Proposed Final

SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

MIRADA PETROLEUM OIL AND GAS PROJECT, AGNEW LEASE

Case No. PL13-0158

Prepared by and for:
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County of Ventura
Planning Director Hearing
PL13-0158
Exhibit 4 – Final Subsequent EIR

Subsequent Environmental Impact Report
Mirada Petroleum Oil and Gas Project
Case No. PL13-0158

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EXECUTIVE SUMMARY

This document is a Subsequent Environmental Impact Report (SEIR) that examines the potential environmental effects of the continued operation of the existing Mirada Petroleum oil and gas production operation authorized by Conditional Use Permit 3543 for an additional 25 years. The proposed project under evaluation in this SEIR also includes the following components:

- Installation and placement into production of three new oil and gas wells.
- Re-drilling of one existing well.
- The use of Koenigstein Road by large trucks (including tanker trucks) associated with the oil and gas production activities. *(Such use is currently prohibited under CUP 3543.)*

The proposed project does not include the conduct of well stimulation treatments, as defined in Public Resources Code section 3157.

The applicant requests that Modification of CUP 3543 (Case No. PL13-0158) be granted to authorize the proposed oil and gas activities.

The potential environmental impacts of the existing oil and gas facility were evaluated in a Final Environmental Impact Report (FEIR) that was adopted and certified by the Ventura County Planning Commission on November 17, 1983, a copy of which is attached as Appendix B. This FEIR states:

> *The movement of large vehicles at the intersection of State Route 150 and Koenigstein Road could create unsafe conditions.*

At the time the FEIR was certified and the CUP granted, the Ventura County Planning Commission also made findings that characterize the use of Koenigstein Road by large trucks associated with oil and gas drilling and production activities as unsafe and a potentially significant traffic impact. To address this issue and reduce the potentially significant impact to a level of less than significant, the Planning Commission imposed a condition of approval (Condition No. 52) that generally prohibits the use of Koenigstein Road by heavy trucks associated with the oil and gas facility for access to and from Highway 150. In 1995, the private access road used by large trucks that serviced the oil and gas facility to reach Highway 150 was destroyed by flooding. For the past 20 years, large trucks associated with the existing facility have used Koenigstein Road as the access to the project site from Highway 150 because ~~as~~ there is no other available roadway.

Because the currently proposed project involves the use of Koenigstein Road as the access from Highway 150 for large trucks (including tanker trucks), the project revisions would exacerbate a potentially significant environmental impact that is identified in the FEIR. The Planning Division has determined, pursuant to Public Resources Code

Section 21166 and CEQA Guidelines section 15162, that this SEIR is required to examine the potential environmental effects of the proposed revisions to the project.

Information included in the 1983 FEIR that is applicable to the elements of the existing project that will not change if the proposed project revisions are approved is incorporated herein by reference (see SEIR Section 1.6, Documents Incorporated by Reference). The focus of this SEIR analysis is on the proposed operational changes which are described in Section 2.0 of this SEIR. This SEIR evaluates whether the proposed changes in the existing oil and gas facility would result in new potentially significant impacts or require additional mitigation measures.

Table ES-1 summarizes the identified potential environmental impacts for each issue area studied in this SEIR, required or recommended mitigation measures, and the level of significance after mitigation. Table ES-1 contains the project-specific impacts sorted by impact level, followed by the cumulative impacts. No significant and unavoidable impacts have been identified for the proposed operational changes of the existing oil and gas facility. One potentially significant impact (construction noise) subject to effective mitigation has been identified. In other issue areas, there are no significant environmental impacts substantially greater than or different from those described in the 1983 FEIR. As explained in SEIR Section 4.2, the applicant's proposed, limited use of Koenigstein Road by large trucks as the access to and from State Route 150 for its oil and gas drilling and production operations would not involve any significant impact on traffic circulation or public safety.

Table ES-1: Assessment of impacts in this SEIR

Resource	Mitigation Measures	Level of Impact
Air Quality	None required.	Less than Significant (Class III)
Traffic Circulation and Safety	None required.	Less Than Significant (Class III)
Biological Resources	None required. *(Measures to minimize any adverse effects on the California Condor are recommended.)*	Less Than Significant (Class III)
Climate Change	None required.	Less than Significant (Class III)
Water Resources	None required.	Less than Significant (Class III)
Noise	Erection of a noise barrier during drilling operations	Less than significant (Class II)

1.0 INTRODUCTION

This document is a Subsequent Environmental Impact Report (SEIR) that examines the potential environmental effects of the continued operation of the existing Mirada Petroleum oil and gas production operation authorized by Conditional Use Permit 3543 for an additional 25 years, the drilling of three new oil wells, the re-drilling of one existing well, and the use of Koenigstein Road for access to the project site. The proposed project is described in detail in Section 2.0, Project Description. This section describes: 1) the general background of the project; 2) the purpose and legal authority for the SEIR; 3) the scope and content of the SEIR; 4) lead, responsible and trustee agencies; and 5) the environmental review process required by the California Environmental Quality Act (CEQA).

1.1 Project Background

Permit History:

The oil and gas operation that is the subject of the requested modified conditional use permit (CUP) was first developed in 1976 under the authority of CUP 3543. Through a series of permit modifications between 1976 and 1983 involving the preparation of various environmental documents, the operator of this facility was ultimately authorized to install and operate 6 oil wells and associated facilities. The operator was authorized to export 12 truckloads of produced fluid (oil and wastewater) per week from the facility. The use of Koenigstein Road for truck access to the facility is prohibited by CUP 3543. To date, only three wells have been installed and placed on production. Table 1 below lists the discretionary permits that have been granted on the project site that involve the operation and maintenance of the existing oil and gas facility.

Table 1- Discretionary Permits

Permit No.	Approved Use	Decision Maker and Approval Date
CUP No. 3543	Drill 5 wells	Board of Supervisors April 26, 1976
Modification No. 1	Drill 5 additional wells	Board of Supervisors November 27, 1977
Modification No. 2	Install 3 new well sites with 6 wells each	Board of Supervisors July 1, 1977 Withdrawn November 28, 1978
Modification No. 3	Allow extension of condition deadlines	Planning Director August 24, 1978
Modification No. 4	Drill 1 exploratory well and 5 additional wells (total of 6 wells)	Planning Commission November 17, 1983 *(Final EIR prepared June 18, 1980 and certified by Planning Commission on November 17, 1983.)*

Previous environmental review:

On November 17, 1983, the Planning Commission certified a Final Environmental Impact Report (FEIR; Appendix B) that evaluated the environmental impacts of oil and gas facility ultimately authorized by Modification No. 4 of Conditional Use Permit (CUP) No. 3543. The FEIR evaluated the environmental impacts of the drilling and operation of one exploratory well and the drilling and operation of five additional oil wells on the project site.

The FEIR concluded that potentially significant but mitigible impacts in several environmental issue areas would result from the installation and operation of six oil wells. Table 2 below lists the project-specific impacts and mitigation measures identified in the FEIR. Table 3 below lists the cumulative impact mitigation measures identified for the project.

Table 2- Project-Specific Impact Mitigation Measures for CUP No. 3543, Modification 4

Impact Number	Impacted Resource	Mitigation Measure	Recommended or Required	Implemented (Yes / No?)
1	Geology	All drilled wells shall be treated and tested with annular sealing to the base of the fresh water reservoir in order to protect fresh water supplies.	Required by DOGGR	Yes
2	Hydrology	Proposed sump should be lined with impervious material to prevent groundwater degradation.	Recommended	No. The Planning Commission did not include this measure in the conditions of approval for Modification 4 of CUP No. 3543.
3	Traffic	The applicant should implement traffic control measures furnished by the Sheriff's Department at the intersection of State Route 150 and Koenigstein Road, such as flagmen.	Recommended	No. The Planning Commission did not include this measure in the conditions of approval for Modification 4 of CUP No. 3543. *[Note: The project was conditioned to preclude the use of Koenigstein Road by large trucks.]*
4	Biological Resources	Install and maintain a wire fence with meshing around each oil well sump.	Required	Yes.
5 5	Noise Noise	If noise complaints are received during the drilling phase of the project, noise shall be attenuated to meet the noise threshold standards as noted in the Ventura County General Plan.	Required Required	Yes. The Noise mitigation measures were incorporated into CUP 3543-4 as conditions of approval nos. 35 to 38, 42 & 43.
6	Archeological Resources	A registered Archeologist shall conduct a surface determination of the area involved in well drilling. If archeological sites are discovered during the construction phase of the project, all work shall cease until a qualified Archeologist can evaluate the site and make a recommendation towards preservation of the site.	Recommended	No. The Planning Commission did not include this measure in the conditions of approval for Modification 4 of CUP No. 3543.

7	Visual Resources	If the well is productive, the site shall be landscaped. If the well is unproductive, the site shall be restored to its original topographical condition.	Recommended	Yes. The measure to address visual resources was incorporated into CUP 3543-4 as condition of approval no. 32.

Table 3- Cumulative Impact Mitigation Measures for CUP No. 3543, Modification 4

Impact #	Impacted Resource	Mitigation Measure	Recommended or Required	Satisfied
1	Visual Impacts	Following the completion of drilling or production of the well, all equipment and deleterious material including contaminated soil should be removed from the site. A grading modification should occur to recontour the site. The soil should be cultivated. Seeding of the area with appropriate indigenous or compatible grasses and shrubs should occur. Enforcement of the Ojai Valley Area Plan oil exploration goals and policies should be addressed.	Recommended	Yes. The measures to address cumulative visual impacts were incorporated into CUP 3543-4 as conditions of approval nos. 21, 23 & 28.
2	Air Quality	The applicant must establish and maintain general emission control measures pursuant to the Air Quality Management Plan Rules. The measures include: a. Limiting drilling rig operations to one operating unit at a time in the permit area. b. Reduction of fugitive emissions from petroleum handling and transportation by the following methods: • Prohibiting the venting of well head gas to the atmosphere. If quantities of gas exist in excess of that needed to power production equipment, the gas shall be flared in a manner acceptable to the Ventura County Air Pollution Control District and County Fire.	Recommended	The measures to address cumulative air quality impacts were incorporated into CUP 3543-4 as conditions of approval nos. 24 & 50.
2	Air Quality	• Producing well equipment shall be maintained. • All valves, flanges and connections should be routinely maintained.	Recommended	
3	Biological Resources	Creation of a task force that would identify and recommend to the Planning Commission a means of minimizing the impact of present and future oil operations in the Sisar/Bear Creek areas	Recommended	No. The Planning Commission did not include this measure in the conditions of approval for

3	Biological Resources			Modification 4 of CUP No. 3543.
4	Ground-water Supply	Mud tanks and berms shall be constructed in order to confine all drilling fluids and cuttings within the drill site area. Subsurface waters shall be protected by casings and cement. Casing strings shall be cemented in place and water shutoff tests should be conducted and witnessed by DOGG staff. All liquid drilling discharge wastes shall be accumulated into steel tanks within the permit area and hauled away to an appropriate disposal site. The steel tanks shall be removed within 30 days after the completion or abandonment of the wells. Solid drilling materials could be temporarily deposited in an earthen depression with the final disposition of solid waste materials to be accomplished in compliance with State Regional Water Quality Control Board (RWQCB) regulations. Hazardous materials must be disposed of per RWQCB and County Environmental Health regulations. Abandoned water wells on the drilling site shall be destroyed in accordance with the County Well Ordinance. Any oil spills from pipes or other facilities shall be cleaned and corrected in accordance with the Environmental Protection Agency's Spill Contingency Plan. Fluid loss shall be monitored onsite during drilling with the use of an approved tracer.	Required	Yes. The measures to address cumulative groundwater supply impacts were incorporated into CUP 3543-4 as conditions of approval nos. 22, 23, 54 & 56.
5	Traffic	Heavy-duty truck traffic, from cumulative oil operations could be virtually eliminated if operators would utilize oil pipelines to transport crude oil offsite in place of tank trucks.	Recommended	No. This mitigation measure was not included in the conditions of approval for CUP 3543-4.

6	Noise	Noise intrusion into residential property from drilling or production operations: Noise from the drilling operations on the proposed sites should not exceed 55 dbA between the hours of 7:00 am to 10:0 pm and 45 dbA between the hours of 10:00 pm to 7:00 am. Noise generated by motor vehicles on public right of way: the applicant should not operate a motor vehicle or combination of vehicles on the public right of way within the general vicinity of the proposed sites, at any time or under any condition of grade, load, acceleration or deceleration, in such a manner as to exceed the following noise limits: vehicles 6,000 pounds or more or vehicles with a tow: 86 dbA (speed limit less than 35mph) and 90 dbA (speed limit more than 35 mph). Noise limits should be based on a distance of 50 feet from the center of the lane of travel within the specified speed limit. Test procedures and instrumentation should be in accordance with CHP regulations. Truck movements to and from the site shall be limited between the hours of 7:00am and 7:00 pm. Only well maintained vehicles should be permitted to operate during site preparation, drilling, production and abandonment. Access roads should be constructed at locations furthest from the residential locations. A noise barrier should be installed around all noise producing equipment and areas of the rig.	Recommended	Yes. The measures to address cumulative noise were incorporated into the conditions of approval for CUP 3543-4 as conditions nos. 31, 35, 38 & 42.

An issue raised in public comment and evaluated in the 1983 FEIR is the potential use of Koenigstein Road by large vehicles (e.g. drilling rigs, tanker trucks) associated with the drilling and production phases of the then-proposed oil and gas project.

The 1983 FEIR includes the following statements regarding this issue:

> *Both Bridge #326 on Koenigstein Road and the road itself are adequate to carry heavy equipment. Since the road is inadequate to accommodate two passing trucks, one truck would be required to pull over to the shoulder. This condition would create an inconvenience; however, it would not be characterized as unsafe due to the small volume of traffic currently occurring on the road* (FEIR for CUP 3543, Pg. 16).

The movement of large vehicles at the intersection of State Route 150 and Koenigstein Road could create unsafe conditions.

The Planning Commission adopted the following finding (as stated in Section 5 of the staff report for CUP 3543 Modification #4) in its November 17, 1983 decision regarding this issue:

Significant traffic impacts could occur due to movement of large vehicles at the intersection of Highway 150 and Koenigstein Road creating unsafe conditions. This potential impact could be reduced to an insignificant level by imposition of Condition 52 which would require that all trucks over ¾ ton avoid the use of Koenigstein Road by utilizing a private access road through Ojai Oil Company property.

The Planning Commission also adopted the following finding (as stated in Section 9 of the staff report for CUP 3543 Modification #4) regarding traffic circulation in its November 17, 1983 decision:

Access to the drill site for small vehicles would be via Koenigstein Road, thence several hundred feet north along private access roads to the subject drillsite. Truck traffic would access the site via Highway 150 one half mile west of Koenigstein Road, thence north and east along an unpaved private access road through the Ojai Oil Company property (CUP 293 A). Condition 52 would prohibit truck traffic (over ¾ ton) on Koenigstein Road. This prohibition is necessary because of a narrow bridge on Koenigstein Road immediately adjacent to Highway 150 which results in poor turning radii for large vehicles.

As part of the 1983 decision to approve the project which is subject of CUP No. 3543, Modification 4, the Planning Commission imposed Condition No. 52 on the project. This condition reflects the above environmental findings and generally prohibits the use of Koenigstein Road by heavy trucks associated with the operation of the oil and gas facility. Condition No. 52 reads as follows:

52. Truck Access Prohibited

That in conjunction with drilling operations, the permittee shall be prohibited from utilizing Koenigstein Road as a primary access road with ¾-ton and over trucks, except for secondary emergency traffic (Conditions for CUP 3543 Modification No. 4, pg. 12).

The term "drilling operations" in the above condition, when read in the context of the findings made by the Planning Commission, refers to all large truck traffic associated with both drilling and production operations.

The current application by Mirada Petroleum includes a request to modify Condition of Approval No. 52 of Condition Use Permit 3543 to allow the use of Koenigstein Road by large vehicles (e.g. drilling rigs and tanker trucks).

1.2 Purpose and Legal Authority

The requested changes in the existing Mirada Petroleum operation require a modification of Conditional Use Permit 3543. Such a modification constitutes a discretionary project that is subject to environmental review pursuant to CEQA and that requires approval by the Ventura County decision-makers. In accordance with Section 15151 of the CEQA Guidelines, the purpose of the SEIR is to:

> *…inform public agency decision-makers and the public of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.*

As discussed below, this document is a Subsequent EIR to the Phoenix West Oil and Gas Company Project EIR certified by the County of Ventura in 1983 prepared pursuant to Section 15162 of the CEQA Guidelines. The conditions described in Section 15162 which require the preparation of a subsequent EIR, are provided below along with a discussion as to why a subsequent EIR is required:

1. **Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects [§ 15162(a)(1)].**

   The oil and gas facility under review was analyzed in the previous EIR for its potential impacts on the environment. Mitigation measures were identified in that document that address potentially significant impacts. In addition to the continued operation of the existing facilities, the proposed project includes the drilling of three new wells and the re-drilling of one existing well on an existing drill pad.

