

**Draft Second Supplemental Recirculated  
Environmental Impact Report (SSREIR)  
(March 2025)  
Revisions to Title 19-Kern County Zoning Ordinance Code –  
(2025 A), Focused on Oil and Gas Local Permitting**

**SCH# 2013081079**

***Volume 2  
Appendices to the SSREIR  
(Appendix A through D)***

***REVISIONS to Title 19 – KERN COUNTY ZONING ORDINANCE –  
(2025 A), Focused on Oil and Gas Local Permitting***



Kern County Planning and Natural Resources Department  
2700 M Street, Suite 100  
Bakersfield, CA 93301-2370  
(661) 862-8600

March 2025

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Appendix A

**Title 19 Proposed Revisions for  
Local Oil Permitting 2025 (A)  
SSREIR March 2025 Public Review**

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**Note: The following text is proposed to replace the current Chapter 19.98 which has been provided as a strikethrough.**

**All underlined text is as adopted by the Board of Supervisors on November 9, 2015. All *underlined and Italic* text was proposed for change in the SREIR (2020/2021) **All underlined, bold text in red** is proposed for change by this SSREIR ( 2025) All strikethrough are proposed for deletion.**

## C H A P T E R   19.98 OIL AND GAS PRODUCTION – LOCAL PERMITTING

### SECTIONS:

19.98.010 PURPOSE AND APPLICATION

19.98.020 DEFINITIONS OF OIL AND GAS PRODUCTION ACTIVITIES

19.98.030 OIL AND GAS PRODUCTION BOUNDARY AREA AND TIER AREAS

19.98.040 OIL AND GAS ACTIVITIES BY MINISTERIAL PERMIT

19.98.050 OIL AND GAS ACTIVITIES BY CONDITIONAL USE PERMIT

19.98.060 IMPLEMENTATION STANDARDS AND CONDITIONS

19.98.070 OIL AND GAS CONFORMITY REVIEW AND APPROVAL — REQUIRED

19.98.080 OIL AND GAS CONFORMITY REVIEW — APPLICATION CONTENTS  
(TIER 1)

19.98.085 OIL AND GAS CONFORMITY REVIEW AND CONDITIONAL USE PERMIT  
— APPLICATION CONTENTS (TIERS 2-5)

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OWNER SIGNATURE

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19.98.110 MINOR ACTIVITY REVIEW — APPLICATION CONTENTS

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19.98.160 PERMIT REVOCATION AND MODIFICATION

### 19.98.010 PURPOSE AND APPLICATION

The purpose of this chapter is to ensure *the protection of the health, safety and general welfare of communities, residents, and visitors though the permitting of responsible,* promote the *economic and streamlined and economically viable* recovery of oil, gas, and other hydrocarbon substances in a manner compatible with surrounding land uses. *It establishes* and protection of the public health and safety by establishing reasonable limitations, safeguards, and controls on exploration, drilling, and production of hydrocarbon resources. The procedures and standards contained in this

**KERN COUNTY ZONING ORDINANCE  
DRAFT – SSREIR CIRCULATION (MARCH 2025 )  
Source: Kern County Planning and Natural Resources Department**

chapter shall apply to all exploration drilling and production activities related to oil, gas, and other hydrocarbon substances carried out within the unincorporated San Joaquin Valley portion of Kern County (See Figure 19.98.015). The effective date of this version of Chapter 19.98 is XXXXX. .

### **19.98.020 DEFINITIONS OF OIL AND GAS PRODUCTION ACTIVITIES**

Oil and Gas exploration and operations contain many highly technical activities. For the purposes of this Chapter 19.98, definitions of activities are located throughout the Chapter, where applicable. Unless otherwise indicated in this Chapter, the definitions in Chapter 19.04 remain applicable.

### **19.98.030 OIL AND GAS PRODUCTION BOUNDARY AREA AND TIER AREAS**

Oil and Gas production in Kern County occurs within the portion of Kern County depicted in Figure 19.98.015. This Oil and Gas Activities Boundary Area is divided into five (5) Tier Areas and depicted in Figure 19.98.015. Changes to the Oil and Gas Production Boundary Area and Tier boundaries of Figure 19.98.015 shall be through the procedures in Chapter 19.112.

The Tier Areas were designated based on the following land use planning considerations:

- A. Tier 1 Area is defined as all areas in which oil and gas activity is the primary land use. The existing well and activity densities preclude almost all other uses except for passive uses such as grazing.
- B. Tier 2 Area is defined as all areas that ~~is~~ are classified Exclusive Agriculture (A) or Limited Agriculture (A-1) Districts, have agriculture as the primary surface land use, and are not included in Tier 1.
- C. Tier 3 Area is defined as other areas not within a Tier 1 Area that are located in one of the following zone districts:
  - Natural Resource (NR)
  - Recreation Forestry (RF)
  - Light Industrial (M-1)
  - Medium Industrial (M-2)
  - Heavy Industrial (M-3)
  - Floodplain Primary (FPP)
  - Drilling Island (DI)
  - Zone Districts that have the Petroleum Extraction (PE) Combining District
- D. Tier 4 Area is defined as areas not within Tier 1, 2, or 3, that include at least one of the following zone districts:
  - Estate (E)
  - Low-Density Residential (R-1)
  - Medium-Density Residential (R-2)
  - High-Density Residential (R-3)
  - Commercial Office (CO)
  - Neighborhood Commercial (C-1)
  - General Commercial (C-2)
  - Highway Commercial (CH)
  - Open Space (OS)
  - Platted Lands (PL)
  - Mobilehome Park (MP)



Authorized oil and gas activities in Tier 4 are subject to approval of a conditional use permit in accordance with 19.104 of this Title.

- E. Tier 5 are areas including all current and future Specific Plan boundaries either adopted with a Special Planning (SP) District or which include specific provisions for oil and gas operations. Oil or gas exploration and production activities would be allowed with a conditional use permit or as permitted by the regulations contained within the adopted Specific Plan in Tier 5 areas.
- F. All other areas not defined as Tier 1-5 Areas within the Oil and Gas Production Area are considered Non-Jurisdictional because they are not within the jurisdiction of Kern County. ~~Including~~ Land owned by the United States, State of California or land within an incorporated city are exempt, unless under the authority of a written agreement with the Board of Supervisors. The regulations set forth in this chapter pertain only to accessory structures, facilities or uses that are physically connected to, provide access or services to, or otherwise support, oil and gas activities in these Non-Jurisdictional Areas.

#### **19.98.040 OIL AND GAS ACTIVITIES BY MINISTERIAL PERMIT**

- A. No well for use as an injection well and no well for the exploration for or development or production of oil or gas or other hydrocarbon substances may be drilled, and no related accessory equipment, structure, or facility may be installed in any Tier 1, 2, and 3 Areas until an application for Oil and Gas Conformity Review or Minor Activity Review has been submitted to and approved, *with all adopted fees and mitigation paid*, by the Planning Director as consistent with the standards set out in Section 19.98.060 of this chapter and in accordance with the procedures set out in Sections 19.98.070 through 19.98.120 of this chapter. No such well may be drilled, or related accessory equipment, structure, or facility installed, in a Tier 5 Area unless the Specific Plan procedures for authorizing such activities have been completed, or if no such procedures are included in a Specific Plan unless the Oil and Gas Conformity Review or Minor Activity Review has been submitted and approved consistent with the procedures applicable to Tier 1, 2 and 3 areas. **In the State established Health Protection Zones, oil and gas activities are permitted by this ordinance only to the extent authorized by the State and no Oil and Gas Conformity Review or Minor Activity Review permit(s) shall be required.**
- B. Disposal of nonhazardous oilfield fluid waste and production water is considered an accessory facility only if the facility complies with the following:
  - 1. The nonhazardous oilfield fluid waste or production water is produced and disposed of within the same designated oilfield; or
  - 2. The nonhazardous oilfield fluid waste or production water disposed of outside the designated oilfield of origin is produced by and disposed of solely and only by the same individual, corporation, or entity or by reciprocal agreement among oil and gas operators in Kern County.

- C. The provisions of this Section apply to the first ~~three thousand six hundred and forty seven (3,647)~~ **two thousand six hundred and ninety seven (2697)** new individual well permit issued each calendar year, within the Oil and Gas Production Boundary Area. Any new well permits beyond **two thousand six hundred and ninety seven (2697)** ~~three thousand six hundred and forty seven (3,647)~~ applied for in a calendar year would be subject to a conditional use permit.

#### **19.98.050 OIL AND GAS ACTIVITIES BY CONDITIONAL USE PERMIT**

- A. In Tier 4, no well for use as an injection well and no well for the exploration for or development or production of oil, gas, or other hydrocarbon substances may be drilled, and no related accessory equipment, structure, facility or use may be installed in any zoning district described in this title in which such uses are permitted as conditional uses, or on land owned by the State of California subject to provisions of 19.98.030, until an application for a conditional use permit, which includes the information specified in Section 19.98.080, has been submitted to and approved by the Planning Commission as consistent with the standards set out in Section 19.98.060 of this chapter and in accordance with the standards and procedures set out in Sections 19.102.130 through 19.102.180 and Chapter 19.98 of this title. In approving a conditional use permit, the Planning Commission may waive any condition set out in Section 19.98.060 of this chapter if it determines that such waiver will not result in material detriment to the public welfare or the property of other persons located in the vicinity, based on findings of fact and compliance with the California Environmental Quality Act. **In the State established Health Protection Zones, oil and gas activities are permitted by this ordinance only to the extent authorized by the State and no Conditional Use Permit shall be required.**
- B. No well for use as an injection well and no well for the exploration for or development or production of oil, gas, or other hydrocarbon substances may be drilled, and no related accessory equipment, structure, or facility, outside the boundaries as defined in Figure 19.98.015, may be installed in any zoning district described in this title in which such uses are permitted, or on land owned by the State of California subject to provisions of 19.98.030, until an application for a conditional use permit, which includes the information specified in Section 19.98.080, has been submitted to and approved by the Planning Commission as consistent with the standards set out in Section 19.98.060 of this chapter and in accordance with the standards and procedures set out in Sections 19.102.130 through 19.102.180 and Chapter 19.98 of this title. In approving a conditional use permit, the Planning Commission may waive any condition set out in Section 19.98.060 of this chapter if it determines that such waiver will not result in material detriment to the public welfare or the property of other persons located in the vicinity, based on findings of fact and compliance with the California Environmental Quality Act. **In the State established Health Protection Zones, oil and gas activities are permitted by this ordinance only to the extent authorized by the State, and no Conditional Use Permit shall be required.**

- A. Should any activity requiring approval of an Oil and Gas Conformity Review or Minor Activity Review pursuant to Sections 19.98.070 through 19.98.120 of this chapter, not be able to comply with the Implementation Standards and Conditions set forth in Section 19.98.060, an application for a conditional use permit, which includes the information specified in Section 19.98.080, shall be submitted to and approved by the Planning Commission in accordance with the standards and procedures set out in Sections 19.102.130 through 19.102.180 and Chapter 19.98 of this title. In approving a conditional use permit, the Planning Commission may waive/modify any condition set out in Section 19.98.060 of this chapter if it determines that such waiver or modification will not result in material detriment to the public welfare or the property of other persons located in the vicinity, based on findings of fact and compliance with the California Environmental Quality Act.
- B. If a well is not completed upon land subject to a conditional use permit issued pursuant to this chapter and Chapter 19.104 of this title within twelve (12) months from the date of issuance of the permit, or within any approved period thereof, the conditional use permit shall expire and the premises shall be restored as nearly as practicable to their original condition. No permit shall expire while the permittee is continuously conducting drilling, redrilling, completing or abandoning activities, or related operations, in a well on the lands covered by such permit, which activities were commenced while said permit was otherwise in effect. Continuous activities are those suspended for not more than ninety (90) consecutive days. If, at the expiration of the twelve- (12-) month period, the permittee has not completed his drilling program on the lands covered by such permit, the decision making authority, upon a written request of the permittee, may extend the permit for the additional time requested by permittee for the completion of such drilling, in accordance with the standards and procedures set out in Sections 19.102.130 through 19.102.180.
- C. The following accessory uses shall require a Conditional Use Permit:
  1. Cogeneration facility
  2. Landfills

#### **19.98.060 IMPLEMENTATION STANDARDS AND CONDITIONS**

Pursuant to this chapter, all activities for the exploration for or development or production of oil, gas, and other hydrocarbon substances and related accessory buildings, structures, facilities, and activities shall comply with the following standards, unless otherwise provided in this chapter:

- A. No oil or gas well shall be drilled within *the following distances*:
  1. One hundred (100) feet **of the edge of right-of way for** any public **access easement**, Major or Secondary highway. ~~or building not necessary to the operation of the well~~
  2. **Setbacks from sensitive receptors shall be as required by California State Law. Sensitive receptors are as defined in California Code of Regulations, Title 14, Division 2, Department of Conservation, Chapter 4, Development, Regulation, and Conservation of Oil and Gas Resources, Subchapter 2, Environmental Protection, Article 2.5 – Health Protection Zones, Section**

**1765.1 Definitions (a- e) or as amended by the California State Legislature.**

3. ~~Two hundred and ten (210) feet of any sensitive receptor (single or multi-family dwelling unit, place of public assembly (a legally permitted place where 100 or more people together in a building, or structure, for the purpose of amusement, entertainment or retail sales), churches, institution, school or hospital); or~~
  3. One hundred (100) feet of any building **or structure not classified by California State Law as a sensitive receptor and that is not necessary for the operation of the well.** utilized for commercial purposes, not used for oil and gas operations.
  4. ~~Three hundred (300) feet of the legal parcel property line that contains a permitted public or private school. A single family or multi-family dwelling unit that may have home schooling activities shall use the single family dwelling unit distance.~~
- B. All drilling and production activities shall conform to all applicable fire and safety regulations. Firefighting apparatus and supplies required by the Kern County Fire Department shall be maintained on the site at all times during drilling and production operations.
- C. All required federal, State, and County rules and regulations shall be complied with at all times, including, but not limited to, the rules and regulations of the following agencies:
1. California Geologic Energy Management Division ( CalGEM). of Oil, Gas and Geothermal Resources
  2. Kern County Fire Department
  3. Kern County Public Health Department
  4. Regional Water Quality Control Board
  5. San Joaquin Valley Air Pollution Control District
  6. Kern County Public Works Department
  7. California Department of Fish and Wildlife
  8. United States Bureau of Land Management
  9. United States Fish and Wildlife Service
  10. United States Environmental Protection Agency
- D. The applicant shall ~~demonstrate compliance~~ comply with all applicable Mitigation Measures as shown in the steps to compliance checklist in ~~listed in~~ the approved Mitigation Monitoring and Reporting Program (MMRP) for the Revisions to the Zoning Ordinance (C A ) - 2015-2020
- E. Temporary noise attenuation measures shall be allowed in all zone districts with the written permission of the property owner, a specific timeframe for installation and removal and a site plan review with appropriate fees.

**19.98.070 OIL AND GAS CONFORMITY REVIEW AND APPROVAL — REQUIRED**

In Tiers 1, 2, 3 and 5, except as provided in this section, no permitted use shall be established, no permitted development shall occur, and no building permit or grading permit shall be issued for any permitted use or development subject to this chapter until an Oil and Gas Conformity Review or Minor Activities Review has been submitted to and approved by the Planning Director in accordance with the procedures set out in Sections 19.102.040 through 19.102.060 of this title.

**KERN COUNTY ZONING ORDINANCE**

**DRAFT – SSREIR CIRCULATION (MARCH 2025 )**

**Source: Kern County Planning and Natural Resources Department**

**Oil and Gas Conformity Review and Minor Activities Review**

<u>Activity</u>	<u>Conformity Review</u>	<u>Minor Activity Review</u>	<u>No Permit Required</u>
<b><u>Drilling &amp; Completion</u></b>			
<u>Exploration or Production Well (including cyclic steam production well)</u> <u>A well drilled for exploration or to produce oil and or natural gas</u>	✓		
<u>Reworked Well</u>	✓		
<u>Injection Well</u> <u>A U.S. Environmental Protection Agency class 2 injection well into which fluids are injected rather than produced with the primary objective typically is to maintain reservoir pressure, conduct EOR operations or dispose of produced water or gas, including: steamflood, waterflood or gas injection</u>	✓		
<u>Observation Well</u> <u>A well for the purpose of observing parameters such as temperature, fluid levels and pressure changes</u>	✓		
<u>SB4-Regulated Activities</u> <u>An activity regulated under California Senate Bill 4 (SB4) designed to enhance oil and or gas production or recovery. SB4 activities do not include activities such as steam flooding, water flooding, cyclic steaming, routine well cleanout, well maintenance or removal of formation damage due to drilling, chemical treatments that do not meet the requirements in 584, bottom hole pressure surveys, or routine activity Sidetracking, Deepening, activities that do not affect the integrity of the well of the formation</u>	✓		
<u>Drilling Pit or Sump</u> <u>A drilling pit or sump that requires a permit from the Central Valley Water Quality Control Board</u>	✓		
<u>Sidetrack</u> <u>Change in well type, perforate new or existing perforations in casing, run or remove or cement liners, place or drill out any plug</u>	✓		

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<u>Activity</u>	<u>Conformity Review</u>	<u>Minor Activity Review</u>	<u>No Permit Required</u>
(cement, sand, mechanical): essentially, any operation that permanently alters the casing of a well			
<u>Deepening</u> To deepen or permanently alter the casing in a well. Altering includes actions that require a <del>DOGGR</del> CalGEM permit	✓		
<b><u>Exploration and Development</u></b>			
<u>Geophysical Survey or Drilling by Scientific Means</u> Tests conducted to determine the extent of and presence of oil and natural gas reserves and whether the resources for development	✓ * —	✓	
<u>Well Pad Preparation</u> Construction activity consisting of clearing and grading of a new surface disturbance to accommodate the well and drilling activity or ancillary facilities that may be required for oil and gas drilling and operations	✓ * —	✓	
<u>Access Road Construction</u> New surface disturbance that occur during the construction of a new road or expansion that includes new surface disturbance	✓ * —	✓	
<u>Electric Distribution Line</u> Applies to new surface disturbance that occur during the construction of an electrical distribution line or expansion that includes new surface disturbance	✓ * —	✓	
<u>Pipeline</u> Applies to new surface disturbance that occur during the construction of a pipeline or expansion that includes new surface disturbance	✓ * —	✓	
<b><u>Production Operations</u></b>			
<u>Well Operations and Maintenance Not Requiring a <del>DOGGR</del> CalGEM permit</u>			✓
<u>Geophysical Monitoring</u>			✓
<u>Oil/Gas Treatment</u>	✓ * —	✓	
<u>Produced Water Treatment</u>	✓ * —	✓	
<u>Well Testing</u>			✓
<u>Pipelines</u>	✓ * —	✓	

<u>Activity</u>	<u>Conformity Review</u>	<u>Minor Activity Review</u>	<u>No Permit Required</u>
<u>Electric Lines</u>	✓ *	✓	
<u>Wastewater Treatment and Injection Disposal</u>	✓ *	✓	
<u>Wastewater Treatment and Surface Disposal</u>	✓ *	✓	
<u>Waste Treatment and Disposal</u>	✓ *	✓	
<u>Access Road</u>	✓ *	✓	
<u>Vegetation</u>			✓
<b><u>Oil and Gas activities permitted in State defined Health Protection Zone (HPZ )</u></b>			<b><u>Allowed with Cal-Gem Permit</u></b>
<u>Reactivation of Idle Wells</u>	✓ *	✓	
<b><u>Support Facilities</u></b>			
<u>Administrative Building or Support Facility Building</u>	✓ *	✓	
<u>Steam Generator</u> <u>Boilers that generate steam for oil and gas field production purposes</u>	✓ *	✓	
<u>Flare</u> <u>A gas combustion device used primarily for burning off raw, waste, or unusable flammable gas that cannot be effectively commercialized</u>	✓ *	✓	
<u>Electric Lines</u> <u>Overhead or buried electrical distribution lines used for oil and gas field operations</u>	✓ *	✓	
<u>Electric Substations</u> <u>Electric substations used for oil and gas field operations</u>	✓ *	✓	
<u>Pipelines</u> <u>Pipelines that part of an oil and gas field operation</u>	✓ *	✓	
<u>Tanks</u> <u>Tanks used for oil field operations</u>	✓ *	✓	
<u>Oil/Water Treatment</u> <u>Oil/ water treatment equipment used in oil and gas operations</u>	✓ *	✓	
<u>Produced Water Treatment</u> <u>Equipment used to treat produced water in an oil and gas operation</u>	✓ *	✓	
<u>Produced Water Percolation Pond/Sump</u> <u>Produced water percolation and or evaporation ponds permitted by the Central Valley Regional Water Quality Control Board and used during oil and gas field operations</u>	✓ *	✓	

<u>Activity</u>	<u>Conformity Review</u>	<u>Minor Activity Review</u>	<u>No Permit Required</u>
<u>Emergency Pit, Sump or Secondary Containment</u>	✓ *	✓	
<u>Fencing</u> <u>Fencing used to protect and prevent unauthorized individuals from coming into contact with oil and gas equipment and to prevent trespassing</u>			✓
<u>Well Abandonment</u> <u>A DOGGR-CalGEM process to plug and abandon a well used for oil and or gas activities including production, observation, and injection.</u>	✓ *	✓	
<u>Revegetation</u> <u>The processes taken to establish vegetation at an oil and gas operation</u>			✓
<u>Short Term Employee Housing</u> <u>Short Term Employee Housing</u> <u>Temporary housing for individuals involved in oil and gas operations that require onsite 24 hour 7 day a week oversight</u>	✓ *	✓	
<u>Pre-Ordinance Activities that Cause New Ground Disturbance and/or Subject to the Emission Reduction Agreement</u>	✓ *	✓	
<u>Note: * - Ongoing operations of existing wells, facilities and equipment, including minor modifications such as new interconnections between such facilities, does not trigger conformity review or minor activity review. When these accessory uses, equipment and facilities are proposed as part of the same project as an activity that requires an Oil and Gas Conformity Review, then these accessory activities are required to be included in the Oil and Gas Conformity Review. In all other circumstances, where new ground disturbance occurs, these accessory activities are subject to Minor Activity Review.</u>			

#### **19.98.080 OIL AND GAS CONFORMITY REVIEW — APPLICATION CONTENTS (TIER 1)**

Applications for an Oil and Gas Conformity Review within Tier 1 Areas, pursuant to Section 19.98.040 of this chapter shall include the following:

- A. Name, telephone number and address of the applicant.
- B. Name(s), telephone number(s) and address(es) of the surface property owner(s), mineral owner(s), oil and gas operator (if different than the applicant).



- C. Assessor's parcel number(s) of all parcels located within the boundaries of the proposed operation, including accessory equipment, structures, and/or facilities. Latitude/Longitude coordinates for all existing and proposed wells.
- D. Description of the project area, including total site acreage, accessory equipment, structures, and/or facilities.
- E. A site plan drawn to scale, sufficient in size to show all necessary details, no larger than 11x17, with multiple sheets (if necessary), which includes the following information:
1. Project boundary lines and dimensions, including lease lines and property lines and site size in square feet and acres.
  2. Location and coordinates of all proposed well holes and related accessory equipment. Location of all roadways, pipelines, tanks, treatment or other structures and facilities to be installed. Distance from proposed well holes to section/midsection lines, located within ½ mile.
  3. Location of all existing dwellings and structures, located within *four thousand (4,000) feet* ~~fifteen hundred and fifty (1,550) feet~~ for all wells proposed to be drilled ~~less than ten thousand (10,000) feet in depth or located within three thousand two hundred and seventy (3,270) feet, for all wells proposed to be drilled greater than ten thousand (10,000) feet in depth,~~ of the proposed well holes. Identification of the use of each structure, and distances between well holes and existing buildings shall be noted. *The location of the nearest sensitive receptor shall be shown in both feet and with coordinates.* Location of existing property lines and distance from well site to property line.
  4. Location of all new flare gas production lines, lines for production, electrical lines, and location of tank farms to be used.
  5. North arrow, date the site plan was prepared, and scale.
  6. Location of all accessory/ancillary facilities (including trucking parking, onsite storage, etc.) to be installed with the proposed wells.
  7. California *Geologic Energy Management* Division ~~of Oil, Gas and Geothermal Resources~~ permit application number, if available.
  8. Identify the proposed source of water (domestic or production), if applicable.
  9. Show location of all proposed underground pipelines.
  10. Location of any existing Oil and Gas Conformity Review boundaries within and/or contiguous to the proposed boundary, including total site acreage and identification of Tier Area.

11. Written documentation in sufficient detail to allow the County to determine that all conditions required in Section 19.98.060 will be complied with, including all applicable mitigation measures as listed in the approved Mitigation Monitoring and Reporting Program for the Revisions to the Zoning Ordinance (€ A) – 2015-2020
12. Evidence that notice was provided to Land/Surface Owners as required by Section 19.98.080 G.

G. Notification Requirements

1. A physical letter of notification of application that requires a signature for delivery shall be sent by the applicant to all Land/Surface Owners of the property for which the Conformity Review is being requested, if the Land/Surface Owners are different from the mineral owners. The notice shall include all information required by State law. The letter of notification package shall include a copy of proposed site plan, including an official County handout explaining the conformity review process. The package shall be sent 30 days before submittal of the application. The application shall include evidence that the letter was sent and the signatures received. Any application for which the Land/Surface Owner letter is returned for failure to obtain a signature, the Applicant shall provide evidence that the Land/Surface Owner of the property cannot be located through normal means such as tax records. A dated letter of authorization, with specific Assessor Parcel Numbers and the period of time applicable, from the Land/Surface Owner addressed to the County of Kern may be submitted asking that the notification be waived as allowed by State law. In site locations where mineral rights are owned by the United States Government and the surface is privately owned, the application package shall include confirmation that the proposed site plan has been submitted to the United States Bureau of Land Management.
2. A second letter shall be sent, by the applicant, when the application is submitted to the County. A dated letter of authorization, with specific Assessor Parcel Numbers and the period of time applicable, from the Land/Surface Owner, addressed to the County of Kern, may be submitted asking that the notification of application submitted be waived.
3. Access of the surface for purposes of conducting pre-application activities, such as surveys, shall be subject to any existing agreement between the Mineral Owner and the Land/Surface Owner, and State regulations. Such access is not subject to the notification requirements set forth in this title.

**19.98.085 OIL AND GAS CONFORMITY REVIEW AND CONDITIONAL USE PERMIT — APPLICATION CONTENTS (TIERS 2-5)**

Applications for an Oil and Gas Conformity Review within Tiers 2, 3, or Tier 5 Areas, pursuant to Section 19.98.040 of this chapter, or for a conditional use permit, for oil and gas activities within a Tier 4 Area, pursuant to Section 19.98.050 of this chapter, shall include the following:

- A. Name, telephone number and address of the applicant.

- B. Name(s), telephone number(s) and address(es) of the surface property owner(s), mineral owner(s), oil and gas operator (if different than the applicant).
- C. Assessor's parcel number(s) of all parcels located within the boundaries of the proposed operation, including accessory equipment, structures, and/or facilities. Latitude/Longitude coordinates for all existing and proposed wells.
- D. Preliminary Title Report, not over ninety (90) days old. A Guarantee of Title may be submitted for parcels with a Preliminary Title Report on file, over (90) days old.
- E. Legal description of the project area, including total site acreage, located within the boundaries of the proposed operation, including accessory equipment, structures, and/or facilities in aliquot format, unless a more precise legal description is determined to be needed by the Planning Director.
- F. A site plan drawn to scale, sufficient in size to show all necessary details, no larger than 11x17, with multiple sheets (if necessary), which includes the following information:
  - 1. Topography and proposed grading of the site plan.
  - 2. Project boundary lines and dimensions, including lease lines, property lines *and site size in square feet and acres.*
  - 3. Location and coordinates of all proposed well holes and related accessory equipment. Location of all roadways (access roads), any proposed landscaping, pipelines, tanks, treatment or other structures and facilities to be installed, and any existing or abandoned wells if such are known to exist.
  - 13. Location of all existing dwellings and structures, located within *four thousand (4,000) feet* ~~fifteen hundred and fifty (1,550) feet~~ for all wells proposed to be drilled ~~less than ten thousand (10,000) feet in depth or located within three thousand two hundred and seventy (3,270) feet, for all wells proposed to be drilled greater than ten thousand (10,000) feet in depth,~~ of the proposed well holes. Identification of the use of each structure, and distances between well holes and existing buildings shall be noted. *The location of the nearest sensitive receptor shall be shown in both feet and with coordinates.* Location of existing property lines and distance from well site to property line.
  - 4. Location of all new flare gas production lines, lines for production, electrical lines, and location of tank farms to be used.
  - 5. North arrow, date the site plan was prepared, and scale.
  - 6. Location of all recorded easements onsite, roads, section/midsection lines, located within ½ mile of the proposed wells.

7. Location of all accessory/ancillary facilities (including trucking parking, onsite storage, etc.) to be installed with the proposed wells. Location of planned ground disturbance on irrigated or prime agricultural land.
  8. Description of project boundary in relation to Tier areas as defined in Figure 19.98.015.
  9. California Geologic Energy Management Division of Oil, Gas and Geothermal Resources permit application number, if available.
  10. Identify the location of the 100-year floodplain, if applicable.
  11. Identify the proposed source of water (domestic or production), if applicable.
  12. Show location of all new proposed underground pipelines.
  13. Location of any existing Oil and Gas Conformity Review boundaries within and/or contiguous to the proposed boundary.
  14. Written documentation in sufficient detail to allow the County to determine that all conditions required in Section 19.98.060 will be complied with, including all applicable mitigation measures as listed in the approved Mitigation Monitoring and Reporting Program for the Revisions to the Zoning Ordinance (C) – 2015.
  15. Evidence that notice was provided to Land/Surface Owners as required by Section 19.98.085 H.
- G. Signature Block and Statement (Land/Surface Owner, Mineral Owner and Operator. The following statement shall be included on the first page of the site plan. The statement shall be signed by all parties, irrespective of ownership relationship. Multiple lines may be added for multiple ownership signatures. A dated letter of authorization, with specific Assessor Parcel Numbers, from the Land/Surface Owner addressed to the County of Kern may be submitted asking that the signature on the site plan be waived.

#### REQUIRED STATEMENT

The undersigned Land/Surface Owner is the owner of APN# . The undersigned is the Mineral Owner and/or Operator or Lessee of the Mineral Owner. The Land/Surface Owner and the Mineral Owner and/or the Operator or Lessee have come to an agreement regarding the use of the surface of the property in connection with the Kern County permit that is being issued with this site plan.

<u>Land/Surface Owner:</u>	<u>Mineral Owner:</u>	<u>Operator:</u>
<u>Print Name</u>	<u>Print Name</u>	<u>Print Name</u>
<u>Title/Company</u>	<u>Title/Company</u>	<u>Title/Company</u>

Signature	Signature	Signature
Date	Date	Date

H. Notification Requirements – Tier 2, 3, 4 and 5 Areas.

1. A physical letter of notification of application that requires a signature for delivery shall be sent by the applicant to all Land/Surface Owners of the property for which the Conformity Review is being requested, if the Land/Surface Owners are different from the mineral owners. The notice shall include all information required by State law. The letter of notification package shall include a copy of proposed site plan, and invitation to the Land/Surface Owner(s) offering a meeting with the Mineral Owner or Operator, and including an official County handout explaining the conformity review process. The package shall be sent 30 days before submittal of the application. The application shall include evidence that the letter was sent and the signatures received. Any application for which the Land/Surface Owner letter is returned for failure to obtain a signature, the Applicant shall provide evidence that the Land/Surface Owner of the property cannot be located through normal means such as tax records. A dated letter of authorization, with specific Assessor Parcel Numbers and the period of time applicable, from the Land/Surface Owner addressed to the County of Kern may be submitted asking that the notification be waived as allowed by State law. In site locations where mineral rights are owned by the United States Government and the surface is privately owned, the application package shall include confirmation that the proposed site plan has been submitted to the United States Bureau of Land Management.
2. Access of the surface for purposes of conducting pre-application activities, such as surveys, shall be subject to any existing agreement between the Mineral Owner and the Land/Surface Owner, and State regulations. Such access is not subject to the notification requirements set forth in this title. On split estates, it is the intent of the County that the decisions generated by this Ordinance only apply to the mineral estate. No decisions generated by this Ordinance shall change the existing rights or authority of the private surface owners to full use and enjoyment of their property under laws and regulations in effect prior to the effective date of this Ordinance, or change the existing rights or authority of the mineral owner to pursue mineral exploration and production except to require compliance with this Ordinance. The right to enter split estate private surface lands to permit oil and gas operations shall be consistent with existing law or as limited by private agreement between the parties. The right to enter split estate private surface lands by individuals or entities for purposes of conducting biological and cultural resource surveys is limited to those individuals or entities under contract to, and liable to, the mineral owner/operator, and is further limited to the locations of existing or planned oil and gas activities, and such adjacent areas required by survey protocols for relevant species.

**19.98.090 OIL AND GAS CONFORMITY REVIEW – WITH APPLICABLE SURFACE OWNER SIGNATURE**

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Source: Kern County Planning and Natural Resources Department**

- A. An applicant for a ministerial Oil and Gas Conformity Review permit pursuant to this chapter shall submit an application to the Planning Director in the format and number of copies specified by the Planning Director. The application shall contain all the information specified for the application by the applicable section of this chapter. The application shall be accompanied by the fee established by the Board of Supervisors pursuant to Section 19.06.040 of this Title. For Tier 2, 3 and 5 Areas, a copy of the application shall be provided to the Land/Surface owner per the requirements of 19.98.085.H above. The application must contain the signature block and statement pursuant to Section 19.98.085.G, or shall contain a letter from the Land/Surface Owner waiving the need for said signature on the specified parcel of the proposed application. The waiver letter must be dated and provide specific language as to the length of time the letter is valid if to be used for future Oil and Gas Conformity Reviews.
- B. The Planning Director shall inform the applicant in writing within seven (7) business days of receipt that the application is complete and shall issue the permit if he/she determines that the proposed use meets the implementation standards and conditions specified in the applicable provisions of this chapter or inform the applicant that additional information is needed to complete the application and therefore the application is deemed incomplete.
- C. Within three (3) business days of reviewing the second submittal, if required, to correct any deficiencies, the Planning Director shall issue the permit if he/she determines that the proposed use meets the implementation standards and conditions specified in the applicable provisions of this chapter or inform the applicant that additional information is needed to complete the application and therefore the application is deemed incomplete.
- D. Within seven (7) business days of reviewing the third submittal to correct any deficiencies, the Planning Director shall issue the permit if he/she determines that the proposed use meets the implementation standards and conditions specified in the applicable provisions of chapter. If the application remains incomplete, a mandatory in person meeting with the applicant, and any consultant processing the application on behalf of the applicant, will be required to resolve the issues preventing issuance of the permit. The in-person meeting cannot be waived, and shall be held at the Kern County Planning and ~~Community Development~~ Natural Resources Department.
- E. Failure of the Planning Director to meet any deadline for application review or permit issuance as provided in this section shall not cause a permit to be deemed approved.
- F. Any reviews beyond three (3), as provided above, shall require additional fees to be paid, as set forth pursuant to Section 19.06.040 of this Title, and shall be completed within thirty (30) days after the application is deemed complete.
- G. Prior to conducting any drilling activity, the applicant (or operator, if acting on behalf of an applicant) must have received and have on file both the approved Permit to Conduct Well Operations from California *Geologic Energy Management* Division of ~~Oil, Gas and Geothermal Resources~~ and an approved Oil and Gas Conformity Review unless the activity involves facility placement not subject to California *Geologic Energy Management* Division of ~~Oil, Gas and Geothermal Resources~~ permit approval.
- H. Upon issuance of this permit:

1. The County shall send a notification to the applicant, applicable responsible agencies, and the land/surface owner (if different from the mineral owner) stating a permit has been issued by the County. The approval letter shall include a stamped site plan, list of applicable conditions and mitigation measures, and a determination that the permit approval falls within the scope of the Environmental Impact Report prepared for the Revisions to the Zoning Ordinance (C) – 2015, and that other state, regional, and local agencies are responsible agencies under the California Environmental Quality Act.
2. The applicant shall notify the Land/Surface owner of the proposed dates for access of the property to commence operations and/or to comply with mitigation measures. Such notification may take the form of multiple letters. A dated letter of authorization, with specific Assessor Parcel Numbers and the period of time applicable, from the Land/Surface Owner, addressed to the County of Kern, may be submitted asking that the notification of access be waived or has already been satisfied with a single notification letter.
- I. If the development for which a permit has been approved pursuant to this article has not commenced within one (1) year of the granting of the permit, or if the permit has been unused, abandoned, discontinued, or has ceased for a period of one (1) year, the permit shall become null and void and of no effect, unless an extension has been granted by the Planning Director upon written request with *the adopted fee* for an extension before the expiration of the one- (1-) year period. *Only one extension may be granted for an approved permit.* A copy of any expiration or extension shall be provided to the Land/Surface Owner.

#### **19.98.100 OIL AND GAS CONFORMITY REVIEW - WITHOUT REQUIRED SURFACE OWNER SIGNATURE**

The provisions contained in this section apply only to applications submitted within Tier 2, 3 and 5 Areas, which do not contain the surface owner signature as required by Section 19.98.070, above:

- A. An applicant for a ministerial Oil and Gas Conformity Review permit pursuant to this chapter, which does not include the Land/Surface Owner signature required pursuant to Section 19.98.085 F, shall submit an application to the Planning Director in the format and number of copies specified by the Planning Director. The application shall contain all the information specified for the application by the applicable provisions of this chapter. A copy of the application shall be provided to the Land/Surface Owner per the requirements of Section 19.98.080.F above. The application shall be accompanied by the fee established by the Board of Supervisors pursuant to Section 19.06.040 of this Title.
- B. The Planning Director shall inform the applicant in writing on the thirtieth (30) calendar day of receipt that the application is complete or that additional information is needed to complete the application and therefore the application is deemed incomplete. The Planning Director shall notify the Surface/Land Owner of their option for an in-person meeting with the Department to discuss the conformity review process and answer questions regarding the site plan, to be scheduled within the thirty (30) day period stated above.
- C. Second Thirty (30) Day Review Period.

1. If the application is deemed complete during the thirty (30) day period in Section 19.98.100 B, a mandatory second thirty (30) calendar day review will commence immediately following the end of the first review period.
  2. If the application is found to be incomplete during the review period in Section 19.98.100 B, a subsequent thirty (30) day review period will commence at the time of submittal by the Applicant of the additional documentation.
  3. The Planning Director shall notify the Surface/Land Owner of their option for an additional in-person meeting with the Department to answer questions including review of any revisions to the site plan, to be scheduled within the thirty (30) day period stated above.
  4. The Planning Director shall request to schedule a mandatory in-person meeting with the Applicant to review the current site plan and discuss the conformity review process.
  5. On the first business day following the 30 day review period, the Planning Director shall issue the permit if he/she determines that the proposed use meets the implementation standards and conditions specified in the applicable provisions of this chapter or inform the applicant that additional information is needed to complete the application and therefore the application is deemed incomplete.
- D. All subsequent reviews, due to incomplete application submittals, shall require a mandatory thirty (30) calendar day review period. The Planning Director shall issue the permit if he/she determines that the proposed use meets the development standards and conditions specified in the applicable provisions of this chapter or inform the applicant that additional information is needed to complete the application and therefore the application is deemed incomplete. If application remains incomplete, a mandatory in-person meeting with the applicant, and any consultant processing the application will be required to resolve the issues preventing issuance of the permit. The in-person meeting cannot be waived.
- E. Any reviews beyond three (3), as provided above, shall require additional fees to be paid, as set forth pursuant to Section 19.06.040 of this Title, and shall be completed within thirty (30) days after the application is deemed complete.
- F. At any time during the review periods in Sections 19.98.100.A through D the applicant submits proof of the required surface owner signature on the site plan, the application will be deemed acceptable to be processed under the provisions set forth in Section 19.98.090.
- G. Failure of the Planning Director to meet any deadline for application review or permit issuance as provided in this section shall not cause a permit to be deemed approved.
- H. No sooner than thirty (30) calendar days from issuance of the Kern County Oil and Gas Conformity Review and any other necessary state or federal permits, the applicant may begin construction of the facility. This period shall be used to coordinate deposits and inspections pursuant to 19.98.140 (Inspection Compliance). Prior to conducting any drilling activity the operator must have received and have on file both the approved Permit to Conduct Well Operations, from California Division of Oil, Gas and Geothermal Resources and an approved

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**Source: Kern County Planning and Natural Resources Department**



Oil and Gas Conformity Review unless the activity involves facility placement not subject to California Division of Oil, Gas and Geothermal Resources permit approval.

I. Upon issuance of this permit:

1. The County shall send a notification to the Applicant, applicable responsible agencies, and the Land/Surface Owner stating a permit has been issued by the County. The approval letter shall include a stamped site plan, list of applicable conditions and mitigation measures, and a determination that the permit approval falls within the scope of the Environmental Impact Report prepared for the Revisions to the Zoning Ordinance (C) – 2015, and that other state, regional, and local agencies are responsible agencies under the California Environmental Quality Act.
2. The Applicant shall notify the Land/Surface owner of the proposed dates for access of the property to commence operations and/or to comply with mitigation measures. Such notification may take the form of multiple letters.

J. If the development for which a permit has been approved pursuant to this article has not commenced within one (1) year of the granting of the permit, or if the permit has been unused, abandoned, discontinued, or has ceased for a period of one (1) year, the permit shall become null and void and of no effect, unless an extension has been granted by the *Planning Director decision-making authority* upon written request *with the adopted fee* for an extension before the expiration of the one- (1-) year period. *Only one extension may be granted for an approved permit.* A copy of any expiration or extension shall be provided to the Land/Surface Owner.

**19.98.110 MINOR ACTIVITY REVIEW — APPLICATION CONTENTS**

An application for Minor Activity Review ministerial permit for Tier 1-3 and 5 Areas, pursuant to Section 19.98.040 of this chapter, shall include the following:

- A. Name, telephone number and address of the applicant.
- B. Name(s), telephone number(s) and address(es) of the property owner(s), mineral owner(s), oil and gas operator (if different than the applicant).
- C. Assessor's parcel number(s) of all parcels located within the boundaries of the proposed operation, including accessory equipment, structures, and/or facilities. Latitude/Longitude coordinates for all wells.
- D. Preliminary Title Report, not over ninety (90) days old. A Guarantee of Title may be submitted for parcels with a Preliminary Title Report on file, over (90) days old. For all Tier 2-5 Applications only.
- E. Description of proposed oil and gas activity and written documentation in sufficient detail to allow the County to determine that all conditions required in Section 19.98.060 will be complied with, including all applicable mitigation measures as listed in the approved

Mitigation Monitoring and Reporting Program for the Revisions to the Zoning Ordinance (C) – 2015.

- F. Sufficient number of photographs to identify the extent of existing ground disturbance.
- G. For Tier 2, 3 and 5 Areas only, documentation of a letter submitted to the Land/Surface Owner(s), if different from the Mineral Owner, informing the Land/Surface owner of the Minor Activity Review application and providing a complete copy of the application, shall be mailed and received a minimum of thirty (30) days prior to application being submitted to the County for review.

**19.98.120 MINOR ACTIVITY REVIEW**

- A. An applicant for a Minor Activity Review ministerial permit for Tiers 1-3, and 5, pursuant to this chapter shall submit an application to the Planning Director in the format and number of copies specified. The application shall contain all the information specified for the application by the applicable section of this chapter. The application shall be accompanied by the fee established by the Board of Supervisors pursuant to Section 19.06.040 of this Title. For Tier 2, 3 and 5 Areas, a copy of the application shall be provided to the Land/Surface Owner per the requirements of Section 19.98.080.F above.
- B. The Planning Director shall to inform the applicant in writing within seven (7) business days of receipt that the application is complete and shall issue the permit if he/she determines that the proposed use meets the development standards and conditions specified in the applicable provisions of this chapter or inform the applicant that additional information is needed to complete the application and therefore the application is deemed incomplete.
- C. Within three (3) business days of reviewing the second submittal, if required, to correct any deficiencies, the Planning Director shall issue the permit if he/she determines that the proposed use meets the development standards and conditions specified in the applicable provisions of this chapter or inform the applicant that additional information is needed to complete the application and therefore the application is deemed incomplete.
- D. Within seven (7) business days of reviewing the third submittal, if required, to correct any deficiencies, the Planning Director shall make reasonable efforts to issue the permit if he/she determines that the proposed use meets the development standards and conditions specified in the applicable provisions of Title. If additional information is needed, a mandatory in-person meeting with the applicant, and any consultant processing the application will be required to resolve the issues preventing issuance of the permit. The in-person meeting cannot be waived.
- E. Failure of the Planning Director to meet any deadline for application review or permit issuance as provided in this section shall not cause a permit to be deemed approved.
- F. Any reviews beyond three (3), as provided above, shall require additional fees to be paid, as set forth pursuant to Section 19.06.040 of this Title, and shall be completed within thirty (30) days after the applicant is deemed complete.
- G. Prior to conducting any activity the operator must have received and have on file both approved

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applicable California *Geologic Energy Management* Division of Oil, Gas and Geothermal Resources permit(s), if necessary, and an approved Minor Activity Review pursuant to the chapter.

