

**PLAINS EXPLORATION AND PRODUCTION  
CONDITIONAL USE PERMIT D010386D  
(PHASE IV DEVELOPMENT PLAN)**

**ADDENDUM TO FINAL ENVIRONMENTAL IMPACT REPORT**



**Prepared for:**

County of San Luis Obispo  
Department of Planning and Building

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## **1.0 INTRODUCTION**

On September 23, 2004, the County of San Luis Obispo Planning Commission approved the Final Environmental Impact Report (FEIR) for the proposed Plains Exploration and Production (PXP) Conditional Use Permit (D010386D) for the Phase IV Expansion.

The project involved two phases: (1) Construction, and (2) Operations. The primary components of the project are construction of 95 producer wells, 30 injector wells, modification of 31 existing well pads and construction of 4 new well pads, and construction of 3 steam generators. Existing facilities, such as water and utility gas lines, would be utilized to the greatest extent feasible; however, some ancillary facilities would be constructed. Such facilities may include flowlines, which would be installed above ground in groups along roads.

However, several modifications and additions have been made to the Phase IV project since the Final EIR was certified. The purpose of this Addendum is to provide additional project-specific information to comply with Section 15164 of the California Environmental Quality Act (CEQA) Guidelines.

## **2.0 BACKGROUND**

### **2.1 CEQA REQUIREMENTS**

The State CEQA Guidelines provide guidance on the appropriate document for revisions to a previously certified EIR.

Section 15162 requires the preparation of a Subsequent EIR if the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

- (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;
- (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; or,
- (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 previous EIR was certified as complete, shows any of the following:
  - (A) The project will have one or more significant effects not discussed in the previous EIR;
  - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
  - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more

significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or,

- (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Section 15164 requires the lead agency to prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred. An Addendum need not be circulated for public review but can be included in or attached to the final EIR. A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in the Addendum, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

## **2.2 EXISTING CEQA DOCUMENTATION**

An EIR was prepared for Plains Exploration and Production (PXP) Conditional Use Permit (D0110386D) for the Phase IV Expansion and Development Plan. The EIR was certified by the County of San Luis Obispo Planning Commission on September 23, 2004. The project included:

- Grading of 4 new well pads (total disturbance of about 2.68 acres);
- Grading on 18 existing well pads (total disturbance of about 4.22 acres);
- Construction of 95 production wells;
- Construction of 30 injection wells;
- Construction of 3 new steam generators (previously approved in the 1994 Phase III Development Plan); and,
- Increasing production of marketable quality crude oil from 1,800 – 1,900 barrels of per day (BOPD) to 5,000 BOPD.

## **2.3 FINDINGS**

Recently proposed modifications to the Phase IV project were not fully described in the Final EIR certified in 2004. However, none of the conditions described above under Section 15162 requiring a subsequent or supplemental EIR have occurred. New significant environmental effects or a substantial increase in the severity of previously identified significant effects are not expected. In addition, no substantial changes have occurred with respect to the circumstances under which the project will be undertaken. These findings are supported by the following environmental assessment of the project. Recent changes to the project are considered "minor technical changes or additions" under Section 15164 of the State CEQA Guidelines, and an Addendum to the previously certified EIR is the appropriate CEQA documentation. This Addendum will be considered by the San Luis Obispo County Department of Planning and Building.

### **3.0 PROJECT DESCRIPTION**

#### **3.1 PROJECT PROPONENT**

Plains Exploration and Production (PXP)  
1821 Price Canyon Road  
San Luis Obispo, California 93401  
Contact: Mr. Steve Rusch

#### **3.2 LEAD AGENCY**

As defined in Section 15367 of the State CEQA Guidelines, the “Lead Agency” is “...the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment.” The County of San Luis Obispo Department of Planning and Building is the lead agency for this project and will be responsible for the addendum approval.

#### **3.3 PROJECT LOCATION**

The Arroyo Grande oil field is located in Price Canyon about 3 miles northeast of Pismo Beach in San Luis Obispo County, California. The project site is located east and west of Price Canyon Road near its intersection with Ormonde Road, between Highway 101 and Highway 227. The proposed Phase IV project lies within the 264-acre Phase III development project approved by the San Luis Obispo Planning Commission (SLOPC) in Resolution 94-49, Development Permit No. D910026D, which was delineated in the 1994 Shell Western Development Plan EIR (1994 EIR). This site lies primarily within the 320-acre Arroyo Grande oil field, which is within the larger 1,480-acre Price Canyon Unit as defined by the California Division of Oil, Gas & Geothermal Resources (DOGGR). The project site and surrounding local area is shown in Figure 1.

