

**San Joaquin Valley Unified  
Air Pollution Control District**

**Chevron U.S.A. Inc.  
Coalinga Heavy Oil Production Facility  
Steam Generators Project**

**ATC Projects C-1132740 & C-1140728**

**Fresno County**

**Initial Study and Draft  
Mitigated Negative Declaration**

**September 2014**

**SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT  
GOVERNING BOARD 2014**

CHAIR: HUB WALSH  
Supervisor, Merced County

VICE CHAIR: TOM WHEELER  
Supervisor, Madera County

**MEMBERS:**

OLIVER L. BAINES III  
Councilmember, City of Fresno

DAVID COUCH  
Supervisor, Kern County

TONY BARBA  
Supervisor, Kings County

BOB ELLIOTT  
Supervisor, San Joaquin County

SKIP BARWICK  
Councilmember, City of Tulare

HAROLD HANSON  
Councilmember, City of Bakersfield

SALLY J. BOMPREZZI  
Councilmember, City of Madera

WILLIAM O'BRIEN  
Supervisor, Stanislaus County

DENNIS BRAZIL  
Mayor, City of Gustine

ALEXANDER C. SHERRIFFS, M.D.  
Appointed by Governor

JOHN CAPITMAN, Ph.D.  
Appointed by Governor

J. STEVEN WORTHLEY  
Supervisor, Tulare County

JUDITH G. CASE McNAIRY  
Supervisor, Fresno County

***AIR POLLUTION CONTROL OFFICER:***

SEYED SADREDIN



**INITIAL STUDY AND  
DRAFT MITIGATED NEGATIVE DECLARATION**

**Eighteen 85 MMBtu/hr Steam Generators for  
Chevron U.S.A., Inc.**

September 2014

*Lead Agency:* San Joaquin Valley Air Pollution Control District  
1990 East Gettysburg Avenue  
Fresno CA 93726-0244

*Agency CEQA Contact:* Debbie Johnson, Air Quality Specialist  
Phone: (559) 230-6000  
Fax: (559) 230-6061

*Agency Permits Contact:* Steve Roeder, Air Quality Engineer  
David Torii, Air Quality Engineer  
Phone: (661) 392-5500  
Fax: (661) 392-5585

*Project Sponsor  
and Location:* Chevron U.S.A., Inc.  
P.O. Box 1392  
Lance Ericksen  
Bakersfield, CA 93302

*Project Contact:* Michael Buss  
Environmental Engineer, Air Team Business Partner  
Health, Environment and Safety  
Phone: (661) 654-7142



---

## TABLE OF CONTENTS

A.	INTRODUCTION .....	1
B.	PURPOSE AND AUTHORITY .....	1
C.	PROJECT BACKGROUND INFORMATION .....	2
D.	DECISION TO PREPARE A MITIGATED NEGATIVE DECLARATION .....	9
E.	ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED .....	10
F.	DETERMINATION .....	10
G.	ENVIRONMENTAL IMPACT CHECKLIST .....	11
I.	AESTHETICS .....	11
II.	AGRICULTURAL AND FORESTRY RESOURCES .....	13
III.	AIR QUALITY .....	15
IV.	BIOLOGICAL RESOURCES .....	26
V.	CULTURAL RESOURCES .....	38
VI.	GEOLOGY / SOILS .....	42
VII.	GREENHOUSE GAS EMISSIONS .....	45
VIII.	HAZARDS AND HAZARDOUS MATERIALS .....	52
IX.	HYDROLOGY / WATER QUALITY .....	56
X.	LAND USE / PLANNING .....	60
XI.	MINERAL RESOURCES .....	62
XII.	NOISE .....	63
XIII.	POPULATION / HOUSING .....	65
XIV.	PUBLIC SERVICES .....	67
XV.	RECREATION .....	68
XVI.	TRANSPORTATION / TRAFFIC .....	69
XVII.	UTILITIES / SERVICE SYSTEMS .....	72
XVIII.	MANDATORY FINDINGS OF SIGNIFICANCE .....	75
H.	APPENDIXES .....	77
	Appendix A. Acronyms and Abbreviations	
	Appendix B. Mitigation Monitoring and Reporting Program	
	Appendix C. Construction Emissions	
	Appendix D. Engineering Evaluation	
	Appendix E. Risk Management Review	



---

## A. INTRODUCTION

Chevron U.S.A. Inc. (CUSA) is a Title V oil production company with facilities located in Fresno County, California. The San Joaquin Valley Air Pollution Control District (District) has received two (2) Authority to Construct (ATC) application packages from CUSA requesting to install a total of eighteen (18) steam generators:

- Project C-1132740 is requesting to install eleven (11) natural gas-fired steam generators.
- Project C-1140728 is requesting to install seven (7) natural gas-fired steam generators.

The steam generators will be equipped with 85 MMBtu/hr North American GLE low-NO<sub>x</sub> burners (or equivalent, alternatively, 69 MMBtu/hr steam generators maybe be installed in place of the 85 MMBtu/hr) and flue gas recirculation. These steam generators will be located within the Coalinga Oil Field in the Fresno County Heavy Oil Production Stationary Source.

The District concluded that these ATC applications must be considered a single Project (installation and operation of 18 steam generators) for purposes of evaluating the environmental impacts under the California Environmental Quality Act (CEQA), and will be collectively referred to as the "Project".

The Project is consistent with current operations and will allow for continued oil and gas related activities necessary to enhance oil recovery within the current operations of CUSA. As presented in this environmental document, the District has conducted an Initial Study and concludes that, with mitigation, the Project will have a less than significant environmental impact.

## B. PURPOSE AND AUTHORITY

The District has discretionary approval power over the Project via its Permits Required Rule (Rule 2010) and New and Modified Stationary Source Review Rule (Rule 2201). No other agency is known to have discretionary approval over the Project. As such, the District is the public agency having principal responsibility for approving the Project and serves as Lead Agency (CCR §15367).

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of Projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The ERG was prepared to comply with this requirement and is an internal document used to comply with CEQA.



---

The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in Projects through use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the Project in the manner the agency chose if significant environmental effects are involved.

Under CEQA the Lead Agency is required to:

- Conduct preliminary reviews to determine if applications are subject to CEQA [CCR §15060].
- Conduct review to determine if Projects are exempt from CEQA [CCR §15061].
- Prepare Initial Studies for Projects that may have adverse environmental impacts [CCR §15063].
- Determine the significance of the environmental effects caused by the Project [CCR §15064].
- Prepare Negative Declarations or Mitigated Negative Declarations for Projects with no significant environmental impacts [CCR §15070].
- Prepare, or contract to prepare, EIRs for Projects with significant environmental impacts [CCR §15081].
- Adopt reporting or monitoring programs for the changes made to Projects or conditions of Project approval, adopted in order to mitigate or avoid significant effects on the environment [PRC §21081.6 & CCR §15097].
- Comply with CEQA noticing and filing requirements.

## **C. PROJECT BACKGROUND INFORMATION**

### **Project Description**

CUSA is an oil production company that operates oil and gas production facilities across California, including the proposed Project site located in the Coalinga Oil Field. CUSA has a Title V Operating Permit for its operations in the Coalinga Oil Field. These operations are classified as a major source of air pollutants in the *New and Modified Stationary Source Review Rule*, (Section 3.24 of District Rule 2201). Therefore, the installation and operation of stationary source equipment for this Project is subject to District permit requirements.



One major requirement is that new and modified equipment having air contaminant emissions must satisfy the requirements of New Source Review (NSR).

NSR requires:

- Installation of Best Available Control Technology (BACT) to minimize emission increases from stationary source equipment with criteria emissions exceeding 2.0 lb/day.
- Mitigation of emission increases over certain thresholds either by limiting the use of existing equipment or by providing emission offsets.

CUSA is proposing to install eighteen (18) natural gas-fired steam generators. The District has received two (2) Authority to Construct (ATC) application packages from CUSA for this Project:

- The first application package (C-1132740) is for eleven (11) natural gas-fired steam generators consisting of two (2) Project sites. The first site will consist of six (6) of these units and will be permitted for the 13D steam plant (Units C-311-242-0 through C-311-247-0). The second site will consist of five units (Units C-311-248-0 through C-311-260-0) and will be permitted for various specified locations within 13D and 25D steam plants.
- The second application package (C-1140728) for seven (7) natural gas-fired steam generators will all be permitted for the 6C steam plant (Units C-311-254-0 through C-311-252-0).

The eighteen (18) natural gas-fired steam generators will be equipped with 85 MMBtu/hr North American GLE low-NOx burners (or equivalent) capable of achieving NOx emissions of 7 ppmvd @ 3% O<sub>2</sub>, and flue gas recirculation (FGR). The "or equivalent" burner option consists of using the same GLE burner rated at 69 MMBtu/hr, which is required for steam generators with a smaller fire box.

Emissions from the steam generators will trigger BACT, Offsets, and Public Notice. This Project is also subject to the requirements of Rule 2410, (*Prevention of Significant Deterioration*).

CUSA has a Title V permit for the Coalinga Oil Field in the Fresno County Heavy Oil Production Stationary Facility. This Project is a Federal Major Modification and a Title V Significant Modification pursuant to Rule 2520 (*Federally Mandated Operating Permits*). This Project will be processed with a Certificate of Conformity (COC). A 45-day EPA comment period must be satisfied prior to the issuance of the Authorities to Construct. CUSA must then apply to administratively amend their Title V permit. The District prepared two (2) engineering evaluations, (ATC Project C-1132740 and ATC Project C-1140728), to determine impacts from emissions to operate eighteen (18) 85.0 MMBtu/hr gas-fired steam generators.



---

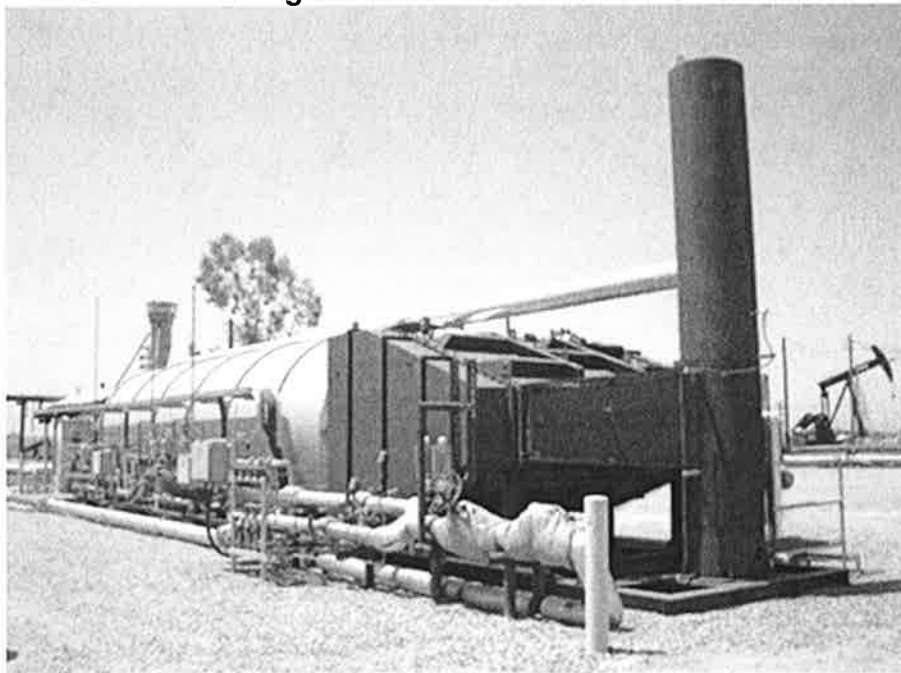
## **Project Construction**

Construction is expected to begin in 2014, with full build-out expected to be reached in 2017. The Project will be constructed at three separate locations within the Coalinga Oil Field. The Project includes the construction of eighteen (18) 85.0 MMBtu/hr steam generators and the supporting infrastructure needed for their continued operations. The steam generators support existing permitted wells and entitlements issued by the California Division of Oil, Gas, and Geothermal Resources (DOGGR).

## **Steam Generators Description**

Steam generators are an integral part of typical steam flood operations where steam is injected into the subsurface formation to aid in oil recovery. A steam generator is a device that uses a heat source to boil water, (liquid phase), and convert it into steam, (vapor phase). The heat may be derived from the combustion of a fuel. Oil field steam generators are designed to produce steam for injection into heavy oil reservoirs to enhance the recovery of viscous crude oils. Steam leaves the steam generation plant and enters the field distribution system. The distribution system transports the steam to measurement and control equipment located at each steam injector, where the steam is metered and controlled to achieve the target injection rate. The proposed steam generators will be used for steam enhanced oil production at specified locations. A representative steam generator is shown below.

**Figure 1: Steam Generator**







**Project Location**

Chevron U.S.A. Inc., (CUSA) Project is located in the Coalinga Oil Field in southwestern Fresno County within the San Joaquin Valley Air Pollution Basin (Figure 2). Three project sites consist of eighteen (18) steam generators located within the Coalinga Oil Field. Six (6) of the steam generators will be located at the 13D steam plant. Five (5) of the steam generators will be permitted for various specified locations within the 13D and 25D steam plants. Seven (7) steam generators will be located at the 6C steam plant (see Table 1 and Figure 4).

**Table 1: Eighteen (18) Steam Generator Location**

Permit Number for 18 Steam Generators	Location (Section/Township/Range)
C-311-242-0	Sec 13 T20S R14E (Plant 13D)
C-311-243-0	
C-311-244-0	
C-311-245-0	
C-311-246-0	
C-311-247-0	
C-311-248-0	Sec 13 T20S R14E & Sec 25 T20S R14E (Plant 13D & 25D)
C-311-249-0	Sec 13 T20S R14E & Sec 25 T20S R14E (Plant 13D & 25D)
C-311-250-0	Sec 13 T20S R14E & Sec 25 T20S R14E (Plant 13D & 25D)
C-311-251-0	Sec 13 T20S R14E & Sec 25 T20S R14E (Plant 13D & 25D)
C-311-252-0	Sec 13 T20S R14E & Sec 25 T20S R14E (Plant 13D & 25D)
C-311-254-0	Sec 6 T20S R15E (Plant 6C)
C-311-255-0	
C-311-256-0	
C-311-257-0	
C-311-258-0	
C-311-259-0	
C-311-260-0	

**General Plan Designation and Zoning**

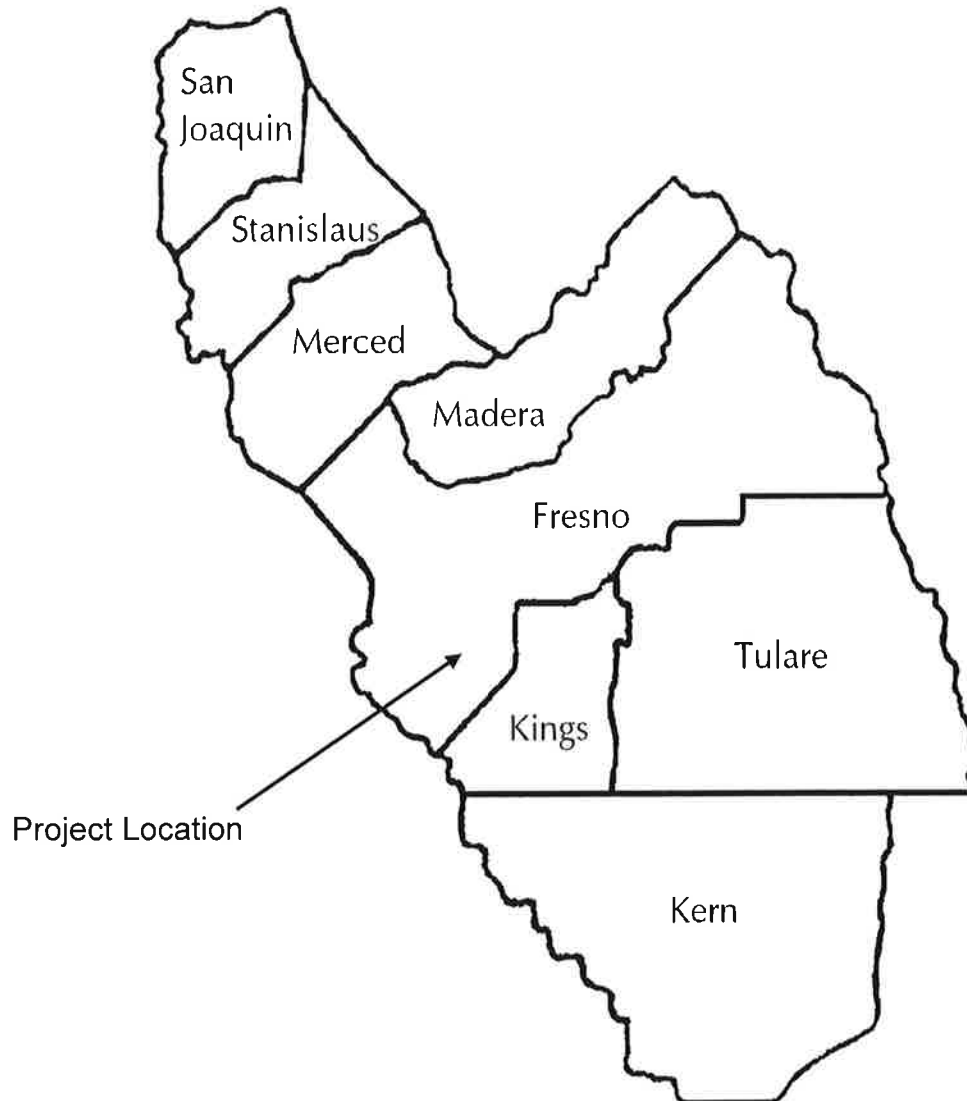
This Project is located within the boundaries of the Coalinga Regional Plan and is currently designated in the Fresno County 2000 General Plan as a Westside Rangeland which is currently zoned Exclusive Agriculture. Pursuant to the Zoning Ordinance of Fresno County, oil production activities, including steam generators (excluding coal fired), are a permitted use by right.

**Surrounding Land Uses and Setting**

The area surrounding the facility is zoned for agricultural uses. These uses include dairy and general agricultural farming operations. The District has verified that the proposed Project is not within 1,000 feet of the outer boundary of any schools. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this Project.

