2020 published a study concerning the San Joaquin kit fox that found: “Permanent modification to habitat due to oil and gas activities can reduce the species’ ability to disperse and find new habitat. As more land is affected by extraction of natural resources, there could be population level responses associated with habitat degradation and habitat modification.”⁶⁷

F. 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 stipulated settlement that required BLM to prepare its SEIS, BLM committed to “solicit additional alternatives during the public scoping process and [] consider incorporating those alternatives into the analysis.” But in the Draft SEIS, BLM “carries forward” the same alternatives that it previously considered in the 2019 FEIS. Draft SEIS at 16. In so doing, its analysis suffers from the same flaws as the 2019 FEIS.

The 2017 draft EIS considered five alternatives, “A” through “E,” each of which proposed opening different acreages for oil and gas leasing and development. BLM in that draft identified its preferred alternative as “Alternative C,” which would open a total of 398,600 acres

⁶⁵ California Department of Fish and Game, *Staff Report on Burrowing Owl Mitigation* (March 7, 2012), available at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843>.

⁶⁶ Scobie, Corey et al, *Influence of petroleum development on burrowing owl ecology*, Univ. Alta. Dep’t of Biological Scis., (July 2013) 1, 16, available at https://www.researchgate.net/publication/309310446_Influence_of_petroleum_development_on_burrowing_owl_ecology.

⁶⁷ United States Fish and Wildlife Service, *Species Status Assessment Report for the San Joaquin Kit Fox* (2020) at 32, 35, available at <https://iris.fws.gov/APPS/ServCat/DownloadFile/185116>.

of federal mineral estate for oil and gas development. Under Alternative C, federal mineral estate underlying core population habitat areas for the giant kangaroo rat and California's coastal zone would be closed to oil and gas development, and no surface occupancy would be allowed on land designated by the U.S. Fish and Wildlife Service as critical habitat for threatened or endangered species. Further, all federal mineral estate in Alameda, Contra Costa, Santa Clara, Santa Cruz and San Mateo Counties would be closed to oil and gas leasing and development.

However, the 2019 FEIS introduced a wholly new alternative that was not included or analyzed in the Draft EIS, "Alternative F," and selected it as the agency's preferred alternative. Alternative F opens for oil and gas development a total of 725,500 acres of federal mineral estate, more than 91 percent of all land and mineral estate in the Planning Area under BLM's control, and nearly double the estate open under the previous preferred alternative. Unlike Alternative C, Alternative F opens federal mineral estate in Alameda, Contra Costa, Santa Cruz, Santa Clara and San Mateo Counties for oil and gas development. It also opens for oil and gas development, including surface occupancy, mineral estate underlying designated critical habitat for threatened and endangered species, and within California's coastal zone. Even more, Alternative F opens for oil and gas development mineral estate overlying portions of all 20 groundwater basins in the Planning Area, and opens for oil and gas leasing, including surface occupancy, federal lands within portions of Panoche-Coalinga ACEC and federal lands subject to Recreation and Public Purpose leases. There are Recreation and Public Purpose lease lands in the Mount Diablo State Park and Henry W. Coe State Park that would be open for oil and gas leasing with surface occupancy under this alternative.

Introduction in a final EIS of a new alternative that is outside "the range of alternatives the public could have reasonably anticipated," and to which the "public's comments on the draft EIS alternatives" do not include "the chosen alternative [to] inform [the agency] meaningfully of the public's attitudes toward the chosen alternative" is sufficient rationale to require a supplemental EIS. *California v. Block*, 690 F.2d 753, 772 (9th Cir. 1982). BLM in 2019 adopted an alternative presented for the first time in its FEIS that was outside the range of the alternatives the public could reasonably have anticipated that BLM was considering. Comments from the public were therefore insufficient to inform BLM of the public's view of the chosen alternative and its impacts since they did not address the chosen alternative. *Id.*

The present Draft SEIS does not remedy BLM's failure to seek public comment on Alternative F. BLM's failure to prepare and circulate a supplemental EIS that provides for public comment on the entirety of Alternative F does not satisfy NEPA's public participation requirements. Put another way, BLM cannot simply carry forward the same alternatives from a prior defective review that entirely prevented public comment on its preferred alternative.

This flaw is compounded by the fact that the present Draft SEIS only analyzed a small subset of potential impacts to the Planning Area. For example, it provided little in the way of analysis to recreation issues, providing only a statement that "[i]mpacts on recreation can be inferred based on the potential for oil and gas activities within the vicinity of the recreation areas and BLM-managed [Special Recreation Management Areas (SRMAs)] described in Section 3.6 of this SEIS." Draft SEIS at 75. There is no map illustrating the areas open to leasing and the

SRMAs together, and no acknowledgment of how recreation impacts changed in Alternative F relative to the other alternatives, including opening California State Park lands to leasing.

In addition, BLM has failed to abide by its commitment in the stipulated settlement to “consider incorporating [] alternatives into the analysis” that were raised during scoping. It instead lumped these alternatives together into a brief discussion and provided unsupported and conclusory statements as to why they were not considered in the Draft SEIS.