#### **3.4 PROJECT BACKGROUND**

According to unofficial records, the Arroyo Grande oil field has been an actively producing field since 1906. DOGGR records officially began recording oil and gas wells for the area in 1919. Between 1919 and 1980, roughly 129 oil wells were drilled in the field. Previous EIRs have been prepared for past expansion of the oil field, including *Final Environmental Impact Report for the Proposed Arroyo Grande Thermal Project, Teal Production Company (1978)*, and *Arroyo Grande Thermal Project, Phase II Operations (ERCO 1981)*. In 1978, Teal Petroleum (Teal) obtained approval from the SLOPC for the expansion of oil field operations (Phase I).

The permit granted the drilling of 54 wells and the installation of associated equipment. In the event that Teal wanted to drill additional wells, the County required a Development Plan application for each additional well group. Teal Petroleum was absorbed by Grace Petroleum shortly thereafter.

Grace Petroleum proposed a Phase II expansion. The subsequent EIR considered the potential environmental effects of the entire Arroyo Grande oil field. In 1982, The County certified the EIR and approved a Phase II Project consisting of 40 wells and 1 steam generator. Under Phase II, individual wells could be constructed and drilled at the rate of no more than 40

producable wells per year. At that time, the County conceptually approved, but did not guarantee, an additional 160 wells and 3 steam generators.

The conceptual approval included a delineation of Phases III, IV, and V and included only the facilities that would be added during each phase; the areas that would be developed during each of these future phases were not designated at that time. Additionally, the 1982 EIR noted that each Development Plan may authorize fewer but no more than the listed facilities and any required accessory equipment. Subsequently, Grace was acquired by Shell Western Petroleum, Inc.

In 1994, Shell Western Exploration and Petroleum, Inc., received approval from the San Luis Obispo Planning Commission (SLOPC) for a Development Plan to allow expansion of the oil field by drilling 65 additional producing wells and installing three steam generators and accessory facilities with an extended phasing schedule (Phase III). In 1997, the area was acquired by Stocker Resources, Inc. (Stocker), which currently operates the facility. Stocker recently underwent change of ownership and is now Plains Exploration & Production Company (PXP).

### **3.5 PROJECT OBJECTIVES**

The objective of the project is to provide PXP the opportunity to expand their existing operations of the Arroyo Grande oil field. Specifically, PXP plans to drill two (2) additional water injector wells outside the Phase IV boundary on existing pads with roadways and related infrastructure already in place. The additional water injector wells are currently needed due to high production water rates and limited water disposal capacity on-site.

### **3.6 PROJECT MODIFICATIONS**

The following provides an overview of the proposed project modifications to the previously certified PXP Phase IV Development Plan Final EIR. These project modifications are the basis of the environmental analysis of this EIR Addendum:

- Installation of two additional water injection wells (Pulas 5 and 6) within existing well pads (former Signal Lease area) located immediately west and southwest of the Phase IV Development Plan EIR boundary area (See Figure 2).

The proposed modifications comply with the provisions of the original PXP Phase IV Development Plan EIR, Section 3.4.3.1, Producer and Injector Wells (page 3-19): *“the applicant may construct up to (5) five water injector wells outside the Phase III and Phase IV boundary area.”*

#### **3.6.1 Pulas 5**

Proposed Pulas 5 consists of an existing oil well pad that has been cleared and grubbed for water injector well drilling and installation. Exclusionary fencing has been installed along the boundary of the pad to protect all oak trees, Manzanita and other vegetation. Further, a 60-foot conductor or “rat hole” has been installed where the new injector well will be built. Wildlife biologists from Levine Fricke Inc. (LFR Inc.), on behalf of FIRMA, conducted a pre activity biological resources survey on September 12, 2008. A Mitigation Monitoring Field Report documenting biological compliance was produced from as a result of this survey and is provided as Appendix A.

### **3.6.2 Pulas 6**

Proposed Pulas 6 is located uphill from Pulas 5 within an existing oil well pad set into a steeply cut hillside. This pad and surrounding area was graded over thirty years ago. Exclusionary fencing has been installed along the entrance of the pad to protect all oak trees and existing vegetation within these areas (see Appendix A).