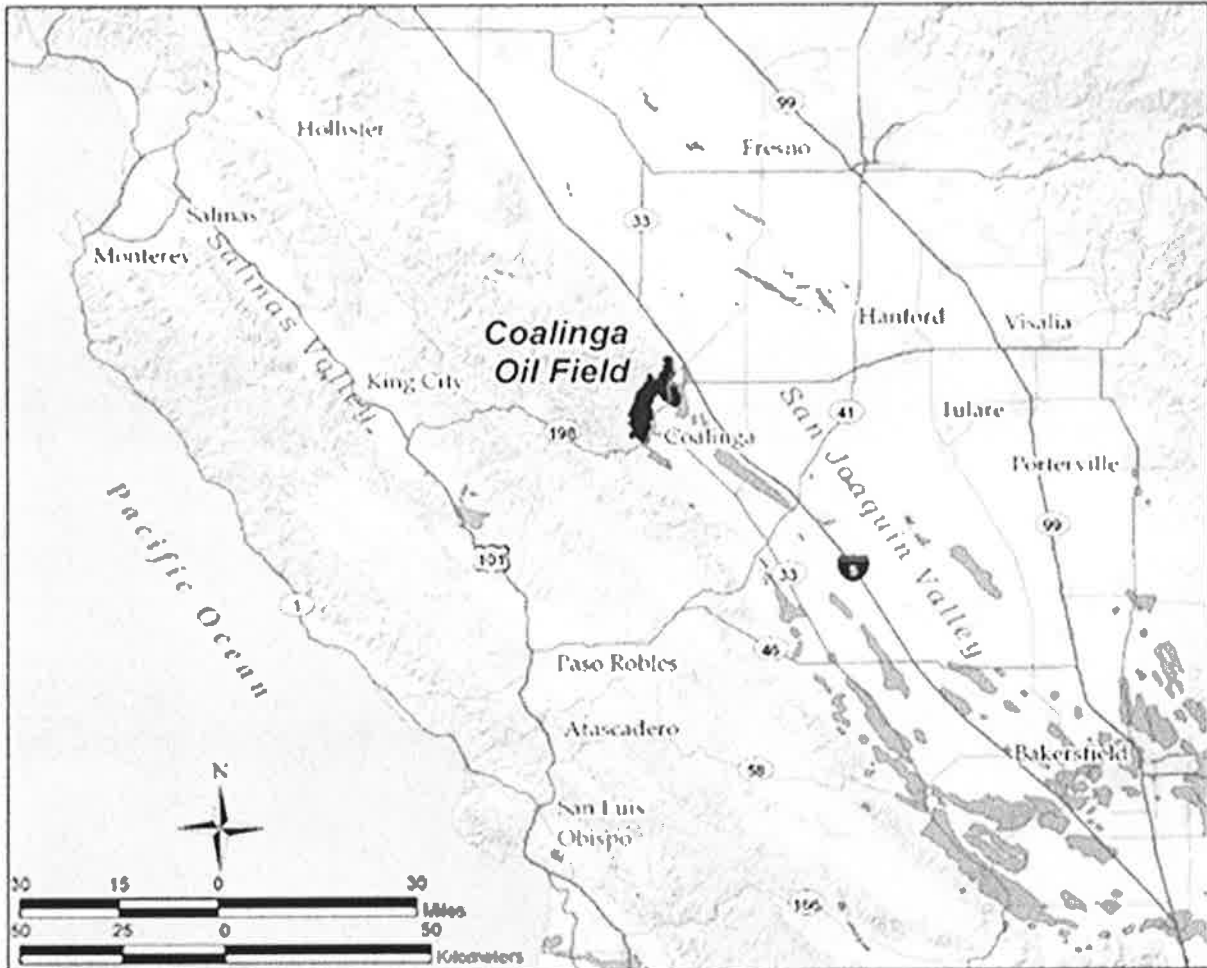


**Figure 2: San Joaquin Valley Air Basin**



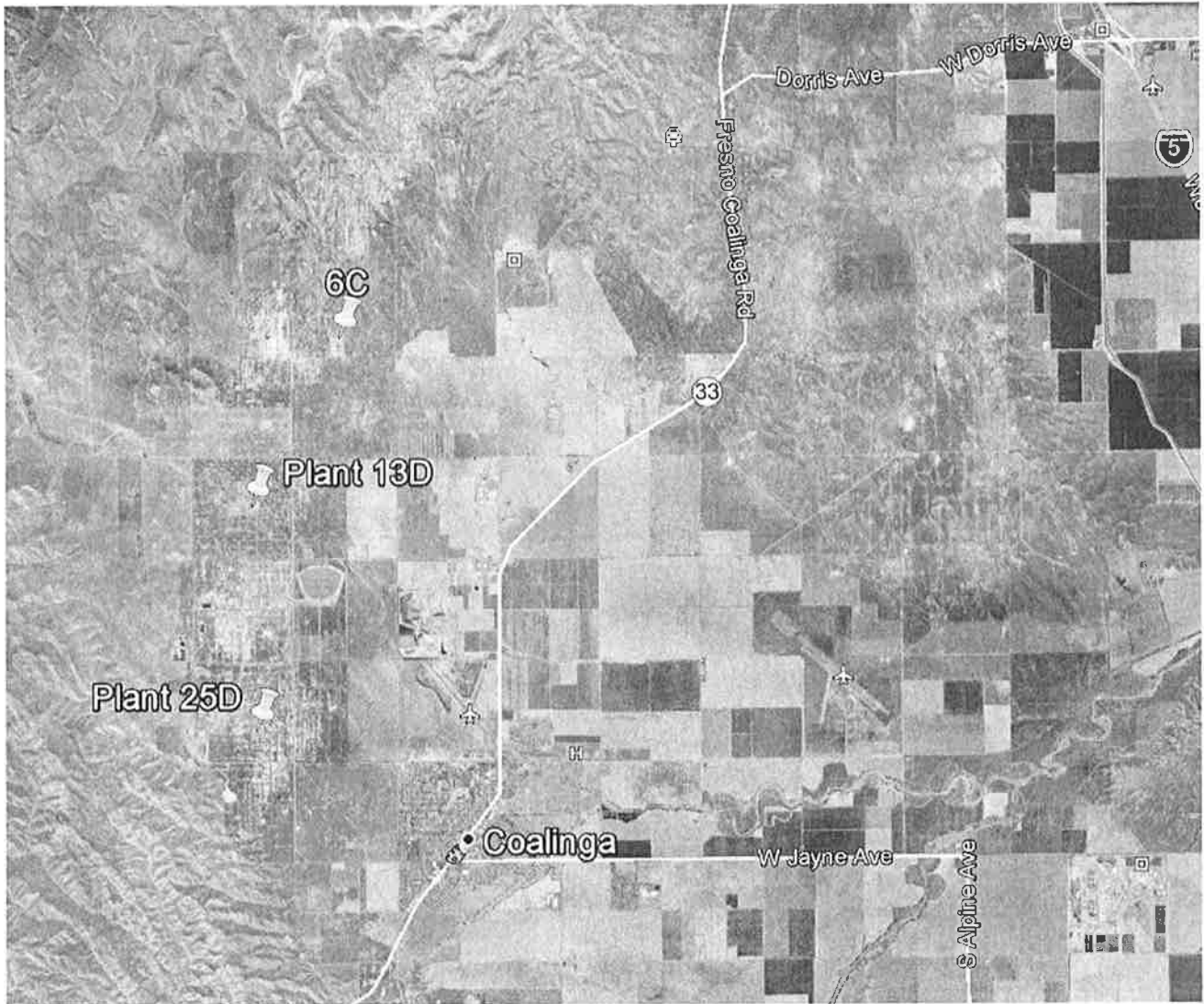


**Figure 3: Coalinga Oil Field**





**Figure 4: Project Vicinity**





---

### **Other Public Agencies Whose Approval Is Required**

The District has identified the following agencies as having approval authority for the Project.

#### ***US Environmental Protection Agency (US EPA)***

As the Project is classified as a Title V minor modification to be processed with a COC, it must be submitted to the US EPA for a 45-day comment period. Chevron must apply to administratively amend the Title V operating permit to include the requirements of the ATCs issued with the Project.

#### ***US Fish and Wildlife Service (USFWS)***

The USFWS has regulatory authority over Projects that could result in the “take” of any species identified as threatened or endangered. If the Project would result in the incidental take of any federally identified species, an Incidental Take Permit and/or a Habitat Conservation Plan would be required.

#### ***California Air Resources Board (ARB)***

Pursuant to District Rule 2201, Section 3.18 the Project is classified as a Federal Major Modification. As such, the Project must be submitted to the ARB for a 30-day comment period.

#### ***California Department of Fish and Wildlife (CDFW)***

The CDFW has regulatory authority over Projects that could result in the “take” of any species identified by the State of California as threatened or endangered. If the Project would result in the “take” of any identified species, an Incidental Take Permit would be required.

#### ***California Regional Water Quality Control Board (RWQCB)***

The Project will result in no waste or water discharge; hence no approvals from the RWQCB will be required. Also, no streambed or lake alterations will occur as a result of the Project.

### **D. DECISION TO PREPARE A MITIGATED NEGATIVE DECLARATION**

Consistent with CEQA requirements the District prepared an Initial Study that evaluated potential environmental effects of the Project. The District has determined with mitigation the Project will have a less than significant impact on the environment. The District concludes that a Mitigated Negative Declaration would be appropriate for the Project. Project design elements and mitigation measures that reduce the Project’s impact on the environment would be enforced through mitigation offset fees and District permits.



**E. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**

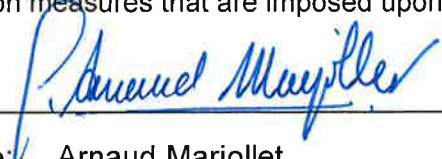
The environmental factors checked below would be potentially affected by the proposed Project, involving at least one impact that is a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated", as indicated by the checklist on the following pages.

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Aesthetics                      | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality                        |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources      | <input type="checkbox"/> Geology / Soils                               |
| <input type="checkbox"/> Greenhouse Gas Emissions        | <input type="checkbox"/> Hazards & Hazardous Materials      | <input type="checkbox"/> Hydrology / Water Quality                     |
| <input type="checkbox"/> Land Use / Planning             | <input type="checkbox"/> Mineral Resources                  | <input type="checkbox"/> Noise   |
| <input type="checkbox"/> Population / Housing            | <input type="checkbox"/> Public Services                    | <input type="checkbox"/> Recreation                                    |
| <input type="checkbox"/> Transportation / Traffic        | <input type="checkbox"/> Utilities / Service Systems        | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

**F. DETERMINATION**

I certify that the Project was independently reviewed and analyzed and that this document reflects the independent judgment of the District.

- I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION has been prepared.
- I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Signature:  Date: \_\_\_\_\_  
 Printed Name: Arnaud Marjollet  
 Title: Director of Permit Service



**G. ENVIRONMENTAL IMPACT CHECKLIST**

<b>I. Aesthetics</b> Would the Project:	<b>Potentially Significant Impact</b>	<b>Potentially Significant Impact Unless Mitigated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Have a substantial adverse effect on a scenic vista?				<b>X</b>
b) Substantially damage scenic resources, including, but not limited to trees, rock, outcroppings, and historic buildings within a state scenic highway?				<b>X</b>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				<b>X</b>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				<b>X</b>

**I. AESTHETICS**

**Scenic Vistas and Visual Character (a-d)**

**Conclusion:** The Project will not have an impact on scenic vistas, damage scenic resources, degrade visual character in and around the sites or create new sources of light or glare.

**Discussion:** The Project is located on property currently occupied by Chevron U.S.A., Inc. (CUSA). The Project is located within the existing boundaries of the Coalinga Oil Field, as designated by the Division of Oil, Gas, and Geothermal Resources (DOGGR). This property, historically and currently, allows for the exploration and production of oil. This Project is consistent with current operations.

No scenic vistas or highways exist on the Project sites or on the properties adjacent to the Project sites. No scenic resources such as rock outcroppings, trees, or historic buildings exist on the sites. The absence of scenic vistas and other scenic resources on or near the Project sites precludes the possibility of potential adverse impacts.

Existing lighted oil field sources are located between the Project sites. Minimal operational lighting may be installed at the site and will be consistent with the existing operations. Therefore, the District concludes that there is no substantial evidence that construction and operation of the Project would have a detrimental impact on aesthetics.

**Mitigation:** None required.



---

## **References**

Buss, Mike, Insight Environmental Consultant. March 2014. *Authority to Construct Permit Application* and Supporting Information. Electronic and Telephone Communication.

California Department of Transportation. *Officially Designated State Scenic Highways*.  
Website: [www.dot.ca.gov/hq/LandArch/scenic/shwy.htm](http://www.dot.ca.gov/hq/LandArch/scenic/shwy.htm)

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.





II. Agricultural and Forestry Resources	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
<p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agricultural and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resource Board.</p> <p>Would the Project:</p>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)), timberland (as defined by Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

**II. AGRICULTURAL AND FORESTRY RESOURCES**

**Farm Land (a-e)**

**Conclusion:** The Project will not convert any farmland to a non-agricultural use or conflict with existing zoning for agricultural use or any Williamson Act contract. The



---

Project will not result in a loss of forest land to non-forest land use. The Project sites are consistent with current and surrounding land uses.

**Discussion:** The Project is located on existing Chevron U.S.A., Inc. oil field sites, which have continually allowed for the exploration and production of oil. In addition, the Project sites are not designated as Prime Farmland, Unique Farmland, or of Statewide Importance. The District concludes that there is no substantial evidence that construction and operation of the Project would have an impact on farms or forest lands.

**Mitigation:** None required.

### References

Buss, Mike, Insight Environmental Consultant. March 2014. *Authority to Construct Permit Application*. Electronic and Telephone Communication.

County of Fresno. *Revised Public Draft Review Fresno County 2000 General Plan*.  
Website: <http://www.co.fresno.ca.us/DepartmentPage.aspx?id=19705>

County of Fresno. *Coalinga Regional Plan*. Electronic and Telephone Communication.



III. Air Quality	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?		X		
b) Violate any air quality standard or contribute substantially to an existing or Projected air quality violation?		X		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		X		
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

### III. AIR QUALITY

#### Air Quality Plans and Standards (a, b, c)

**Conclusion:** The Project, with the incorporation of mitigation measures, will have a less than significant impact on air quality.

**Discussion:** The District is tasked with implementing programs and regulations by the Federal Clean Air Act and the California Clean Air Act and has prepared plans to attain federal and state Ambient Air Quality Standards (AAQS). The District has established thresholds of significance for criteria pollutant emissions, which are based on federal and the District's New Source Review (NSR) offset requirements for stationary sources. Stationary sources in the District are subject to some of the toughest regulatory requirements in the nation. Emission reductions achieved through implementation of federal offset requirements are a major component of the District's air quality plans. Emissions from operational non-permitted equipment and activities are evaluated separate from permitted equipment and activities. A Project is determined to have a significant long-term impact on air quality if the emissions sum for any criteria pollutant exceeds its respective threshold of significance. The District's thresholds of significance for criteria pollutant emissions are presented below in Table 2.



**Table 2: District Thresholds of Significance for Criteria Pollutants**

<b>Pollutant</b>	<b>Construction Emission Threshold (tpy*)</b>	<b>Permitted Operational Emission Threshold (tpy)</b>	<b>Non-Permitted Operational Emission Threshold (tpy)</b>
NO <sub>x</sub>	10	10	10
SO <sub>x</sub>	27	27	27
PM <sub>10</sub>	15	15	15
PM <sub>2.5</sub>	15	15	15
CO	100	100	100
ROG (VOC)	10	10	10

\* tpy = tons per year

### Project Details

CUSA is an oil production company that operates oil and gas production facilities across California including the portion of the Coalinga Oil Field, located in southwestern Fresno County. CUSA proposes to install eighteen (18) steam generators.

The steam generators will be equipped with 85 MMBtu/hr North American GLE low-NO<sub>x</sub> burners (or equivalent) and flue gas recirculation (FGR) at their Coalinga Oil Field facility. For Authority to Construct (ATC) C-1132740, six (6) steam generators are proposed to operate at the 13D steam plant; the other five (5) steam generators are proposed to operate at various specified locations within the 13D and 25D steam plants. For ATC C-1140728, seven (7) steam generators are proposed to be installed at the 6C Steam Plant (see Table 1 and Figure 4).

### Construction Emissions

Construction of the Project is expected to start in 2014 and will include site preparation, worker commutes, construction of infrastructure, and installation of eighteen (18) steam generators. The steam generators will be sited in areas where there will be minimal new disturbance of soil, native vegetation, and habitat. The Project will utilize existing roads; therefore, no new roads will be constructed. The Project is expected to be completed in 2017.



**Table 3. Construction Emissions for Eighteen Steam Generators <sup>a</sup>**

	NOx (tons)	PM <sub>10</sub> <sup>b</sup> (tons)	CO (tons)	VOC (tons)
Construction Emissions - 2014	0.75	0.85	0.45	0.01
Construction Emissions – 2015	1.92	0.92	1.55	0.27
Construction Emissions – 2016	1.03	1.07	1.0	0.17
Construction Emissions – 2017	1.03	1.07	1.0	0.17
Significance Thresholds	10.00	15.00	100.00	10.00
Exceeds Significance Threshold?	No	No	No	No

As shown in Table 3 above, construction emissions will not exceed the District's thresholds of significance for criteria pollutants. The District concludes that Project construction emissions will have a less than significant impact on air quality and therefore, mitigation measures are not required.

Operational Emissions

*Mobile Source Emissions:* The Project will be maintained and manned by existing Chevron U.S. A. Inc., personnel and contractors. Therefore, the Project will not result in any new mobile source emissions.

*Stationary Source Emissions:* The District has received Authority to Construct (ATC) applications for eighteen (18) steam generators proposed to be constructed within the next three years. The District has conducted engineering evaluations, both incorporated herein by reference, for the eighteen (18) generators. Best Available Control Technology (BACT) is triggered for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. The facility is an existing Major Source and is consistent with New Source Review requirements. Increases in permitted emissions are fully mitigated through surrendering offsets. The District has imposed permit conditions consistent with New Source Review requirements.

Project related criteria pollutant emissions exceeding the District's thresholds of significance, identified in Table 4, are required to be offset. The requirement for offsets is enforced through permit conditions requiring the surrendering of emission reduction credits (ERCs). Offsets are required and emission increases will be mitigated at a ratio of 1.5 to 1. The District concludes, through a combination of project design features and permit conditions, Project related stationary source operational emissions will have a less than significant impact on air quality.