   The FEIR identified mitigation measures that served to reduce impacts of the original project to a less than significant level (see Table 2 and Table 3 above). All of the required mitigation measures were implemented prior to the submittal of the current permit modification application.

   The proposed well drilling would not involve substantial new ground disturbance as the wells would be drilled from existing well pads. The requested permit includes a reduction in maximum tanker truck traffic (8 truckloads per week instead of 12 truckloads per week) from that authorized in the current permit. Although the maximum authorized truck traffic volume would be reduced, it is estimated that truck traffic on State Highway 150 will increase by 0.44 to 0.8 one-way trips per day above the CEQA baseline setting.

All of the tanker and other vehicle traffic associated with the oil and gas facility would continue to travel on State Route 150 between the project area and the Santa Paula area. This would occur regardless of the exact point of access to State Route 150.

The only substantial offsite change that would be authorized by the requested modified permit would be the use of Koenigstein Road during well drilling and production operations to access the facility site from State Route 150. Except for emergency traffic, the current permit requires vehicle traffic associated with the oil and gas operations to access the site on a private road that connects to Highway 150 southwest of the well sites. This private road was destroyed by flooding in 1995. Since that time, Koenigstein Road has been used to transport produced fluids from the project site as it is the only available access.

Based on the language in the environmental document and the findings adopted by the Planning Commission (as described in Section 1.1 above), the potential use of Koenigstein Road is a previously identified significant effect. The requested use of Koenigstein Road by large vehicles represents a substantial change in the project that would increase the severity of this effect. Thus, a major revision of the EIR is required.

2. **Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects [§ 15162(a)(2)].**

One physical change in the circumstances under which the project is undertaken is the destruction of the primary permitted access road to the facility. This private road was destroyed by flooding in 1995. Since that time, the operator of the facility has used Koenigstein Road for access as there is no other route. As explained in Section 1.2.1 above, the proposal to use Koenigstein Road requires major revisions to the EIR as it involves a substantial increase in the severity of a previously identified significant effect.

Other than the change in site access described above, the circumstances under which the potential impacts to the environment were evaluated have not substantially changed such that the proposed drilling of three oil and gas wells, and the re-drilling of one existing well, on an existing well pad will require major revisions to the FEIR.

No recently approved or reasonably foreseeable projects exist within the vicinity of the project site that either were not analyzed in the FEIR or would result in the reconfigured project having a potentially significant contribution to a cumulative impact that was not analyzed in the FEIR. The project site and surrounding area do not exhibit any previously unknown resources that need to be analyzed as part of the proposed project.

3. **New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the Planning Commission certified the previous EIR, shows any of the following:**

   a. **The project will have one or more significant effects not discussed in the previous EIR [§ 15162(a)(3)(A)].**

   One physical change in the circumstances under which the project is undertaken is the destruction of the primary permitted access road to the facility. This private road was destroyed by flooding in 1995. Since that time, the operator of the facility has used Koenigstein Road for access as there is no other route. As explained in Section 1.2.1 above, the proposal to use Koenigstein Road requires major revisions to the EIR as it involves a substantial increase in the severity of a previously identified significant effect.

In summary, the preparation of a subsequent EIR is required due to the changes in the project involving site access.

1.3 Scope and Content

In accordance with the CEQA Guidelines, a Notice of Preparation (NOP) was distributed for review by affected agencies and the public on February 19, 2015. A public scoping meeting was held on March 10, 2015. The NOP, public comments received, and responses to the public comments on the NOP are provided in Appendix G.

This SEIR addresses the issue areas found to involve potentially significant impacts in the 1983 FEIR that could be affected by the proposed changes in the oil and gas project. The baseline setting for the analysis of environmental impacts presented in this SEIR for all issue areas are the environmental conditions present at the time the NOP was released for public review, February 19, 2015. Thus, the SEIR evaluates the change from the existing operations that would result from implementation of the proposed project.

An evaluation of Climate Change (i.e. impacts of Greenhouse Gas Emissions) was not required at the time the 1983 FEIR was prepared. Therefore, this SEIR includes an estimate of greenhouse gas emissions that would be generated by project components and an evaluation of the significance of these emissions.

In the preparation of this SEIR, the existing 1983 FEIR, the County Initial Study Assessment Guidelines, information available from the California Division of Oil and Gas and Geothermal Resources, and County-prepared memoranda and analysis was used. A list of references is provided in Section 7.0 of this SEIR.

The level of detail incorporated throughout this SEIR is consistent with the requirements of CEQA and applicable court decisions. The CEQA Guidelines provide the standard of adequacy on which this document is based. Section 15151 of the CEQA Guidelines state:

> *An EIR should be prepared with a sufficient degree of analysis to provide the decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main pints of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good faith effort at full disclosure.*

1.4 Lead, Responsible and Trustee Agencies

The CEQA Guidelines define "lead," "responsible" and "trustee" agencies. The County of Ventura is the lead agency for the project because it has the principal responsibility for the approval or denial of the project. The decision to grant or not to grant the requested modified CUP is a discretionary action by the County of Ventura.

Pursuant to Section 15381 of the CEQA Guidelines, the term "responsible agency" refers to public agencies other than the lead agency that have discretionary approval authority over the project. Although the proposed oil and gas facilities require ministerial permits issued by the Ventura County Air Pollution Control District (VCAPCD) and the California Division of Oil and Gas and Geothermal Resources (DOGGR), neither of these agencies are a "responsible agency" because they do not have discretionary approval authority over the proposed project. In any case, this SEIR will be provided to these agencies for review and comment.

A "trustee" agency refers to a state agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California. No impacts on natural resources that are greater than or different from those disclosed in the 1983 FEIR would result from the current proposal. Thus, review by trustee agencies is not required. However, the SEIR will be circulated in any case to various State and Federal agencies for review and comment. These agencies include the California Department of Fish and Wildlife, the California Regional Water Quality Control Board, the California Division of Oil and Gas and Geothermal Resources, the California Department of Transportation, and the Ventura County Air Pollution Control District.

1.5 Environmental Review Process

The environmental review process required pursuant to CEQA involves an number of discreet steps as listed in sequence below. The review process is procedurally the same for an EIR and a SEIR.

Notice of Preparation (NOP): The NOP is circulated to local, State and Federal agencies, and the public, for review and comment on the EIR scope.

Draft Subsequent Environmental Impact Report: The Draft SEIR must contain certain mandatory sections as specified in the CEQA Guidelines.

Public Notice and Review: The lead agency must prepare a Notice of Availability and circulate the EIR for public review and comment for a period of up to 45 days.

Final SEIR: A proposed final SEIR must include the Draft SEIR, public comments, a list of persons who commented, and responses to comment.

Final SEIR Certification: Prior to approving a project, the lead agency must certify that the final SEIR was prepared in compliance with CEQA and that the final SEIR was considered by the decision-makers.
Lead Agency Decision: A lead agency may: (a) disapprove a project because of its significant environmental effects, (2) require changes in a project to reduce or avoid significant environmental effects, or (c) approve a project despite its significant effects if a statement of overriding considerations is adopted.

Notice of Determination: The lead agency must file a Notice of Determination after deciding to approve a project for which an EIR is prepared.

1.6 Documents incorporated by reference

Section 15150 of the CEQA Guidelines provides for incorporation by reference of all or portions of another document which is a matter of public record or generally available to the public. The purpose of this section is to disclose existing CEQA documents, technical studies and other information that is directly applicable to the proposed project.

- Final EIR for the Phoenix West Oil and Gas Company Project, 1983
- County of Ventura, Initial Study Assessment Guidelines, April 26, 2011
- Ventura County Air Quality Assessment Guidelines, November 2000
- California Division of Oil and Gas and Geothermal Resources, Wellfinder website
- California Department of Transportation, Traffic Counts website
- Final Subsequent EIR for the Focused General Plan Update, June 2005
- MND Addendum for the Mirada Petroleum Project (LU11-0041), May 2013
- Ventura County General Plan

- Ventura County Non-Coastal Zoning Ordinance
- State Guidelines for the Implementation of CEQA

2.0 PROJECT DESCRIPTION

Mirada Petroleum Company currently operates three oil and gas production wells and associated facilities on the Agnew Lease under the authority of Conditional Use Permit (CUP) 3543. Mirada proposes to continue the oil and gas production operation for an additional 25 years, drill three new oil wells, re-drill one existing well, and use Koenigstein Road for access to the project site. With implementation of the proposed project, there would be a total of six oil wells included in the facility.

2.1 Project Applicant/Owners

Property Owner: South Mountain Resources, LTD, 15500 W. Telegraph Road, Suite No. D32, Santa Paula, CA, 93060

Applicant: Mirada Petroleum Company (Scott Price), 15500 West Telegraph Road, Unit D32, Santa Paula CA 93060

Applicant's Representative: Peter Goldenring, *Goldenring and Prosser*, 6050 Seahawk Street, Ventura CA 93003-6622

2.2 Project Location

The 19.83-acre project property (APN 040-0-220-165) is located in a mountainous region north of the City of Santa Paula about two miles west of the St. Thomas Aquinas College, 2,000-feet north of Highway 150 and adjacent to Koenigstein Road. The existing oil and gas production facility lease area is located about 2,800 feet north of Highway 150 and 455 feet northwest of Koenigstein Road (Appendix A).

2.3 Existing Site Characteristics

Lot Size: 19.83 acres
General Plan Land Use Designation: Open Space
Zoning Designation: OS 20 ac (Open Space 20 acres minimum lot size)

The project site is located on a 19.83-acre property within the Ojai Oil Field in a lightly populated rural area in the hills north of State Highway 150 between the cities of Ojai and Santa Paula. The existing oil and gas facility occupies a single graded pad that encompasses approximately 2 acres. This pad is maintained in an un-vegetated state. Access to the pad is provided by a driveway connected to Koenigstein Road. Koenigstein Road has been used since 1995 to travel to the facility from State Highway

150. *[Note: The use of Koenigstein Road by large oil-related trucks is prohibited by the current conditions of approval of CUP 3543.]*

The surrounding area is zoned Open Space and includes a number of widely separated dwellings on large lots. Other active oil and gas facilities are located in the surrounding area in other parts of the Ojai Oil Field.

2.4 Summary of Existing Operations

Under CUP 3543 the operator is authorized to produce oil and gas and transport the oil and gas by tanker truck to market. Facilities on the project site include three oil wells, a crude oil tank, a wastewater tank, a gas flare, electrical equipment and several local pipelines. For the past 20 years (1995-2014), the truck traffic associated with this facility has averaged less than 1 trip per day.

2.5 Project Characteristics

The applicant requests that a modification of CUP No. 3543 be granted to authorize the continued operation and maintenance of the existing oil and gas exploration and production operation (Agnew lease area) for an additional 25-year period. The requested permit modification would also authorize the following project changes:

a. The drilling of three new wells on the existing Agnew lease well pad. One new well is proposed to be drilled within five years of the effective date of the requested CUP modification approval. The other two wells are proposed to be drilled within 10 years of the effective date of the requested CUP modification approval. Drilling operations for each well would occur on a 24-hour, 7-day per week basis for up to several weeks.

b. The re-drilling of one existing well located on the existing Agnew lease well pad. Drilling operations for this well would occur on a 24-hour, 7-day per week basis for up to several weeks.

c. A change in the authorized access to the existing oil and gas facility during drilling and production operations. The current CUP authorizes access to the facility during drilling and production operations from a private road connected to Highway 150 at a point southwest of the site. This private roadway was destroyed by flooding in 1995. Since that time, Koenigstein Road has been used to service this oil production facility as there is no other access. Thus, the requested permit would authorize the use of Koengistein Road for access to and from Highway 150 during drilling and production operations. A private driveway connected to Koenigstein Road would provide direct access to the drilling site.

Production operations will include trucking of produced oil and wastewater (brine) from the site to offsite oil refining and wastewater disposal facilities. The current CUP authorizes up to 12 tanker truck loads (24 one-way trips) of produced fluid to be exported from the site per week. It is proposed that this number be reduced to a maximum of 8 tanker truck loads (16 one-way trips) per week. All tanker truck operations would occur during daylight hours Monday through Saturday, between 7:30 am and 6:30 pm. For purposes of the requested CUP modification, the term "tanker truck" refers to any vehicle that is hauling produced fluids (including oil, drilling fluids and brine) to or from the site. During temporary drilling operations, it is anticipated that a few truck trips would occur per day to deliver drilling fluids (mainly water) to the site. The arrival and departure of temporary drilling rig personnel would involve up to 40 vehicle trips per day. A truck-mounted drilling rig would be moved onto the site and remain for a few weeks for each new well.

Although the current CUP does not limit the number of vehicle trips associated with maintenance and operation of production facilities, the applicant proposes to limit such traffic to 14 maintenance visits to the project site per week (i.e. 28 one-way trips). A standard pickup truck would be utilized to assist with the maintenance of the equipment associated with the oil and gas operation.

The proposed project does not include any removal of vegetation or substantial new grading. No new lighting is proposed. All proposed wells will be drilled on the existing Agnew lease pad.

The existing equipment on the project site includes the following:

- Three wells (Agnew 1, Agnew 2 and Agnew 3);
- One, 16-foot water high tank;
- Two, 7,000 gallon waste water tanks;
- Two, 13,000 gallon storage tanks (one waste tank & one oil tank);
- One barrel tank (out of service), and;
- Three vertical tanks ranging from 10-feet in height to 18-feet in height.

Hydraulic fracturing, acid well stimulation and other "well stimulation treatments", as defined in Public Resources Code Section 3157, are not included in the proposed project. The use of any such well stimulation treatment as part of the project would require a subsequent discretionary modification of the CUP, additional environmental review under CEQA, and a public hearing.

2.6 Project Objectives

The project objective is to increase the production of oil and gas at the existing facility that can be sold for the purpose of manufacturing petroleum products.

2.7 Required Approvals

Achieving the project objectives requires the granting of a modified CUP by the County of Ventura. Should a CUP be granted, ministerial permits would be required to be obtained from the Ventura County Air Pollution Control District and the California Division of Oil and Gas and Geothermal Resources.

3.0 ENVIRONMENTAL SETTING

3.1 CEQA Baseline Conditions:

The proposed project is located in the hills north and east of the Upper Ojai Valley in the unincorporated area of Ventura County. This area is characterized by low-density residential development and some agricultural uses (e.g. orchards). The area is also characterized by the existing oil and gas operations that constitute the Ojai Oil Field. Oil exploration and production in this area has been ongoing since 1869 and includes the drilling of several hundred wells. The well credited as the first commercial oil producer in the State of California, Ojai #6, is located about 1 mile from the project site.

For purposes of this SEIR, the baseline condition includes the existing graded pad where all existing facilities are located and all proposed facilities would be installed. The proposed project does not involve the creation of any new disturbed areas.

Also included in the baseline condition from which impacts are evaluated is the current limitation on fluid hauling operations and the maximum actual weekly truck traffic that occurred in reliance on CUP 3543. Under CUP 3543, the operator is limited to 12 truckloads per week (i.e. 24 one-way truck trips per week) to haul produced fluids (oil and wastewater) from the site. However, this trucking limitation is not applicable to the use of Koenigstein Road as such use is currently prohibited under CUP 3543. For the segment of Koenigstein Road proposed to be used, the baseline condition is zero truck trips per week.

Production records available from the California Division of Oil and Gas and Geothermal Resources (DOGGR) for the three wells installed and operated on the Agnew Lease have been compiled into the spreadsheet provided as Appendix I of the SEIR. As indicated in the spreadsheet, the historic number of truck trips have been calculated from this production record in order to establish another component of the CEQA baseline setting. The baseline setting for truck traffic reflects the maximum weekly fluid production established in 1989. As indicated in Table 3.5 below, the maximum historic truck traffic ranges from 6.6 to 11.8 one-way truck trips per week, depending on the fluid capacity of the hauling truck.

Table 3.5 Maximum historic weekly truck traffic

Haul truck capacity (bbls)	1989 Maximum weekly one-way truck trips
100	11.8
150	7.9
180	6.6

Thus, the CEQA baseline for traffic volume on State Highway 150 includes a weekly average of 6.6 to 11.8 one-way truck trips per week with a maximum of 24 one-way truck trips in any one week.

Finally, the baseline condition includes the operation of the existing oil wells and associated facilities. These facilities include tanks, a flare, lighting fixtures, three oil well pumping units, local pipelines, electric power connections and other equipment. The environmental effects of the continued use of these facilities are part of the existing setting and not impacts of the current proposal under review in this SEIR.

3.2 Methodology for Evaluating Cumulative Impacts:

Pursuant to the CEQA Guidelines [§ 15064(h)(1)], this SEIR evaluates the cumulative impacts of the project, by considering the incremental effects of the proposed project in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. More specifically, the projects noted in Table 4 below were included in the evaluation of the cumulative impacts of the project, due to their proximity to the proposed project site and some potential to contribute to environmental effects of the proposed project (refer to maps in Appendix A):

Table 4: Related projects

Case No.	Project	Location
PL13-0148	Fire Station #20: Proposal to construct a new VCFPD station to replace the existing station.	On State Highway 150, approximately one mile west of Koenigstein Road.
LU11-0041	Mirada Petroleum: Oil and Gas project approved in 2012. Involves the drilling of nine new wells.	On a private road about one mile east of the project site.
PL13-0150	Vintage Petroleum: Proposal to extend the effective period of a CUP and drill 19 new oil wells on existing drilling pads.	North of State Highway 150 about 2 miles east of the project site.