## **3.7 PROJECT CONSTRUCTION**

Proposed construction activities for the water injector wells would involve the same methodologies as discussed in the PXP Phase IV Development Plan EIR. As such, all previously approved mitigation measures applicable to construction would also apply to well construction at Pulas 5 and 6.

## **3.8 MAINTENANCE**

Maintenance for the new water injector well pads will be the same as proposed in the PXP Phase IV Development Plan EIR. As such, all applicable Final EIR mitigation measures applicable to site maintenance would also apply to the long-term management of Pulas 5 and 6.

## **4.0 IMPACT ANALYSIS**

### **4.1 IMPACT ANALYSIS**

#### **4.1.1 Mitigation Measures**

An analysis of all applicable PXP Phase IV Development Plan Final EIR mitigation measures was conducted to determine if the proposed project modifications represent substantial changes to the original 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. This analysis has been summarized in the attached Table 1 and includes the Impact No./Discussion, Mitigation Measure, Project Modification Discussion, and a determination of Substantial Conformance. Mitigation measures considered inapplicable to the proposed project modification were not included in Table 1. For a complete list of mitigation measures please refer to the Phase IV Final EIR. The table included in this addendum is only a summary of mitigation measures applicable to Pulas 5 and 6.

## **5.0 ALTERNATIVES ANALYSIS**

The alternatives analysis provided in the Final EIR adequately addresses the impacts of the modified project and remain valid.

## **6.0 GROWTH INDUCEMENT**

The growth inducement analysis provided in the Final EIR adequately addresses the impacts of the modified project and remain valid.

## TABLE

**TABLE 1  
SUMMARY OF APPLICABLE IMPACTS AND MITIGATION MEASURES  
PXP PHASE IV DEVELOPMENT PLAN PROJECT ADDENDUM (PULAS 5 AND 6)**

Impact No./Description	Mitigation Measure Summary	Project Modification Discussion	Substantial Conformance?	
<b>TRAFFIC AND CIRCULATION</b>				
TRA-1	Construction-related traffic may reduce the LOS along Price Canyon Road.	No mitigation is required.	Proposed project modification would not affect the severity of this impact.	Yes
TRA-2	Entering and exiting of the trucks may reduce traffic safety on Price Canyon Road during the A.M. and P.M. peak hour.	Trucks (delivery, hauling and transportation trucks) should be scheduled outside the A.M. and P.M. peak period (7:00 to 9:00 A.M. and 4:00 to 6:00 P.M. to the extent feasible (no increase in truck trips will occur during the A.M. and P.M. peak periods).  Construction related traffic shall use on-site roads wherever possible.  Warning signs should be placed on Price Canyon Road prior to construction to notify through traffic of trucks entering and exiting the site.	Proposed modifications would not affect the severity of this impact. Mitigation measures would remain applicable.	Yes
<b>AIR QUALITY</b>				
AQ-1	Construction activity would generate air emissions that may adversely impact local and regional air quality.	<u>Equipment Emission Control Measures.</u> Prior to construction, a Drilling Emissions Reduction and Monitoring Plan shall be developed, approved by the County and fully implemented. The Plan shall specify the emissions control measures to be implemented on each emission source, the expected reduction for each criteria pollutant, the period the emissions control measures are to be in place, and a quarterly summary of the emissions reductions. The summary shall include sufficient information for the APCD to verify the emissions reductions have occurred.	Project changes would result in slight increase of air emissions due to the installation of two additional wells. However, proposed project modifications would not affect the severity of this impact, such that AQ-1 would need to be modified. Mitigation measures would remain applicable.	Yes

**TABLE 1  
SUMMARY OF APPLICABLE IMPACTS AND MITIGATION MEASURES  
PXP PHASE IV DEVELOPMENT PLAN PROJECT ADDENDUM (PULAS 5 AND 6)**

Impact No./Description	Mitigation Measure Summary	Project Modification Discussion	Substantial Conformance?	
		<p><u>Dust Control Measures.</u> Dust generated by construction activities shall be kept to a minimum by full implementation of the following measures.</p> <p><u>Emission Offsets.</u> Project emissions remaining following implementation of the above mitigation measures shall be offset through contribution to an off-site mitigation fund. The fund is managed by the APCD and used to finance regional emission reduction projects such as bikeways, vehicle scrapping programs, diesel bus conversions, agricultural engine replacements and similar activities. Therefore, project emissions would be offset on a regional basis through applicant-funded off-site projects that would result in emissions reductions. Based on past experience the APCD has determined that \$8,500 is required per ton NOx reduced. These funds would be used by the APCD to purchase clean-burning engines and other equipment/facilities that would result in a decrease in emissions in the County. The financial contribution would be paid on a per well basis, based on the number of wells to be drilled during a known period. The dollar amount shall be based on offsetting excess emissions (greater than 2.5 tons NOx per quarter) at \$8,500 per ton.</p>		
AQ-2	Diesel fuel combustion associated with project construction activity would generate	No mitigation is required.	Proposed project modifications would not affect the severity of this	Yes