**Table 4: Project Stationary Source Operational Emissions – CEQA Significance**

Buildout	Annual Emissions (tpy)				
	NOx	SOx	PM <sub>10</sub>	CO	VOC
Total Emissions for Eighteen Steam Generators	56.96	19.1	21.46	123.98	36.85
Significance Thresholds	10	27	15	100	10
Exceed Thresholds?	Yes	Yes	Yes	Yes	Yes

**Table 5: Project Stationary Source Offset Requirements**

Buildout	Offsets Required *				
	NOx	SOx	PM <sub>10</sub>	CO ‡	VOC
Total Project is for 18 Steam Generators	83.49 tpy	28.65 tpy	101.21 tpy	0	55.29 tpy
Total for 11 Steam Generators	104,434 lb/year	35,013 lb/year	39,325 lb/year	0	67,573 lb/year
Each of the 11 Steam Generators	2,374 lb/quarter	796 lb/quarter	894 lb/quarter	0	1,536 lb/quarter
Total for 7 Steam Generators	16,614 lb/year	5,570 lb/year	6,255 lb/year	0	10,750 lb/year
Each of the 7 Steam Generators	2,373 lb/quarter	796 lb/quarter	894 lb/quarter	0	1,536 lb/quarter

\*Offset requirements were calculated at the ratios identified in District Rule 2201 (New and Modified Stationary Source Review)

‡Pursuant to District Rule 2201, § 4.6.1 CO offsets are not required in attainment areas provided that federal AAQS are not violated in the areas to be affected. The District performed an AAQA which demonstrates that the Project will not violate the federal AAQS or CO.

tpy = tons per year

lb/year = pounds per year

lb/quarter = pounds per quarter



---

### Air Quality Plans

As shown in Table 3 Project related construction emissions are below the District's thresholds of significance. As shown in Tables 4 and 5, operational stationary source emissions will be mitigated below the District's thresholds by surrendering Emissions Reduction Credit (ERCs). The ERCs must be surrendered to the District prior to the commencement of operation of the equipment. As such, the Project does not conflict with the implementation strategy of the San Joaquin Valley Regional Air Quality Management Plans (2008 PM 2.5 Plan; 2007 8-Hour Ozone Plan; 2007 PM<sub>10</sub> Maintenance Plan; 2006 PM<sub>10</sub> SIP; 2004 1-Hour Ozone SIP; 2003 PM<sub>10</sub> SIP). Therefore, no further mitigation measures are required.

### Air Quality Standards

Determination of whether Project emissions would violate any applicable Ambient Air Quality Standard (AAQS) is a function of air quality dispersion modeling. If Project emissions would not exceed state and federal AAQS at the Project's property boundaries, the Project would be considered to not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The District performed an AAQA for both the national and state AAQS to determine whether Project related criteria pollutant emissions have the potential to contribute to the possible violation of existing air quality standards. The AAQA indicates that Project related criteria pollutant emissions will not cause or contribute to an exceedance of either national or state AAQS. Therefore, the Project is not expected to result in a violation of an air quality standard.

### Cumulative Impacts

By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development. Future attainment of state and federal AAQS is a function of successful implementation of the District's attainment plans. Compliance with District rules ensures successful implementation of the District's attainment plans. As discussed above, the Project will comply with all District rules. Therefore, Project related emissions would have a cumulatively less than significant impact on air quality.

**Mitigation:** To ensure compliance with District New Source Review (NSR) requirements for offsetting operational emissions, CUSA must surrender ERCs sufficient to completely offset operational emissions as required by District NSR requirements. The following measures will be made conditions of Project approval and will be included in the Project ATCs:

**AIR-1:** To ensure compliance with District New Source Review (NSR) requirements for offsetting operational emissions, the following measures will be made conditions of



---

Project approval (C-1132740) and will be included in the Project ATCs for eleven (11) units:

- Prior to operating equipment under this Authority to Construct with an 85 MMBtu/hr burner, permittee shall surrender emission reduction credits for the following quantities of emissions: NO<sub>x</sub>: 2,374 lb/qtr; SO<sub>x</sub>: 796 lb/qtr; PM<sub>10</sub>: 894 lb/qtr, and VOC: 1,536 lb/qtr. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERCs specified below (which is 1.5:1). PM<sub>10</sub> may be offset using SO<sub>x</sub> at an interpollutant offset ratio of 1.0 tons SO<sub>x</sub>/ton PM<sub>10</sub>. [District Rule 2201 and Public Resources Code 21000-21177: California Environmental Quality Act]
- Prior to operating equipment under this Authority to Construct with a 69 MMBtu/hr burner, permittee shall surrender emission reduction credits for the following quantities of emissions: NO<sub>x</sub>: 1,927 lb/qtr; SO<sub>x</sub>: 646 lb/qtr; PM<sub>10</sub>: 725 lb/qtr, and VOC: 1,247 lb/qtr. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERCs specified (which is 1.5:1). PM<sub>10</sub> may be offset using SO<sub>x</sub> at an interpollutant offset ratio of 1.0 tons SO<sub>x</sub>/ton PM<sub>10</sub>. [District Rule 2201 and Public Resources Code 21000-21177: California Environmental Quality Act]
- ERC Certificate Numbers S-3735-2 (NO<sub>x</sub>), S-2934-5 (SO<sub>x</sub>), S-40032411-6 (SO<sub>4</sub> for PM<sub>10</sub>) and S-3722-1 (VOC) (or certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201 and Public Resources Code 21000-21177: California]

**AIR-2:** To ensure compliance with District New Source Review (NSR) requirements for offsetting operational emissions, the following measures will be made conditions of Project approval (Project C-1140728) and will be included in the Project ATCs for seven (7) units:

- Prior to operating equipment under this Authority to Construct, with an 85 MMBtu/hr burner, permittee shall surrender NO<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter – 2,373 lb, 2nd quarter – 2,373 lb, 3rd quarter – 2,373 lb, and fourth quarter – 2,373 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
- Prior to operating equipment under this Authority to Construct, with a 69 MMBtu/hr burner, permittee shall surrender NO<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter – 1,927 lb, 2nd quarter – 1,927 lb, 3rd quarter – 1,927 lb, and fourth quarter – 1,927 lb. These amounts include the





---

applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]

- ERC Certificate Numbers S-3735-2 and S-2456-2 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
- Prior to operating equipment under this Authority to Construct, with an 85 MMBtu/hr burner, permittee shall surrender SO<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter – 796 lb, 2nd quarter – 796 lb, 3rd quarter – 796 lb, and fourth quarter – 796 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
- Prior to operating equipment under this Authority to Construct, with a 69 MMBtu/hr burner, permittee shall surrender SO<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter – 646 lb, 2nd quarter – 646 lb, 3rd quarter – 646 lb, and fourth quarter – 646 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
- ERC Certificate Number S-2934-5 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
- Prior to operating equipment under this Authority to Construct, with an 85 MMBtu/hr burner, permittee shall surrender PM<sub>10</sub> emission reduction credits for the following quantity of emissions: 1st quarter – 894 lb, 2nd quarter – 894 lb, 3rd quarter – 894 lb, and fourth quarter – 894 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
- Prior to operating equipment under this Authority to Construct, with a 69 MMBtu/hr burner, permittee shall surrender PM<sub>10</sub> emission reduction credits for the following quantity of emissions: 1st quarter – 725 lb, 2nd quarter – 725 lb, 3rd quarter – 725 lb, and fourth quarter – 725 lb. These amounts include the



applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]

- ERC Certificate Number S-40032411-6 (SO4) (or a certificate split from these certificates) shall be used to supply the required PM10 offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
- Prior to operating equipment under this Authority to Construct, with an 85 MMBtu/hr burner, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter – 1,536 lb, 2nd quarter – 1,536 lb, 3rd quarter – 1,536 lb, and fourth quarter – 1,536 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
- Prior to operating equipment under this Authority to Construct, with a 69 MMBtu/hr burner, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter – 1,247 lb, 2nd quarter – 1,247 lb, 3rd quarter – 1,247 lb, and fourth quarter – 1,247 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
- ERC Certificate Numbers S-3722-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

#### **Health Risk Impacts (d)**

**Conclusion:** The Project would not expose sensitive receptors to substantial pollutant concentrations.

**Discussion:** Under the Clean Air Act, toxic air contaminants (TACs) are airborne pollutants that may be expected to result in an increase in mortality or serious illness. TACs may pose a present or potential hazard to human health. Potential health impacts from TACs include long-term health effects such as: cancer, birth defects, neurological damage, or genetic damage. Short-term effects include: eye watering, respiratory irritation, throat pain and headaches. TACs may also be referred to as hazardous air pollutants (HAPs). There are currently more than 900 substances classified by the United States Environmental Protection Agency (EPA) and California



---

Air Resources Board (ARB) as TACs. Air Quality problems occur when sources of TACs and sensitive receptors are located in proximity to one another.

TACs can be separated into carcinogens and non-carcinogens based on the nature of the physiological degradation associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts would not occur. Cancer risk is expressed as excess cancer cases per one million exposed individuals.

Non-carcinogens differ in that there is generally assumed to be a safe level of exposure below which no negative health impact would occur. These levels are determined on a pollutant-by-pollutant basis. Acute and chronic exposure to non-carcinogens is expressed by using a Hazard Index, which is the ratio of expected exposure levels to acceptable health-acceptable exposure levels.

The Air Toxics “Hot Spots” Information and Assessment Act (AB 2588, 1987, Connelly) was enacted in 1987, and requires stationary sources to report the type and quantities of certain substances routinely released into the air. The goals of AB 2588 are to collect emission data, to identify facilities having localized impacts, to ascertain risks to acceptable levels. AB 2588 requires air districts to establish the prioritization score threshold at which facilities are required to prepare a health risk assessment (HRA). In establishing priorities, an air district must consider: potency, toxicity, quantity, and volume of hazardous materials released from the facility, the proximity of the facility to potential receptors, and any other factors that the district determines may indicate that the facility may pose a significant risk.

In implementing its responsibilities under AB 2588, the District Governing Board adopted notification procedures, including prioritization score thresholds, for notifying the public of significant carcinogenic and non-carcinogenic health risks. The District concludes that use of the existing prioritization score thresholds to establish thresholds of significance (under CCR §15064.7) is an appropriate and effective means of promoting consistency in significance determinations within the environmental review process. The District’s thresholds of significance for determining whether Project emissions would expose sensitive receptors to substantial pollutant concentrations are:

- Carcinogens: Probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds ten (10) in one million.
- Non-Carcinogens: Ground Level concentrations of non-carcinogenic TACs would result in a Hazard Index greater than one (1) for the MEI.

An HRA is not required for a project with a prioritization score of less than one (1). Potentially hazardous materials are not expected to be associated with the eighteen (18) steam generator sites. The District performed a Risk Management Review (RMR)



analysis to determine possible health impacts from the Project's permitted stationary source emissions on the nearest sensitive receptors. The RMR demonstrates that the prioritization score for the Project is less than one (1.0); however, the facility score was greater than one (1.0). As such, a refined analysis was required. The refined analysis indicates that the Project's acute and chronic hazard indices are both below one (1.0) and the cancer exposure risk for the facility is less than one (1.0) in a million. The District concludes that there is no substantial evidence of record that the Project would expose sensitive receptors to significant health risks.

**Mitigation:** None required.

### **Odor Impacts**

**Conclusion:** The Project would not create objectionable odor affecting a substantial number of people.

**Discussion:** While offensive odors rarely cause any physical harm, they can be very unpleasant and lead to considerable public distress. Offensive odors often generate citizen complaints to local governments and the District. Any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact. Due to the subjective nature of odor impacts and the variety of odor sources, there are a number of variables that can influence the potential for an odor impact. There is no quantitative or formulaic methodology to determine if potential odors would have a significant impact. Therefore, projects must be assessed on a case-by-case basis.

Diesel exhaust from construction activities may generate odors. However, construction emissions are temporary in nature. Due to the distance from the nearest sensitive receptor (greater than 1 mile) the Project is not expected to affect a substantial number of people.

The District's *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI) defines a significant odor impact as either more than one (1) confirmed complaint per year (averaged over a three year period), or two (2) unconfirmed complaints per year (averaged over a three year period). A review of the District's compliance complaint database revealed that there have been no odor complaints received against Chevron U.S.A. Inc. operations in the Coalinga Heavy Oil Field. Therefore, the District concludes that there is no substantial evidence of record that the Project would create objectionable odors affecting a substantial number of people.

**Mitigation:** None required.



---

## **References**

Buss, Mike, Insight Environmental Consultant. March 2014. *Authority to Construct Permit Application* and Supporting Information. Electronic and Telephone Communication.

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.

San Joaquin Valley Unified Air Pollution Control District. January 2002. *Guide for Assessing and Mitigation Air Quality Impacts*. Website: <http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Jan%202002%20Rev.pdf>.

San Joaquin Valley Unified Air Pollution Control District. March 2013. *Risk Management Review* Applicant No. C-1132740; 1140728. Available at San Joaquin Valley Air Pollution Control District. 1990 East Gettysburg Avenue, Fresno, CA 93726.



<b>IV. Biological Resources</b> Would the Project:	<b>Potentially Significant Impact</b>	<b>Potentially Significant Impact Unless Mitigated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		<b>X</b>		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			<b>X</b>	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			<b>X</b>	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			<b>X</b>	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				<b>X</b>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				<b>X</b>

**IV. BIOLOGICAL RESOURCES**

**Candidate, Sensitive and Special Status Species (a)**

**Conclusion:** The Project, with incorporation of mitigation measures, will have a less than significant impact on candidate, sensitive, or special status species.

**Discussion:** The Project is located within the existing boundaries of the Coalinga Oil Field in southwestern Fresno County. The Project is located on existing Chevron U.S.A., Inc. oil field sites, which have continually allowed for the exploration and



production of oil. The proposed Project is consistent with current and surrounding land uses.

CUSA has precautionary measures in place to avoid “take” of threatened and endangered species on property due to construction and operational activities ongoing by Chevron. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct of endangered species. “Take” includes the modification or degradation of habitat that could result in death or injury to listed species through the interference of behavioral patterns of those species. The precautionary measures in place include the requirement of a biological survey to determine the presence or absence of candidate, sensitive, and special status species identified prior to all ground-disturbing activities.

CUSA maintains a practice of take avoidance for all species that are listed as threatened and/or endangered under California Endangered Species Act (CESA) and Federal Endangered Species Act (FESA). Under this practice, Chevron performs preactivity biological surveys through the *Chevron Certified Biological Representative Program* and by using qualified biological consultants for any proposed project activity requiring ground disturbance in previously undisturbed areas. Chevron complies with all U.S. Fish and Wildlife Service (USFWS); and/or California Department of Fish and Wildlife (CDFW) recommendations for assessment, analysis, and protection of biological resources. With the implementation of the *Chevron Certified Biological Representative Program*, it is reasonable to conclude the Project would not result in direct impacts to threatened or endangered species. In addition to implementation of the *Chevron Certified Biological Representative Program*, CUSA has incorporated mitigations measures to ensure potential impacts on biological resources are mitigated to less than significant.

#### **Mitigation:**

To ensure the installation and operation of the steam generators would not have a significant impact on candidate, sensitive and special status species and to ensure compliance with existing U.S. Fish and Wildlife Service (USFWS), the following measures will be made conditions of Project approval:

- **BIO-1** – *A Qualified Biologist will conduct a focused pre-construction survey to determine the presence/absence of potential impacts on sensitive species prior to the onset of ground disturbance. The survey shall be conducted in accordance with the standard protocol of the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW). If more than 30 days pass before the onset of ground disturbance, an additional survey shall be conducted by a Qualified Biologist within 30 days prior to the onset of ground disturbance. Permittee shall make all biological surveys available to District staff upon request. [Public Resources Code 21000-21177: California Environmental Quality Act]*



- 
- **BIO-2** – *During construction activities, standardized avoidance measures shall be implemented to preclude take of special status species. If standardized avoidance measures cannot be achieved Permittee will consult with the California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS) to develop alternative compliance measures and/or obtain an Incidental Take Permit. If standardized avoidance measures fail and there is a take of a threatened or endangered species Permittee will notify USFWS, CDFW, and District immediately. Permittee shall make available to the District any documentation required by USFWS and CDFW. [Public Resources Code 21000-21177: California Environmental Quality Act]*
  - **BIO-3** – *Impacts to endangered species habitat, as identified in preconstruction surveys, will be mitigated at the Coles Levee Ecological Preserve at a ratio of 1.1:1. [Public Resources Code 21000-21177: California Environmental Quality Act]*
  - **BIO-4** – *A biological monitor will be present while ground-disturbing activities are occurring based on the sensitivity of the habitat in which a Project occurs. [Public Resources Code 21000-21177: California Environmental Quality Act]*
  - **BIO-5** – *Project-related vehicles should observe a daytime speed limit of 20-mph throughout the site in all Project areas, except on county roads and State and Federal highways. In the event that construction activities should occur during night time, a 10-mph speed limit shall be observed from dusk until dawn. Off-road traffic outside of designated Project areas should be prohibited. [Public Resources Code 21000-21177: California Environmental Quality Act]*
  - **BIO-6** – *During construction activities, all excavated, steep-walled holes or trenches more than two (2) feet deep shall be covered at the close of each working day by plywood or similar materials. If the holes or trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) shall be contacted as noted in Measure BIO-15. [Public Resources Code 21000-21177: California Environmental Quality Act]*
  - **BIO-7** – *All construction pipes, culverts, or similar structures with a diameter of four (4) inches or greater that are stored at a construction site for one (1) or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the*





- 
- *U.S. Fish and Wildlife Service (USFWS) has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped. [Public Resources Code 21000-21177: California Environmental Quality Act]*
  - **BIO-8** – *All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the construction sites. [Public Resources Code 21000-21177: California Environmental Quality Act]*
  - **BIO-9** – *No firearms shall be allowed on the Project sites. [Public Resources Code 21000-21177: California Environmental Quality Act]*
  - **BIO-10** – *No pets, such as dogs or cats, shall be permitted on the Project sites. [Public Resources Code 21000-21177: California Environmental Quality Act]*
  - **BIO-11** – *Use of rodenticides and herbicides in the Project sites shall be restricted. If use of these compounds is deemed necessary, Permittee shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency (US EPA), California Department of Food and Agriculture (CDFA), and other State and Federal legislation, as well as additional Project-related restrictions deemed necessary by the U.S. Fish and Wildlife Service (USFWS). If rodent control must be conducted, zinc phosphide shall be used. [Public Resources Code 21000-21177: California Environmental Quality Act]*
  - **BIO-12** – *Permittee shall appoint a representative to be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the U.S. Fish and Wildlife Service (USFWS). [Public Resources Code 21000-21177: California Environmental Quality Act]*
  - **BIO-13** – *An employee education program shall be conducted for any Project that has anticipated impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the Project. The program should include the following: a description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the Project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during Project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the previously referenced*



---

*people and anyone else who may enter the Project site. [Public Resources Code 21000-21177: California Environmental Quality Act]*

- **BIO-14** – *Upon completion of the Project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. should be re-contoured if necessary, and revegetated to promote restoration of the area to pre-Project conditions. An area subject to "temporary" disturbance means any area that is disturbed during the Project, but after Project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and revegetation experts. [Public Resources Code 21000-21177: California Environmental Quality Act]*
- **BIO-15** – *In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the Service should be contacted for guidance. [Public Resources Code 21000-21177: California Environmental Quality Act]*
- **BIO-16** – *Any contractor, employee, or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative identified in Measure BIO-10 above. This representative shall contact the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) immediately in the case of a dead, injured or entrapped kit fox. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or, Mr. Paul Hoffman, Wildlife Biologist. Contact information for CDFW and USFWS is provided below in Measure BIO-17: [Public Resources Code 21000-21177: California Environmental Quality Act]*
- **BIO-17** – *The Sacramento Fish and Wildlife Office and California Department of Fish and Wildlife (CDFW) shall be notified in writing within three (3) working days of the accidental death or injury to a San Joaquin kit fox during Project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. Contact information is provided below. [Public Resources Code 21000-21177: California Environmental Quality Act]*