Section 15130(b)(3) of the CEQA Guidelines requires the Lead Agency to define the geographic scope of the area affected by the cumulative effect and provide an explanation for geographic limitation used. The major proposed change in the existing oil and gas facility involves the use of Koenigstein Road by large trucks for access to and from the operational area (well pad). Truck traffic would increase by a maximum of 16 one-way trips per week or 2.3 one-way trips per day (from the current zero) on the lower segment of Koenigstein Road. Truck traffic on State Highway 150 would potentially increase from 6.6 one-way trips per week to 16 trips per week (i.e. by up to 1.3 one-way trips per day) with project implementation. ~~Other than the increase in truck traffic on the lower segment of Koenigstein Road, the project would result in a reduction in permitted oil-related truck traffic.~~ Thus, cumulative traffic issues will be addressed through the analysis of historic and proposed truck traffic for all oil and gas facilities accessed from Koenigstein Road. None of the projects listed in Table 4 would contribute to traffic on Koenigstein Road. These projects, however, could incrementally contribute to air quality emissions and are located within 2 miles of the proposed project. Thus, the projects listed in Table 4 will be addressed in the evaluation of cumulative air quality impacts.

4.0 ENVIRONMENTAL IMPACT ANALYSIS

This SEIR evaluates the potential environmental effects of the proposed changes in the existing Mirada Petroleum oil and gas facility currently authorized by CUP 3543. Additional information has become available since the original project was analyzed in the 1983 FEIR. This information has allowed certain environmental issues to be re-evaluated as part of the review of the current proposal.

Impacts are classified in this SEIR as follows:

- Class I: Significant and Unavoidable
- Class II: Potentially significant but subject to effective mitigation
- Class III: Adverse, but less than significant
- Class IV: Beneficial

4.1 Air Quality

The 1983 FEIR addresses air quality impacts of oil and gas operations and identifies mitigation measures to address project-specific and cumulative pollutant emissions. Similar to the current proposal, the project evaluated in the 1983 FEIR included 6 oil wells and associated facilities. The current project involves the installation of three new oil wells and the re-drilling on one of the existing three wells on the site. The existing tanks, flare, and other equipment will continue to be used. Thus, the scope of the project has not changed from that evaluated in the FEIR.

The mitigation measures identified in the FEIR involve various actions to limit emissions from oil production equipment. These measures have been superseded by subsequently adopted regulations enforced by the Ventura County Air Pollution Control District (VCAPCD). The inspection and reporting requirements of the VCAPCD permits can be adopted as a component of a CEQA mitigation monitoring and reporting program.

The current Mirada project (Case No. PL13-0158), the other Mirada Petroleum project recently authorized with the granting of CUP LU11-0041, and the proposed Vintage Petroleum Project (Case No. PL13-0150), all involve the installation of new oil wells. Oil and gas facilities such as these operate under ministerial permits issued by the VCAPCD as part of the overall air quality program for the County. The VCAPCD ministerial permits address wells, tanks, flaring equipment and local pipelines. Such permitted facilities are not considered to have the potential to cause a project-specific or cumulative significant impact on air quality according to the 2003 Air Quality Assessment Guidelines (AQAG) adopted by the VCAPCD. The Guidelines state:

> *The Guidelines are not applicable to equipment or operations required to have Ventura County APCD permits (Authority to Construct or Permit to Operate).*

Moreover, the emissions from equipment or operations requiring APCD permits are not counted towards the air quality thresholds. This is for two reasons. First, such equipment or processes are subject to the District's New Source Review permit system, which is designed to produce a net air quality improvement. Second, facilities are required to mitigate emissions from equipment or processes subject to APCD permit by using emission offsets and by installing Best Available Control Technology (BACT) on the process or equipment.

As indicated above, the oil and gas facilities do not have the potential to result in a significant effect on air quality pursuant to the AQAG adopted by the County. The other project in the vicinity under review by the County, the new Fire Station #20, would not result in an increase in air pollutant emissions. This is because the project involves the replacement of the existing Fire Station #20 that is also located in the same general area.

The proposed project includes transportation of produced fluids (crude oil and wastewater) with the use of tanker trucks. It is proposed that tanker truck loads transported from the site be limited to a maximum of 8 per week. This is less than the current limit of 12 loads per week established in CUP 3543.

It is anticipated that oil production and associated trucking will increase from the current (2014) condition with the installation of three new oil wells and the re-drilling of one of the existing wells. The historic production data (and the estimate of associated truck traffic) for the three existing wells is the best evidence available to estimate the future production and truck traffic that would be anticipated to result from the implementation of the proposed project. Thus, the maximum weekly truck trips for the three new wells and one re-drilled well has been estimated to be 1.33 times the maximum traffic load for the original three wells (4 wells/3 wells = 1.33). Table 4.5 below calculates the potential increase in truck traffic above the CEQA baseline for State Highway 150 (described in SEIR Section 3.0) at various haul truck capacities.

Table 4.5: Estimated fluid haul truck traffic

Haul truck capacity (bbls)	1989 Maximum weekly one-way truck trips (SR 150 CEQA Baseline)	Current (2014) truck traffic (one-way trips per week)	Estimated truck traffic for the new and re-drilled wells (one-way trips per week)	Estimated total truck traffic with project implementation (one-way trips per week)	Increase in truck traffic above the CEQA baseline for SR 150
100	11.8	1.7	15.7	17.4	5.6
150	**7.9**	**1.1**	**10.5**	**11.6**	**3.7**
180	6.6	0.9	8.8	9.7	3.1

As indicated in the above table, the increase in traffic above the CEQA baseline for State Highway 150 that would result from the proposed project would be 3.1 to 5.6 one-

way trips per week. This traffic volume is equivalent to between 0.44 and 0.8 one-way truck trips per day. The transport of one truckload of produced fluid involves 2 one-way truck trips. Thus, the level of traffic above the CEQA baseline for State Highway 150 represents approximately one truckload of produced fluids being transported from the site every two days. Because all trucks from the facility travel on State Highway 150, the emissions generated by the incremental increase in truck traffic on this roadway constitute the level of impact on air quality. According to the VCAPCD, truck traffic in the range of 0.44 to 0.8 trips per day does not have the potential to generate emissions that would result in a significant impact on air quality.

Although the CRC Vintage project (PL13-0150) involves the installation of 19 new oil wells, it does not involve any trucking of produced fluids. Fluids produced at this facility are conveyed to market by pipeline. The nine new wells included in the Mirada Harth project (LU11-0041) involves a truck traffic volume for fluid transport of less than 4 one-way trips per day. The fluids transported from the new wells would not involve the use of Koenigstein Road. The recent application to modify CUP LU11-0041 involves only the re-activation of existing wells on the Nesbitt Lease (i.e. no new wells) and a request to use Koenigstein Road for access to State Highway 150. The truck traffic associated with the Nesbitt Lease is included in the figures presented in Table 4. The truck traffic associated with this lease is less than 0.5 one-way trips per day. According to the VCAPCD (C. Thomas, pers. comm.), the combined truck trips of these projects (about 4.5 one-way trips per day) do not have the potential to generate emissions that could cause a significant impact on air quality.

The estimated maximum truck traffic volume of 17.4 one-way trips per week with project implementation represents 2.5 one-ways trips per day. This figure is based, however, on a truck volume of 100 barrels. The type of truck that currently serves the facility has a capacity of 150 to 165 barrels. It is anticipated that the same type of truck will continue to serve the facility in the future. Thus, the expected increase in truck traffic on Koenigstein Road will be 11.6 one-way trips per week (1.7 one-way trips per day).

~~Thus, the proposed project involves a reduction in potential diesel exhaust emissions due to fluid transport. No new impact related to vehicle emissions would result from the project.~~

In summary, no new potentially significant impacts or impacts substantially different from what was evaluated in the 1983 FEIR would occur with project implementation. The required mitigation measure[s], as revised to reflect current standards, would continue to apply to operations at the site. Impacts on air quality would be less than significant (Class III).

4.2 Traffic Circulation and Safety

4.2.1 Background:

As discussed in Section 1.2 above, the 1983 FEIR for the oil and gas facility makes the following statements regarding the use of Koenigstein Road during drilling operations:

> *Both Bridge #326 on Koenigstein Road and the road itself are adequate to carry heavy equipment. Since the road is inadequate to accommodate two passing trucks, one truck would be required to pull over to the shoulder. This condition would create an inconvenience; however, it would not be characterized as unsafe due to the small volume of traffic currently occurring on the road.*
>
> *The movement of large vehicles at the intersection of State Route 150 and Koenigstein Road could create unsafe conditions.*

Appendix B of the 1983 FEIR includes the Board Agenda Letter for the November 15, 1977 hearing. In this document, the County Public Works Agency (PWA) describes the intersection of Koenigstein Road and State Highway 150 as having a "seriously deficient intersection configuration." This document also questioned the adequacy of the bridge at this intersection due to "basic minimum road geometrics." Despite these PWA comments, the certified FEIR concludes that Bridge #326 and Koenigstein Road are adequate to carry heavy equipment.

The Planning Commission adopted the following finding in its November 17, 1983 decision:

> *Significant traffic impacts could occur due to movement of large vehicles at the intersection of Highway 150 and Koenigstein Road creating unsafe conditions. This potential impact could be reduced to an insignificant level by imposition of Condition 52 which would require that all trucks over ¾ ton avoid the use of Koenigstein Road by utilizing a private access road through Ojai Oil Company property.*

As part of the 1983 decision to approve the project, the Planning Commission imposed Condition No. 52 on the project. This condition reflects the above environmental findings and generally prohibits the use of Koenigstein Road by heavy trucks associated with the operation of the oil and gas facility. Condition No. 52 reads as follows:

> *52. Truck Access Prohibited*
>
> *That in conjunction with drilling operations, the permittee shall be prohibited from utilizing Koenigstein Road as a primary access road with ¾-ton and over trucks, except for secondary emergency traffic.*

As discussed previously, the term "drilling operations" in the above condition, when read in the context of the findings made by the Planning Commission, refers to all large truck traffic associated with both drilling and production operations.

The current application by Mirada Petroleum includes a request by Mirada Petroleum to modify Condition of Approval No. 52 of Condition Use Permit 3543 to allow the use of Koenigstein Road by large vehicles (e.g. drilling rigs and tanker trucks). Mirada proposes to limit fluid exports to 8 loads per week (i.e. 16 one-way truck trips per week). This is a reduction from the limits in the current CUP of 12 loads per week (24 one-way trips per week). As explained in Section 1.2 above, this change in the project requires the preparation of a Subsequent EIR.

4.2.2 Evaluation of Project-Specific Impacts:

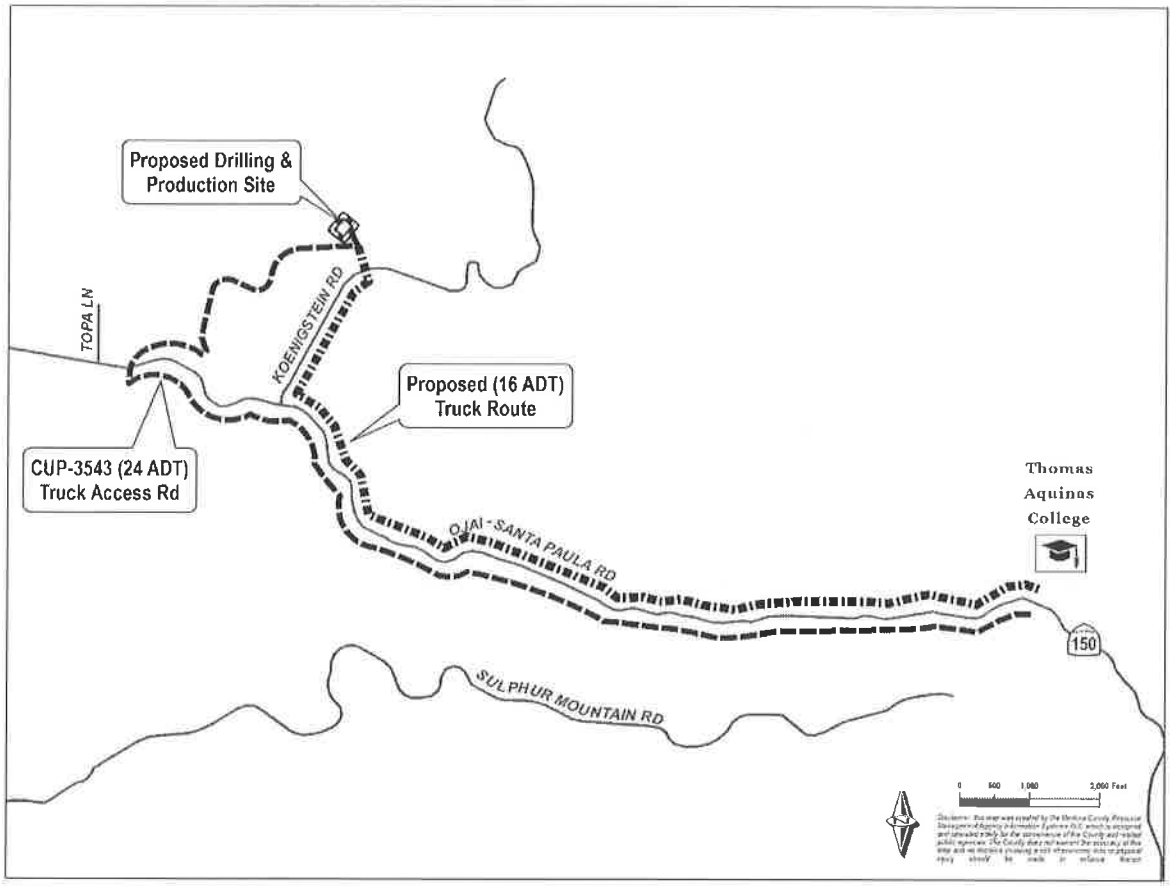
Safety of the Koenigstein Road/State Highway 150 intersection:

The FEIR concludes that the use of Koenigsten Road (a public road) and the intersection of Highway 150 are adequate to carry heavy equipment, such as oil tanker trucks. The Public Works Agency Transportation Department has reviewed the proposed project (Refer to Appendix C) and determined that that the FEIR's assessment of these road conditions, including the structural stability of the road, remains adequate. Koenigstein Road (including the bridge over Sisar Creek) can be safely used for this purpose.

As indicated above, the findings adopted by the Planning Commission in 1983 in certifying the FEIR and granting the CUP conclude that turning movements of large vehicles at the Koenigstein/Highway 150 intersection represent a potentially significant safety hazard. This finding is addressed in the current CUP with a requirement to use an alternate access route and a prohibition on the use of Koenigstein Road for large truck traffic associated with the facility.

In 1995, the permitted access road to the existing oil and gas facility was destroyed by flooding. Since that time, the operator of the oil and gas facility has used Koenigstein Road to access the facility since there is no other route. Such use was in violation of Condition No. 52 of the CUP. The requested modified CUP would authorize the use of Koenigstein Road. The now-destroyed access road permitted under CUP No. 3543 and proposed access road are illustrated on Figure 1 below.

Figure 1 – Previously permitted and proposed access roads



Reconstruction of the now-destroyed access road across Sisar Creek is not feasible. The site of the former crossing is now an active stream channel that supports sensitive wildlife habitat. Construction of a new at-grade crossing or a bridge spanning the creek would result in potentially significant impacts on biological resources. It is unlikely that the required State permits to alter the streambed could be obtained given the availability of a paved public roadway (i.e. Koenigstein Road) that can serve the same purpose. In any case, the use of Koenigstein Road would not result in a significant environmental impact. Thus, the use of Koenigstein Road does not warrant a detailed analysis of a project alternative involving the re-establishment of a replacement creek crossing.

The potential for safety hazards at the Koenigstein Road/Highway 150 intersection has been assessed based on the 20 years (1995-2014) of actual use of Koenigstein Road by tanker trucks and the accident record during that period.

In order to estimate cumulative tanker truck traffic on Koenigstein Road, the volume of produced fluids (oil and wastewater) exported from all of the oil wells that are accessed by Koenigstein Road was determined through a compilation of data from records maintained

by the California Division of Oil and Gas and Geothermal Resources (DOGGR). This data and a list of the wells is attached to this SEIR as Appendix D.

Accident data for the Koenigstein Road/State Highway 150 intersection was obtained from CALTRANS for the 12-year period from 2002 to 2013. During this period, only two accidents occurred at the subject intersection and neither involved trucks.

During the 38-year period of record (1977-2014), 952,002 barrels of produced fluids were exported by truck from the 21 oil wells accessed from Koenigstein Road. The record of fluid production can be used to estimate the number of tanker truck trips based on the capacity of the truck.