- H. Upon issuance of this permit, the County shall send a notification to the applicable responsible agencies stating a permit has been issued by the County and that the agency has certain requirements under the California Environmental Quality Act as a responsible agency.
- I. If the development for which a permit has been approved pursuant to this article has not commenced within one (1) year of the granting of the permit, or if the permit has been unused, abandoned, discontinued, or has ceased for a period of one (1) year, the permit shall become null and void and of no effect, unless an extension has been granted by the *Planning Director decision-making authority* upon written request *with the adopted fee* for an extension before the expiration of the one- (1-) year period. A copy of any expiration or extension shall be provided to the Land/Surface Owner.

### **19.98.130 SELF-CERTIFICATION**

Upon issuance of Oil and Gas Conformity Review or Minor Activity, as specified in Sections 19.98.090 and 19.98.120 of this chapter, and any other necessary state or Federal permits, the applicant may begin construction of the facility. The provisions of this section do not apply to issuance of an Oil and Gas Conformity Review pursuant to 19.98.100 (Oil and Gas Conformity Review - Without Required Surface Owner Signature) of this chapter. The applicant must self-certify compliance with Chapter 19.98 during the construction and operation process. Once the project applicant has completed the construction of the oil and gas facilities, as indicated on the approved site plan, the project applicant ~~will~~ *shall* provide a self-certified statement, and signed *job card*, in writing, to the County, in a format specified by the Director *within 30 days of completion of the work*.

During construction and continued operations of the activities specified by the approved site plan, the applicant will be responsible for complying with the issued Oil and Gas Conformity Review, and all applicable implementation standards as outlined in this chapter. Should a violation of a permit issued under this chapter occur on-site, a Certification and Finalization process for the Oil and Gas Conformity Review will be conducted by the County Oil and Gas Inspector, and self-certification for the permit will no longer be permitted for the applicant for the next issued permit, as a probationary period. Once the applicant has demonstrated compliance on the following permit, any subsequent permit may be self-certified.

### **19.98.140 INSPECTION COMPLIANCE – *Section - 19.98.100 ( Oil and Gas Conformity Review – Without Required Surface Owner Signature )***

Upon receipt of an issued permit pursuant to Section 19.98.100 (Oil And Gas Conformity Review - Without Required Surface Owner Signature), the applicant must contact the Planning and *Natural Resources Community* Development Department and the Public Works Department to pay pursuant to Section 19.06.040 of this title and provide a signed Cost Recovery Agreement, *and submit a video surveillance plan to be implemented and schedule an inspector to be present during all activities related to the Oil and Gas Conformity Review. The County inspector or third party building inspector retained by the County shall confirm compliance with all requirements of this*

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Title and Mitigation Measures, and other federal and State laws. All compliance verification costs shall be incurred by the applicant, including any costs for requested onsite inspections by environmental resource experts such as biological or cultural monitors to confirm or resolve compliance issues. During construction for all activities specified by the approved site plan, the video surveillance plan shall be operational to monitor and provide for review by staff to enforce to confirm the applicant's compliance with the issued Oil and Gas Conformity Review, and all applicable standards and conditions as outlined in the permit. The applicant's may submit a request along with a surveillance plan, can be submitted without surface owner agreement, as long as there is no residence on the property. If there is a residence on the property, unless the surface owner must be consulted and agrees to the plan details on the location of cameras and The plan which shall include the details to ensure the privacy of the residence is not compromised by the placement of the video surveillance. If a resolution can not be reached on the surveillance plan with the surface owner for a property that contains a residence, the Planning Director shall make a final determination on the details of the plan after a meeting with the surface owner. for consideration by the Planning Director, after and evidence that it has been sent to the surface owner to allow for comments to the Department during consideration. The Plan shall outline the use of onsite cameras with real-time surveillance or 24-hour a day taped or other surveillance methods approved by the Planning Director, in conjunction with review and/or potential onsite inspections by staff, the County Inspector or third-party inspector retained by the County. Throughout operations of the activities specified by the approved site plan, the applicant shall comply with the issued Oil and Gas Conformity Review, and all applicable standards and conditions as outlined in the permit.

#### **19.98.145 IDLE WELLS**

- A. An operator shall file a notification with the County, and with the Surface/Land Owner (if different from the Mineral Owner) of any Idle or Long Term Idle Well, within 30 days of changing the well status in Tier 2 through 5.
- B. For purposes of this section, a "Idle Well" is defined as a well that has not produced oil or natural gas, or has not been used for injection for six consecutive months of continuous operation during the last five or more years. A "Long-Term Idle Well" means any well that has not produced oil or natural gas, or has not been used for injection for six consecutive months of continuous operations during the last 10 or more years. An "active observation well" means a well being used for the sole purpose of gathering reservoir data, such as pressure or temperature in a reservoir being currently produced or injected by the operator, and the data is gathered at least once every three years. An Idle well or Long-Term Idle Well does not include an active observation well.
- C. Any well operator, land owner or resident within one mile of an Idle or Long-Term Idle Well (or surface owner if different from mineral owner of the actual idle or long-term idle well subject to the notice) may file a notice with the County asking for confirmation of the status that a well is either a Idle or Long Term Idle Well, and the County shall forward this notice to the California Geologic Energy Management Division of Oil, Gas and Geothermal Resources to seek information about the status of this well and the owner/permittee for the well. The County shall cooperate with the California Geologic Energy Management Division of Oil, Gas and Geothermal Resources in its enforcement of regulations applicable to these wells.

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- D. The County shall check with the California *Geologic Energy Management Division of Oil, Gas and Geothermal Resources* whether an applicant for an Oil and Gas Conformity Review permit or Conditional Use Permit, in Tier 2 through 5, is the subject of complaint pursuant to California Public Resources Code Section 3235 for an idle well located in Tier 2 through 5, and if so shall coordinate with the California *Geologic Energy Management Division of Oil, Gas and Geothermal Resources* to assure that the applicant is in compliance with applicable idle well regulations for the well(s) included in the complaint(s). An applicant not in compliance with idle well regulations, as determined by official correspondence from the California *Geologic Energy Management Division of Oil, Gas and Geothermal Resources*, shall not be eligible to receive additional Oil and Gas Conformity Review permits or conditional use permits under this Chapter until such time as the *California Geologic Energy Management Division of Oil, Gas and Geothermal Resources* has advised the County that the applicant is in compliance or has entered into a written agreement with the California *Geologic Energy Management Division of Oil, Gas and Geothermal Resources* for achieving compliance. The County shall continue to process Oil and Gas Conformity Review permits or conditional use permits under this Chapter for an applicant until such time as the County has received the official correspondence from the *California Geologic Energy Management Division of Oil, Gas and Geothermal Resources*, making its compliance determination regarding the idle well(s) in the complaint(s).
- E. The Kern County Planning and ~~Community~~ Natural Resources Development Department shall obtain, on an annual basis, a copy of the idle well list from the California *Geologic Energy Management Division of Oil, Gas and Geothermal Resources*.

#### **19.98.150 PLUGGED AND ABANDONED**

Any permit issued pursuant to this chapter must plug and abandon all permitted wells per the following procedures:

- A. The applicant shall obtain a Minor Activity Review permit for all wells to be plugged and abandoned that were drilled without an Oil and Gas Conformity Review and including all legal non conforming wells **outside the State Health Protection Zone.**
- B. The applicant shall plug and abandon all facilities in accordance with applicable laws and regulations as administered by the California *Geologic Energy Management Division of Oil, Gas and Geothermal Resources*.
- C. Within thirty (30) days from completion of the plugged and abandoned procedures for any well constructed *under an Oil and Gas Conformity Review permit after the amendment of this Chapter 19.98*, the applicant shall submit to the ~~Planning and Community Development~~ Department a letter stating which facilities have been abandoned, including the unique well identification number for each well. Compliance of this requirement shall include written confirmation from California *Geologic Energy Management Division of Oil, Gas and Geothermal Resources*.

#### **19.98.160 PERMIT REVOCATION AND MODIFICATION**

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**Source: Kern County Planning and Natural Resources Department**

Any permit issued pursuant to this chapter may be revoked or modified pursuant to Section 19.102.020 of this Title.

**NOTE: The following text is contained in the current Zoning Ordinance (Title 19), and are shown as ~~strikethrough~~ for proposed replacement with the text above for Chapter 19.98.**

## **~~CHAPTER 19.98~~**

### **~~OIL AND GAS PRODUCTION~~**

#### **SECTIONS:**

**~~19.98.010 PURPOSE AND APPLICATION~~**

**~~19.98.020 UNRESTRICTED DRILLING~~**

**~~19.98.030 DRILLING BY MINISTERIAL PERMIT~~**

**~~19.98.040 DRILLING BY CONDITIONAL USE PERMIT~~**

**~~19.98.050 DEVELOPMENT STANDARDS AND CONDITIONS~~**

**~~19.98.060 PLOT PLAN REVIEW — CONDITIONAL USE PERMIT — APPLICATION  
CONTENTS~~**

**~~19.98.070 PERMIT REVOCATION AND MODIFICATION~~**

#### **~~19.98.010 PURPOSE AND APPLICATION~~**

~~The purpose of this chapter is to promote the economic recovery of oil, gas, and other hydrocarbon substances in a manner compatible with surrounding land uses and protection of the public health and safety by establishing reasonable limitations, safeguards, and controls on exploration, drilling, and production of hydrocarbon resources. The procedures and standards contained in this chapter shall apply to all exploration drilling and production activities related to oil, gas, and other hydrocarbon substances carried out in unincorporated Kern County.~~

#### **~~19.98.020 UNRESTRICTED DRILLING~~**

~~No review or permit shall be required for the drilling of any steam injection well, steam drive well, service well, or any well intended for the exploration for or development or production of oil, gas, and other hydrocarbon substances, or for any related accessory equipment, structure, or facility in the Exclusive Agriculture (A), Limited Agriculture (A-1), Medium Industrial (M-2), Heavy Industrial (M-3), or Natural Resource (NR) Districts, provided that:~~

~~A. — All drilling installations and operations comply with the requirements of State law and with applicable fire and safety ordinances and regulations of the County of Kern.~~

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- ~~B. Drilling shall not be commenced within one hundred (100) feet of any existing residence without the written consent of the owner thereof.~~
- ~~C. Signs shall be limited to directional, warning, and identification signs in connection with oil, gas, or other hydrocarbon drilling and development operations.~~
- ~~D. Disposal of nonhazardous oilfield liquid waste and production water is considered an accessory facility only if the facility complies with the following:~~
  - ~~1. The nonhazardous oilfield liquid waste or production water is produced and disposed of within the same designated oilfield; or~~
  - ~~2. The nonhazardous oilfield liquid waste or production water disposed of outside the designated oilfield of origin is produced by and disposed of solely and only by the same individual, corporation, or entity.~~

#### **~~19.98.030 DRILLING BY MINISTERIAL PERMIT~~**

- ~~A. No well for use as an injection well and no well for the exploration for or development or production of oil or gas or other hydrocarbon substances may be drilled, and no related accessory equipment, structure, or facility may be installed in the Light Industrial (M-1) or Recreation Forestry (RF) District until an application for plot plan review has been submitted to and approved by the Planning Director as consistent with the standards set out in Section 19.98.050 of this chapter and in accordance with the procedures set out in Sections 19.102.040 through 19.102.060 of this title. In approving an application for plot plan review, the Planning Director may waive any standards set out in Section 19.98.050 of this chapter if he/she determines that such waiver will not result in material detriment to the public welfare or to the property of other persons located in the vicinity.~~
- ~~B. Disposal of nonhazardous oilfield liquid waste and production water is considered an accessory facility only if the facility complies with the following:~~
  - ~~1. The nonhazardous oilfield liquid waste or production water is produced and disposed of within the same designated oilfield; or~~
  - ~~2. The nonhazardous oilfield liquid waste or production water disposed of outside the designated oilfield of origin is produced by and disposed of solely and only by the same individual, corporation, or entity.~~

#### **~~19.98.040 DRILLING BY CONDITIONAL USE PERMIT~~**

- ~~A. No well for use as an injection well and no well for the exploration for or development or production of oil, gas, or other hydrocarbon substances may be drilled, and no related accessory equipment, structure, or facility may be installed in any zoning district described in this title in which such uses are permitted as conditional uses until an application for a~~

~~conditional use permit has been submitted to and approved by the Planning Commission as consistent with the standards set out in Section 19.98.050 of this chapter and in accordance with the standards and procedures set out in Sections 19.102.130 through 19.102.180 and Chapter 19.104 of this title. In approving a conditional use permit, the Planning Commission may waive any condition set out in Section 19.98.050 of this chapter if it determines that such waiver will not result in material detriment to the public welfare or the property of other persons located in the vicinity.~~

- ~~B. Disposal of nonhazardous oilfield liquid waste and production water is considered an accessory facility only if the facility complies with the following:~~
- ~~1. The nonhazardous oilfield liquid waste or production water is produced and disposed of within the same designated oilfield; or~~
  - ~~2. The nonhazardous oilfield liquid waste or production water disposed of outside the designated oilfield of origin is produced by and disposed of solely and only by the same individual, corporation, or entity.~~
- ~~C. If a producing well or service well is not completed upon land subject to a conditional use permit issued pursuant to this chapter and Chapter 19.104 of this title within twelve (12) months from the date of issuance of the permit, or within any extended period thereof, the conditional use permit shall expire and the premises shall be restored as nearly as practicable to their original condition. No permit shall expire while the permittee is continuously conducting drilling, redrilling, completing or abandoning operations, or related operations, in a well on the lands covered by such permit, which operations were commenced while said permit was otherwise in effect. Continuous operations are operations suspended not more than thirty (30) consecutive days. If, at the expiration of the twelve (12 ) month period, the permittee has not completed his drilling program on the lands covered by such permit, the Planning Commission may, upon a written request of the permittee, extend the permit for the additional time requested by permittee for the completion of such drilling program.~~

#### **19.98.050 DEVELOPMENT STANDARDS AND CONDITIONS**

~~All wells drilled, pursuant to Section 19.48.020 of this title and Sections 19.98.030 and 19.98.040 of this chapter, for the exploration for or development or production of oil, gas, and other hydrocarbon substances and related facilities and activities shall comply with the following standards, unless otherwise provided in this chapter:~~

- ~~A. No oil or gas well shall be drilled within one hundred (100) feet of any public highway or building not necessary to the operation of the well, or within one hundred and fifty (150) feet of any dwelling, or within three hundred (300) feet of any building used as a place of public assembly, institution, or school, or within fifty (50) feet of any building utilized for commercial purposes constructed prior to the commencement of such drilling, without the written consent of the owner of such structure.~~
- ~~B. All drilling and production activities shall conform to all applicable fire and safety regulations, and firefighting apparatus and supplies required by the Kern County Fire~~



~~Department shall be maintained on the site at all times during drilling and production operations.~~

- ~~C. No signs, other than directional and warning signs and those required for identification of the well, shall be constructed, erected, maintained, or placed on the premises or any part thereof, except those required by law or ordinance to be displayed in connection with the drilling or maintenance of the well.~~
- ~~D. Sanitary toilet and washing facilities, if required by the Kern County Health Department or other governmental agencies, shall be installed and maintained in a clean and sanitary condition during drilling operations, and at such other times as specified by these agencies.~~
- ~~E. Proven technological improvements generally accepted and used in drilling and production methods shall be employed as they may become available if they are capable of reducing nuisances or annoyances.~~
- ~~F. All derricks, boilers, and other drilling equipment employed pursuant to this section to drill any well hole or to repair, clean out, deepen, or redrill any completed or drilling well shall be removed within ninety (90) days after completion of production tests following completion of such drilling, or after abandonment of any well, unless such derricks, boilers, and drilling equipment are to be used within a reasonable time, as determined by the Planning Director, for the drilling of another well or wells on the premises.~~
- ~~G. Within ninety (90) days after any well has been placed in production, or after its abandonment, earthen sumps used in drilling or production or both (unless such sumps are to be used within a reasonable time as determined by the Planning Director for the drilling of another well or wells) shall be filled and the drilling site restored as nearly as practicable to a uniform grade. Temporary earthen sumps may be used for cleanout or remedial work on an existing well or other production facility. However, these sumps shall be filled and the site restored as nearly as practicable to uniform grade within ninety (90) days after the cleanout or other remedial work is completed. Such restoration work shall comply with all applicable regulations of the California Division of Oil and Gas.~~
- ~~H. Any derrick used for servicing operations shall be of the portable type, provided, however, that upon presentation of proof that the well is of such depth or has such other characteristics, or for other cause, that a portable type derrick will not properly service such well, the Planning Director may approve the use of a standard type of derrick.~~
- ~~I. Whenever oil or gas is produced into and shipped from tanks located on the premises, such tanks, whenever located within five hundred (500) feet of any dwelling or commercial building, shall be surrounded by shrubs or trees, planted and maintained so as to develop attractive landscaping or shall be fenced in such a manner as to, insofar as practicable, screen such tanks from public view. Such fencing shall comply with the requirements of the California Division of Oil and Gas.~~
- ~~J. Whenever a well is located within five hundred (500) feet from an existing dwelling unit, except in case of an emergency, no materials, equipment, tools, or pipe used for either drilling or production operations shall be delivered to or removed from the drilling site, except between the hours of eight (8:00) a.m. and eight (8:00) p.m., unless otherwise required by the California Division of Oil and Gas.~~

## **KERN COUNTY ZONING ORDINANCE**

### **DRAFT – SSREIR CIRCULATION (MARCH 2025 )**

**Source: Kern County Planning and Natural Resources Department**

- K. ~~Pumping wells shall be operated by electric motors or muffled internal combustion engines.~~
- L. ~~The height of all pumping units shall not exceed thirty five (35) feet and shall be painted and kept in neat condition.~~
- M. ~~All vehicle parking and maneuvering areas shall be treated and maintained with oiled sand or a similar dust binding material.~~
- N. ~~After production begins and a pump is installed on the wellhead, a fence at least six (6) feet in height shall be installed around the pump site or drilling island for public safety. This fence shall be constructed of chain link with wood or metal slats or other screening fence as may be approved by the Planning Director. This fencing and screening requirement shall apply only to those pump sites located within five hundred (500) feet of any dwelling. Such fencing shall comply with the requirements of the California Division of Oil and Gas.~~
- O. ~~All required federal, State, and County rules and regulations shall be complied with at all times, including, but not limited to, the rules and regulations of the following agencies:~~
  - 1. ~~California Division of Oil and Gas~~
  - 2. ~~Kern County Fire Department~~
  - 3. ~~Kern County Health Department~~
  - 4. ~~Regional Water Quality Control Board~~
  - 5. ~~Air Pollution Control District~~
  - 6. ~~Kern County Engineering and Survey Services Department~~

#### **~~19.98.060 PLOT PLAN REVIEW — CONDITIONAL USE PERMIT — APPLICATION CONTENTS~~**

~~An application for plot plan review pursuant to Section 19.98.030 of this chapter and an application for a conditional use permit pursuant to Section 19.98.040 of this chapter shall include the following:~~

- A. ~~Name and address of the applicant~~
- B. ~~Name(s) and address(es) of the property owner(s)~~
- C. ~~Assessor's parcel number(s)~~
- D. ~~Legal description of the property~~
- E. ~~A plot plan or site development plan (in the case of a conditional use permit) drawn at the scale specified by the Planning Director, which includes the following information:~~

1. ~~Topography and proposed grading~~
2. ~~Location of all proposed well holes and related accessory equipment, structures, and facilities to be installed and any abandoned wells if such are known to exist~~
3. ~~Location of all existing dwellings and buildings used for other purposes, located within three hundred (300) feet of the proposed well holes, identification of the use of each structure, and distances between well holes and existing buildings~~
4. ~~North arrow~~

F. ~~Narrative description of the proposed development, including:~~

1. ~~Acreage or square footage of the property~~
2. ~~Nature of hydrocarbon development activity~~
3. ~~Description of equipment to be used~~
4. ~~Distance to all existing buildings~~
5. ~~Phasing or development schedule~~

**~~19.98.070 PERMIT REVOCATION AND MODIFICATION~~**

~~Any permit issued pursuant to this chapter may be revoked or modified pursuant to Section 19.102.020 of this title.~~

**REVISIONS TO OTHER SECTIONS OF THE ZONING ORDINANCE** (Revisions in Underline and ~~Strikethrough~~ ) **All underlined, bold text in red is proposed for change by this SSREIR ( 2025) All strikethrough are proposed for deletion**

**CHAPTER 19.48**

**DRILLING ISLAND (DI) DISTRICT**

**KERN COUNTY ZONING ORDINANCE  
DRAFT – SSREIR CIRCULATION (MARCH 2025 )  
Source: Kern County Planning and Natural Resources Department**

#### **19.48.080 HEIGHT LIMITS**

Height limits in the DI District are as follows:

- A. None on derricks and other equipment used during the exploration and drilling phase of development.
- B. Pumping units shall not exceed ~~thirty-five (35)~~ eighty (80) feet in height.

#### **19.48.130 SPECIAL REVIEW PROCEDURES AND DEVELOPMENT STANDARDS**

- A. All drilling and other hydrocarbon development activity in the DI District shall be carried out in accordance with the standards and procedures set out in Section 19.98.050060 of this title. All activities subject to an Oil and Gas Conformity Review or Minor Activity Review shall comply with the provisions of Section 19.98.060 of the title.
- B. Development in the DI District shall comply with the interpretations and provisions of Chapter 19.08 of this title.

### **CHAPTER 19.81**

#### **OUTDOOR LIGHTING**

##### **“DARK SKIES ORDINANCE”**

#### **19.81.050 EXEMPTIONS**

The following are permanently exempt from the provisions of this chapter:

1. Outdoor lighting specifically approved in conjunction with a discretionary permit.
2. Federal and State Facilities: Outdoor light fixtures on, in, or in connection with facilities and land owned or operated by the government of the United States of America or the State of California; however, these agencies are encouraged to comply with the provisions of this ordinance.
3. Airports and Other Lighting Required by the Federal Aviation Administration: Outdoor lighting for public and private airports and any other uses that are regulated by the Federal Aviation Administration.
4. Correctional Institutions: Outdoor lighting for federal, State, and County-owned or operated correctional institutions; however, voluntary compliance with the intent and provisions of this chapter is encouraged.
5. Emergency Light: Temporary emergency lighting needed by the sheriff's department, police department, fire department, public utility, rescue operation or in conjunction with any other emergency service.

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**Source: Kern County Planning and Natural Resources Department**

6. Temporary Construction: All temporary lighting used for the construction or repair of roadways, utilities, and other public infrastructure.
7. Internally Illuminated Signs: All internally illuminated signs, including those used for on-site and off-site advertising purposes. Such signs are regulated by the provisions of Chapter 19.84 (Signs) of the Kern County Zoning Ordinance.
8. Neon, Argon, or Krypton: All fixtures illuminated solely by neon, argon, or krypton.
9. United States Flag and State of California Flag: Lighting used to illuminate a properly displayed United States Flag and/or the State of California Flag.
10. Lighting Required by Building Codes or other Regulations: Communication towers, exit signs, lighting for stairs/ramps, lighting for points of ingress/egress to buildings, and all other illumination required by air navigation safety provisions, building codes, OSHA standards, and other permitting requirements from State or federal agencies.
11. Fossil Fuel Light: All outdoor light fixtures producing light directly by the combustion of fossil fuels (such as kerosene lanterns, gas lamps, etc.)
12. Street Lighting: Lighting equipment within a public or private right-of-way or easement for the principal purpose of illuminating streets, roadways, and/or other areas open to transport by vehicle or pedestrian traffic.
13. Seasonal Displays: Displays using multiple low wattage bulbs or lasers, provided that they do not constitute a fire hazard, create a nuisance, and are maintained in a safe condition. Such displays shall not be illuminated for more than forty-five (45) days per calendar year.
14. Water Features: Lighting in swimming pools and other water features governed by Article 680 of the National Electrical Code.
- ~~15. Oil and Gas Exploration and Production: Outdoor lighting in association with oil and gas exploration and production operations and related facilities shall be exempt from this chapter and are regulated by the provisions of Chapter 19.98 of the Kern County Zoning Ordinance.~~
- ~~16.~~ 15. Temporary Event Lighting: Temporary lighting for special events that does not conform to this chapter shall be reviewed as part of an application for a Temporary Event Permit (TEP), pursuant to Chapter 19.08.340 of the Kern County Zoning Ordinance. Any temporary lighting exemption approved via the TEP process shall be utilized for a period of time that exceeds a combined total of twelve (12) combined days on any one (1) parcel during a calendar year. Exemptions are renewable for a period of not more than twelve (12) additional combined days. Requests for renewal of a temporary exemption shall be processed in the same manner as the original request. No outdoor light fixtures shall be exempted from this chapter for more than twenty-four (24) days combined during a calendar year.
- ~~17.~~ 16. Steeples: Lighting used to illumination the tall ornamental tower that forms the

## **KERN COUNTY ZONING ORDINANCE**

### **DRAFT – SSREIR CIRCULATION (MARCH 2025 )**

**Source: Kern County Planning and Natural Resources Department**

superstructure of a church, temple, office building, etc., shall be exempt from this chapter.

- ~~18.~~17. Temporary Agricultural Activities: Lighting used to illuminate temporary agricultural activities such as harvesting on property zoned A (Exclusive Agriculture) or A-1 (Limited Agriculture) and lasting no more than twelve (12) consecutive days and no more than twenty four (24) combined days on any one parcel during a calendar year.

## **C H A P T E R   19.50**

### **FLOODPLAIN PRIMARY (FPP) DISTRICT**

#### **19.50.130 SPECIAL REVIEW PROCEDURES AND DEVELOPMENT STANDARDS**

- A. All development within the FPP District is subject to the requirements of the Flood Damage Prevention Ordinance, Chapter 17.48 of this code.
- B. Development in the FPP District shall comply with the interpretations and provisions of Chapter 19.08 of this title.
- C. Oil or gas exploration and production shall comply with Section 19.98.050060 and the following standards:
  - 1. The following uses are permitted within the FPP District if they will not obstruct flows, will not cause peripheral flooding of other properties, will not cause any increase in flood levels during the occurrence of the base flood discharge, will be resistant to floatation and immune to extensive damage by flooding, and will not endanger life or property:
    - (a) All oil or gas wells, including pumps and all other associated equipment.
    - (b) Feasible remedial work, improvements, and flood-proofing of facilities.
  - 2. No oil or gas well shall be drilled on the slope or within ten (10) feet of the top or toe of the bank of a river or stream located within the FPP District. The required setback on the top of bank shall be measured from an imaginary plane on a slope two (2) horizontal to one (1) vertical projected upward from the toe of the existing bank.
  - 3. All oil or gas wells in the FPP District, including pumps and all other associated equipment, shall be designed such that they are resistant to damage by flooding.
  - 4. All pipelines in the FPP District shall be flood-proofed by burial to sufficient depth to prevent rupture during flood conditions or by suspension at least two (2) feet

above the surface of the base flood. Supports for elevated pipelines shall also carry a catwalk to facilitate removal of debris caught by supports during floods.

5. The location of all buried pipelines shall be recorded on appropriate maps by the company that owns said pipelines, and the maps shall be made available to any public agency that shall request a copy.
6. All drilling, redrilling, and producing, including remedial work, well pulling, work-overs, and deepening, shall conform to all applicable fire, safety, spacing, and environmental State law and regulations.
7. Proven technological improvements generally accepted and used in drilling and production methods shall be adopted as they may from time to time become available, if capable of reducing factors of nuisance and annoyance.
8. Prior to the commencement of any drilling, a copy of a Spill Prevention Control and Countermeasure Plan, as required by the United States Environmental Protection Agency, shall be filed with the Kern County ~~Engineering and Survey Services~~ Public Works Department.
9. All pumps expected to be inaccessible during times of flood shall be equipped with an accessible remote switch to shut off the pumps during emergencies.
10. The derrick, all boilers, and all other drilling equipment used pursuant to this chapter to drill any well hole or to repair, clean out, deepen, or redrill any completed or drilling well shall be removed within ninety (90) days after completion of production tests following completion of such drilling, or after abandonment of any well, unless such derrick, boilers, and drilling equipment are to be used within a reasonable time limit, determined by the Kern County ~~Engineering and Survey Services~~ Public Works Department, for the drilling of another well or wells on the premises.
11. After any well has been placed in production, no earthen sumps shall be used for the storage of petroleum or gas.
12. Within ninety (90) days after any well has been placed in production or after its abandonment, earthen sumps used in drilling or production or both shall be emptied by vacuum truck or other approved means, then filled, and the drilling site restored as nearly as practicable to a uniform grade, unless such sumps are to be used within a reasonable time limit, as determined by the Kern County ~~Engineering and Survey Services~~ Public Works Department.
13. Any derrick used for servicing operations shall be of the portable type; provided, however, that upon presentation of proof that the well is of such depth or has such other characteristics, or for other cause, that a portable-type derrick will not

properly service such well, the Kern County ~~Engineering and Survey Services~~ Public Works Department may approve the use of a standard type of derrick.

14. Directional and warning signs, and those required for identification of the well, shall be constructed, erected, placed, or maintained on the premises, except those required by law to be displayed in connection with the drilling or maintenance of the well.
15. If a producing or service well is not secured twelve (12) months from the date of commencement of drilling operations or any extended period granted by the Kern County ~~Engineering and Survey Services~~ Public Works Department, the premises shall be restored to the original condition as nearly as practicable to do so. If at the expiration of the twelve- (12-) month period, the drilling program has not been completed, the Kern County ~~Engineering and Survey Services~~ Public Works Department may, upon a written request, grant an additional period of time as requested for the completion of such drilling program.

## CHAPTER 19.66

### PETROLEUM EXTRACTION (PE) COMBINING DISTRICT

#### 19.66.020 PERMITTED USES

The following uses and all others determined to be similar to these uses pursuant to Sections 19.08.030 through 19.08.080 of this title are permitted in a PE District:

- A. Wells for the exploration for and development and production of oil or gas or other hydrocarbon substances if the well or wells comply with all setbacks detailed in Section 19.98.060 – Oil and Gas Activities – Local Permitting. ~~are located more than two hundred and ten (210) feet away from any existing dwelling or existing building utilized for commercial purposes, excluding those premises utilized solely for storage of equipment, material, household goods, or similar material.~~
- B. Deepening or redrilling, within the existing well bore, of any well used for the production or development of oil or gas or other hydrocarbon substances, or the replacement of any production facility which did not require a conditional use permit on the date drilling began or the date the facility was installed.
- C. Drilling of a replacement well when the original well did not require a conditional use permit, and where the original well has been abandoned in accordance with California Division of Oil and Gas regulations and drilling of a replacement well commences within one (1) year of the conclusion of abandonment procedures, and the replacement well is located within twenty (20) feet of the original well or is farther from any existing dwelling



or commercial building than the original well and complies **with all setbacks detailed in Section 19.98.060 – Oil and Gas Activities – Local Permitting.**

- D. Uses permitted by the base district with which the PE District is combined.

#### **19.66.030 USES PERMITTED BY A CONDITIONAL USE PERMIT**

~~The following uses and all others determined to be similar to these uses pursuant to Sections 19.08.030 through 19.08.080 of this title are permitted in a PE District subject to securing a conditional use permit in accordance with the procedures set out in Chapter 19.104 of this title:~~

~~A. Wells for the exploration for and development and production of oil or gas or other hydrocarbon substances if the well or wells are located within two hundred and ten (210) feet of any existing dwelling or existing building utilized for commercial purposes, excluding those premises utilized solely for storage of equipment, material, household goods, or similar material.~~

~~B. Conditional uses permitted by the base district with which the PE District is combined.~~

#### **19.66.080 HEIGHT LIMITS**

Height limit requirements in a PE District are as follows:

- A. No height limit on derricks and other equipment used during the exploration and drilling phase of development.
- B. Pumping units shall not exceed ~~thirty-five (35)~~ eighty (80) feet in height.
- C. All other uses permitted by the base district shall conform to the height limits of the base district with which the PE District is combined.

#### **19.66.130 SPECIAL REVIEW PROCEDURES AND DEVELOPMENT STANDARDS**

All drilling and hydrocarbon development activities in a PE District shall be carried out in accordance with the standards and procedures set out in Section 19.98.050060 of this title. All activities subject to an Oil and Gas Conformity Review or Minor Activity Review shall comply with the provisions of Section 19.98.060 of the title.

### **C H A P T E R 19.102**

#### **PERMIT PROCEDURES**

#### **ARTICLE II. MINISTERIAL PERMITS ISSUED BY THE PLANNING DIRECTOR**

#### **KERN COUNTY ZONING ORDINANCE**

#### **DRAFT – SSREIR CIRCULATION (MARCH 2025 )**

**Source: Kern County Planning and Natural Resources Department**

#### **19.102.040 GENERAL REQUIREMENTS — PERMIT TYPES**

The ministerial permits specified in this title for review pursuant to this article shall be issued by the Planning Director upon submission of an application containing the information specified in applicable sections of this title and a determination by the Planning Director that the proposed use or development meets the development standards and conditions specified in the applicable section or sections of this title. These permits include:

- A. CRV recycling center permit (Section 19.08.480)
- B. Temporary animal permit plot plan review (Sections 19.14.130 and 19.60.130 through 19.60.160)
- C. Extensions for temporary mobilehomes and recreational vehicles (Sections 19.16.130 and 19.18.160)
- D. Mobilehome park plot plan review (Sections 19.26.130 through 19.26.190)
- E. Minor plan modifications (Section 19.52.130 through 19.52.180, 19.56.130 through 19.52.180, 19.56.130 through 19.56.200, 19.58.130 through 19.58.180, and 19.100.050)
- F. Commercial wind farm plot plan review (Section 19.64.130 through 19.64.150)
- G. Geologic hazard plot plan review (Section 19.68.130 through 19.68.150)
- H. Special development standards plot plan review (Sections 19.80.040 through 19.80.070)
- I. Off-street parking plot plan review not in conjunction with a ministerial permit (Sections 19.82.100 through 19.82.130)
- J. Landscaping plot plan review not in conjunction with a ministerial permit (Sections 19.86.070 through 19.86.100)
- K. Density bonus permit (Sections 19.92.030 through 19.92.060)
- L. Home occupation permit (Sections 19.94.050 through 19.94.080)
- M. Production water injection wells for the purpose of disposing of production wastewater produced in the same oilfield in which the injection well is located (Section 19.98.030)
- N. ~~Oil and gas plot plan review (Section 19.98.030)~~ Oil and Gas Conformity Review and Minor Activity Review (Section 19.98.070 through 19.98.120)
- O. Large family day-care permit - no hearing (Sections 19.96.030 through 19.96.060)

- P. Temporary batch plant (thirty (30) days or less) plot plan review (Section 19.08.290)
- Q. Secondary residential unit plot plan review (Section 19.90.040 through 19.90.060)
- R. Truck parking as accessory to residential use permit (Section 19.08.252)

## **CHAPTER 19.108**

### **NONCONFORMING USES, STRUCTURES, AND LOTS**

#### **19.108.040 NONCONFORMING USES OF LAND**

- A. A nonconforming use of land shall not be expanded, extended, or intensified in any way with respect to scope, duration, or frequency of the use, except as follows:

The Planning Commission may authorize the expansion or intensification of legal, nonconforming uses if, after consideration at a public hearing noticed pursuant to Section 19.102.150, both of the following findings can be made:

1. The proposed expansion will not create any significant adverse impacts to surrounding properties.
2. The only other remedy to bring the use into conformance would require an amendment to the applicable General Plan.

Public hearing notification shall consist of mailing notices to property owners having property within three hundred (300) feet from the exterior boundaries of the subject property. Published notice in a local newspaper shall not be required, unless the Planning Director determines that such additional notice is warranted. In consideration of a request to expand or intensify a legal, nonconforming use, the terms and conditions for any approval shall be as specified in Section 19.104.050.

- B. A nonconforming use of land shall not be changed to or replaced by any other use except a use that complies with the regulations of the zoning district in which the subject property lies.
- C. Any nonconforming use of land that has been discontinued or abandoned for a period of one (1) year or more shall not be reestablished. In instances where the assessed value of improvements on the property exceeds fifty thousand dollars (\$50,000), as determined by the County Assessor, the nonconforming use shall not be reestablished if the use has been discontinued or abandoned for a period of two (2) years or more.

- D. The exploration for or development or production of oil, gas, or other hydrocarbon substances ~~shall not be considered nonconforming uses of land~~ lawfully constructed prior to MONTH XXX, DAY XXX, YEARXX shall be considered nonconforming uses of land. Any subsequent —maintenance, production, operations, well stimulation treatments, alterations or expansion, and other activities involving existing wells, including ancillary facilities, are allowed subject to Chapter 19.98 of this Title.
- E. A legal nonconforming dwelling in any zone district may be replaced with the approval of the Planning Director, provided that all applicable requirements of this title, other than density or conditional use permit requirements, can be satisfied.
- F. Any use of land continuously in existence for a period of twenty (20) years or more may qualify as a legal, nonconforming use pursuant to Section 19.108.080, irrespective of when zoning requirements became effective for that property, provided that the Planning Director determines that the use is not significantly incompatible with surrounding land uses and that there is no significant threat to the public health, safety, and welfare in allowing the use to continue.

#### **19.108.060 NONCONFORMING SETBACKS**

Any use permitted under the provisions of this title that currently exists with nonconforming setbacks may:

1. ~~be~~ replaced in the same location if damaged or destroyed by fire, earthquake, explosion, or act of God regardless of the cost of such reconstruction; or
2. Be maintained in accordance with the provisions of this Title provided there is no greater degree of nonconformity with regard to setback.

### **C H A P T E R   19.08**

#### **INTERPRETATIONS AND GENERAL STANDARDS**

##### **SECTIONS:**

##### **19.08.010 PURPOSE**

##### **19.08.015 SPECIAL TREATMENT AREAS WITHIN KERN COUNTY**

##### **19.08.020 ZONING DISTRICT BOUNDARIES**

##### **19.08.030 DETERMINATION OF SIMILAR USE — GENERALLY**

##### **19.08.040 DETERMINATION OF SIMILAR USE — APPLICATION — CONTENTS**

##### **19.08.050 DETERMINATION OF SIMILAR USE — APPLICATION — TIME**

##### **19.08.055 CANNABIS-RELATED FACILITIES,CULTIVATION AND ACTIVITIES**

##### **19.08.060 DETERMINATION OF SIMILAR USE — PROCEDURE**

##### **19.08.070 DETERMINATION OF SIMILAR USE — APPEAL**

##### **19.08.080 DETERMINATION OF SIMILAR USE — CRITERIA**

##### **19.08.085 ALTERNATIVE TO DETERMINATION OF SIMILAR USE**

##### **19.08.090 PUBLIC UTILITY USES — COUNTY REVIEW**

##### **19.08.100 INTERPRETATION OF MINIMUM LOT SIZES**

##### **19.08.110 DETERMINATION OF ACCESSORY USES AND STRUCTURES**

#### **KERN COUNTY ZONING ORDINANCE**

#### **DRAFT – SSREIR CIRCULATION (MARCH 2025 )**

**Source: Kern County Planning and Natural Resources Department**

- 19.08.120 FRONT-YARD SETBACK EXCEPTION
- 19.08.130 LESS RESTRICTIVE USES PROHIBITED
- 19.08.140 LOCATION OF DWELLINGS
- 19.08.150 HEIGHT OF BUILDINGS
- 19.08.160 HEIGHT OF STRUCTURES
- 19.08.170 DWELLINGS ABOVE OTHER USES — YARD REQUIREMENTS
- 19.08.180 ACCESSORY BUILDINGS
- 19.08.190 THROUGH LOTS — SETBACK REQUIREMENTS
- 19.08.200 YARD ENCROACHMENTS
- 19.08.210 FENCES, WALLS, AND HEDGES
- 19.08.220 STORAGE IN YARDS
- 19.08.225 STRUCTURES AND STORAGE IN PUBLIC ROADS
- ~~19.08.230 PRIVATE OIL PIPELINES AND RELATED FACILITIES —~~  
COUNTY REVIEW REGIONAL OR INTERSTATE TRANSMISSION  
PIPELINE FACILITIES — COUNTY REVIEW
- 19.08.240 BUILDING ACROSS PROPERTY LINES
- 19.08.252 TRUCK PARKING AS A RESIDENTIAL ACCESSORY USE
- ~~19.08.260 OIL AND GAS EXPLORATION BY SCIENTIFIC MEANS~~
- 19.08.270 COUNTY REVIEW OF PROJECTS RELATED TO NATIONAL SECURITY
- 19.08.280 EMERGENCY OCCUPANCY OF MOBILE HOMES OR TRAVEL TRAILERS
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- 19.08.300 PUBLIC ACCESS EASEMENTS
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~~19.08.230 PRIVATE OIL PIPELINES AND RELATED FACILITIES — COUNTY REVIEW~~

# **KERN COUNTY ZONING ORDINANCE**

**DRAFT – SSREIR CIRCULATION (MARCH 2025 )**

**Source: Kern County Planning and Natural Resources Department**

~~The provisions of this title shall not be construed to apply to the construction, installation, operation, and maintenance of pipelines for the transmission of crude oil or natural gas operated by private enterprises; provided, however, before any right of way for transmission lines is acquired for regional or interstate facilities, the proposed route shall be submitted for the Planning Director review and recommendation.~~

### **19.08.230 REGIONAL OR INTERSTATE TRANSMISSION PIPELINE FACILITIES — COUNTY REVIEW**

Before any right-of-way for transmission lines is acquired for regional or interstate facilities, the proposed route shall be submitted for the Planning Director review and recommendation.

### **~~19.08.260 OIL AND GAS EXPLORATION BY SCIENTIFIC MEANS~~**

~~The provisions of this title shall not be construed to apply to the exploration for oil and gas by scientific means.~~

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## **KERN COUNTY ZONING ORDINANCE**

### **DRAFT – SSREIR CIRCULATION (MARCH 2025 )**

**Source: Kern County Planning and Natural Resources Department**

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## CHAPTER 19.26

### MOBILEHOME PARK (MP) DISTRICT

#### KERN COUNTY ZONING ORDINANCE

#### DRAFT – SSREIR CIRCULATION (MARCH 2025 )

Source: Kern County Planning and Natural Resources Department

### **19.26.030 USES PERMITTED WITH A CONDITIONAL USE PERMIT**

The following uses are permitted in the MP District with a conditional use permit:

#### **A. RECREATION, ENTERTAINMENT, AND TOURIST FACILITIES**

- Recreational vehicle park, except as permitted by Subsection 19.26.020.B

#### **B. MISCELLANEOUS USES**

- Drainage sump
- Water system, large
- Water treatment plant

#### **C. RESOURCE EXTRACTION AND ENERGY DEVELOPMENT USES**

- Oil or gas exploration and production pursuant to Chapter 19.98 of this title

## **CHAPTER 19.12**

### **EXCLUSIVE AGRICULTURE (A) DISTRICT**

#### **19.12.020 PERMITTED USES**

#### **E. RESOURCE EXTRACTION AND ENERGY DEVELOPMENT USES**

- ~~— Cogeneration facility or steam generators, primarily intended for steam production used for production of oil or gas, excluding coal-fired~~
- Electrical power generating plant in conjunction with a biogas recovery system associated with a confined animal facility, subject to the criteria specified in Section 19.12.130.G
- Explosives storage, temporary
- Mineral exploration
- Oil or gas exploration and production pursuant to Chapter 19.98 of this title
- Solar energy electrical generators which are accessory to a permitted or conditionally permitted use and where the power generated does not exceed the total on-site power demand



- Small wind energy system, pursuant to Section 19.08.415, except when all criteria specified below for wind-driven electrical generators will be satisfied , in which case a small wind energy system permit pursuant to Section 19.08.415 shall not be required
- Wind-driven electrical generators when accessory to a permitted or conditionally permitted use where:
  1. The system employed is designed to supplement other electricity sources, or as an accessory use to existing buildings or facilities, wherein the power generated is used primarily for on-site consumption.
  2. The wind generators are located a minimum distance of one times (1x) the overall machine height from any property line.
  3. The parcel on which the wind generators will be erected does not abut a residential zoning district.
  4. The wind generator(s) will be located a minimum of one and one-half (1 1/2) times the overall height to any off-site dwelling.
  5. The proposed height of the wind turbines does not exceed the maximum heights specified in Figure 19.08.160.