For example, despite noting that “[n]umerous scoping comments urged the BLM to consider an alternative that would ban the use of well stimulation technologies on Federal mineral estate,” it failed to consider that alternative. The explanation provided is that BLM does not regulate hydraulic fracturing in California, but this fails to support the agency’s decision for a number of reasons. First, it contradicts what BLM says elsewhere in the Draft SEIS, that it “carries forward” the alternatives considered in the 2019 EIS, which all assume that all wells “could employ hydraulic fracturing or other well stimulating technology.” Draft SEIS at 3. Second, BLM has recognized elsewhere in the Draft SEIS that California has banned hydraulic fracturing. *Id.* at 28. It defies reason to refuse to analyze an alternative to consider new information and changed circumstances that the agency itself has acknowledged. Third, BLM could choose to respect state law and implement its requirements with respect to hydraulic fracturing. And last, hydraulic fracturing is only one of several well stimulation techniques and enhanced recovery methods used in California. BLM’s statement that it does not regulate hydraulic fracturing accordingly does not provide a basis for refusing to consider an alternative that precludes other well stimulation and enhanced recovery technologies. As discussed above, these pose risks to resources, particularly public health, and their elimination from the analysis would accordingly “alter the environmental impact and the cost-benefit balance.” *Calvert Cliffs*, 449 F.2d at 1114.

BLM also refused to consider alternatives that would require NSO stipulations on new leases or not leasing in habitats for listed species. The rationale BLM provides is that the 2019 EIS already considered alternatives that address the closure of listed species habitat. The agency cites alternatives that would “close all split estate lands to oil and gas leasing and development,” or lease “only federal minerals in an existing oil and gas field (plus half-mile buffer),” or restrict leasing on “state parks, county parks, conservation easements, and other split estate lands.” Draft SEIS at 20. BLM, however, provides no analysis of how the lands that would be closed to leasing under these other alternatives overlaps with listed species habitats. And as discussed above, with new species having been listed since 2019, the alternatives mentioned could not have been developed or analyzed with those species’ habitats in mind.

Last, BLM rejected consideration of an alternative that would prevent development in setback zones to protect public health and safety. *Id.* at 20-21. BLM recognizes that “California Senate Bill 1137 established a 3,200-foot physical setback area between new and reworked oil and gas wells and sensitive receptors,” but states it cannot analyze an alternative implementing that setback in detail because it “does not have authority to enforce State laws and regulations (i.e. legal and policy considerations).” *Id.* This rationale fails to provide a basis for rejecting the alternative. BLM could choose to respect state law and implement its requirements, and it could

adopt an alternative based on the public health considerations that led to Senate Bill (“SB”) 1137 in the first place. As discussed below, the physical setback area was established based on substantial data and study regarding the impacts of oil and gas development on public health. In addition, EPA recommended that BLM consider setbacks in the Draft SEIS to protect public health. By analyzing an alternative that incorporates setbacks, BLM could provide an analysis that would show a marked difference in public health impacts from its proposed action.

Without a logically and factually sound consideration of the reasonable alternatives solicited during scoping, 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). BLM should therefore consider these reasonable alternatives.

G. 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”).

NEPA does not allow BLM to simply ignore consideration of mitigation measures now by listing steps that might be taken in the future. *See S. Fork Band Council*, 588 F.3d at 727 (“[T]hat these individual harms are somewhat uncertain due to BLM’s limited understanding of the hydrologic features of the area does not relieve BLM of the responsibility under NEPA to discuss mitigation of reasonably likely impacts at the outset.”); *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1380 (9th Cir. 1998) (finding a “mere listing of mitigation measures” is not enough to satisfy NEPA); *Nat’l Parks & Conservation Ass’n v. Babbitt*, 241 F.3d 722, 734 (9th Cir. 2001) (“A perfunctory description, or mere listing of mitigation measures, without supporting analytical data, is insufficient to support a finding of no significant impact.”) (internal quotations and citations omitted). As the Ninth Circuit has frequently stated in NEPA cases, it is “not appropriate to defer consideration” of impacts to a future date “when meaningful consideration can be given now.” *See Kern v. U.S. BLM*, 284 F.3d 1062, 1075 (9th Cir. 2002).

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 4 – “During this project-specific [APD] review, BLM will finalize project conditions or approval, monitoring, and/or mitigation.”
- Page 38 – “In exercising its permitting authority - including review of Applications for Permit to Drill and related authorizations - the BLM ... may require design features or conditions of approval to avoid or minimize impacts to surface water and groundwater.”
- Page 38 – “BLM will consider water-quantity risks during APD review . . . Mitigation may be required through design features and enforceable conditions of approval-for example, source-water selection, pumping limits, and metering/monitoring and reporting- and by requiring operators to obtain and comply with all applicable federal and state authorizations and regulations and, where applicable, local requirements.”
- Page 72 – “BLM concludes that the *SJVAPCD* requirement to quantify GHG emissions and to implement *SJVAPCD* Best Performance Standards to reduce GHG emissions would occur at the APD or Sundry stage, to be analyzed in a site-specific NEPA analysis.”
- Page 74 – “These potential impacts [to surface and groundwater] would be avoided or minimized through site-specific monitoring standards and regulations and application of best management practices (BMPs), as required by applicable federal, state, and local regulations, once sufficiently detailed location information is available.”