The 1983 FEIR cites a 180-barrel capacity for tanker trucks. The truck currently used to service the Mirada Petroleum facilities has a capacity of ~~approximately~~ 150 to 165 barrels of fluid. Other commonly used tanker trucks have a capacity of 100-120 barrels. Thus, the volume of fluid that can be hauled by a single tanker truck used to transport oil to market and wastewater to a disposal site ranges from 100 barrels to 180 barrels. Thus, there were an estimated 5,289 to 9,520 tanker loads of fluid exported from the area from 1977-2014. This equals 10,578 to 19,040 truck trips (i.e. 1 load = 2 truck trips) over the 38-year period. The average daily truck traffic volume during this period was 0.8 to 1.4 trips per day (19,040/13870 days = 1.4 trips/day).

More relevant to the current proposal is the estimated truck traffic volume that has occurred since the alternate access road to State Highway 150 was destroyed by flooding in early 1995. As indicated in Appendix D, a total of 247,141 barrels of produced fluid was exported from the Koenigstein Road area during the 20-year period from 1995-2014. This volume represents 1,373 to 2,471 tanker loads of fluid and between 2,746 and 4,942 truck trips. The average daily truck trips during this period ranged from 0.4 to 0.7 per day.

Truck traffic volume was also calculated for the period of record (2002-2013) of the available accident data for the Koenigstein Road/State Highway 150 intersection (Appendix F) maintained by CALTRANS. During this period, 144,302 barrels of produced fluid was exported from the Koenigstein Road area. This volume represents 802 to 1443 tanker loads of fluid and between 1,603 and 2,886 truck trips. The average daily truck trips during this 12-year period ranged from 0.4 to 0.7 per day.

The traffic volume figures discussed above are summarized in Table 5 below.

Table 5: Estimated truck traffic volume

Time Period	Total Net Fluid Export (bbls)	Number of Truck Loads	Number of one-way Truck Trips	Number of days in time period	Average daily one-way Truck Trips
Truck trips estimated based on haul truck capacity of 180 barrels					
1977-2014	952,002	5,289	10,578	13,870	0.8
1977-1994	704,861	3,916	7,832	6,570	1.2
1995-2014	247,141	1,373	2,746	7,300	0.4
2002-2013	144,302	802	1,603	4,380	0.4
Truck trips estimated based on haul truck capacity of 150 barrels					
1977-2014	952,002	6,347	12,693	13,870	0.9
1977-1994	704,861	4,699	9,398	6,570	1.4
1995-2014	247,141	1,648	3,295	7,300	0.5
2002-2013	144,302	962	1,924	4,380	0.4
Truck trips estimated based on haul truck capacity of 100 barrels					
1977-2014	952002	9,520	19,040	13,870	1.4
1977-1994	704,861	7,049	14,097	6,570	2.1
1995-2014	247,141	2,471	4,943	7,300	0.7
2002-2013	144,302	1,443	2,886	4,380	0.7

Note: Average Daily One-Way trucks trips is calculated as follows: Fluid export (bbls) / tanker truck volume X 2 one-way trips per load / number of days in time period = truck trips per day. Example for 1977-2014 period: 952002 barrels/180 barrels per truck load X 2 trips per truck load /13,870 days=0.8 trips per day.

As indicated by the above records, tanker trucks turned from State Highway 150 onto Koenigstein Road or turned from Koenigstein Road onto State Highway 150 a total of between 2,746 and 4,943 times between 1995 and 2014. The County has no evidence that an accident occurred during this period that involved a truck associated with the oil and gas activities in the area. During the 12-year period (2002-2013) for which CALTRANS records of accidents are available, tanker trucks made a turn at the Koenigstein Road/State Highway 150 intersection between 1,603 and 2,886 times. No reported accidents involving these trucks occurred. Given this record, it can be concluded that there is no substantial evidence that the use of the Koenigstein Road/State Highway 150 intersection by oil-related large trucks represents a significant impact on traffic safety.

The proposed ongoing use of Koenigstein Road, and the intersection of this road with State Highway 150, has been evaluated by the County Public Works Agency Transportation Department. By memorandum dated December 4, 2014 (Appendix C), the Transportation Department finds that the limited use (i.e. 16 one-way trips per week) of this road by large trucks associated with oil and gas operations would not result in a new impact on traffic safety at the Koenigstein/Highway 150 intersection. As discussed above, tanker trucks

made turns at this intersection more than 2,746 times without incident over the 20-year period from 1995-2014.

Note that the use of the southern segment of Koenigstein Road for oil tanker trucks was evaluated in the Mitigated Negative Declaration Addendum that was approved by the Ventura County Planning Commission in 2013 for the previous Mirada Oil and Gas facility application (Case No. LU11-0041), a copy of which is available for inspection at the Ventura County Planning Division. Consistent with the current evaluation, the Addendum states:

> *The intersection of Koenigstein Road and Highway 150 was evaluated and determined to be safe for project traffic by the County Transportation Department.*

Effects on traffic circulation:

It is anticipated that oil production and associated trucking will increase from the current (2014) condition with the installation of three new oil wells and the re-drilling of one of the existing wells. The historic production data (and the estimate of associated truck traffic) for the three existing wells is the best evidence available to estimate the future production and truck traffic that would be anticipated to result from the implementation of the proposed project. Thus, the maximum weekly truck trips for the three new wells and one re-drilled well has been estimated to be 1.33 times the maximum traffic load for the original three wells (4 wells/3 wells = 1.33). Table 5.5 below calculates the potential increase in truck traffic above the CEQA baseline for State Highway 150 (described in SEIR Section 3.0) at various haul truck capacities.

Table 5.5: Estimated fluid haul truck traffic

Haul truck capacity (bbls)	1989 Maximum weekly one-way truck trips (SR 150 CEQA Baseline)	Current (2014) truck traffic (one-way trips per week)	Estimated truck traffic for the new and re-drilled wells (one-way trips per week)	Estimated total truck traffic with project implementation (one-way trips per week)	Increase in truck traffic above the CEQA baseline for SR 150
100	11.8	1.7	15.7	17.4	5.6
150	**7.9**	**1.1**	**10.5**	**11.6**	**3.7**
180	6.6	0.9	8.8	9.7	3.1

As indicated in the above table, the increase in traffic above the CEQA baseline for State Highway 150 that would result from the proposed project would be 3.1 to 5.6 one-way trips per week. This traffic volume is equivalent to between 0.44 and 0.8 one-way truck trips per day. The transport of one truckload of produced fluid involves 2 one-way truck trips. Thus, the projected incremental increase in truck traffic above the CEQA baseline for State Highway 150 represents approximately one truckload of produced fluids being transported from the site every two days.

The estimated maximum truck traffic volume of 17.4 one-way trips per week with project implementation represents 2.5 one-ways trips per day. This figure is based, however, on a truck volume of 100 barrels. The type of truck that currently serves the facility has a capacity of 150 to 165 barrels. It is anticipated that the same type of truck will continue to serve the facility in the future. Thus, the expected maximum increase in truck traffic on Koenigstein Road will be 11.6 one-way trips per week (1.7 one-way trips per day). The requested permit would limit truck traffic to no more than 16 one-way trips per week (2.3 one-way trips per day). In either case, the increase in truck traffic on Koenigstein Road will reflect the transport of approximately one truckload of produced fluid per day.

The proposed maximum project-related ~~incremental increase in~~ traffic volume on Koenigstein Road ~~of the proposed maximum~~ of 2.3 one-way truck trips per day (16 one-way trips/seven days = 2.3 trips per day) would not cause a substantial adverse effect on the operation of this lightly-travelled public roadway. Koenigstein Road reaches a dead end approximately two miles north of State Highway 150. This road serves as the access to approximately 25 homes. The use of these homes would involve about 250 average daily trips (ADT). According to the County Transportation Department, this 2-lane road is a Class III roadway. The acceptable level of service for such a roadway as specified in the adopted County Initial Study Assessment Guidelines is Level of Service (LOS) C at a traffic volume less than 3,300 ADT. The cumulative traffic volume on Koenigstein Road from residential use, produced fluid trucking from all oil operations (see Appendix D), and the proposed incremental increase of 2.3 ADT that would result from the proposed project would be less than 400 ADT. This traffic volume represents LOS B conditions and one eighth of the acceptable LOS C traffic volume. If it were assumed that 50 homes were accessed by Koenigstein Road, the existing plus project traffic volume would be 650 ADT. This traffic level would be only one-fourth of the acceptable LOS C traffic volume. Thus, no potentially significant project-specific or cumulative traffic circulation impact has been identified related to the proposed project.

The proposed project includes a limitation of 14 maintenance vehicle (standard pick-up truck) visits to the site per week. This equals 4 one-way vehicle trips per day but does not represent a new impact as the current permit does not limit maintenance vehicle traffic.

As illustrated in Figure 1, all of the oil-related truck traffic authorized by CUP 3543 traveled on State Highway 150 after leaving the Koenigstein Road area. The proposed project includes a reduction in the maximum authorized level of truck traffic that would utilize State Highway 150. As stated above, truck traffic on State Highway 150 is estimated to increase by 0.44 to 0.8 one-way truck trips per day above the CEQA baseline setting.

Thus, no new potentially significant impact on traffic circulation on State Highway 150 would result from the proposed project.

4.2.3 Evaluation of Cumulative Impacts:

The cumulative traffic impacts of the proposed changes to the Mirada Petroleum facility are discussed in Section 4.2.2 above. In short, all of the oil-related truck traffic that involves Koenigstein Road is accounted for in the above analysis. The proposed project would not result in any new substantial effects on traffic circulation on any other roadway. Thus, no potentially significant project-specific impact or considerable contribution to a cumulative impact on traffic safety or circulation has been identified.

Although the CRC Vintage project (PL13-0150) involves the installation of 19 new oil wells, it does not involve any trucking of produced fluids. Fluids produced at this facility are conveyed by pipeline. The nine new wells included in the Mirada Harth Lease project (CUP LU11-0041) involves a maximum truck traffic volume for fluid transport of 4 one-way trips per day. These few trips would constitute a negligible addition to the existing traffic volume on State Highway 150 of 2,900 ADT. The fluids transported from the nine new wells would not involve the use of Koenigstein Road. The recent application to modify CUP LU11-0041 involves only the re-activation of existing wells on the Nesbitt Lease (i.e. no new wells) and a request to use Koenigstein Road for access to State Highway 150. The truck traffic associated with the Nesbitt Lease is included in the figures presented in Table 4. The truck traffic associated with this lease is less than 0.5 one-way trips per day. In summary, the recent and proposed oil and gas projects in the vicinity of the current proposed project do not have the potential to make a considerable contribution to any cumulative traffic impact.

Discussed below for informational purposes is the cumulative impact analysis included in the 1983 certified FEIR and how the current proposal affects this evaluation.

The 1983 FEIR estimates the total cumulative tanker truck traffic volume (Existing, Proposed and Probable) for all of the oil fields in the Upper Ojai Valley at 42 Average Daily Trips (ADT). This was a conservative (high) estimate as it was based on the assumption that all oil was being transported by truck and that a "high find" scenario was realized by the oil operators. Some produced fluids are conveyed from the area by existing pipelines. For example, the fluids produced from the wells operated by Vintage Petroleum (now California Resources Corporation) located near Thomas Aquinas College are all conveyed by pipeline. No major oil fields have been discovered or developed since the 1983 FEIR was adopted. In the last 32 years, oil production has declined in the existing wells. Thus, existing tanker truck volume on State Route 150 remains less than 42 ADT.

According to data published by CALTRANS, the average traffic volume on State Highway 150 in 2013 was approximately 2900 ADT as measured at the nearest intersection to Koenigstein Road for which traffic volume data is available. Of this amount, all trucks (including oil-related trucks) average 3.81 percent of this traffic or 110 ADT. The FEIR reports that the traffic volume on State Route 150 in the project area was also 2900 ADT in 1983.

The proposed project includes a reduction in the maximum authorized level of truck traffic that would utilize State Highway 150 from 24 one-way trips per week (3.4 trips per day) authorized by the current permit to 16 one-way trips per week (2.3 trips per day). As stated above, truck traffic on State Highway 150 is estimated to increase due to the proposed project by 0.44 to 0.8 one-way truck trips per day above the CEQA baseline setting.

~~The proposed project involves a decrease in overall truck traffic on Highway 150. The proposed project includes a limit of 8 tanker truck loads (16 one-way trips) per day. This is less than the 12 loads (24 one-way trips) per day allowed under the current permit for the existing facility. Thus, the truck traffic on State Route 150 would not increase as a result of the proposed project.~~

The drilling of the proposed three new wells, and the re-drilling of one existing well, would involve temporary increases in truck traffic that would occur over a few months during the 25-year term of the requested permit. This temporary traffic would not cause a substantial effect on traffic safety or circulation.

The proposed project would, however, involve ~~an~~ a maximum increase in project-specific truck traffic on Koenigstein Road from zero (based on the current permit conditions) to 16 one-way truck trips per week. Averaged over a 7-day week, the truck traffic would represent 2.3 ADT. Combined with the estimate of the maximum current truck traffic volume on Koenigstein Road of 0.7 one-way trips per day (see Table 4), the cumulative truck traffic volume would be a maximum of 3.0 one-way trips per day. This level of truck traffic is minimal and does not have the potential to cause a significant impact on traffic circulation or constitute a cumulatively considerable contribution to overall traffic volumes.

As indicated in the 1983 FEIR, cumulative traffic on Koenigstein Road for oil-related and non-oil related uses was projected to be 380 ADT in 1985. The proposed project involves a maximum of 8 tanker truck loads (16 one-way trips) and 14 maintenance visits (28 one-way trips) by personnel in passenger vehicles and pickup trucks per week. This equals an average traffic volume of 2.3 ADT (16 one-way trips per week / seven days = 2.3 ADT) of truck trips and 4 ADT of light vehicles for a six-day per week operation. The addition of 6.3 ADT is minimal and does not have the potential to cause a significant impact on traffic circulation or constitute a cumulatively considerable contribution to overall traffic volumes. As stated above, the acceptable Level of Service for a Class III roadway such as Koenigstein Road is LOS C at a traffic volume of 3,300 ADT. The cumulative traffic volume on this road is less than 400 ADT. If it were assumed that 50 residences (rather than 25) were accessed by Koenigstein Road, the cumulative traffic volume on this road would be about 650 ADT. Thus, there is no cumulatively considerable impact on traffic circulation as the traffic volume will not reduce the level of service to an unacceptable level.

Note that the current CUP authorizes well maintenance activities but does not specifically limit the number of vehicle trips associated with such maintenance activities. The applicant has proposed to set a limit of 14 maintenance visits per week.

Since the 1983 FEIR was certified, Thomas Aquinas College has been substantially expanded. This facility is located about 2 miles east of the project site and contributes traffic to State Highway 150. However, according to the 1983 FEIR and the CALTRANS data for 2013, the traffic volume has remained at about 2,900 ADT for the past 30 years at the intersection nearest to Koenigstein Road where records are available. This intersection is located to the west of Koenigstein Road. The 2014 traffic volume on State Highway 150 east of St. Thomas Aquinas College is about 3,650 ADT according to CALTRANS data. This difference in traffic volume likely reflects travel to and from the college located east of Koenigstein Road. The proposed project involves a 0.44 to 0.8 one-way trip per day increase ~~a decrease~~ in truck traffic on State Highway 150 above the CEQA baseline condition and the establishment of a limit on other vehicle trips to the project site. Thus, the project would not make a considerable contribution ~~contribute~~ to any cumulative traffic effect that involves college-related vehicles travelling on State Highway 150.

Based on the foregoing, the proposed changes in the project that would be authorized by the requested modified permit, including the applicant's proposed limited use of Koenigstein Road by large trucks (including tanker trucks) to access the oil production facility, would not make a considerable contribution to a cumulatively significant traffic circulation or road safety impact.

4.2.4 Summary of Traffic Evaluation:

The limited use of Koenigstein Road as the access point to and from State Route 150 for oil and gas production operations would not involve any significant impact on circulation or public safety. This conclusion is based on the following factors and substantial evidence:

- Koenigstein Road has been used by tanker trucks servicing the existing oil and gas facility (and other oil facilities accessed from this road) for the past 20 years without any known accident or safety incident. According to records maintained by CALTRANS, there have been only two vehicular accidents within 200 feet of the Koenigstein/Highway 150 intersection in the 2002 to 2013 period. Neither of these accidents involved a truck.

- All of the tanker trucks will continue to utilize State Route 150 to reach the Santa Paula area where oil processing and oilfield waste disposal services are available. This situation is unchanged from the time before the original access to State Route 150 was destroyed in 1995.

- The proposed project involves a reduction in the maximum volume of authorized truck traffic on Highway 150. The current permit allows 12 tanker truck arrivals (24 one-way trips) at the production site per week. The requested modified permit would reduce this maximum volume to 8 tanker truck arrivals (16 one-way trips) per week. It is estimated that the incremental increase in truck traffic on State Highway 150 above the CEQA baseline setting will be 0.44 to 0.8 one-way trips per day. This level of traffic volume

increase is negligible and will not affect traffic flow on this highway. ~~Thus, any effects on traffic flow on State Route 150 would be reduced under the requested permit modification.~~

- Staff of the County Transportation Department has reviewed the turning movements at the Koenigstein Road/State Route 150 intersection of the actual truck used to service the facility. Based on this review, the Transportation Department finds that the turning movements would not create a substantial safety hazard at the proposed level of use or alter the current level of safety at this intersection. The Transportation Department has also determined that site distance along this segment of State Route 150 is adequate.