#### **19.12.030 USES PERMITTED WITH A CONDITIONAL USE PERMIT**

##### **G. RESOURCE EXTRACTION AND ENERGY DEVELOPMENT USES**

- Backfilling of surface mines with inert, nonorganic fill material, limited to construction and demolition wastes, where a Solid Waste Facility Permit is not required
- ~~Coal-fired~~ eCogeneration facility or steam generators, primarily intended for production of oil or gas
- Concrete or asphalt batch plant
- Dam, small hydro
- Dam, large hydro
- Electrical power generating plant
- Explosives storage, permanent
- Mining and mineral extraction pursuant to Chapter 19.100 of this title

- Rock, gravel, sand, concrete, aggregate, or soils crushing, processing, or distribution
- Solar energy electrical generators when not accessory to a permitted or conditionally permitted use
- Wind-driven electrical generators when accessory to a permitted or conditionally permitted use which do not comply with the installation standards specified in Section 19.12.020.E.

## **CHAPTER 19.14**

### **LIMITED AGRICULTURE (A-1) DISTRICT**

#### **19.14.020 PERMITTED USES**

##### **E. RESOURCE EXTRACTION AND ENERGY DEVELOPMENT USES**

- ~~— Cogeneration facility or steam generators, primarily intended for steam production, used for production of oil and gas, excluding coal fired~~
- Mineral exploration
- Oil or gas exploration and production pursuant to Chapter 19.98 of this title, including the temporary installation of commercial coaches as accessory to this activity, not to exceed a two- (2-) year period
- Solar energy electrical generator which are accessory to a permitted or conditionally permitted use and where the power generated does not exceed the total on-site power demand
- Small wind energy system, pursuant to Section 19.08.415

#### **19.14.030 USES PERMITTED WITH A CONDITIONAL USE PERMIT**

##### **G. RESOURCE EXTRACTION AND ENERGY DEVELOPMENT USES**

- ~~Coal-fired~~ Cogeneration facility or steam generators, primarily intended for production of oil or gas
- Concrete or asphalt batch plant, temporary
- Electrical power generating plant, excluding nuclear or coal powered

#### **KERN COUNTY ZONING ORDINANCE**

#### **DRAFT – SSREIR CIRCULATION (MARCH 2025 )**

**Source: Kern County Planning and Natural Resources Department**

- Mining and mineral extraction pursuant to Chapter 19.100 of this title
- Solar energy electrical generators when not accessory to a permitted or conditionally permitted use
- Wind-driven electrical generators, commercial

## **CHAPTER 19.38**

### **MEDIUM INDUSTRIAL (M-2) DISTRICT**

#### **19.38.020 PERMITTED USES**

##### **H. RESOURCE EXTRACTION AND ENERGY DEVELOPMENT USES**

- Cogeneration facility or steam generators, not primarily intended for production oil or gas, excluding coal fired
- Electrical power generating plant, excluding nuclear or coal
- Mineral exploration
- Oil or gas exploration and production pursuant to Chapter 19.98 of this title
- Solar energy electrical generators which are accessory to a permitted or conditionally permitted use and where the power generated does not exceed the total on-site power demand
- Small wind energy system, pursuant to Section 19.08.415

#### **19.38.030 USES PERMITTED WITH A CONDITIONAL USE PERMIT**

##### **G. RESOURCE EXTRACTION AND ENERGY DEVELOPMENT USES**

- ~~Coal-fired~~ Cogeneration facility or steam generators
- Mining and mineral extraction pursuant to Chapter 19.100 of this title
- Ore reduction
- Potash manufacture
- Rock, gravel, sand, concrete, aggregate, or soils crushing, processing, or distribution

- Solar energy electrical generators when not accessory to a permitted or conditionally permitted use
- Wind generators, commercial

## **CHAPTER 19.40**

### **HEAVY INDUSTRIAL (M-3) DISTRICT**

#### **19.40.020 PERMITTED USES**

##### **H. RESOURCE EXTRACTION AND ENERGY DEVELOPMENT USES**

- Cogeneration facility or steam generators, not primarily intended for production oil or gas, excluding coal fired
- Electrical distribution stations
- Electrical power generating plants, excluding nuclear and coal
- Mineral exploration
- Oil or gas exploration and production pursuant to Chapter 19.98 of this title
- Rock, gravel, sand, concrete, aggregate, or soils crushing, processing, or distribution
- Solar energy electrical generators which are accessory to a permitted or conditionally permitted use and where the power generated does not exceed the total on-site power demand
- Small wind energy system, pursuant to Section 19.08.415
- Wind-driven electrical generators when accessory to a permitted or conditionally permitted use where:
  1. The annual amount of power generated does not exceed the total on-site annual power demand.
  2. The wind generators are located a minimum distance of one (1) times the overall machine height from any property line.
  3. The parcel on which the wind generators will be erected does not abut a residential zoning district.
  4. The wind generator(s) will be located a minimum of one (1) times the overall height to any off-site dwelling.

#### **KERN COUNTY ZONING ORDINANCE**

#### **DRAFT – SSREIR CIRCULATION (MARCH 2025 )**

**Source: Kern County Planning and Natural Resources Department**

5. The proposed height of the wind turbines does not exceed the maximum heights specified in Figure 19.08.160.

#### **19.40.030 USES PERMITTED WITH A CONDITIONAL USE PERMIT**

##### **G. RESOURCE EXTRACTION AND ENERGY DEVELOPMENT USES**

- ~~Coal-fired~~ Cogeneration facility or steam generators
- Electrical power generating plant, nuclear or coal powered
- Mining and mineral extraction pursuant to Chapter 19.100 of this title
- Solar energy electrical generators when not accessory to a permitted or conditionally permitted use
- Wind-driven electrical generators, commercial
- Wind-driven electrical generators when accessory to a permitted or conditionally permitted use which do not comply with the installation standards specified in Section 19.12.020.E.

## **C H A P T E R 19.46**

### **NATURAL RESOURCE (NR) DISTRICT**

#### **19.46.020 PERMITTED USES**

##### **E. RESOURCE EXTRACTION AND ENERGY DEVELOPMENT USES**

- Accessory structures and equipment storage for natural resource extraction or processing uses
- ~~Cogeneration facility or steam generators, primarily intended for steam production for another permitted use, excluding coal-fired~~
- Explosives storage, temporary, subject to approval by the Kern County Fire Department
- Mineral exploration

#### **KERN COUNTY ZONING ORDINANCE**

#### **DRAFT – SSREIR CIRCULATION (MARCH 2025 )**

**Source: Kern County Planning and Natural Resources Department**

- Oil or gas exploration and production pursuant to Chapter 19.98 of this title
- Solar energy electrical generators which are accessory to a permitted or conditionally permitted use and where the power generated does not exceed the total on-site power demand
- Small wind energy system, pursuant to Section 19.08.415

#### **19.46.030 USES PERMITTED WITH A CONDITIONAL USE PERMIT**

##### **G. RESOURCE EXTRACTION AND ENERGY DEVELOPMENT USES**

- ~~Coal-fired~~ Cogeneration facility or steam generators
- Concrete or asphalt batch plant
- Electric power generating plant
- Explosives storage
- Mining and mineral extraction pursuant to Chapter 19.100 of this title
- Rock, gravel, sand, concrete, aggregate, or soils crushing, processing, or distribution
- Solar energy electrical generators when not accessory to a permitted or conditionally permitted use
- Wind-driven electrical generators, commercial or domestic

## **C H A P T E R 19.44**

### **OPEN SPACE (OS) DISTRICT**

#### **19.44.030 USES PERMITTED WITH A CONDITIONAL USE PERMIT**

The following uses and all others determined to be similar to these uses pursuant to Sections 19.08.030 through 19.08.080 of this title are all permitted in the OS District subject to securing a conditional use permit in accordance with the standards and procedures set out in Chapter 19.104 of this title:

##### **A. RECREATION, ENTERTAINMENT, AND TOURIST FACILITIES**

- Park

#### **KERN COUNTY ZONING ORDINANCE**

#### **DRAFT – SSREIR CIRCULATION (MARCH 2025 )**

**Source: Kern County Planning and Natural Resources Department**

— Roads or trails for motor driven vehicles, excluding race courses

B. INSTITUTIONAL USES

— Public service uses

C. TRANSPORTATION FACILITIES

— Auto parking lot

D. RESOURCE EXTRACTION AND ENERGY DEVELOPMENT USES

— Oil or gas exploration and production pursuant to Chapter 19.98 of this title

DE. MISCELLANEOUS USES

— Restrooms and shelters

— Scientific study sites for the systematic exploration and classification of archaeological, anthropological, or historic artifacts or remains

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Appendix B  
Initial Study/Notice of Preparation

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**Lorelei H. Oviatt, AICP, Director**  
2700 "M" Street, Suite 100  
Bakersfield, CA 93301-2323  
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Fax: (661) 862-8601 TTY Relay 1-800-735-2929  
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Web Address: <http://kernplanning.com/>



**PLANNING AND NATURAL  
RESOURCES DEPARTMENT**

**Planning  
Community Development  
Administrative Operations**

**DATE:** March 22, 2024

**TO:** See Attached Mailing List

**FROM:** Kern County Planning and  
Natural Resources Department  
Attn: Keith Alvidrez  
2700 "M" Street, Suite 100  
Bakersfield, CA 93301  
(661) 862-5015; [AlvidrezK@kerncounty.com](mailto:AlvidrezK@kerncounty.com)

**SUBJECT: Notice of Preparation of a Draft Second Supplemental Recirculated Environmental Impact Report (SSREIR) (SCH# 2013081079) for Revisions to Title 19 – Kern County Zoning Ordinance (2024) focused on oil and gas local permitting (PP13280).**

The Kern County Planning and Natural Resources Department as Lead Agency (per CEQA Guidelines Section 15062) has determined that preparation of an Environmental Impact Report (per CEQA Guidelines 15161) is necessary for the proposed project identified below. The Planning and Natural Resources Department solicits the views of interested parties as to the scope and content of the environmental information which is germane to an agency's statutory responsibilities in connection with the proposed project. When considering another permit or other approvals for the proposed project, an agency may need to use the Draft SSREIR prepared by our Department.

You are invited to view the NOP and submit written comments regarding the scope and content of the environmental information in connection with the proposed project should you wish to do so. Due to the limits mandated by State law, your response must be received by **April 22, 2024 at 5:00 p.m.** Comments can be submitted to the Kern County Planning and Natural Resources Department at the address shown above or to [OG-SSREIRComments@kerncounty.com](mailto:OG-SSREIRComments@kerncounty.com). A Scoping Meeting will be held on **Wednesday, April 3, 2024 at 1:30 p.m.** at the address listed above.

**PROJECT TITLE:** Second Supplemental Recirculated Environmental Impact Report (SSREIR) for Revisions to Title 19 – Kern County Zoning Ordinance (20204) focused on oil and gas local permitting.

**DOCUMENT AVAILABILITY:** The Notice of Preparation for the above referenced project is available for public review at the Planning and Natural Resources Department, which is located at 2700 "M" Street, Suite 100, Bakersfield, CA 93301, or it can be accessed on the Kern County Planning and Natural Resources Department website at: [https://psbweb.kerncounty.com/planning/pdfs/eirs/oil\\_gas\\_ssreir/NOP/oil\\_gas\\_ssreir\\_nop.pdf](https://psbweb.kerncounty.com/planning/pdfs/eirs/oil_gas_ssreir/NOP/oil_gas_ssreir_nop.pdf)

**PROJECT LOCATION:** The proposed project boundary encompasses 3,700 square miles and generally includes the San Joaquin Valley Floor portion of Kern County up to an elevation of 2,000 feet. The boundary is defined by the San Luis Obispo County line on the west; the Kings and Tulare County lines on the north; the 2,000-foot elevation contours, squared off to the nearest section line on the east; and the northern boundary of the Los Padres National Forest on the south.

**PROJECT DESCRIPTION:** The proposed project is the reconsideration of revisions to Title 19 of the Kern County Zoning Ordinance (Ordinance) for local permitting for oil and gas focused on Chapter 19.98 (Oil and Gas

Production), to address oil and gas exploration and operation activities in greater detail by: (a) establishing updated development, implementation standards, and conditions to address environmental impacts of pre-drilling exploration, well drilling, and the operation of wells and other oil and gas production-related equipment and facilities, including exploration, production, completion, stimulation, reworking, injection, monitoring, and plugging and abandonment; and (b) establishing new "Oil and Gas Conformity Review" and "Minor Activity Review" ministerial permit procedures for County approval of future well drilling and operations to ensure compliance with the updated development and implementation standards and conditions and provide for ongoing tracking and compliance monitoring. In January 2013, the California Independent Petroleum Association, Independent Oil Producers Agency, and Western States Petroleum Association (the "Project Proponents") requested that the County consider amending the Ordinance as summarized above. Under Chapter 19.112 of the Ordinance, amendments to the text of the Zoning Title of the Kern County Zoning Ordinance can only be initiated by the Kern County Board of Supervisors. On November 9, 2015, the County certified a Final Environmental Impact Report (EIR) and approved the proposed Ordinance revisions as amendments to Title 19.

The purpose of the SSREIR is to provide the additional analysis and content required to address the three CEQA issues in the Supplemental Recirculated EIR (SREIR) that were identified in the Appellate Court opinion issued on March 7, 2024 for recent litigation.

The SSREIR will have the following Resource Area Chapters for analysis and proposed mitigation.

- Agricultural Resources,
- Air Quality,
- Hydrology and Water,
- Utilities and Service Systems
- Supplemental Analysis

The County Board of Supervisors previously adopted the proposed Ordinance amendments and certified an EIR on November 9, 2015. Several parties filed lawsuits challenging the adequacy of the certified EIR, and the cases were consolidated in the Kern County Superior Court. On April 20, 2018, the Court issued a judgment upholding the EIR except for two issues. The judgment did not vacate any portion of the Ordinance or the EIR. The County subsequently prepared and circulated a Draft Supplemental Environmental Impact Report (SEIR) in response to the judgment. The SEIR was certified by the County Board of Supervisors on December 11, 2018, and was not legally challenged.

Several parties appealed the Superior Court judgment. In October 2019, the Appellate Court rejected constitutional claims against the Ordinance amendments. On February 25, 2020, the Appellate Court issued an opinion that upheld the Superior Court judgment and the adequacy of the certified EIR except for "five areas in which the EIR did not comply with CEQA: (1) mitigation of water supply impacts; (2) impacts from PM2.5 emissions; (3) mitigation of conversion of agricultural land; (4) noise impacts; and (5) recirculation of the Multi-Well Health Risk Assessment for public review and comment." The opinion set aside the previously approved Ordinance amendments and the certification of the EIR. The opinion further directs the County, "in the event it decides to present the Ordinance (in its present or a modified form) to the Board for approval, to correct the CEQA violations identified in this opinion," to prepare "a revised EIR correcting the CEQA violations," and to prepare and publish "responses to the comments received before certifying the revised EIR and reapproving the Ordinance."

In response, the County prepared a Supplemental Recirculated Environmental Impact Report which was circulated twice with a final decision and adoption of a Revised Ordinance and Final Supplemental Recirculated Environmental Impact Report (SREIR) by the Kern County Board of Supervisors on March 8, 2021. Various parties sued to challenge the decision and on March 7, 2024, the Appellate Court issued a second opinion directing

the County to continue to suspend permitting under the ordinance and to correct three “ CEQA violations. . . before certifying the revised environmental impact report as complete and approving such an ordinance.”

The purpose of this SSREIR is to provide analysis to address the CEQA issues found by the Appellate Court decision and provide compliance for CEQA for the reconsideration by the Planning Commission and Board of Supervisors of the Zoning Ordinance revisions focused on Oil and Gas Local Permitting.

Signature: Keith Alvidrez

Name: Keith Alvidrez, Planner II

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SSREIR Oil & Gas NOP

City of Maricopa  
P.O. Box 548  
Maricopa, CA 93252

City of Arvin  
P.O. Box 548  
Arvin, CA 93203

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Chester Avenue  
Bakersfield, CA 93301

Bakersfield City Public Works Dept  
1501 Chester Avenue  
Bakersfield, CA 93301

California City Planning Dep  
21000 Hacienda Blvd.  
California City, CA 93515

Delano City Planning Dept  
P.O. Box 3010  
Delano, CA 93216

City of Shafter  
336 Pacific Avenue  
Shafter, CA 93263

City of McFarland  
401 West Kern Avenue  
McFarland, CA 93250

City of Ridgecrest  
100 West California Avenue  
Ridgecrest, CA 93555

City of Wasco  
764 E Street  
Wasco, CA 93280

City of Taft Planning & Building  
209 East Kern Street  
Taft, CA 93268

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Tehachapi, CA 93561-1722

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320 West Temple Street  
Los Angeles, CA 90012

Inyo County Planning Dept  
P.O. Drawer "L"  
Independence, CA 93526

Kings County Planning Agency  
1400 West Lacey Blvd, Bldg 6  
Hanford, CA 93230

Santa Barbara Co Resource Mgt Dept  
123 East Anapamu Street  
Santa Barbara, CA 93101

San Bernardino Co Planning Dept  
385 North Arrowhead Avenue, 1st Floor  
San Bernardino, CA 92415-0182

San Luis Obispo Planning Dept and Building  
976 Osos Street  
San Luis Obispo, CA 93408

U.S. Bureau of Land Management  
Caliente/Bakersfield  
3801 Pegasus Drive  
Bakersfield, CA 93308-6837

Tulare County Planning & Dev Dept  
5961 South Mooney Boulevard  
Visalia, CA 93291

Ventura County RMA Planning Div  
800 South Victoria Avenue, L1740  
Ventura, CA 93009-1740

U.S. Forest Service  
Los Padres National Forest  
6755 Hollister Avenue, Suite 150  
Goleta, CA 93117

U.S. Bureau of Land Management  
Ridgecrest Field Office  
300 South Richmond Road  
Ridgecrest, CA 93555

China Lake Naval Weapons Center  
Tim Fox, RLA - Comm Plans & Liaison  
429 E Bowen, Building 981 Mail Stop 4001  
China Lake, CA 93555

Edwards AFB  
Mission Sustainability Liaison  
412 TW/XPO, Bldg 2750, Ste 117-14  
195 East Popson Avenue  
Edwards AFB, CA 93524

Federal Aviation Administration  
Western Reg Office  
777 South Aviation Boulevard, Suite 150  
El Segundo, CA 90245

Federal Communications Comm  
18000 Studebaker Road, #660  
Cerritos, CA 90701

U. S. Fish & Wildlife Service  
Division of Ecological Services  
2800 Cottage Way #W-2605  
Sacramento, CA 95825-1846

U.S. Fish & Wildlife Service Hopper  
Mountain (Bitter Creek)  
2493 Portola Road, Suite A  
Ventura, CA 93003

Environmental Protection Agency  
Region IX Office  
75 Hawthorn Street  
San Francisco, CA 94105

U.S. Dept of Agriculture/NRCS  
5080 California Avenue, Ste 150  
Bakersfield, CA 93309-0711

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State Air Resources Board Stationary  
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Caltrans District 6  
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Caltrans District 9 Planning Department  
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Caltrans  
Division of Aeronautics, MS #40  
P.O. Box 942873  
Sacramento, CA 94273-0001

Caltrans  
Division of Structures  
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Sacramento, CA 95807

State Clearinghouse  
Office of Planning and Research  
1400 10th Street, Room 222  
Sacramento, CA 95814

State Dept of Conservation  
Director's Office  
801 "K" Street, MS 24-01  
Sacramento, CA 95814-3528

State Dept of Conservation  
Geologic Energy Management Division  
4800 Stockdale Highway, Ste 108  
Bakersfield, CA 93309

State Dept of Conservation  
Geologic Energy Management Division  
801 "K" Street, MS 20-20  
Sacramento, CA 95814-3530

Office of the State Geologist  
801 "K" Street, MS 12-30  
Sacramento, CA 95814

State Dept of Conservation Office  
Land Conservation  
801 "K" Street, MS 18-01  
Sacramento, CA 95814

State Dept of Conservation  
Office of Mine Reclamation  
801 "K" Street MS 09-06  
Sacramento, CA 95814-3529

State Dept of Conservation Div  
Recycling Cert. Sec.  
801 "K" Street, MS 19-01  
Sacramento, CA 95814

State Mining and Geology Board  
801 K Street, MS 20-15  
Sacramento, CA 95814

California State University  
Bakersfield – Library  
9001 Stockdale Highway  
Bakersfield, CA 93309

California Energy Commission  
James W. Reed, Jr.  
1516 Ninth Street Mail Stop 17  
Sacramento, CA 95814

California Fish & Wildlife  
1234 East Shaw Avenue  
Fresno, CA 93710

State Dept of Food & Agriculture  
1220 "N" Street  
Sacramento, CA 95814

California Highway Patrol Planning &  
Analysis Division  
P.O. Box 942898  
Sacramento, CA 94298-0001

State Office of Historical Pres  
Attn: Susan Stratton  
P.O. Box 942896  
Sacramento, CA 95296-0001

Integrated Waste Management  
P.O. Box 4025, MS #15  
Sacramento, CA 95812-4025

State Dept of Parks & Recreation  
Tehachapi District  
Angeles District Mojave Desert Sector  
15701 E. Avenue M  
Lancaster, CA 93535

State Water Resources Control Board  
Division of Drinking Water  
Attn: Jesse Dhaliwal, Sr. Sanitary Eng  
4925 Commerce Drive, Suite 120  
Bakersfield, CA 93309

Public Utilities Comm Energy Div  
505 Van Ness Avenue  
San Francisco, CA 94102

California Regional Water Quality Control  
Board/Central Valley Region  
1685 E Street  
Fresno, CA 93706-2020

Sequoia National Forest Kern River  
Ranger Station  
11380 Kernville Road  
Kernville, CA 93238



State Lands Commission 100 Howe Avenue, Ste 100-South Sacramento, CA 95825-8202	State Dept of Toxic Substance Control Environmental Protection Agency 1515 Tollhouse Road Clovis, CA 93612	State Department of Toxic Substances Control 1000 "I" Street P.O. Box 806 Sacramento, CA 95812
State Dept of Water Resources San Joaquin Dist. 3374 East Shields Avenue, Room A-7 Fresno, CA 93726	State Dept of Water Resources Div. Land & Right-of-Way P.O. Box 942836 Sacramento, CA 94236	CalRecycle Department of Resources, Recycling, and Recovery 1001 "I" Street Sacramento, CA 95812
Kern County Agriculture Department	Kern County Airports Department	County Clerk
Kern County Administrative Officer	Kern County Public Works Department/ Building & Development/Floodplain	Kern County Public Works Department/ Building & Development/Survey
Kern County Public Health Services Department/ Environmental Health Division	Kern County Fire Dept Aaron Duncan, Fire Chief	Kern County Fire Dept Michael Nicholas, Assistant Fire Marshal
California State Fire Marshall P.O. Box 944246 Sacramento, CA 94244	Kern County Library/Beale Local History Room	Kern County Library/Beale Andie Sullivan
Kern County Museum 3801 Chester Avenue Bakersfield, CA 93301	Kern County Parks & Recreation	Kern County Sheriff's Dept Administration
Kern County Public Works Department/ Building & Development/Development Review	Kern County Public Works Department/ Operations & Maintenance/Regulatory Monitoring & Reporting	Kern County Public Works Department/ Building & Development/Code Compliance
Kern County Employer's Training Resource	East Kern Air Pollution Control District	KernCOG 1401 19th Street - Suite 300 Bakersfield, CA 93301
Kern County Superintendent of Schools Attention School District Facility Services 1300 17th Street Bakersfield, CA 93301	Kern High School District 5801 Sundale Avenue Bakersfield, CA 93309	Local Agency Formation Comm/LAFCO 5300 Lennox Avenue, Suite 303 Bakersfield, CA 93309

California Highway Patrol  
Shaun C. Crosswhite – Lieutenant, Area  
Commander Buttonwillow Area 426  
29449 Stockdale Highway  
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California Highway Patrol Scot  
Loetscher – Captain  
9855 Compagnoni Street  
Bakersfield, CA 93313

California Highway Patrol  
Jeffrey Briggs, Lieutenant Bakersfield Area 420  
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Kern County Water Agency  
P.O. Box 58  
Bakersfield, CA 93302-0058

Delano Mosquito Abatement District  
Attn: John G. Davis  
P.O. Box 220  
Delano, CA 93215

San Joaquin Valley Air Pollution Control District  
Attn: Morgan Lambert  
1990 East Gettysburg Avenue  
Fresno, CA 93726

Golden Empire Transit  
1830 Golden State Avenue  
Bakersfield, CA 93301

West Side Mosquito Abatement Dist.  
P.O. Box 205  
Taft, CA 93268

Kern Mosquito Abatement District  
4705 Allen Road  
Bakersfield, CA 93314

South Fork Mosquito Abatement Dist  
P.O. Box 750  
Kernville, CA 93238-1298

Mojave Airport  
1434 Flightline  
Mojave, CA 93501

Bakersfield Municipal Airport  
4101 Truxtun Avenue  
Bakersfield, CA 93309

California City Airport  
22636 Airport Way, #8  
California City, CA 93505

Rosamond Skypark/Airport  
4000 Knox Avenue  
Rosamond, CA 93560

Inyokern Airport  
P.O. Box 634  
Inyokern, CA 93527

Minter Field Airport District  
201 Aviation Street  
Shafter, CA 93263

Construction Materials Assoc of CA  
1029 "J" Street, Suite 420  
Sacramento, CA 95814

East Kern Airport District  
1434 Flightline  
Mojave, CA 93501

East Kern Airport Dist Engineer  
3900 Ridgemoor Avenue  
Bakersfield, CA 93306

Adams, Broadwell, Joseph & Cardozo  
601 Gateway Boulevard, Suite 1000  
South San Francisco, CA 94080

Mountain Valley Airport  
P.O. Box 100  
Tehachapi, CA 93581

Aero Sports Skypark Corporation  
P.O. Box 2567  
Rosamond, CA 93560

Los Angeles Audubon  
926 Citrus Avenue  
Los Angeles, CA 90036-4929

Tehachapi City Hall/Airport  
115 South Robinson Street  
Tehachapi, CA 93561

Center for Biological Diversity  
Attn: Adam Lazar  
351 California Street, #600  
San Francisco, CA 94104

Desert Tortoise Preserve Committee  
4067 Mission Inn Avenue  
Riverside, CA 92501

AT&T California OSP Engineering/  
Right-of-Way  
4901 Ashe Road  
Bakersfield, CA 93313

Kern Audubon Society  
Attn: Frank Bedard, Chairman  
4124 Chardonnay Drive  
Bakersfield, CA 93306

Mojave Chamber of Commerce  
P.O. Box 935  
Mojave, CA 93502

Center Race, Poverty & Environment  
1999 Harrison Street – Suite 650  
San Francisco, CA 94612

Defenders of Wildlife  
Kim Delfino, California Director  
980 9<sup>th</sup> Street, Ste 1730  
Sacramento, CA 95814

Anitra Kass  
Pacific Crest Trail Association  
41860 Saint Annes Bay Drive  
Bermuda Dunes, CA 92203

California Farm Bureau  
2300 River Plaza Drive, NRED  
Sacramento, CA 95833

Friant Water Users Authority  
854 North Harvard Avenue  
Lindsay, CA 93247-1715

Sheppard Mullin  
Attn: Kendra Joy Casper  
333 South Hope Street  
Los Angeles, CA 90071

Native American Heritage Preservation  
Council of Kern County  
Attn: Gene Albitre  
3401 Aslin Street  
Bakersfield, CA 93312

Beth Boyst  
Pacific Crest Trail Program Manager  
1323 Club Drive  
Vallejo, CA 94592

Southern California Edison  
120 Woodlands Drive  
Wofford Heights, CA 93285

PG&E Co. Land Mgt  
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1918 "H" Street  
Bakersfield, CA 93301

PG&E Co Land Projects  
650 "O" Street, First Floor  
Fresno, CA 93760-0001

So. Cal Edison Planning Dept.  
510 S. China Lake Blvd.  
Ridgecrest, CA 93555

Sierra Club/Kern Kaweah Chapter  
P.O. Box 3357  
Bakersfield, CA 93385

Smart Growth - Tehachapi Valleys  
P.O. Box 1894  
Tehachapi, CA 93581-1894

Southern California Gas Co  
Transportation Dept  
9400 Oakdale Avenue  
Chatsworth, CA 91313-6511

Southern California Edison  
P.O. Box 410  
Long Beach, CA 90801

So. Cal Edison Planning Dept.  
421 West "J" Street  
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So. Cal Edison Planning Dept.  
25625 West Rye Canyon  
Valencia, CA 91355

Southern California Gas Co  
35118 McMurtrey Avenue  
Bakersfield, CA 93308-9477

Santa Rosa Rancheria Ruben  
Barrios, Chairperson  
P.O. Box 8  
Lemoore, CA 93245

Verizon California, Inc.  
Attn: Engineering Department  
520 South China Lake Boulevard  
Ridgecrest, CA 93555

Chumash Council of Bakersfield  
Julio Quair  
729 Texas Street  
Bakersfield, CA 93307

Tubatulabals of Kern County  
Attn: Robert Gomez, Chairperson  
P.O. Box 226  
Lake Isabella, CA 93240

Kern Valley Indian Council  
Attn: Robert Robinson, Chairperson  
P.O. Box 401  
Weldon, CA 93283

Kern Valley Indian Council Historic  
Preservation Office  
P.O. Box 401  
Weldon, CA 93283

Audubon California  
Garry George  
Renewable Energy Director  
4700 Griffin Ave  
Los Angeles, CA 90031

Tejon Indian Tribe  
Attn: Candice Garza  
4941 David Road  
Bakersfield, CA 93307

Kitanemuk & Yowlumne Tejon Indians  
Attn: Chairperson  
115 Radio Street  
Bakersfield, CA 93305

San Fernando Band of Mission Indians  
Attn: John Valenzuela, Chairperson  
P.O. Box 221838  
Newhall, CA 91322

Tule River Indian Tribe Neal  
Peyron, Chairperson  
P.O. Box 589  
Porterville, CA 93258

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28999 South Lower Valley Road  
Tehachapi, CA 93561-6529

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Bellanave Corporation  
George Borba  
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Bear Valley Springs Assoc Environmental  
Control Committee  
29541 Rolling Oak Drive  
Tehachapi, CA 93561

Country Oak Homeowners Assoc  
PO Box 1424  
Tehachapi, CA 93581

Bolthouse Properties  
Attn: Brad DeBranch  
2000 Oak Street, Suite 250  
Bakersfield, CA 93301

Capitol Oil Corporation  
3840 Watt Avenue, Bldg B  
Sacramento, CA 95821-2640

Center Race, Poverty & Environmental  
CA Rural Legal Assistance Foundation  
1012 Jefferson Street  
Delano, CA 93215

Rosamond Skypark  
Attn: George Fischer  
4000 Knox Avenue  
Rosamond, CA 93560

Clifford, Jenkins & Brown  
1430 Truxtun Avenue, Suite 900  
Bakersfield, CA 93301

Hurlbutt, Clevenger, Long,  
Vortmann & Rauber  
615 South Atwood Street  
Visalia, CA 93277

Crimson Resource Management  
Attn: Kristine Boyer  
5001 California Avenue, Suite 206  
Bakersfield, CA 93309

Cummings Valley Protective Association  
P.O. Box 1020  
Tehachapi, CA 93581

State Dept of Parks/Hungry Valley  
PO Box 1360  
Lebec, CA 93243

Metro Water Dist. of So. Cal Ms.  
Rebecca De Leon Envir. Planning Team  
700 N. Alameda Street, US3-230  
Los Angeles, CA 90012

Kern River Parkway Committee  
PO Box 1861  
Bakersfield, CA 93303

Kern River Valley Chamber of Commerce  
Attn: Katherine Evans  
P.O. Box 567  
Lake Isabella, CA 93240

Tehachapi Resource Cons Dist.  
321 West "C" Street  
Tehachapi, CA 93561-2011

LIUNA  
Attn: Danny Zaragoza  
2201 "H" Street  
Bakersfield, CA 93301

Nature Conservancy West Reg Office  
201 Mission Street, 4th Floor  
San Francisco, CA 94105

Tricor Energy, LLC  
190 Newport Center Drive, Suite 100  
Newport Beach, CA 92660

AE Corporation Planning Dept  
901 Via Piemonte, 5th Floor  
Ontario, CA 91764

WZI, Inc.  
1717 - 28th Street  
Bakersfield, CA 93301

Tulare Basin Wetlands Association  
Attn: Dennis Slater  
5316 Muirfield Drive  
Bakersfield, CA 93306-9704

Bakersfield City Parks & Rec Dept  
4101 Truxtun Avenue  
Bakersfield, CA 93301

Buttonwillow Rec & Parks Dist  
P.O. Box 434  
Buttonwillow, CA 93206-9320

Vintage Petroleum, LLC  
Attn: Teri Altenburger  
10800 Stockdale Highway  
Bakersfield, CA 93311

Bear Mountain Rec & Parks Dist  
P.O. Box 658  
Lamont, CA 93241

Shafter Rec & Parks Dist  
700 East Tulare Avenue  
Shafter, CA 93263

Tehachapi Parks & Recreation Dist  
P.O. Box 373  
Tehachapi, CA 93561

West Side Rec & Parks Dist  
P.O. Box 1406  
Taft, CA 93268

State Dept of Public Utilities Commission  
505 Van Ness Avenue, Rm 2003  
San Francisco, CA 94102-3214

Northwest Kern Resource Cons Dist  
5080 California Avenue, Suite 150  
Bakersfield, CA 93309

So. San Joaquin Muni Utility Dist  
P.O. Box 279  
Delano, CA 93216

Desert Lake Community Service District  
P.O. Box 567  
Boron, CA 93516

Arvin Community Services Dist  
309 Campus Drive  
Arvin, CA 93203

California City Public Works Dept  
8190 California City Blvd.  
California City, CA 93505

Frazier Park Public Utility Dist  
P.O. Box 1512  
Frazier Park, CA 93225

Rosamond Community Serv Dist  
3179 - 35th Street West  
Rosamond, CA 93560

Enos Lane Public Utility Dist  
P.O. Box 22198  
Bakersfield, CA 93390

Lake Isabella Community Serv Dist  
P.O. Box 647  
Lake Isabella, CA 93240

Boron Community Service Dist  
P.O. Drawer B  
Boron, CA 93516

Inyokern Community Serv Dist  
P.O. Box 1418  
Inyokern, CA 93527

Mojave Public Utility Dist  
15844 "K" Street  
Mojave, CA 93501

East Niles Community Serv Dist  
P.O. Box 6038  
Bakersfield, CA 93306

Lost Hills Utility Dist  
P.O. Box 249  
Lost Hills, CA 93249

Stallion Springs Community Services Dist  
28500 Stallion Springs Drive  
Tehachapi, CA 93561

Golden Hills Community Serv Dist  
P.O. Box 637  
Tehachapi, CA 93581

Wasco Public Works Dept  
801 - 18th Street  
Wasco, CA 93280

Quail Valley Water Dist  
3200 21st Street, Ste 401  
Bakersfield, CA 93301

Lamont Public Utility Dist  
8624 Segrue Road  
Lamont, CA 93241

Shafter-Wasco Irrigation Dist  
P.O. Box 1168  
Wasco, CA 93280-8068

Superior Mutual Water Co  
19474 Enos Lane  
Bakersfield, CA 93312-9501

Indian Wells Valley Groundwater Authority  
500 West Ridgecrest Boulevard  
Ridgecrest, CA 93555

Stockdale Mutual Water Co  
P.O. Box 788  
Bakersfield, CA 93302

Alta Sierra Mutual Water Co  
10502 Sequoia Drive, No. 11  
Wofford Heights, CA 93285

Semi Tropic Water Storage Dist  
P.O. Box Z  
Wasco, CA 93280

Rosedale-Rio Bravo Water Dist  
849 Allen Road  
Bakersfield, CA 93314

Ashe Water Dist - Dept of Water Resources  
4101 Truxtun Avenue  
Bakersfield, CA 93309

Aerial Acres Water System  
18110 Avenue B  
North Edwards, CA 93523

Arvin-Edison Water Storage Dist  
P.O. Box 175  
Arvin, CA 93203

Belridge Water Storage Dist  
21908 Seventh Standard Road  
McKittrick, CA 93251

Tehachapi-Cummings Co Water Dist  
P.O. Box 326  
Tehachapi, CA 93561

Bella Vista Water Co  
Attn: Gerald Hyneman  
P.O. Box 15309  
Weldon, CA 93283

Brock Mutual Water Co  
12001 Brockridge Court  
Bakersfield, CA 93309

Antelope Valley-E. Kern Water Agency  
6500 West Avenue N.  
Palmdale, CA 93551

Bodfish Water Co  
P.O. Box 842  
Lake Isabella, CA 93240

Tejon-Castaic Water Dist  
P.O. Box 1000  
Lebec, CA 93243

Bakersfield City Water Resource Dept  
1000 Buena Vista Road  
Bakersfield, CA 93311

Buttonwillow County Water Dist  
P.O. Box 874  
Buttonwillow, CA 93206

California Water Service Co  
3725 South "H" Street  
Bakersfield, CA 93304

Berrenda Mesa Water Dist  
14823 Highway 33  
Lost Hills, CA 93249-9734

Cawelo Water Dist  
17207 Industrial Farm Road  
Bakersfield, CA 93308-9801

Edgemont Acres Water Co  
P.O. Box 966  
North Edwards, CA 93523

Buena Vista Water Storage Dist  
P.O. Box 756  
Buttonwillow, CA 93206

Edmonston Acres Muni Water Co  
25465 Barbara Street  
Arvin, CA 93203

Friant Water Users Authority  
854 North Harvard Avenue  
Lindsay, CA 93247-1715

Casa Loma Water Co  
1016 Lomita Drive  
Bakersfield, CA 93307

Erskine Creek Water Co  
P.O. Box 656  
Lake Isabella, CA 93240

West Kern Water Dist  
P.O. Box 1105  
Taft, CA 93268-1105

Kern River Groundwater Sustainability  
Agency City Hall North  
1600 Truxtun Avenue  
Bakersfield, CA 93301

Vaughn Water Co.  
10014 Glenn Street  
Bakersfield, CA 93312

Greenfield County Water Dist  
551 Taft Highway  
Bakersfield, CA 93307

Edmonston Acres Muni Water Co  
25465 Barbara Street  
Arvin, CA 93203

Gosford Road Water Assoc  
13958 Gosford Road  
Bakersfield, CA 93313

Kern Delta Water Dist  
501 Taft Highway  
Bakersfield, CA 93307

Goose Lake Water Co  
16232 Palm Avenue  
Bakersfield, CA 93314

California Regional Water Quality Control  
Board/Lahontan Region  
15095 Amargosa Road - Bld 2, Suite 210  
Victorville, CA 92392

Kern Water Bank Authority  
1620 Mill Rock Way, Suite 500  
Bakersfield, CA 93311

Wheeler Ridge-Maricopa Water Dist  
12109 Highway 166  
Bakersfield, CA 93313-9630

Kern-Tulare Water Dist  
5001 California Avenue, Suite 102  
Bakersfield, CA 93309-1692

La Hacienda Water Co, Inc.  
P.O. Box 60679  
Bakersfield, CA 93386-0679

Indian Wells Valley Water Dist  
P.O. Box 1329  
Ridgecrest, CA 93556

Lamont Storm Water Dist  
P.O. Box 543  
Lamont, CA 93241

Los Angeles Dept of Water & Power  
111 North Hope Street, Rm 1121 Los  
Angeles, CA 90012

Kern River Valley Water Co  
P.O. Box 1260  
Lake Isabella, CA 93240

Davenport Mutual Water Assn  
P.O. Box 1503  
Rosamond, CA 93560

Mountain Mesa Water Co  
12707 Highway 178  
Lake Isabella, CA 93240

Lake of Woods Mutual Water Co.  
7025 Cuddy Valley Road  
Frazier Park, CA 93225

Mettler County Water Dist  
1822 Steven Drive  
Bakersfield, CA 93313

North of the River Muni Water Dist  
P.O. Box 5638  
Bakersfield, CA 93388-5638

Lebec County Water Dist  
P.O. Box 910  
Lebec, CA 93243

North Kern Water Storage Dist  
P.O. Box 81435  
Bakersfield, CA 93380-1435

Pinion Pines Mutual Water Co  
1467 Tecuya Street  
Frazier Park, CA 93225

Lost Hills Water Dist  
1405 Commercial Way, Suite 125  
Bakersfield, CA 93309

Olcese Water Dist  
P.O. Box 60679  
Bakersfield, CA 93386-0679

Riverkern Mutual Water Co  
P.O. Box 856  
Kernville, CA 93238

North Edwards Water Dist  
13001 Claymine Road  
North Edwards, CA 93523

Rand Communities Co Water Dist  
P.O. Box 198  
Randsburg, CA 93554

Eastern Kern Resource Cons Dist  
300 South Richmond Road  
Ridgecrest, CA 93555-4436

Oildale Mutual Water Co  
P.O. Box 5638  
Bakersfield, CA 93388

Arvin Community Services Dist  
309 Campus Drive  
Arvin, CA 93203

Midway School Dist  
P.O. Box 39  
Fellows, CA 93224

Center on Race, Poverty, & Environment  
5901 Christie Avenue, Suite 208  
Emeryville, CA 94608

Kern Valley Resource Cons Dist  
P.O. Box 58  
Weldon, CA 93283

Muroc Unified School Dist  
17100 Foothill Avenue  
North Edwards, CA 93523

Antelope Valley Resource Cons Dist  
44811 Date Avenue, #G  
Lancaster, CA 93534-3136

Lost Hills Union School Dist  
P.O. Box 158  
Lost Hills, CA 93249

Richland-Lerdo Union School Dist  
331 Shafter Avenue  
Shafter, CA 93263

Lerdo School Dist  
331 Shafter Avenue  
Shafter, CA 93263

Mountain View School Dist  
8201 Palm Avenue  
Lamont, CA 93241

Semi Tropic School Dist  
25300 Highway 46  
Wasco, CA 93280-9540

Mojave Unified School Dist  
3500 Douglas  
Mojave, CA 93501

Pond Union School District  
29585 Pond Road  
Wasco, CA 93280-9772

South Fork Union School Dist  
5225 Kelso Valley Road  
Weldon, CA 93283

Norris School Dist  
6940 Calloway Drive  
Bakersfield, CA 93312

Rosedale Union School Dist  
2553 Old Farm Road  
Bakersfield, CA 93312

Taft City School Dist  
820 North 6th Street  
Taft, CA 93268

Rio Bravo-Greeley Union School Dist  
6521 Enos Lane  
Bakersfield, CA 93314

Sierra Sands Unified School Dist  
113 Felspar  
Ridgecrest, CA 93555

Vineland School Dist.  
8701 Weedpatch Highway  
Bakersfield, CA 93307

Shafter High School Dist  
526 Mannel Avenue  
Shafter, CA 93263

Standard School Dist  
1200 North Chester Avenue  
Oildale, CA 93308

Maricopa Unified School Dist  
955 Stanislaus Street  
Maricopa, CA 93252

Southern Kern Unified School Dist  
P.O. Box CC  
Rosamond, CA 93560

Tehachapi Unified School Dist  
300 S Robinson Street  
Tehachapi, CA 93561

Beardsley School Dist  
1001 Roberts Lane  
Bakersfield, CA 93308

Taft Union High School Dist  
701 7th Street  
Taft, CA 93268

Wasco Union Elementary School Dist  
639 Broadway  
Wasco, CA 93280

Buttonwillow Union School Dist  
42600 Highway 58  
Buttonwillow, CA 93206

Wasco Union High School Dist  
P.O. Box 250  
Wasco, CA 93280

Bakersfield City School Dist  
Education Center  
1300 Baker Street  
Bakersfield, CA 93305

Delano Joint Union High School Dist  
1720 Norwalk Street  
Delano, CA 93215-1456

Arvin High School  
900 Varsity Street  
Arvin, CA 93203

Panama-Buena Vista School Dist  
4200 Ashe Road  
Bakersfield, CA 93313

Edison School Dist  
P.O. Box 368  
Edison, CA 93220-0368

Blake School Dist  
P.O. Box 53  
Woody, CA 93287

West Kern Community College Dist  
Attn: Office of the President  
29 Emmons Park Drive  
Taft, CA 93268

Fairfax Union School Dist  
1501 South Fairfax Road  
Bakersfield, CA 93307

Caliente Union School Dist  
12400 Caliente Creek Road  
Caliente, CA 93518



DiGiorgio School Dist  
Route 1, Box 34  
Arvin, CA 93203

Greenfield Union School Dist  
Attn: Darrell Hawley, Director of Facilities  
1624 Fairview Road  
Bakersfield, CA 93307

Delano Union School Dist.  
1405 12th Avenue  
Delano, CA 93215

Elk Hills School Dist  
P.O. Box 129  
Tupman, CA 93276

Kern Valley High School  
3340 Erskine Creek Road  
Lake Isabella, CA 93240

El Tejon Unified School Dist  
P.O. Box 876  
Lebec, CA 93243

General Shafter School Dist  
1825 Shafter Road  
Bakersfield, CA 93313

Lamont School Dist  
8201 Palm Avenue  
Lamont, CA 93241

Fruitvale School Dist.  
7311 Rosedale Highway  
Bakersfield, CA 93308-5738

McFarland Unified School Dist  
601 Second Street  
McFarland, CA 93250

U.S. Marine Corps  
Attn: Patrick Christman  
W. Regional Environmental Officer  
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Camp Pendleton, CA 92055-5246

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2100 Chester Avenue  
Bakersfield, CA 93301

Lakeside Union School Dist  
14535 Old River Road  
Bakersfield, CA 93311

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11512 El Camino Real, Suite 370  
San Diego, CA 92130

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Lake Isabella, CA 93240

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Office of Strategic Integration 721  
19th Street, Room 427  
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Maple School Dist  
29161 Fresno Avenue  
Shafter, CA 93263

U.S. Navy  
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Regional Community & Liaison Officer  
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San Diego, CA 92132-5190

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Livermore Lab Foundation  
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Oakland, CA 94607

## Notice of Completion & Environmental Document Transmittal

SCH # **2013081079**

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613

For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

**Project Title:** SSREIR for Revisions to Title 19 – Kern County Zoning Ordinance (2024) focused on oil and gas local permitting.