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Impact No./Description	Mitigation Measure Summary	Project Modification Discussion	Substantial Conformance?
	emissions of toxic air contaminants.	impact.	
AQ-3	Fugitive dust generated by construction activity may contain asbestos and result in exposure of the public to this toxic air contaminant.	Proposed project modifications would not affect the severity of this impact.	Yes
AQ-4	Operation of the proposed oil production facilities would result in NOx and ROG emissions from steam generators that may adversely affect local and regional air quality	Proposed project modifications would not affect the severity of this impact. Mitigation measures would remain applicable.	Yes

**TABLE 1  
SUMMARY OF APPLICABLE IMPACTS AND MITIGATION MEASURES  
PXP PHASE IV DEVELOPMENT PLAN PROJECT ADDENDUM (PULAS 5 AND 6)**

Impact No./Description	Mitigation Measure Summary	Project Modification Discussion	Substantial Conformance?	
AQ-5	Operation of the proposed oil production facilities would result in fugitive emissions from valves, flanges and other components associated with well production.	The applicant is fully implementing the requirements of Rule 417, which requires quarterly monitoring for leaks, and repair of leaks completed with 14 days for minor gas leaks, 5 days for major gas leaks and 2 days for liquid leaks. Based on Table 5-3 of <u>Protocol for Equipment Leak Emission Estimates</u> (EPA, 1995b) it was assumed than full implementation of the requirements of Rule 417 would result in at least a 61 percent reduction in fugitive hydrocarbons. Project ROG emissions could be reduced further as discussed above under Mitigation Measure AQ-4.	Proposed project modifications would not affect the severity of this impact. Mitigation measures would be applicable to project modifications.	Yes
AQ-6	Toxic air contaminants contained with steam generator exhaust and fugitive hydrocarbon emissions may result in unacceptable human health risk.	As part of permitting for the proposed steam generators (New Source Review), the APCD would require the project proponent to complete a comprehensive facility-wide health risk assessment (HRA) according to the Emission Inventory Criteria and Guidelines for the "Hot Spots" program. The Assessment would include a facility-wide inventory of toxic air contaminants (including sulfur compounds), air dispersion modeling to determine ground-level concentrations at adjacent residences and application of unit risk factors to identify cancer and non-cancer health risk. Should the results of the health risk assessment indicate unacceptable health risk, mitigation measures may be required to reduce health risk by reducing ground-level concentrations of toxic air contaminants.	Proposed project modifications would not affect the severity of this impact. Mitigation measures would be applicable to project modifications.	Yes
AQ-7	The impact of odors from the expansion of the oil production is an air quality issue.	While no mitigation is required, an <u>Odor Monitoring and Complaint Response Plan</u>	Proposed project modifications would not affect the severity of this	Yes

**TABLE 1  
SUMMARY OF APPLICABLE IMPACTS AND MITIGATION MEASURES  
PXP PHASE IV DEVELOPMENT PLAN PROJECT ADDENDUM (PULAS 5 AND 6)**

Impact No./Description	Mitigation Measure Summary	Project Modification Discussion	Substantial Conformance?
		may be developed, approved by the APCD and fully implemented.	impact. Mitigation measures would remain applicable.
<b>BIOLOGICAL RESOURCES</b>			
BIO-1	Construction activities could result in the disturbance of wildlife occupying adjacent habitats.	No mitigation required.	Proposed project modifications would not affect the severity of this impact.
BIO-2	Construction activities could adversely affect nesting activities of protected migratory birds.	Construction and drilling operations shall be conducted prior to the initiation of nesting, or after the completion of nesting to avoid any potential impact to migratory birds. As required this shall include pre activity nesting bird surveys per original condition BIO-2 measures A and B.	Proposed project modifications would not affect the severity of this impact. Mitigation measures would remain applicable.
BIO-3	Construction activities could adversely affect special-status plant and animal species potentially occurring in the project area.	The following mitigation measures are recommended to avoid and/or minimize impacts to special-status species known to occur or with the potential to occur within the existing and newly proposed well pads during construction. This includes protective measures to avoid and/or minimize impacts to Well's Manzanita during the construction phase of the project, including general measures A through K.	Proposed project modification would not affect severity of this impact. Mitigation measures for BIO-3 would remain applicable. A biological resources pre-activity survey was completed within Pulas 5 and 6 per the requirements of BIO-3. Protective fencing was installed along the perimeter of the well pads to protect existing sensitive botanical resources (i.e., Well's Manzanita and oak trees). No other special-status species were observed on-site (see Appendix A).
BIO-5	Implementation of the Phase IV Expansion will result in the removal of up to 46 coast live oak trees and an additional 107 oak trees could be impacted by proposed	The following mitigation measures are recommended to mitigate impacts to oak trees due to project implementation. This includes protective measures to avoid	Proposed project modification would not affect severity of this impact. Mitigation measures for BIO-5 would remain applicable.