This deferral of mitigation and best management practices is inappropriate. BLM is in a better position now to evaluate and mitigate impacts that will result from the collective increase in oil and gas development than it will be when it considers Applications for Permits to Drill (“APDs”). 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 aquifers 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 SEIS 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.

As discussed, *infra*, BLM should not allow drilling with 3,200 feet of sensitive locations and should implement relevant safety measures identified in SB 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. These measures should be considered as mitigation measures in the SEIS. A 2024 public health expert panel report, discussed below, sets out further reasonable mitigation measures that BLM should analyze and implement, 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.⁶⁸

EPA noted that buffers can be effective health protection tools because they provide an opportunity for air pollutants to disperse before entering an area where they could affect human health, as well as provide extra time to warn residents of any unintended releases or emissions. EPA also recommended that BLM consider other risk reduction mitigation, including: requiring closed-loop drilling and completion; prohibiting reserve pits or produced water ponds; using lower emitting engine technology; capturing emissions from tanks, separators, and glycol dehydrators; and implementing stringent fugitive vapor controls.

BLM's failure to identify and discuss feasible mitigation measures in the SEIS regarding public health or sensitive species and their habitat is arbitrary and capricious and contrary to the requirements of NEPA and the Administrative Procedure Act.

H. The Draft SEIS Fails to Consider Conflicts with State and Local Laws and 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 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

⁶⁸ Shonkoff, et al., *Public Health Dimensions of Upstream Oil and Gas Development in California* (June 21, 2024), available at https://www.conservation.ca.gov/calgem/Documents/Public_Health_Panel_Final_Report_20240621.pdf.

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); Department of Interior, 516 DM 1 NEPA Handbook, Section 3.6, <https://www.doi.gov/media/document/doi-nepa-handbook>.

BLM claims that the 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, BLM entirely fails to acknowledge relevant new information and changes in circumstances related to state and local laws and policies that address environmental concerns. 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 the CalGEM has “regulatory authority over hydraulic fracturing in California,” and that California has a ban on the issuance of new hydraulic fracturing permits, BLM provides no affirmation that well stimulation is disallowed in the Planning Area.

In 2022, California’s SB 1137 established 3,200-foot drilling setback requirements 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 administrative

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

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

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

framework for the statutory prohibition of new wells and facilities within a 3,200-foot setback area from certain sensitive locations, and requiring pollution controls for existing wells and facilities.⁷² The agency is currently undertaking a rulemaking process to adopt permanently those regulations.⁷³ The Draft SEIS does not ensure consistency with this law by evaluating a compliant alternative or mitigation that would apply to wells within 3,200-feet of sensitive receptors.

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.

There are several 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 reaching 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.⁷⁴ Each scenario the California Air Resources Board studied incorporated a phaseout of 90 to 100 percent of oil extraction and oil refining by 2045.⁷⁵ 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.

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.⁷⁶ Water Code section 106.3 established the state's policy that every person has the right to safe, clean, affordable, and accessible water

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

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

⁷⁴ California Air Resources Board, 2022 Scoping Plan for Achieving Carbon Neutrality (Nov. 16, 2022) at 102, available at <https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf>.

⁷⁵ *Id.* at 24, Table 1.

⁷⁶ California State Assembly Bill 685 (2012).

adequate for drinking, cooking, and sanitary purposes.⁷⁷ 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.⁷⁸ 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 state's Natural Community Conservation Planning Program ("NCCP") is another source of inconsistency. Specifically, within the Central Coast planning area, are the East Contra Costa County NCCP, the Santa Clara Valley Habitat Plan NCCP, and the in-process San Benito NCCP. The NCCPs are broad-based plans to protect and conserve the state's wildlife and natural resources, while continuing to allow for development and growth. Fish & G. Code, § 2801, subd. (b). The NCCPs in the Central Coast planning area cover more than 1.5 million acres, conserving habitat for multiple special-status species and natural communities. The SEIS fails to evaluate the Proposed Action's potential impacts and conflicts with these NCCPs.

The Proposed Action also conflicts with local laws and policies. Pursuant to the stipulated settlement Agreement in *Center for Biological Diversity v. BLM*, Case No. 3:19-cv-07155-JSC, BLM was required to "cooperate with local governments to ensure consistency of federal actions with local land use plans." For instance, Santa Cruz County prohibits all oil and gas development within the county's unincorporated areas. (Santa Cruz County, Cal. General Plan, Public Safety Element (2020) 6.8.4(b).) Alameda County prohibits "high-intensity oil and gas operations," including well stimulation, enhanced recovery, and hydraulic fracturing, within the unincorporated area of the county. (Alameda County, Cal. Code of Ordinances, ch. 17 §§ 17.06.100-17.06.140 (Aug. 2, 2016).) The Draft SEIS ignores these local laws.