Lead Agency: Kern County Planning and Natural Resources Department

Contact Person: Keith Alvidrez

Mailing Address: 2700 "M" Street Suite 100

Phone: (661) 862-5015

City: Bakersfield

Zip: 93301

County: Kern

**Project Location:** County: Kern City/Nearest Community: Multiple

Cross Streets: N/A Zip Code: Multiple

Lat. / Long.: N/A Total Acres: Approx 2.3 million sq acres

Assessor's Parcel No.: Multiple Section: Multiple Twp.: Multiple Range: Multiple Base: Multiple

Within 2 Miles: State Hwy #: 99, 58, 43, 46, 119, 223, 204, 33 Waterways: Kern River

Airports: Multiple Railways: Multiple

Schools: Multiple

### Document Type:

CEQA: ☒ NOP  
☐ Early Cons  
☐ Neg Dec  
☐ Mit Neg Dec

☐ Draft EIR  
☐ Supplement/Subsequent EIR  
(Prior SCH No.) \_\_\_\_\_  
Other \_\_\_\_\_

NEPA: ☐ NOI  
☐ EA  
☐ Draft EIS  
☐ FONSI

Other: ☐ Joint Document  
☐ Final Document  
☐ Other \_\_\_\_\_

### Local Action Type:

☐ General Plan Update  
☐ General Plan Amendment  
☐ General Plan Element  
☐ Community Plan

☐ Specific Plan  
☐ Master Plan  
☐ Planned Unit Development  
☐ Site Plan

☐ Rezone  
☐ Prezone  
☐ Use Permit  
☐ Land Division (Subdivision, etc.)

☐ Annexation  
☐ Redevelopment  
☐ Coastal Permit  
☒ Other: Zoning Ordinance

### Development Type:

☐ Residential: Units \_\_\_\_\_ Acres \_\_\_\_\_  
☐ Office: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  
☐ Commercial: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  
☐ Industrial: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  
☐ Educational \_\_\_\_\_  
☐ Recreational \_\_\_\_\_

☐ Water Facilities: Type \_\_\_\_\_ MGD \_\_\_\_\_  
☐ Transportation: Type \_\_\_\_\_  
☐ Mining: Mineral \_\_\_\_\_  
☐ Power: Type \_\_\_\_\_ MW \_\_\_\_\_  
☐ Waste Treatment: Type \_\_\_\_\_ MGD \_\_\_\_\_  
☐ Hazardous Waste: Type \_\_\_\_\_  
☒ Other: Oil and Gas Exploration and Production

### Project Issues Discussed in Document:

☐ Aesthetic/Visual  
☒ Agricultural Land  
☒ Air Quality  
☐ Archeological/Historical  
☐ Biological Resources  
☐ Coastal Zone  
☐ Drainage/Absorption  
☐ Economic/Jobs  
☐ Other \_\_\_\_\_

☐ Fiscal  
☐ Flood Plain/Flooding  
☐ Forest Land/Fire Hazard  
☐ Geologic/Seismic  
☐ Minerals  
☐ Noise  
☐ Population/Housing Balance  
☐ Public Services/Facilities

☐ Recreation/Parks  
☐ Schools/Universities  
☐ Septic Systems  
☐ Sewer Capacity  
☐ Soil Erosion/Compaction/Grading  
☐ Solid Waste  
☐ Toxic/Hazardous  
☐ Traffic/Circulation

☐ Vegetation  
☐ Water Quality  
☒ Water Supply/Groundwater  
☐ Wetland/Riparian  
☐ Wildlife  
☐ Growth Inducing  
☐ Land Use  
☐ Cumulative Effects

**Present Land Use / Zoning / Map Code Designations:** Developed and undeveloped land in Kern County. Current Zoning Classifications and General Map Code Designations to remain the same.

**Project Description:** The proposed project is the preparation of Second Supplemental Recirculated EIR (SSREIR) for reconsideration of Revisions to Title 19 of the Kern County Zoning Ordinance (2020 A) for local permitting for oil and gas focused on Chapter 19.98 (Oil and Gas Production). On November 9, 2015, the Kern County Board of Supervisors approved amendments to Title 19 of the Kern County Zoning Ordinance, Chapter 19.98 (Oil and Gas Production) and related sections of the Kern County Zoning Ordinance to address oil and gas exploration and operation activities within the

proposed project area in greater detail. The Board of Supervisors also certified an Environmental Impact Report (EIR) analyzing the impacts of the amendments, and the implementation of future oil and gas development activities expected to be undertaken pursuant to the amended Ordinance in accordance with the California Environmental Quality Act (CEQA). In response to continued litigation, the Board of Supervisors certified on March 8, 2021, a Final Supplemental Recirculated Environmental Impact Report (SREIR) and adopted a Revised Ordinance. Various parties sued to challenge the decision and on March 7, 2024, the Appellate Court issued a second opinion directing the County to continue to suspend permitting under the ordinance and to correct three CEQA violations... before certifying the revised environmental impact report as complete and approving such an ordinance. The purpose of this SSREIR is to provide analysis to address the CEQA issues found by the Appellate Court decision and provide compliance for CEQA for the reconsideration by the Planning Commission and Board of Supervisors of the Zoning Ordinance revisions focused on oil and gas local permitting.

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X". If you have already sent your document to the agency, please denote that with an "S".

<u>      S      </u> Air Resources Board	<u>      </u> Office of Emergency Services
<u>      </u> Boating & Waterways, Department of	<u>      S      </u> Office of Historic Preservation
<u>      </u> California Highway Patrol	<u>      </u> Office of Public-School Construction
<u>      S      </u> CalFire	<u>      X      </u> Parks & Recreation
<u>      S      </u> Caltrans District # <u>6</u>	<u>      </u> Pesticide Regulation, Department of
<u>      S      </u> Caltrans Division of Aeronautics	<u>      </u> Public Utilities Commission
<u>      </u> Caltrans Planning (Headquarters)	<u>      S      </u> Regional WQCB # <u>Central</u>
<u>      </u> Central Valley Flood Protection Board	<u>      X      </u> Resources Agency
<u>      </u> Coachella Valley Mountains Conservancy	<u>      </u> S.F. Bay Conservation & Development Commission
<u>      </u> Coastal Commission	<u>      </u> San Gabriel & Lower L.A. Rivers and Mtns Conservancy
<u>      </u> Colorado River Board	<u>      </u> San Joaquin River Conservancy
<u>      S      </u> Conservation, Department of	<u>      </u> Santa Monica Mountains Conservancy
<u>      </u> Corrections, Department of	<u>      S      </u> State Lands Commission
<u>      </u> Delta Protection Commission	<u>      </u> SWRCB: Clean Water Grants
<u>      </u> Education, Department of	<u>      S      </u> SWRCB: Water Quality
<u>      S      </u> Energy Commission	<u>      </u> SWRCB: Water Rights
<u>      S      </u> Fish & Game Region # <u>Fresno</u>	<u>      </u> Tahoe Regional Planning Agency
<u>      S      </u> Food & Agriculture, Department of	<u>      S      </u> Toxic Substances Control, Department of
<u>      </u> General Services, Department of	<u>      S      </u> Water Resources, Department of
<u>      </u> Health Services, Department of	
<u>      </u> Housing & Community Development	<u>      </u> Other _____
<u>      S      </u> Integrated Waste Management Board	<u>      </u> Other _____
<u>      S      </u> Native American Heritage Commission	

Starting Date March 22, 2024 Ending Date April 22, 2024

Consulting Firm: \_\_\_\_\_ Applicant: \_\_\_\_\_  
 Address: \_\_\_\_\_ Address: \_\_\_\_\_  
 City/State/Zip: \_\_\_\_\_ City/State/Zip: \_\_\_\_\_  
 Contact: \_\_\_\_\_ Phone \_\_\_\_\_  
 Phone: \_\_\_\_\_

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

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## **NOTICE OF PREPARATION**

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### **Second Supplemental Recirculated Environmental Impact Report (SSREIR) for Revisions to Title 19- Kern County Zoning Ordinance (2024) focused on oil and gas local permitting**

(SCH# 2013081079)

Requested by:  
Western States Petroleum Association  
California Independent Petroleum Association

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#### **LEAD AGENCY:**



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March 2024

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## INTRODUCTION

Pursuant to the California Environmental Quality Act (CEQA), the Kern County Planning and Natural Resources Department (County) will initiate the preparation of the Second Supplemental Recirculated Environmental Impact Report (SSREIR) for the revisions to Title 19-Kern County Zoning Ordinance (2024) focused on oil and gas local permitting in the western half of Kern County, California.

### 1. Project Description

#### 1.1. Project Location

The project area is located in the western half of Kern County (County) and encompasses 3,700 square miles, which generally includes most of the San Joaquin Valley Floor portion of Kern County up to an elevation of 2,000 feet and additional areas in the southern portion of the project area. The project boundary is defined by the San Luis Obispo, Monterey, and Santa Barbara County lines on the west; the Kings and Tulare County lines on the north; the 2,000-foot elevation contours, squared off to the nearest section line on the east; and the northern boundary of the Los Padres National Forest and portions of the San Emigdio and Tehachapi Mountains on the south. The project boundary is based on information regarding areas with potential or confirmed oil and gas resources within the County's jurisdiction. The location of the project area is shown in *Figure 1 – Project Area Regional Location*.

Kern County is California's third-largest county in land area, encompassing 8,202 square miles. Located at the southern end of the Central Valley, Kern County serves as the gateway to southern California, the San Joaquin Valley, and California's high desert. The geography of Kern County is diverse, containing mountainous areas, agricultural lands, and desert areas.

Kern County is bounded by Kings, Tulare, and Inyo Counties on the north; San Bernardino County on the east; Los Angeles and Ventura Counties on the south; and Santa Barbara and San Luis Obispo Counties on the west. The County includes 11 incorporated cities within the San Joaquin Valley portion, including Arvin, Bakersfield, Delano, Maricopa, McFarland, Shafter, Taft, and Wasco. Oil and gas exploration and development activities have historically occurred in the San Joaquin Valley Floor portion of the County and are likely to occur within this area in the coming decades. For this reason, the SSREIR evaluates potential impacts of future oil and gas exploration and production activities, to be specified, in a defined boundary as shown in *Figure 1 – Project Area Regional Location*. For purposes of this project, this area will be referred to as the Project Boundary Area.

The Project Boundary Area includes all unincorporated lands within the 409-square-mile Metropolitan Bakersfield General Plan. However, the Project Boundary Area excludes portions of Metropolitan Bakersfield that are within the jurisdiction of the City of Bakersfield, and excludes all other city jurisdictions, including: Taft, Delano, Shafter, Arvin, McFarland, Maricopa, and Wasco. The Project Boundary is based on generally available information regarding areas with potential or confirmed oil and gas resources within the County's jurisdiction.



The Kern County General Plan Update describes the San Joaquin Valley region as “the southern San Joaquin Valley below an elevation of 1,000 feet mean sea level (MSL)” within Kern County. The San Joaquin Valley portion is characterized by relatively low rainfall, averaging less than 10 inches per year. Average temperatures are relatively high, and total evaporation exceeds total precipitation. Summers are relatively cloudless, hot, and dry. Winter is generally mild, but an occasional freeze does occur and may cause substantial agricultural damage. The average length of the growing season is 265 days. The San Joaquin Valley region is within the southern end of the San Joaquin Valley Air Basin, managed by the San Joaquin Valley Air Pollution Control District. This district encompasses Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties, as well as the San Joaquin Valley portion of Kern County. Further, the San Joaquin Valley region is within the Tulare Lake Groundwater Basin, which includes the Kern River Hydrographic Unit and the Poso Hydrographic Unit.

A total of 100 active or abandoned oil fields are currently delineated by California Geologic Energy Management Division (CalGEM) are located within the Project Boundary Area, as see in *Figure 2 – Administrative Oilfields in the Project Area by Subarea and Oilfield Status (Active or Abandoned)*. As shown below in *Table 1: Oil Field Currently Delineated by CalGEM within Project Boundary Area*, these CalGEM-delineated oil fields vary widely in size—from the smallest, Kernsummer and Temblor East Well Fields at 0.2 square miles, to the largest, Midway Sunset Well Field at 99.7 square miles. Oil and gas production also occurs outside of CalGEM-delineated oilfield boundaries.

**Table 1: Oil Field Currently Delineated by CalGEM within Project Boundary Area**

Count	Administrative Oil Field (Alpha Order)	Square Miles*	Acres*
1	Ant Hill	1.7	1,098.0
2	Antelope Hills	4.4	2,823.7
3	Antelope Plains Gas (Abd)	0.3	160.5
4	Asphalto	4.6	2,975.5
5	Beer Nose	1.0	644.8
6	Belgian Anticline	15.4	9,864.9
7	Bellevue	3.6	2,326.4
8	Blackwells Corner	3.6	2,308.1
9	Bowerbank	16.2	10,352.4
10	Buena Vista	46.9	29,993.3
11	Buttonwillow Gas (Abd)	10.0	6,378.7
12	Cal Canal Gas	5.5	3,515.2
13	Calders Corner	1.5	970.0
14	Canal	3.9	2,476.7



**KERN COUNTY PLANNING AND NATURAL RESOURCES DEPARTMENT**  
SSREIR – Revisions to Title 19-Kern County Zoning Ordinance (2024) focused on oil and gas local permitting

15	Canfield Ranch	13.3	8,536.4
16	Capiola Park	1.0	651.5
17	Cameros Creek	1.5	967.3
18	Chico Martinez	2.6	1,634.8
19	Cienaga Canyon	0.6	402.4
20	Comanche Point	1.9	1,202.7
21	Cymric	21.5	13,757.8
22	Devils Den	12.8	8,175.4
23	Dyer Creek	0.4	239.9
24	Eagle Rest	0.5	309.3
25	Temblor, East (Abd)	0.2	154.6
26	Edison	34.0	21,742.3
27	Elk Hills	72.9	46,630.7
28	English Colony	1.1	681.5
29	Fruitvale	18.3	11,714.2
30	Garrison City Gas (Abd)	4.7	3,017.4
31	Gonyer Anticline (Abd)	0.5	344.9
32	Goosloo	3.0	1,935.4
33	Greeley	9.4	6,022.4
34	Jasmin	10.3	6,607.4
35	Jerry Slough (Abd)	0.5	318.0
36	Kern River	25.8	16,532.6
37	Kern Bluff	4.2	2,668.6
38	Kern Front	19.0	12,136.1
39	Kernsummer (Abd)	0.2	159.7
40	Lakeside	1.3	804.0
41	Landslide	2.1	1,373.9
42	Los Lobos	6.1	3,892.3
43	Lost Hills	33.2	21,273.1
44	McClung (Abd)	0.5	319.6
45	McDonald Anticline	3.7	2,372.4
46	McKittrick	10.6	6,776.8
47	Midway – Sunset **	99.7	63,832.8
48	Monument Junction	3.3	2,085.6



49	Mountain View	28.5	18,251.2
50	Mount Poso	45.9	29,360.5
51	Antelope Hills, North	3.9	2,466.8
52	Belridge, North	9.1	5,800.9
53	Coles Levee, North	15.1	9,671.0
54	Shafter, North	7.5	4,768.3
55	Tejon, North	9.2	5,914.3
56	Edison, Northeast	0.6	408.8
57	Lost Hills, Northwest	8.6	5,507.7
58	Semitropic Gas, Northwest (Abd)	0.5	322.5
59	Paloma	29.7	18,985.0
60	Pioneer	1.0	642.8
61	Pleito	3.0	1,927.3
62	Poso Creek	30.9	19,806.9
63	Railroad Gap	1.7	1,101.2
64	Rio Bravo	6.1	3,925.0
65	Rio Viejo	4.1	2,641.7
66	Rose	5.5	3,522.1
67	Rosedale	3.6	2,321.0
68	Rosedale Ranch	5.0	3,213.3
69	Round Mountain	19.2	12,265.9
70	Round Mountain South	0.4	276.7
71	San Enidio Nose	7.6	4,880.5
72	San Enmigdio (Abd)	0.5	306.1
73	San Enmigdio Creek (Abd)	0.5	340.7
74	Semitropic	25.1	16,077.3
75	Seventh Standard	0.5	320.3
76	Shafter (Abd)	0.5	321.2
77	Shafter Southeast Gas (Abd)	1.0	641.5
78	Shale Flats Gas (Abd)	1.0	647.1
79	Shale Point Gas	0.6	387.2
80	Bellridge, South	25.3	16,218.0
81	Coles Levee, South	17.7	11,328.4
82	Lakeside, South (Abd)	0.3	160.4



83	Stockdale	2.4	1,567.5
84	Strand	7.9	5,068.5
85	Tejon	11.3	7,227.8
86	Tejon Flats (Abd )	0.3	161.0
87	Tejon Hills	6.7	4,283.2
88	Temblor Hills	1.0	643.9
89	Temblor Ranch	0.5	318.4
90	Ten Section	7.4	4,725.9
91	Trico Gas **	6.8	4,359.4
92	Union Ave.	1.0	655.3
93	Valpredo	0.3	163.1
94	Wasco	4.0	2,575.6
95	Welcome Valley	0.8	490.4
96	Bellevue, West	2.0	1,248.3
97	Jasmin, West (Abd)	0.5	321.6
98	Wheeler Ridge	8.1	5,203.7
99	White Wolf	1.3	846.3
100	Yowlumne	10.1	6,446.8
TOTAL		931.4	596,198.3
Source: California Division of Oil, Gas and Geothermal Resources, Field Boundaries, March 6, 2013.			
Notes:			
* Numbers are approximate			
**Oilfield located on the border of Kern County and an adjacent county; acreages within Kern County are approximate.			
Key:			
Abd = Abandoned			

## 1.2. Project Setting

On November 9, 2015, the Kern County Board of Supervisors approved amendments to Title 19 of the Kern County Zoning Ordinance (Ordinance), Chapter 19.98 (Oil and Gas Production) and related sections of the Ordinance to address oil and gas exploration and operation activities within the project area in greater detail. The Board of Supervisors also certified an EIR analyzing the impacts of the amendments and the implementation of future oil and gas development activities expected to be undertaken pursuant to the amended Ordinance in accordance with CEQA.



As discussed in more detail in Section 1.5, below, the previously approved Ordinance amendments and certified EIR were directed to be set aside on March 26, 2020, pursuant to an opinion issued by the Appellate Court on February 25, 2020. The Appellate Court opinion rejected most of the legal challenges to the certified EIR except for five “CEQA violations” that the County must correct “in the event it decides to present the Ordinance (in its present or a modified form) to the Board for reapproval.” In response, the County prepared a Supplemental Recirculated Environmental Impact Report which was circulated twice with a final decision and adoption of a Revised Ordinance and Final Supplemental Recirculated Environmental Impact Report (SREIR) by the Kern County Board of Supervisors on March 8, 2021. Various parties sued to challenge the decision and on March 7, 2024, the Appellate Court issued a second opinion directing the County to continue to suspend permitting under the ordinance and to correct three “CEQA violations. . .before certifying the revised environmental impact report as complete and approving such an ordinance.”

The County is preparing this Second Recirculated EIR to provide analysis addressing the CEQA deficiencies found by the March 7, 2024 Appellate Court decision. The Draft Second SSREIR will provide compliance for CEQA for the reconsideration by the Planning Commission and Board of Supervisors of Zoning Ordinance revisions focused on Oil and Gas Local Permitting.

Although the project area encompasses 3,700 square miles, the proposed project includes only unincorporated County land. Therefore, the Project includes unincorporated County land within the 409- square-mile Metropolitan Bakersfield Planning Area (a joint planning area containing both County and City land) but excludes all adjacent City of Bakersfield land. The Project also excludes all other city jurisdictions, such as Taft, Delano, Shafter, Arvin, McFarland, Maricopa, and Wasco. Lands under the jurisdiction of various state and federal agencies, including the Bureau of Land Management, U.S. Fish and Wildlife Service, and the California State Lands Commission, are also included within the 3,700-square-mile project area but are excluded from the Project impact analysis. Ancillary equipment and land uses (e.g., pipelines and access roads on unincorporated County lands) are included in the project area and regulated by the County even though such equipment and land uses may serve wells on non-jurisdictional County lands (e.g., incorporated cities or federal/state lands). The Project impact analysis conservatively assumes that all new well activities in Kern County would occur within the portion of the project area subject to the County’s jurisdiction. Non-jurisdictional portions of the project area are included as part of the cumulative Project impact analysis.

To facilitate detailed analysis, the Project impact analysis divides the project area into three Project Subareas, the Western Subarea, the Central Subarea and the Eastern Subarea, which generally reflect major transportation corridors. The locations of the three Project Subareas are shown on *Figure 3 – Project Subareas*.

The Western Subarea consists of 1,714 square miles (1,096,842 acres) and is generally bounded by the Kern County border on the north and west, Los Padres National Forest on the south, and Interstate 5 on the east. The Western Subarea contains many of the large-scale oil and gas extraction-level operations in the project area and includes 37 active oil and gas fields. Five of





these oil and gas fields are the largest in California by production volume. The Western Subarea also includes dispersed agricultural operations and unincorporated areas around the cities of Taft and Maricopa.

The Central Subarea consists of 1,025 square miles (656,003 acres) and is generally bounded by the Kern County border on the north, Interstate 5 on the west, and State Routes 65 and 223 on the east. The Central Subarea contains 21 active oil and gas fields, some with large-scale production activity. The Central Subarea contains some of the County's deepest wells, with oil operations co-locating with predominant agricultural activities in this subarea. The Central Subarea contains parts of the unincorporated Metropolitan Bakersfield area and includes unincorporated areas around the cities of Shafter, Delano, Wasco, and McFarland.

The Eastern Subarea consists of 953 square miles (609,889 acres) and is generally bounded by the County border on the north, State Routes 65 and 223 on the west, and mountain ranges on the east and the south. The Eastern Subarea contains 20 active oil and gas fields, along with several large-scale oil and gas production areas, such as the Kern River Oilfield north of the City of Bakersfield. The Eastern Subarea includes parts of the unincorporated Metropolitan Bakersfield area and unincorporated areas around the city of Arvin.

Kern County is the largest oil-producing county in the state. In 2012, 43,000 active oil and gas, dry gas, and gas storage wells, 78% of all active wells in California, were located in Kern County. In addition, 80% of all oil and natural gas produced in California came from wells in Kern County. The first commercially developed oilfield in Kern County was the McKittrick Field, which was developed in 1898. Development was facilitated by the presence of the Southern Pacific Railroad from Bakersfield to McKittrick. The Kern River Field, north of Bakersfield, was established in 1899 with the discovery of oil at that time. By 1903, 796 wells had produced almost 17 million barrels of oil from the Kern River Field. In the mid-1930s, several oilfields were found in large anticlines in Miocene oil sands beneath the valley floor. These discoveries were made following the advent of the reflection seismograph. Discoveries included the Ten Section, Greeley, Rio Bravo, North Coles Levee, South Coles Levee, and Strand oil fields.

### **1.3. Project Description**

The proposed project consists of the reconsideration of amendments to Title 19 of the Kern County Zoning Ordinance, Chapter 19.98 (Oil and Gas Production) and related sections of the Ordinance, and the implementation of future oil and gas development activities expected to be undertaken pursuant to the amended Ordinance. In January 2013, the California Independent Petroleum Association, Independent Oil Producers Agency and the Western States Petroleum Association (the "Project Proponents") requested that the County consider amending the Ordinance to address oil and gas exploration and operation activities within the project area in greater detail. Under Chapter 19.112 of the Ordinance, amendments to the text of the Zoning Title of the Ordinance can only be initiated by the Kern County Board of Supervisors. On November 9, 2015, the County certified an EIR for the Project and approved the Ordinance amendments. As discussed in more detail in Section 1.5, below, the previously approved Ordinance amendments and certified EIR were directed to be set aside, effective March 26, 2020, pursuant to an Appellate Court opinion



issued on February 25, 2020. In response, the County prepared a Supplemental Environmental Impact Report which was circulated twice with a final decision and adoption of a Revised Ordinance and Final Supplemental Recirculated Environmental Impact Report (SREIR) by the Kern County Board of Supervisors on March 8, 2021. Various parties sued the decision and on March 7, 2024, the Appellate Court opinion directed the County to continue to suspend permitting under the ordinance and to correct three “CEQA violations” “before certifying the revised environmental impact report as complete and approving such an ordinance. The proposed project would amend the Zoning Ordinance to focus on local permitting for oil and gas exploration and operation activities within the project area in greater detail by:

- a) Establishing updated development and implementation standards and conditions to address environmental impacts of pre-drilling exploration, well drilling, and the operation of wells and other oil and gas production-related equipment and facilities, including exploration, production, completion, stimulation, reworking, injection, monitoring, and plugging and abandonment; and
- b) Establishing new “Oil and Gas Conformity Review” and “Minor Activity Review” ministerial permit procedures for County approval of future well drilling and operations to ensure compliance with the updated development and implementation standards and conditions and provide for ongoing tracking and compliance monitoring.

The primary changes that would be made to the Zoning Ordinance if the proposed project is approved by the County are as follows:

- a) Chapter 19.98 of the Ordinance would be comprehensively overhauled to remove the “Unrestricted Drilling” section and to update the “Drilling by Ministerial Permit” and “Drilling by Conditional Use Permit” sections. This update would require that all new oil and gas wells for exploration or production obtain approval from the Kern County Natural Resources and Planning Department prior to commencing drilling.
- b) A Tier System would be incorporated into Chapter 19.98 of the Ordinance to address the different land uses and zone districts where oil and gas activities occur. The Tier System would be made up of five distinct Tiers, including Tier 1, areas primarily consisting of existing oil and gas activities; Tier 2, areas primarily consisting of existing agricultural activities; Tier 3, areas primarily consisting of existing industrial development; Tier 4, areas primarily consisting of existing urban development in which oil and gas activities require a conditional use permit, and Tier 5 areas consisting of existing, and future adopted Specific Plans. The locations of the Tier areas that would be added to the Ordinance are shown in *Figure 4 – Oil and Gas Activity Tiers 1–5 Locations*.
- c) An Oil and Gas Conformity Review would be required as part of the “Drilling by Ministerial Permit” Section that would be added to the Ordinance in the proposed amendments to allow for comprehensive review of all drilling activities. The review would require consistent, comprehensive mitigation based on defined Tiers of surrounding land uses, as would be specified in the amended Ordinance and in the Mitigation, Monitoring,



- and Reporting Plan (MMRP) that would be adopted with the proposed amendments. An application package would be submitted to the County that includes a site plan and written documentation ensuring compliance with all applicable development and implementation standards and conditions, including the MMRP.
- d) A Minor Activity Review would be required as part of the “Drilling by Ministerial Permit” section that would be added to the Ordinance in the proposed amendments to allow for comprehensive review of minor oil and gas activities. The review would require consistent, comprehensive mitigation based on defined Tiers of surrounding land uses, as would be specified in the amended Ordinance and in the MMRP. An application package would be submitted with written documentation ensuring compliance with all applicable Development and Implementation Standards and Conditions, including the MMRP.
- e) The Development and Implementation Standards and Conditions section of the Ordinance would be updated by the proposed amendments to require compliance with all applicable mitigation measures in the MMRP and additional regulatory requirements. Some of the new standards would include setbacks from sensitive receptors, reductions in the overall footprint of drilling areas, new screening requirements, and measures to avoid or reduce impacts to resources such as biological and cultural areas, groundwater, and air quality.
- f) For all Oil and Gas Conformity Review Site Plans submitted to the County, an applicant would be required to submit a signature block and statement as part of the application package. The signature block would provide for the signatures of the applicant and, if different, the Mineral Owner of the land subject to a proposed Site Plan. In addition, for activities occurring on split estate lands, where the Land/Surface Owner is different from the Mineral Owner, the signature block would provide for the signature of the Land/Surface Owner. For applications submitted with the required signature block and statement, the first review by the County would take place within seven business days. If the County finds the application to be incomplete and requests additional information, a second review would take place within three business days upon receipt of the requested information.
- g) The proposed Ordinance amendments also include a separate application processing procedure for applications on split estate lands that are lacking a signature block signed by the Land/Surface Owner. For applications submitted without the required signature block and statement, the review process would take 30 days to allow time for surface owner consultation, with an automatic 30-day second review period. Should the applicant obtain the Land/Surface Owner’s signature during either 30-day review period, the application would be processed within seven days. However, applications would not be rejected for lack of a signature by the Land/Surface Owner.
- h) A new fee structure would be included to ensure that all mitigation is complied with and that the County will be sufficiently staffed to review all new applications.
- i) Other sections of the Ordinance would be updated by the proposed amendments to ensure consistency with the MMRP and other regulatory requirements. These sections include



- 19.08 – Interpretations and General Standards, 19.48 – Drilling Island (DI) District, 19.50 – Floodplain Primary District, 19.66 – Petroleum Extraction (PE) Combining District, 19.81 – Outdoor Lighting (Dark Skies Ordinance), 19.88 – Hillside Development, 19.102 – Permit Procedures, and 19.108 – Nonconforming Uses, Structures, and Lots.

The proposed project impact analysis conservatively assumes that over a 25-year planning horizon an average of 2,697 new producing wells per year could be drilled in the project area and subject to permitting under the amended Ordinance. The level of well drilling in any given year may be higher or lower than this average, consistent with the variations in well drilling activities that have historically occurred due to market and other conditions. “Producing wells” refers to oil and gas, dry gas, dry hole, and liquid petroleum gas wells. Each well drilled may be associated with a number of other oil and gas activities. For purposes of the Project impact analysis, oil and gas activities are divided into two sets of components: (1) construction activities, which may include but are not limited to geophysical surveys, access road and well pad construction, drilling, well completion and testing, distribution line construction, well re-working and workovers, well decommissioning, and well abandonment; and (2) operational activities, which may include but are not limited to geophysical monitoring, produced fluids and natural gas treatment, water management, well stimulation treatment, enhanced oil recovery activities, and water and waste gas injection via injection well.

Wells may also need to be “re-worked” during the operating life span of the well to adjust for evolving field conditions or new technologies (e.g., well stimulation). Finally, decommissioning and abandonment involves abandoning wells and plugging activities. Accordingly, while construction activities are considered separately from operational activities because of their limited duration, activities categorized as “construction” occur continually throughout exploration, development, production, and closure. Exploration, development, production, and closure involve the following short-term construction activities. At a particular site, these activities may take place in the order listed below or in a different sequence:

- Geophysical Surveys
- Well Pad Preparation;
- Testing;
- Access Road Construction;
- Electrical Distribution Line and Substation Construction;
- Drilling;
- Well Completion;
- Construction of Oil, Gas Treatment Facilities;
- Construction of Water Treatment Facilities;



- Steam Generator Construction;
- Construction of Tankage and Containment Structures;
- Pipeline Installation;
- Construction of Sumps, Evaporation Ponds and Percolation Ponds;
- Installation of Produced Water Injection Wells;
- Construction of Fencing;
- Administrative Facility Construction;
- Well Re-Working and Workovers;
- Well Stimulation;
- Decommissioning and Abandonment; and
- Reactivation of Idle Wells.

During well operations, when oil is being produced, the following routine operations and maintenance activities occur at well locations:

- Geophysical monitoring;
- Treatment of Produced Water, Oil and Gas;
- Water Management;
- Enhanced Oil Recovery (EOR) Activities;
- Injection Wells (Class II Fluids);
- Sumps;
- Percolation and Evaporation Ponds;
- Vegetation Control;
- Spill Prevention, Control, and Countermeasure (SPCC) Procedures;
- Non-Hazardous Solid Waste Management;
- Well, Pipeline, Tank and Vessel Testing and Maintenance;
- Centralized Oil/Water Separation;
- Steam Generators;



- Electric Distribution Line and Substation Maintenance;
- Access Road Maintenance;
- Distribution of Crude Oil; and
- Administrative Building and Personnel Housing.

In addition to oil and gas wells, installation and operation of ancillary equipment and facilities are integral components of oil and gas exploration and production. All wells, for example, are connected by pipelines to tanks that separate oil from the other extracted liquids (primarily “produced water” from the same geologic strata as the oil or gas, along with water and additives that may be injected as steam or liquid to help extract the oil). Wells also have monitoring devices, and may have electric and telecommunication equipment, and waste gas collection lines.

“Tank farms” that include tanks for separating oil and water, and storing oil and water, typically serve several wells and vary in size and distance from wells. Produced water collected in tanks is typically re- used for further extraction purposes, stored in surface impoundments where it percolates into groundwater and/or evaporates, or disposed of by injection well. Some produced water requires treatment prior to reuse for extraction, or disposal, and some produced water is treated and reclaimed for other purposes.

Extraction technologies include injecting large volumes of water (water flooding) or steam (steam flooding and cyclic steam injection) into production strata, and managing the time that each well is active and idle to maximize the recovery efficiency. Additional ancillary equipment and facilities required for these enhanced recovery methods include producing steam, and pressurizing steam or water, typically through larger cogeneration plants serving the wellfields where these techniques are utilized. Personnel conducting wellfield construction, maintenance, and operating activities are typically dispatched from centralized facilities (most located in Bakersfield), although some workers are staffed on site, especially at larger oilfields.

#### **1.4. Project Objectives**

The Kern County Planning and Natural Resources Department has defined the following objectives for the proposed project:

- Update the County’s Zoning Ordinance to create a local permit for oil and gas activities so that County development standards and protective mitigation measures can be implemented for the purpose of reducing or eliminating potential significant adverse environmental impacts, to the extent feasible, of future oil and gas activities and, thereby, ensure that current County ordinances implement the Board of Supervisor’s policies to protect the health, safety, and general welfare of communities, residents, and visitors.
- Encourage ongoing economic development by the oil and gas industry that creates quality, high- paying jobs and promotes capital investment in Kern County, which enables the County to invest in capital improvement projects and social programs, which benefit County residents, retail businesses, and capital industries, which ensures the County’s



fiscal stability.

- Continue Kern County's ongoing commitment to consult and cooperate with federal, state, regional, and local agencies by periodically reviewing adopted regulations to ensure the long-term viability of Kern County's resources.
- Continue to improve and streamline current energy regulations and increase County monitoring and involvement in state and federal energy legislation.
- Protect areas of important mineral, petroleum, and agricultural resource potential for future use by promoting sustainability and encouraging Best Management Practices (BMPs), which are mutually beneficial, through strategic short- and long-range planning.
- Ensure the protection of environmental resources by emphasizing the importance of productive agricultural lands, the encouragement of planned urban growth, the promotion and implementation of clean air strategies to address existing air quality issues, and the promotion of long-term water conservation strategies, which will ensure the quality and adequacy of surface and groundwater supplies for future growth of all of Kern County's industries and communities.
- Contain new development within an area large enough to meet generous projections of foreseeable need but in locations that will not impair the economic strength derived from residential developments, agriculture, rangeland, mineral resources, or diminish the other amenities that exist in Kern County.

The Project Proponents have defined the following objectives for the proposed project:

- Create an effective regulatory and permitting process for oil and gas exploration and production that can be relied on by the County of Kern, as well as CalGEM and other responsible agencies.
- Achieve an efficient and streamlined environmental review and permitting process for all oil and gas operations covered by the proposed Project.
- Provide for economically feasible and environmentally responsible growth of the Kern County oil and gas industry.
- Develop industry-wide best practices, performance standards, and mitigation measures that ensure adequate protection of public health and safety and the environment.
- Increase oil and gas exploration and production in Kern County as a means of reducing California's dependence upon foreign sources of energy.
- Increase oil and gas exploration and production in Kern County as a means of increasing employment opportunities and economic prosperity for Kern County's residents, businesses, and local government.

### **1.5. SSREIR Purpose**

The purpose of the SSREIR is to provide the additional analysis and content required to address the three CEQA deficiencies in the Supplemental Recirculated EIR (SREIR) that were identified in the Appellate Court opinion issued on March 7, 2024.



The SSREIR will have the following Resource Area Chapters for analysis and proposed mitigation:

- Agricultural Resources,
- Air Quality,
- Hydrology and Water,
- Utilities and Service Systems
- Supplemental Analysis

The County Board of Supervisors previously adopted the proposed Ordinance amendments and certified an EIR on November 9, 2015. Several parties filed lawsuits challenging the adequacy of the certified EIR, and the cases were consolidated in the Kern County Superior Court. On April 20, 2018, the Court issued a judgment upholding the EIR except for two issues. The judgment did not vacate any portion of the Ordinance or the EIR. The County subsequently prepared and circulated a Draft Supplemental Environmental Impact Report (SEIR) in response to the judgment. The SEIR was certified by the County Board of Supervisors on December 11, 2018, and was not legally challenged.

Several parties appealed the Superior Court judgment. In October 2019, the Appellate Court rejected constitutional claims against the Ordinance amendments. On February 25, 2020, the Appellate Court issued an opinion that upheld the Superior Court judgment and the adequacy of the certified EIR except for “five areas in which the EIR did not comply with CEQA: (1) mitigation of water supply impacts; (2) impacts from PM<sub>2.5</sub> emissions; (3) mitigation of conversion of agricultural land; (4) noise impacts; and (5) recirculation of the Multi-Well Health Risk Assessment for public review and comment.” The opinion set aside the previously approved Ordinance amendments and the certification of the EIR. The opinion further directs the County, “in the event it decides to present the Ordinance (in its present or a modified form) to the Board for approval, to correct the CEQA violations identified in this opinion,” to prepare “a revised EIR correcting the CEQA violations,” and to prepare and publish “responses to the comments received before certifying the revised EIR and reapproving the Ordinance.”

In response, the County prepared a Supplemental Recirculated Environmental Impact Report which was circulated twice with a final decision and adoption of a Revised Ordinance and Final Supplemental Recirculated Environmental Impact Report (SREIR) by the Kern County Board of Supervisors on March 8, 2021. Various parties sued to challenge the decision and on March 7, 2024, the Appellate Court issued a second opinion directing the County to continue to suspend permitting under the ordinance and to correct three “CEQA violations. . . before certifying the revised environmental impact report as complete and approving such an ordinance.”

In compliance with the Appellate Court opinion, the County will prepare and circulate a Second SREIR that will address the following issues to provide analysis on the three CEQA deficiencies in the SREIR identified by the Appellate Court March 7, 2024 opinion inclusive of analysis already provided in the set aside Supplemental Recirculated EIR.





- (1) **Agricultural easements as partial mitigation** – Consistent with the opinion, the Second SREIR will consider feasible mitigations for impacts on the conversion of agricultural lands that utilizes agricultural easements.
- (2) **Multi-Well Health Risk Assessment and cancer risk** – The Second SREIR will assess the cancer risks associated with the drilling of multiple wells near sensitive receptors.
- (3) **Water Supply Impacts** – The Second SREIR will assess the impacts of oil and gas use of water on disadvantaged communities and consider feasible mitigation for any identified impacts.

Consistent with the opinion, the County will prepare and publish responses to comments on the Second SREIR prior to the consideration by the Planning Commission and Board of Supervisors of the Final Second SREIR and proposed adoption of the Revised Zoning Ordinance.