CDFW: Ms. Reagen O'Leary, Environmental Scientist  
1234 E. Shaw Avenue  
Fresno, CA 93710  
Phone: (559) 243-4014



---

CDFW: *Mr. Paul Hoffman, Wildlife Biologist  
1701 Nimbus Road, Suite A  
Rancho Cordova, CA 95670  
(530) 934-9309*

USFWS: *Chief of the Division of Endangered Species  
2800 Cottage Way, Suite W2605  
Sacramento, CA 95825-1846  
(916) 414-6620 or (916) 414-6600.*

- **BIO-18** – *New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the U.S. Fish and Wildlife Service (USFWS) at the following address: Endangered Species Division, 2800 Cottage Way, Suite W2605, Sacramento, CA 95825-1846. [Public Resources Code 21000-21177: California Environmental Quality Act]*
  
- **BIO-19** – *If habitat for, and/or the presence of sensitive species are documented in the pre-construction surveys, additional focused biological surveys will be conducted by a Qualified Wildlife Biologist for the appropriate survey periods as identified in the CDFW and USFWS protocols identified below. [Public Resources Code 21000-21177: California Environmental Quality Act]*
  - *Blunt-nosed leopard lizard – Approved Survey Methodology for the Blunt-nosed Leopard Lizard (CDFG, 2004)*
  - *San Joaquin kit fox – Standardized Recommendation for Protection of the San Joaquin Kit Fox Prior To or During Ground Disturbance (USFWS, 2011)*
  - *Burrowing owl – Staff Report on Burrowing Owl Mitigation dated March 7, 2012 (CDFG, 2012)*
  
- **BIO-20** – *Permittee shall retain at least one staff or contractor representative that has successfully completed the applicant's Biological Awareness training program on-site during all ground disturbing activities and Project construction. In the event that special status species are discovered on or near the Project site, said staff/contractor shall immediately contact the Company's biological representative identified in the biological training. [Public Resources Code 21000-21177: California Environmental Quality Act]*
  
- **BIO-21**- *Blunt-nosed leopard lizard surveys following current CDFG guidelines shall be completed no more than one year prior to initiation of Project if construction activities will impact potential habitat for the species. Potential habitat includes areas that have not been previously disturbed or that have*



---

*recovered to support vegetation and small mammal burrows that represent potential shelter for blunt-nosed leopard lizard. If at any time blunt-nosed leopard lizards are observed during these surveys, no disturbance of areas that could be occupied by this species should occur within 500 feet of the observation without prior approval from CDFG and USFWS. [Public Resources Code 21000-21177: California Environmental Quality Act]*

- **BIO-22-** *The limits of Project site grading shall be clearly delineated prior to construction activities by posting stakes, flags and/or rope or cord, as necessary. [Public Resources Code 21000-21177: California Environmental Quality Act]*
- **BIO-23-** *Traffic restraints and signs shall be established and issued to minimize temporary disturbances. All Project-related vehicle traffic shall be restricted to established roads, designated access roads and routes, Project site, storage areas, and staging and parking areas. Off-road traffic outside designated Project boundaries shall be prohibited. All equipment storage and parking during Project activities shall be confined to the designated construction area or to previously disturbed offsite areas that are not habitat for listed species.*
- **BIO-24-** *Traffic restraints and signs shall be established and issued to minimize temporary disturbances. All Project-related vehicle traffic shall be restricted to established roads, designated access roads and routes, Project site, storage areas, and staging and parking areas. Off-road traffic outside designated Project boundaries shall be prohibited.*

*All equipment storage and parking during Project activities shall be confined to the designated construction area or to previously disturbed offsite areas that are not habitat for listed species. If vegetation clearing is conducted between February and mid-September, a survey targeting identification of nesting birds shall be conducted. This survey may be conducted in conjunction with the pre-activity survey. If any nesting birds covered by the Migratory Bird Treaty Act are identified, nests shall be avoided by an appropriate distance such that nesting activities are not interrupted until the young have fledged. Determination of when young have fledged from active nests will be determined by a qualified biologist. If any nesting birds are found during vegetation clearing activities, a qualified biologist shall be contacted to determine appropriate avoidance measures. If any burrowing owl burrows are observed, avoidance measures should be consistent with those included in "Staff Report on Burrowing Owl Mitigation," CDFG (2012) taking into account existing disturbances such as roads and structures. Absolutely no disturbance to active nests shall occur without a permit pursuant to the Migratory Bird Treaty Act. For nesting sites, based on the level of disturbance, the following buffer distances shall apply and be adequately delineated around active nests.*



- 
- *April 1 – Aug 15: low disturbance, 200 meters; medium disturbance, 500 m; and high disturbance, 500 m.*
  - *Aug 16 – Oct 15: low disturbance, 200 meters; medium disturbance, 200 m; and high disturbance, 500 m.*
  - *Oct 16 – Mar 31: low disturbance, 50 meters; medium disturbance, 100 m; and high disturbance, 500 m.*
  - *All power poles and electrical facilities should be designed to minimize the potential for electrocution of migratory and resident birds, including consideration of birds with a wingspan of up to 9 feet.*
- **BIO-25-** *To reduce potential impacts to the San Joaquin kit fox, Permittee shall implement the following avoidance measures:*
- *For San Joaquin kit fox dens within 200 feet of the construction area, avoidance zones shall be identified by wooden or metal stakes connected by flagging or by other similar fencing material. Each avoidance zone shall have the following distance measured outward from the den or burrow entrances or the edge of the plant population.*
    - *Potential den: 50 ft*
    - *Atypical den: 50 ft*
    - *Known den: 100 ft*
    - *Natal/pupping den (occupied and unoccupied): Contact CDFW*
    - *San Joaquin antelope squirrel: 50 ft*
  - *Potential kit fox dens shall be monitored until they can be shown to be unoccupied based on the procedures outlined in Standardized Recommendation for Protection of the San Joaquin Kit Fox Prior To or During Ground Disturbance (USFWS, 2011), and then covered with plywood that is firmly secured to prevent access by kit foxes during Project activities. The covers shall not be installed more than 14 days prior to the start of construction. The covers shall remain in place for the duration of construction, after which time they shall be removed.*
  - *If avoidance of any potential kit fox den within the Project site is not practicable, and the den may be unavoidably damaged or destroyed by Project actions, the following procedure shall be implemented: Prior to surface-disturbing activities, any such potential kit fox den shall be completely excavated and then backfilled to preclude later use by kit foxes during the construction period. If, at any time during monitoring or excavation, any sign that the den may be or has been occupied is found, the den's status changes to "known".*
  - *Potential kit fox dens may be excavated provided that the following conditions are satisfied: (1) the den classification is determined by a qualified wildlife biologist; and (2) the excavation is conducted by or under the direct supervision of a qualified wildlife biologist.*
-



- 
- **BIO-26-** *To reduce potential impacts to the San Joaquin kit fox, antelope squirrel and giant kangaroo rat, Permittee shall implement the following avoidance measures:*
    - *If dens or nest burrows are located outside of the construction area but within the avoidance zone designated for the resource type (listed above), the boundary of the avoidance zone shall be drawn to include all areas within the radius stated above, except those falling within the construction area. If the construction area encroaches on an avoidance area, potential dens shall not be excavated unless a qualified biologist determines that excavation is absolutely necessary.*
    - *Avoidance zones shall be maintained until all construction activities have been completed, and then shall be removed by a qualified biologist.*
    - *Dens identified by a qualified biologist as either a “known” den or as a “suspected” pupping den shall not be excavated unless the appropriate California Endangered Species Act (CESA) and Federal Endangered Species Act permits authorized such excavations. In addition, any occupied natal or pupping dens cannot be destroyed until the pups and adults have vacated.*
  
  - **BIO-27** *To reduce potential impacts to Nelson’s antelope squirrel and the giant kangaroo rat, Permittee shall implement the following avoidance measures:*
    - *For burrows within 200 feet of the construction area, avoidance zones shall be identified by wooden or metal stakes connected by flagging or by other similar fencing material. Each avoidance zone shall be a minimum of 50 ft outward from the den or burrow entrances or the edge of the plant population.*
    - *If burrows cannot be avoided, no Project activities shall occur until the appropriate CESA permit has been issued by CDFW. The following measures are required to minimize and mitigate for impacts to antelope squirrel and the giant kangaroo rat:*
      - *Burrows will be avoided to the maximum extent practicable.*
      - *If occupied burrows cannot be avoided, a trapping effort will be conducted by a properly permitted wildlife biologist for the purpose of either relocation or holding and releasing individuals back into temporarily disturbed portions of the Project site.*
      - *CDFW will be provided with a notification at least 30 days prior to trapping and relocation with a plan that includes at least the following information: 1) approximate number of San Joaquin antelope squirrels to be affected; 2)*
-



---

*previous experience of the wildlife biologist conducting the trapping and relocation; 3) description of trapping effort; 4) description of relocation plans; 5) whether individuals will be temporarily held for release; 6) off-site release locations; 7) artificial burrow placement; and 8) proposed results reporting schedule. If CDFG does not respond within 30 days of receiving the notification, trapping and relocation will proceed as stated in the notification. San Joaquin antelope squirrels should not be relocated greater than 500 feet from capture location without prior approval from CDFW.*

### **Riparian Habitats, Sensitive Natural Communities and Wetlands (b, c)**

**Conclusion:** The Project will have a less than significant impact on riparian habitats, sensitive natural communities or federally protected wetlands.

**Discussion:** The Project is located within the existing boundaries of the Coalinga Oil Field in southwestern Fresno County. The Project is located on existing Chevron U.S.A., Inc. oil field sites, which have continually allowed for the exploration and production of oil. The proposed Project is consistent with current and surrounding land uses.

Riparian communities occur in areas along flowing stream channels, seasonally in flooded arroyos, and in depressed areas that are close to groundwater. These communities consist of one or more species of deciduous trees, shrubs, and herbs which are restricted to the banks and floodplains of these waterways. Riparian communities provide movement corridors, resting and hiding spots, foraging, and drinking water for wildlife. Approximately 23 acres of the Coalinga Oil Field are riparian wetland; however, none of the proposed Project sites are within these areas. As such, there is no substantial evidence that the proposed Project would have an impact on riparian habitats, sensitive natural communities, or protected wetlands.

**Mitigation:** None required.

### **Migratory Corridors (d)**

**Conclusion:** The Project will have a less than significant impact on migratory corridors.

**Discussion:** The Project is located within the existing boundaries of the Coalinga Oil Field in southwestern Fresno County. The Project is located on existing Chevron U.S.A., Inc. oil field sites, which have continually allowed for the exploration and production of oil. The proposed Project is consistent with current and surrounding land uses. The proposed steam generator project sites are located at or very near existing steam generator sites. The immediately surrounding areas, which contain the existing Coalinga Oil Field, are located near existing major impediments. The existing Holloway Road is located to the west and the California Aqueduct is located to the east of the



Project sites. No substantial wildlife migrate through the proposed Project sites. Furthermore, the Reconnaissance-Level Biological Survey demonstrates that neither sensitive wildlife species nor signs of their presence were observed during the time of the survey. Therefore, the District concludes that there is no substantial evidence of record that the Project would have an impact on the migratory corridors and the movement of threatened or endangered species.

**Mitigation:** None required.

### **Policies, Ordinances and Conservation Plans (e-f)**

**Conclusion:** The proposed Project will not conflict with local policies or ordinances protecting biological resources or any provision of adopted federal, state, regional, or local conservation plans.

**Discussion:** The Project is located within the existing boundaries of the Coalinga Oil Field in southwestern Fresno County. The Project is located on existing CUSA oil field sites, which have continually allowed for the exploration and production of oil. The proposed Project is consistent with current and surrounding land uses.

Portions of the Coalinga Oil Field are within the city limits of the City of Coalinga. Coalinga is one of fifteen incorporated cities in Fresno County. Each jurisdiction within Fresno County carries a responsibility to coordinate its General Plan with regional planning efforts to ensure consistent planning goals. Policies established by the City of Coalinga *2005–2025 General Plan* are applicable to the proposed Project.

Within the *Fresno County General Plan*, Fresno County has prepared *The Open Space and Conservation Element* to address impacts on biological resources. The goals of these policies are to conserve and protect the biological resources in Fresno County. This Element within the Fresno County General Plan identifies conservation resources and provides measures for conservation, development, and use of natural resources. The Project is to comply with this Element. Therefore, the District concludes that there is no substantial evidence of record that the Project would not have an impact or will not conflict with local policies or ordinances protecting biological resources or any provision of adopted federal, state, regional, or local conservation plans.

**Mitigation:** None required.

### **References**

Buss, Mike, Insight Environmental Consultant. March 2014. *Authority to Construct Permit Application* and Supporting Information. Electronic and Telephone Communication.





---

California Department of Fish and Wildlife. *California Endangered Species Act (CESA)*.  
Website: [http://www.dfg.ca.gov/habcon/cesa/incidental/cesa\\_policy\\_law.html](http://www.dfg.ca.gov/habcon/cesa/incidental/cesa_policy_law.html)

City of Coalinga. June 2009. *City of Coalinga General Plan 2005-2025*. Website:  
[http://www.coalinga.com/uploads/1266974523\\_CoalingaGeneralPlan\\_06.2009\\_final.pdf](http://www.coalinga.com/uploads/1266974523_CoalingaGeneralPlan_06.2009_final.pdf)

County of Fresno. *Coalinga Regional Plan*. Electronic and Telephone Communication.

County of Fresno. *Revised Public Draft Review Fresno County 2000 General Plan*.  
Website: <http://www.co.fresno.ca.us/DepartmentPage.aspx?id=19705>

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA,  
Inc. Electronic and Telephone Communication.

United States Fish and Wildlife Service. *Endangered Species: Glossary*. Website:  
<http://www.fws.gov/midwest/endangered/glossary/index.html>

United States Fish and Wildlife Service. *FWS Critical Habitat for Threatened &  
Endangered Species – Critical Habitat Portal*. Website:  
<http://criticalhabitat.fws.gov/crithab/>



<b>V. Cultural Resources</b> Would the Project:	<b>Potentially Significant Impact</b>	<b>Potentially Significant Impact Unless Mitigated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?				<b>X</b>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?		<b>X</b>		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		<b>X</b>		
d) Disturb any human remains, including those interred outside of formal cemeteries?		<b>X</b>		

**V. CULTURAL RESOURCES**

**Historical Resources (a)**

**Conclusion:** The Project will not have an impact on historical resources.

**Discussion:** The Project is located on existing CUSA oil field sites, which have continually allowed for the exploration and production of oil. The Project is within the existing boundaries of the Coalinga Oil Field. Therefore, the proposed Project remains consistent with current and surrounding land uses. A query of state and federal registers indicated that there are no registered historic resources within the Project site. Therefore, the District concludes that there is no substantial evidence of record that the Project would have an impact on historical resources.

**Mitigation:** None needed.

**Archaeological and Paleontological Resources and Human Remains (b, c, d)**

**Conclusion:** The Project will have a less than significant impact on archaeological and paleontological resources and human remains.

**Discussion:** The Project is within the existing boundaries of the Coalinga Oil Field. The Project is located on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses. Human remains are not known to exist within the Project site. There is a possibility of archaeological and/or paleontological resources being uncovered during construction activities at sites that have been previously developed. Prior to construction of the proposed Project, the location will be reviewed to determine if there are any potentially impacted archaeological and/or paleontological resources such as abandoned structures, grave sites, or fossil beds. Standard protocol in compliance with existing regulations would



require that, in the event that archaeological and/or paleontological resources, including human remains, are discovered during surface surveys, digging, scraping, or other construction activities, all work within 100 feet be ceased until the significance and extent of the find can be recovered by a qualified archaeologist and/or paleontologist for study. Mitigation measures have been incorporated into the proposed Project to address the possibility that historical, cultural, or paleontological resources might be unearthed during any project related ground disturbances, and thus minimizing impacts on archaeological and paleontological resources. Therefore, the District concludes that with the mitigations presented below the Project would have a less than significant impact on archaeological resources, paleontological resources, or human remains.

### **Mitigation:**

To ensure the Project would not have an impact on historical, cultural, and archaeological/paleontological resources, the following mitigation measure will be made a condition of Project approval and included as a condition in the ATC permits.

- **CUL-1** – *In the event that archaeological/paleontological resources are discovered during ground-disturbing activities, all work within 100 feet of the find shall cease and the Permittee shall notify and retain a qualified archaeologist/paleontologist to assess and provide an evaluation of the significance of the find. A qualified archaeologist/paleontologist shall determine whether avoidance is necessary and feasible in light of the factors such as the nature of the find, Project design, costs, and other considerations, and, if necessary, develop appropriate mitigation measures in consultation with Fresno County and the Native American Heritage Commission (NAHC). [Public Resources Code 21000-21177: California Environmental Quality Act]*

To ensure compliance with existing Native American Heritage Commission (NAHC) requirements, the following mitigation measures will be made a condition of Project approval and included as a condition in the ATC permits.