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PXP PHASE IV DEVELOPMENT PLAN PROJECT ADDENDUM (PULAS 5 AND 6)**

Impact No./Description	Mitigation Measure Summary	Project Modification Discussion	Substantial Conformance?	
	activities.	and/or minimize impacts to oak trees designated for long-term preservation, including measures A through C.		
<b>CULTURAL RESOURCES</b>				
CUL-1	Construction during the proposed project could result in the inadvertent damage to historic, cultural, archaeological, and/or burials during earthmoving activities.	<p>Cultural Resource sites SLO-353, SLO-652, and SLO-1266 shall be avoided. Any future ground disturbances within a 150-foot buffer from the sites shall be subject to a subsurface archaeological excavation program to assess artifact presence in these areas. If artifacts do exist and cannot be feasibly avoided, a Phase 2 archaeological significance assessment program, and, if necessary, a Phase 3 data recovery mitigation program, shall be carried out by a qualified archaeologist and all construction activity within the sites and buffer areas shall be monitored by a qualified archaeologist and Native American monitor. The archaeological sites and buffer areas shall be indicated as "Environmental Sensitive Areas" on grading plans. If construction is proposed within 100 feet of the buffer areas, the areas shall be temporarily fenced to protect from disturbance. All significance assessment and mitigation activities shall be funded by the applicant. In addition, such buffer zones shall be observed for Areas A, B, and C.</p> <p>In the event that unknown cultural remains are encountered anywhere within the project area during construction, activities shall be terminated or redirected to another area until a qualified archaeologist can be</p>	Proposed project modifications would not affect the severity of this impact. Mitigation measures would be applicable to project modifications.	Yes

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SUMMARY OF APPLICABLE IMPACTS AND MITIGATION MEASURES  
PXP PHASE IV DEVELOPMENT PLAN PROJECT ADDENDUM (PULAS 5 AND 6)**

Impact No./Description	Mitigation Measure Summary	Project Modification Discussion	Substantial Conformance?	
		retained to evaluate the potential significance of the finds in a Phase 2 archaeological significance investigation or PXP shall have the option to relocate work permanently without need to conduct further studies at that location. Relocation of work and any subsequent archaeological investigation would be done in consultation with the County of San Luis Obispo. If they are significant and cannot be feasibly avoided, then a Phase 3 data recovery mitigation program shall be performed by a qualified archaeologist, and all construction activity within the site and 150-foot buffer area shall be monitored by a qualified archaeologist and Native American monitor. All Phase 3 significance assessments and Phase 3 mitigation activities shall be funded by the applicant.		
<b>GEOLOGY AND SOILS</b>				
GEO-1	Construction of the proposed project may result in a substantial, or potentially substantial, adverse change in the physical condition of the land.	No mitigation is required	Proposed project modifications would not affect the severity of this impact.	Yes
GEO-2	Construction of the proposed project could result in short-term increases in erosion and sedimentation resulting from earth-moving operations and exposed soils.	In compliance with the Land Use Ordinance, the applicant will prepare and implement a Sediment and Erosion Control Plan (SECP) for the proposed project. The SECP will include: In compliance with Section 23.05.020 – Grading, the applicant will prepare a grading plan for the project.	Proposed project modifications would not affect the severity of this impact. Mitigation measures would remain applicable.	Yes

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SUMMARY OF APPLICABLE IMPACTS AND MITIGATION MEASURES  
PXP PHASE IV DEVELOPMENT PLAN PROJECT ADDENDUM (PULAS 5 AND 6)**