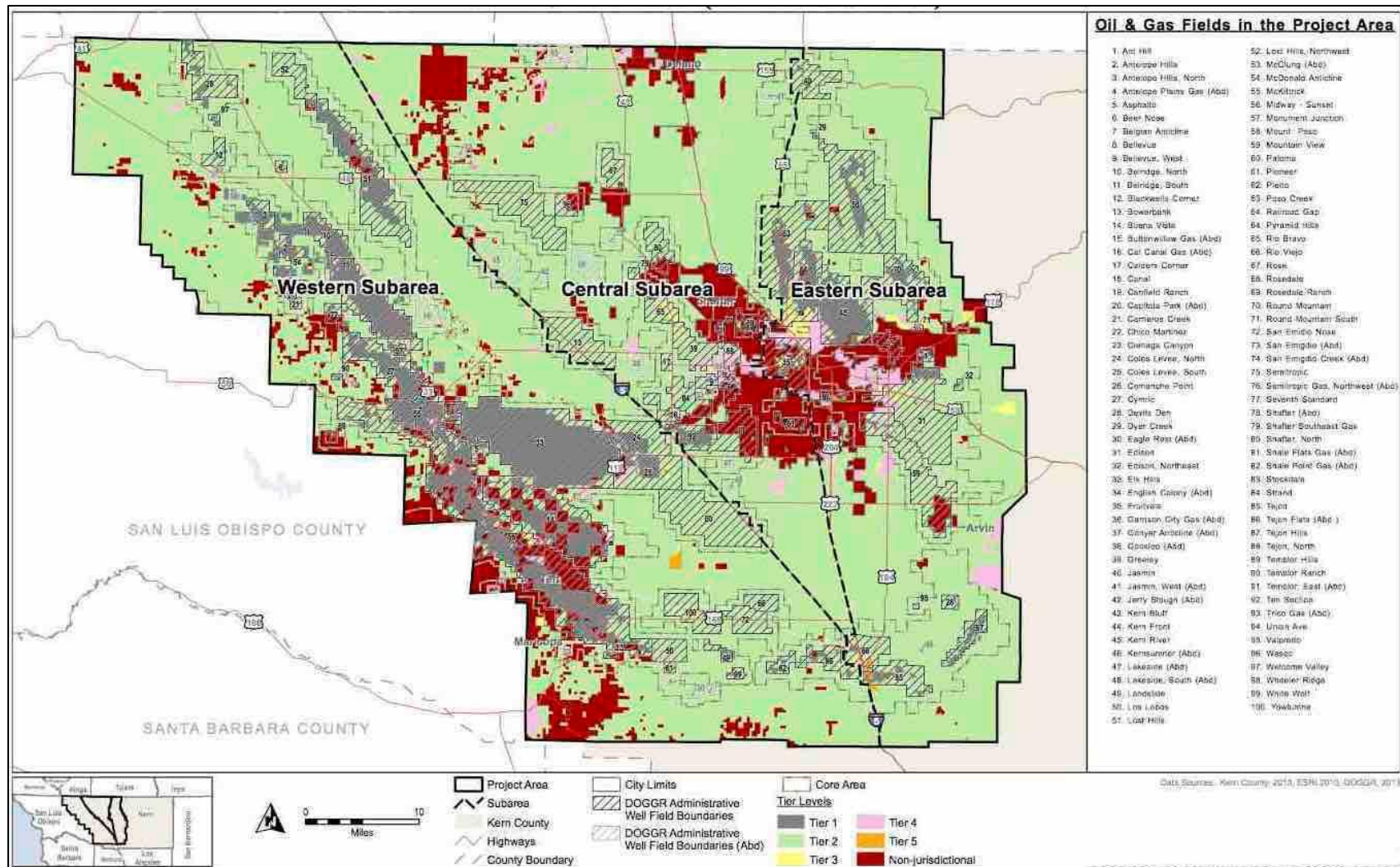


Figure 1 – Project Area Regional Location

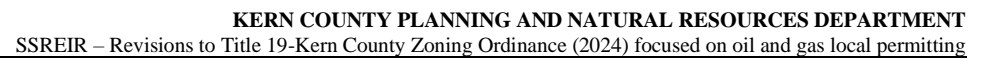




Figure 2 – Administrative Oilfields in the Project Area by Subarea and Oilfield Status (Active or Abandoned)



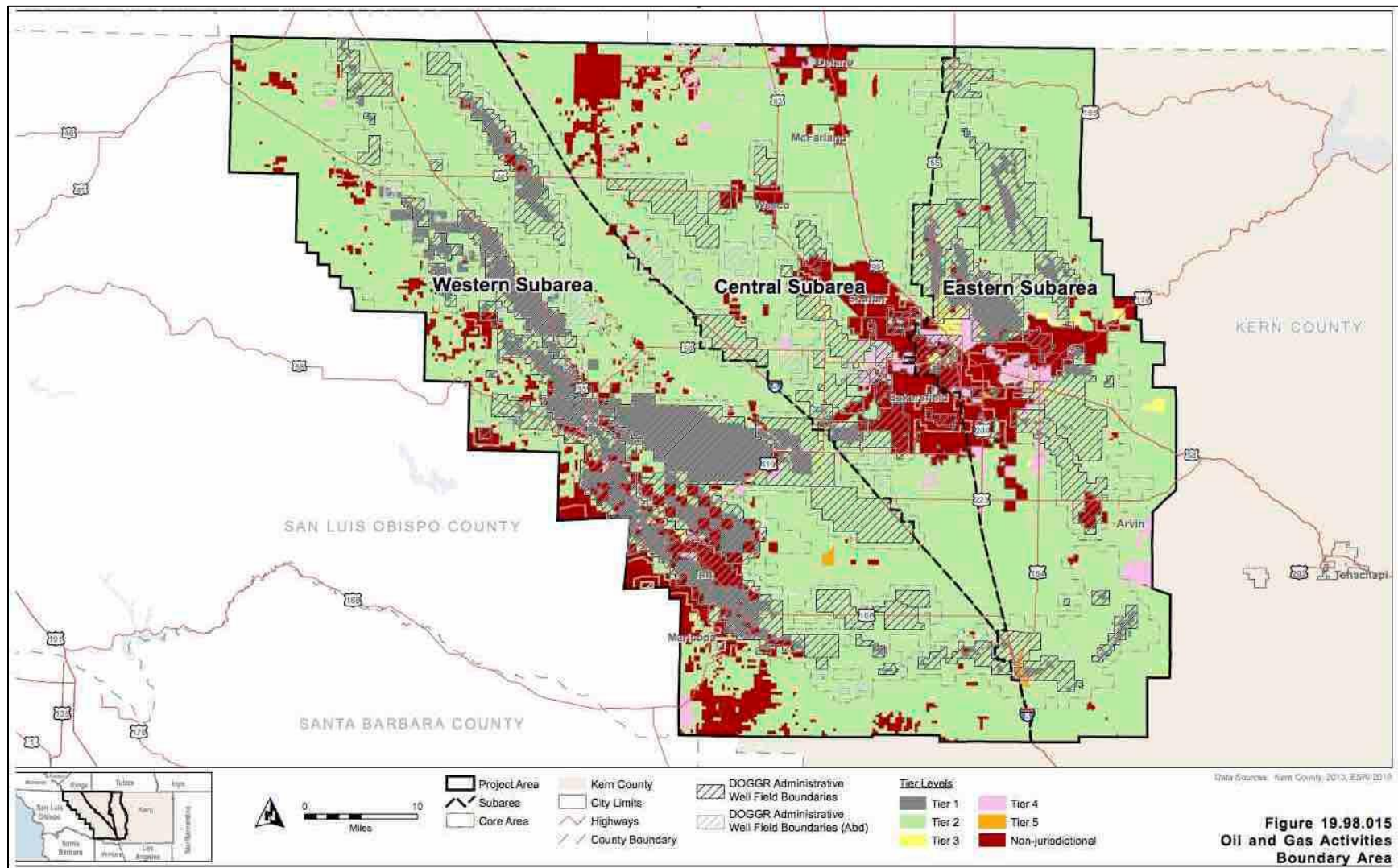




The map displays Kern County, California, divided into three subareas: Western Subarea, Central Subarea, and Eastern Subarea. The Project Boundary is outlined in black. Non-jurisdictional areas are shaded in red. Major highways (Interstates 5, 580, 99, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998,



Figure 4 – Oil and Gas Activity Tiers 1 to 5 Location



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## NATIVE AMERICAN HERITAGE COMMISSION

March 25, 2024

Keith Alvidrez  
Kern County Planning and Natural Resources Department  
2700 "M" Street  
Suite 100  
Bakersfield CA 93301

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Chumash

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Miwok, Nisenan

**NAHC HEADQUARTERS**  
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Suite 100  
West Sacramento,  
California 95691  
(916) 373-3710  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)

**Re: 2013081079, SSREIR for Revision to Title 19 – Kern County Zoning Ordinance (2024) focused on oil and gas local permitting Project, Kern County**

Dear Mr. Alvidrez:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit. 14, § 15064.5 (b) (CEQA Guidelines § 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

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Kern County Planning &  
Natural Resources Dept.



**Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
  - a. A brief description of the project.
  - b. The lead agency contact information.
  - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
  - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
  - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
  - a. Alternatives to the project.
  - b. Recommended mitigation measures.
  - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).
4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
  - a. Type of environmental review necessary.
  - b. Significance of the tribal cultural resources.
  - c. Significance of the project's impacts on tribal cultural resources.
  - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
  - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.



- b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs;

- a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
- b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- a. Avoidance and preservation of the resources in place, including, but not limited to:
  - i. Planning and construction to avoid the resources and protect the cultural and natural context.
  - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - i. Protecting the cultural character and integrity of the resource.
  - ii. Protecting the traditional use of the resource.
  - iii. Protecting the confidentiality of the resource.
- c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
- e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
- f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

- a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
- b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

- c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: [http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation\\_CalEPAPDF.pdf](http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf)

#### SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: [https://www.opr.ca.gov/docs/09\\_14\\_05\\_Updated\\_Guidelines\\_922.pdf](https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf).

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
  - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

#### NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center ([https://ohp.parks.ca.gov/?page\\_id=30331](https://ohp.parks.ca.gov/?page_id=30331)) for an archaeological records search. The records search will determine:
  - a. If part or all of the APE has been previously surveyed for cultural resources.
  - b. If any known cultural resources have already been recorded on or adjacent to the APE.
  - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
  - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
      - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.
  - 3. Contact the NAHC for:
    - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
    - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
  - 4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
    - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, § 15064.5(f) (CEQA Guidelines § 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
    - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
    - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code § 7050.5, Public Resources Code § 5097.98, and Cal. Code Regs., tit. 14, § 15064.5, subdivisions (d) and (e) (CEQA Guidelines § 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:  
[Cameron.Vela@NAHC.ca.gov](mailto:Cameron.Vela@NAHC.ca.gov).

Sincerely,

*Cameron Vela*

Cameron Vela  
Cultural Resources Analyst

cc: State Clearinghouse



April 3, 2024

Kern County Planning Department  
Attn: Keith Alvarez  
2700 M Street, Suite 100  
Bakersfield, CA 93301

**Our File No.:** CO24-0039

**RE: DEVELOPER FEES FOR:** NOP Draft EIR; Kern County Zoning Ordinance Gas & Oil Permitting  
(San Luis Obispo County line to the west, Kings and Tulare County lines to the north, the  
2,000-foot elevation contours to the east and Los Padres National Forest to the South)

Dear Mr. Alvarez,

This office represents Kern County School Districts with regard to the imposition of school facility fees and appreciates the opportunity to respond on behalf of the districts regarding the proposed project. This letter is limited to addressing the possible effects which the project might have on school facilities created by students attributable to the project. It is not intended to address other possible environmental concerns which might be identified by the district(s) after reviewing it.

It is our determination that the above-mentioned project proposing reconsideration of revisions to Title 19 of the Kern County Zoning Ordinance for local permitting for oil and gas exploration and operation activities will not have significant effects on either of these district's facilities so long as statutory school facilities fees are collected as required by law and that no further mitigation measures regarding school facilities are necessary.

Thank you for the opportunity to comment on the project. Should you have any questions, or if we can be of any further assistance in this matter, please contact me at 636-4599, or through e-mail at [anwatson@kern.org](mailto:anwatson@kern.org).

Sincerely,

Andrea Watson, Specialist  
School District Facility Services

Cc: Districts

April 22, 2024

*Via electronic mail*

Kern County Planning and Natural Resources Department  
Attn: Keith Alvidrez  
2700 “M” Street, Suite 100  
Bakersfield, CA 93301  
(661) 862-5015  
[AlvidrezK@kerncounty.com](mailto:AlvidrezK@kerncounty.com)  
[OG-SSREIRComments@kerncounty.com](mailto:OG-SSREIRComments@kerncounty.com)

**Re: Notice of Preparation of a Draft Second Supplemental Recirculated Environmental Impact Report (SSREIR) (SCH# 2013081079) for Revisions to Title-19 Kern County Zoning Ordinance (2024) focused on oil and gas local permitting (PP13280)**

To the Kern County Planning and Natural Resources Department:

We are writing to provide comments on the “Notice of Preparation of a Draft Second Supplemental Recirculated Environmental Impact Report (SSREIR) (SCH# 2013081079) for Revisions to Title-19 Kern County Zoning Ordinance (2024) focused on oil and gas local permitting (PP13280).”

To be clear at the outset, as we have stated repeatedly since the County first proposed revisions to Title-19 of the Kern County Zoning Ordinance (Project), we view the Project as misguided. Instead, we believe the County should take steps to protect residents’ health and welfare from the harms caused by fossil fuel extraction and adopt policies that effectuate a just transition toward a sustainable and more economically secure future. Further, we view the County’s efforts to define the expansive, county-wide activities of the entire oil and gas industry as a single “Project”—with the intention of insulating such activities from meaningful site-specific review—as a violation of CEQA’s core principles that emphasize local input and government accountability.

However, since it appears the County is intent on moving forward with the Project, it is in our mutual interest to find a way to limit harms to communities and to end the cycle of litigation—memorably labeled in court as the CEQA “washing machine”—by addressing the issues of greatest concern to Kern residents. The reason the County has continued to fail in court is that it has repeatedly violated CEQA. As such, the surest way for the County to avoid further legal challenges and defeats is to follow CEQA’s requirements and to take community input seriously, as described herein.

Hence, these comments are a roadmap to that path forward, laying out what the County can and should do this time around. To the extent the County is interested in working with us, we would be happy to meet with you to provide any other information that might be useful in understanding our views on CEQA’s requirements and related community concerns.

Beyond these scoping comments, we reserve the right to identify new issues, provide more information, and propose additional mitigation measures during the administrative process for the Project and SSREIR.

**I. The County should make its CEQA process accessible to the County’s many Spanish-language speakers.**

We acknowledge that the Court of Appeal ruled that CEQA does not require the County to translate any materials developed for its CEQA review of the Project. However, this remains an issue of strong importance to local residents, many of whom are linguistically isolated. Addressing it thoughtfully in this round of CEQA analysis would be a sign of respect that could contribute to bridging the gap between the communities and the County. The Court of Appeal recognized the potential benefit of translation, stating that “CEQA and the Guidelines ... grant[] public agencies the discretionary authority to provide interpreters and translations of CEQA documents.”<sup>1</sup> Indeed, the Court observed that offering “translations would be commendable.”<sup>2</sup>

Accordingly, in the interest of facilitating full public participation, we ask the County to offer Spanish translation and interpretation to the fullest extent feasible. Roughly one in six Kern County residents speaks Spanish with limited or no English proficiency.<sup>3</sup> Indeed, as the County has itself previously acknowledged with respect to this Project, “Kern County has a higher percentage of Hispanic, linguistically isolated, and pollution burdened populations than do other areas of California.”<sup>4</sup>

Translation and interpretation services are particularly warranted for the forthcoming SSREIR because it will evaluate how air pollution affects sensitive sites like homes and schools and assess drinking water supply impacts, particularly in disadvantaged communities.<sup>5</sup> Not only are Kern County’s Spanish-speaking residents disproportionately burdened by air quality and drinking water supply impacts, they also have valuable input to offer as the County evaluates these impacts and develops effective mitigation measures.

The County possesses the resources, technology, and know-how to serve its Spanish-speaking residents more effectively and equitably. For example, notices for recent joint public workshops convened by the County and USEPA for the proposed Carbon TerraVault I project were issued in English and Spanish, along with separate instructions in both languages on how to participate virtually.<sup>6</sup> Additionally, Spanish interpretation was provided during the workshops,

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<sup>1</sup> *King & Gardiner Farms, LLC v. County of Kern*, No. F077656, Slip Opinion (*King & Gardiner* Slip Op.) at 125 (Cal. Ct. App. Feb. 25, 2020).

<sup>2</sup> *Ibid.*

<sup>3</sup> United States Census Bureau, *Quick Facts Kern County, CA* (July 1, 2019); United States Census Bureau, *Selected Social Characteristics in the United States* (AR174331, 174338-43).

<sup>4</sup> SSREIR, Response to Comment 0010-3 (AR208761).

<sup>5</sup> Kern County Planning and Natural Resources Department, *Initial Study/Notice of Preparation for Second Supplemental Recirculated Environmental Impact Report (SSREIR) for Revisions to Title-19 Kern County Zoning Ordinance (2024) focused on oil and gas local permitting* (IS/NOP) at 15.

<sup>6</sup> See <https://kernplanning.com/environmental-doc/ctv1/>.



and the agencies' respective PowerPoint presentations were posted in both English and Spanish.<sup>7</sup> Community members appreciated that it was easier to access information and participate.

With a new CEQA process underway for the Project, the County can and should take the steps listed below to allow Spanish-speaking residents to participate meaningfully. Specifically, the County should:

- Translate all future notices related to the Project into Spanish, including any notice of availability, notices of public workshops, meetings, or hearings, and notices of determination (if applicable);
- Translate into Spanish and post, at a minimum: the executive summary of the draft SSREIR; the executive summary of the County's new multi-well health risk assessment; and the text of all mitigation measures addressing air quality and water supply impacts;
- Make translated materials available at the same time as English versions;
- Ensure that any workshops scheduled to discuss the draft SSREIR are easily accessible to Spanish-speaking and low-income community members by: (a) inviting residents to ask questions or offer comments in Spanish; (b) providing two-way, simultaneous Spanish and English interpretation services for any oral presentations and all verbal comments; (c) allowing residents to join the hearings by phone, computer, or in person; and (d) providing a Spanish-language version of any slides or written handouts.
- Ensure that hearings before the Kern County Planning Commission and Board of Supervisors (Board) are easily accessible to Spanish-speaking and low-income community members by: (a) inviting residents to ask questions or offer comments in Spanish; (b) providing two-way, simultaneous Spanish and English interpretation services for any oral presentations and all verbal comments; (c) providing a Spanish-language version of any slides; and (d) allowing residents to join the hearings by phone, computer, or in person.

## **II. The County must meaningfully assess the health risks posed by drilling and operating multiple wells near a sensitive receptor.**

The Notice of Preparation states that the SSREIR will address air quality impacts, particularly "the cancer risks associated with the drilling of multiple wells near sensitive receptors."<sup>8</sup>

The Court of Appeal ruled that the County's previous assessment of such risks was inadequate "because it lack[ed] sufficient information for the public and decision makers to meaningfully understand the cancer risk resulting from multiple wells drilled outside the 210-

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<sup>7</sup> *Ibid.*

<sup>8</sup> IS/NOP at 15.

foot setback distance specified in the ordinance.”<sup>9</sup> Of particular concern, the County’s previous “health risk assessment for the drilling of multiple wells used a setback distance of just under 1,000 feet instead of analyzing reasonably foreseeable situations that could arise under the ordinance’s actual setback distances.”<sup>10</sup> The Court of Appeal held that “[t]his informational defect must be corrected before the ordinance is reapproved.”<sup>11</sup>

The new multi-well health risk assessment must be more than a theoretical paper exercise or a “post hoc justification” for conclusions the County has already reached.<sup>12</sup> On this go-round, the County has the opportunity to conduct a thorough, credible analysis that takes into account the large and growing body of science addressing the risk of drilling in proximity to sensitive receptors; and to develop conclusions that are driven by the science, rather than a foreordained outcome. Conducting a thorough public health analysis that leads to scientifically supportable conclusions would create the space needed for a well-grounded exchange between communities and the County as to how best to mitigate the Project’s impacts. Accordingly, we lay out below what we consider the basic elements of a credible multi-well health risk assessment.

In designing and performing a new multi-well health risk assessment, the County must accurately identify and characterize the significant health risks posed by criteria and toxic air pollution emitted by the Project—and in so doing it must fully consider and integrate the extensive number of empirical and epidemiological studies that have been published in peer-reviewed publications or authored by reputable government experts. Any assessment that fails to reflect the real-world adverse health effects documented by these studies would necessarily violate CEQA’s requirement that the SSREIR make “a good faith effort at full disclosure ... of the nature and magnitude of the health and safety problems caused by” the Project.<sup>13</sup>

To ensure that County decision makers and the public are adequately informed, the County’s forthcoming multi-well health risk assessment needs to address the following:

1. Drilling in Proximity. At the heart of the Court of Appeals’ rejection of the County’s previous multi-well health risk assessment was a concern that it did not consider the actual distances at which drilling could realistically occur under the Project. It is essential that the County rectify this error and conduct a new analysis based on real-world, ground-truthed assumptions that reflect how close to homes, schools, and other sensitive receptors drilling will occur.

The fundamental problem identified by the Court was that the County’s previous multi-well health risk assessment assumed no drilling would occur closer than approximately 1,000 feet from a sensitive receptor, but the ordinance proposed to allow drilling as close

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<sup>9</sup> *V Lions Farming, LLC v. County of Kern*, Nos. F084763, F085102, F085220, Slip Opinion (*V Lions* Slip Op.) at 4 (Cal. Ct. App. Mar. 7, 2024).

<sup>10</sup> *Ibid.*

<sup>11</sup> *Ibid.*

<sup>12</sup> *King & Gardiner* Slip. Op. at 131.

<sup>13</sup> *Sierra Club v. Cnty. of Fresno* (2018) 6 Cal.5th 502, 522 (internal quotation marks and citations omitted).



as 210 feet from a home and 300 feet from a school.<sup>14</sup>

The new multi-well health risk assessment must evaluate drilling at these much closer distances not only because the Project would allow them on paper, but because the track record of drilling in the County in previous years clearly confirms that, where allowed, drilling does actually occur at very close distances to sensitive receptors. This was documented in a 2015 report by the non-partisan California Council on Science and Technology, which found that 3,284 households were located within 330 feet or less of an active oil well in the San Joaquin Valley Air Basin, which includes Kern County, where most of the drilling occurs.<sup>15</sup> Indeed, in the Project’s original Environmental Impact Report (EIR), the County itself previously acknowledged that “there are examples of intensively developed oil and gas fields ... in close proximity to ... neighborhoods.”<sup>16</sup>

2. Drilling Multiple Wells in Close Proximity. Not only must the new multi-well health risk assessment account for drilling in close proximity to sensitive receptors, per above, but it must also account for the fact that *multiple* wells are frequently drilled in such close proximity. The County acknowledged in its briefing before the Court of Appeal that it is possible to drill four wells 210 feet from a home.<sup>17</sup>

And once again, multiple wells being drilled close to homes and schools at least roughly contemporaneously is not merely a hypothetical worst-case conjecture: it is something that a review of drilling records has proven actually happens. Oil and gas operators have, in fact, concurrently drilled multiple wells in dangerous proximity to a single sensitive receptor. FracTracker conducted a preliminary analysis of publicly available records and identified three wells—located 432, 492, and 521 feet, respectively, from a cluster of homes in Oildale—that all commenced drilling on the very same day.<sup>18</sup> The same FracTracker analysis also identified a cluster of four wells, all located less than 200 feet

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<sup>14</sup> See, e.g., *V Lions Slip Op.* at 61-62.

<sup>15</sup> California Council on Science and Technology, *An Independent Scientific Assessment of Well Stimulation in California*, Vol. III, Chapter 5 at 327, 489 (AR198177, 198339); see also Email and Attachments from K. Blair to C. Mynk (July 9, 2015) (AR10149-53) (correspondence from resident who “live[s] next to an oil well,” attaching “typical” photos of “machinery in residential neighborhoods”); Janet Wilson, *Six idled oil wells leak explosive methane near Bakersfield homes in the past week*, Desert Sun (May 5, 2022) at 2 (describing wells “less than 400 feet from homes”), <https://www.desertsun.com/story/news/environment/2022/05/23/six-wells-leak-explosive-methane-into-california-neighborhood-week/9896141002/>; Kyle Ferrar, *FracTracker Finds Widespread Hydrocarbon Emissions from Active & Idle Oil and Gas Wells and Infrastructure in California* (Aug. 22, 2022) (reporting well “just 140 feet from the schoolyard of the Grimmway/Grow Academy, an elementary school in Arvin”), <https://www.fractracker.org/2022/08/fractracker-finds-widespread-hydrocarbon-emissions-from-active-idle-oil-and-gas-wells-and-infrastructure-in-california/>.

<sup>16</sup> EIR, Response to Comment 0046-10 (AR10438).

<sup>17</sup> *V Lions Farming, LLC v. County of Kern*, Nos. F084763, F085102, F085220, Joint Opposition Brief of County Respondents and Real Parties in Interest Answering Arvin Appellants at 31-32, fn. 9 (Cal. Ct. App. May 12, 2023).

<sup>18</sup> FracTracker, *Preliminary Assessment of Concurrent Drilling in Kern County* (April 22, 2024), <https://www.fractracker.org/a5ej20sjfwe/wp-content/uploads/2024/04/Community-Drilling-in-Kern-County-by-Kyle-Ferrar-FracTracker-Alliance-2024.pdf>.

from an elementary school, that appear to have been drilled concurrently, with two spudded on the very same day.<sup>19</sup>

Notably, this analysis by FracTracker was never intended to be complete; it represents an initial analysis of the limited information that could be pulled and compiled during the very brief window provided by the County to prepare these scoping comments. The fact that even such a limited analysis turned up examples of multiple wells drilled concurrently near sensitive receptors speaks to the reality and severity of the problem.

3. Full Range of Harmful Pollutants. In order to present a credible and holistic picture of the impacts of drilling on public health, the new multi-well health risk assessment needs to account for the full range of harmful air pollutants emitted by oil and gas drilling and operations. The County's previous multi-well health risk assessment focused too narrowly on diesel particulate matter and a handful of volatile organic compounds.<sup>20</sup> But oil and gas development activities are known to generate or release a wide range of unhealthy criteria and toxic air pollutants,<sup>21</sup> all of which should be included in the County's multi-well health risk assessment.
4. Non-Cancer Risks. The new multi-well health risk assessment also should address all health risks, not only cancer risks. The County's prior multi-well health risk assessment neglected to analyze acute and chronic (non-cancer) impacts.<sup>22</sup> Any continued failure to meaningfully analyze and disclose non-cancer risks would necessarily invalidate the SSREIR as an informational document because a significant body of real-world scientific studies has confirmed that oil and gas development is associated with adverse health outcomes apart from cancer. Indeed, a panel of blue-ribbon scientists convened by CalGEM recently "conclude[d] with a high level of certainty that there is a *causal relationship* between close geographic proximity to [oil and gas development] and adverse perinatal and respiratory outcomes."<sup>23</sup> Decision makers and the public must be adequately apprised of these non-cancer impacts.
5. Ambient Air Quality Standards. Consistent with the two preceding requirements, the new multi-well health risk assessment should address whether the Project will cause or exacerbate exceedances of national or state ambient air quality standards in localized hotspots. To date, the County has declined to address whether the Project would cause localized exceedances of applicable ambient air quality standards for criteria air

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<sup>19</sup> *Ibid.*

<sup>20</sup> Environmental Compliance Solutions, Inc., *Cumulative Health Risk Assessment for Kern County Final EIR* (Oct. 2015) (Multi-Well HRA) at 4 ("Potential health effects from both DPM and VOCs are summarized herein") (AR172159).

<sup>21</sup> SREIR at 4.3-11 to 4.3-28 (AR171186-171203).

<sup>22</sup> SREIR, Response to Comment 0008-27 ("[t]he multi well HRA did not consider chronic or acute impacts") (AR208483).

<sup>23</sup> California Oil and Gas Public Health Rulemaking Scientific Advisory Panel, *Response to CalGEM Questions for the California Oil and Gas Public Health Rulemaking Scientific Advisory Panel* (Oct. 1, 2021) at 4 (emphasis added), [https://www.conservation.ca.gov/calgem/Documents/public-health/Public%20Health%20Panel%20Responses\\_FINAL%20ADA.pdf](https://www.conservation.ca.gov/calgem/Documents/public-health/Public%20Health%20Panel%20Responses_FINAL%20ADA.pdf).

pollutants.<sup>24</sup> This oversight is particularly glaring for Project emissions of fine particulate matter (PM<sub>2.5</sub>), which could be easily evaluated based on the dispersion modeling the County has performed for diesel particulate matter.<sup>25</sup>

6. Operational Emissions. The new multi-well health risk assessment should address the combined air quality impacts and health effects of drilling and well operations, including reworks. The County's previous multi-well health risk assessment focused on drilling,<sup>26</sup> excluding some of the operational activities that were identified in the single-well health risk assessments.<sup>27</sup> In addition to accounting for and modeling operational emissions from particular hypothesized drilling sites, the new multi-well health risk assessment should account for the high number and density of wells currently operating county-wide by assuming that the background levels of criteria and toxic air pollutants are already elevated.
7. Accurate, Representative Emissions Factors. The new multi-well health risk assessment should utilize representative and appropriate emissions factors and fully explain how and why each emissions factor used was chosen. The fact that "standard" models incorporate emissions factors for various pollutants and for various types of equipment and activities does not mean that those emissions factors do, in fact, accurately or conservatively represent the emissions of the respective pollutants from specific equipment and specific activities that are part of the Project. In addition to carefully selecting emissions factors that describe typical, problem-free drilling and operations, the assessment should also account for leaks and upset conditions that are both common at oil and gas wells and significantly increase emissions and adverse health consequences.<sup>28</sup>
8. Acknowledgment of Uncertainties. The new multi-well health risk assessment should acknowledge uncertainties in its results. The County's previous assessment declared its results as a one-sentence certainty,<sup>29</sup> but there are always issues of precision and error in emission factors and resultant emissions estimates and risk calculations. The County's new assessment therefore should disclose the potential error (or error range) reflected in its results and otherwise disclose inherent uncertainties.

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<sup>24</sup> SREIR, Response to Comment 0061-138 (declining to conduct an ambient air quality analysis for criteria air pollutants) (AR209588-90).

<sup>25</sup> H. Andrew Gray, *Additional Comments Regarding the Multi-Well Health Risk Assessment (HRA) for Proposed Drilling and Oil and Gas Operations Recirculated with the Kern County SREIR* (Mar. 5, 2021) at 11-12 (AR 268834-35).

<sup>26</sup> Multi-Well HRA at 4-6 (AR172159-61).

<sup>27</sup> See, e.g., Environmental Compliance Solutions, Inc., *Updated Health Risk Assessment for Kern County DEIR* (Sept. 2015) at 4, 8 (AR172206, 172210).

<sup>28</sup> See, e.g., the discussion of leaks discussed *infra* at sections V.D and V.E.

<sup>29</sup> Multi-Well HRA at 7 ("Results of the cumulative modeling study indicate results of 9.3 in one million potential cancer risk") (AR172162).

### **III. The County must analyze and mitigate the Project’s impact on drinking water supplies, including in disadvantaged communities.**

The Notice of Preparation acknowledges that the SSREIR must address water supply impacts, specifically “the impacts of oil and gas use of water on disadvantaged communities” and “feasible mitigation for any identified impacts.”<sup>30</sup> Once again, this acknowledgement reflects not only the mandate of the Court but also an opportunity for the County to conduct a genuine, open-ended inquiry into the significant drain on scarce water resources that could occur as a result of the drilling it contemplates, aimed at finding effective ways to address those impacts in the disadvantaged communities within the County who are least poised to absorb them.

To recap the relevant history, the County previously concluded that the Project’s use of clean, municipal and industrial (M&I) quality water “contributes towards a cumulatively significant impact on disadvantaged communities that are beneficial users of groundwater but not adequately considered in SGMA plans adopted in the Project Area.”<sup>31</sup> The County also adopted a fee program as mitigation (i.e., Mitigation Measure 4.17-5), requiring that oil and gas permit applicants pay a per-well fee to be used by the Kern County Public Health Department for grants to fund “design, permitting, and construction of physical improvements to water wells or water systems” in disadvantaged communities.<sup>32</sup>

While the SREIR rightfully concluded that the Project would contribute to a cumulatively significant impact, the SREIR neglected to substantiate its conclusion with a sufficiently detailed analysis. The lack of analysis left decision makers and the public uncertain about the nature and magnitude of the drinking water supply impact and made it impossible to evaluate whether the County’s proposed mitigation measure constituted all feasible mitigation as CEQA requires. We flagged these shortcomings for the County, but they remained unaddressed. Consequently, we were forced to take up our concerns in a lawsuit, and the Kern County Superior Court agreed that the SREIR’s analysis and mitigation of drinking water supply impacts was lacking.<sup>33</sup>

Unfortunately, rather than perform a more thorough analysis of drinking water supply impacts and refine its proposed mitigation to comply with CEQA, the County responded to good faith community concerns by eliminating mitigation for water supply impacts in disadvantaged communities—characterizing the issue as a socioeconomic impact beyond the scope of CEQA.<sup>34</sup>

The Court of Appeal concluded that the County’s position is incorrect as a matter of law. As the Court explained, “While social and economic effects are not themselves environmental impacts, social and economic effects are relevant in determining the significance of a physical change to the conditions constituting the environment.”<sup>35</sup> The Court therefore invalidated the

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<sup>30</sup> IS/NOP at 15.

<sup>31</sup> SREIR at 4.9-220, 4.17-96 (AR171563, 171753).

<sup>32</sup> SREIR at 4.9-220, 4.17-96 to 4.17-97 (AR171563, 171753-54).

<sup>33</sup> *Vaquero Energy v. County of Kern*, No. BCV-15-101645, Ruling on Petitions for (Third) Writ of Mandate at 28-29, 35 (Kern County Super. Ct. June 7, 2022).

<sup>34</sup> *V Lions* Slip Op. at 75.

<sup>35</sup> *Id.* at 4.

County’s actions, emphasizing that “[p]hysical impacts to groundwater levels and the related physical impact of dewatering of groundwater wells cannot be ignored simply because some or all of those environmental impacts occur in low-income or disadvantaged communities.”<sup>36</sup> On remand, the Court directed the County to conduct a general “analysis of localized impacts on groundwater wells,” with “communities’ socioeconomic status ... taken into account only when determining the significance of the physical impact or identifying mitigation measures to lessen the significance.”<sup>37</sup>

Notably, although the County adopted an addendum that withdrew Mitigation Measure 4.17-5 from the SREIR, the addendum did not alter the County’s original conclusions that the Project will contribute to cumulatively significant drinking water supply impacts, especially in disadvantaged communities.<sup>38</sup> This bottom-line conclusion remains valid and it should guide the County’s analysis moving forward.

As explained in a comprehensive report prepared by the Water Foundation, despite local Groundwater Sustainability Agencies’ (GSAs) plans to implement SGMA, “up to roughly 12,000 drinking water wells in the region, or 49% of wells, could go partially or completely dry” by 2040.<sup>39</sup> According to the report: “[u]nder these circumstances, between roughly 106,000 and 127,000 people will lose their primary drinking water source.”<sup>40</sup> The report elaborates that “[t]his is a conservative estimate because it assumes that all of the actions in the GSPs will be taken and will be successful.”<sup>41</sup>

A loss of drinking water constitutes a significant impact under CEQA.<sup>42</sup> And the Project undoubtedly will contribute to the cumulatively significant loss of drinking water supplies in Kern County. Because there is “no surplus water available” in Kern County to meet domestic and/or irrigation demands, any use of M&I quality water by the oil and gas industry necessarily “reduces potential supplies for other purposes and users.”<sup>43</sup>

It is also evident, as initially recognized by the County, that the physical impact of drinking water loss disproportionately affects disadvantaged communities, which tend to be heavily dependent on private wells. Although the loss of drinking water supplies is categorically significant, it does not affect all water users equally. Private drinking water wells “tend to be

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<sup>36</sup> *Id.* at 75.

<sup>37</sup> *Id.* at 76.

<sup>38</sup> See Kern County Planning and Natural Resources Department, *Addendum to the Supplemental Recirculated Environmental Impact Report (SREIR 2020-2021) for Revisions to Title 19, Kern County Zoning Ordinance—(2020 A), Focused on Oil and Gas Local Permitting* (Aug. 2022) (SREIR Addendum) at 1-3, 2-5 to 2-6, 3-12.

<sup>39</sup> Water Foundation, *Groundwater Management and Safe Drinking Water in the San Joaquin Valley* (June 2020) (Water Foundation Report) at 3 (AR 194416).

<sup>40</sup> *Ibid.*

<sup>41</sup> *Ibid.*

<sup>42</sup> See, e.g., *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1111-1120; *Moss v. County of Humboldt* (2008) 162 Cal.App.4th 1041, 1059-1063; *Cadiz Land Co., Inc. v. Rail Cycle, L.P.* (2000) 83 Cal.App.4th 74, 91-95.

<sup>43</sup> SREIR, Appendix D: Supplemental Water Supply Baseline Technical Report (July 2020) at 4, 58 (AR172459, 172513).

very shallow, which means they dry up sooner than agricultural or municipal wells,” and [w]hen groundwater levels plummet and leave private wells dry, few ... communities and residents who are dependent on them as sources of drinking water have the capital to continuously drill and maintain deeper wells.”<sup>44</sup> This is especially true for “low-income communities of color [who] are disproportionately affected by this water crisis.”<sup>45</sup>

Consistent with the Court of Appeal’s directive, the County can readily “correct the defects in the SREIR”<sup>46</sup> and provide a more detailed analysis of the Project’s impacts on local drinking water supplies—including in disadvantaged communities—in a way that makes genuine progress toward meaningfully addressing these impacts. Many resources are available to help the County build on the single paragraph of analysis set forth in the SREIR. One obvious approach would be for the County to update and employ the methodology reflected in the Water Foundation Report. The report identifies “data sources” and “related resources,”<sup>47</sup> including a detailed white paper prepared by EKI Environment & Water, Inc. that provides a detailed analysis of domestic well impacts and associated mitigation costs for the San Joaquin Valley, including Kern County.<sup>48</sup> At a minimum, the County’s analysis must reflect what is “reasonably possible.”<sup>49</sup>

In addition to looking at the loss of drinking water supplies attributable to the partial and complete dewatering of domestic wells, the SSREIR needs to address a related impact: well contamination. Over-pumping of groundwater does more than simply lower the groundwater table and dewater wells. It also “pollutes water ... due to migrating contaminant plumes”<sup>50</sup> and “land subsidence” that “results in an increase in aquifer arsenic concentrations.”<sup>51</sup> The SSREIR therefore should, to the extent reasonably possible, analyze the Project’s contribution to domestic well contamination within the Project Area.

Along with conducting an adequate analysis of the Project’s drinking water supply impacts, particularly in disadvantaged communities, the Court of Appeal also directed the County to identify CEQA-compliant mitigation for such impacts.<sup>52</sup> In developing adequate mitigation, the County should abide the following principles and consider the following mitigation measures:

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<sup>44</sup> Water Foundation Report at 6 (AR194419).

<sup>45</sup> *Id.* at 5 (AR194418).

<sup>46</sup> *V Lions Slip Op.* at 81.

<sup>47</sup> Water Foundation Report at 16-17 (AR 194429-30).

<sup>48</sup> EKI Environment & Water, Inc., *White Paper: Estimated Numbers of Californians Reliant on Domestic Wells Impacted as a Result of the Sustainability Criteria Defined in Selected San Joaquin Valley Groundwater Sustainability Plans and Associated Costs to Mitigate Those Impacts* (Apr. 9, 2020) (AR268942-269006).

<sup>49</sup> *V Lions Slip Op.* at 81-82 (quoting *King & Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814, 843).

<sup>50</sup> Water Foundation Report at 3 (AR 194416).

<sup>51</sup> Smith, R. et al., *Overpumping leads to California groundwater arsenic threat*, *Nature Communications* 9:2089 (2018) at 1, <https://www.nature.com/articles/s41467-018-04475-3>.

<sup>52</sup> *V Lions Slip Op.* at 81.

- First and foremost, disadvantaged communities should not be forced to pay for or otherwise suffer from a loss domestic drinking water because of significant impacts caused by the Project and/or other industrial water users. It is the County's responsibility, working in close coordination with the GSAs, to protect domestic drinking water supplies and to provide alternative sources when wells are dewatered or otherwise compromised by no fault on the part of community members.
- The County can best mitigate the Project's water supply impacts by preventing them. It can best do this by requiring that the oil and gas industry exclusively use recycled produced water, as opposed to scarce and valuable M&I water. The SREIR notes that the use of recycled produced water is already prevalent across Kern County.<sup>53</sup> To the extent infrastructure for produced water use is not present in all locations, or M&I quality water is necessary for certain Project activities, oil and gas operators should be required to install the necessary infrastructure and/or on-site treatment equipment, as needed.
- To the extent drinking water supply impacts cannot be mitigated preventively, the County could charge oil and gas operators a fee to provide funds for community drinking water needs, particularly in disadvantaged communities. For such a program to be effective, the County must improve upon the County's previously ill-defined Mitigation Measure 4.17-5. Community members should be consulted on the development of a new mitigation measure and given a role in its implementation.

#### **IV. The County must evaluate agricultural conservation easements as mitigation for the Project's impact on farmland.**

The County must correct the CEQA violations identified by the Court of Appeal relating to its rejection of agricultural conservation easements as an additional form of mitigation to address the conversion of agricultural lands.<sup>54</sup>

In its 2022 addendum to the SREIR, the County concluded that its proposed 1:1 legacy equipment removal mitigation measure was feasible but would not fully offset the conversion of agricultural land.<sup>55</sup>

The Court of Appeal concluded that the County must consider agricultural conservation easements "in situations where the permit applicant's adoption of other mitigation has not reduced the net loss of agricultural land to zero acres."<sup>56</sup> Thus, the SSREIR should include an analysis of how agricultural conservation easements would be used to supplement the legacy equipment removal mitigation and what criteria would be adopted to ensure that agricultural conservation easements would result in the long-term conservation of farmland threatened by development.

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<sup>53</sup> SREIR at 4.9-25 to 4.9-29 (AR 171368-72).

<sup>54</sup> See generally *V Lions* Slip Op. at 1-36; accord *V Lions Farming, LLC v. County of Kern* (2024) 100 Cal.App.5th 412.

<sup>55</sup> SREIR Addendum at 3-3.

<sup>56</sup> *V Lions* Slip Op. at 36.

**V. The County must consider changed circumstances and new information pertaining to other environmental impacts.**

Following the initial certification of an environmental impact report, a subsequent or supplemental analysis must be prepared when: “(a) Substantial changes are proposed in the project which will require major revisions of the environmental impact report[;] (b) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report[; or] (c) New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.”<sup>57</sup>

Here, in the time since the Board first certified the original EIR in 2015, Project activities and circumstances have changed substantially, and new studies and other new information reveal that the impacts of oil and gas activity are substantially greater than previously acknowledged in the EIR, 2018 Supplemental EIR (SEIR), or subsequent SREIR. Consequently, the County’s new CEQA process should do more than narrowly revisit those portions of the SREIR that the Court of Appeal deemed legally deficient; the County should also reevaluate and update several other impact analyses to ensure decision makers and the public are adequately informed before the Project is readopted.

**A. Carbon Capture and Storage Facilities Located in Oil Fields**

The SSREIR must address a new category of oilfield activity that has emerged since the original EIR was certified: carbon capture and storage (CCS). As currently proposed, operators intend to gather carbon dioxide (CO<sub>2</sub>) from oil and gas operations at existing oil fields and, relying heavily on current oilfield infrastructure including pipelines and wells, inject the CO<sub>2</sub> into depleted reservoir formations for long-term storage.

At this point, at least three CCS projects are planned for co-location at oil fields that are listed in the Notice of Preparation for this Project:<sup>58</sup>

- In December 2023, the County issued a draft environmental impact report for the “Carbon TerraVault I” project proposed by California Resources Corporation (CRC).<sup>59</sup> Set to be built “[w]ithin the administrative boundary of the Elk Hills oilfield,” “[t]he initial source of CO<sub>2</sub> is the pre-combustion oilfield gas from infield locations, including uses associated with the existing Elk Hills Power Plant.”<sup>60</sup>

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<sup>57</sup> Public Resources Code § 21166.

<sup>58</sup> IS/NOP at 2-3, Table 1 (“Oil Field[s] Currently Delineated by CalGEM within Project Boundary Area”).

<sup>59</sup> See generally, Kern County Planning and Natural Resources Department, *Draft Environmental Impact Report – Carbon Terra Vault I (Kern County) by California Resources Corporation* (Dec. 2023) (CTV I DEIR), [https://psbweb.kerncounty.com/planning/pdfs/eirs/ctv1/CTV1\\_DEIR\\_Vol\\_1\\_Ch\\_1-12\\_upd.pdf](https://psbweb.kerncounty.com/planning/pdfs/eirs/ctv1/CTV1_DEIR_Vol_1_Ch_1-12_upd.pdf).

<sup>60</sup> Kern County Planning and Natural Resources Department, *Notice of Availability for Public Review and Hearing on the Draft Environmental Impact Report for the Carbon Terra Vault I (Kern County) Project* (Dec. 19, 2023) at 1, 3.



- On June 9, 2023, the County issued a notice of preparation for the CarbonFrontier CCS project by Aera Energy.<sup>61</sup> Proposed to be located “within the administrative boundaries of the North and South Belridge oilfields,” “[t]he proposed project would capture CO<sub>2</sub> from existing sources within the South Belridge oil field and transport it by pipeline to dedicated Class VI injection wells within the North Belridge oil field to be injected into identified geologically confined reservoirs for storage.”<sup>62</sup>
- On April 2, 2024, the County issued a notice of preparation for the Kern River Eastridge CCS Project by Chevron U.S.A Inc., planned to be located “within the administrative boundary of the Kern River Oilfield.”<sup>63</sup> The project is intended “for the capture and transport of CO<sub>2</sub> from one source: the infield Eastridge Cogeneration Plant.”<sup>64</sup>

Significantly, these projects may just be the first of many to be pursued in existing oil fields by oil and gas operators and other fossil fuel interests. A 2020 report by Lawrence Livermore National Lab identified areas in the Southern San Joaquin Basin, including existing oil fields within Kern County, as prominent candidates for the development of CCS facilities.<sup>65</sup> County officials have also articulated a strong interest in developing CCS facilities,<sup>66</sup> and the Kern County Planning and Natural Resources Department issued a report entitled “Envisioning A Carbon Management Business Park.”<sup>67</sup>

The SSREIR therefore must address the environmental impacts from the construction and operation of CCS facilities either as direct impacts of the Project or, at the very least, in an updated analysis of cumulative impacts.

The construction and operation of CCS facilities to collect and store CO<sub>2</sub> generated by oil and gas development activities would seem to fall squarely within the Project Description, which

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<sup>61</sup> Kern County Planning and Natural Resources Department, *Notice of Preparation (NOP) of a draft environmental impact report (EIR) for the CarbonFrontier CCS Project by Aera Energy, LLC* (June 9, 2023), [https://psbweb.kerncounty.com/planning/pdfs/notices/CFCCS\\_NOP\\_IS\\_FINAL\\_6.7.23\\_Online\\_Version\\_003\\_.pdf](https://psbweb.kerncounty.com/planning/pdfs/notices/CFCCS_NOP_IS_FINAL_6.7.23_Online_Version_003_.pdf).

<sup>62</sup> *Id.* at 1-2.

<sup>63</sup> Kern County Planning and Natural Resources Department, *Notice of Preparation (NOP) of a draft environmental impact report (EIR) for the Kern River Eastridge carbon capture and storage Project by Chevron U.S.A Inc.* (Apr. 2, 2024), [https://psbweb.kerncounty.com/planning/pdfs/notices/KRECCS\\_NOP\\_CLEAN\\_FULL\\_ONLINE\\_4\\_2\\_2\\_4.pdf](https://psbweb.kerncounty.com/planning/pdfs/notices/KRECCS_NOP_CLEAN_FULL_ONLINE_4_2_2_4.pdf).

<sup>64</sup> *Id.* at 1-2

<sup>65</sup> Sarah E. Baker et al., *Getting to Neutral; Options for Negative Carbon Emissions in California* (Aug. 2020), 92-95, [https://gs.llnl.gov/sites/gs/files/2021-08/getting\\_to\\_neutral.pdf](https://gs.llnl.gov/sites/gs/files/2021-08/getting_to_neutral.pdf).