- **CUL-2** – *In the event that human remains are discovered during ground-disturbing activities, all work within 100 feet of the find shall cease and the discovery shall immediately be reported to the County Coroner (CC) and Native American Heritage Commission (NAHC) for further assessment. Permittee shall identify appropriate measures for treatment or disposition of the remains in consultation with the CC and NAHC. [Public Resources Code 21000-21177: California Environmental Quality Act]*
- **CUL-3** – *If additional archaeological inventory is required, Permittee shall notify the District and shall coordinate with the NAHC in the preparation of a professional report detailing the findings and recommendations of the records search and field survey. Permittee shall provide the Fresno County Planning*



*Department the final report containing site forms, and detailing site significance and mitigation measures. All information regarding site locations, Native American human remains, and associated funerary objects will be in a separate confidential addendum and not made available for public disclosure. [Public Resources Code 21000-21177: California Environmental Quality Act]*

- **CUL-4** – *Prior to the start of construction activities, Permittee shall contact the Native American Contacts identified in the Sacred Lands File Check to determine if the Project may impact any cultural resources. [Public Resources Code 21000-21177: California Environmental Quality Act]*

<i>Kawaiisu Tribe of Tejon Reservation David Laughinghorse Robinson P.O. Box 1547 Kernville, CA 93238</i>	<i>Tejon Indian Tribe Katherine Montes Morgan, Chairperson 1731 Hasti-Acres Drive, Suite 108 Bakersfield, CA 93309 Phone: (661) 758-2303</i>
<i>Kern Valley Indian Council Robert Robinson, Co-Chairperson P.O. Box 401 Weldon, CA 93283 Phone: (760) 549-2131</i>	<i>Tubatulabals of Kern Valley Robert L. Gomez, Jr., Tribal Chairperson P.O. Box 226 Lake Isabella, CA 93240 Phone: (760) 379-4590</i>
<i>Kitanemuk &amp; Yowlumne Tejon Indians Delia Dominguez, Chairperson 115 Radio Street Bakersfield, CA 93305 Phone (626) 339-6785</i>	<i>Tule River Indian Tribe Neil Peyron, Chairperson P.O. Box 589 Porterville, CA 93258 Phone: (559) 781-4271</i>
<i>Santa Rosa Rancheria Rueben Barrios Sr., Chairperson P.O. Box 8 Lemoore, CA 93245 Phone: (559) 924-1278</i>	<i>Wuksache Indian Tribe/Eshom Valley Band Kenneth Woodrow, Chairperson 1179 Rock Haven Court Salinas, CA 93906 Phone (831) 443-9702</i>
<i>Santa Rosa Tachi Rancheria Lalo Franco, Cultural Coordinator P.O. Box 8 Lemoore, CA 93245 Phone (559) 924-1278 ext. 5</i>	<i>Ron Wermuth P.O. Box 168 Kernville, CA 93238</i>

**References**

California Natural Resources Agency. California Environmental Resources Evaluation System (CERES). California Code of Resources §15064.5. Website: <http://www.ceres.ca.gov/ceqa/>



---

California Natural Resources Agency. California Environmental Resources Evaluation System (CERES). California Health and Safety Code §7050.5. Website: <http://www.ceres.ca.gov/ceqa/>

California Native American Heritage Commission. *Professional Guide for the Preservation and Protection of Native American Remains and Associated Grave Goods*. Website: <http://www.nahc.ca.gov/profguide.html>.

CERES. *State Historical Landmarks*. Website: [http://ceres.ca.gov/geo\\_area/counties/lists/landmarks\\_county.html](http://ceres.ca.gov/geo_area/counties/lists/landmarks_county.html).

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.

National Register of Historic Places. *State Listings*. Website: <http://www.nationalregisterofhistoricplaces.com/ca/state.html>.



<b>VI. Geology / Soils</b> Would the Project:	<b>Potentially Significant Impact</b>	<b>Potentially Significant Impact Unless Mitigated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				<b>X</b>
ii) Strong seismic ground shaking?				<b>X</b>
iii) Seismic-related ground failure, including liquefaction?				<b>X</b>
iv) Landslides?				<b>X</b>
b) Result in substantial soil erosion or the loss of topsoil?			<b>X</b>	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				<b>X</b>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				<b>X</b>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				<b>X</b>



---

## VI. GEOLOGY/SOILS

### **Seismic Activity and Geological Stability (a, c, d)**

**Conclusion:** The Project will have not expose people or structures to potential risks of loss, injury or death resulting from strong seismic activity, unstable or expansive soils, and ground failure.

**Discussion:** The Project is the installation of eighteen (18) additional steam generators within the existing boundaries of the Coalinga Oil Field. The Project is located on property currently occupied by Chevron U.S.A. Inc. (CUSA) Inc. for oil production activities consistent with current and surrounding land uses. Adherence to California Buildings Standards Code (CBSC) requirements and compliance with California seismic design requirements would ensure that the Project would not expose persons or property to substantial risk of loss, injury, or death resulting from seismic activity. Project design is in accordance with all building code requirements including those pertaining to excavations, grading, and foundations. The Project is not located within an Alquist-Priolo Earthquake Fault Zone or within 500 feet of a known active fault trace. The nearest fault zones to the Project sites are the Nunez Fault located two (2) miles northwest of the CUSA oil field and San Andreas Fault Zone located ten (10) miles to the West of the CUSA oil field. The Project is not located within a liquefaction hazard area, or within a landside hazard area. The Project will not be located on an unstable geological unit, unstable soil, or expansive soil. Therefore, potential for extensive surface rupture, strong ground shaking, and seismic ground failure, including liquefaction, landslides and lateral spreading, is considered to be no impact.

**Mitigation:** None required.

### **Soil Erosion (b)**

**Conclusion:** The Project will not result in substantial soil erosion or the loss of topsoil.

**Discussion:** The Project is within the existing boundaries of the Coalinga Oil Field. The Project is located on property currently occupied by Chevron U.S.A. (CUSA) Inc. for oil production activities consistent with current and surrounding land uses. The Project sites are located at existing steam generator sites. The construction of the proposed Project would involve minimal "new" disturbance of soil. Therefore, the District concludes that the Project will have a less than significant impact on substantial soil erosion or loss of topsoil.

### **Soil Capacity for Wastewater (e)**

**Conclusion:** The Project will have no impact on the capacity of the soil to support wastewater disposal systems and septic tanks.



---

**Discussion:** CUSA is proposing to install eighteen (18) natural gas-fired steam generators. The Project does not include or require the use of septic tanks or wastewater systems. Therefore, the Project will not impact the soil or its capacity to support wastewater disposal.

**Mitigation:** None required.

### **References**

Buss, Mike, Insight Environmental Consultant. March 2014. *Authority to Construct Permit Application* and Supporting Information. Electronic and Telephone Communication.

California Department of Conservation, California Geological Survey. *Fault Parameters-Alquist Priolo Earthquake Fault Zones*. Website:  
<http://www.conservation.ca.gov/cgs/rghm/ap/Pages/Index.aspx>

California Department of Conservation, California Geological Survey. *Seismic Shaking Hazards in California*. Website:  
<http://redirect.conservation.ca.gov/cgs/rghm/pshamap/pshamain.html>

California Department of Conservation, California Geological Survey. *Special Publication 42 Interim Revision 2007: Fault –Rupture Hazard Zones in California*. Website: <ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sp/Sp42.pdf>

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.





VII. Greenhouse Gas Emissions Would the Project:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

## VII. GREENHOUSE GAS EMISSIONS

### Greenhouse Gas Emissions (a, b)

**Conclusion:** Project related greenhouse gas (GHG) emissions will not conflict with any applicable plans or policies to reduce GHG emissions and will have a less than significant impact on global climate change.

**Discussion:** GHGs are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth’s atmosphere. There are no “attainment” concentration standards established by the Federal or State government for GHGs. In fact, GHGs are not generally thought of as traditional air pollutants because GHGs, and their impacts, are global in nature, while traditional “criteria” air pollutants affect the health of people and other living things at ground level, in the general region of their release to the atmosphere. Some GHGs occur naturally and are emitted into the atmosphere through natural processes. Other GHGs are created and emitted solely through human activities. The principal GHGs that enter the atmosphere because of human activities are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated carbons. Additional information on GHG and global climate change can be found in the District staff report titled: *Addressing Greenhouse Gas Emissions Impacts Under the California Environmental Quality Act*.

### Assembly Bill 32 (AB 32)

Assembly Bill 32 (California Global Warming Solutions Act of 2006) is a key piece of California’s effort to reduce its GHG emissions. AB 32 was adopted establishing a cap on statewide greenhouse gas emissions and sets forth the regulatory framework to achieve the corresponding reduction in statewide emissions levels. AB 32 requires the ARB to establish regulations designed to reduce California’s GHG emissions to 1990 levels by 2020. In executing its legislative mandate under AB 32, the ARB developed a Scoping Plan that contains the main strategies California will use to reduce GHG from Business-as-Usual (BAU) emissions projected from 2020 levels back down to 1990 levels. BAU is the projected emissions caused by growth, without any GHG reduction



measures. ARB determined that a 29% reduction from BAU is necessary to achieve the 1990 GHG emissions level. On December 11, 2008, ARB adopted its AB 32 Scoping Plan, setting forth a framework for future regulatory action on how California will achieve the goal of reducing GHG emissions to 1990 levels.

### Cap & Trade

The AB 32 Scoping Plan identifies a Cap and Trade program as one of the strategies California will employ to reduce the GHG emissions that cause climate change. The Cap and Trade program is implemented by the ARB and caps GHG emissions from the industrial, utility, and transportation fuels sectors – which account for roughly 85% of the state’s GHG emissions.

The program works by establishing a hard cap on about 85% of total statewide GHG emissions. The cap starts at expected BAU emissions levels in 2012, and declines 2-3% per year through 2020. Fewer and fewer GHG emissions allowances are available each year, requiring covered sources to reduce their emissions or pay increasingly higher prices for those allowances. The cap level is set in 2020 to ensure California complies with AB 32’s emission reduction target of returning to 1990 GHG emission levels.

The scope of GHG emission sources subject to Cap and Trade in the first compliance period (2013-2014), includes:

- All electricity generated and imported into California. The first deliverer of electricity into the state is the capped entity (the one that will have to purchase and surrender allowances).
- Large industrial facilities emitting more than 25,000 metric tons of GHG pollution/year. Examples include oil refineries and cement manufacturers.

The scope of GHG emission sources subject to Cap and Trade during the second compliance period (2015-2017) expands to include distributors of transportation fuels (including gasoline and diesel), natural gas, and other fuels. The regulated entity (not the gas station) will be the fuel provider that distributes the fuel upstream. In total, the Cap and Trade program is expected to include roughly 350 large businesses, representing about 600 facilities. Individuals and small businesses will not be regulated. Under the program, companies do not have individual or facility-specific reduction requirements. Rather, all companies covered by the regulation are required to turn in allowances in an amount equal to their total greenhouse gas emissions during each phase of the program. The program gives companies the flexibility to either trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more will have to turn in more allowances. Companies that can cut their emissions will have to turn in fewer allowances. Furthermore, as the cap declines, total emissions are reduced.



On October 20, 2011, ARB's Board adopted the final Cap and Trade regulation and Resolution 11-32. As part of finalizing the regulation, the Board considered the related environmental analysis and, consistent with CEQA requirements, approved ARB's functionally equivalent document (FED).

### CEQA Requirements

In December, 2009, the California Natural Resources Agency (NRA) amended the CEQA Guidelines to include Global Climate Change, which is now generally accepted by the scientific community to be occurring and caused by GHG emissions. The amendments address analysis and mitigation of the potential effects of GHG emissions in CEQA documents. In their *Final Statement of Reasons for Regulatory Action*, NRA recognizes that the analysis of GHG emissions in a CEQA document presents unique challenges to lead agencies. NRA amended section 15064(h)(3) of the CEQA guidelines to add compliance with plans or regulations for the reduction of GHG emissions to the list of plans and programs that may be considered in a cumulative impacts analysis. In their *Final Statement of Reasons for Regulatory Action*, NRA discusses that AB 32 requires ARB to adopt regulations that achieve the maximum technologically feasible and cost effective GHG reductions to reach the adopted state-wide emissions limit. NRA goes on to state that a lead agency may consider whether ARB's GHG reduction regulations satisfy the criteria in existing subdivision (h)(3).

### District CEQA Policy

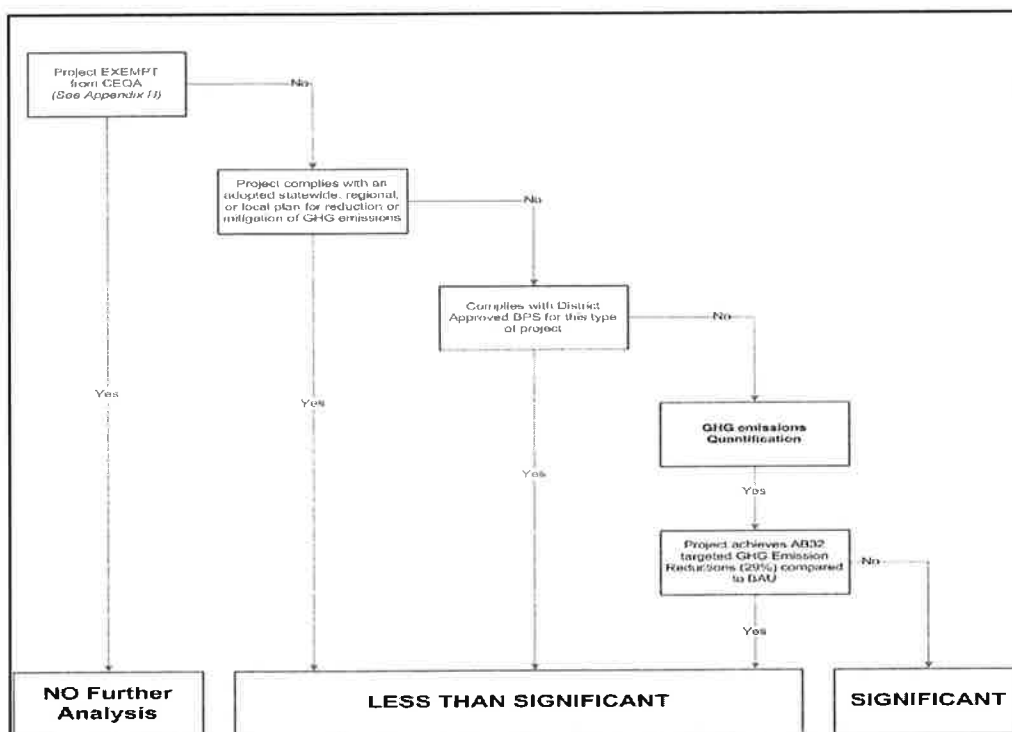
CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of Projects and preparation of environmental documents. On December 17, 2009, the District adopted the policy "*District Policy (APR 2005) – Addressing GHG Emissions Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*" and approved the District's guidance document for use by other agencies when addressing GHG impacts as lead agencies under CEQA. The policy applies to all District permitting Projects that have an increase in GHG emissions, regardless of the magnitude of the increase. Under this policy, the District's determination of significance of Project-specific GHG emissions is founded on the principal that Projects with GHG emission reductions consistent with AB 32 emission reduction targets are considered to have a less than significant impact on global climate change.

As illustrated in Figure 4, the District's board-adopted policy for determining significance of Project-specific GHG emissions employs a tiered approach. Of specific relevance to Cap and Trade is the provision that: "Projects complying with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the Project is located, would be determined to have a less than significant individual and cumulative impact for



GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement [best performance standards] BPS.” Projects that do not comply with such a plan or program must incorporate BPS or undergo a Project-specific analysis demonstrating that GHG emissions would be reduced by at least 29%, as compared to BAU.

**Figure 5: Determination of Significance for Stationary Source Projects**



Determination of Significance of GHG Emissions for Projects Subject to an Approved GHG Emissions Reduction Plan

The NRA amended the CEQA Guidelines to include Global Climate Change and added compliance with plans or regulations to reduce GHG emissions to the list of plans and programs that should be considered in a cumulative impacts analysis. In their *Final Statement of Reasons for Regulatory Action*, NRA discusses that AB32 requires the ARB to adopt regulations that achieve the maximum technologically feasible and cost effective GHG reductions to reach the adopted state-wide emissions limit. NRA goes on to state that a lead agency may consider whether ARB's GHG reduction regulations satisfy the criteria in section 15064(h)(3).



---

The District's board-adopted policy determines that: "Projects complying with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the Project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency."

AB32, and the AB32 scoping plan adopted by ARB, is a GHG reduction plan for CEQA purposes. It is directly and wholly responsible for meeting the GHG reduction targets of the State of California and is supported by an environmental review process that has been successfully defended in court as equivalent to, and compliant with, CEQA requirements. However, there are some sources of GHG emissions that are discussed in the AB32 scoping plan that are not required to mitigate emissions via implementation of the plan, and some of the plan is devoted to implementing regulations that address existing emissions, and will have only minimal impact on increases in emissions. Since it is these increases that must be addressed under CEQA, the District conducts its own analysis to determine whether compliance with AB32 and its scoping plan are adequate to conclude that a particular GHG emissions increase is less than significant.

#### Determination of Significance of GHG Emissions for Projects Subject to ARB's GHG Cap and Trade Regulation

One regulation proposed in the AB32 scoping plan that does address increases in GHG emissions is the Cap and Trade regulation discussed above. Facilities subject to the Cap and Trade regulation are subject to an industry-wide cap on overall GHG emissions, and any growth in emissions must be accounted for under that cap, so that a corresponding and equivalent reduction in emissions must occur to allow any increase. Further, the cap decreases over time, resulting in an overall decrease in GHG emissions. It is therefore reasonable to conclude that facilities subject to and in compliance with ARB's Cap and Trade requirements will not, and in fact, cannot, contribute significantly towards any global GHG emissions growth. While this inherent mitigation process is not a necessary component of a finding that compliance with a plan for the reduction of greenhouse gas emissions may be considered in a cumulative impacts analysis [(CCR §15064(h)(3)], the fact that all growth in emissions at covered sources is mitigated provides a certainty that compliance with the Cap and Trade program eliminates any potential for significant impacts from those GHG emissions.

#### Determination of Significance of GHG Emissions for Projects Implementing BPS

BPS for stationary source Projects is – for a specific class and category source of GHG emissions – the most effective, District approved, achieved-in-practice means of reducing or limiting GHG emissions from that source, which is also economically feasible per the definition of achieved-in-practice. BPS includes equipment type,



equipment design, and operational and maintenance practices for the identified service, operation, or emissions unit class and category, and is developed by the District in a public process that considers and addresses input from all interested parties. Consistent with the District's adopted policy for assessing significance of Project-specific GHG emission increases when serving as Lead Agency, Projects implementing BPS will be determined to have a less than significant impact on global climate change.

### **Project Details and Significance Determination**

#### **Compliance with an Approved GHG Emission Reduction Plan**

As an independent energy company engaged in the production, development, and exploration of crude oil and natural gas within the State of California, Chevron U.S.A. Inc. (CUSA) and its facilities are subject to ARB's Cap and Trade regulation. As discussed above, ARB's Cap and Trade regulation is an adopted statewide plan for reducing or mitigating GHG emissions from targeted industries and is supported by an environmental review process that has been successfully defended in court as equivalent to, and compliant with, CEQA requirements.

Consistent with CCR §15064(h)(3), the District finds that compliance with ARB's Cap and Trade regulation would avoid or substantially lessen the impact of Project-specific GHG emissions on global climate change. The District therefore concludes that the Project would have a less than significant individual and cumulative impact on global climate change.

#### **Mitigation of GHG Increases under the Cap and Trade Regulation**

As outlined above, facilities subject to the Cap and Trade regulation are subject to an industry-wide cap on overall GHG emissions. As such, any growth in emissions must be accounted for under that cap, such that a corresponding and equivalent reduction in emissions must occur to allow any increase. Therefore, it is reasonable to conclude that implementation of the Cap and Trade program would fully mitigate Project-specific GHG emissions.

Regardless of, and independent to, the above determination that the Project is subject to a state-wide GHG emissions reduction plan, the District finds that, through compliance with the Cap and Trade regulation, Project-specific GHG emissions would be fully mitigated. Thus, the District concludes that the Project would have a less than significant individual and cumulative impact on global climate change.