- The maximum volume of truck traffic on Koenigstein Road associated with the proposed project (an average of 1.1 tanker loads and 2.3 one-way trips per day) that would utilize the Koenigstein Road/State Highway 150 ~~subject~~ intersection is very low and does not have the potential to create a substantial traffic hazard. Similarly, the addition of a maximum of 2.3 one-way truck trips per day to the very low ambient traffic volume on Koenigstein Road does not have the potential to substantially affect circulation or safety. This rural road reaches a dead end approximately 3 miles north of State Route 150 and serves as access to only about 25 residences.

- Vehicle traffic associated with well drilling would be temporary and last only a matter of a few months over the 25-year effective period of the requested modified permit. Such temporary use does not have the potential to result is a substantial effect on traffic safety or circulation.

Based on the foregoing, the proposed changes in the Mirada Petroleum facility, including applicant's proposed limited use of Koenigstein Road by large trucks (including tanker trucks) to access its facility to and from Highway 150, would not have a significant impact on traffic circulation or road safety. This current SEIR conclusion replaces the finding included in the 1983 FEIR that the use of Koenigstein Road by large oil-related trucks constitutes a potentially significant impact. Impacts of the current proposal on traffic circulation and safety will be less than significant (Class III).

The Ventura County Public Works Agency Transportation Department has reviewed the above Traffic Circulation and Safety section of this Subsequent Environmental Impact Report and concurs with the analysis and conclusions presented therein (Memorandum dated 4-21-15; Appendix C).

4.3 Biological Resources

4.3.1 Background:

The 1983 FEIR evaluated the potential biological impacts of the proposed oil and gas facility as authorized by the CUP. The current proposed project involves the continued use of the existing well pad that was the subject of the 1983 evaluation. This evaluation included identification of floral and faunal species found on the project site and vicinity. The FEIR concludes that "no rare or threatened plant or animal species were observed on the project site." The County-adopted Threshold of Significance for biological resources includes the following criteria:

> *A project will have a direct or indirect physical impact to a plant or animal species if a project, directly or indirectly:*
>
> *(a) Reduces a species population*
> *(b) Reduces a species habitat*
> *(c) Increases habitat fragmentation*
> *(d) Restricts reproductive capacity*
>
> *The determination of whether a project's impact is significant or not shall be based on both the current conservation status of the species affected and the severity or intensity of impact caused by the project.*

As stated above, the current proposal involves the continued use of the existing well pad on the Agnew lease. No new grading or substantial changes in site drainage characteristics are proposed. Thus, no new native habitat will be disturbed as part of the proposed project. In addition, no new lighting is proposed as part of this project. Furthermore, no new information has become available that indicates the proposed project will have a newly-identified significant effect on biological resources. In particular, effects on the California Condor were considered in the 1983 EIR which states:

> *The site is within the flying range of the California Condor but is not a likely nesting or food source area.*

Thus, a potentially significant impact on the Condor is not identified in the 1983 FEIR.

One potentially significant issue identified in the FEIR is the potential for wildlife to be harmed by open sumps used to circulate drilling fluids. A mitigation measure was included in the conditions of approval of the CUP to require that these sumps be fenced. This is not an issue with the current proposal as earthen sumps are no longer used for drilling fluids. Such fluids will be contained within a temporary tanks

brought to the drill site. The current use of closed tanks for drilling fluids reduces potential impacts. The "sump fencing" condition of approval will be deleted from the requested modified permit as it is no longer applicable.

4.3.2 Evaluation of project-specific impacts:

The proposed project involves the use of an existing disturbed well pad area and existing facilities (including tanks, lighting fixtures, a flare and other equipment). The addition of three new oil wells (i.e. three new electrically-powered pumping units) would not change the use or footprint of the facility and would not substantially increase operational noise. The installation of three small (each approximately 300 square feet in area) concrete pads to support three new pumping units would not measurably affect runoff from an existing 89,000 square foot (2.0 acre) developed pad. The pad itself is not proposed to be graded or otherwise altered. For these reasons, the minor changes in the existing facility would not have any substantial effect on surrounding or nearby habitat areas. Thus, no potentially significant effects on biological resources are anticipated. Impacts of the current proposal on biological resources will be less than significant (Class III).

Since the 1983 FEIR was certified, concerns about possible effects of oil and gas operations on the California Condor have been raised in public testimony on other proposed projects. To date, no substantial evidence has been identified that a Condor has ever been injured or killed as a result of oil and gas operations. Thus, impacts on the California Condor are not considered potentially significant. In any case, measures have been developed to minimize any potential adverse effect on the California Condor and other nesting birds. These Best Management Practices (BMP's) are listed below and will be incorporated into the recommended conditions of approval of the proposed project:

California Condor Protection BMPs:

Purpose: To minimize any potential adverse effects during construction and operation and ensure compatibility with conservation efforts outlined in the *Recovery Plan for California Condor* (April 19, 1996) and direction provided by United States Fish and Wildlife Service (USFWS) for oil and gas facilities within the range of the California Condor in Ventura County (USFWS, 2013).

Requirement: During construction and operation, the Permittee shall adhere to the following USFWS recommended California condor Best Management Practices (BMPs):

Landing Deterrents

a. All power lines, poles, and guy wires shall be retrofitted with raptor guards, flight diverters, and other anti-perching or anti-collision devices to minimize the potential for collision or electrocution of condors. Landing deterrents (e.g. Daddi Long Legs or porcupine wire) shall be attached to the walking beams on pumping units.

b. All surface structures which are identified by the USFWS or County-approved qualified biologists as a risk to California condors, shall be modified (e.g. to include installation of raptor guards, anti-perching devices, landing deterrents) or relocated to reduce or eliminate the risk.

Microtrash

c. All construction debris, food items, and other trash including micro-trash (e.g. small items as screws, nuts, washers, nails, coins, rags, small electrical components, small pieces of plastic, glass, or wire, and anything that is colorful or shiny) will be covered or otherwise removed from a project site at the end of each day or prior to periods when workers are not present at the site.

d. All hoses or cords that must be placed on the ground due to drilling operations that are outside of the primary work area (immediate vicinity of the drilling rig) will be covered to prevent California condor access. Covering will take the form of burying or covering with heavy mats, planks, or grating that will preclude access by California condors.

e. All equipment and work-related materials (including, but not limited to, loose wires, open containers, rags, hoses, or other supplies or materials) shall be contained in closed containers either in the work area or placed inside vehicles.

f. Poly chemical lines shall be replaced with stainless steel lines to preclude condors from obtaining and ingesting pieces of poly line.

g. Prior to issuance of a Zoning Clearance for land clearing activities or construction , informational signs describing the threat that micro-trash poses to condors, and the cleanup or avoidance measures being implemented, shall be posted at the site.

h. Prior to conducting work on-site, employees and contractors shall be made aware of the California condor, and how to avoid impacts on them. Special emphasis shall be placed on keeping the well pad site free of micro-trash and other hazards.

i. Wells pads shall be inspected closely for micro-trash on a daily basis.

Chemicals

j. Ethylene glycol based anti-freeze or other ethylene glycol based liquid substances shall be avoided, and propylene glycol based antifreeze will be encouraged. Equipment or vehicles that use ethylene glycol based anti-freeze or other ethylene glycol based liquid substances shall be inspected daily for leaks, including (but not limited to) areas below vehicles for leaks and puddles. Standing fluid (e.g. a puddle of anti-freeze) will be remediated (e.g. cleaned up, absorbed, or covered) immediately upon discovery. Leaks shall be repaired immediately. The changing of antifreeze of any type shall be prohibited onsite.

k. Open drilling mud, water, oil, or other liquid storage or retention structures shall be prohibited. All such structures must have netting or other covering that precludes entry or other use by condors or other listed avian species.

l. The design and location of any flaring equipment shall subject to review and approval by the Planning Director in consultation with the US Fish and Wildlife Service.

The Permittee shall implement the BMPs listed above throughout the entire life of the project, unless waived by USFWS or a County-approved qualified biologist in consultation with USFWS, California Department of Fish and Wildlife (CDFW), and the Planning Division. A County-approved qualified biologist shall confirm and photo-document the installation of the BMPs.

Documentation: The application shall prepare photo documentation of the complete installation of the signage and above BMPs.

Timing: Prior to the issuance of a Zoning Clearance for construction (i.e. grading or land clearing activities), the Permittee must take the following actions:

- Install signage.
- Submit photo-documentation of the installation of the signage to the Planning Division.

Prior issuance of a Zoning Clearance for construction (i.e. the Zoning Clearance for the drilling of first well), the Permittee must provide the Planning Division with photo documentation of the implementation of the above requirements.

Monitoring and Reporting: Planning Division staff will review the submitted reports. The Planning Division has the authority to conduct site inspections to ensure ongoing compliance with this condition consistent with the requirements of *§ 8114-3 of the Ventura County Non-Coastal Zoning Ordinance.*

Additional California Condor Protection BMPs:

Purpose: To minimize potential adverse effects during construction and operation and ensure compatibility with conservation efforts outlined in the *Recovery Plan for California Condor* (April 19, 1996) and direction provided by United States Fish and Wildlife Service (USFWS) for oil and gas facilities within the range of the California Condor in Ventura County (USFWS, 2013).

Requirement: During construction and operation, the Permittee shall adhere to the following additional USFWS recommended California condor Best Management Practices (BMPs):

a. All food items and associated refuse shall be placed in covered containers that preclude access or use by California condors.

b. All equipment and work-related materials (including loose wires, open containers, rags, hoses, or other supplies) will be placed in closed containers or inside vehicles.

c. No dogs or other potentially predatory domesticated animals shall be allowed on the drill site unless on a leash or otherwise contained at all times.

d. All construction equipment, staging areas, materials, and personnel shall remain within the perimeter of the disturbed area authorized under the applicable permit.

e. The discharge of firearms at the project site or vicinity by any employee or contractor of the Permittee shall be prohibited.

f. Feeding of wildlife by any employee or contractor of the Permittee shall be prohibited.

g. Access to the project site shall be made available to the representatives of the State and Federal wildlife agencies (California Department of Fish and Wildlife, U.S. Fish and Wildlife Service) upon reasonable notice to the Permittee and compliance with all required drill site safety measures. Access to the site shall be provided within 24 hours of the receipt of the notice.

The Permittee shall implement the BMPs listed above throughout the entire life of the project, unless waived by USFWS or a County-approved qualified biologist in consultation with USFWS, California Department of Fish and Wildlife (CDFW), and the Planning Division. A County-approved qualified biologist shall confirm and photo-document the installation of the BMPs. The Permittee shall place signage on the project site to inform personnel and visitors of the above requirements.

Documentation: The application shall prepare photo documentation of the complete installation of the signage and implementation of the above BMPs.

Timing: Prior to the issuance of a Zoning Clearance for construction (i.e. grading or land clearing activities), the Permittee must take the following actions:

- Install signage.

- Submit photo-documentation of the installation of the signage to the Planning Division.

Prior issuance of a Zoning Clearance for Use Inauguration (i.e. the Zoning Clearance for the drilling of first well), the Permittee must provide the Planning Division with photo documentation of the implementation of the above requirements.

Monitoring and Reporting: Planning Division staff will review the submitted reports. The Planning Division has the authority to conduct site inspections to ensure ongoing compliance with this condition consistent with the requirements of *§ 8114-3 of the Ventura County Non-Coastal Zoning Ordinance.*

Pre-Construction Biological Surveys, Relocation and Monitoring

Purpose: To avoid impacts on special-status wildlife during land clearing activities associated with preparation of the site for access and oil exploration.

Requirement: The Permittee shall retain the services of a County-approved qualified biologist that holds a California Department of Fish and Wildlife (CDFW) Scientific Collecting Permit. This biologist shall:

- Conduct surveys for special-status wildlife, including but not limited to the coastal western whiptail, coast horned lizard, coast patch-nosed snake, and western pond turtle.

- Monitor the site for a four-hour minimum duration on day one of land clearing activities.

- Return to the site at least once weekly for four-hour duration to monitor throughout land clearing activities. Individuals of species-status wildlife species that are found shall be relocated to suitable undisturbed habitat according to methods approved by the CDFW, outside of the areas directly and indirectly (e.g. noise) affected by land clearing activities. If the County-approved biologist determines that silt fencing is necessary to prevent special-status wildlife from returning to the construction area or from falling into trenches, etc. silt fencing shall be installed at the edge of the grading footprint with the oversight of the County-approved biologist.

Documentation: The Permittee shall submit the following documents to the Planning Division for review and approval:

- A copy of a signed contract (financial information redacted) with a County-approved biologist responsible for the surveys, monitoring, and relocation of wildlife. When the monitoring will occur and what disturbance areas will be monitored by the must be clearly stipulated in the contract. *(It is recommended that the Permittee shall submit a draft copy of the proposed contract to the Planning Division for review and comment prior to the contract being executed.)*

- An Initial Survey Report from a County-approved biologist documenting the results of the initial special-status wildlife survey and a plan for continued surveys and relocation of special-status wildlife in accordance with the requirements above.

- Mitigation Monitoring Report documenting the results of the monitoring and actions taken to prevent loss of special-status wildlife and results.

Timing: Prior to issuance of a Zoning Clearance for construction (i.e. grading or other land clearing activities), the Permittee shall have taken the following actions:

- Provide the Planning Division with a copy of a signed contract as specified above.

- Provide the Planning Division with a copy of the Initial Survey Report. The first survey shall be conducted 30 days prior to initiation of construction. *(Surveys must continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of land clearing activities.)*

Within 30 days of the completion of construction, the Permittee shall submit to the Planning Division, a Mitigation Monitoring Report from a County-approved biologist documenting actions taken to prevent loss of special-status wildlife and results.

Monitoring and Reporting: The Planning Division maintains copies of the signed contract and the Mitigation Monitoring Report provided by the Permittee in the project file. The Planning Division has the authority to inspect the property during the monitoring phase of the project to ensure that the County-approved qualified biologist is on-site as required.

Nesting Bird Surveys and Avoidance

Purpose: In order to prevent impacts on birds protected under the Migratory Bird Treaty Act, land clearing activities shall be regulated.

Requirement: The Permittee shall conduct all demolition, tree removal/trimming, vegetation clearing, and grading activities (collectively, "land clearing activities") in such a way as to avoid nesting native birds. This can be accomplished by implementing one of the following options:

1. Timing of construction: Prohibit land clearing activities during the breeding and nesting season (February 1 – August 31), in which case the following surveys are not required; or

2. Surveys and avoidance of occupied nests: Conduct site-specific surveys prior to land clearing activities during the breeding and nesting season (February 1 – August 31) and avoid occupied bird nests. Surveys shall be conducted to identify any occupied (active) bird nests in the area proposed for disturbance. Occupied nests shall be avoided until juvenile birds have vacated the nest. All surveys shall be conducted by a County-approved biologist.

An initial breeding and nesting bird survey shall be conducted 30 days prior to the initiation of land clearing activities. The project site must continue to be surveyed on a weekly basis with the last survey completed no more than 3 days prior to the initiation of land clearing activities. The nesting bird survey must cover the development footprint and 300 feet from the development footprint. If occupied (active) nests are found, land clearing activities within a setback area surrounding the nest shall be postponed or halted. Land clearing activities may commence in the setback area when the nest is vacated (juveniles have fledged) provided that there is no evidence of a second attempt at nesting, as determined by the County-approved biologist. Land clearing activities can also occur outside of the setback areas. The required setback is 300 feet for most birds and 500 feet for raptors, as recommended by CDFG. This setback can be increased or decreased based on the recommendation of the County-approved biologist and approval from the Planning Division.

Documentation: The Permittee shall provide to the Planning Division a Survey Report from a County-approved biologist documenting the results of the initial nesting bird survey and a plan for continued surveys and avoidance of nests in accordance with the requirements above. Along with the Survey Report, the Permittee shall provide a copy of a signed contract (financial information redacted) with a County-approved biologist responsible for the surveys, monitoring of any occupied nests discovered, and establishment of mandatory setback areas. The Permittee shall submit to the Planning Division a Mitigation Monitoring Report from a County-approved biologist following land clearing activities documenting actions taken to avoid nesting birds and results.

Timing: If land clearing activities will occur between February 1 and August 31, nesting bird surveys shall be conducted 30 days prior to initiation of land clearing activities, and weekly thereafter, and the last survey for nesting birds shall be conducted no more than 3 days prior to initiation of land clearing activities. The Survey Report documenting the results of the first nesting bird survey and the signed contract shall be provided to the Planning Division prior to issuance of a Zoning Clearance for construction. The Mitigation Monitoring Report shall be submitted within 14 days of completion of the land clearing activities.

Monitoring and Reporting: The Planning Division shall review the Survey Report and signed contract for adequacy prior to issuance of a Zoning Clearance for construction. The Planning Division shall maintain copies of the signed contract, Survey Report, and Mitigation Monitoring Report in the project file.