⁷⁷ California State Water Resources Control Board, Resolution No. 2016-0010; California Regional Water Quality Control Board, Central Valley Region, Resolution R5-20161-0018.

⁷⁸ 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* (2013), <https://www.conservation.ca.gov/calgem/Documents/Final%20Text%20SB%201137%20First%20Emergency%20Regulations%2020230106.pdf>.

I. BLM Failed to Provide an Adequate Opportunity for Public Comment.

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. Despite this mandate, BLM provided the public with only 60 days to comment on the Draft SEIS.⁷⁹ This is a full month less than the 90 days required by BLM's own regulations and NEPA handbook.

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

⁷⁹ 91 Fed. Reg. 1329 (Jan. 13, 2026); 91 Fed. Reg. 5474 (Feb. 6, 2026) (“extending the Comment Period from 03/06/2026 to 03/13/ 2026”).

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 Central Coast 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 Central Coast DPS and South Coast DPS of foothill yellow-legged frogs that were listed as threatened and endangered, respectively, on September 28, 2023, and their critical habitat.

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 700,000 acres of public lands in California to oil and gas leasing.

Sincerely,

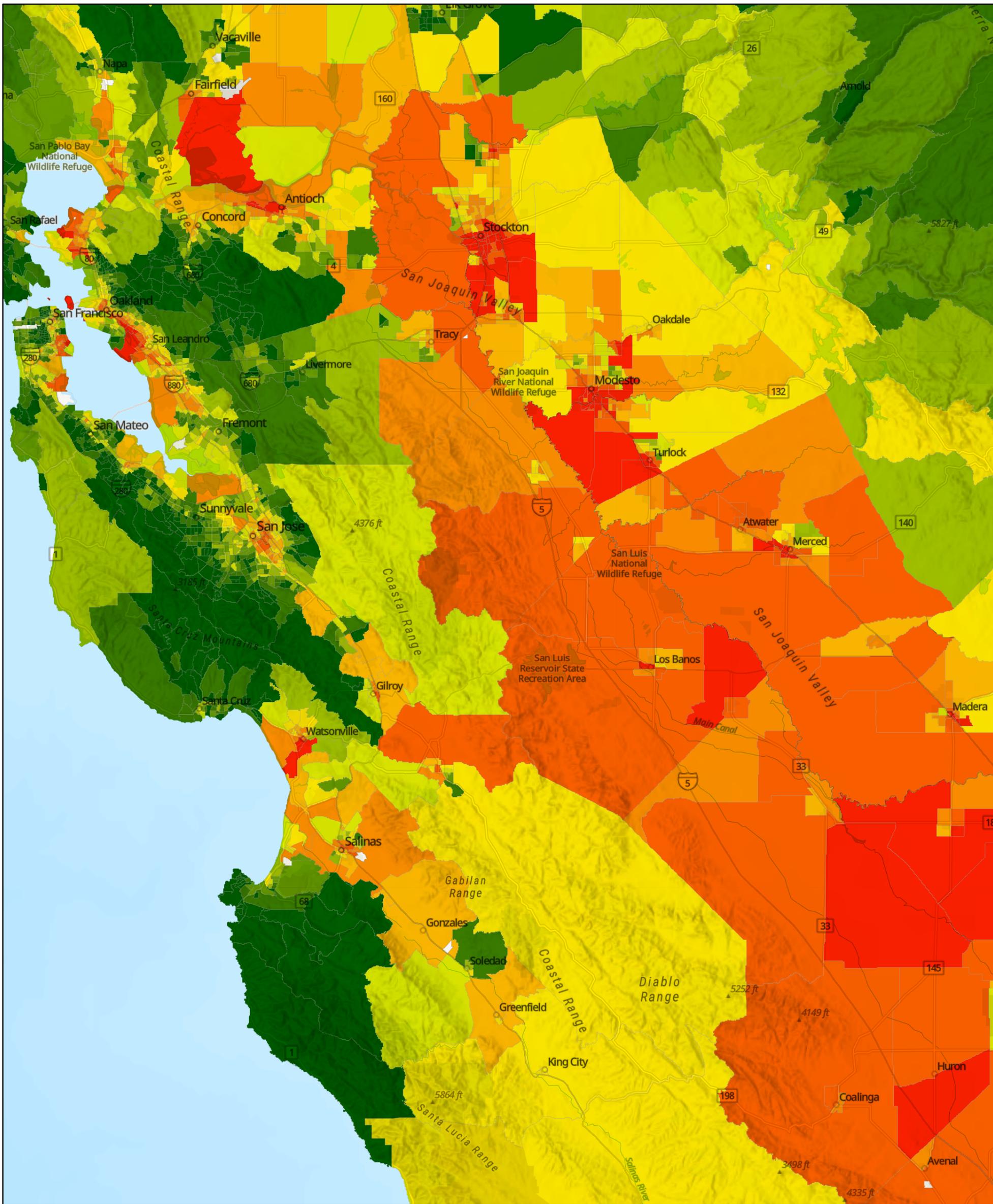


KEITH BAUERLE
Deputy Attorney General
MONICA HEGER
Deputy Attorney General
ABIGAIL BLODGETT
Supervising Deputy Attorney General