### **References**

San Joaquin Valley Unified Air Pollution Control District. December 2009. *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as*



*the Lead Agency (APR 2005). Website:*

[http://www.valleyair.org/policies\\_per/policies/apr2005.pdf](http://www.valleyair.org/policies_per/policies/apr2005.pdf)

San Joaquin Valley Unified Air Pollution Control District. *Best Performance Standards (BPS) for Stationary Sources. Website:*

[http://www.valleyair.org/Programs/CCAP/bps/BPS\\_idx.htm](http://www.valleyair.org/Programs/CCAP/bps/BPS_idx.htm)

San Joaquin Valley Unified Air Pollution Control District. *Draft Authority to Construct: Application Review, Applicant Numbers C-11, and Project Numbers C-1132740 and C-1140728. Available at San Joaquin Valley Air Pollution Control District. 2619 East Gettysburg, Fresno, California 93726-0244*

San Joaquin Valley Unified Air Pollution Control District. December 2009. *Final Draft Staff Report: Addressing Greenhouse Gas Emissions Impacts Under The California Environmental Quality Act. Website:*

[http://www.valleyair.org/Programs/CCAP/CCAP\\_idx.htm](http://www.valleyair.org/Programs/CCAP/CCAP_idx.htm)

San Joaquin Valley Unified Air Pollution Control District. March 2010. *Zero Equivalency Policy for Addressing Greenhouse Gases (APR-2015). Website:*

[http://www.valleyair.org/policies\\_per/policies/apr2015.pdf](http://www.valleyair.org/policies_per/policies/apr2015.pdf)



VIII. Hazards and Hazardous Materials Would the Project:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?				X
f) For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

**VIII. HAZARDS & HAZARDOUS MATERIALS**

**Hazardous Materials and Exposure to the Public (a-d)**

**Conclusion:** The Project will not expose the public to hazardous materials, and impacts are less than significant.





---

**Discussion:** The Project is located on property currently occupied by Chevron U.S.A. Inc. (CUSA), within the existing Coalinga Oil Field boundaries as designated by the Division of Oil, Gas and Geothermal Resources (DOGGR). The project sites are consistent with current land use which has historically been used for oil production. The Project is not located on a site that meets the definition of Government Code Section 65962.5, which requires specific hazardous waste facilities to submit required information to the Department of Toxic Substances Control (DTSC).

Potentially hazardous materials are not expected to be associated with the steam generator sites. However, in the event that hazardous materials are needed or result from the operations of the steam generators, the materials and waste will be transported in placarded vehicles, in packaging, or containers as required by Code of Federal Regulations (CFR) Title 49. The nearest receptors are located approximately 1.09 miles southwest of the outer boundary of Project site 13D steam plant, 1.49 miles west of the outer boundary of Project site 25D steam plant and 0.8 miles from Project site 6C. Proximity to the nearest existing or proposed school is greater than one-quarter of a mile. The District has conducted a risk screening analysis indicating that the operation of the steam generators would not pose a significant risk to the nearest receptor. Therefore, the proposed Project will not expose the public to hazardous materials from the transport, use, or disposal of hazardous materials.

Compliance with existing safety standards in the construction and long-term operation of the steam generators will minimize any potential hazard to the public, CUSA's employees, contractors, and the environment. Occupational safety standards exist in Federal and State laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Department of Industrial Relations Division of Occupational Safety and Health (Cal/OSHA) is responsible for developing and enforcing safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA obligates many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle. Therefore, impacts resulting from the accidental release of hazardous materials, the transportation, use, or disposal of hazardous materials are expected to be less than significant.

**Mitigation:** None.

### **Airports and Airstrips (e, f)**

**Conclusion:** The Project will not have an impact on the safety of people residing or working in the project area.

**Discussion:** The Project is within the existing boundaries of the Coalinga Oil Field. The Project is located on property currently occupied by CUSA for oil production



activities consistent with current and surrounding land uses. The Project is not located near active airports or airstrips, nor within the vicinity of a private airstrip. The Coalinga Municipal Airport is located about four (4) miles northeast from the center of the City of Coalinga in the southwest portion of the County of Fresno. The District concludes that there is no substantial evidence of record to support a conclusion that the location of the Project would pose a significant risk to people residing or working in or near the Project area.

**Mitigation:** None required.

### **Emergency Response and Fire Hazards (g, h)**

**Conclusion:** The Project will not interfere with emergency response or evacuation plans; nor will it expose people or structures to risks from wildland fires.

**Discussion:** The Project will not expose people or structures to wildland fires as the Project is within the existing boundaries of the Coalinga Oil Field. The Project is located on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses. The Project will not demolish any existing public roadways and would not interfere with the emergency response or evacuation plans. Therefore, the District concludes that there is no substantial evidence of record that the Project would interfere with emergency response or expose people or structures to risks from fires.

**Mitigation:** None required.

### **References**

Buss, Mike, Insight Environmental Consultant. March 2014. *Authority to Construct Permit Application* and Supporting Information. Electronic and Telephone Communication.

City of Coalinga. May 2007. *Coalinga Municipal Airport Master Plan*. Website: [http://www.coalinga.com/uploads/1332974584\\_Final\\_Master\\_Plan.pdf](http://www.coalinga.com/uploads/1332974584_Final_Master_Plan.pdf)

County of Fresno. December 1994. *Coalinga Regional Plan Fresno County Planning Commission*. Website: <http://www.fresnolafco.org/documents/County%20of%20Fresno%20Coalinga%20Regional%20Plan.pdf>

County of Fresno. *Revised Public Draft Review Fresno County 2000 General Plan*. Website: <http://www.co.fresno.ca.us/DepartmentPage.aspx?id=19705>



---

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.

Fresno Council of Government. November 28, 1994. *Coalinga Airport Land Use Policy Plan*. Website:

[http://www.fresnocog.org/sites/default/files/publications/ALUC/Coalinga\\_Airport\\_CLUP\\_1994.pdf](http://www.fresnocog.org/sites/default/files/publications/ALUC/Coalinga_Airport_CLUP_1994.pdf)



IX. Hydrology / Water Quality Would the Project:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow				X



---

## IX. HYDROLOGY / WATER QUALITY

### Water Quality Standards, Waste Discharge, and Water Quality (a,f)

**Conclusion:** The Project will have a less than significant impact on water quality, water quality standards or waste discharge requirements.

**Discussion:** The Project is within the existing boundaries of the Coalinga Oil Field. The Project is located on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses. The Project sites are located at or very near existing steam generator sites.

The Project must comply with water quality standards, waste discharge requirements and Underground Injection Control (UIC) Program standards which are regulated by Department of Oil, Gas and Geothermal Resources (DOGGR); the United States Environmental Protection Agency (USEPA); and the Regional Water Quality Control Board (RWQCB), which primarily relate to the protection of groundwater quality. Management of waste streams which could affect groundwater quality is subject to stringent regulatory control.

The steam generators will provide thermally enhanced oil recovery (TEOR) well operations within the existing Coalinga Oil Field. DOGGR's Well Review program requires compliance with UIC program regulations which were enacted under the Safe Drinking Water Act and requires compliance with the Basin Water Quality Control Plan adopted by the RWQCB for the Central Valley Region. Wastewater produced from the proposed Project, expected to be extracted during oil and gas production will be disposed of by underground injection. Management of this waste stream is subject to stringent controls established to maintain surface and groundwater quality standards, such as the issuance of waste discharge requirements by the RWQCB to regulate the surface disposal of this waste stream, or the issuance of Class II Injection Disposal Well permits to regulate the underground disposal of this waste stream. However, water will not be disposed of by means of surface disposal at any of the Project sites.

The District concludes that there is no substantial evidence of record to support a conclusion that the Project would violate any water quality standards or waste discharge requirements that would degrade water quality.

**Mitigation:** None required.



---

### **Groundwater Supplies, Groundwater Recharge (b)**

**Conclusion:** The Project will have a less than significant impact on groundwater supplies and groundwater recharge.

**Discussion:** The Project would generate insignificant amounts of waste water produced from the extraction during oil and gas production; however, to the extent possible, the produced water is re-injected into disposal wells.

Water used in the steam generators will be recycled produced water extracted from wells located within the nearby existing water entitlements. No new water entitlements will be necessary for Project implementation. The proposed Project resides within the Central Valley RWQCB Tulare Lake Basin, in the Pleasant Valley groundwater sub basin. Groundwater on the west side of the San Joaquin Valley is of poor quality. Groundwater in the Coalinga area is of poor quality due to the high Total Dissolved Solids (TDS) levels. Pursuant to Code of Federal Regulations (CFR) Title 40, Section 146.4 (40 CFR 146.4), the Temblor and Kreyenhagen formations within the administrative boundaries of the Coalinga Oil Field have been exempted as an underground source of drinking water and are used for the injection of non-hazardous Class II of field produced wastewaters. The Class II water disposal injection wells are permitted by the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) under authority granted by the United States Environmental Protection Agency (EPA).

Therefore the District concludes that there is no substantial evidence of record to support a conclusion that the Project would substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

**Mitigation:** None required.

### **Drainage Pattern, Water Run-off (c,d,e)**

**Conclusion:** The Project will have a less than significant impact on drainage patterns and will not substantially increase the rate or amount of surface run-off in a manner that would result in flooding on- or off-site.

**Discussion:** The proposed Project is located within the Coalinga Oil Field in areas that have previously been graded. Although minimal grading is anticipated to occur with the Project, the Project will not introduce any new flood hazards, will not necessitate any new flood control projects, and will not impact any existing drainage patterns of the site.



Therefore, the Project will have a less than significant impact on drainage patterns and will not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

**Mitigation:** None required.

### **Flood Hazard Area, Floor Hazard Structures, Expose People or Structures (g,h,i,j)**

**Conclusion:** The Project will not expose people or structures to flood hazards, seiche, tsunamis, or mudflows.

**Discussion:** The proposed Project consists of eighteen (18) additional steam generators consistent with current on-site and surrounding oil and gas production land uses. The Project is located within the existing boundaries of the Coalinga Oil Field. The Project is located on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses. The Project sites are located at existing steam generator sites.

The proposed Project is not located within the 100-year flood zone as mapped on Flood Insurance Rate Maps (FIRMs); nor is the proposed Project located in a Flood Hazard Safety Zone (FHSZ) as designated by Fresno County.

The proposed Project is not within a county that is identified in the Tsunami Inundation maps prepared by the California Geological Survey and is therefore not at risk of inundation. In addition, the Project does not propose to place people or structures within any area that is subject to flooding through any cause, including as a result of failure of a levee or dam nor will there be habitable structures proposed for construction by the Project. Therefore, there is no substantial evidence of record to support a conclusion that the Project would expose people or structures to flood hazards, seiche, tsunamis, or mudflows.

**Mitigation:** None required.

### **References**

Buss, Mike, Insight Environmental Consultant. March 2014. *Authority to Construct Permit Application* and Supporting Information. Electronic and Telephone Communication.

California Department of Conservation, California Geological Survey. *Tsunami Information*. Website:  
[http://www.conservation.ca.gov/cgs/geologic\\_hazards/Tsunami/Pages/Index.aspx](http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Pages/Index.aspx)



California Department of Conservation, Division of Oil, Gas and Geothermal Resources. *DOGGR Online Mapping System (DOMS)*. Website: <http://maps.conservation.ca.gov/doms/index.html>

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.

United States Environmental Protection Agency. July 14, 2008. *General Permit for Stormwater Discharges From Construction Activities*. Website: [http://www2.epa.gov/sites/production/files/documents/cgp2008\\_finalnotice.pdf](http://www2.epa.gov/sites/production/files/documents/cgp2008_finalnotice.pdf)

<b>X. Land Use / Planning</b>  Would the Project:	<b>Potentially Significant Impact</b>	<b>Potentially Significant Impact Unless Mitigated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Physically divide an established community?				<b>X</b>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				<b>X</b>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				<b>X</b>

**X. LAND USE/PLANNING**

**Land Use and Planning (a, b)**

**Conclusion:** The Project will not divide an established community or conflict with applicable land use plans, policies, or regulations.

**Discussion:** The Project is located within the existing boundaries of the Coalinga Oil Field. The Project is located on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses. The proposed Project consists of eighteen (18) additional steam generators consistent with current on-site and surrounding oil and gas production land uses. Therefore, the proposed Project would have no impacts with regard to physically dividing an established community.

The Project is located within the boundaries of the Coalinga Regional Plan and is currently designated in the Fresno County 2000 General Plan as a Westside Rangeland, which is currently zoned Exclusive Agriculture. Pursuant to the Zoning Ordinance of Fresno County, oil production activities, including steam generators (excluding coal fired), are a permitted use by right.





The range of activities associated with the proposed Project is allowable under the Fresno County and City of Coalinga General Plans and Zoning Ordinances. The proposed Project would therefore be consistent with current General Plan and Zoning designations and would not require changes to existing designations. Proposed Project activities will conform to the regulations and development standards for oil and gas activities outlined in Section 857 of the Fresno County Zoning Ordinance and Article 31 of the City of Coalinga Zoning Ordinance. Therefore, the proposed Project would have no impact with regard to conflicts with applicable land use plans, policies, and regulations.

Therefore, the District concludes that there is no substantial evidence of record that the Project would conflict with applicable land use plans, policies, or regulation.

**Mitigation:** None required.

#### **Habitat and Natural Community Conservation Plans (c)**

**Conclusion:** The Project will not conflict with any applicable Habitat Conservation Plan or natural community conservation plan.

**Discussion:** The Project is located within the existing boundaries of the Coalinga Oil Field. The Project is located on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses. Currently no Habitat Conservation Plans (HCP) or natural community conservation plans have been adopted for the Project area. As such, the proposed Project would not conflict with any applicable plans. If implemented, the Draft Coalinga Habitat Conservation Plan (HCP) would be relevant to the proposed Project; however, proposed Project construction and operation activities would not conflict with the Draft Coalinga HCP. Regardless of an HCP, proposed projects are required to comply with the requirements of regulatory agencies with authority over protected habitat and natural community resources. In addition, the proposed Project would comply with related biological resources policies of the Fresno County General Plan. The proposed Project's construction and operations would have no impact with regard to conflicting with an applicable conservation plan or natural community conservation plan. Therefore, the District concludes that there is no substantial evidence of record to support a conclusion that the Project would conflict with an applicable and existing Habitat Conservation Plan or natural community conservation plan.

**Mitigation:** None required.



**References**

Buss, Mike, Insight Environmental Consultant. March 2014. *Authority to Construct Permit Application* and Supporting Information. Electronic and Telephone Communication.

County of Fresno. *Revised Public Draft Review Fresno County 2000 General Plan*.  
 Website: <http://www.co.fresno.ca.us/DepartmentPage.aspx?id=19705>

Erickson, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.

<b>XI. Mineral Resources</b>  Would the Project:	<b>Potentially Significant Impact</b>	<b>Potentially Significant Impact Unless Mitigated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				<b>X</b>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				<b>X</b>

**XI. MINERAL RESOURCES**

**Mineral Resources (a, b)**

**Conclusion:** The Project will not have an impact on mineral resources or any mineral resource recovery site.

**Discussion:** The Project is located on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses. This Project is located within the boundaries of the Coalinga Regional Plan and is currently designated in the Fresno County 2000 General Plan as a Westside Rangeland, which is currently zoned Exclusive Agriculture. Pursuant to the Zoning Ordinance of Fresno County, oil production activities, including steam generators (excluding coal fired), are a permitted use by right. The Project sites are not located in an area known to contain a mineral resource that is of value to the region or state. Therefore, the District concludes that there is no substantial evidence of record that the Project would result in the loss of a known mineral resource or the availability of a locally important mineral resource recovery site.

**Mitigation:** None required.



**References**

Buss, Mike, Insight Environmental Consultant. March 2014. *Authority to Construct Permit Application* and Supporting Information. Electronic and Telephone Communication.

California Department of Conservation, California Geological Survey. *Mineral Resources*. Website:  
[http://www.conservation.ca.gov/cgs/geologic\\_resources/mineral\\_resource\\_mapping/Pages/Index.aspx](http://www.conservation.ca.gov/cgs/geologic_resources/mineral_resource_mapping/Pages/Index.aspx)

County of Fresno. *Revised Public Draft Review Fresno County 2000 General Plan*. Website: <http://www.co.fresno.ca.us/DepartmentPage.aspx?id=19705>

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.

<b>XII. Noise</b>  Would the Project:	<b>Potentially Significant Impact</b>	<b>Potentially Significant Impact Unless Mitigated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			<b>X</b>	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			<b>X</b>	
c) A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?			<b>X</b>	
d) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?			<b>X</b>	
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?				<b>X</b>
f) For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?				<b>X</b>



---

## XII. NOISE

### **Exposure of Persons to Noise and Vibration and Ambient Noise Levels (a-d)**

**Conclusion:** The Project may result in the exposure of persons to increased noise or vibrations and may increase ambient noise levels in the Project vicinity; however, the potential impacts are less than significant.

**Discussion:** The Project is within the existing boundaries of the Coalinga Oil Field. The Project is located on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses.

For the nearest public receptor, the proposed Project will not exceed the noise ordinance standards defined in the Fresno County General Plan. During construction activities, noise levels will be elevated. However, the increase in noise is temporary and will subside once construction of the Project is complete.

State and federal standards set by the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) regulate the amount of time workers may be exposed to sound levels above 90 decibels. The Project may result in noise exceeding 90 dB and a slight increase in ground vibration within 50 feet of the proposed steam generators. If the Project results in noise exceeding 85 dB, CUSA will comply with all OSHA regulations for the protection against the effects of noise exposure (CCR §5095-5100).

The steam generators in the proposed Project will result in a permanent increase in ambient noise levels. Ambient noise levels are not expected to increase to above 90 decibel (dB) except in areas immediately near the discharge headers. Future noise types and volumes will be consistent with current land use and existing operations. The nearest receptor is located approximately 0.8 of a mile from the Project site. As such, the Project would not cause a distinguishable change in noise levels to the general public.

The District concludes that there is no substantial evidence of record that the Project would expose the public or CUSA employees to significant increases in noise or vibrations.

**Mitigation:** None required.

### **Increased Noise Exposure Near Airfields (e, f)**

**Conclusion:** The Project will not expose people residing or working in the Project area to excessive noise levels.



**Discussion:** The Project is located within the existing boundaries of the Coalinga Oil Field. The Project is located on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses. The Project is not located within two (2) miles of a private or public airport; nor is the Project within the vicinity of a private airstrip. The Project would not expose people residing or working in the Project area to excessive noise levels.