<sup>66</sup> See Emma Foehringer Merchant and Joshua Yeager, *California’s Oil Country Faces an ‘Existential’ Threat. Kern County Is Betting on the Carbon Removal Industry to Save It*, Inside Climate News (Jan. 16, 2024), <https://insideclimatenews.org/news/16012024/californias-oil-country-faces-existential-threat/>.

<sup>67</sup> Kern County Planning and Natural Resources Department, *Envisioning A Carbon Management Business Park* (June 2023), <https://cmbp.kernplanning.com/wp-content/themes/kern/co--assets/general/CMBP-Report-2023.pdf>.

broadly encompasses “potential future drilling and operational activities that could occur within the Project Area ... for the next 20 years.”<sup>68</sup> The Project Description covers “installation and operation of ancillary equipment and facilities,” which the County has declared “is an integral component of oil and gas exploration and production.”<sup>69</sup> The Project Description explicitly includes “gas ... separation and treatment process[es] and related facilities,”<sup>70</sup> which aptly describes CCS operations.

If not analyzed and mitigated as direct impacts of the Project, the SSREIR must at least address CCS as part of the SSREIR’s cumulative impacts analysis. CEQA requires that an EIR address all “probable future projects” in a cumulative impacts analysis.<sup>71</sup> Separate projects that “are undergoing environmental review,” such as the three specific oilfield CCS projects flagged above, necessarily constitute “reasonably probable future projects” that must be addressed by the SSREIR.<sup>72</sup>

It is crucial that the SSREIR account for the impacts of proposed and possible oilfield CCS facilities because they will add to the public health and environmental burdens caused by the Project. For example, the draft EIR for the Carbon TerraVault I CCS project concluded that it will cause significant and unavoidable impacts on Air Quality, Greenhouse Gases, and Mineral Resources.<sup>73</sup> The draft EIR also found cumulatively significant impacts on Aesthetics and Visual Resources, Agricultural Resources, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gases, Hydrology and Water Quality (Groundwater Supply), Mineral Resources, and Utilities and Service Systems (Groundwater Supply).<sup>74</sup>

The proposed addition of the CCS facilities is particularly consequential for the County’s previous evaluation of direct and cumulative impacts related to the release of greenhouse gas emissions. The County last evaluated greenhouse gas emissions for the Project in the original EIR, which did not mention let alone evaluate CCS technologies. Developing CCS facilities in existing oil fields poses new and substantially more significant greenhouse gas impacts both because well penetrations may allow CO<sub>2</sub> intended for sequestration to escape<sup>75</sup> and ongoing oilfield operations—including induced seismicity caused by wastewater injection practices<sup>76</sup>—likewise could compromise CO<sub>2</sub> storage.

## **B. Other co-located facilities**

The SSREIR should also be updated and revised to address the cumulative impacts posed by other new projects that have commenced or been proposed in Kern County since the original

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<sup>68</sup> SREIR at 3-35 (AR170982).

<sup>69</sup> SREIR at 3-42 (AR170989).

<sup>70</sup> SREIR at 3-49 (AR170989).

<sup>71</sup> CEQA Guidelines, § 15130(b)(1)(A).

<sup>72</sup> *Gray*, 167 Cal.App.4th at 1127–28.

<sup>73</sup> CTV I DEIR at 1-11 to 1-14.

<sup>74</sup> *Id.* at 1-15.

<sup>75</sup> Dominic DiGiulio, *Evaluation of Draft Environmental Impact Report on Geological Storage of Carbon Dioxide at the Carbon TerraVault I Facility in Kern County, California* (Feb. 25, 2024).

<sup>76</sup> EIR at 4.6-53 (AR1399).

EIR’s certification. Of particular relevance are several projects, beyond the CCS projects noted above, that have been proposed for co-location at or adjacent to oil fields in the Project Area. For example, Lone Cypress Energy Services has proposed to develop the Elk Hills Blue Hydrogen project “within the administrative boundary of Elk Hills Oil Field.”<sup>77</sup> Other potentially co-located facilities are described on the County’s “Carbon Management Business Park” website.<sup>78</sup>

### C. Fine Particulate Matter (PM<sub>2.5</sub>)

The Air Quality section of the SSREIR should be updated to reflect the USEPA’s issuance of a new national ambient air quality standard (NAAQS) for fine particulate matter, also known as PM<sub>2.5</sub>. On February 7, 2024, USEPA strengthened the annual health-based NAAQS for PM<sub>2.5</sub> from a level of 12 micrograms per cubic meter to 9 micrograms per cubic meter.<sup>79</sup>

The SSREIR needs to not only acknowledge this new standard, but address the implications of the fact that Kern County currently does not meet it,<sup>80</sup> and is not expected to meet it in 2032.<sup>81</sup> Consequently, the San Joaquin Valley Air Pollution Control District (Air District) will have to institute further restrictions on polluting projects and activities through the San Joaquin Valley airshed, including in Kern County.<sup>82</sup>

The SSREIR should also consider the, the summary of the latest scientific studies on the health effects of PM<sub>2.5</sub> that accompanied USEPA’s issuance of its revised PM<sub>2.5</sub> NAAQS. The SSREIR therefore should update its discussion of the health effects of PM<sub>2.5</sub> to reflect the latest science summarized by USEPA in its standard-setting decision. Such an update is necessary because CEQA requires that an EIR conduct “an analysis that connect[s] the air quality effects to

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<sup>77</sup> Kern County Planning and Natural Resources Department, *Notice of preparation (NOP) of a Draft environmental Impact Report (EIR) for the Elk Hills Blue Hydrogen Project by Lone Cypress Energy Services* (Feb. 28, 2024),

[https://psbweb.kerncounty.com/planning/pdfs/notices/elk\\_hills\\_blue\\_hydrogen\\_nop.pdf](https://psbweb.kerncounty.com/planning/pdfs/notices/elk_hills_blue_hydrogen_nop.pdf).

<sup>78</sup> County of Kern, *What is a Carbon Management Business Park?* (2024),

<https://cmbp.kernplanning.com/>.

<sup>79</sup> See generally USEPA, *Reconsideration of the National Ambient Air Quality Standards for Particulate Matter* (prepublication version, signed Feb. 5, 2024), <https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-final-frn-pre-publication.pdf>; accord, USEPA, *EPA Finalizes Stronger Standards for Harmful Soot Pollution, Significantly Increasing Health and Clean Air Protections for Families, Workers, and Communities* (Feb. 7, 2024), <https://www.epa.gov/newsreleases/epa-finalizes-stronger-standards-harmful-soot-pollution-significantly-increasing>.

<sup>80</sup> See USEPA, *EPA Finalizes Stronger Standards for Harmful Soot Pollution, Significantly Increasing Health and Clean Air Protections for Families, Workers, and Communities* at Figure 1; accord USEPA, *Fine Particle Concentrations for Counties with Monitors Based on Air Quality Data from 2020 – 2022* at 1, [https://www.epa.gov/system/files/documents/2024-02/table\\_annual-pm25-county-design-values-2020-2022-for-web.pdf](https://www.epa.gov/system/files/documents/2024-02/table_annual-pm25-county-design-values-2020-2022-for-web.pdf) (last accessed Mar. 1, 2024).

<sup>81</sup> USEPA, *EPA Projects More than 99% of Counties Would Meet the Revised Fine Particle Pollution Standard* (Feb. 7, 2024), <https://www.epa.gov/system/files/documents/2024-02/2024-pm-naaqs-final-2032-projections-map.pdf>.

<sup>82</sup> Alejandro Lazo, *California’s Pursuit of Clean Air Just Got Much Harder: New Soot Standards Set*, Cal Matters (Feb. 7, 2024) (“Achieving the new target will take wide-ranging new state and local regulations aimed at cutting emissions”), <https://calmatters.org/environment/2024/02/california-new-soot-standards>.

human health consequences.”<sup>83</sup> Of key importance to disclose to Kern County residents and decisionmakers: currently available evidence indicates there is no safe level of exposure to PM<sub>2.5</sub>.<sup>84</sup> Consequently, if the County insists on pushing ahead with the Project despite this reality, it is essential that the County adopt all feasible mitigation for increased PM<sub>2.5</sub> emissions.

#### **D. Greenhouse Gases and Climate Change**

New information regarding the impacts of climate change has become available since the EIR was originally certified in 2015. Many additional studies highlight the major role that fossil fuel production plays in bringing us closer to serious consequences of climate change, including triggering more frequent and severe droughts, forest fires, floods, heatwaves, and other extreme weather. For example, the International Panel on Climate Change completed its sixth assessment cycle and released a synthesis report in July 2023.<sup>85</sup> The SSREIR should update the 2015 EIR’s analysis of greenhouse gas emissions and global climate change impacts to reflect this latest science.

Of particular significance, scientists’ understanding of the dangers posed by methane emissions has progressed significantly since the County last evaluated the impact of greenhouse gas in 2015. In 2021, the global mean atmospheric concentration of methane reached 1,908 parts per billion, 2.6 times higher than before the industrial revolution.<sup>86</sup> Oil and natural gas operations are the nation’s largest industrial source of methane, a climate “super-pollutant” responsible for one third of the warming from greenhouse gases occurring today.<sup>87</sup> The International Energy Agency’s Global Methane Tracker showed that oil and gas accounted for 82.3 million tons of methane emissions in 2022.<sup>88</sup>

The SSREIR should address recent research indicating a high degree of variability among oil and gas well leaks, whereby some wells are “super-emitters” discharging many times more

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<sup>83</sup> *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 522.

<sup>84</sup> According to USEPA: “[t]he currently available evidence does not identify particular PM<sub>2.5</sub> concentrations that do not elicit health effects. Rather, health effects can occur over the entire distribution of ambient PM<sub>2.5</sub> concentrations evaluated, and epidemiologic studies conducted to date do not identify a population-level threshold below which it can be concluded with confidence that PM<sub>2.5</sub>-related effects do not occur.” USEPA, *Reconsideration of the National Ambient Air Quality Standards for Particulate Matter* (prepublication version) at 168.

<sup>85</sup> International Panel on Climate Change, *Climate Change 2023 Synthesis Report* (2023), [https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC\\_AR6\\_SYR\\_FullVolume.pdf](https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_FullVolume.pdf).

<sup>86</sup> World Meteorological Organization, *State of the Global Climate 2022* (Apr. 21, 2020), [https://library.wmo.int/viewer/66214/download?file=Statement\\_2022.pdf&type=pdf&navigator=1](https://library.wmo.int/viewer/66214/download?file=Statement_2022.pdf&type=pdf&navigator=1).

<sup>87</sup> USEPA, *Biden-Harris Administration Finalizes Standards to Slash Methane Pollution, Combat Climate Change, Protect Health, and Bolster American Innovation* (Dec. 2, 2023), <https://www.epa.gov/newsreleases/biden-harris-administration-finalizes-standards-slash-methane-pollution-combat-climate>.

<sup>88</sup> International Energy Agency, *Global Methane Tracker 2022*, <https://www.iea.org/reports/global-methane-tracker-2023/understanding-methane-emissions>.

methane due to malfunctioning oilfield equipment.<sup>89</sup> In April 2024, the California Air Resources Board (CARB) published the results of a multi-year study of airborne methane plumes across the state, including in Kern County.<sup>90</sup> The study found an alarming number of methane leaks, 40% of which were attributable to broken or malfunctioning equipment.<sup>91</sup> Emissions were “highly intermittent” and required repeated measurements to detect them despite the large volume.<sup>92</sup>

The SSREIR also should address regulatory changes. On June 22, 2023, CARB adopted amendments to the state’s Oil and Gas Methane Regulation, which went into effect on April 1, 2024.

Unfortunately, CARB’s methane rules contain gaps that may result in further fugitive emissions from oil and gas operations. For example, the regulations do not prohibit all venting from pneumatic controllers.<sup>93</sup> They also exempt equipment that handles exclusively heavy oil (API gravity less than 20) from “leak detection and repair” (LDAR) practices, providing a loophole for a significant portion of wells.<sup>94</sup> Other exemptions exist for certain separators and tanks,<sup>95</sup> and for annual methane emissions under 10 tons.<sup>96</sup>

Given the obvious shortcomings of the state’s regulations, the County should evaluate imposing its own mitigation measures for methane emissions, incorporating the latest leak detection and monitoring technology. It should also consider strict inspection requirements.

### **E. Dangers of Idle and Orphan Wells**

In the SSREIR, the County should evaluate the potential impacts of the potentially thousands of new idle and orphan wells that will result from the Project. New information has surfaced recently showing that idle and orphan wells pose more severe impacts than previously understood.

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<sup>89</sup> Carol Rasmussen, *Study Identifies Methane ‘Super-Emitters’ in Largest US Oilfield*, NASA Jet Propulsion Laboratory (June 2, 2021), <https://climate.nasa.gov/news/3087/study-identifies-methane-super-emitters-in-largest-us-oilfield/>.

<sup>90</sup> CARB, *Summary Report of the 2020, 2021, and 2023 Airborne Methane Plume Mapping Studies* (Apr. 2024) [https://ww2.arb.ca.gov/sites/default/files/2024-04/2020-2021-2023%20Airborne%20Summary%20Report\\_FINAL.pdf](https://ww2.arb.ca.gov/sites/default/files/2024-04/2020-2021-2023%20Airborne%20Summary%20Report_FINAL.pdf).

<sup>91</sup> *Id.* at 4.

<sup>92</sup> *Id.* at 6.

<sup>93</sup> CARB, *Public Hearing to Consider Proposed Amendments to the Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities; Final Statement of Reasons for Rulemaking, Including Summary of Comments and Agency Response Final Statement of Reasons* (June 22, 2023) at 6, <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2023/oilgas2023/fsor1.pdf>.

<sup>94</sup> 17 Cal. Code Regs., § 95669.

<sup>95</sup> *Id.*, § 95668(a)(2).

<sup>96</sup> *Id.*, § 95668(a)(5).

1. Dozens of idle wells have been discovered leaking in Kern County, many in residential neighborhoods.

In recent years, dozens of idle wells have been discovered leaking in Kern County. Many such wells have been identified near homes, some leaking methane in such significant volumes that the air near the source of the leak is literally explosive. In at least one documented instance, an inspector from the San Joaquin Valley Air Pollution Control District (Air District) measured ambient methane concentrations that equaled or exceeded 50,000 parts per million, levels that one expert deemed to be “an extreme and potentially hazardous event.”<sup>97</sup>

Troublingly, there is some uncertainty regarding the extent to which these dangerous leaks are subject to regulatory requirements and emissions limitations. According to the SREIR, “[f]ugitive VOC emissions from wells are subject to leak detection and repair requirements pursuant to District Rule 4409 and Rule 4401.”<sup>98</sup> But District Rule 4409, which regulates volatile organic compound (VOC) emissions from leaking components at light crude oil production facilities, does not apply to facilities used for oil with an API Gravity below 30 degrees.<sup>99</sup> And District Rule 4401, which regulates VOC emissions, only applies to well components that are steam-enhanced.<sup>100</sup> To avoid any confusion and to ensure that all feasible mitigation is in place to reduce air quality impacts, the SSREIR should clarify that District Rules 4409 and 4401 will be applied to *all* oil and gas wells in Kern County.

In addition to the elevated methane concentrations recently measured at leaking wells, there is cause for concern that these wells are also emitting other harmful air pollutants. That’s because “[m]ethane from the oil and gas industry comes packaged with other pollutants,” including other “VOCs, which are a key ingredient in ground-level ozone (smog); and a number of pollutants known as ‘air toxics’ – in particular, benzene, toluene, ethylbenzene and xylene.”<sup>101</sup>

As noted above, the new multi-well health risk assessment should address the risks associated with non-standard oil and gas well operations and site conditions, including these increasingly prevalent leaking incidents.

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<sup>97</sup> See Janet Wilson, *21 Oil Wells Now Found Leaking Methane Near California Homes*, Desert Sun (June 2, 2022), <https://www.desertsun.com/story/news/environment/2022/06/02/number-oil-wells-leaking-methane-near-california-homes-climbs-21/7484046001/>; Eliza Green, *Inspectors Find 14th Oil Well Leaking Methane in Bakersfield Residential Area*, Bakersfield Californian (May 31, 2022), [https://www.bakersfield.com/news/inspectors-find-14th-oil-well-leaking-methane-in-bakersfield-residential-area/article\\_76b33f18-e127-11ec-98ae-cbb404e66185.html](https://www.bakersfield.com/news/inspectors-find-14th-oil-well-leaking-methane-in-bakersfield-residential-area/article_76b33f18-e127-11ec-98ae-cbb404e66185.html); Drew Costley, *Gas Wells Leak Explosive Levels of Methane in Bakersfield*, AP News (May 25, 2022), <https://apnews.com/article/climate-science-health-california-and-environment-8ce6af934dcb5774f00c8e669df23bbb>; CalGEM Well Inspections and Repair Updates, (accessed Apr. 11, 2024), <https://www.conservation.ca.gov/index/Pages/News/State-Oil-and-Gas-Supervisor-Issues-Statement-on-Two-Bakersfield-Long-Term-Idle-Wells.aspx>.

<sup>98</sup> SREIR at 4.3-114 (AR 171289).

<sup>99</sup> Air District Rule 4409, § 3.22; see also SREIR at 4.3-61 to 4.3-62 (AR171236-37).

<sup>100</sup> Air District Rule 4401, § 2.0; see also SREIR at 4.3-60 (AR171235).

<sup>101</sup> USEPA, *EPA’s Actions to Reduce Methane Emissions from the Oil and Natural Gas Industry: Final Rules and Draft Information Collection Request* at 1, <https://www.epa.gov/sites/default/files/2016-09/documents/nsps-overview-fs.pdf>.



2. Idle well numbers have increased significantly, posing greater impacts and requiring strengthened mitigation measures.

In August 2023, CalGEM published its Idle Well Program Legislative Report covering idle well data from calendar year 2021.<sup>102</sup> The new information provided in this report shows California’s idle well problem has gotten worse over recent years. Whereas 29,292 idle wells were identified in 2018, as of 2021, the total stands at 38,759 idle wells.<sup>103</sup> And the number has continued to climb: CalGEM’s online database currently shows 40,014 idle wells, 27,898 of which are located in Kern County.<sup>104</sup>

This figure for Kern County—27,898 idle wells—is more than *double* the number of idle wells accounted for in the SREIR, which assumed there will be only 11,773 idle wells across the Project Area through 2035.<sup>105</sup> This disparity is consequential because the number of idle wells plays prominently in the SREIR’s estimation of VOC emissions,<sup>106</sup> which affects the SREIR’s calculation of the Project’s “incremental emissions,”<sup>107</sup> and with it the County’s design and implementation of Mitigation Measure 4.3-8 and the County’s Oil and Gas Emissions Reduction Agreement (OG-ERA) with the Air District.<sup>108</sup>

Because the latest information on the incidence of idle wells indicates both a significantly greater number and the potential for more serious impacts than previously acknowledged, the SSREIR should disclose the latest figures, reevaluate its emissions calculations, and adjust Mitigation Measure 4.3-8, the OG-ERA, and potentially other mitigation measure to ensure that all feasible mitigation has been instituted, as CEQA requires.

3. Orphan well numbers have exploded, and the cost to remediate such wells has increased significantly.

Like idle wells, the number of orphan wells is also increasing. As of the certification date for the SREIR and the County’s previous analyses, CalGEM had yet to complete its review of records to determine the number of orphan wells. But new information has come to light, and CalGEM now acknowledges there are over 5,300 orphan or likely orphan wells in California.<sup>109</sup> This number is likely to increase further as CalGEM confirms that many “deserted” wells have

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<sup>102</sup> CalGEM, *Idle Well Program Legislative Report: An Overview of Idle and Orphaned Wells in California* (January 1, 2021 to December 31, 2021) (Aug. 2023) (2023 Idle Well Report), <https://www.conservation.ca.gov/calgem/Documents/Idle%20Well%20Program%20Report%20for%202021.pdf>.

<sup>103</sup> *Id.* at 12.

<sup>104</sup> CalGEM Data Dashboard, (accessed Apr. 10, 2024)

<sup>105</sup> SREIR at 4.3-114, Table 4.3-21 (AR171289).

<sup>106</sup> *Ibid.*

<sup>107</sup> SREIR at 4.3-126 to 4.3-129 (AR171301-04).

<sup>108</sup> *Id.* at 4.3-66, 4.3-130 to 4.3-131, 4.3-139 (AR171241, 171305-06, 171314).

<sup>109</sup> CalGEM, *State Abandonment Draft Expenditure Plan* (July 2023) at 7, [https://www.conservation.ca.gov/calgem/Documents/state\\_abandonment\\_expenditure\\_plan\\_7-17-2023.pdf](https://www.conservation.ca.gov/calgem/Documents/state_abandonment_expenditure_plan_7-17-2023.pdf).

no solvent operators.<sup>110</sup>

In 2020, the California Council on Science and Technology (CCST) estimated California's onshore oil and gas well remediation to cost roughly \$9.2 billion,<sup>111</sup> with the average cost to plug a well estimated to be \$68,000 per well.<sup>112</sup>

Recently, more robust calculations have significantly increased the estimated cost of remediation. For example, a 2023 report by Carbon Tracker estimated it may cost up to \$21.5 billion to remediate all onshore wells in California.<sup>113</sup> CalGEM's most recent cost estimates for individual well remediation similarly exceed CCST's estimates; according to CalGEM the average cost per well is \$111,000.<sup>114</sup> Carbon Tracker's report highlights the risk that large numbers of idle wells may remain unplugged without further mitigation because operators will not generate enough future cash flow to cover the costs of plugging and abandonment.<sup>115</sup>

Accordingly, the SSREIR should consider the impacts of idle and orphan wells in its analysis and evaluate mitigation measures to address the burgeoning orphan well crisis, including requiring operators to plug a minimum number of idle wells each year. Such a mitigation measure is feasible and will help mitigate the potential impacts from both idle and orphan wells. The SSREIR should also evaluate the possibility of imposing on all new wells a bonding requirement for the full cost of plugging to ensure that operators set aside enough financial resources to cover remediation. The County should consider such a mitigation measure because state bonding requirements are inadequate.<sup>116</sup>

## **F. Temblor Legless Lizard**

We acknowledge that the Court of Appeal ruled the County was not required to revise the SREIR to incorporate new information on the Temblor legless lizard (*Anniella alexanderae*).<sup>117</sup> Nonetheless, we believe that certain statements about the species in the EIR are confusing if not objectively incorrect, and we encourage the County to modify the text to ensure that the public and decision makers are adequately informed.

The County's analysis of the Project's impacts on biological resources has remained virtually unchanged since 2015, when almost nothing was known about the Temblor legless lizard. Owing to that lack of information, the County's 2015 analysis of the Project's impacts on

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<sup>110</sup> *Ibid.*

<sup>111</sup> California Council on Science and Technology, *Orphan Wells in California: An Initial Assessment of the State's Potential Liabilities to Plug and Decommission Orphan Oil and Gas Wells* (Jan. 23, 2020) at 27-28 (AR198625-26).

<sup>112</sup> *Id.* at 21 (AR198619).

<sup>113</sup> Dwayne Purvis, *There Will Be Blood: Decommissioning California's Oilfields* (May 2023) (There Will Be Blood) at 5, <https://carbontracker.org/reports/there-will-be-blood/>.

<sup>114</sup> Legislative Analyst Office, *The 2022-2023 Budget: Oil Well Abandonment and Remediation* (Jan. 31, 2022) at 1, <https://lao.ca.gov/reports/2022/4508/oil-well-abandonment-remediation-013122.pdf>.

<sup>115</sup> Purvis, *There Will Be Blood* at 28-35.

<sup>116</sup> *Id.* at 26.

<sup>117</sup> *V Lions Slip Op.* at 96-97.



the Temblor legless lizard and other legless lizard species is unclear if not inaccurate. For example, the EIR states that the Temblor legless lizard has the potential to occur in Tiers 1, 2, 3, and 4 of all Subareas of the Project Area.<sup>118</sup> This assertion no longer reflects scientists' best understanding of the habitat range for this species<sup>119</sup> and should be updated in the SSREIR.

The SREIR also asserts that impacts to two separate species—the silvery legless lizard and Bakersfield legless lizard—are the same as impacts to the Temblor legless lizard.<sup>120</sup> The SSREIR should revise its biological resources analysis to evaluate the impacts to each legless lizard species separately and consider mitigation measures appropriate for each species. If the County concludes that the same mitigation measures are appropriate across all legless lizard species, it should explain this finding.

The 2015 EIR also treats the Temblor legless lizard as a Species of Special Concern (SSC) “due to the status of silvery legless lizard as a California SSC,”<sup>121</sup> but the California Department of Fish and Wildlife granted the Temblor legless lizard a candidate status for endangered or threatened as of July 1, 2022.<sup>122</sup> Until the final determination is made, the Temblor legless lizard is afforded the same protections under the California Endangered Species Act that endangered and threatened species receive.<sup>123</sup> The SSREIR should be updated to reflect this development.

## **G. Efficacy of Mitigation Measures**

The County adopted its first iteration of the Project more than eight years ago and it has since issued more than 10,000 permits, meaning it has now acquired significant implementation experience. The SSREIR therefore can and should describe and evaluate the extent to which the original EIR's mitigation measures have been effective at reducing impacts. To the extent any measures have not been implemented at all or as effectively as expected, the SSREIR should disclose these shortcomings and propose how the County intends to improve implementation or otherwise meet CEQA's requirement to adopt all feasible mitigation.

## **VI. Conclusion**

For all the reasons explained above, we view the SSREIR as not only a legal necessity required by the Court of Appeal to address the County's past CEQA violations, but also an opportunity for the County to conduct a robust review of impacts that reflects the spirit and purpose of CEQA, which is to inform the public and facilitate development of strong mitigation measures. Although we fundamentally object to the Project both as a misuse of CEQA and as a

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<sup>118</sup> 2015 EIR at 4.4-78, Table 4.4-36 (AR1111); 4.4-1122 (AR1155).

<sup>119</sup> See generally James F. Parham et al., *Conservation Assessment of the California Legless Lizard (Anniella)* (Aug. 16, 2019) (AR203302-31).

<sup>120</sup> 2015 EIR 4.4-89 (AR1122).

<sup>121</sup> 2015 EIR 4.4-89 (AR1122).

<sup>122</sup> Cal. Dept. of Fish and Wildlife, *CNDDB News Blog* (Aug. 16, 2022), <https://wildlife.ca.gov/Data/CNDDB/News/temblor-legless-lizard-status-review-how-you-can-help#gsc.tab=0>.

<sup>123</sup> *Id.*

bad idea, we genuinely hope the County will commit to a better outcome for the SSREIR. To this end, the County should use the best available factual information and science to shape the Project and mitigation measures in a way that addresses legitimate community concerns. We remain willing to work with the County to eliminate the need for further legal action.

Sincerely,

Hollin Kretzmann  
(HKretzmann@biologicaldiversity.org)  
Center for Biological Diversity

Dan Ress (dress@ccrpe-ej.org)  
Center on Race, Poverty & the Environment

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# WEST COAST LAND SERVICE

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## VIA EMAIL

April 22, 2024

Keith Alvidrez  
Kern County Planning and Natural Resources Department  
2700 "M" Street, Suite 100  
Bakersfield, CA 93301  
og-ssreircomments@kerncounty.com

Re: Comments on the Notice of Preparation of the Second Supplemental Recirculated Environmental Impact Report for Revisions to Title 19 – Kern County Zoning Ordinance

Dear Mr. Alvidrez:

West Coast Land Service "WCLS" is pleased to submit these comments in response to the Notice of Preparation ("NOP") of a Draft Second Supplemental Recirculated Environmental Impact Report for Revisions to Title 19 – Kern County Zoning Ordinance (SCH# 2013081079) ("SSREIR").

WCLS supports the efforts of Kern County ("County") to promote predictability in oil and gas permitting, while also facilitating the delivery of new housing in the County. Both industry sectors are of vital importance to the continued economic prosperity of County residents, business owners, and workforce.

The County General Plan and zoning ordinance recognize that oil and gas production and residential development are compatible uses when sited responsibly. The County is no exception in this regard. Indeed, formerly productive oilfield properties have been identified by municipalities throughout southern California as prime targets for new and critically needed residential development.<sup>1</sup> The County's 6<sup>th</sup> Cycle Regional Housing Needs Assessment (2023-

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<sup>1</sup> City of Santa Maria, Sixth Cycle Housing Element 2023-2031, Appendix B, pp. B-20-21 (Dec. 5, 2023), available at

<https://www.cityofsantamaria.org/home/showpublisheddocument/32008/638379843679470000>; City of Brea, 2021-2029 Housing Element, p. 3-116 (Aug. 16, 2022), available at <https://www.ci.brea.ca.us/DocumentCenter/View/13856/Adopted-Brea-Housing-Element-and-Appendices>; City of Montebello, 2021-2029 Montebello Housing Element, p. 91 (June 22, 2022), available at [https://cdnsm5-hosted2.civiclive.com/UserFiles/Servers/Server\\_58672/File/Departments/Planning%20&%20Comm.%20Dev/Planning%20Division/Montebello-Housing-Element%206th%20Cycle%20\(2021-2029\).pdf](https://cdnsm5-hosted2.civiclive.com/UserFiles/Servers/Server_58672/File/Departments/Planning%20&%20Comm.%20Dev/Planning%20Division/Montebello-Housing-Element%206th%20Cycle%20(2021-2029).pdf) and the



2031) identifies 4,852 above moderate income units, 1853 moderate income units, 987 low income units, and 1,551 very low income units, for a total of **9,243 new dwelling units**.<sup>2</sup> These development goals are not likely to be attained if County policies unreasonably restrict the development of residential and supporting community services, such as schools, community centers, and recreational open space, in proximity to existing oil and gas operations.

County regulation of oil and gas activities is tied to the planning and siting of new residential communities. Mandatory setbacks for oil and gas operations also operate as restrictions on land that can be put to residential or other community uses. The Grapevine Community and Specific Plan, which the County adopted in 2019, is one recent example of the simple fact that anticipated population growth in the County requires the responsible collocation of residential and oil and gas uses. Several oilfields are near and within the Grapevine Community and Specific Plan boundary, including the Tejon, North Tejon, Wheeler Ridge, and Tejon Hills Oil Fields.<sup>3</sup>

The County has assumed, for purposes of the forthcoming Draft SSREIR, that over a 25-year planning horizon an average of 2,697 new producing wells per year could be drilled in unincorporated Kern County. WCLS respectfully requests that the forthcoming Draft SSREIR and the supporting Health Risk Assessments:

- Fully vet and contextualize the assumption that 2,697 **new** wells will be drilled in the County over the next 25 years, by for example, attempting to define areas where new wells are likely to be drilled;
- Acknowledge that future activities in the vicinity of sensitive receptors may be limited to the reworking and workovers of existing wells;
- Recognize, consistent with the extensive record of proceeding in support of the County's 2015 Title 19 amendments, that diesel particulate matter emissions

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Montebello Hills Specific Plan, *available at* [https://cdnsm5-hosted2.civiclive.com/UserFiles/Servers/Server\\_58672/File/Departments/Planning%20&%20Comm.%20Dev/Planning%20Division/Specific%20Plans/Montebello%20Hills/MontebelloHillsSP%203.27.09.pdf](https://cdnsm5-hosted2.civiclive.com/UserFiles/Servers/Server_58672/File/Departments/Planning%20&%20Comm.%20Dev/Planning%20Division/Specific%20Plans/Montebello%20Hills/MontebelloHillsSP%203.27.09.pdf); Orange County, Draft County of Orange Housing Element, Appendix B, Figure B-13, (July 2023) *available at* <https://ocds.ocpublicworks.com/sites/ocpwoocds/files/2023-08/OC%20Housing%20Element%20Update%20July%202023%20Draft%20to%20HCD.pdf> (identifying parcels in Brea and the City of Yorba Linda); City of Long Beach 6<sup>th</sup> Cycle Housing Element (Feb. 2022), p. 61, *available at* <https://www.longbeach.gov/globalassets/lbcd/media-library/documents/planning/housing-element-update/housing-element-final-adopted-february-2022> and Appendix C, p. C-65, *available at* <https://www.longbeach.gov/globalassets/lbcd/media-library/images/planning/housing-element-update/he-adopted-plan-appendix>.

<sup>2</sup> Kern Council of Governments, Regional Housing Needs, Rounding Error Adjustment to the 6<sup>th</sup> Cycle RHNA Allocation, (Jan. 9, 2023), *available at* <https://www.kerncog.org/wp-content/uploads/2023/02/RHNA-Adjust-Memo-Webpage.pdf>.

<sup>3</sup> Kern County Board of Supervisors Staff Report for the Grapevine Community and Specific Plan, Dec. 10, 2019, p. 4.

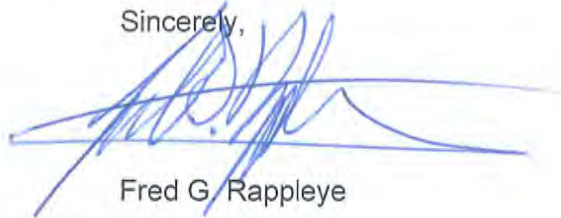
from well reworking and workovers are a **fraction** of the emissions rate that can be expected from the drilling of new wells;<sup>4</sup> and

- Document that **site-specific** factors in addition to well depth – including and not limited to existing (i.e. historical baseline) well density and reasonably foreseeable future well density – are best evidence of, and should dictate, necessary setback requirements between oil and gas operations and sensitive receptors.

WCLS further recommends that the County's forthcoming revisions to Title 19 endorse the view that a project-specific Health Risk Assessment may demonstrate that cancer risk is below significance thresholds, thus obviating the requirement for otherwise applicable setbacks from sensitive receptors.

Thank you for this opportunity to comment on the scope of the forthcoming SSREIR. We look forward to supporting the important work of Kern County staff in readying Title 19 revisions for consideration and adoption by the County.

Sincerely,



Fred G. Rappleye

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<sup>4</sup> The Cumulative Health Risk Assessment for Proposing Drilling and Oil and Gas Operations, prepared by Environmental Compliance Solutions, Inc., dated October 2015, estimated diesel particulate matter emissions to be 18.24 lbs/year and 784.32 lbs/year for rework and drilling of new wells, respectively.



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**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



May 02, 2024

Keith Alvidrez  
Kern County Planning and Natural Resources Department  
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[AlvidrezK@kerncounty.com](mailto:AlvidrezK@kerncounty.com)  
[OG-SSREIRComments@kerncounty.com](mailto:OG-SSREIRComments@kerncounty.com)

Subject: **Revisions to Title 19 – Kern County Zoning Ordinance (2024) focused on oil and gas local permitting (Project) Notice of Preparation (NOP) SCH: 2013081079**

Dear Keith Alvidrez:

The California Department of Fish and Wildlife (CDFW) received an NOP for a Second Supplemental Recirculated Environmental Impact Report (SSREIR) from the Kern County Planning and Natural Resources Department (Kern County) for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under Fish and Game Code. While the comment period may have ended, CDFW respectfully requests that Kern County still consider our comments.

## **CDFW ROLE**

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically

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<sup>1</sup> CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.



Keith Alvidrez  
Kern County Planning and Natural Resources Department  
May 02, 2024  
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sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

## **PROJECT DESCRIPTION SUMMARY**

**Proponent:** Western States Petroleum and California Independent Petroleum Associations

**Objective:** The Project proposes to revise Title 19 of the Kern County Zoning Ordinance for local permitting for oil and gas to address oil and gas exploration and operation in greater detail by: (a) establishing updated development, standards, and conditions; (b) establishing new ministerial permit procedures for Kern County approval and compliance monitoring.

**Location:** The proposed Project boundary encompasses 3,700 square miles and generally includes the San Joaquin Valley Floor portion of Kern County up to an elevation of 2,000 feet. The boundary is defined by the San Luis Obispo County line on the west; the Kings and Tulare County lines on the north; the 2,000-foot elevation contours, squared off to the nearest section line on the east; and the northern boundary of the Los Padres National Forest on the south.

**Timeframe:** N/A

## **COMMENTS AND RECOMMENDATIONS**

CDFW offers the comments and recommendations below to assist Kern County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, indirect, and cumulative impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the CEQA document.

Keith Alvidrez  
Kern County Planning and Natural Resources Department  
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After reviewing the NOP, CDFW recommends that the biological resource measures provided in the 2015 Draft Environmental Impact Report (DEIR) for the Project and comments and recommendations provided to Kern County in the Project Draft Environmental Impact Report (DEIR) comment letter dated September 11, 2015 (CDFW 2015 Comment Letter), be incorporated as mitigation measures within the SSEIR to adequately mitigate the Project's significant, or potentially significant, direct, indirect, and cumulative impacts on biological resources.

CDFW would also like to note that since the 2015 DEIR was circulated, two species that may be present within the Project area have been listed under CESA. Temblor legless lizard (*Anniella alexanderæ*) and Crotch's bumble bee (*Bombus crotchii*) were listed as State candidate endangered species on July 1, 2022 and September 30, 2022, respectively. Based on a review of aerial imagery and other information, both of these species may be present within the Project boundaries; Temblor legless lizard is very likely present in the Project Area; current species information indicates that the range of Temblor legless lizard is restricted to a small areas along the east side of the Temblor Mountains, from the western edge of Kern County north to western Fresno County (Center for Biological Diversity 2021). As neither of these species were not adequately evaluated within the 2015 DEIR for the Project and have not been included and evaluated within the SSEIR, CDFW recommends that the habitat assessments and focused surveys be conducted part of the biological studies conducted in support of the SSEIR for both species. In addition, CDFW recommends the following measures be included within the SSEIR to adequately mitigate for any development or ground disturbance that may result from the Project:

### **Temblor Legless Lizard (TLL)**

#### **Recommended Mitigation Measure 1: TLL Surveys**

CDFW recommends that a qualified biologist conduct focused surveys for TLL and their requisite habitat features prior to any ground disturbance activities associated with the Project.

#### **Recommended Mitigation Measure 2: TLL Avoidance Buffer**

If a TLL is found prior to or during construction, CDFW recommends implementation of a minimum 50-foot no-disturbance buffer avoid take and potentially significant impacts. Any detection of TLL prior to or during Project implementation warrants consultation with CDFW to discuss how to avoid take. In the event that a TLL is detected during surveys, and a 50-foot no-disturbance buffer is not feasible, consultation with CDFW is warranted to discuss how to avoid take.

#### **Recommended Mitigation Measure 3: TLL Take Authorization**

In the event that a TLL is detected during surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization prior to any ground disturbing activities would be warranted. Take



Keith Alvidrez  
Kern County Planning and Natural Resources Department  
May 02, 2024  
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authorization would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code section 2081(b).

### **Crotch's Bumble Bee (CBB)**

#### **Recommended Mitigation Measure 4: CBB Survey**

CDFW recommends that a qualified biologist conduct focused surveys for CBB, and their requisite habitat features following the methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023) during the blooming period immediately prior to ground-disturbing activities associated with the Project.

#### **Recommended Mitigation Measure 5: CBB Avoidance Buffers**

If CBB is detected, CDFW recommends that all small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid take and potentially significant impacts. If ground-disturbing activities will occur during the overwintering period (October through February), consultation with CDFW is warranted to discuss how to implement Project activities and avoid take. Any detection of CBB prior to or during Project implementation warrants consultation with CDFW to discuss how to avoid take.

#### **Recommended Mitigation Measure 6: CBB Take Authorization**

If CBB is identified during surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization prior to any ground disturbing activities would be warranted. Take authorization would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code section 2081(b).

### **ENVIRONMENTAL DATA**

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: [CNDDDB@wildlife.ca.gov](mailto:CNDDDB@wildlife.ca.gov). The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

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Kern County Planning and Natural Resources Department  
May 02, 2024  
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## FILING FEES

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CDFW appreciates the opportunity to comment on the Project to assist Kern County in identifying and mitigating the Project's impacts on biological resources. A Mitigation and Monitoring Program (MMRP) (Attachment 1) is included below to assist Kern County with incorporating the recommended mitigation measures provided above.

More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (<https://www.wildlife.ca.gov/Conservation/Survey-Protocols>). If you have any questions, please contact John Riedel, Environmental Scientist, at (559) 807-1453, or [John.Riedel@wildlife.ca.gov](mailto:John.Riedel@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
  
FAB3F09FE08945A...

Julie A. Vance  
Regional Manager

ec: State Clearinghouse  
Governor's Office of Planning and Research  
[State.Clearinghouse@opr.ca.gov](mailto:State.Clearinghouse@opr.ca.gov)

Keith Alvidrez  
Kern County Planning and Natural Resources Department  
May 02, 2024  
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## References

California Department of Fish and Wildlife. 2023. Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species. California Department of Fish and Wildlife, Sacramento, California, USA.

Center for Biological Diversity. 2021. A Petition to the California Fish and Game Commission to list Temblor legless lizard (*Anniella alexanderae*) as Endangered or Threatened Pursuant to the California Endangered Species Act.

Keith Alvidrez  
 Kern County Planning and Natural Resources Department  
 May 02, 2024  
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**Attachment 1**

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE  
 RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM  
 (MMRP)**

**PROJECT: Revisions to Title 19 – Kern County Zoning Ordinance (2024)  
 focused on oil and gas local permitting**

**SCH No.: 2013081079**

<b>RECOMMENDED MITIGATION MEASURE</b>	<b>STATUS/DATE/INITIALS</b>
<i>Before Disturbing Soil or Vegetation</i>	
Temblor Legless Lizard	
Recommended Mitigation Measure 1: TLL surveys	
Recommended Mitigation Measure 3: TLL take authorization	
Crotch's Bumble Bee	
Recommended Mitigation Measure 4: CBB surveys	
Recommended Mitigation Measure 6: CBB take authorization	
<i>During Construction</i>	
Temblor Legless Lizard	
Recommended Mitigation Measure 2: TLL avoidance buffer	
Crotch's Bumble Bee	

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Kern County Planning and Natural Resources Department  
May 02, 2024  
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Recommended Mitigation Measure 5: CBB avoidance buffer	
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Appendix C  
Evaluation of Groundwater Use in Kern  
County by the Oil and Gas Industry Using Data  
Compiled by CalGEM Pursuant to  
Senate Bill 1281 (2014)

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# **Evaluation of Groundwater Use in Kern County by the Oil and Gas Industry Using Data Compiled by CalGEM Pursuant to Senate Bill 1281 (2014)**

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Prepared by:  
Kern County Planning and  
Natural Resources Department  
2700 “M” Street, Suite 100  
Bakersfield, CA 93301

March 2025



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# **Evaluation of Groundwater Use in Kern County by the Oil and Gas Industry Using Data Compiled by CalGEM Pursuant to Senate Bill 1281 (2014)**

**NOTE TO REVIEWER OF ELECTRONIC FILES:** To assist you in reviewing this electronic document, *bookmarks* and/or *links* have been provided for easier navigation between sections. When available, bookmarks are located in the panel to the left. Links are shown in **BLUE** in the Table of Contents. Clicking on either the bookmarks or links will take you to the selected item. This document may consist of multiple linked PDF files. If saving this document to your computer, you must save all corresponding files to one folder on your hard drive to maintain the link connections.

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## **Acronyms and Abbreviations**

CalGEM	California Geologic Energy Management Division
CCST	California Council on Science and Technology
DAC	Disadvantaged Community
DWR	California Department of Water Resources
EOR	Enhanced oil recovery
GIS	geographic information system
mg/L	milligrams per liter
O&G	oil and gas
SB	Senate Bill
TDS	total dissolved solids
UIC	Underground Injection Control

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# **1. INTRODUCTION**

## **1.1. Purpose and Scope**

This report evaluates the feasibility of using water production, injection, and disposition data and information for the oil and gas (O&G) industry to assess the potential effects of groundwater use on the availability of groundwater in communities in the Central Valley portion of Kern County, California, especially for disadvantaged communities (DACs). Water use information is provided by O&G industry operators and is compiled by the California Department of Conservation, California Geologic Energy Management Division (CalGEM).

This evaluation considers the practicability of extracting information pertaining to the use of fresh groundwater by the O&G industry in Kern County from CalGEM's publicly available data and assesses the sufficiency of that data for evaluating the potential effects of O&G industry groundwater use on groundwater availability at DACs and non-DACs in the Central Valley portion of Kern County.<sup>1</sup> It summarizes a previous evaluation of information compiled by CalGEM for assessing statewide water use by the O&G industry. Finally, the use of fresh water by the O&G industry in Kern County is compared to groundwater use by major users in the area.<sup>2</sup>

## **1.2. Study Questions**

This evaluation addresses the following study questions:

- Question 1: Can data regarding water use by the O&G industry be obtained from CalGEM data portals? If so, how and where?
- Question 2: Can the data be filtered to focus on Kern County?
- Question 3: Can the data be filtered to focus on specific O&G fields?
- Question 4: Can the data be filtered to focus on areas near specific geographic locations, such as disadvantaged or non-disadvantaged communities?
- Question 5: Can the data be filtered to quantify fresh groundwater use by the O&G industry?
- Question 6: How much groundwater is used by the O&G industry in Kern County relative to the amount of groundwater consumed by other users?