For ROB BONTA
California Attorney General

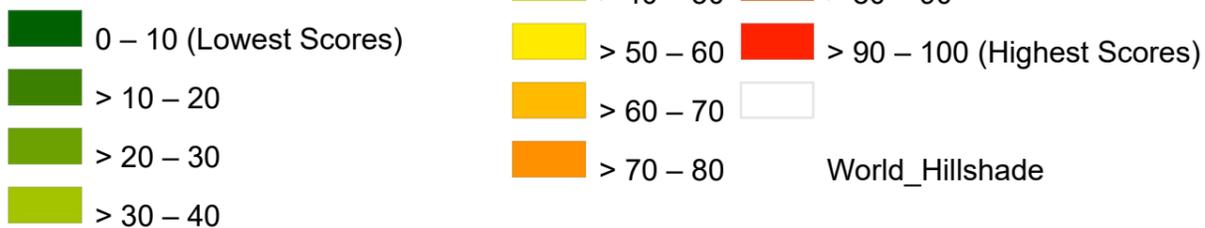
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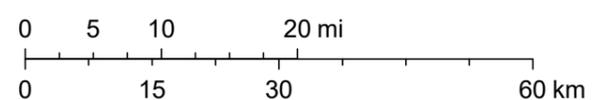


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Draft CalEnviroScreen 5.0 Percentile



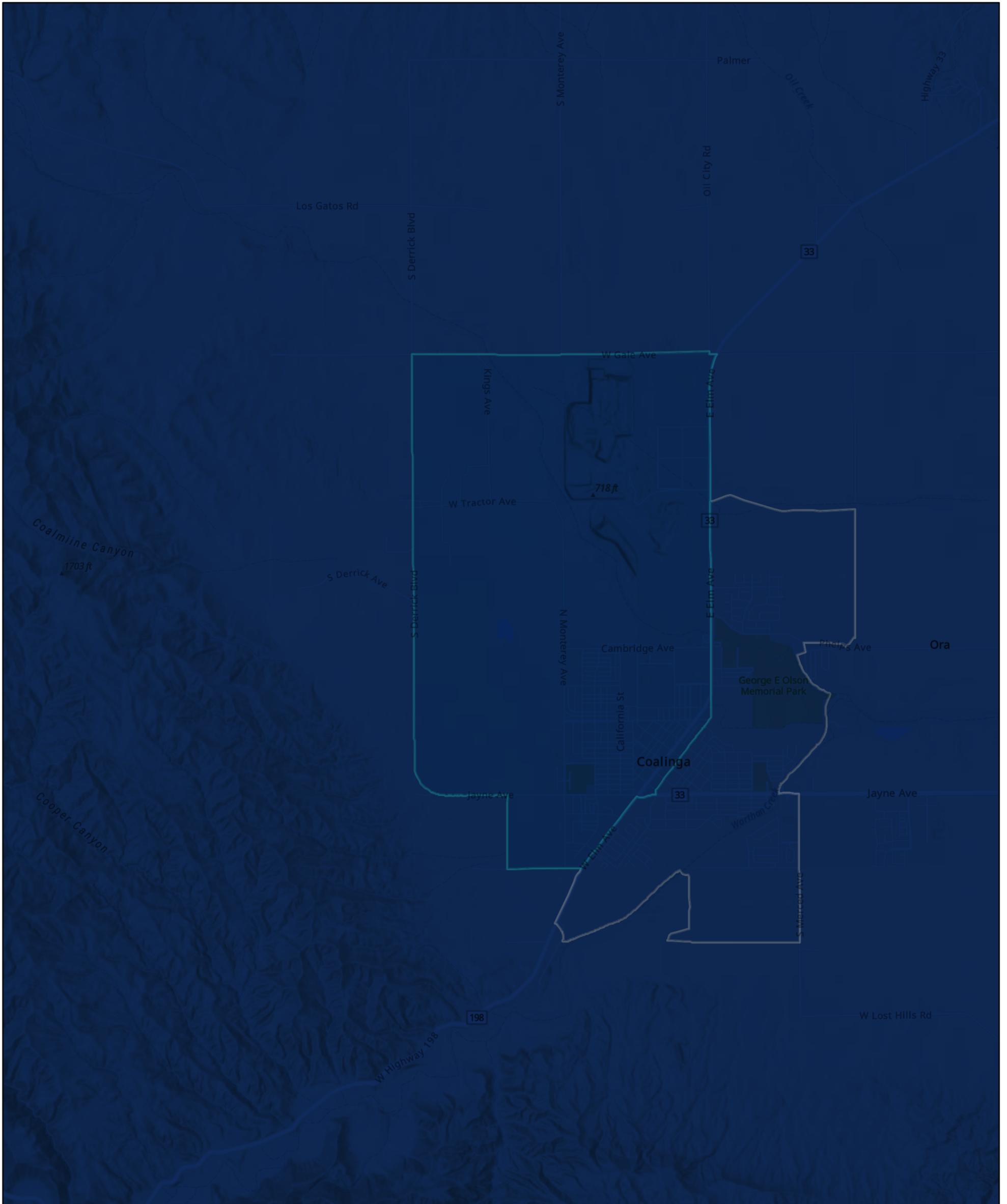
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Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, CGIAR, USGS