**Mitigation:** None required.

**References**

City of Coalinga. May 2007. *Coalinga Municipal Airport Master Plan*. Website: [http://www.coalinga.com/uploads/1332974584\\_Final\\_Master\\_Plan.pdf](http://www.coalinga.com/uploads/1332974584_Final_Master_Plan.pdf)

County of Fresno. November 28, 1994. *Coalinga Airport Land Use Policy Plan*. Website: [http://www.fresnocog.org/sites/default/files/publications/ALUC/Coalinga\\_Airport\\_CLUP\\_1994.pdf](http://www.fresnocog.org/sites/default/files/publications/ALUC/Coalinga_Airport_CLUP_1994.pdf)

County of Fresno. December 1994. *Coalinga Regional Plan Fresno County Planning Commission*. Website: <http://www.fresnolafco.org/documents/County%20of%20Fresno%20Coalinga%20Regional%20Plan.pdf>

County of Fresno. *Revised Public Draft Review Fresno County 2000 General Plan*. Website: <http://www.co.fresno.ca.us/DepartmentPage.aspx?id=19705>

<b>XIII. Population / Housing</b>  Would the Project:	<b>Potentially Significant Impact</b>	<b>Potentially Significant Impact Unless Mitigated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				<b>X</b>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				<b>X</b>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				<b>X</b>



---

### XIII. POPULATION AND HOUSING

#### Population and Housing (a, b, c)

**Conclusion:** The Project will not result in a substantial growth in population growth or the displacement of people or housing units.

**Discussion:** The Project is located within the existing boundaries of the Coalinga Oil Field. The Project is located on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses. There will not be a substantial increase in population growth in the area because the proposed Project consists of eighteen (18) additional steam generators consistent with current on-site and surrounding oil and gas production land uses and is expected to be maintained and manned by existing CUSA personnel and contractors. The Project sites are located near existing steam generator sites and are developed for current operations, which does not include on-site housing. Therefore, the District concludes that there is no substantial evidence of record that the Project would induce substantial population growth or displace substantial numbers of people or housing.

**Mitigation:** None needed.

#### References

Buss, Mike, Insight Environmental Consultant. March 2014. *Authority to Construct Permit Application* and Supporting Information. Electronic and Telephone Communication.

County of Fresno. *Revised Public Draft Review Fresno County 2000 General Plan*. Website: <http://www.co.fresno.ca.us/DepartmentPage.aspx?id=19705>

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.



<b>XIV. Public Services</b>  Would the Project:	<b>Potentially Significant Impact</b>	<b>Potentially Significant Impact Unless Mitigated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?				<b>X</b>
ii) Police protection?				<b>X</b>
iii) Schools?				<b>X</b>
iv) Parks?				<b>X</b>
v) Other public facilities?				<b>X</b>

**XIV. PUBLIC SERVICES**

**Fire Protection and Police Protection (a.i, a.ii)**

**Conclusion:** The Project will not require additional fire or police protection facilities and will not negatively impact the County’s ability to provide services.

**Discussion:** The Project is located on property currently occupied CUSA for oil production activities consistent with current and surrounding land uses. The Project will be designed to meet the standards of the current California Fire Code and Federal safety standards. Installation and operation of the Project in accordance with these standards will minimize the potential for fire. No new or altered fire protection facility would be necessary. The Project area is serviced by the Fresno County Sheriff Department for police protection services. No new or altered police protection facility would be necessary. Therefore, the District concludes that construction and operation of the Project would have a less than significant impact on police protection capabilities in the Project area.

**Schools, Parks and Other Public Facilities (a.iii –a.v)**

**Conclusion:** The Project will not require additional schools, parks, or other public facilities. The Project will not negatively impact existing facilities.

**Discussion:** The Project is located on property currently occupied by Chevron U.S.A. Inc. (CUSA) for oil production activities consistent with current and surrounding land



uses. The proposed Project consists of eighteen (18) steam generators consistent with current on-site and surrounding oil and gas production land uses and is expected to be maintained and manned by existing CUSA personnel and contractors. It will not increase the population in the surrounding area nor require additional schools, parks, or other public facilities. Therefore, the District concludes that there is no substantial evidence of record that the Project would have a significant impact on public facilities.

**References**

California Department of Forestry and Fire Protection. *Fire Hazard Severity Zones Map*. Website: [http://www.fire.ca.gov/fire\\_prevention/fire\\_prevention\\_wildland\\_zones.php](http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones.php)

City of Coalinga. May 2007. *Coalinga Municipal Airport Master Plan*. Website: [http://www.coalinga.com/uploads/1332974584\\_Final\\_Master\\_Plan.pdf](http://www.coalinga.com/uploads/1332974584_Final_Master_Plan.pdf)

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.

<b>XV. Recreation</b>  Would the Project:	<b>Potentially Significant Impact</b>	<b>Potentially Significant Impact Unless Mitigated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				<b>X</b>
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				<b>X</b>

**XV. RECREATION**

**Recreational Facilities (a, b)**

**Conclusion:** The Project will not have an impact on neighborhood or regional parks or any other local recreational facilities.

**Discussion:** The Project is located on property currently occupied by Chevron U.S.A. Inc. (CUSA) for oil production activities consistent with current and surrounding land uses. The Project consists solely of the construction and operation of steam generators and historically has allowed for the exploration and production of oil. The Project is expected to be maintained and manned by existing CUSA personnel and contractors





and, therefore, will not increase the population in the surrounding area. The Project will not require the construction or expansion of recreational facilities. The Project does not include new recreational facilities. A lack of substantial increase in population precludes the possibility of the Project having a negative impact on neighborhood and regional parks. The District concludes that there is no substantial evidence of record that the Project would have a significant impact on or resulting from recreational facilities.

**Mitigation:** None required.

**References**

Buss, Mike, Insight Environmental Consultant. March 2014. *Authority to Construct Permit Application* and Supporting Information. Electronic and Telephone Communication.

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.

<b>XVI. Transportation / Traffic</b>  Would the Project:	<b>Potentially Significant Impact</b>	<b>Potentially Significant Impact Unless Mitigated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation systems, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				<b>X</b>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				<b>X</b>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				<b>X</b>



d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X

**XVI. TRANSPORTATION / TRAFFIC**

**Conflict with Transportation and Transit Plans and Facilities (a, b, f)**

**Conclusion:** The Project will not conflict with any circulation plans, congestion management programs, or alternative transportation facilities.

**Discussion:** The Project is located within the existing boundaries of the Coalinga Oil Field and on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses. The proposed Project is expected to be maintained and manned by existing CUSA personnel and contractors. Project construction related traffic is short-term and will not be sufficient to impede the flow of traffic or decrease the level of service (LOS) on these roads. Therefore, the District concludes that there is no substantial evidence of record that the Project will conflict with any circulation plans, congestion management programs, or alternative transportation facilities.

**Mitigation:** None required.

**Potential Safety Risks (c, d, e)**

**Conclusion:** Project related traffic will not change air traffic patterns or include hazardous design features and, therefore, will not pose a safety risk.

**Discussion:** The Project is located on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses. The Project is expected to be maintained and manned by existing CUSA personnel. The Project consists solely of the construction and operation of steam generators. The Project is not located within two (2) miles of a private or public airport. The nearest airport is 5 miles west of the Coalinga Oil Field. Therefore, the proposed Project will not present any safety risks resulting from a change in air traffic patterns.



---

The Project does not include the construction of new public roads or alterations to existing public roads or intersections. As such, the Project will not result in increased road hazards. Temporary equipment staging areas will become part of the plant site and be set aside for employee and visitor vehicle parking. The Project is proposed to be designed with no potential impacts on emergency access.

**Mitigation:** None required.

**References**

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.



<b>XVII. Utilities / Service Systems</b>	<b>Potentially Significant Impact</b>	<b>Potentially Significant Impact Unless Mitigated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
Would the Project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
e) Result in a determination by the wastewater treatment provider that serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X

**XVII. UTILITIES / SERVICE SYSTEMS**

**Wastewater Treatment and Facilities (a, b, e)**

**Conclusion:** The Project would not exceed wastewater treatment requirements or require the construction or expansion of wastewater facilities.



---

**Discussion:** The Project is located within the existing boundaries of the Coalinga Oil Field and on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses.

The proposed Project will use water from the existing water wells to generate steam. Wastewater produced from the proposed Project, expected to be extracted during oil and gas production, will be disposed of by underground injection. Management of this waste stream is subject to stringent controls established to maintain surface and groundwater quality standards, such as the issuance of waste discharge requirements by the Regional Water Quality Control Board (RWQCB) to regulate the surface disposal of this waste stream, or the issuance of Class II Injection Disposal Well permits to regulate the underground disposal of this waste stream. The proposed Project will not require approvals from the California RWQCB. Also, the proposed Project will not require the construction or modification of wastewater facilities. Therefore, The District concludes that there is no substantial evidence of record to support a conclusion that the Project would have a significant impact on any wastewater treatment providers.

**Mitigation:** None required.

#### **Storm Water Drainage and Facilities (c)**

**Conclusion:** The Project would not require the construction of new stormwater drainage facilities.

**Discussion:** The Project is located on property currently occupied by CUSA for oil production activities consistent with current and surrounding land uses. The proposed steam generators will be sited in areas where there will be minimal “new” disturbance of soil. All of the surface area disturbed by construction is to remain as part of the plant site after construction is complete. Precipitation at the Project sites is rarely sufficient to cause runoff. Any runoff from the steam generator sites would either percolate near the Project sites or runs to natural drainage channels. As such, the existing Project sites will not require the construction of new storm water drainage facilities.

**Mitigation:** None required.

#### **Water Supply (d)**

**Conclusion:** The Project will have sufficient water supplies and new or expanded entitlements are not required.

**Discussion:** The Project is located on property currently occupied by CUSA which historically has allowed for the exploration and production of oil. The Project is located within the existing boundaries of the Coalinga Oil Field as designated by DOGGR, and is consistent with current operations. The Project will use treated produced water,



which comes out of the ground with the oil being produced. The produced water is primarily brackish to salty from the reservoir or entrained in the oil and gas during production. At the Coalinga Oil Field, approximately 12 barrels (bbls) of water are generated for every barrel of oil produced. Groundwater within the Coalinga Oil Field is not part of the groundwater supply in the Pleasant Valley sub basin and use of this water does not affect the overall water resources in the Pleasant Valley sub basin. The District concludes that the Project will have sufficient water supplies available and will not result in any new or expanded entitlements, and as such the District concludes the impacts are less than significant.

**Mitigation:** None required.

### **Solid Waste (f, g)**

**Conclusion:** The Project will comply with all solid waste regulations and will not have an impact on the landfill that currently serves CUSA operations.

**Discussion:** The Project is located on property currently occupied by CUSA which historically has allowed for the exploration and production of oil. The Project is located within the existing boundaries of the Coalinga Oil Field as designated by DOGGR, and is consistent with current operations. The Project will result in only minimal amounts of solid waste and CUSA has detailed guidelines for employees to ensure solid wastes are handled in accordance with all applicable laws. Therefore, the District concludes that there is no substantial evidence of record that the Project would have a significant impact resulting from the disposal of solid waste.

**Mitigation:** None required.

### **References**

Buss, Mike, Insight Environmental Consultant. March 2014. *Authority to Construct Permit Application* and Supporting Information. Electronic and Telephone Communication.

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.

Google Maps. July 2014.



<b>XVIII. Mandatory Findings of Significance</b>  Would the Project:	<b>Potentially Significant Impact</b>	<b>Potentially Significant Impact Unless Mitigated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		<b>X</b>		
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively Considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?		<b>X</b>		
c) Have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?		<b>X</b>		

**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE**

**Impacts on the Environment and Special Status Species (a)**

**Conclusion:** The Project, with the incorporation of mitigation measures, will not result in significant impacts on the environment or special status plant and animal species.

**Discussion:** With the incorporation of required permit conditions, the surrendering of Emissions Reduction Credit (ERCs), and the incorporation of mitigation measures as outlined in the Initial Study, the Project will have a less than significant impact on the environment and special status species.

**Mitigation:** See Mitigation Measures AIR-1, AIR-2, BIO-1 through BIO-27, CUL-1 through CUL-4, and GHG-1



---

### **Cumulative Impacts (b)**

**Conclusion:** The Project, with the incorporation of mitigation measures, will not have cumulatively significant impacts on the environment.

**Discussion:** CEQA Guidelines state that a Lead Agency shall consider whether the cumulative impact of a Project is significant and whether the effects of the Project are cumulatively considerable (CCR §15065). The assessment of the significance of the cumulative effects of the Project must, therefore, be conducted in connection with the effects of past Projects, other current Projects, and probable future Projects. Due to the nature and location of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The Project is not a part of any larger, planned developments. Therefore, the Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., an increase in population that could lead to an increase need to housing, increase in traffic, air pollutants, etc.).

**Mitigation:** See Mitigation Measures AIR-1, AIR-2, BIO-1 through BIO-27, and CUL-1 through CUL-4.

### **Impacts on Humans (c)**

**Conclusion:** The Project, with the incorporation of mitigation measures, will not result in significant environmental impacts that would cause substantial adverse effects on human beings.

**Discussion:** The analyses of environmental issues contained in this Initial Study indicate that the Project is not expected to have a substantial impact on human beings, either directly or indirectly. Project design elements and mitigation measures have been incorporated into the Project to reduce all potentially significant impacts to less than significant.

**Mitigation:** See Mitigation Measures AIR-1, AIR-2, and CUL-1 through CUL-4.

### **References**

Buss, Mike, Insight Environmental Consultant. March 2014. *Authority to Construct Permit Application* and Supporting Information. Electronic and Telephone Communication.

Ericksen, Lance, Health Environmental and Safety Specialist/Engineer at Chevron USA, Inc. Electronic and Telephone Communication.





---

Google Earth. July 2014.

San Joaquin Valley Unified Air Pollution Control District. March 2013. *Authority to Construct: Application Review*, Applicant No. C-311, Projects #C-1132740 and #C-1140278. Available at San Joaquin Valley Air Pollution Control District. 1991 East Gettysburg, Avenue, Fresno, CA 93726.

San Joaquin Valley Unified Air Pollution Control District. March 2012. *Risk Management Review* Applicant No. C-311, Projects #C-1132740 and #C-1140278. Available at San Joaquin Valley Air Pollution Control District. 1991 East Gettysburg, Avenue, Fresno, CA 93726.

## **H. APPENDIXES**

- Appendix A. Acronyms and Abbreviations
- Appendix B. Mitigation Monitoring and Reporting Program
- Appendix C. Construction Emissions
- Appendix D. Engineering Evaluation
- Appendix E. Risk Management Review



---

## Appendix A. Acronyms and Abbreviations

AAQS	Ambient Air Quality Standards
ARB	California Air Resources Board
ATC	Authority to Construct
BACT	Best Available Control Technology
dB	Decibel
BPS	Best Performance Standards
CAL FIRE	California Department of Forestry and Fire Prevention
Cal/OSHA	California Department of Industrial Relations - Division of Occupational Safety and Health
CBSC	California Building Standards Code
CCR	California Code of Regulations
CFR	Code of Federal Regulation
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
CUSA	Chevron U.S.A. Inc.
District	San Joaquin Valley Unified Air Pollution Control District
DOGGR	California Division of Oil, Gas, and Geothermal Resources
DTSC	California Department of Toxic Substances Control
ERC	Emission Reduction Credit
ERG	Environmental Review Guidelines
ESA	Endangered Species Act
FGR	Flue Gas Recirculation
HAP	Hazardous Air Pollutant
HRA	Health Risk Assessment
LRA	Local Responsible Agency
MBHCP	Metropolitan Bakersfield Habitat Conservation Plan
MEI	Maximally Exposed Individual
MMBtu/hr	Million British Thermal Units Per Hour
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NO <sub>x</sub>	Oxides of Nitrogen
NRA	California Natural Resources Agency
NSR	New Source Review
O <sub>2</sub>	Oxygen
OSHA	US Department of Labor - Occupational Safety and Health Administration
PM <sub>10</sub>	Particulate Matter 10 microns in diameter
PM <sub>2.5</sub>	Particulate Matter 2.5 microns in diameter
ppmv	Parts Per Million, Volumetric



---

PRC	Public Resources Code
PSD	Prevention of Significant Deterioration
RMR	Risk Management Review
ROG	Reactive Organic Gases
RWQCB	Regional Water Quality Control Board
SIP	State Implementation Plan
SOx	Sulfur Oxides
T-BACT	Toxics Best Available Control Technology
TACs	Toxic Air Contaminants
TEOR	Thermally Enhanced Oil Recovery
tpy	Tons Per Year
US EPA	US Environmental Protection Agency
USFWS	US Fish and Wildlife Service
VOC	Volatile Organic Compound



### Appendix B. Mitigation Monitoring and Reporting Program

Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
Operational emissions may exceed the District's thresholds of significance.	Potentially Significant	AIR-1	<p>For ATC project C-1132740:</p> <ul style="list-style-type: none"> <li>Prior to operating equipment under this Authority to Construct with an 85 MMBtu/hr burner, permittee shall surrender emission reduction credits for the following quantities of emissions: NOx: 2,374 lb/qr; SOx: 796 lb/qr; PM10: 894 lb/qr; and VOC: 1,536 lb/qr. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERCs specified below (which is 1.5:1). PM10 may be offset using SOx at an interpollutant offset ratio of 1.0 tons SOx/ton PM10. [District Rule 2201 and Public Resources Code 21000-21177: California Environmental Quality Act]</li> <li>Prior to operating equipment under this Authority to Construct with a 69 MMBtu/hr burner, permittee shall surrender emission reduction credits for the following quantities of emissions: NOx: 1,927 lb/qr; SOx: 646 lb/qr; PM10: 725 lb/qr; and VOC: 1,247 lb/qr. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERCs specified (which is 1.5:1). PM10 may be offset using SOx at an interpollutant offset ratio of 1.0 tons SOx/ton PM10. [District Rule 2201 and Public Resources Code 21000-21177: California Environmental Quality Act]</li> </ul>	San Joaquin Valley Air Pollution Control District	Less than Significant



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
		AIR-2	<p>For ATC project C-1140728:</p> <ul style="list-style-type: none"> <li>ERC Certificate Numbers S-3735-2 (NOX), S-2934-5 (SOX), S-40032411-6 (SO4 for PM10) and S-3722-1 (VOC) (or certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201 and Public Resources Code 21000-21177: California</li> </ul>		



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
			<p>proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]</p> <ul style="list-style-type: none"> <li>• Prior to operating equipment under this Authority to Construct, with an 85 MMBtu/hr burner, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter – 796 lb, 2nd quarter – 796 lb, 3rd quarter – 796 lb, and fourth quarter – 796 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]</li> <li>• Prior to operating equipment under this Authority to Construct, with a 69 MMBtu/hr burner, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter – 646 lb, 2nd quarter – 646 lb, 3rd quarter – 646 lb, and fourth quarter – 646 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]</li> <li>• ERC Certificate Number S-2934-5 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]</li> <li>• Prior to operating equipment under this Authority to Construct, with an 85 MMBtu/hr burner, permittee shall</li> </ul>		