Implementation of the above BMP's, which will be imposed as new project conditions of approval, effects on sensitive wildlife species, such as the California Condor, will be minimized and remain less than significant. No new impacts or impacts different from what was evaluated in the 1983 FEIR would occur with project implementation. The required mitigation measures, as revised to reflect current standards, would continue to apply to operations at the site.

4.3.3 Evaluation of cumulative impacts:

The proposed project does not involve any new disturbance of native habitat as existing roads and drill sites will be utilized. Furthermore, the addition of three new oil wells in an oil field area with dozens of existing wells will not substantially increase any hazard to sensitive bird species, including the California Condor. This conclusion is re-enforced with the imposition of the conditions of approval listed in SEIR Section 4.3.2 above. Thus, the proposed project would not make a cumulatively considerable contribution to a cumulative impact on biological resources.

4.4 Climate Change

The issue of climate change is not evaluated in the 1983 FEIR. The following discussion is provided to disclose the potential impacts of greenhouse gas emissions that would result from implementation of the proposed project. The estimate of project greenhouse gas emissions provided below is based on the analysis of greenhouse gas emissions included in the Mitigated Negative Declaration Addendum for Mirada Petroleum Project (Case No. LU11-0041) adopted by the Planning Commission on May 30, 2013. Staff of the Ventura County Air Pollution Control District (Chuck Thomas, pers. comm., March 2015) has reviewed and found adequate the analysis presented herein.

4.4.1 Project Impact Discussion:

Utilizing the same methodology that was employed to assess the greenhouse gas emissions of the oil and gas wells included in the previous and separate Mirada Petroleum Project (Case No. LU11-0041), the annual Reactive Organic Compound (ROC) emissions for one new oil well is 0.48 tons/year (0.53 metric tons /year). The current proposed project (PL13-0158) involves the installation of up to three new wells and the re-drilling of an existing well. Thus, the project involves an estimated increase of ROC emissions of 2.1 metric tons/year. According to the VCAPCD, a reasonable estimate is that 90 percent of oil field emissions are methane, a greenhouse gas (GHG), and 10 percent are ROC. With these parameters, the estimated GHG emissions from the proposed project would be 18.9 tons/year of methane (2.1 x 9 = 18.9). These methane emissions are equivalent to 397 metric tons/year of CO^2 (18.9 x 21 = 397). If all six existing plus proposed oil wells are considered, the total GHG emissions from the project site will be an estimated 596 metric tons per year of CO^2 (397 x 6/4 = 596). In addition, the VCAPCD has estimated that fluid hauling activities would contribute an estimated 34 metric tons per year of GHG (Chuck Thomas, VCAPCD, pers. commun.). As explained in the following discussion of climate change, this level (up to 630 metric tons per year) of greenhouse gas emissions is below the applicable Threshold of Significance of 10,000 metric tons/year of CO^2 equivalents.

Impacts involving greenhouse gas emissions pertain to changes in global climate. This is a cumulative effect that would not involve project-specific or local impacts. As indicated above, the estimated GHG emissions would be less than the applicable threshold. Thus, the contribution of the project to the impact of global climate change is not cumulatively considerable.

4.4.2 Background Information on Greenhouse Gas Emissions

Gases that trap heat in the atmosphere are known as greenhouse gases (GHGs). GHGs are emitted by natural processes and human activities. Examples of GHGs that are produced both by natural processes and industry include carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). GHGs in the atmosphere regulate the temperature of the earth's atmosphere. Without these natural GHGs, the Earth's surface

would be about 61°F cooler (AEP 2007). However, emissions from fossil fuel combustion by humans have elevated the concentration of GHGs in the atmosphere to above natural levels. Scientific evidence indicates a correlation between increasing global temperatures/climate change over the past century and human induced levels of GHGs. According to the United Nations' Intergovernmental Panel on Climate Change (IPCC) "Fourth Assessment Report, Climate Change 2007," most of the observed increase in global average temperatures since the mid-20th century is *very likely* due to the observed increase in anthropogenic concentrations of these three gases, collectively known as *Greenhouse Gases (GHG)*. The report states, "*Global atmospheric concentrations activities since 1750 far exceed pre-industrial values determined from ice cores spanning many thousands of years. The global increases in carbon dioxide concentration are primarily due to fossil fuel use and land use change, while those of methane and nitrous oxide are primarily due to agriculture*" (IPCC 2007: Summary for Policymakers).

Some observed effects of climate change include shrinking glaciers, thawing permafrost, later freezing and earlier break-up of ice on rivers and lakes, a lengthened growing season, shifts in plant and animal ranges, and earlier flowering of trees (IPCC 2007). Other, longer term environmental impacts of global warming may include sea level rise, changing weather patterns with increases in the severity of storms and droughts, changes to local and regional ecosystems including the potential loss of species, and a significant reduction in winter snow pack. These GHG and other induced environmental changes are predicted to have severe negative environmental, economic, and social consequences around the globe. For example, one study estimates that the Sierra Nevada Mountains as a whole could lose as much as 50 percent of its April snowpack compared to current levels by the end of the 21st century (California Department of Water Resources 2006). Current data suggests that in the next 25 years, in every season of the year, California will experience unprecedented heat, longer and more extreme heat waves, greater intensity and frequency of heat waves, and longer dry periods. More specifically, the California Climate Change Center predicted that California could witness the following events (Fried, et al 2006):

- Temperature rises between 3-10.5°F;
- 6-20 inches or more of sea level rise;
- 2-4 times as many heat wave days in major urban centers;
- 2-6 times as many heat related deaths in major urban centers;
- 1-1.5 times more critically dry years; and
- 10-55 percent increase in the expected risk of wildfires.

GHGs have varying amounts of global warming potential (GWP). The GWP is the ability of a gas or aerosol to trap heat in the atmosphere. By convention, CO2 is assigned a GWP of one. In comparison, CH4 (methane or natural gas) has a GWP of 21, which means that it has a global warming effect 21 times greater than CO2 on an equal-mass basis. To account for their GWP, GHG emissions are often reported as a CO2 equivalent (CO2e). The CO2e for a source is calculated by multiplying each GHG

emission by its GWP, and adding the results together to produce a single, combined emission rate representing all GHGs.

To date, 12 states, including California, have set state GHG emission targets. Executive Order S-3-05 and the passage of AB 32, the California Global Warming Solutions Act of 2006, promulgated the California target to achieve 1990 GHG levels by the year 2020. This emissions reduction approach allows progress to be made in addressing climate change, and is a forerunner to the setting of emission limits. The Federal government and EPA have also begun the process to regulate GHGs as pollutants (see discussion below).

4.4.3 Regulatory Setting

International Initiatives:

Over the past 15 years, various international, national, regional, state, and local initiatives have been adopted to address climate change. The foremost international climate change initiative is the United Nations Framework Convention on Climate Change (UNFCCC), commonly known as the Kyoto Protocol. Signed on March 21, 1994, the Kyoto Protocol calls for governments to gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change. There have been several international summits since Kyoto, most recently Copenhagen (December 2009), which seek to advance and cement climate change goals and programs, but no significant advances in this area have been accomplished since Kyoto.

Federal Initiatives and Regulations:

Although the U.S. has not ratified the Kyoto Protocol, it established a comprehensive policy to address climate change in 2002. The policy has three basic components: slowing the growth of GHG emissions; strengthening the science, technology, and institutions; and enhancing international cooperation. The federal government is implementing this policy through voluntary and incentive-based programs and has established major programs to advance climate technologies and improve climate science.

The U.S. government administers a wide array of public-private partnerships to reduce U.S. GHG intensity. These programs focus on energy efficiency, renewable energy, methane, and other non-carbon dioxide (non- CO2) gases, agricultural practices and implementation of technologies to achieve GHG reductions. The United States Environmental Protection Agency (EPA) has the authority to regulate CO2 or GHG emissions as an air pollutant under the federal Clean Air Act (42 U.S.C. § 7602(g)). The

EPA also implements several voluntary programs that substantially contribute to the reduction of GHG emissions.

Final Mandatory Reporting of GHG Rule:

The EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule on October 30, 2009 (EPA 2009). The rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities with stationary sources that emit 25,000 metric tons or more per year of CO2e emissions to collect emissions activity data and submit annual emissions reports to the EPA beginning with year 2010 operations. The rule does not apply to mobile sources of GHGs. This reporting system will provide a better understanding of GHG emission sources within the U.S. and it will guide the development of policies and programs to reduce GHG emissions. It also will support implementation of the EPA Prevention of Significant Deterioration and Title V GHG Tailoring Rule. This rule has similarities to the California Regulation for the Mandatory Reporting of GHG Emissions, which also specifies a reporting threshold of 25,000 metric tons of CO2e for stationary sources. Reporting of greenhouse gases by major sources in California is required by by AB 32.

Prevention of Significant Deterioration (PSD) and Title V Greenhouse Gas Tailoring Rule:

On May 13, 2010, the EPA finalized the "GHG Tailoring Rule" to address GHG emissions from the largest stationary sources. The rule includes a phased implementation schedule, when Clean Air Act (CAA) permitting requirements for GHGs will begin in January 2011 for large facilities that are already required to obtain PSD and Title V permits for other pollutants. In July 2011, CAA permitting requirements expanded to cover all new facilities with GHG emissions of at least 100,000 TPY CO2e and modifications at existing facilities that would increase these emissions by at least 75,000 TPY. These permits must demonstrate the use of best available control technologies (BACT) to minimize GHG emission increases when facilities are constructed or significantly modified.

California Initiatives and Regulations:

AB 32 - California Global Warming Solutions Act of 2006

The enactment of AB 32, "The California Global Warming Solutions Act of 2006" (Health & Safety Code § 38500 et seq), established a comprehensive program of regulatory and market mechanisms to achieve quantifiable reductions of GHGs within the state. The California Air Resources Board (ARB) is the primary state agency responsible for developing and maintaining a statewide inventory of GHG emissions and for formulating plans and action steps to reduce current GHG emissions statewide to 1990 GHG emission levels by the year 2020. AB 32 defines GHGs as CO2, CH4, N2O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride.

From 2007 to 2009, the ARB promulgated several discrete early action measures to reduce GHG emissions prior to the full and final adoption of a plan to reduce aggregate California GHG emissions. Specifically, these discrete early action measures include (1) Green Ports/Electrification, (2) SmartWays truck efficiency, (3) PFCs in semiconductor manufacturing, (4) landfill gas capture, (5) tire inflation program, and (6) vehicle owner refrigerant (HFC-134e) servicing.

The Act instructed the ARB to establish a mandatory GHG reporting and verification program by January 1, 2008. In April 2008, the ARB finalized a regulation for the mandatory reporting of greenhouse gas emissions from major sources (ARB 2008c). In December 2008, the ARB approved the final Climate Change Proposed Scoping Plan ("Scoping Plan") which outlines the State's strategy for achieving the 2020 GHG emissions limit outlined under the law. The Scoping Plan includes recommendations for reducing GHG emissions from most sectors of the California economy.

On June 30, 2009, California was granted a CAA waiver (42 U.S.C. §7543(a)) from EPA to regulate automotive tailpipe CO2 emissions. The ARB originally approved regulations to reduce GHG emissions from passenger vehicles in September 2004 based upon 2002 legislation, AB 1493 (Pavley). These regulations are expected to reduce passenger vehicle GHG emissions by approximately 22 percent in 2012 and 30 percent in 2016, while improving fuel efficiency and reducing motorists' costs.

In December 2009, the ARB promulgated a low carbon fuel standards (LCFS) in order to reduce the carbon intensity of transportation fuels used in California (i.e., gasoline, compressed natural gas (CNG), ethanol, liquefied natural gas (LNG), hydrogen, diesel, biodiesel, and electricity). It is expected that the LCFS will reduce carbon intensity from the use of such fuels by an average of 10 percent per year. Carbon intensity is a measure of the GHG emissions associated with the combination of all the steps in the "lifecycle" of a transportation fuel.

AB 32 requires the ARB to incorporate the standards and protocols developed by the California Climate Action Registry (CCAR) into the state's future GHG emissions reporting program, to the maximum extent feasible. The current GHG emission calculation methods used by CCAR are contained in *California Climate Action Registry—General Reporting Protocol,* Version 3.1, (CCAR 2009). This protocol categorizes GHG emission sources as either (1) direct (vehicles, on-site combustion, fugitive, and process emissions) or (2) indirect (from off-site electricity, steam, and co-generation).

Regulation for the Mandatory Reporting of Greenhouse Gas Emissions

As part of the AB 32 requirements, the ARB approved a mandatory GHG reporting regulation in December 2007, which became effective January 2009. The regulation requires operators of facilities in California that emit greater than 25,000 metric tons per

year of CO2 from stationary combustion sources in any calendar year after 2007 to report these emissions on an annual basis.

SB 97 – CEQA Guidelines for Greenhouse Gas Emissions

The Legislature also adopted Senate Bill 97 (SB 97) in 2007. Under SB 97, the State Office of Planning and Research (OPR) is required to develop CEQA guidelines *"for the mitigation* of *greenhouse gas emissions or the effects* of *greenhouse gas emissions* as *required by this division."* (Pub. Res. Code § 21083.05(a)).

OPR Technical Advisory - CEQA Review of Greenhouse Gases

On June 19, 2008, OPR issued a Technical Advisory, "CEQA AND CLIMATE CHANGE: Addressing Climate Change through California Environmental Quality Act" *(CEQA) Review),* to guide agencies before the final regulations are issued. This Technical Advisory noted:

Lead agencies should determine whether greenhouse gases may be generated by a *proposed project, and if so, quantify or estimate the GHG emissions by type and source. Second, the lead agency must assess whether those emissions are individually or cumulatively significant. When assessing whether* a *project's effects on climate change are "cumulatively considerable" even though its GHG contribution may be individually limited, the lead agency must consider the impact* of *the project when viewed in connection with the effects* of *past, current, and probable future projects. Finally, if the lead agency determines that the GHG emissions from the project* as *proposed are potentially significant, it must investigate and implement ways to avoid, reduce, or otherwise mitigate the impacts* of *those emissions.*

The Technical Advisory also noted the scientific knowledge and understanding of how best to perform this analysis was still evolving. The OPR Technical Advisory also explained that:

We realize that perhaps the most difficult part of the climate change analysis will be the determination of significance. Although lead agencies typically rely on local or regional definitions of significance for most environmental issues, the global nature of climate change warrants investigation of a statewide threshold of significance for GHG emissions. To this end, OPR has asked ARB technical staff to recommend a method for setting thresholds which will encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. Until such time as state guidance is available on thresholds of significance for GHG emissions, we recommend the following approach to your CEQA analysis. Source: www.opr.ca.gov/download.php?dl=ceqa/pdfs/june08- ceqa.pdf.

California Natural Resources Agency (Resources Agency) Final Statement of Reasons for Regulatory Action; Amendments to State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97 (December 2009)

Following extensive public review and comment on the proposed amendments to the CEQA Guidelines to address environmental impact analysis and mitigation of GHG emissions, the Resources Agency adopted amendments to the CEQA Guidelines (Title 14, Cal. Code of Regs., § 15000 et seq.) to comply with the mandate set forth in Public Resources Code section 21083.05.

4.4.3 Thresholds of Significance

CEQA Guidelines:

Due to the global nature of the effects of GHG emissions, the primary CEQA concern with GHG emissions is the cumulative impact of a project's incremental GHG emissions when viewed in connection to past, current and probable future project GHG emissions.

According to GHG amendments to the CEQA Guidelines, each public agency that is a CEQA lead agency needs to develop its own approach to performing a climate change analysis for projects that generate GHG emissions. A consistent approach should be applied for the analysis of all such projects, and the analysis must be based on best available information. For these projects, compliance with CEQA entails three basic steps:

- identify and quantify the GHG emissions;
- assess the significance of the impact on climate change; and
- if the impact is found to be significant, identify alternatives and/or mitigation measures that will reduce the impact below significance.

To date, in California, only a few public agencies have published CEQA thresholds of significance for project specific or cumulative anthropogenic GHG emissions. Moreover, how to address greenhouse gases under CEQA is evolving and fluid because formulating significance thresholds for CEQA purposes is especially problematic for GHG emissions. Unlike other air pollutant emissions that create impacts in local and regional air basins (i.e., air pollution nonattainment areas or toxic air contaminant hotspots), anthropogenic GHG emissions are implicated as a cause for *global climate change* regardless of their emission source or location. In addition, simply estimating GHG emissions from a specific project is not an adequate way to gauge the degree to which those emissions would contribute to global warming or climate change. Substantial additional scientific research and regulatory guidance are needed to determine whether a project's incremental GHG emissions impacts on climate change would be significant, and whether and how cumulative GHG emissions will affect global climate change.

The CEQA Guideline amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents. They do not, however, establish a specific threshold of significance. Public agencies are not required to adopt significance thresholds for any environmental issue area. The amendments do identify a general methodology for assessing the significance of impacts from project GHG emissions. Specifically, CEQA Guideline Section 15064.4 states:

"(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

(1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or
(2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project."