## **1.3. Document Organization**

This document is organized into the following sections:

- Section 1: Introduction
- Section 2: Project Area Overview

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<sup>1</sup> Fresh water is classified in the California Department of Conservation, California Geologic Energy Management Division (CalGEM) data as "suitable for domestic or irrigation use" based on total dissolved solids concentrations of 10,000 milligrams per liter or less. Although total dissolved solids concentration is useful as a screening criterion, concentrations of other constituents also affect potential usability for domestic or irrigation use.

<sup>2</sup> The CalGEM data does not identify groundwater and surface water separately.

- Section 3: Evaluation of CalGEM Data for Water Use by the Oil and Gas Industry in Kern County
- Section 4: Summary of California Council for Science and Technology Evaluation of CalGEM Water Use Data
- Section 5: Estimated Groundwater Use in Kern County
- Section 6: Conclusions
- Section 7: References

## **2. PROJECT AREA OVERVIEW**

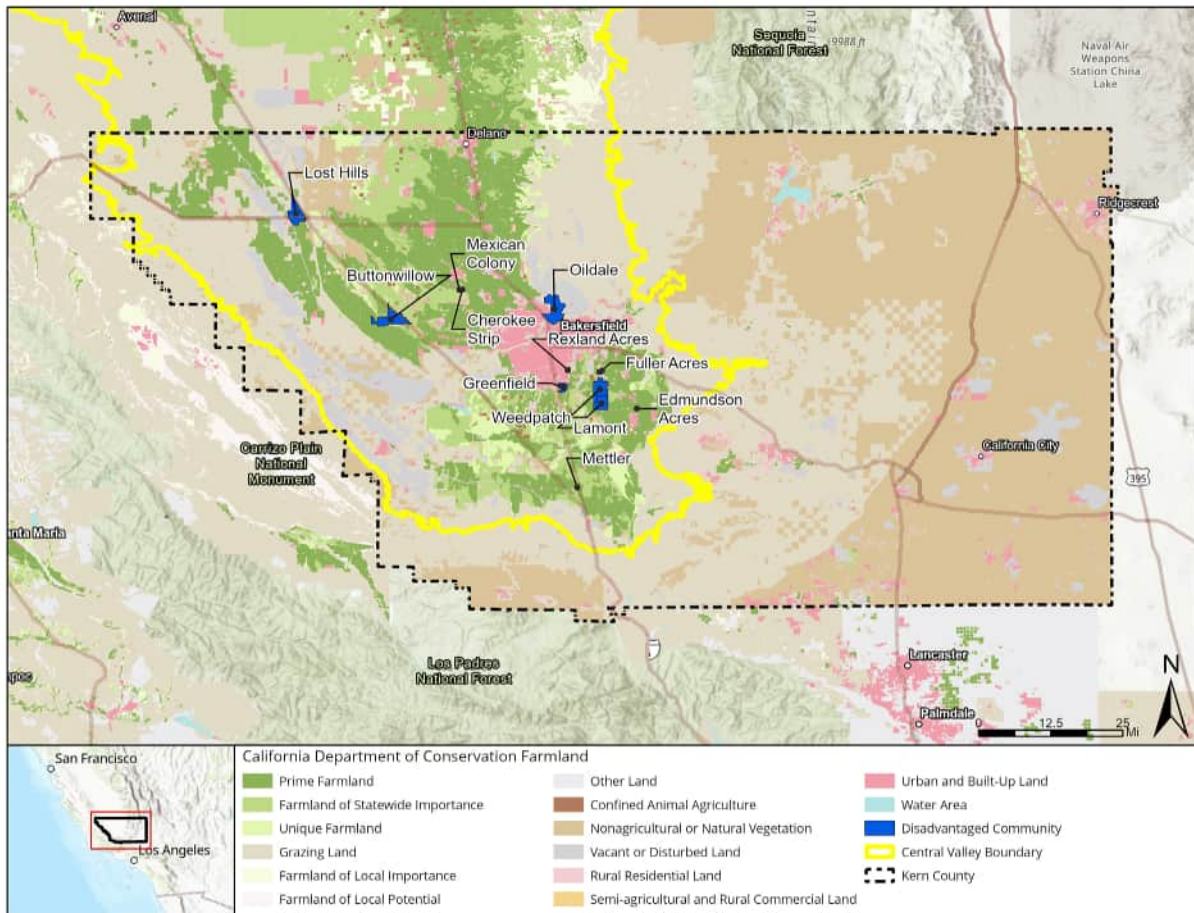
### **2.1. Agricultural Areas, Oil and Gas Fields, and Disadvantaged Communities in the Central Valley of Kern County**

DACs in Kern County were identified as part of the 6th Cycle Housing Element Update (Kern County 2024). This assessment considered unincorporated communities in Kern County that the County considered to be at risk of failing to provide necessary services for all residents. Communities were identified as disadvantaged based on median household income relative to statewide median household income. Twenty-five DACs were identified in Kern County and out of the 25 DACs, 12 are in the Central Valley portion of the county as shown on Figure 2-1. Kern County (2024a) summarized the sources, quality, and availability of water in disadvantaged unincorporated communities. None were identified as having inadequate water quantity, although water quality is a problem at Fuller Acres. Water quality and aging infrastructure limit availability in Johannesburg and Randsburg, which are not in the Central Valley portion of Kern County.

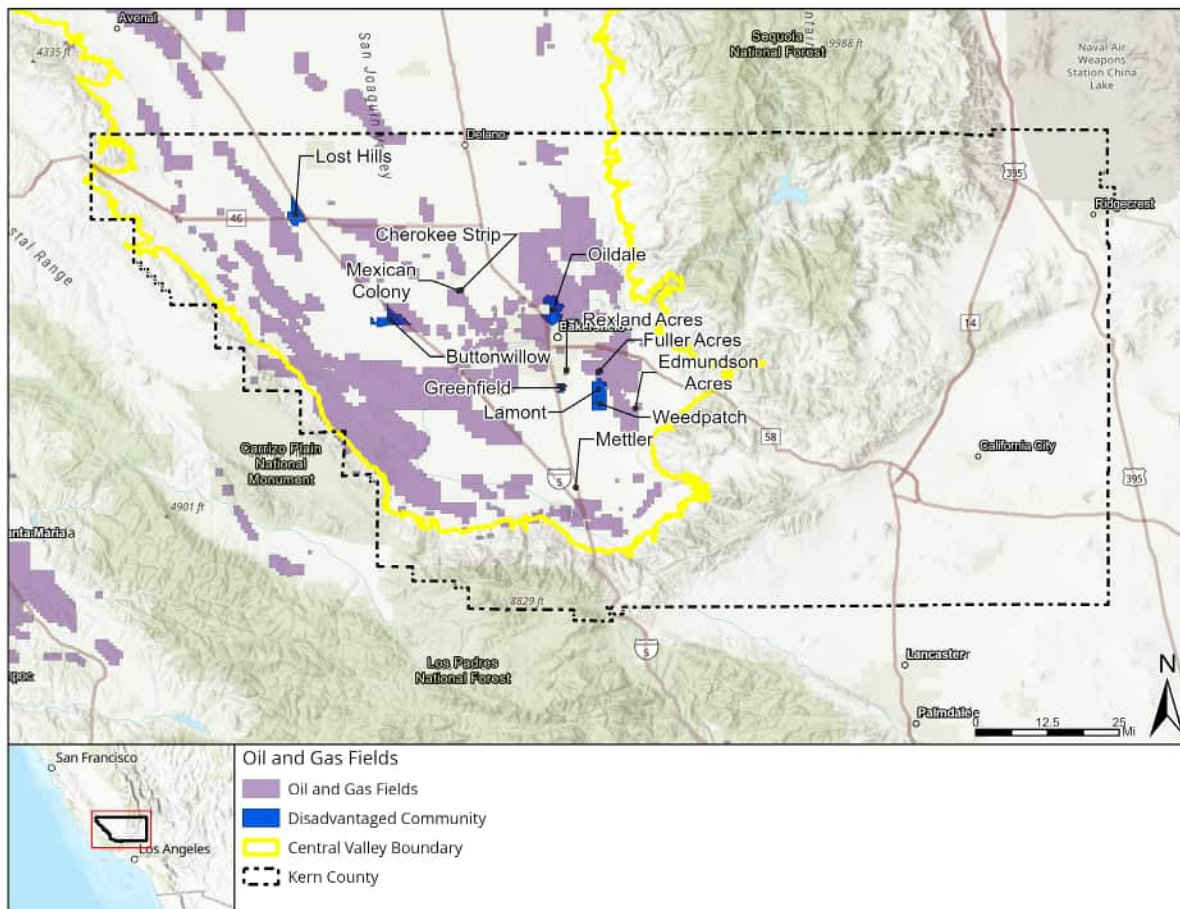
Major land uses in the Central Valley portion of Kern County include various types of agricultural land as classified by the California Department of Conservation (Figure 2-1). Most of the farmland in the Central Valley is classified as Prime Farmland or Farmland of Statewide Importance. All the identified DACs in the Central Valley portion of Kern County are close to agricultural areas, except for Oildale, which is in an urban area. Another major land use in the Central Valley portion of Kern County is O&G production. There are approximately 100 O&G fields in the Central Valley portion of Kern County according to the CalGEM, as shown on Figure 2-2. Many DACs in the Central Valley portion of Kern County are close to O&G fields.



**Figure 2-1: Disadvantaged Communities and Agricultural Areas in the Central Valley of Kern County, California**



**Figure 2-2: Oil and Gas Fields in Kern County, California**



## 2.2. Susceptibility of Water Supply Wells to Failure Because of Groundwater Level Decline in Kern County

The California Department of Water Resources (DWR), in coordination with the State Water Resources Control Board developed an analysis and interactive map to identify areas within groundwater basins throughout California that may be prone to water supply shortages resulting from domestic drinking water supply wells going dry because of groundwater level decline (DWR 2024).

The susceptibility of a well to failure (i.e., going dry) was assessed by comparing the predicted future groundwater levels to well depth. Groundwater levels were predicted using the most recent available springtime water level data for groundwater level monitoring wells and adding the maximum water level decline observed over any five-year period since 2011 to the measured depth to water. This created a predicted future depth to water for each groundwater level monitoring well, which was then used to create an interpolated surface for estimated future depth to water at each domestic well location. A water supply well was classified as susceptible to failure if the predicted future depth to water was greater than 80 percent of the total depth of the well. A water level decline would potentially have a greater effect on wells that extend only slightly below the water level than on wells that extend farther below the water level. The DWR approach

classifies wells that extend only slightly below the predicted future water level as susceptible to failure.

The interactive map classifies 1-square-mile grid cells based on the number of domestic wells within each cell that are susceptible to going dry if recent groundwater trends continue (i.e., failure-susceptible wells). Grid cells are classified by percentiles based on the number of failure-susceptible wells in a grid cell compared to all such grid cells on a statewide basis. Therefore, a grid cell that has a given number of failure-susceptible wells would be in the same percentile class regardless of its location in the state. Lower percentiles correspond to fewer failure-susceptible wells, and higher percentiles correspond with more failure-susceptible wells in a grid cell.

### 2.3. Well Failure Susceptibility Near Disadvantaged Communities

DWR's evaluation found that eight of the 12 DACs in the project area could potentially be affected by well failure. Grid cells in which DACs are located range from containing no failure-susceptible wells to the 20<sup>th</sup> to 30<sup>th</sup> percentile class, as shown in Table 2-1 and on Figure 2-3. The 0<sup>th</sup> percentile indicates that a 1-square-mile grid cell does not contain a failure-susceptible well; the 0<sup>th</sup> to 10<sup>th</sup> percentile class corresponds to one failure-susceptible well per grid cell; the 10<sup>th</sup> to 20<sup>th</sup> percentile class corresponds to two failure-susceptible wells per grid cell; and the 20<sup>th</sup> to 30<sup>th</sup> percentile class corresponds to three failure-susceptible wells per grid cell. No grid cells at the project area DACs exceed the 30<sup>th</sup> percentile.

Table 2-1 also provides the area within each DAC that falls within a percentile class, expressed as a percentage of the total area of that DAC. Except for Mexican Colony, most of the area at each DAC is in grid cells where no failure-susceptible wells were identified. At Mexican Colony, the entire DAC (approximately 20 acres, equivalent to approximately 0.03 square mile) is in the 0<sup>th</sup> to 10<sup>th</sup> percentile class.

Comparing the area in each percentile class for all project area DACs to the total area of those DACs, approximately 8.3 percent of the total DAC area falls in the 0<sup>th</sup> to 10<sup>th</sup> percentile class; 0.1 percent falls in the 10<sup>th</sup> to 20<sup>th</sup> percentile class; 2.4 percent falls in the 20<sup>th</sup> to 30<sup>th</sup> percentile class; and the remaining 89.2 percent of the DAC area does not have failure-susceptible wells identified by DWR. Overall, DWR's well failure susceptibility evaluation indicates that potential well failure because of groundwater level decline is not a pervasive occurrence at project area DACs.

**Table 2-1: Disadvantaged Communities and Susceptibility to Domestic Water Supply Well Failure**

<b>Disadvantaged Community</b>	<b>Grid Cell Ranking<sup>1</sup> (Percentile)</b>	<b>Relative Area in Percentile Class<sup>2</sup> (percent)</b>
Buttonwillow	0	87
	0-10	2
	20-30	11
Cherokee Strip	0	60
	0-10	40
Edmundson Acres	0	100
Fuller Acres	0	52
	0-10	48



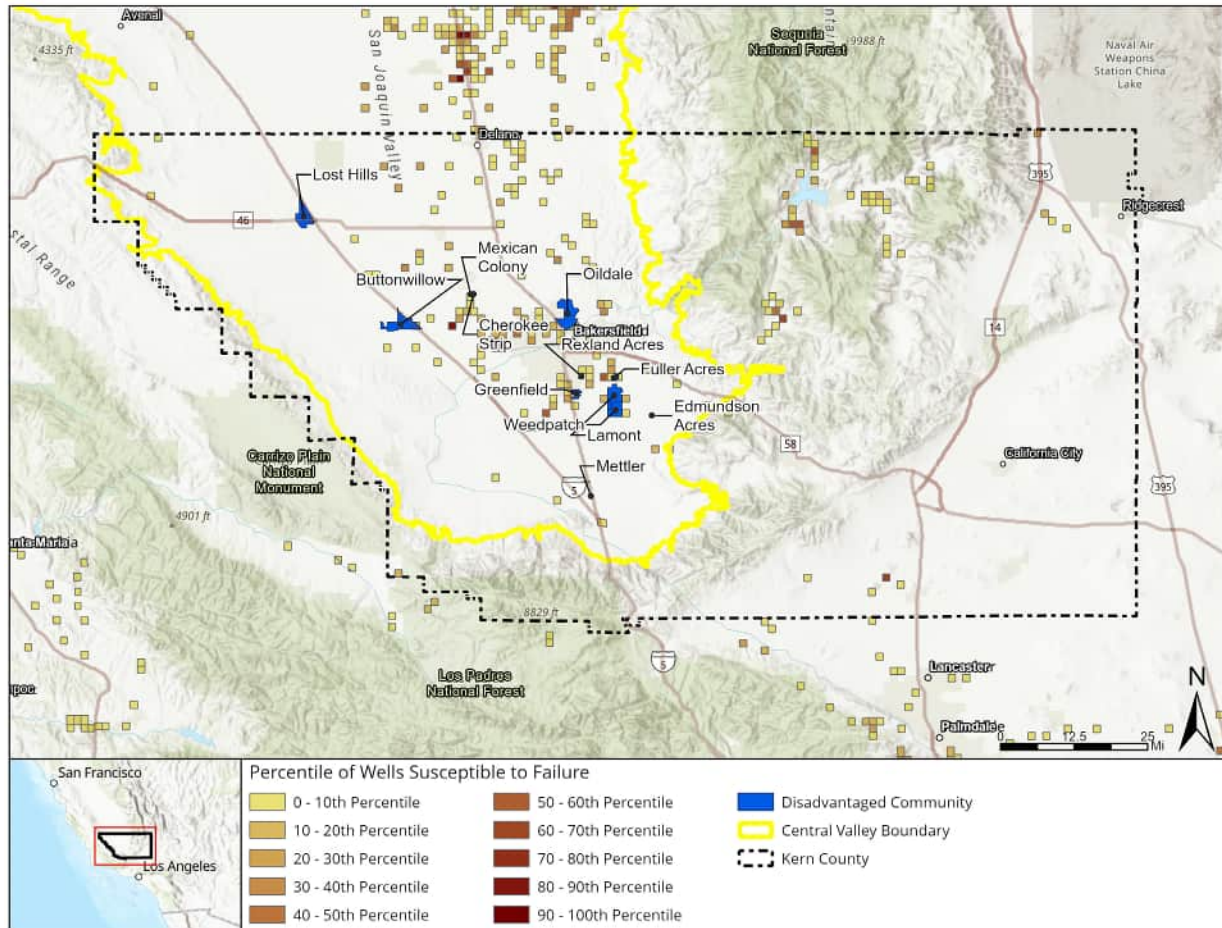
**Table 2-1: Disadvantaged Communities and Susceptibility to Domestic Water Supply Well Failure**

Disadvantaged Community	Grid Cell Ranking <sup>1</sup> (Percentile)	Relative Area in Percentile Class <sup>2</sup> (percent)
Greenfield	0 10-20	97 3
Lamont	0 0-10	79 21
Lost Hills	0	100
Mettler	0	100
Mexican Colony	0 0-10	0 100
Oildale	0 0-10	86 14
Rexland Acres	0 0-10	99 1
Weedpatch	0	100

<sup>1</sup> Ranking based on the number of failure-susceptible wells in a 1-square-mile grid cell. Percentiles indicate relative rank on a statewide basis.

<sup>2</sup> The portion of an individual disadvantaged community area that falls within a percentile class.

**Figure 2-3: Percentile of Domestic Water Supply Wells Susceptible to Failure**



Some areas in the Central Valley portion of Kern County have numerous failure-susceptible wells and are as high as the 80<sup>th</sup> to 90<sup>th</sup> percentile class. For example, 13 failure-susceptible wells were identified in 2024 east of Buttonwillow in Section 17, Township 29S, Range 25E. In contrast, none of the DACs in the Central Valley portion of Kern County exceeded the 20<sup>th</sup> to 30<sup>th</sup> percentile class, corresponding to three failure-susceptible wells in a 1-square-mile grid cell. DACs are experiencing problems with well failures (e.g., SHE 2022; SJV Water 2024), but based on the DWR evaluation, the number of failure-susceptible wells per 1-square-mile area at DACs is relatively low in comparison to other areas on a statewide basis.

Some DACs are located close to O&G fields and some DACs have experienced water supply shortages. It cannot be inferred based simply on proximity that the use of water by the O&G industry contributes to those water supply shortages. To evaluate the possible effect of groundwater use by the O&G industry on groundwater availability, water use by the O&G industry and other users is evaluated in Sections 3 through 5.

### **3. EVALUATION OF CALGEM DATA FOR WATER USE BY THE OIL AND GAS INDUSTRY IN KERN COUNTY**

This section evaluates whether readily available information for water production, use, and disposal by the O&G industry can be used to assess the potential effects of the O&G industry's use of fresh groundwater on groundwater availability in select communities in Kern County.

#### **3.1. Overview of CalGEM and Water Use Data Collection**

CalGEM is a division of the Department of Conservation that regulates the drilling, operation, and permanent closure of geothermal wells and O&G wells in California. Senate Bill (SB) 1281 (approved by the governor on September 25, 2014) amends Public Resources Code Section 3227 to require that well owners report each month on the volume and disposition of produced water, volume and source of injected water, volume of untreated water suitable for domestic or irrigation purposes, treatment of water, use of treated or recycled water in O&G field activities, and disposition including temporary storage or disposal of all water used in or generated by O&G field activities.

CalGEM compiled water use information required by Public Resources Code Section 3227 that was submitted by O&G operators beginning in 2015 and is currently ongoing. That information and older less detailed information is compiled in the WellSTAR database and is available from CalGEM websites.

Information in the WellSTAR database can be examined on an annual basis using the WellSTAR Data Dashboard, which provides information collected from 1977 to 2024. Water use information is also available as spreadsheet files. Both information types are evaluated in the following sections.

### 3.2. Evaluation of WellSTAR Data Dashboard

The WellSTAR Data Dashboard can be accessed at:  
[https://www.conservation.ca.gov/calgem/Online\\_Data/Pages/WellSTAR-Data-Dashboard.aspx](https://www.conservation.ca.gov/calgem/Online_Data/Pages/WellSTAR-Data-Dashboard.aspx)  
(accessed on August 22, 2024).

The data dashboard provides access to the following data types:

- Well Information
- Well Production Volume
- Well Injection Volume
- Permit Information
- Underground Gas Storage
- Well Stimulation Treatment
- Well Stimulation Disclosure

Well Production Volume and Well Injection Volume are relevant to this report. The main dashboard page provides access to 2022–2024 data. The Yearly Production Volume Archive link at the main dashboard page provides access to 1977–2021 data. In the Well Production Volume tab, data are summarized for these fluid types: oil, gas, gas withdrawn, and water. Water is relevant to this report. In the Well Injection Volume tab, data are summarized for these fluid types: gas or air, and water or steam. The available filtering categories are Year, Month, Well Type, Well API (a unique well identifier), Well Status, Is Estimated (i.e., if data values are estimated), Field, District, and County. The filtering options allow information to be selected at the county and individual O&G field level, and for specific well types. Filtered data are presented in both tabular and graphical formats.

The dashboard does not allow filtering based on water quality, particularly the potential suitability for domestic or irrigation use, nor does it allow filtering based on water source. Filtering based on location is limited to Field, District, and County. The dashboard does not provide the capability of filtering based on proximity to geographic features such as DACs or non-DACs.

The first five study questions, as identified in Section 1.2, are addressed using the WellSTAR Data Dashboard as follows.

**Question 1: Can data regarding water use by the O&G industry be obtained from CalGEM data portals? If so, where?**

**Answer:** Water production and injection quantity data can be accessed via the WellSTAR Data Dashboard. The WellSTAR Data Dashboard can be accessed at:  
[https://www.conservation.ca.gov/calgem/Online\\_Data/Pages/WellSTAR-Data-Dashboard.aspx](https://www.conservation.ca.gov/calgem/Online_Data/Pages/WellSTAR-Data-Dashboard.aspx) (accessed August 22, 2024).

**Question 2: Can the data be filtered to focus on Kern County?**

**Answer:** Yes. The WellSTAR Data Dashboard provides the capability to filter data at the individual county level.

**Question 3: Can the data be filtered to focus on specific O&G fields?**

**Answer:** Yes. The WellSTAR Data Dashboard provides the capability to filter data at the level of an individual O&G field.

**Question 4: Can the data be filtered to focus on areas near specific geographic locations, such as disadvantaged or non-disadvantaged communities?**

**Answer:** No. Location-based filtering capabilities in the WellSTAR Data Dashboard are limited to CalGEM District, County, and O&G fields. Data cannot be filtered based on proximity to DACs and non-DACs within a county.

**Question 5: Can the data be filtered to quantify fresh groundwater use by the O&G industry?**

**Answer:** No. The WellSTAR Data Dashboard does not provide the capability to apply filters on water quality, such as total dissolved solids (TDS) less than or greater than 10,000 milligrams per liter (mg/L) or potentially suitable for domestic or irrigation use. Hence, fresh water production or use cannot be identified via this tool. The WellSTAR Data Dashboard does not provide the capability to filter based on water source, other than well type in the Well Production Volume tab. For Kern County, no well types appear to obtain fresh water from a groundwater aquifer.

## **Summary**

Overall, the WellSTAR Data Dashboard has very limited utility for assessing the use of groundwater by the O&G industry in Kern County and the potential effects on community water supplies resulting from that use. It does not provide the capability to filter data based on water quality, whether water is or is not groundwater, or the ability to filter based on proximity to specific locations such as DACs or non-DACs.

### **3.3. Evaluation of Summary Report Data**

CalGEM provides water production, injection, and disposition information in spreadsheet format. Three types of summary reports are available: Production Summary, Injection Summary, and Other Allocation. The files are organized as individual quarterly reports (2015–2024) and annual reports in which results are presented quarterly (2018–2020). The spreadsheet files can be obtained from the following websites:

- <https://filerequest.conservation.ca.gov/> (accessed on August 22, 2024)
- [https://filerequest.conservation.ca.gov/?q=production\\_injection\\_data](https://filerequest.conservation.ca.gov/?q=production_injection_data)

Monthly and quarterly Production, Injection, and Other Allocation files can be obtained from:

- <https://wellstar-public.conservation.ca.gov/General/PublicDownloads/Index> (accessed on August 22, 2024)

The files are in csv format and can be easily converted into Excel or other spreadsheet software file types. After conversion to a spreadsheet file type, the data can be sorted and filtered using conventional spreadsheet software capabilities.

The data dictionary that defines the codes for each data type in the spreadsheet files is available at:

- [https://www.conservation.ca.gov/calgem/SB%201281/Documents/SB1281\\_DataDictionary-2018.pdf](https://www.conservation.ca.gov/calgem/SB%201281/Documents/SB1281_DataDictionary-2018.pdf) (accessed August 22, 2024)

### **3.3.1. Production Reports**

The production reports generally identify the volume of water produced from wells, water treatment methods used, if any, and the use of produced water. The data fields in these reports are:

- Well Identifier
- Field
- Area
- Pool
- Well Type
- Report Date
- Volume of Water Produced
- Suitability for Domestic or Irrigation Use
- Treatment Methods
- Disposal Recipient Name and Type

The data types do not include county, therefore, data cannot be filtered directly to select data only for wells in Kern County. A workaround was developed that selects O&G fields in Kern County, and manual deselection of wells outside the county in fields that are partially in Kern County and partially in an adjacent county is required.

Filtering the data by specifying “Well Type = Water Source” and “Suitable for Domestic or Irrigation Use = Yes” potentially selects fresh groundwater produced by the O&G industry.

Examination of the 2020 production Summary Report based on this filtering indicates that only two water source wells in Kern County yielded water potentially suitable for domestic or irrigation use, that a small amount of water was produced (180 barrels total from both wells in the three quarters included in the report), and that water was discharged to land. Thus, the information



available in the production reports indicates that the O&G industry produces very little water that is possibly fresh groundwater.

### **3.3.2. Injection Reports**

The injection reports generally identify the amount of water injected as steam or liquid water, the suitability of that water for domestic or irrigation use, and the source of injected water.

The following are data fields in these reports:

- Well Identifier
- Field
- Area
- Pool
- Well Type
- Report Date
- Volume of Water Injected as Liquid Or Steam
- Suitability for Domestic or Irrigation Use
- Treatment Methods
- Water Source Name
- Water Source Type

The water source types are as follows:

- Oil or gas well produced – in oil field by operator
- Water source well – in field by operator
- Domestic water system – fresh water
- Surface water – ocean, lake pond, river, creek
- Industrial waste – Class II fluid treated by a third party
- Domestic wastewater treatment facility – recycled water
- Other – specify source
- Oil or gas well produced – transferred or purchased from other operator or oil field
- Well stimulation treatment – recycled fluid
- Other Class II recycled fluid source – in oil field by operator
- Recycled Class II fluids from operator's drilling

The data types do not include county, therefore, data cannot be filtered directly to select data only for wells in Kern County. A workaround was developed that selects O&G fields in Kern

County, and manual deselection of wells outside the county in fields that are partially in Kern County and partially in an adjacent county is required.

Two water source types may include groundwater: water source well – in field by operator, and domestic water system – fresh water. As discussed in Section 3.3.1, Production Reports, very little potentially fresh water is obtained from water source wells. No information is provided for the domestic water system source that indicates if that water was obtained from surface water or groundwater. Thus, although the amount of fresh water acquired from water purveyors can be determined from the injection reports, the amount of groundwater cannot be determined. The total amount of fresh water acquired is the maximum amount of fresh groundwater acquired from water purveyors.

### **3.3.3. Other Allocation Reports**

The other allocation reports identify the volume of water managed, the suitability of that water for domestic or irrigation use, water treatment methods used, if any, if water is destined for storage or a different use, and the water source.

The data fields in these reports are:

- Field
- Report date
- Volume of water managed
- Suitability for domestic or irrigation use
- Treatment methods
- Water stored
- Intended use of stored water
- Water source type and name

The data types do not include county and, hence, data cannot be filtered directly to select data only for Kern County. A workaround was developed that selects O&G fields in Kern County. In contrast to the production and injection files, the Other Allocation file is not based on individual wells and, therefore, additional filtering cannot remove information for adjacent counties in fields that are partially in Kern County and partially in an adjacent county.

The water source types are the same as those described for the injection reports. Comparable to the injection reports, very little fresh water that is potentially groundwater is obtained from water source wells, and no information is available that indicates if water from a domestic water system source was obtained from surface water or groundwater.

### 3.3.4. Evaluation of Summary Reports

The first five study questions, as identified in Section 1.2, are addressed for the CalGEM summary reports as follows.

**Question 1: Can data regarding water use by the O&G industry be obtained from CalGEM data portals? If so, where?**

**Answer:** Water production, injection, and other allocation (i.e., use, transfer, or disposal) information for water is available in production, injection, and other allocation summary reports, respectively. Data are also available in monthly reports. The data can be obtained from <https://filerequest.conservation.ca.gov/>.

**Question 2: Can the data be filtered to focus on Kern County?**

**Answer:** The data in the production, injection, and other allocation spreadsheets do not include “county” as a data type and, therefore, the data cannot be filtered to Kern County in the files provided. However, a workaround was developed that selects O&G fields completely or partially in Kern County. For the production and injection reports, wells in fields that are partially in Kern County can be manually filtered to eliminate wells outside of Kern County. For the other allocation reports, filtering can be done only to the O&G field level.

**Question 3: Can the data be filtered to focus on specific O&G fields?**

**Answer:** Yes.

**Question 4: Can the data be filtered to focus on areas near specific geographic locations, such as disadvantaged or non-disadvantaged communities?**

**Answer:** No. The production, injection, and other allocation data are provided as spreadsheet files. Spreadsheet software does not have the capability to select data based on proximity to specified geographic locations.

**Question 5: Can the data be filtered to quantify fresh groundwater use by the O&G industry?**

**Answer:** No. Although the amount of brine or fresh water (potentially suitable for domestic or irrigation use) produced, injected, and otherwise allocated can be quantified, the amount of fresh groundwater used by the O&G industry cannot be determined from these datasets.

### 3.4. Conclusions

Information on water production, acquisition, use, disposal, and transfer by the O&G industry is readily available from CalGEM.

Water quality can be differentiated only at a gross level based on TDS concentration of 10,000 mg/L. Water with TDS less than 10,000 mg/L is classified in the CalGEM datasets as “potentially suitable for domestic or irrigation use.” Additional information needed to assess its suitability for domestic or irrigation use is not available in the CalGEM data.

Neither the WellSTAR Data Dashboard nor Summary Report spreadsheet files are suitable for assessing groundwater usage by the O&G industry. Most of the fresh water used by the O&G industry is obtained from water purveyors. The ultimate source of fresh water, either surface water or groundwater, obtained from water purveyors cannot be determined from the information available in the data dashboard or summary reports. Hence, the groundwater use by the O&G industry in Kern County cannot be determined from the WellStar Data Dashboard or the Summary Report data files.

Both the data dashboard and spreadsheet files allow data to be selected based on geography at the county level (although some manual manipulation is required for Summary Report datasets) and to the O&G field level, but not based on proximity to specified geographic locations such as DACs or non-DACs. Spreadsheet software does not have the functionality to select data based on proximity to a specified location. Additionally, the Summary Report data files do not include geographic location information (latitude and longitude) for individual wells. In contrast to spreadsheet software, geographic information system (GIS) software does have functionality for selecting data based on proximity and is a better type of software for that approach. However, GIS-based functionality for selecting water data based on proximity to specified locations has not been implemented by CalGEM.

#### **4. SUMMARY OF CALIFORNIA COUNCIL FOR SCIENCE AND TECHNOLOGY EVALUATION OF CALGEM WATER USE DATA**

CalGEM contracted with the California Council for Science and Technology (CCST) to conduct a study to evaluate how well the water use data collected pursuant to Public Resources Code Section 3227 meet the intent of ensuring the ability to assess impacts on California's water resources, public health, and the environment; and to meet concerns raised by SB 1281 passed by the California Legislature in 2014. The report was completed in August 2019 based on data collected between 2015 and 2017. To assess the utility of the data in addressing policy-relevant questions, CCST focused on four overarching topics: water resources, characteristics of produced water, potential opportunities for beneficial reuse of produced water, and potential impacts on public health and the environment.

The study was carried out in two phases. Phase 1 (CCST 2018), referred to as the "white paper," acted as a work plan that focused on developing a series of questions responsive to the intent of the SB 1281 dataset at the request of the Division of Oil, Gas, and Geothermal Resources (the Division). The name of this organization was subsequently changed to the CalGEM. The dataset was evaluated during Phase II (CCST 2019a). This document was written by principal researchers and select CCST staff under the guidance of a steering committee with an appropriate range of expertise, a balance of perspectives, and no conflicts of interest.

The questions developed in Phase I include three types presented in the white paper: (1) a primary study question, which is the driving question of the CCST SB 1281 Data project; (2) secondary evaluation questions, which are broad subject-matter questions that a dataset such as the SB 1281 dataset might be expected to address; and (3) operational questions, which are focused questions that could be used to exercise the SB 1281 dataset to evaluate its utility in answering the broader secondary evaluation questions.

Based on the initial assessments of data availability and quality, the following questions, organized under broad secondary evaluation questions, were identified as the most tractable and feasible candidates to address in Phase II. The italicized questions below represent the operational inquiries related to the primary and secondary questions to be explored in Phase II. The study notes that the questions provided do not indicate a specific scope of work but cover a broad range of topics that the SB 1281 dataset might be expected to address, either independently or in conjunction with other available datasets.

The SB 1281 (2014) Research Questions identified by CCST (2018) are as follows:

- **Primary: What is the utility of the current SB 1281 dataset to answer important questions on water resources, public health, and the environment, and are there opportunities for improvement?**
- **Secondary Question 1: What are the sources, volumes, and quality of water used for oil and gas development and production in California?**
  - *What are the gross water volumes, sources, and qualities used and generated on a per-operator, per-field basis? What are the net volumes of water imported and exported from oil and gas-producing reservoirs? How do these vary in space and time?*
  - *What are the water volumes, sources, and qualities used for different oil and gas production methods, e.g., hydraulic fracturing and enhanced oil recovery? How do these vary in space and time?*
- **Secondary Question 2: What are the characteristics/quality of produced water across the state, and how do these vary over time?**
  - *What is the salinity of produced water across the state?*
  - *What are the sources and volumes of produced water recycled for use in oilfields in the state? On local and regional scales? Compared with other oil-producing states and regions?*
  - *What are the sources and volumes of produced water recycled for use in applications beyond the oilfield? How do these quantities compare with other oil-producing states and regions?*
- **Secondary Question 3: How does treatment impact produce water availability as a potential resource, both within and outside of oilfields?**
  - *What proportion of produced water is currently treated prior to disposal or any reuse application in California?*
  - *Of the quantities of produced water treated, what proportion is sent for disposal?*
  - *What proportion is reused within the oilfield? What proportion is reused outside of the oilfield?*
  - *Which operators or areas of the state reuse the most produced water by volume and proportion?*

- *What applications are currently the largest destinations for treated produced water?*
- **Secondary Question 4: What are the potential and actual hazards, risks and impacts to environmental and human health from various dispositions of reused water discharges to land, water, and subsurface injection?**
  - *Where are the locations of these percolation pits geographically with respect to groundwater that is currently used or in the future could be used for drinking, food crop irrigation and other activities with potential human exposure pathways?*
  - *What volume of produced water is discharged to water districts for food crop irrigation and livestock watering?*
  - *Where, geographically, is produced water sent for reuse in agricultural irrigation?*
  - *What volume of produced water is injected into UIC wells annually?*
- **Secondary Question 5: Are there unrealized opportunities to reduce stress on other water resources, including conservation and efficiency, improving and expanding direct and indirect reuse of produced water?**
  - *What is the utility of the SB 1281 dataset to answer important questions on water resources, public health, and the environment, and are there opportunities for improvement?*
  - *Where do physical proximity of (a) large amounts of irrigated agriculture, (b) scarcity of irrigation water, and (c) low-salinity produced water injected into disposal wells exist?*

Although each question in Phase I is considered relevant to the intent of SB 1281, not all questions from Phase I were intended to be the subject of analysis in Phase II. A subset was chosen during Phase II considering their tractability, significance, relevance, and feasibility, as well as available resources.

Phase II of the study aimed to produce a peer-reviewed report that assessed the quality and utility of the SB 1281 (2014) dataset (along with other relevant datasets) by addressing a subset of the operational questions identified in the Phase I white paper. The SB 1281 dataset refers to quarterly data collected from the operators on the water cycle for the California O&G industry beginning in the first quarter of 2015. The dataset includes all inputs, allocations, and outputs of water in O&G operations, both on and off the oilfield. The other independent datasets analyzed and compared against the SB 1281 dataset include the Division of Oil, Gas, and Geothermal Resources monthly O&G production and injection reports (monthly dataset).

The overall purpose of Phase II was to evaluate the ability of the SB 1281 (2014) dataset to enhance transparency in California's O&G industry concerning water consumption, production, treatment, storage, transport, reuse, and disposal. Not all questions were intended to be analyzed in this phase; instead, a subset was chosen based on their tractability, significance, relevance, feasibility, and the available resources. The report focused on addressing these selected questions.

Phase II of the study was divided into four chapters, beginning with a direct assessment of the SB 1281 dataset. The subsequent chapters evaluated whether the dataset could answer

questions related to the reuse of produced water for irrigation, the quality of produced water in California and its implications for human health and the environment, and the potential impact on groundwater resources from the disposal of produced water into unlined produced water ponds in the San Joaquin Valley. Each chapter outlines the broader question; breaks it down into sub-questions to be addressed; and provides findings, conclusions, and recommendations.

**Chapter 1 evaluated the following question: What are the sources, volumes, and quality of water used for oil and gas development and production in California?**

- a. Can we validate the SB 1281 dataset with independent water use information for California's O&G industry?
- b. How much fresh/brackish and saline water is produced and injected, and what are the sources and destinations of the water?
- b. How much water does the O&G industry use, and how much water do they reuse for their operations?
- c. Is the O&G industry a net consumer or generator of water?

**Chapter 2 evaluated the following question: What are the characteristics/quality of produced water across the state, and how do these vary over time?**

- a. What is known about the quality of produced water in California?

**Chapter 3 evaluated the following question: How does treatment impact produced water availability as a potential resource, both within and outside of oilfields?**

- a. What are the treatment approaches that have been used for produced water and how effective are they?

**Chapter 4 evaluated the following question: What are the potential and actual hazards, risks, and impacts to environmental and human health from various dispositions of reused water discharges to land, water, and subsurface injection?**

- a. What are the pathways through which human populations and the environment can be exposed to hazardous chemicals in produced water?
- b. What is the volume of produced water sent to unlined produced water ponds and where are unlined produced water ponds in California?
- c. Are groundwater resources, as measured in levels of TDS, in proximity to unlined produced water ponds?
- d. Are there documented cases of unlined produced water ponds causing groundwater contamination?

CCST also produced an executive summary summarizing the questions, findings, conclusions, and recommendations resulting from the assessment of O&G water cycle reporting in California (CCST 2019b). The results are summarized as follows.

# **1. What are the sources, volumes, and quality of water used for oil and gas development and production in California?**

Both the quarterly datasets (SB 1281 datasets) and monthly datasets are reported by operators. O&G operators are required to submit monthly production and injection reports under California Public Resources Code § 3227. Any operator of a well in California must file a monthly statement providing production and injection data for the prior month. SB 1281 required operators to provide additional detailed information about the sources, destinations, volumes, quality, storage, and treatments of water involved in upstream O&G activities.

The CCST report evaluated the monthly and SB 1281 datasets to assess their apparent quality and the information they provide on water production, injection, sources, and destinations by comparing the monthly datasets on produced and injected water volumes by basin and quarter. See Table 4-1 for the categories compared between the monthly and SB 1281 datasets.

**Table 4-1: Injected Water Source Category Comparison Between Monthly and SB 1281 Datasets**

Monthly Dataset	SB 1281 Dataset
Oil or gas well	Oil or gas well produced, broken out by whether produced in an oil field by an operator; or transferred or purchased from other operators or oil fields
Water source well	Water source well – in an oil field by an operator
Domestic water system	Domestic water system – fresh water
Ocean	Surface water, broken out into ocean, lake, pond, river, creek, aqueduct, canal, and watercourse
Industrial waste	Industrial waste – Class II fluid treated by a third party
Domestic waste	Domestic water treatment facility – recycled
Other	Well stimulation treatment; recycled Class II fluids from operator’s drilling; other Class II recycled fluid source; or other

Source: CCST 2019a

The CCST report noted different patterns emerged for the five major basins compared to the minor basins. For the major basins, the SB 1281 and monthly datasets showed the first three and the last three quarters. Volumes in the quarterly dataset were less than the values in the monthly dataset. The minor basins’ monthly datasets remained consistent over time, with only some declines observed at the beginning of 2015 and the end of 2017. Other notable discrepancies between the SB 1281 quarterly dataset and the monthly dataset were observed at the sedimentary basin level. Generally, the monthly dataset is consistent and discrepancies regarding water production and injection volumes between the datasets are primarily from underreporting rather than overreporting in the SB 1281 dataset. In most cases, the issue is data more commonly reported to one source (usually monthly) and not reported to the other source (usually SB 1281). The report provides examples of the basin where there are quarters in the SB 1281 dataset where no injection and production volumes are reported, but volumes are reported in the monthly dataset.



The SB 1281 dataset provides a detailed accounting of the O&G industry’s water use, reuse, and disposal quantities annually, offering more information than was available before its collection. While the dataset includes estimates of the volume injected into underground injection control (UIC) wells, it does not distinguish between injection for enhanced oil recovery (EOR) and injection for disposal. Improved reporting is necessary to increase the accuracy, utility, ease of use, and ability to assess both reuse opportunities and risks associated with disposal.

The full report noted that the study was able to make approximations to allow for a comparison of water use across three areas, with a particular focus on industry withdrawals of fresh and brackish water. The study stated, “The vast majority of water used for human purposes would fall under the threshold of 10,000 mg/L TDS. The O&G industry’s use of fresh and brackish water from external sources accounts for less than 0.1 percent of the total water used for human purposes. Overall the O&G industry has a small impact on the total amount of water used in California.” (CCST 2019a). As shown in Table 4-2, the use of fresh water by the O&G industry is very small (0.02 percent) relative to total water use in the San Joaquin River/Tulare Lake Hydrologic Region, where Kern County lies.

**Table 4-2: Total Water Applied for Human Use Compared to O&G Industry Inputs and Outputs**

Sedimentary Basin	Hydrologic Region	Water Applied for Human Use 2015 (TAFY)	O&G Industry Water from External Source (Fresh/Brackish) (TAFY)	O&G Industry Water from External Source Relative to Total Human Use (%)
Santa Barbara – Ventura and Los Angeles	South Coast	4,130	2.75	0.07
Salinas and Santa Maria	Central Coast	1,333	0.00	0.00
San Joaquin	San Joaquin River and Tulare Lake	19,480	4.05	0.02

<sup>1</sup> CCST (2019a), Table 1.9

<sup>2</sup> TAFY = thousand acre-feet per year

## **2. What are the characteristics/quality of produced water across the state, and how do these vary over time?**

The dataset contains only one water quality parameter, TDS, which is reported as a binary value (greater than or less than 10,000 mg/L TDS). The dataset is insufficient to assess the extent of reuse opportunities for produced water because multiple water quality characteristics are needed to determine suitability for beneficial uses. The data is also insufficient to address the broader question of the spatial and temporal variability in produced water quality across the state, and other data sources had to be evaluated to make conclusions.

## **3. How does treatment impact produced water availability as a potential resource, both within and outside of oilfields?**

The lack of water quality data restricts potential water reuse options to be assessed. Two approaches for produced water to be reused for agriculture were assessed. The first approach involved assessing the SB 1281 dataset, which contains volumes of water produced and injected for each quarter by field. The second approach involved analyzing data from six quarters from

Quarter 4 in 2015 to Quarter 1 in 2017 . Outside of this time frame, there are major discrepancies between the quarterly dataset and the monthly production and injection dataset. While various water source and water disposition (destination) categories overlap between the SB 1281 and Division of Oil, Gas, and Geothermal Resources monthly datasets, treatment method information is available only in the SB 1281 dataset. The SB 1281 dataset was restricted to Quarter 4 in 2015 to Quarter 1 in 2017 to evaluate the most reliable data provided by the SB 1281 dataset and to maintain consistency across chapters.