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
			<p style="text-align: center;">Mitigation Measure</p> <ul style="list-style-type: none"> <li>• surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter – 894 lb, 2nd quarter – 894 lb, 3rd quarter – 894 lb, and fourth quarter – 894 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]</li> <li>• Prior to operating equipment under this Authority to Construct, with a 69 MMBtu/hr burner, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter – 725 lb, 2nd quarter – 725 lb, 3rd quarter – 725 lb, and fourth quarter – 725 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]</li> <li>• ERC Certificate Number S-40032411-6 (SO4) (or a certificate split from these certificates) shall be used to supply the required PM10 offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]</li> <li>• Prior to operating equipment under this Authority to Construct, with an 85 MMBtu/hr burner, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter – 1,536 lb, 2nd quarter – 1,536 lb, 3rd quarter – 1536 lb, and fourth quarter – 1,536 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]</li> <li>• Prior to operating equipment under this Authority to</li> </ul>		



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
The Project could result in take of a candidate, sensitive, or special status species.	Potentially Significant	BIO-1	<p>Construct with a 69 MMBtu/hr burner, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter – 1,247 lb, 2nd quarter – 1,247 lb, 3rd quarter – 1,247 lb, and fourth quarter – 1,247 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]</p> <ul style="list-style-type: none"> <li>ERC Certificate Numbers S-3722-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]</li> </ul>	San Joaquin Valley Air Pollution	Less than Significant
		BIO-2	<p>A Qualified Wildlife Biologist will conduct a focused pre-construction survey to determine the presence/absence of suitable habitat for sensitive species as well as the potential for impacts to these sensitive species prior to the onset of ground disturbance. The survey shall be conducted in accordance with the standard protocol of the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW). If more than 30 days pass before the onset of ground disturbance, an additional survey shall be conducted by a Qualified Wildlife Biologist within 30 days prior to the onset of ground disturbance. Permittee shall make all biological surveys available to District staff upon request. [Public Resources Code 21000-21177: California Environmental Quality Act]</p> <p>During construction activities, standardized avoidance measures shall be implemented to preclude take of special status species. If standardized avoidance measures cannot be</p>		





Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
		BIO-3	<p>achieved. Permittee will consult with the California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS) to develop alternative compliance measures and/or obtain an Incidental Take Permit. If standardized avoidance measures fail and there is a take of a threatened or endangered species Permittee will notify USFWS, CDFW, and District immediately. Permittee shall make available to the District any documentation required by USFWS and CDFW. [Public Resources Code 21000-21177: California Environmental Quality Act]</p>		
		BIO-4	<p>Impacts to endangered species habitat, as identified in preconstruction surveys, will be mitigated at the Coles Levee Ecological Preserve at a ratio of 1:1:1. [Public Resources Code 21000-21177: California Environmental Quality Act]</p>		
		BIO-5	<p>A biological monitor will be present while ground-disturbing activities are occurring based on the sensitivity of the habitat in which a Project occurs. [Public Resources Code 21000-21177: California Environmental Quality Act]</p>		
		BIO-6	<p>Project-related vehicles should observe a daytime speed limit of 20-mph throughout the site in all Project areas, except on county roads and State and Federal highways. In the event that construction activities should occur during night time, a 10-mph speed limit shall be observed from dusk until dawn. Off-road traffic outside of designated Project areas should be prohibited. [Public Resources Code 21000-21177: California Environmental Quality Act]</p>		
			<p>During construction activities, all excavated, steep-walled holes or trenches more than two (2) feet deep shall be covered at the close of each working day by plywood or similar materials. If the holes or trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a</p>		



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
		BIO-7	trapped or injured kit fox is discovered, the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) shall be contacted as noted in Measure BIO-15. [Public Resources Code 21000-21177: California Environmental Quality Act]		
		BIO-8	All construction pipes, culverts, or similar structures with a diameter of four (4) inches or greater that are stored at a construction site for one (1) or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the U.S. Fish and Wildlife Service (USFWS) has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped. [Public Resources Code 21000-21177: California Environmental Quality Act]		
		BIO-9	All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the construction sites. [Public Resources Code 21000-21177: California Environmental Quality Act]		
		BIO-10	No firearms shall be allowed on the Project sites. [Public Resources Code 21000-21177: California Environmental Quality Act]		
		BIO-11	No pets, such as dogs or cats, shall be permitted on the Project sites. [Public Resources Code 21000-21177: California Environmental Quality Act]		
			Use of rodenticides and herbicides in the Project sites shall be restricted. If use of these compounds is deemed necessary, Permittee shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency (USEPA),		



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
		BIO-12	California Department of Food and Agriculture (CDFA), and other State and Federal legislation, as well as additional Project-related restrictions deemed necessary by the U.S. Fish and Wildlife Service (USFWS). If rodent control must be conducted, zinc phosphide shall be used. [Public Resources Code 21000-21177; California Environmental Quality Act]		
		BIO-13	Permittee shall appoint a representative to be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the U.S. Fish and Wildlife Service (USFWS). [Public Resources Code 21000-21177; California Environmental Quality Act]		
		BIO-14	An employee education program shall be conducted for any Project that has anticipated impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the Project. The program should include the following: a description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the Project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during Project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the previously referenced people and anyone else who may enter the Project site. [Public Resources Code 21000-21177; California Environmental Quality Act]	Upon completion of the Project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. should be re-	



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
		BIO-15	<p>contoured if necessary, and revegetated to promote restoration of the area to pre-Project conditions. An area subject to "temporary" disturbance means any area that is disturbed during the Project, but after Project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and revegetation experts. [Public Resources Code 21000-21177: California Environmental Quality Act]</p>		
		BIO 16	<p>Any contractor, employee, or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative identified in Measure BIO-10 above. This representative shall contact the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) immediately in the case of a dead, injured or entrapped kit fox. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or, Mr. Paul Hoffman, Wildlife Biologist. Contact information for CDFW and USFWS is provided below in Measure BIO-15. [Public Resources Code 21000-21177: California Environmental Quality Act]</p>		
		BIO-17	<p>The Sacramento Fish and Wildlife Office and California Department of Fish and Wildlife (CDFW) shall be notified in writing within three (3) working days of the accidental death or injury to a San Joaquin kit fox during Project related activities. Notification must include the date, time, and location of the</p>		



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
		BIO-18	<p>incident or of the finding of a dead or injured animal and any other pertinent information. Contact information is provided below. [Public Resources Code 21000-21177: California Environmental Quality Act]</p> <p>CDFW: Ms. Reagen O'Leary, Environmental Scientist          1234 E. Shaw Avenue          Fresno, CA 93710          Phone: (559) 243-4014</p> <p>CDFW: Mr. Paul Hoffman, Wildlife Biologist          1701 Nimbus Road, Suite A          Rancho Cordova, CA 95670          (530) 934-9309</p> <p>USFWS: Chief of the Division of Endangered Species          2800 Cottage Way, Suite W2605          Sacramento, CA 95825-1846          (916) 414-6620 or (916) 414-6600.</p> <p>New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the U.S. Fish and Wildlife Service (USFWS) at the following address: [Public Resources Code 21000-21177: California Environmental Quality Act]</p> <p>U.S. Fish and Wildlife Service          Endangered Species Division          2800 Cottage Way, Suite W2605          Sacramento, CA 95825-1846</p>		
		BIO-19	<p>If habitat for, and/or the presence of sensitive species are documented in the pre-construction surveys, additional focused biological surveys will be conducted by a Qualified Wildlife Biologist for the appropriate survey periods as identified in the CDFW and USFWS protocols identified below. [Public</p>		



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
		BIO-20	<p>Resources Code 21000-21177: California Environmental Quality Act]</p> <ul style="list-style-type: none"> <li>Blunt-nosed leopard lizard – Approved Survey Methodology for the Blunt-nosed Leopard Lizard (CDFG, 2004)</li> <li>San Joaquin kit fox – Standardized Recommendation for Protection of the San Joaquin Kit Fox Prior To or During Ground Disturbance (USFWS, 2011)</li> <li>Burrowing owl – Staff Report on Burrowing Owl Mitigation dated March 7, 2012 (CDFG, 2012)</li> </ul>		
		BIO-21	<p>Permittee shall retain at least one staff or contractor representative that has successfully completed the applicant's Biological Awareness training program on-site during all ground disturbing activities and Project construction. In the event that special status species are discovered on or near the Project site, said staff/contractor shall immediately contact the Company's biological representative identified in the biological training. [Public Resources Code 21000-21177: California Environmental Quality Act]</p>		
		BIO-22	<p>Blunt-nosed leopard lizard surveys following current CDFG guidelines shall be completed no more than one year prior to initiation of Project if construction activities will impact potential habitat for the species. Potential habitat includes areas that have not been previously disturbed or that have recovered to support vegetation and small mammal burrows that represent potential shelter for blunt-nosed leopard lizard. If at any time blunt-nosed leopard lizards are observed during these surveys, no disturbance of areas that could be occupied by this species should occur within 500 feet of the observation without prior approval from CDFG and USFWS. [Public Resources Code 21000-21177: California Environmental Quality Act]</p>		
			<p>The limits of Project site grading shall be clearly delineated</p>		



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
		BIO-23	<p>prior to construction activities by posting stakes, flags and/or rope or cord, as necessary. [Public Resources Code 21000-21177: California Environmental Quality Act]</p> <p>Traffic restraints and signs shall be established and issued to minimize temporary disturbances. All Project-related vehicle traffic shall be restricted to established roads, designated access roads and routes, Project site, storage areas, and staging and parking areas. Off-road traffic outside designated Project boundaries shall be prohibited.</p>		
		BIO-24	<p>All equipment storage and parking during Project activities shall be confined to the designated construction area or to previously disturbed offsite areas that are not habitat for listed species.</p> <p>If vegetation clearing is conducted between February and mid-September, a survey targeting identification of nesting birds shall be conducted. This survey may be conducted in conjunction with the pre-activity survey. If any nesting birds covered by the Migratory Bird Treaty Act are identified, nests shall be avoided by an appropriate distance such that nesting activities are not interrupted until the young have fledged. Determination of when young have fledged from active nests will be determined by a qualified biologist. If any nesting birds are found during vegetation clearing activities, a qualified biologist shall be contacted to determine appropriate avoidance measures. If any burrowing owl burrows are observed, avoidance measures should be consistent with those included in "Staff Report on Burrowing Owl Mitigation," CDFG (2012) taking into account existing disturbances such as roads and structures. Absolutely no disturbance to active nests shall occur without a permit pursuant to the Migratory Bird Treaty Act. For nesting sites, based on the level of disturbance, the following buffer distances shall apply and be adequately delineated around active nests.</p> <ul style="list-style-type: none"> <li>April 1 – Aug 15: low disturbance, 200 meters; medium</li> </ul>		



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
		BIO-25	<p>All power poles and electrical facilities should be designed to minimize the potential for electrocution of migratory and resident birds, including consideration of birds with a wingspan of up to 9 feet.</p> <p>To reduce potential impacts to the San Joaquin kit fox, Permittee shall implement the following avoidance measures:</p> <ul style="list-style-type: none"> <li>• For San Joaquin kit fox dens within 200 feet of the construction area, avoidance zones shall be identified by wooden or metal stakes connected by flagging or by other similar fencing material. Each avoidance zone shall have the following distance measured outward from the den or burrow entrances or the edge of the plant population.             <ul style="list-style-type: none"> <li>❖ Potential den: 50 ft</li> <li>❖ Atypical den: 50 ft</li> <li>❖ Known den: 100 ft</li> <li>❖ Natal/pupping den (occupied and unoccupied): Contact CDFW</li> <li>❖ San Joaquin antelope squirrel: 50 ft</li> </ul> </li> <li>• Potential kit fox dens shall be monitored until they can be shown to be unoccupied based on the procedures outlined in <i>Standardized Recommendation for Protection of the San Joaquin Kit Fox Prior To or During Ground Disturbance</i> (USFWS, 2011), and then</li> </ul>		





Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
		BIO-26	<p>covered with plywood that is firmly secured to prevent access by kit foxes during Project activities. The covers shall not be installed more than 14 days prior to the start of construction. The covers shall remain in place for the duration of construction, after which time they shall be removed.</p> <ul style="list-style-type: none"><li>• If avoidance of any potential kit fox den within the Project site is not practicable, and the den may be unavoidably damaged or destroyed by Project actions, the following procedure shall be implemented: Prior to surface-disturbing activities, any such potential kit fox den shall be completely excavated and then backfilled to preclude later use by kit foxes during the construction period. If, at any time during monitoring or excavation, any sign that the den may be or has been occupied is found, the den's status changes to "known".</li><li>• Potential kit fox dens may be excavated provided that the following conditions are satisfied: (1) the den classification is determined by a qualified wildlife biologist; and (2) the excavation is conducted by or under the direct supervision of a qualified wildlife biologist.</li></ul> <p>To reduce potential impacts to the San Joaquin kit fox, antelope squirrel and giant kangaroo rat, Permittee shall implement the following avoidance measures:</p> <ul style="list-style-type: none"><li>• If dens or nest burrows are located outside of the construction area but within the avoidance zone designated for the resource type (listed above), the boundary of the avoidance zone shall be drawn to include all areas within the radius stated above, except those falling within the construction area. If the construction area encroaches on an avoidance area, potential dens shall not be excavated unless a qualified biologist determines that excavation is absolutely</li></ul>		



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
		BIO-27	<p>To reduce potential impacts to Nelson's antelope squirrel and the giant kangaroo rat, Permittee shall implement the following avoidance measures:</p> <ul style="list-style-type: none"> <li>• For burrows within 200 feet of the construction area, avoidance zones shall be identified by wooden or metal stakes connected by flagging or by other similar fencing material. Each avoidance zone shall be a minimum of 50 ft outward from the den or burrow entrances or the edge of the plant population.</li> <li>• If burrows cannot be avoided, no Project activities shall occur until the appropriate CESA permit has been issued by CDFW. The following measures are required to minimize and mitigate for impacts to antelope squirrel and the giant kangaroo rat:             <ul style="list-style-type: none"> <li>• Burrows will be avoided to the maximum extent practicable.</li> <li>• If occupied burrows cannot be avoided, a trapping effort will be conducted by a properly permitted wildlife biologist for the purpose of either relocation or holding and releasing individuals back into temporarily disturbed portions of the Project site.</li> </ul> </li> </ul>		



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
The Project could have an impact on archaeological or paleontological resources.	Potentially Significant Impact unless Mitigated	CUL-1  CUL-2	<ul style="list-style-type: none"> <li>• CDFW will be provided with a notification at least 30 days prior to trapping and relocation with a plan that includes at least the following information: 1) approximate number of San Joaquin antelope squirrels to be affected; 2) previous experience of the wildlife biologist conducting the trapping and relocation; 3) description of trapping effort; 4) description of relocation plans; 5) whether individuals will be temporarily held for release; 6) off-site release locations; 7) artificial burrow placement; and 8) proposed results reporting schedule. If CDFG does not respond within 30 days of receiving the notification, trapping and relocation will proceed as stated in the notification. San Joaquin antelope squirrels should not be relocated greater than 500 feet from capture location without prior approval from CDFW.</li> </ul>	San Joaquin Valley Air Pollution Control District	Less than Significant



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
		CUL-3	<p>identify appropriate measures for treatment or disposition of the remains in consultation with the CC and NAHC.</p> <p>If additional archaeological inventory is required, Permittee shall notify the District and shall coordinate with the NAHC in the preparation of a professional report detailing the findings and recommendations of of the records search and field survey. Permittee shall provide the Kern County Planning Department the final report containing site forms, and detailing site significance and mitigation measures. All information regarding site locations, Native American human remains, and associated funerary objects will be in a separate confidential addendum and not made available for public disclosure. [Public Resources Code 21000-21177; California Environmental Quality Act]</p>		
		CUL-4	<p>Prior to the start of construction activities, Permittee shall contact the Native American Contacts identified in the Sacred Lands File Check to determine if the Project may impact any cultural resources. [Public Resources Code 21000-21177; California Environmental Quality Act]</p> <p>Kawaiisu Tribe of Tejon Reservation        David Laughinghorse Robinson        P.O. Box 1547        Kernville, CA 93238</p> <p>Kern Valley Indian Council        Robert Robinson, Co-Chairperson        P.O. Box 401        Weldon, CA 93283        Phone: (760) 549-2131</p> <p>Kitanemuk &amp; Yowlumne Tejon Indians        Delia Dominguez, Chairperson        115 Radio Street        Bakersfield, CA 93305        Phone (626) 339-6785</p>		



Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
			<p>Santa Rosa Rancheria Rueben Barrios Sr., Chairperson P.O. Box 8 Lemoore, CA 93245 Phone: (559) 924-1278</p> <p>Santa Rosa Tachi Rancheria Lalo Franco, Cultural Coordinator P.O. Box 8 Lemoore, CA 93245 Phone (559) 924-1278 ext. 5</p> <p>Tejon Indian Tribe Katherine Montes Morgan, Chairperson 1731 Hasti-Acres Drive, Suite 108 Bakersfield, CA 93309 Phone: (661) 758-2303</p> <p>Tubatulabals of Kern Valley Robert L. Gomez, Jr., Tribal Chairperson P.O. Box 226 Lake Isabella, CA 93240 Phone: (760) 379-4590</p> <p>Tule River Indian Tribe Neil Peyron, Chairperson P.O. Box 589 Porterville, CA 93258 Phone: (559) 781-4271</p> <p>Wuksache Indian Tribe/Eshom Valley Band Kenneth Woodrow, Chairperson 1179 Rock Haven Court Salinas, CA 93906 Phone (831) 443-9702</p>		



San Joaquin Valley Unified Air Pollution Control District  
Initial Study and Final Mitigated Negative Declaration  
Chevron U.S. A. Inc.

September 2, 2014

Impact	Significance Prior to Mitigation	Measure Number	Mitigation Measure	Enforcement Agency	Significance After Mitigation
			Ron Wernuth P.O. Box 168 Kernville, CA 93238 Phone: (760) 376-4240		

---

## Appendix C. Construction Emissions

---

San Joaquin Valley Unified Air Pollution Control District  
Initial Study and Final Mitigated Negative Declaration  
Lost Hills Oil Field Steam Generators (Project S-1123645)  
September 2, 2014



---

San Joaquin Valley Air Pollution Control District  
Southern Region  
34946 Flyover Court  
Bakersfield, CA 93308  
(661) 392-5500

Available Upon Request at District Office:

## Appendix D. Engineering Evaluations

---

September 2, 2014

San Joaquin Valley Unified Air Pollution Control District  
Initial Study and Draft Mitigated Negative Declaration  
*Chevron U.S.A. Inc. Heavy Oil Production Facility*







## **Appendix E. Risk Management Review**

Available Upon Request at District Office:

San Joaquin Valley Air Pollution Control District  
Central Region  
1990 E. Gettysburg Avenue  
Fresno, CA 93726  
(559) 230-6000

---