EXHIBIT 2

ArcGIS Web Map



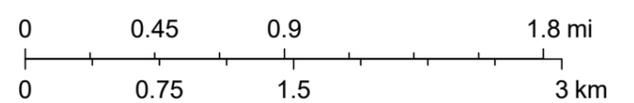
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Drinking Water Contaminants Percentile

 > 80 - 90

World_Hillshade

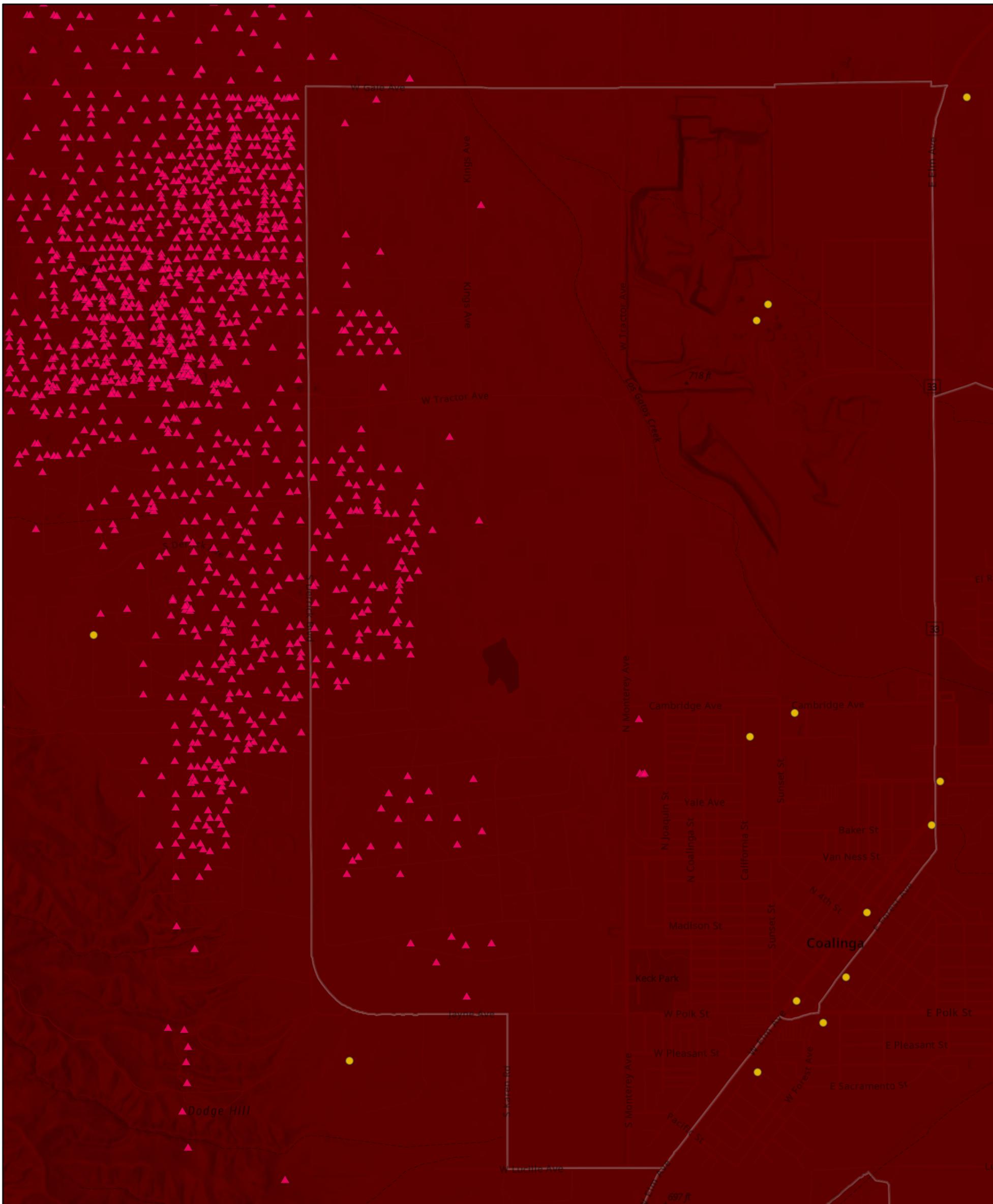
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Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, NASA, NGA, USGS, FEMA