Opportunities for expanded off-site reuse of produced water with a modest level of treatment are limited and occur mostly at the local level in proximity to active fields producing low-salinity produced water. Currently, 10 percent of the annual volume of produced water is reused for irrigation, primarily in the eastern San Joaquin Valley.

#### **4. What are the potential and actual hazards, risks, and impacts to environmental and human health from various dispositions of reused water discharges to land, water, and subsurface injection?**

The SB 1281 dataset does not provide the data needed to address the issue of the potential or actual hazards and risks associated with subsurface injection, surface disposal, or irrigation reuse of produced water. While all surface disposal options are subject to appropriate permit conditions, significant data gaps exist on the relevant characteristics of the chemicals found in some produced waters. A more comprehensive assessment is needed to evaluate the reuse potential for produced water.

The lack of necessary water quality data also makes it difficult to assess human health and environmental risk. Characterization of produced water that is discharged to the surface and reused outside of the oilfield and wastewater disposal in unlined produced water ponds volumes are uncertain.

### **5. ESTIMATED GROUNDWATER USE IN KERN COUNTY**

This section compares potential groundwater use by the O&G industry to total fresh water (surface water and groundwater) use in Kern County. This comparison allows the relative magnitude of fresh groundwater use by the O&G industry to be evaluated. This section addresses the following study question identified in Section 1.2.

#### **Question 6: How much groundwater is used by the O&G industry in Kern County relative to the amount of groundwater consumed by other users?**

As described in Section 3, the use of fresh groundwater by the O&G industry cannot be determined from data available from CalGEM. However, the quarterly injection reports document the amount of water acquired from water purveyors and injected for EOR. The approach for estimating fresh water use by the O&G industry in Kern County assumes that the primary use of fresh water is injection as steam or liquid water for EOR, which is documented in the quarterly injection reports. Some water injected for EOR is produced from hydrocarbon wells, water source wells, reclaimed water, or other sources that do not affect the availability of fresh groundwater. Additional water acquired from water purveyors, such as municipal water systems, may affect groundwater availability. Although the relative proportions of surface water and groundwater

obtained from water purveyors is unknown, the total amount of fresh water acquired from water purveyors is used as an upper bound on the amount of fresh groundwater used by the O&G industry.

The amount of fresh water obtained from water purveyors was determined from injection reports, after filtering to select wells in Kern County and excluding water not coded as suitable for domestic or irrigation use. For comparability with DWR information described later in this section, information was obtained from CalGEM quarterly reports for 2015 and 2016. The volume of water suitable for domestic or irrigation use obtained from water purveyors is summarized in Table 5-1. The water volume in the CalGEM quarterly reports is reported in units of barrels (42 gallons), which were converted to units of acre-feet for comparability with DWR data discussed later in this section.

There is considerable uncertainty in the data extracted from the injection reports. In many cases, data fields are blank and, thus, it is not clear if the water quality is or is not potentially suitable for domestic or irrigation use or what the source of the water is. In some cases, water in the Domestic Water System – Fresh Water category is coded as not suitable for domestic or irrigation use, which is contradictory. These entries are interpreted as not representing fresh water obtained from municipal water systems or similar water purveyors and were excluded from this evaluation. It is recognized that including or excluding data based on inference and judgment may introduce errors in estimates of fresh water use. However, given the lack of certainty in the available data, uncertainty in interpretations based on that data is inevitable.

Table 5-1 summarizes the estimated volume of fresh water acquired from water purveyors and injected for EOR in Kern County, as documented in quarterly injection reports.

**Table 5-1: Water Purchased from Water Purveyors for EOR Injection in Kern County**

<b>Year</b>	<b>Quarter</b>	<b>Water Volume<sup>1,2</sup> (barrels)</b>	<b>Water Volume<sup>3</sup> (acre-feet)</b>
2015	Q1	354,485	46
	Q2	3,859,451	498
	Q3	3,944,470	508
	Q4	4,631,216	597
	<b>Total</b>	<b>12,789,622</b>	<b>1,649</b>
2016	Q1	1,846,598	238
	Q2	1,466,012	189
	Q3	1,619,637	209
	Q4	2,023,496	261
	<b>Total</b>	<b>6,955,743</b>	<b>897</b>

<sup>1</sup>. Data source: CalGEM 2015-2016 quarterly injection reports, available at:

<https://filerequest.conservation.ca.gov/> (accessed 8/22/2024).

<sup>2</sup>. Data filtered to select Water Source Code 03 (Domestic Water System – Fresh Water), Suitable for Domestic or Irrigation Use, and to exclude water suppliers with “EOR-Steam” in the source name (which were also coded as not being suitable for domestic or irrigation use).

<sup>3</sup>. Water volumes were converted from barrels to acre-feet using the following conversion factors:

1 barrel = 42 gallons; 1 cubic foot = 7.48 gallons; 1 acre-foot = 43,560 cubic feet.

Total water use information compiled by the DWR is documented in *California's Groundwater – Update 2020* (DWR 2021). Appendix G, Water Use Data, of the update tabulates annual water use by hydrologic region. Data are provided for the following water use categories.

- Groundwater
  - Agriculture
  - Urban
  - Managed wetlands
  - Total
  - Total supply percentage met by groundwater
- Surface Water
  - Agriculture
  - Urban
  - Managed wetlands
  - Total
  - Total supply percentage met by surface water
- Reused Water
  - Agriculture
  - Urban
  - Managed wetlands
  - Total
  - Total supply percentage met by reused water
- Total Supply
  - Agriculture
  - Urban
  - Managed wetlands
  - Total

Water use data are presented on a hydrologic region basis. Both O&G production and agriculture in Kern County are concentrated in the Central Valley portion of the county. The Central Valley portion of Kern County is in the Tulare Lake Hydrologic Region. Portions of Fresno County, Kings County, and Tulare County are also in that hydrologic region. The Kern County portion is approximately one third of the total areal extent of the Central Valley portion of the Tulare Lake Hydrologic Region. In this section, water use in the Kern County portion of the region is estimated by scaling the values for the entire Tulare Lake Hydrologic Region using a factor of one third.

Data were tabulated (DWR 2021, Appendix G) from 2002 to 2016. This evaluation considers data for 2015 and 2016, which coincide with the first two years that CalGEM compiled information pursuant to SB 1281 (2014) and Public Resources Code Section 3227.

Table 5-2 provides the groundwater and surface water use data for agriculture, urban use, and managed wetlands in the Tulare Lake Hydrologic Region for 2015 and 2016 from Appendix G of DWR (2021). Values for water reuse for this hydrologic region were not included in Appendix G. Water volumes are reported in units of thousands of acre-feet.

**Table 5-2: Water Use in the Tulare Lake Hydrologic Region<sup>1</sup>**

Water Type	Year	Agriculture (TAF)	Urban (TAF)	Managed Wetlands (TAF)	Total <sup>2</sup> (TAF)
Surface Water	2015	1,124	60	28	1,212
	2016	3,016	100	46	3,162
Groundwater	2015	10,024	408	64	10,496
	2016	6,638	334	42	7,014
Total <sup>2</sup>	2015	11,148	468	92	11,708
	2016	9,654	434	89	10,176

<sup>1</sup>. Data source: DWR, 2021. California's Groundwater – Update 2020. Bulletin 118. Appendix G. State of California, The Natural Resources Agency, Department of Water Resources. November.

<sup>2</sup>. Slight discrepancies between individual values and total values are due to rounding.

<sup>3</sup>. TAF = thousands of acre-feet

Table 5-3 provides comparable values for the Kern County portion of the hydrologic region estimated by scaling the values in Table 5-2 by a factor of one third.

**Table 5-3: Estimated Water Use in Kern County Portion of the Tulare Lake Hydrologic Region**

Water Type	Year	Agriculture (TAF)	Urban (TAF)	Managed Wetlands (TAF)	Total <sup>2</sup> (TAF)
Surface Water	2015	375	20	9	404
	2016	1,005	33	16	1,054
Groundwater	2015	3,341	136	21	3,499
	2016	2,213	111	14	2,338
Total <sup>2</sup>	2015	3,716	156	31	3,903
	2016	3,218	145	30	3,392

TAF = thousands of acre-feet

Slight discrepancies between individual values and total values are due to rounding

Based on the information in Tables 5-2 and 5-3, agriculture is responsible for most (95 percent) of groundwater and surface water use in this region.

Table 5-4 compares the estimated fresh water (undifferentiated groundwater and surface water) use by the O&G industry in Kern County from Table 5-1 to the scaled estimated use from Table 5-3. This comparison shows that fresh water use by the O&G industry in Kern County is a small percentage of groundwater (0.04 percent) and of total water (0.03 to 0.04 percent) use. These

values are comparable to the estimate of 0.02 percent reported by the CCST and included in Table 4-2 (CCST 2019a).

**Table 5-4: Fresh Water Use by the Oil and Gas Industry and Other Users in Kern County**

Water Type	Year	Agriculture <sup>1</sup> (TAF) <sup>3</sup>	Urban <sup>1</sup> (TAF)	Managed Wetlands <sup>1</sup> (TAF)	Total <sup>1</sup> (TAF)	Oil and Gas <sup>2</sup> (TAF)	Oil and Gas/Total (%)
Surface Water	2015	375	20	9	404	—	—
	2016	1,005	33	16	1,054	—	—
Groundwater	2015	3,341	136	21	3,499	1.65 <sup>4</sup>	0.05
	2016	2,213	111	14	2,338	0.90 <sup>4</sup>	0.04
Total	2015	3,716	156	31	3,903	1.65	0.04
	2016	3,218	145	30	3,392	0.90	0.03

1. From Table 5-3

2. From Table 5-1

3. TAF = thousands of acre-feet

4. Upper limit for groundwater use based on the assumption that all fresh water acquired by the O&G industry from water purveyors is groundwater

Table 5-4 provides the information for answering the following study question as identified in Section 1.2.

**Question 6: How much groundwater is used by the O&G industry in Kern County relative to the amount of groundwater consumed by other users?**

**Answer:** The O&G industry in Kern County uses a very small portion (less than 0.1 percent) of the groundwater used in the Central Valley portion of Kern County.

## 6. CONCLUSIONS

The following conclusions can be drawn from this evaluation of information from the DWR and CalGEM data and information for water production, injection, and disposition for the O&G industry and the independent CCST evaluation:

1. DACs in the Central Valley portion of Kern County are typically close to both agricultural fields and O&G fields.
2. Some DACs have experienced water supply shortages. However, the results of a DWR evaluation indicate that potential well failure because of groundwater level decline is not a pervasive occurrence at project area DACs. Most (89 percent) of the total area of DACs in the project area does not contain failure-susceptible wells; approximately 8 percent of the DAC area falls in the 0<sup>th</sup> to 10<sup>th</sup> percentile (on a statewide basis, corresponding to one failure-susceptible well per 1-square-mile grid cell); 0.1 percent of the DAC area falls in the 10<sup>th</sup> to 20<sup>th</sup> percentile class, (two failure-susceptible wells per grid cell); 2.4 percent of the DAC area falls in the 20<sup>th</sup> to 30<sup>th</sup> percentile class (three failure-prone wells per grid cell); and no DAC area is above the 30<sup>th</sup> percentile.

3. Water production, injection, and disposition information can be obtained from CalGEM web sites. A data dashboard provides convenient access to the WellSTAR database. Annual and quarterly reports are available as CSV files that can be manipulated using readily available spreadsheet software.
4. The WellSTAR Data Dashboard has very limited utility for assessing the use of groundwater by the O&G industry in Kern County and the potential effects of such use on domestic water supply wells. Limitations for this purpose are primarily that it does not have the capability to filter data based on water quality, whether water is or is not groundwater, or based on proximity to specific locations.
5. The annual and quarterly reports in spreadsheet format provide information on water production, injection, and disposition. With a moderate amount of effort, data in the production and injection reports can be filtered to include only wells located in Kern County. Data in the other allocation reports can be filtered only to the level of O&G fields located partially or completely in Kern County.
6. The annual and quarterly reports allow data to be selected based on water quality only at a gross scale, described as suitable for domestic or irrigation use based on TDS concentrations greater than or less than 10,000 mg/L.
7. The CalGEM data does not allow the amount of fresh water acquired from water purveyors to be divided into amounts derived from surface water or groundwater. Hence, groundwater usage by the O&G industry cannot be determined from the CalGEM data. An upper bound can be estimated by assuming that the total fresh water acquired from water purveyors documented in injection reports is an upper bound on fresh groundwater used by the O&G industry. Fresh groundwater use estimated using this approach is highly uncertain.
8. Neither the WellSTAR Data Dashboard nor the annual or quarterly reports allow data to be filtered based on proximity to specified locations. Spreadsheet software used to manipulate the annual and quarterly report datasets does not have the capability to select data based on proximity to a geographic location such as a community, and the annual and quarterly datasets do not contain geographic coordinates (e.g., latitude and longitude). CalGEM has geographic coordinates for O&G wells and other facilities, and information about individual wells can be obtained using a GIS-based system. However, a GIS-based approach that would allow data queries based on proximity to specified locations is not available on CalGEM websites.
9. Overall, CalGEM data is not well suited to evaluate the potential effects of O&G use of fresh groundwater on groundwater availability in specific areas.
10. The CCST evaluation of O&G water production, injection, and disposal data collected by CalGEM concluded that the datasets are sufficient to determine the average volumes of total produced water and fresh/brackish produced water, and it illustrated the water cycle within California's O&G industry. However, the data lack sufficient information to assess the spatial and temporal variability in produced water quality across the state, the impact of produced water as a resource, and the associated environmental hazards, risks, and impacts on human health.

11. CCST concluded that SB 1281 datasets and monthly datasets were redundant or inconsistent when compared. Additionally, some categories were underreported or not reported at all within the SB 1281 datasets. Accurate information on the actual water use is not available and recommendations to improve the datasets were made.
12. Although the water use data was inconsistent and not accurate, generalizations regarding demand numbers were still achievable and calculated in the 2015 Environmental Impact Report and will continue to be used.
13. O&G industry use of fresh water was estimated, with considerable uncertainty, from CalGEM data. Comparison of estimated use of fresh groundwater in Kern County by the O&G industry to DWR estimates of surface water and groundwater use in the Lake Tulare Hydrologic Region, scaled to Kern County based on areal extent, shows that O&G usage is very small compared to total use (less than 0.1 percent).
14. The very low use of fresh groundwater by the O&G industry in Kern County relative to total use likely results in a correspondingly small contribution to groundwater level declines.

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Appendix D

**Overview of Senate Bill 1137 (SB 1137) and  
Public Health Rulemaking Scientific Advisory  
Panel Report**

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# **Overview of Senate Bill 1137 (SB 1137) and Public Health Rulemaking Scientific Advisory Panel Report**

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March 2025



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# Overview of Senate Bill 1137 (SB 1137) and Public Health Rulemaking Scientific Advisory Panel Report

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## **Abbreviations and Acronyms**

AB 1057	Assembly Bill 1057
CalGEM	California Geologic Energy Management Division
km	kilometer
OGD	oil and gas development
SB 1137	Senate Bill 1137
SRIA	Standardized Regulatory Impact Assessment
VOC	volatile organic compound



## 1. INTRODUCTION

This report provides an overview of events related to Senate Bill 1137 (SB 1137) (Gonzalez 2022; Chapter 365, Statutes of 2022), the bill's implementation by the California Geologic Energy Management Division (CalGEM) within the Department of Conservation, and the report prepared by the California Oil and Gas Public Health Rulemaking Scientific Advisory Panel.

CalGEM operates under the direction of the State Oil and Gas Supervisor, who is responsible for supervising the drilling, operation, maintenance, and abandonment of oil and gas wells in California. This includes the operation, maintenance, and removal or abandonment of tanks and facilities associated with oil and gas production within oil and gas fields. Existing law requires well operators to file a written notice of intention before commencing drilling; drilling is prohibited until the supervisor or district deputy gives approval. The supervisor is also authorized to request additional information to supplement the notice. Additionally, existing law requires well owners to submit monthly statements with specified information about their wells. Operators proposing well stimulation treatments are required to apply for a permit and adhere to various conditions and requirements.

Prior to the establishment of SB 1137, in 2019, the California legislature passed Assembly Bill 1057 (AB 1057, Limón), which changed the agency's name and updated its mission to provide that the purposes of provisions relating to oil and gas include the protection of public health, safety, and the environment, including greenhouse gas emissions reduction in a manner that meets the energy needs of the state. In response to a November 2019 directive by Governor Gavin Newsom, CalGEM initiated a rulemaking process to update public health and safety protections for communities near oil and gas production operations. This process included the creation and guidance of a California Oil and Gas Public Health Rulemaking Scientific Advisory Panel, consisting of 15 experts in fields such as oil and gas, toxicology, epidemiology, medicine, and environmental public health. The rulemaking effort also involved stakeholder collaboration and a public comment period.

In SB 1137, the legislature adopted additional provisions identifying and defining health protection areas, which are areas within 3,200 feet of a sensitive receptor. This bill prohibits CalGEM from approving any notice of intention within a Health Protection Zone, though some exceptions are defined. The bill also requires all oil or gas production facilities or wells with a wellhead within a Health Protection Zone to comply with specified health, safety, and environmental requirements. CalGEM has adopted regulations implementing SB 1137 in 14 Cal. Code Regs. Sections 1765 to 1765.10.

This report outlines and highlights the rulemaking efforts and activities related to these legislative changes. It provides a summary of key activities, organized by time frames:

- The California Oil and Gas Public Health Rulemaking Scientific Advisory Panel and CalGEM rulemaking activities from 2019 through 2021;
- SB 1137 activities from 2022 through 2023;

- A summary of present-day activities and the status of the Public Health Rule Regulations; and
- All documents for the public process of the Science Panel and public comment can be viewed here: <https://www.conservation.ca.gov/publichealth>.

## 2. TIMELINE OVERVIEW

The following timeline provides an overview of events related to AB 1057/SB 1137 and the establishment of the updated CalGEM regulatory provisions.

Year	Date	Event
2019	-	AB 1057 passes changing the agency's name from The Department of Conservation's Division of Oil, Gas and Geothermal Resources – to the Geologic Energy Management Division, or CalGEM, and updating its mission to include protection of public health, safety, and the environment.
2020	-	The California Oil and Gas Public Health Rulemaking Scientific Advisory Panel was created to provide scientific guidance to CalGEM as they updated their regulations related to public health and safety protections for communities near oil and gas production operations.
	February 2 - June 10	CalGEM facilitates a pre-rulemaking engagement process.
	December 31	CalGEM releases Draft Regulations Update: Protecting Communities from Health Impacts of Oil Production.
2021	October 1	The Public Health Science Advisory Panel responded to questions from CalGEM.
	October 21	CalGEM releases proposed regulations regarding new oil wells, exclusion areas, and pollution controls for existing wells. A 60-day comment period began. During this time two public workshops were held.
	December 21	The public comment period closed.
2022	September 16	SB 1137 filed with the secretary of state and approved by the governor
2023	January 1	The requirements established by SB 1137 adding Public Resources Code sections (PRC) 3280 through 3291, went into effect.
		CalGEM ceased to approve well permits within a Health Protection Zone. Operators were prohibited from constructing or operating new production facilities in a Health Protection Zone. Exceptions to these regulations are described in Section 4 of this overview.
	January 6	CalGEM's emergency regulations to support the implementation of these requirements were approved by the Office of Administrative Law, filed with the Secretary of State, and made effective the same day.
	February 3	The provisions of SB 1137 were suspended. CalGEM issued a notice to inform operators that the provisions of the Senate Bill

Year	Date	Event
		were stayed by operation of law pending a vote on a referendum against that legislation. This included a suspension of the emergency regulations implementing SB 1137, found in the California Code of Regulations, Title 14, Sections 1765 through 1765.10, by operation of law.
	July 1	All operators were required to submit an inventory and map of sensitive receptors, and a determination as to whether their wellheads and production facilities were located in a Health Protection Zone.
2024	June 21	CalGEM published the final report by the Public Health Science Advisory Panel.
	June 27	A referendum challenging the legislation, resulting in a stay of the new requirements, was withdrawn by proponents.
	June 28	The provisions of SB 1137 went into effect. CalGEM issued a notice to inform operators that the requirements established by SB 1137, adding PRC Sections 3280 through 3291, are no longer stayed, pursuant to Elections Code Section 9033, Subdivision (d)(2), and are in effect.

### 3. CALGEM REGULATION AND SCIENCE ADVISORY PANEL: 2019-2021

This section of the report describes the recommendations and activities related to the Science Advisory Panel and CalGEM rulemaking process from 2019 through 2021.

#### 3.1. 2019

In 2019, the California legislature passed AB 1057, which changed the name of The Department of Conservation's Division of Oil, Gas and Geothermal Resources – to the Geologic Energy Management Division, or CalGEM, and updated its mission to provide that the purposes of provisions relating to oil and gas include the protection of public health, safety, and the environment, including greenhouse gas emissions reduction in a manner that meets the energy needs of the State. To meet this updated mission, CalGEM began to undertake a rulemaking process to update public health and safety protections for communities near oil and gas production operations. This process is in response to a November 2019 directive by California Governor Gavin Newsom (PSE Healthy Energy 2024).

#### 3.2. 2020

In 2020, the California Oil and Gas Public Health Rulemaking Scientific Advisory Panel was created to provide scientific guidance to CalGEM as they updated their regulations. The panel consisted of 15 experts in oil and gas production, toxicology, epidemiology, medicine, and environmental public health (PSE Healthy Energy 2024).

From February through June 2020, CalGEM facilitated a pre-rulemaking engagement process designed to obtain early input from stakeholders. The engagement process consisted of 10 public meetings and received more than 40,000 public comments to help inform the development of a draft rule and met with the California Oil and Gas Public Health Rulemaking Scientific Advisory Panel.

Comments received from [February 18, 2020, to April 21, 2020](#), and [April 21, 2020, to June 10, 2020](#), were summarized by CalGEM highlighting both public concerns about environmental impacts from oil and gas operations near sensitive receptors, as well as opposition to additional regulations due to the State's existing policies and fears of potential job and market losses (California Department of Conservation 2020a, 2020b).

Additionally, CalGEM received responses to an online survey they developed and posted in February 2020. The survey asked two key questions about what respondents would like to see in the rulemaking process and the type of stakeholder group they represent. Responses to the first question varied, suggestions ranged from reducing or eliminating drilling and well use to promoting public engagement, job creation, and education. These responses were similar to comments made from February to April 2020. Regarding stakeholder type, most respondents were from environmental or oil and gas industry groups, followed by representatives from environmental justice, public health, and academia (see Table 1; California Department of Conservation 2020c).

**Table 1: Stakeholder Type Responses**

Stakeholder Type	Total Responses
Academic	82
Environmental	157
Environmental Justice	103
Labor	56
Oil And Gas Industry	164
Public Health	93
None of the Above	49
Decline to State	46

On December 31, 2020, CalGEM released an update that the draft was expected to be released after receiving feedback from the California Oil and Gas Public Health Rulemaking Scientific Advisory Panel. Updates included the protective setbacks between oil production and sensitive receptors such as homes, schools, and communities; and the consideration for operational and engineering controls that limit or eliminate potentially harmful conditions affecting workers and nearby communities (California Department of Conservation 2020).

### 3.3. 2021

On August 31, 2021, CalGEM submitted four questions to the California Oil and Gas Public Health Rulemaking Scientific Advisory Panel related to the methodology and level of certainty as it pertains to negative health outcomes as well as the determination of the recommended setback distance. No actual air modeling of health risk assessments or other in-field work was conducted by CalGEM or the Advisory Panel. The questions were:

1. How would the panel characterize the level of certainty that proximity to oil and gas extraction wells and associated facilities in California causes negative health outcomes? Is there a demonstrated causal link between living near oil and gas wells and associated facilities and health outcomes?
2. What are the air pollutants released from these activities that cause negative health outcomes? How do we know exposure to these is likely from oil and gas extraction wells and associated facilities, as opposed to other sources?
3. Does the evidence evaluated clearly support a specific setback? If so, what is this setback distance and what oil and gas extraction activities would it specifically apply to? What is the supporting evidence?
  - a. How does this evidence justify the recommended setback distance, as opposed to another distance?
  - b. What are the health benefits from this setback? Can the panel quantify them or recommend a methodology CalGEM can use to quantify them? Can the panel establish that these health benefits can only be achieved with the setback? Or can they also be achieved with mitigation controls?
  - c. Can the panel quantify or recommend a methodology CalGEM can use to quantify the health benefits associated with mitigation controls?
4. CalGEM is aware of health risk assessments, health impact assessments, air exposure studies, and workforce safety studies that have been conducted but were not evaluated as part of your preliminary advice. How do these studies align with your causation determination, any recommended setback distance, and recommendations on health benefits quantification?

On October 1, 2021, the Science Advisory Panel responded to the four questions received from CalGEM (California Oil and Gas Public Health Rulemaking California Oil and Gas Public Health Rulemaking Scientific Advisory Panel 2021).

1. Responses to Question 1:
  - a. Panel concludes with a high level of certainty that the epidemiologic evidence indicates that close residential proximity to oil and gas development (OGD) is associated with adverse perinatal and respiratory outcomes, for which the body of human health studies is most extensive in California and other locations.
  - b. Panel concludes with a high level of certainty that human health studies focused on unconventional and conventional OGD are relevant to consider in the California context where conventional development is most prevalent.

- c. The epidemiological evidence provides a high level of certainty that exposure to OGD (and associated exposures) cause a significant increased risk of poor birth outcomes.
  - d. Panel concludes with a high level of certainty that there is a causal relationship between close geographic proximity to OGD and adverse perinatal and respiratory outcomes.
2. Responses to Question 2:
- a. The wells, valves, tanks and other equipment used to produce, store, process and transport petroleum products at both unconventional and conventional OGD sites are associated with emissions of toxic air contaminants, hazardous air pollutants and other health-damaging nonmethane volatile organic compounds (VOCs).
  - b. Diesel engines used to power on-site equipment and trucks at unconventional and conventional OGD sites directly emit health-damaging hazardous air pollutants, fine particulate matter (PM<sub>2.5</sub>), nitrogen oxides, and VOCs.
  - c. Panel concludes with a high level of certainty that concentrations of health-damaging air pollutants, including criteria air pollutants and toxic air contaminants, are more concentrated near OGD activities compared to further away.
3. Responses to Question 3:
- a. Studies consistently demonstrate evidence of harm at distances less than 1 kilometer (km), and some studies also show evidence of harm linked to OGD activity at distances greater than 1 km.
  - b. Neither setbacks nor engineering controls alone are sufficient to reduce the health hazards and risks from OGD activities -- both approaches are needed in tandem.
  - c. Attempts to quantify benefits using BenMAP-CE are likely to underestimate them.<sup>1</sup>
4. Responses to Question 4:
- a. Should additional peer-reviewed studies be identified, the Panel will evaluate them to determine whether they align with the scope of the report and should be added.

A full response report is available on CalGEM's [website](#).

On October 21, 2021, the agency released the draft proposed regulations along with a 60-day comment period ending on December 21, 2021. The notice is available through CalGEM's [website](#). The proposed regulations would prohibit new wells and facilities within a 3,200-foot exclusion area—or setback—from homes, schools, hospitals, nursing homes, and other sensitive locations. It would also require pollution controls for existing wells and facilities within the same 3,200-foot setback area, as noted below. “CalGEM will not approve any Notice of Intention to drill a new well with a new surface location within the setback exclusion area [all land within

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<sup>1</sup> “BenMAP-CE is an open-source computer program that calculates the number and economic value of air pollution-related deaths and illnesses” (EPA 2024).

3,200 feet of a sensitive receptor] except a well, such as an intercept well or a pressure relief well, that must be drilled to alleviate an immediate threat to public health and safety or the environment.”

The draft proposed regulations also stated that an operator of a wellhead or other production facility located within the setback mitigation area shall implement a Leak Detection and Response Plan. “A Leak Detection and Response Plan is subject to review and approval by the Division and shall address all requirements of this section. After [EFFECTIVE DATE PLUS TWO YEARS], the operator shall suspend all production and injection operations in all areas within the setback mitigation area where a Leak Detection and Response Plan is not fully implemented” (California Department of Conservation 2021).

CalGEM received more than 83,500 comments on the draft proposed regulations, including comments received during two public workshops conducted in December 2021 with more than 800 total attendees. The Public Health Rulemaking did not proceed to the Office of Administrative Law, therefore, a Standardized Regulatory Impact Assessment (SRIA), an in-depth economic analysis of the rule, was not developed and a summary of comments was not prepared (California Department of Conservation 2024a).

#### **4. SENATE BILL NO. 1137: 2022-2023**

This section of the appendix describes the establishment of SB 1137 from 2022 through 2023.

##### **4.1. 2022**

On September 16, 2022, SB 1137 was filed with the Secretary of State and approved by the governor.

Starting on January 1, 2023, SB 1137 prohibited approval of notices of intention in health protection zones, except in specific circumstances such as responding to health or environmental threats. It also mandated a sensitive receptor inventory or certification of no sensitive receptors within 3,200 feet of a wellhead for new notices of intention. Under the existing law, operators with a production facility or well with a wellhead must file a notice before drilling, obtain a permit for well stimulation treatments, and submit monthly well statements.

Starting January 1, 2025, all oil and gas operations in these zones must meet safety and environmental standards, with operators submitting a leak detection plan and updating it every five years. Public workshops and notifications to property owners and tenants are also required.

By July 1, 2023, the bill stated that operators must submit sensitive receptor maps, update them annually, and make them publicly available. Annual reporting of production facility data to the division starts January 1, 2027, and information will be shared publicly.

The bill exempted underground gas storage and mandates inter-agency agreements by June 1, 2023, to coordinate Health Protection Zone enforcement. It requires a legislative report on zone implementation by July 1, 2027, and allows for emergency regulations as needed (Secretary of State 2022).

## **4.2. 2023**

The requirements established by SB 1137, adding [PRC Sections 3280 through 3291](#), went into effect on January 1, 2023. These requirements included CalGEM ceasing approval of well permits within a “Health Protection Zone” unless it is necessary to prevent or respond to a threat to public health, safety, or the environment, or to comply with a court order finding that denying approval would amount to a taking of property.

A “Health Protection Zone” is an area within 3,200 feet of a sensitive receptor, as described in SB 1137: “The measurement shall be made from the property line of the receptor unless the receptor building is more than 50 feet set back from the property line, in which case the measurement shall be made from the outline of the building footprint to 3,200 feet in all directions.”

Additionally, operators were prohibited from constructing or operating new production facilities in a Health Protection Zone unless associated with an approved well permit or as determined by the division to protect health and safety.

On January 6, 2023, CalGEM's emergency regulations to support the implementation of these requirements were approved by the Office of Administrative Law, filed with the Secretary of State, and made effective the same day (Gonzalez 2024).

On February 3, 2023, the provisions of SB 1137 were suspended due to a referendum filed against the legislation. In response to the referendum, CalGEM issued a notice to inform operators that the provisions of SB 1137 were stayed by operation of law pending a vote on the referendum. This included a suspension of the emergency regulations implementing SB 1137, found in the California Code of Regulations, Title 14, Sections 1765 through 1765.10, by operation of law (California Department of Conservation 2023).

As of July 1, 2023, all operators were to submit an inventory and map of sensitive receptors, and a determination as to whether their wellheads and production facilities are located in a Health Protection Zone (California Department of Conservation 2024b).

## **5. MILESTONES IN 2024**

On June 27, 2024, proponents of the referendum withdrew it. Subsequently, as of June 28, 2024, the provisions of SB 1137 went into effect. More detailed information on the regulations can be found in the Notice to Operators (NTO 2024-06) (California Department of Conservation 2024). CalGEM issued a notice to inform operators that the “requirements established by SB 1137, adding PRC Sections 3280 through 3291, are no longer stayed and are currently in effect, pursuant to Elections Code section 9033, subdivision (d)(2).”



On June 21, 2024, the California Oil and Gas Public Health Rulemaking California Oil and Gas Public Health Rulemaking Scientific Advisory Panel published the final report titled *Public Health Dimensions of Upstream Oil and Gas Development in California: Scientific Analysis and Synthesis to Inform Science-Policy Decision Making*. The report produced six major findings:

**Finding 1:** As part of the evaluation, 72 peer-reviewed epidemiological studies were assessed that evaluated upstream OGD and adverse health outcomes in the United States and Canada (see Table 2). Studies consistently show an increased potential for exposure to air pollution and noise, as well as a heightened risk of adverse health outcomes in populations living within and beyond 1 km (approximately 0.62 miles or 3,281 feet) of oil and gas well sites. These studies also indicate that Hispanic, non-Hispanic Black, and non-Hispanic Asian communities; and populations of lower socioeconomic status are more likely to live within 1 km (3,281 feet) of at least one active well. Additionally, these groups tend to reside in areas with the highest density of oil and gas wells, thereby facing disproportionate exposure. A full list of tables with health outcome evaluations is available in the report.

**Finding 2:** Effective risk management is hindered by limited publicly available data on the chemical composition, rates, and quantities of air pollutant emissions from upstream OGD infrastructure. Such data is essential for assessing pollutant dispersion and community exposures and for responding to air pollution impacts from routine and off-normal release events.

**Finding 3:** There are varied disclosure requirements across different California jurisdictions. Publicly available data on the identities and quantities of chemicals used during various OGD activities—such as routine well maintenance, cleanouts, drilling, and well stimulation—remain incomplete. Many of the chemicals known to be used in these activities are associated with human health risks, while the toxicity of numerous other reported chemicals is unknown or poorly understood. Epidemiological studies conducted across the United States and Canada—six conducted in California—and published through July 15, 2023, evaluated the associations between upstream OGD and several adverse health outcomes.

**Finding 4:** Exemptions from emission control and leak detection and repair requirements exist for heavy oil development facilities and small producers across California. These exemptions are partly justified by the assumption that methane emissions from these operations represent a small fraction of total methane emissions from all upstream OGD in the state. However, methane cannot be used as the sole indicator for nonmethane volatile organic compound emissions from sources that do not emit methane (e.g., diesel engines and other combustion sources), nor for emissions of criteria air pollutants such as particulate matter and nitrogen oxides.

**Finding 5:** Produced water contains compounds known to be hazardous to human health. There is documentation showing that water handling and disposal practices in California have impacted groundwater that is currently or could in the future be used for domestic consumption or agricultural irrigation.

**Finding 6:** Idle, idle-deserted, and abandoned oil and gas wells and other legacy upstream oil and gas infrastructure pose potential near and long-term health risks that are poorly characterized due to limited data and reporting.

**Table 2: Epidemiological Studies Evaluated in the Public Health Dimensions of Upstream Oil and Gas Development in California: Scientific Analysis and Synthesis to Inform Science-Policy Decision Making Report<sup>1</sup>**

Author (Year)	Title
<b>CALIFORNIA</b>	
Elser et al. (2021)	Air pollution, methane super-emitters, and oil and gas wells in Northern California: The relationship with migraine headache prevalence and exacerbation
Gonzalez et al. (2020)	Oil and gas production and spontaneous preterm birth in the San Joaquin Valley, CA: A case-control study
Tran et al. (2020)	Residential Proximity to Oil and Gas Development and Birth Outcomes in California: A Retrospective Cohort Study of 2006–2015 Births
Tran et al. (2021)	Residential proximity to hydraulically fractured oil and gas wells and adverse birth outcomes in urban and rural communities in California (2006-2015)
Shama-Sunder et al. (2018)	Community-Based Health and Exposure Study around Urban Oil Developments in South Los Angeles
Johnston et al. (2021)	Respiratory Health, Pulmonary Function and Local Engagement in Urban Communities Near Oil Development
<b>CANADA</b>	
Aker et al. (2022)	Proximity and density of unconventional natural gas wells and mental illness and substance use among pregnant individuals: An exploratory study in Canada
Caron-Beaudoin et al. (2020)	Density and proximity to hydraulic fracturing wells and birth outcomes in Northeastern British Columbia, Canada
Cairncross et al. (2022)	Association Between Residential Proximity to Hydraulic Fracturing Sites and Adverse Birth Outcomes
<b>COLORADO</b>	
Mckenzie et al. (2017)	Childhood hematologic cancer and residential proximity to oil and gas development
Mckenzie et al. (2019a)	Congenital heart defects and intensity of oil and gas well site activities in early pregnancy
Mckenzie et al. (2019b)	Relationships between indicators of cardiovascular disease and intensity of oil and natural gas activity in Northeastern Colorado
Mckenzie et al. (2014)	Birth outcomes and maternal residential proximity to natural gas development in rural Colorado
Erickson et al. (2022)	The Effects of Hydraulic Fracturing Activities on Birth Outcomes are Evident in a Non-Individualized County-Wide Aggregate Data Sample from Colorado
Weisner et al. (2023)	Health Symptoms and Proximity to Active Multi-Well Unconventional Oil and Gas Development Sites in the City and County of Broomfield, Colorado
<b>OHIO</b>	
Mayer (2019)	Does fracking drive you to drink? Unconventional oil and gas production and alcohol consumption in U.S. counties
Gaughan et al. (2023)	Residential proximity to unconventional oil and gas development and birth defects in Ohio
<b>OKLAHOMA</b>	
Casey et al. (2018a)	Exposure Assessment Using Secondary Data Sources in Unconventional Natural Gas Development and Health Studies
Elser et al. (2023)	Manmade earthquakes and healthcare visits for anxiety disorders in Oklahoma, 2010-2019

**Table 2: Epidemiological Studies Evaluated in the Public Health Dimensions of Upstream Oil and Gas Development in California: Scientific Analysis and Synthesis to Inform Science-Policy Decision Making Report<sup>1</sup>**

Author (Year)	Title
Apergis et al. (2019)	Fracking and infant mortality: Fresh evidence from Oklahoma
Janitz et al. (2019)	The association between natural gas well activity and specific congenital anomalies in Oklahoma, 1997-2009
<b>PENNSYLVANIA</b>	
Elliott et al. (2018)	A community-based evaluation of proximity to unconventional oil and gas wells, drinking water contaminants, and health symptoms in Ohio
Fryzek et al. (2013)	Childhood cancer incidence in Pennsylvania counties in relation to living in counties with hydraulic fracturing sites
Finkel (2016)	Shale gas development and cancer incidence in southwest Pennsylvania
Clark et al. (2022)	Unconventional Oil and Gas Development Exposure and Risk of Childhood Acute Lymphoblastic Leukemia: A Case-Control Study in Pennsylvania
Casey et al. (2018b)	Exposure Assessment Using Secondary Data Sources in Unconventional Natural Gas Development and Health Studies
Casey et al. (2019)	Unconventional natural gas development and adverse birth outcomes in Pennsylvania: The potential mediating role of antenatal anxiety and depression
Li et al. (2022)	Exposure to unconventional oil and gas development and all-cause mortality in Medicare beneficiaries
Makati et al. (2022)	Prevalence of ANCA-associated vasculitis amid natural gas drilling sites in West Virginia
Jemielita et al. (2015)	Unconventional Gas and Oil Drilling Is Associated with Increased Hospital Utilization Rates
Denham et al. (2019)	Unconventional natural gas development and hospitalizations: Evidence from Pennsylvania
Ferrar et al. (2013)	Assessment and longitudinal analysis of health impacts and stressors perceived to result from unconventional shale gas development in the Marcellus Shale region
Steinzor et al. (2013)	Investigating links between shale gas development and health impacts through a community survey project in Pennsylvania
Saberi et al. (2014)	Field Survey of Health Perception and Complaints of Pennsylvania Residents in the Marcellus Shale Region
Rabinowitz et al. (2015)	Proximity to Natural Gas Wells and Reported Health Status: Results of a Household Survey in Washington County, Pennsylvania
Tustin et al. (2016)	Associations between Unconventional Natural Gas Development and Nasal and Sinus, Migraine Headache, and Fatigue Symptoms in Pennsylvania
Blinn et al. (2020)	Exposure assessment of adults living near unconventional oil and natural gas development and reported health symptoms in southwest Pennsylvania
Stacy et al. (2015)	Perinatal Outcomes and Unconventional Natural Gas Operations in Southwest Pennsylvania
Casey et al. (2016)	Unconventional natural gas development and birth outcomes in Pennsylvania, USA
Ma (2016)	Time Series Evaluation of Birth Defects in Areas with and without Unconventional Natural Gas Development
Busby and Mangano (2017)	There's a World Going on Underground—Infant Mortality and Fracking in Pennsylvania
Currie et al. (2017)	Hydraulic fracturing and infant health: New evidence from Pennsylvania
Hill (2018)	Unconventional natural gas development and pediatric asthma hospitalizations in Pennsylvania
Koehler et al. (2018)	Exposure Assessment Using Secondary Data Sources in Unconventional Natural Gas Development and Health Studies

**Table 2: Epidemiological Studies Evaluated in the Public Health Dimensions of Upstream Oil and Gas Development in California: Scientific Analysis and Synthesis to Inform Science-Policy Decision Making Report<sup>1</sup>**

<b>Author (Year)</b>	<b>Title</b>
Peng et al. (2018)	Relationship of Sleep Duration With All-Cause Mortality and 2-41 Cardiovascular Events: A Systematic Review and Dose-Response Meta-Analysis of Prospective Cohort Studies
Willis et al. (2018)	Unconventional natural gas development and pediatric asthma hospitalizations in Pennsylvania
Bushong et al. (2022)	Publicly available data reveals association between asthma hospitalizations and unconventional natural gas development in Pennsylvania
<b>PENNSYLVANIA/NEW YORK</b>	
Denham et al. (2021)	Acute Myocardial Infarction Associated with Unconventional Natural Gas Development: A Natural Experiment
Trickey et al. (2023)	Hospitalizations for cardiovascular and respiratory disease among older adults living near unconventional natural gas development: A difference-in-differences analysis
Rasmussen et al. (2016)	Associations between Unconventional Natural Gas Development and Nasal and Sinus, Migraine Headache, and Fatigue Symptoms in Pennsylvania
<b>TEXAS</b>	
Hoang et al. (2023)	Clustering of Pediatric Brain Tumors in Texas, 2000–2017
Whitworth et al. (2017)	Maternal residential proximity to unconventional gas development and perinatal outcomes among a diverse urban population in Texas
Walker Whitworth et al. (2018)	Drilling and Production Activity Related to Unconventional Gas Development and Severity of Preterm Birth. Environmental Health Perspectives
Cushing et al. (2020)	Residential Proximity to Oil and Gas Development and Birth Outcomes in California: A Retrospective Cohort Study of 2006–2015 Births. Environmental Health Perspectives
Tang et al. (2021)	Birth defects and unconventional natural gas developments in Texas, 1999–2011
Willis et al. (2021)	Associations between Residential Proximity to Oil and Gas Drilling and Term Birth Weight and Smallfor-Gestational-Age Infants in Texas: A Difference-in-Differences Analysis
Willis et al. (2022)	Associations between residential proximity to oil and gas extraction and hypertensive conditions during pregnancy: A difference-in-differences analysis in Texas, 1996–2009
Han et al. (2023)	Associations between occurrence of birth defects and hydraulic fracturing activities in Barnett shale region, Texas
Willis et al. (2023)	Congenital anomalies associated with oil and gas development and resource extraction: A population-based retrospective cohort study in Texas
Willis et al. (2020)	Natural gas development, flaring practices and pediatric asthma hospitalizations in Texas
Li et al. (2023)	Environmental characteristics and disparities in adult asthma in north central Texas urban counties
<b>WEST VIRGINIA</b>	
Weinberger et al. (2017)	Health symptoms in residents living near shale gas activity: A retrospective record review from the Environmental Health Project

**Table 2: Epidemiological Studies Evaluated in the Public Health Dimensions of Upstream Oil and Gas Development in California: Scientific Analysis and Synthesis to Inform Science-Policy Decision Making Report<sup>1</sup>**

Author (Year)	Title
<b>UNITED STATES</b>	
Hu et al. (2022)	Spatiotemporal Correlation Analysis of Hydraulic Fracturing and Stroke in the United States
Mayer and Olson Hazboun (2019)	Does fracking drive you to drink? Unconventional oil and gas production and alcohol consumption in U.S. counties
Boslett and Hill (2022)	Mortality during resource booms and busts

Note:

This table contains 72 peer-reviewed epidemiological studies that evaluated upstream oil and gas development and adverse health outcomes in oil and gas regions in the United States and Canada that were published between January 1, 2009, and July 15, 2023. Studies are ordered alphabetically by state/region, chronologically by year, and alphabetically by first author's last name.

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