These CEQA Guidelines amendments were adopted and became effective on March 18, 2010.

Air Pollution Control Agency GHG Thresholds:

Since the State CEQA Guidelines amendments were never intended to establish a uniform, widely accepted and adopted standard for determining the CEQA significance of project specific GHG emissions, the ARB and some local air pollution control districts, such as the South Coast Air Quality Management District (SCAQMD), have been working to develop interim thresholds for evaluating GHG emissions. Both the ARB and SCAQMD prepared draft interim thresholds that would employ a tiered approach to determining significance.

In 2008, the ARB proposed an interim screening threshold of 7,000 metric tons (MT) CO2e per year for industrial, non–transportation emissions, as well as a threshold that would evaluate compliance with "performance standards" for transportation and construction activities. The ARB has never adopted their interim thresholds. Also in 2008, the SCAQMD Governing Board adopted an interim GHG significance threshold for stationary air pollution sources, rules, and plans where the SCAQMD is the lead agency for CEQA purposes. The SCAQMD adopted a 5-tier approach for their interim threshold that includes consideration of direct, indirect, and, to the extent that information is available, life cycle emissions during project construction and operation. Construction emissions are amortized over the life of the project, defined as 30 years, and added to the operational emissions, which are then compared to the applicable interim GHG significance threshold tier. Tier 3 is a screening tier with a 10,000 MTCO2eq/yr threshold. It is based on the District's policy objective of capturing 90 percent of GHG emissions from new industrial projects where the SCAQMD is the CEQA lead agency. The SCAQMD has not adopted GHG significance thresholds for projects where other agencies are the lead agency.

Both the Bay Area Air Quality Management District (BAAQMD) and the San Joaquin Valley Air Pollution Control District (SJVAPCD), the next two largest air pollution control districts in California following the SCAQMD, have also developed recommended thresholds of significance for land use projects.

On June 2, 2010, the BAAQMD's Board of Directors unanimously adopted new and updated thresholds of significance to assist in the review of projects under the CEQA. The new thresholds included three set of thresholds for GHGs: one for projects where the BAAQMD is the lead agency and two for land use development projects where other public agencies are the CEQA lead agencies.

The threshold for projects where the BAAQMD is the CEQA lead agency is 10,000 MTCO2e/yr, the same as the SCAQMD's Tier 3 screening threshold. The GHG thresholds for projects where other agencies are the CEQA lead agencies include a project-level (*e.g.*, residential, commercial, industrial, and public land uses and facilities) threshold, and a plan-level (*e.g.*, general plans and specific plans) threshold.

The BAAQMD's project level threshold is compliance with a Qualified Climate Action Plan, or a numeric threshold of 1,100 MT CO2e/yr, or a per capita efficiency metric of 4.6 MT CO2e/SP/yr* (project residents + employees). The threshold for plans is compliance with a qualified climate action (or similar criteria included in a general plan) or a per capita metric of 6.6 MT CO2e/SP/yr (residents + employees).

However, on March 5, 2012 the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted its latest set CEQA thresholds for various air pollutants, including for GHG emissions. The court did not determine whether the thresholds were valid on their merits, but found that the adoption of the thresholds was a project under CEQA. The court thus issued a writ of mandate ordering the BAAQMD to set aside the thresholds and cease dissemination of them until the District had complied with CEQA.

In view of the court's order, the BAAQMD is no longer recommending its new and updated air pollutant thresholds, including its GHG thresholds, as generally applicable measures of a project's significant air quality impacts. Lead agencies within the BAAQMD's boundaries will need to determine their own appropriate air quality thresholds of significance based on substantial evidence in the record. They may, however, continue to use the BAAQMD's 1999 set of thresholds as they find applicable. However, those thresholds are only for criteria air pollutants and do not include thresholds for GHG emissions.

SJVAPCD has chosen a slightly different approach to the CEQA significance threshold for GHG emissions. On December 17, 2009, the District adopted the guidance document: "Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA," and the accompanying policy document: "District Policy – Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency." The guidance and policy rely on the use of performance based standards, otherwise known as Best Performance Standards (BPS), to assess significance of project specific greenhouse gas emissions on global climate change during the environmental review process required by CEQA.

Use of BPS is a method of streamlining the CEQA process of determining significance and is not a required emission reduction measure. Projects implementing BPS would be determined to have a less than cumulatively significant impact. Otherwise, demonstration of a 29 percent reduction in GHG emissions, from business-as-usual, is required to determine that a project would have a less than cumulatively significant impact. The guidance, however, does not limit a lead agency's authority in establishing its own process and guidance for determining significance of project related impacts on global climate change.

On March 28, 2012, the San Luis Obispo Air Pollution Control District adopted CEQA greenhouse gas (GHG) emission thresholds for residential, commercial, and industrial projects. The thresholds were developed based on substantial evidence that adheres to

the requirements of Senate Bill 97 in a consistent and defensible manner, and ensures new development is able to provide its fair share of GHG reductions to meet the State's AB 32 GHG reduction goals.

The San Luis Obispo Air Pollution Control District adopted a menu approach for residential/commercial land use projects as the most effective approach for assessing the GHG emission impacts for development projects in San Luis Obispo County. Any of the following three options may be used to determine the significance of a residential or commercial project's GHG emission impacts: 1) Qualitative GHG Reduction Strategies (e.g., Climate Action Plans); or, 2) Bright-Line Threshold (1,150 MT CO2e/yr); or: 3) Efficiency-Based Threshold (4.9 MT CO2e/service population/yr).

The Santa Barbara County Air Pollution Control District (SBAPCD) is developing GHG significance thresholds for projects where the SBAPCD is the lead agency. Their proposed GHG threshold is 10,000 MTCO2eq/yr, the same as SCAQMD's Tier 3 screening threshold. To date, the SBAPCD has not adopted its proposed GHG threshold.

The Ventura County Air Pollution Control District (VCAPCD) has not yet adopted any one of these approaches to setting a threshold of significance for land use development projects nor has it developed its own method of determining significance in the area of project GHG emissions. CEQA Guidelines §15064.7(c) states: *"When adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."*

The recently adopted revisions to the State CEQA Guidelines, described above, added a new evaluation section for GHG emissions to the CEQA Guidelines initial study checklist (See Appendix G of the CEQA Guidelines). That section poses the following questions:

Would the project:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs?

Given the explicit requirements of these revised CEQA Guidelines, the County of Ventura has determined, with the assistance of VCAPCD, that it will use the following Threshold of Significance to determine the potential environmental impact significance of proposed GHG emissions. This Threshold was selected after an extensive review of (1) federal, state, and regional agency GHG regulatory thresholds and (2) GHG CEQA

thresholds of significance being developed or adopted by local air quality agencies in California. Thus, for purpose of the County's processing of discretionary permit applications, the Threshold of Significance (i.e. the point where a project's contribution to the impact of global warming is cumulatively considerable) is as follows:

> **The project would generate GHG emissions (in CO2e) in excess of 10,000 metric tons per year.**

This threshold is consistent with CEQA significance threshold proposals in the SCAQMD, the VCAPCD, and the SBAPCD. Therefore, while not all local air quality districts have formally proposed or adopted this or any other threshold of significance for GHG emissions, it is considered a reasonably suitable threshold for this environmental impact analysis.

Because the project's anticipated annual emission of GHG emissions (397 metric tons per year for the three new wells and one-re-drilled well; 630 metric tons per year for all six wells at the facility and associated trucking) is far before this threshold of significance, no potentially significant impacts related to greenhouse gas emissions would occur with project implementation. Impacts would be less than significant (Class III).

4.5 Water Resources

4.5.1 Water Quantity

The operation of the oil and gas facility does not involve a long-term demand for water. Water will be consumed as part of the drilling process. It is estimated that approximately 3,500 barrels (147,000 gallons) of water will be consumed in the drilling of each new or modified well. In addition, about 20,000 gallons of water will be temporarily stored onsite for fire suppression purposes during drilling operations. Thus, a total of 14,000 barrels (588,000 gallons or 1.8 Acre-foot) of water will be consumed during well installation. Averaged over the 25-year life of the proposed project, the short-term water use would be equivalent to 0.07 Acre-Feet per year of water demand. With regard to groundwater quantity, the adopted County Initial Study Assessment Guidelines (ISAGs) state:

> *"...any land use or project which would result in 1.0 acre-feet, or less, of net annual increase in groundwater extraction is not considered to have a significant project or cumulative impact on groundwater quantity."*

The short-term use of water resources is not considered a significant impact under the adopted ISAGs. As indicated above, when averaged over the life of the project, the water use would fall below the applicable threshold of significance.

Based on the above discussion, impacts on the quantity of water resources are less than significant.

4.5.2 Water quality

Oil wells drilled to tap oil zones that may be thousands of feet below the ground generally penetrate shallow geologic units that contain fresh water (i.e. aquifers). Protection of the shallow groundwater resources is a primary design feature of all oil and gas wells drilled in the State of California. All wells must be constructed in accordance with established engineering standards enforced by the California Division of Oil and Gas and Geothermal Resources (DOGGR). These standards have long been successfully employed to prevent leakage from wells, cross-contamination of geologic zones and degradation of groundwater. Over 12,000 wells have been drilled in the Ventura Basin. In addition, there are several hundred miles of pipelines and hundreds of tanks and processing facilities. No substantial evidence of contamination of water supplies due to oil and gas activities has been identified. As indicated in the Topical Response to Comment prepared for the DCOR Project (Appendix H), the level of oil spillage over the past 20 years has been very low given the extensive oil and gas facilities that exist in the County.

Based on the above discussion, impacts on the quality of water resources are less than significant.

4.6 Noise

The proposed project involves the continued operation of the existing oil and gas facility, the installation of three new wells, the re-drilling of one existing well, and the use of Koenigstein Road for access to the site by large trucks. The noise generated by the ongoing operation of the existing oil wells and associated facilities are part of the existing setting and not an impact of the current proposal. Each of the potential sources of project-related noise are discussed below.

4.6.1 Thresholds of Significance

The adopted Threshold of significance for noise impacts is found in Policy 2.16.2 of the County General Plan. The relevant sections of this policy are reproduced below.

(4) Noise generators, proposed to be located near any noise sensitive use, shall incorporate noise control measures so that ongoing outdoor noise levels received by the noise sensitive receptor, measured at the exterior wall of the building, does not exceed any of the following standards:

a. Leq1H of 55dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 6:00 a.m. to 7:00 p.m.

b. Leq1H of 50dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 7:00 p.m. to 10:00 p.m.
c. Leq1H of 45dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 10:00 p.m. to 6:00 a.m.

Section 2.16.2(4) is not applicable to increased traffic noise along any of the roads identified within the 2020 Regional Roadway Network (Figure 4.2.3) Public Facilities Appendix of the Ventura County General Plan (see 2.16.2-1(1)). In addition, State and Federal highways, all railroad line operations, aircraft in flight, and public utility facilities are noise generators having Federal and State regulations that preempt local regulations.

(5) Construction noise shall be evaluated and, if necessary, mitigated in accordance with the County Construction Noise Threshold Criteria and Control Plan.

The *County Construction Noise Threshold Criteria and Control Plan* establishes the following threshold limits for construction noise.

Table 6: Construction noise thresholds of significance

Daytime Construction Activity		
Construction duration	Noise threshold shall be the greater of these noise levels at the nearest receptor area or 10 feet from the nearest noise-sensitive building	
	Fixed Leq(h), dBA	Hourly equivalent Noise Level (Leq), dBA
0 to 3 days	75	Ambient Leq(h) + 3 dB
4 to 7 days	70	Ambient Leq(h) + 3 dB
1 to 2 weeks	65	Ambient Leq(h) + 3 dB
2 to 8 weeks	60	Ambient Leq(h) + 3 dB
Longer than 8 weeks	55	Ambient Leq(h) + 3 dB
Evening Construction Activity		
Receptor Location	Evening noise threshold shall be the greater of these noise levels at the nearest receptor area or 10 feet from the nearest noise-sensitive building	
	Fixed Leq(h), dBA	Hourly equivalent Noise Level (Leq), dBA
Residential	50	Ambient Leq(h) + 3 dB
Nighttime Construction Activity		
Receptor Location	Evening noise threshold shall be the greater of these noise levels at the nearest receptor area or 10 feet from the nearest noise-sensitive building	
	Fixed Leq(h), dBA	Hourly equivalent Noise Level (Leq), dBA
Resident, Live-in Institutional	45	Ambient Leq(h) + 3 dB

The above Thresholds of Significance are applicable to the proposed project.

4.6.2 Evaluation of Impacts:

Operation of new oil wells: The installation of three new oil wells (i.e. three new pumping units) would incrementally add to the noise generated by facility operations. The Noise Study (Appendix E) measured the ambient noise levels (including the noise generated by the three existing pumping units) at the nearest sensitive receptors (i.e. residences). The nighttime noise measured (38.1 dBA) is substantially less than the County operational Threshold of Significance of 45 dBA. This is expected because the existing three wells are operated with low noise-generating electric motors. The three new oil wells would similarly operate with electric motors. Thus, the change in the project is anticipated to contribute only minor operational noise to the existing facility and not have

the potential to exceed County Noise Thresholds at the nearest sensitive receptor located more than 800 feet from the well site.
As stated above, the existing pumping units operate with electric motors. The pumping units for the proposed wells will also operate with electric motors. The minor noise generated by electrically-operated pumping units, including those on the project site and others in the vicinity, do not have the potential to create a cumulative noise impact.

Based on the above discussion, project-specific operation noise impacts of the new wells would be less than significant (Class III). Similarly, the new wells would not make a considerable contribution to (or cause) a potentially significant cumulative noise impact.

Fluid hauling operations: The proposed project includes a maximum of 8 truckloads per week (16 truck trips/week) to transport produced fluids (crude oil and wastewater) from the project site. Although this limit is less than the 12 truckloads per week authorized in the current permit (CUP 3543), these potential trips would be newly authorized on the segment of Koenigstein Road that connects the tank site with State Highway 150. Thus, the truck noise along this public road would be a new effect of the project. The travel of tanker trucks on State Highway 150 is currently authorized at a maximum of 24 one-way trips per day. As discussed in SEIR Section 4.2, truck traffic on State Highway 150 is estimated to increase by 0.44 to 0.8 trips per day over the CEQA baseline setting. In any case, County-adopted noise policies and CEQA thresholds of significance are not applicable to project-related vehicle noise due to travel on State highways.

~~(at 12 loads per week) and does not represent an effect of the current proposal. Note that the County-adopted noise policies and CEQA thresholds of significance are not applicable to vehicle noise due to travel on State highways.~~

The proposed maximum of 16 truck trips per week represents an average of 2.3 truck trips per day. At an average speed of 25 miles per hour, a tanker truck would travel the 0.6 mile (3,200 foot) distance from State Highway 150 to the tank site in about 1.5 minutes. Thus, the average 2.3 truck trips per day would involve an estimated 3.5 minutes per day of truck noise on Koenigstein Road. As indicated above, the operation Thresholds of Significance are based on a 1-hour weighted average (Leq1hr, dBA) of the noise generated by a project. The potential 3.5 minutes of truck noise per day does not have the potential to create an ongoing noise that exceeds the 1-hour standards specified in County noise policy and CEQA thresholds. The 3.5 minutes per day of truck noise would similarly not have the potential to make a considerable contribution to road noise along the lightly-traveled (see SEIR Section 4.2) segment of Koenigstein Road.

Based on the above discussion, operation noise impacts of the fluid hauling activities would be less than significant (Class III). Similarly, such hauling activities would not make a considerable contribution to or cause a potentially significant cumulative noise impact.

Drilling activities: The proposed project involves the installation of three new oil wells and the re-drilling of one existing well. Thus, four temporary drilling events are included in the project. Each of these events would require an estimated 2-3 weeks of drill rig operations.

A Noise Impact Assessment Study was prepared by Sespe Consulting to assess the noise that would be generated during drilling activities. This study is dated June 20, 2013 and attached as Appendix E. This study estimated the drilling-related noise levels that would be experienced at the three sensitive receptors (residences) located nearest to the project site. Because the well drilling would be conducted on a 24-hour basis, these noise levels were compared to the nighttime (i.e. most restrictive) construction noise Threshold of Significance. Table 7 below summarizes the findings of the 2023 noise study:

Table 7: Evaluation of noise impacts

Sensitive Receptor	Estimated project-related noise (dBA)	Construction Threshold of Significance (dBA)	Potentially significant impact? (yes/No)
Residence 1	44.4	45	No
Residence 2	54.9	45	Yes
Residence 3	55.0	45	Yes

As indicated above, construction noise impacts related to the proposed drilling operations would be potentially significant. The noise study (Appendix E) identifies a mitigation measure adequate to reduce the temporary construction noise impact to a less than significant level. This measure is provided below and has been re-formatted to be consistent with current County standards.

Construction Noise Reduction:

Purpose: To reduce project-related noise at sensitive receptors, temporary noise attenuation barriers shall be installed.

Requirement: A sound barrier shall be installed along the south and west edges of the drill site to preclude the direct transmission of noise from the drilling rig to sensitive receptors 2 and 3, as identified in the June 20, 2013 Noise Impact Assessment Report. The barrier shall extend from ground level to the height of the drilling rig floor (about 20 feet above ground level).