EXHIBIT 3

ArcGIS Web Map



3/6/2026, 8:27:06 AM

▲ Oil and Natural Gas Wells

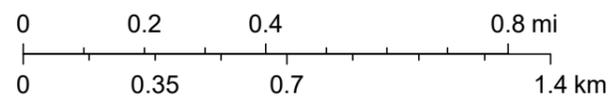
● Other Point Sources

Small Air Toxic Sites Percentile

■ > 90 – 100

World_Hillshade

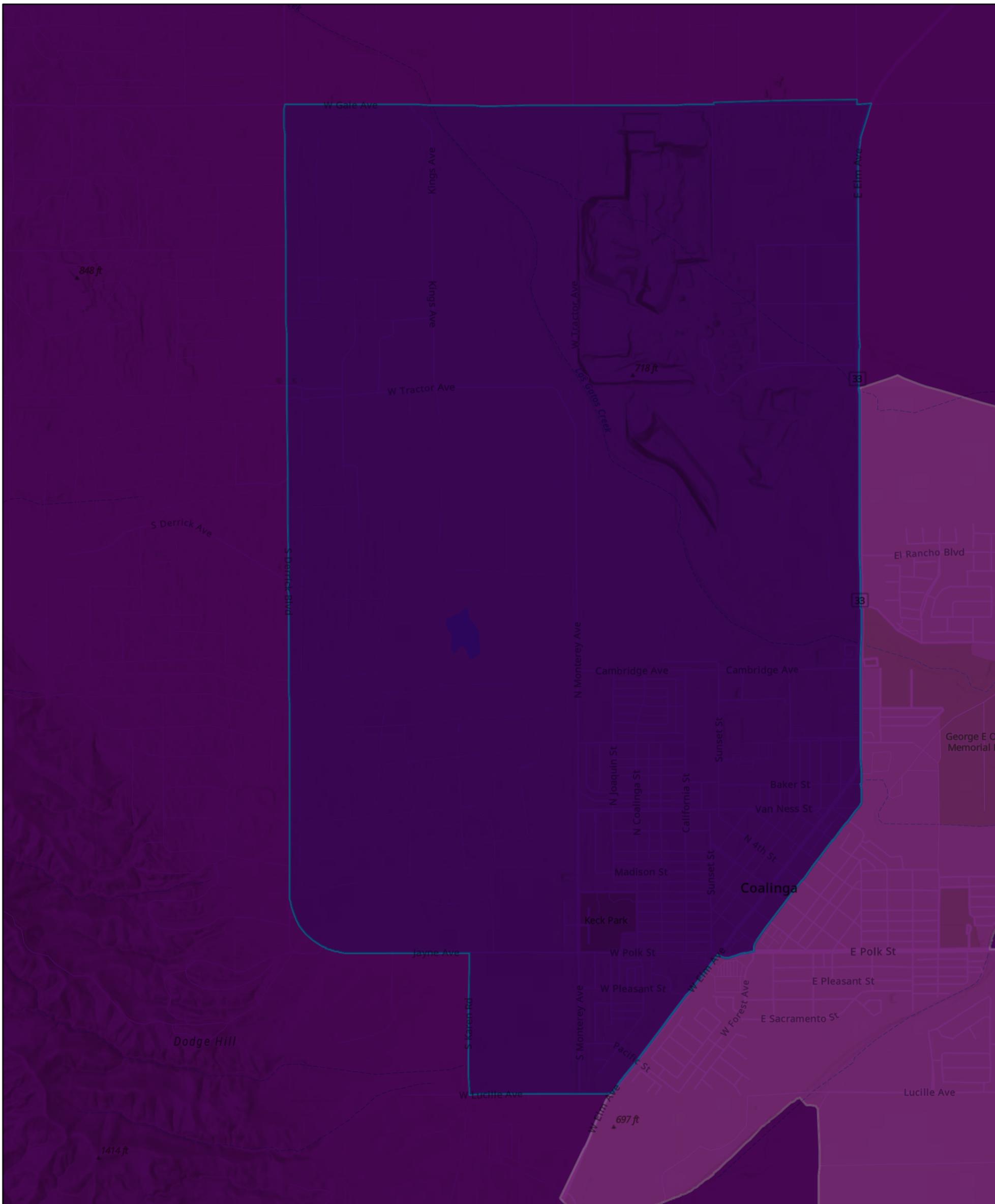
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Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, NASA, NGA, USGS, FEMA

EXHIBIT 4

ArcGIS Web Map



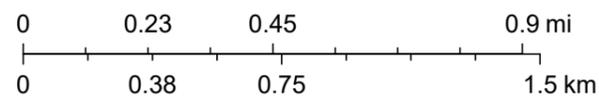
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Population Characteristics Percentile

-  > 70 - 80
-  > 80 - 90

World_Hillshade

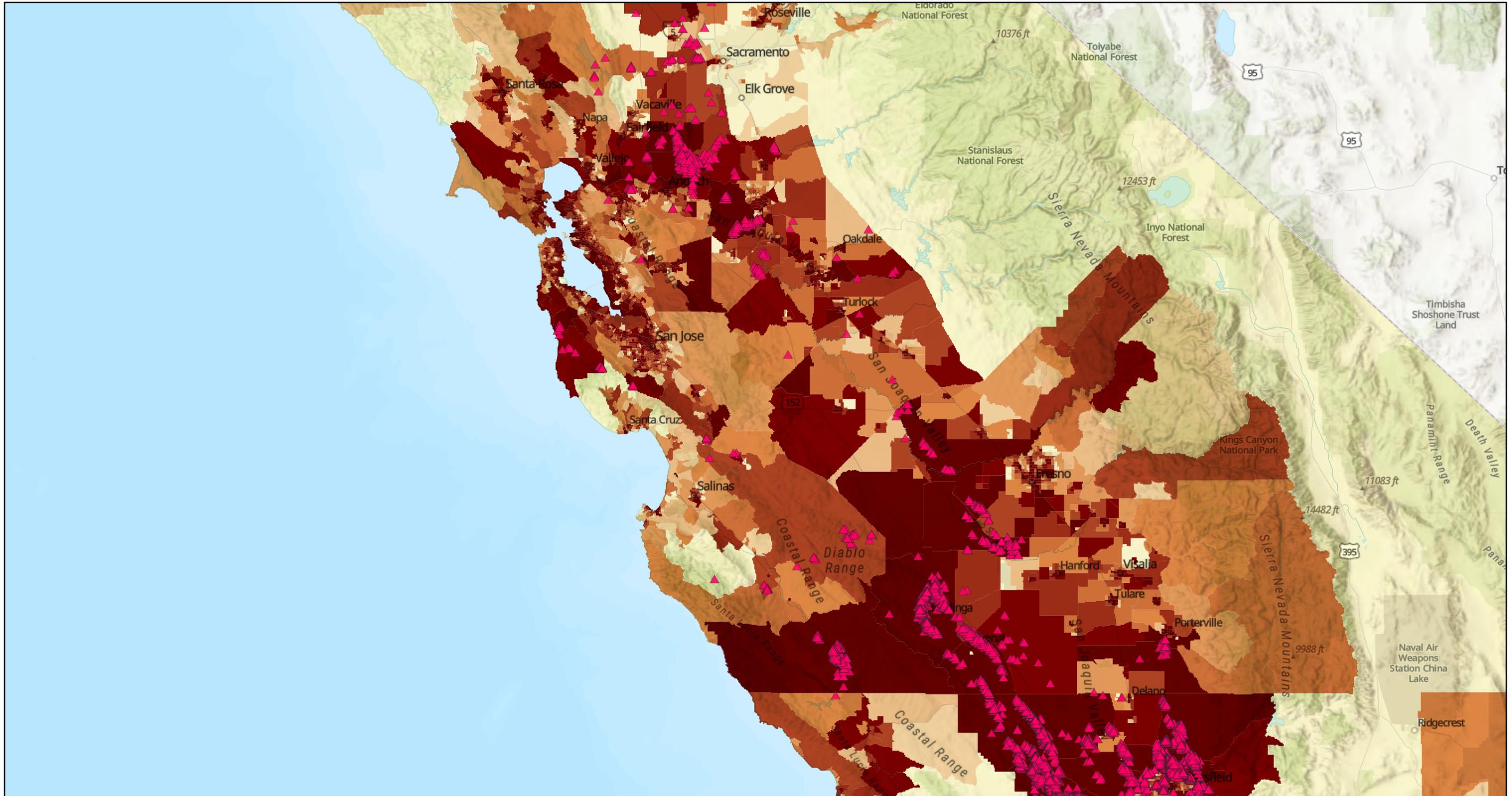
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Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, NASA, NGA, USGS, FEMA

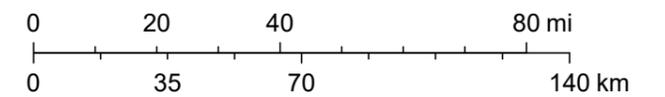
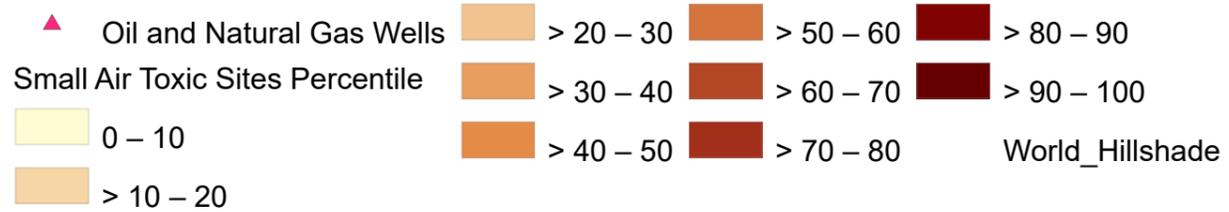
EXHIBIT 5

ArcGIS Web Map



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Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, USGS

Index re Comments on the Bureau of Land Management, Central Coast Field Office Oil and Gas Leasing and Development Draft Supplemental Environmental Impact Statement, DOI-BLM-CA-C090-2025-0017-RMP-EIS

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