Documentation: The Permittee shall submit plans for a sound barrier to the County Planning Division for review and approval.

Timing: The Permittee shall obtain approval of the barrier plans prior to the issuance of the Zoning Clearance for Construction of each new well. The barrier shall be erected as part of rig move-in and shall be in place prior to the initiation of drilling activities.

Monitoring: The County Planning Division will review the submitted plans for the noise barrier for adequacy. The County Planning Division has the authority to inspect the facility to ensure compliance with this mitigation measure.

With implementation of the above measure, construction noise impacts will be less than significant (Class II).

4.7 Issue Areas addressed in the 1983 FEIR

The 1983 certified FEIR is attached to this Subsequent EIR as Appendix B. This FEIR addresses project-specific environmental impacts in the following issue areas: Air Quality, Grading, Geology, Hydrology, Traffic, Plantlife, Wildlife, Noise, Archaeology, Fire Protection, Visual, and Pipeline. Table 8 below provides a discussion of how each issue area is addressed in this SEIR.

Table 8: Project-specific environmental issue areas discussed in 1983 FEIR

Issue Area	SEIR analysis
Air Quality	Potential impacts on air quality that would result from the current project are evaluated in Section 4.1 of this SEIR.
Grading	This section of the FEIR discusses the potential impacts of the creation of the well site and access road. This issue is not discussed in this SEIR as the now-existing well site and access road will be used and no new grading is proposed. In this issue area, no new impacts or impacts different from what was evaluated and identified in the certified 1983 FEIR would result from implementation of the currently proposed modified project.
Geology	This section of the FEIR discusses the potential for degradation of groundwater quality due to the loss of fluids from the proposed oil wells. This issue is addressed in Section 4.5.2 of this SEIR.
Hydrology	This section of the FEIR included a recommendation that the drilling fluid sump be lined to prevent groundwater degradation. (Open sumps of drilling fluid were also recognized as having potential impacts on biological resources.) As explained in Section 4.3.1 of this SEIR, this is not an issue with the current proposal as earthen sumps are no longer used to contain drilling fluids.

	In this issue area, no new impacts or impacts different from what was evaluated and identified in the certified 1983 FEIR would result from implementation of the currently proposed modified project.
Traffic	Potential impacts on traffic circulation and safety that would result from the current project are evaluated in Section 4.2 of this SEIR.
Plantlife Wildlife	Potential impacts on biological resources that would result from the current project are evaluated in Section 4.3 of this SEIR.
Noise	Potential noise impacts that would result from the current project are evaluated in Section 4.6 of this SEIR.
Archaeology	This section of the FEIR addressed the potential for impacts on archaeological resources during the creation of the graded pad and access road components of the oil and gas facility. This issue is not discussed in this SEIR as the now-existing well site and access road will be used and no new grading is proposed. In this issue area, no new impacts or impacts different from what was evaluated and identified in the certified 1983 FEIR would result from implementation of the currently proposed modified project.
Fire Protection	This section of the FEIR discusses the location of the oil and gas facility in a high fire hazard area and the need to maintain adequate water in storage for fire suppression in accordance with applicable regulations. This issue is not discussed in this SEIR as the now-existing facility will continue to be operated in accordance with applicable VCFPD regulations. The addition of three new wells will not alter the fire safety requirements. In this issue area, no new impacts or impacts different from what was evaluated and identified in the certified 1983 FEIR would result from implementation of the currently proposed modified project.
Visual	This section of the FEIR describes the potential effects of the installation of the oil and gas facility on visual resources. This issue is not discussed in this SEIR as the visual character of the now-existing facility will not substantially change with the addition of three new oil wells. Furthermore, the existing facility is not substantially visible from public viewing locations. The facility is not visible from nearby Koenigstein Road. The facility is also not prominently visible from State Highway 150 located more than 3,000 feet to the south. In this issue area, no new impacts or impacts different from what was evaluated and identified in the certified 1983 FEIR would

	result from implementation of the currently proposed modified project.
Pipeline	This section of the FEIR evaluates the environmental effects of the potential installation of a new pipeline to convey produced crude oil from the oil and gas facility. CUP 3543 requires the installation of a pipeline in the event that production reaches 350 Barrels of oil per day. This issue is discussed in Section 6.6.1 of the SEIR.

The 1983 FEIR includes a separate section that evaluates cumulative impacts in a number of issue areas. Table 9 below provides a discussion of how each issue area is addressed in this SEIR.

Table 9: Cumulative environmental issue areas discussed in 1983 FEIR

Issue Area	SEIR Analysis
Aesthetics/Visual	This section of the FEIR describes potential effects on the visual character of the Upper Ojai Valley due to "proposed and probable oil drilling sites, equipment, and access roads." This issue is not discussed in this SEIR as the visual character of the now-existing facility will not substantially change with the addition of three new oil wells. The current proposal does not involve the creation of any new drilling sites or access roads. Furthermore, the existing facility is not substantially visible from public viewing locations. The facility is not visible from nearby Koenigstein Road. The facility is also not prominently visible from State Highway 150 located more than 3,000 feet to the south. Thus, the currently proposed project would not make a considerable contribution to cumulative effect on visual resources. In this issue area, no new impacts or impacts different from what was evaluated and identified in the certified 1983 FEIR would result from implementation of the currently proposed modified project.
Air Quality	Potential impacts on air quality that would result from the current project are evaluated in Section 4.1 of this SEIR.
Biological Resources	Potential impacts on biological resources that would result from the current project are evaluated in Section 4.3 of this SEIR.
Groundwater	This section evaluates potential impacts on the quality of groundwater and concludes that contamination of surface water or groundwater *"is not considered likely"* because; *"(a) the limited quantities of fresh groundwater in the formations;*

	(b) the drilling fluids utilized would prevent fluid loss; *(c) the wells would be drilled with fresh water; and* *(d) as necessary, the annular space would be sealed from ground surface to the base of the freshwater zone."* Impacts on water resources are evaluated in Section 4.5 of the SEIR. Similar to the 1983 FEIR, the SEIR does not identify a significant impact on water resources. In this issue area, no new impacts or impacts different from what was evaluated and identified in the certified 1983 FEIR would result from implementation of the currently proposed modified project.
Traffic	Potential impacts on traffic circulation and safety that would result from the current project are evaluated in Section 4.2 of this SEIR.
Noise	Potential noise impacts that would result from the current project are evaluated in Section 4.6 of this SEIR.

Tables 1 and 2 in Section 3.1 of this SEIR list the mitigation measures imposed for potentially significant impacts identified in the 1983 FEIR in various issue areas. As indicated in Tables 6 and 7 above, no new significant impacts that were not evaluated in the 1983 FEIR are identified in this SEIR. However, the FEIR identified the use of Koenigstein Road by large oil-related trucks as a potentially significant impact on traffic safety. The use of Koenigstein Road by large trucks is re-evaluated in this SEIR and found to not to constitute a significant impact on traffic safety. In addition, the current proposal would reduce the maximum project-related permitted level of truck traffic on State Highway 150. The proposed project would, however, involve an estimated increase in traffic on State Highway 150 of 0.44 to 0.8 one-way trips per day above the CEQA baseline setting. This negligible change in traffic volume would have no discernible effect on traffic circulation.

With implementation of the proposed project, the impact level in the issue area of traffic safety will be reduced in this SEIR from that identified in the 1983 FEIR. Impacts on traffic circulation associated with the proposed project will not substantially change from that identified in the 1983 FEIR.

~~Thus, impact levels in the issue areas of traffic safety and circulation are less for the current proposal than indicated in the 1983 FEIR. In all other issue areas, no new impacts or impacts different from what was evaluated and identified in the certified 1983 FEIR would result from implementation of the currently proposed modified project.~~

5.0 OTHER CEQA-MANDATED ANALYSIS

5.1 Growth-Inducing Effects

The continued operation of the existing oil and gas facility, and the installation of three new oil wells, would not have any discernible effect on growth inducement. No new demand for housing or substantial new employment would be created as a result of the proposed project.

5.2 Significant Unavoidable Effects

Section 15126(b) of the CEQA Guidelines requires that an EIR identify significant impacts that cannot be reduced to a less than significant level with the application of mitigation measures. Implications and reasons why the project is being proposed, notwithstanding, must also be described. As discussed in this SEIR, no significant and unavoidable impacts were identified that would result from the proposed project.

5.3 Significant Irreversible Environmental Effects

Section 15126.2(c) of the CEQA Guidelines requires a discussion of significant irreversible environmental changes which would be caused by a proposed project should it be implemented. Such significant irreversible environmental changes may include the following:

> *Use of non-renewable resources during the initial and continued phases of the project which would be irreversible because a large commitment of such resources makes removal or non-use unlikely;*
>
> *Primary impacts and, particularly secondary impacts (such as highway improvement which provides access to a previously inaccessible area) which generally commit future generations to similar uses; and*
>
> *Irreversible damage which may result from environmental accidents associated with the project.*

As discussed in Section 4.0 of this SEIR, the proposed project would not involve any significant impacts on the environment. The only reasonably foreseeable irreversible physical change in the environment that would result from the proposed project is the depletion of oil and gas deposits tapped by the proposed new oil wells and by the continued operation of the existing oil wells. Ultimately, the oil wells will be abandoned, the associated facilities removed and the project site restored to its previous condition.

5.4 Energy Conservation

The energy usage that would result from the proposed project primarily involves the truck transport of produced fluids from the drilling and production site. The existing permit for this facility allows the up to 24 one-way truck trips per day (12 loads per day) of fluid hauling.

5.4.1 Project Impacts

Produced fluid transport:

The requested conditional use permit modification would authorize up to a maximum of 16 one-way truck trips per day for fluid transport. This would be a decrease from the current permitted level of 24 average daily one-way trips (ADT). The proposed project would, however, involve an estimated increase in traffic on State Highway 150 of 0.44 to 0.8 one-way trips per day above the CEQA baseline setting. This negligible change in traffic volume would have no substantial effect on fuel consumption.

~~Thus, fuel consumption associated with the proposed project would be proportionately decreased from current authorized levels.~~

Regulations promulgated by the California Air Resources Board (CARB) require heavy truck fleets to be progressively replaced over time with trucks that have more efficient and less polluting engines. Thus, a program is already in place and scheduled for implementation that will improve the energy efficiency of hauling operations.

In summary, the proposed project will not result in a permitted increase in energy consumption related to produced fluid transport.

Onsite Operations:

Fuel is consumed during temporary drilling operations. Long-term energy use at the oil and gas facility is limited to security lights, electrical monitoring equipment and operation of pumping units. The addition of three new wells would not substantially increase electrical usage. In any case, the oil production facility produces more energy resources than it consumes.

5.4.2 Mitigation Measures and Residual Impacts

No mitigation measures are required to augment the ongoing energy efficiency regulations enforced by the California Air Resources Board. No significant impact related to energy consumption or energy efficiency has been identified.

6.0 ALTERNATIVES

Section 15126.6(a) of the CEQA Guidelines requires that an EIR describe a range of reasonable alternatives to a project, or location of a project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. The EIR shall also describe the comparative merits of the alternatives. Section 15126.6(f) further states that "the range of alternatives in an EIR is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice."

As indicated in the analysis presented in Section 4.0 of this SEIR, no significant and unavoidable (Class I) impacts have been identified that would result from the implementation of the proposed project. The only potentially significant impact subject to feasible mitigation (Class II) is short-term construction noise. Thus, an analysis of project alternatives is only required to address this short-term noise impact. Other issues are addressed below for informational purposes.

~~Thus, an analysis of project alternatives is not required to be included in this SEIR for the current proposal. Thus, the following analysis of alternatives is presented for informational purposes only.~~

6.1 Project Objectives:

The project objective is to increase the production of oil and gas at the existing facility that can be sold for the purpose of manufacturing petroleum products.

6.2 No Project:

Under this alternative, no new wells would be installed and the requested extension of the effective period of CUP 3543 would not be granted. The permit would expire and the oil wells and associated facilities would be required to be decommissioned and the site restored in accordance with the CUP conditions of approval and applicable provisions of the Non-Coastal Zoning Ordinance. Under this alternative, no new impacts would occur.

6.3 No new wells:

CUP 3543 carries an expiration date of November 17, 2013. This permit remains in effect in accordance with Section 8111-2.10 of the Non-Coastal Zoning Ordinance while the requested permit modification is under review by the County of Ventura.

Under this alternative, the existing oil and gas facility would continue to operate for an additional 25 years without any additional oil wells. The potentially significant impact of construction noise would be avoided. Access to the facility from State Highway 150

would be provided by Koenigstein Road. The use of Koenigstein Road by large oil-related trucks would be the only new environmental effect of this alternative. As discussed in Section 4.2 of this SEIR, this use would not involve a potentially significant effect on traffic safety or circulation.

This alternative would fail to achieve the proposed project objectives of increasing the production of oil and gas at the existing facility and, thus, is not a viable project alternative.

6.4 Alternative Locations:

Under "Alternative Locations," the 1983 certified FEIR includes the following statement:

> *Alternative locations for the project would be the equivalent to a "no project" alternative which would maintain the existing environment and preclude the exploration of oil at the proposed location.*

Section 15126.6(f)(2)(b) of the CEQA Guidelines recognizes that there may be no feasible alternative location for some types of projects. This Guidelines section specifically mentions the examples of a geothermal plant or mining project which must be in close proximity to natural resources at a given location. An oil and gas project is a form of mining project that must be located in proximity to the targeted oil deposit. In any case, the use of an alternate drilling and production site rather than the existing facilities would result in new and un-necessary impacts. In addition, short-term construction noise impacts could be greater at an alternative location. Thus, no alternate locations for the proposed oil wells are evaluated in this subsequent EIR.

Because the proposed project includes a change in the access road to the existing oil and gas facility, the feasibility of re-establishment of the former access road should be discussed. The site of the former crossing is now an active stream channel that supports sensitive wildlife habitat. Construction of a new at-grade crossing or a bridge spanning the creek would result in potentially significant impacts on biological resources. It is unlikely that the required State permits to alter the streambed could be obtained given the availability of a paved public roadway (i.e. Koenigstein Road) that can adequately serve the same purpose. Because the use of Koenigstein Road would not have a significant environmental impact, the proposed use of this public road does not warrant a detailed analysis of a project alternative involving the re-establishment of a creek crossing. As indicated above, the re-establishment of a creek crossing does not appear feasible.

6.5 Change in Project Intensity:

Other alternatives could be considered involving the intensity of the proposed use. An alternative involving fewer oil wells, however, would not reduce any identified potentially significant long-term effect. Such an alternative would reduce temporary drilling-related noise and traffic but have negligible long-term effects. For example, the effects of the

proposed project on biological resources or traffic circulation would not substantially change with fewer wells. This alternative would also fail to achieve the project objective of increasing oil and gas production at the existing facility. Thus, no specific analysis of alternatives involving fewer wells is warranted.

6.6 Alternatives Rejected from Consideration

6.6.1 Conveyance of Produced Fluids by Pipeline:

CUP 3543 (Condition of Approval 49) requires the development of a pipeline to transport produced fluids when oil production reaches 350 barrels per day. As indicated in the records compiled in Table 5 and Appendix D, a total of 952,002 barrels of fluid has been exported from the Koenigstein Road area in the 38-year (13,870-day) period from 1977 to 2014. This represents an average daily export of all fluids of only 69 barrels per day (952,002/13,870 = 69). Given the low production rate and the lack of significant effects due to fluid trucking (see SEIR Section 4.2), the requirement to install a pipeline is unwarranted. In any case, the current condition of approval will be retained in case the proposed new wells are highly successful.

6.7 Environmentally Superior Alternative

While the "No Project," "No new wells", and "Change in Project Intensity" alternatives would have lesser environmental impacts as compared to the proposed project, none of them would achieve the project objective of increasing oil production at the existing facility. Again, the proposed project would not have any significant and unavoidable (Class I) environmental impact. The only potentially significant (Class II) impact of the project is short-term construction noise. This impact would involve only a few months of a 25-year project. An alternative of fewer wells would have a negligible long-term effect.

Based on the above discussion, there is no "environmentally superior project" that would avoid or substantially lessen the environmental impacts that would result from the proposed project.

~~Thus, no "environmentally superior alternative" exists that would avoid or lessen a significant environmental impact that would result from the proposed project.~~

7.0 REFERENCES AND EIR PREPARERS

7.1 References

Final EIR for the Phoenix West Oil and Gas Company Project, 1983
County of Ventura, Initial Study Assessment Guidelines, April 26, 2011
Ventura County Air Quality Assessment Guidelines, November 2000
California Division of Oil and Gas and Geothermal Resources, Well Finder website
http://www.conservation.ca.gov/dog/Pages/WellFinder.aspx
California Department of Transportation, Traffic Counts website
http://traffic-counts.dot.ca.gov/
Final Subsequent EIR for the Focused General Plan Update, June 2005
MND Addendum for the Mirada Petroleum Project (LU11-0041), May 2013
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State Guidelines for the Implementation of CEQA

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