Impact No./Description	Mitigation Measure Summary	Project Modification Discussion	Substantial Conformance?
		<p>PXP will comply with the requirements under a general stormwater construction permit, which may be required by the RWQCB for the project. Such requirements may include preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would include provisions for the installation and maintenance of Best Management Practices to reduce the potential for erosion of disturbed soils at the Project site.</p>	
GEO-3	<p>Groundwater quality may be impacted by the project.</p>	<p>To minimize any impact on groundwater downgradient from the site, petroleum products should be removed from wastewater generated in the oil recovery process prior to reinjection. In addition, the water quality of the shallow aquifer zone beneath and downgradient from the site should be monitored regularly to detect any water quality impacts of project activities (e.g., steam or produced water injection). This can be accomplished by monitoring of wells on the property. The number of wells and well locations and frequency should be adequate to detect any impacts to water quality as determined by the appropriate jurisdictional authority. See also HAZ-1D. Copies of any reports shall be promptly provided to the County.</p>	<p>Proposed project modifications would not affect the severity of this impact. Mitigation measures would remain applicable, such that GEO-3 would need to be modified.</p>
<b>NOISE</b>			

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Impact No./Description	Mitigation Measure Summary	Project Modification Discussion	Substantial Conformance?	
NOI-1	<p>Construction activities would result in short-term noise impacts to nearby residences.</p>	<p>The authorization of future well and well pad construction associated with the Conditional Use Permit for this project should incorporate the following mitigation measures. Coordination between the County, the applicant, and a third-party monitor shall occur to ensure effective implementation of these measures.</p> <p>Excluding drilling activities, no use of heavy equipment or heavy-duty trucks shall occur between 7 p.m. and 7 a.m.</p> <p>Noise attenuation blankets or other devices with a sound transmission class of 25 or greater shall be installed at Signal 113D and Morehouse 303 at a height exceeding the highest exhaust outlet and in a line-of-sight alignment so as to minimize noise attenuation at these</p> <p>Equipment engine covers shall be in place and mufflers shall be in good condition.</p>	<p>Proposed project modifications would not affect the severity of this impact. Mitigation measures for NOI-1 would remain applicable.</p>	<p>Yes</p>
NO-2	<p>Operation of the steam generators may result in noise impacts to nearby residences.</p>	<p>No mitigation is required.</p>	<p>Proposed project modifications would not affect the severity of this impact.</p>	<p>Yes</p>
NO-3	<p>Operation of the oil well pumping units may result in an increase in noise levels at nearby residences.</p>	<p>No mitigation is required.</p>	<p>Proposed project modifications would not affect the severity of this impact.</p>	<p>Yes</p>
NO-4	<p>The additional 25 truck trips/day to transport the produced oil from the proposed project may increase noise levels along Price Canyon Road.</p>	<p>No mitigation is required.</p>	<p>Proposed project modifications would not affect the severity of this impact.</p>	<p>Yes</p>

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Impact No./Description	Mitigation Measure Summary	Project Modification Discussion	Substantial Conformance?	
<b>HAZARDS/RISK OF UPSET</b>				
HAZ-1	<p>Well drilling, workover, re-drilling, or steam injection activities could experience a well blow-out resulting in the uncontrolled release of fluids and possibly explosion and fire.</p>	<p>HAZ -1A - Prior to initiation of well drilling activities, the applicant shall complete table-top and field emergency training with CDF/County Fire, County Hazardous Materials Team, and DOGGR. PXP shall provide CDF/County fire with actual costs to cover the expenses of the training exercises, including overtime and equipment replacement. The amount of this training shall not exceed \$8,000 every two years of \$4,000 annually.</p> <p>HAZ 1C – PXP shall submit a Notice of Intent and obtain written approval from the State Oil and Gas Supervisor prior to drilling, reworking, injecting into, plugging, or abandoning any well. The Notice of Intent will be reviewed by DOGGR on an engineering and geological basis. PXP will be required to submit detailed geological and engineering information to support the project. Approval will be subject to protection of the public and the environment by using adequate blowout prevention equipment. DOGGR will monitor potential risks from critical wells (wells located in close proximity to Price Canyon Road and the UPRR railroad) as part of their well application review process.</p> <p>HAZ 1D – Prior to approval, PXP shall develop a contingency plan for proper wastewater handling in the event that adequate wastewater injection capacity cannot be developed.</p>	<p>Proposed project modifications would not affect the severity of this impact. Mitigation measures would remain applicable.</p>	<p>Yes</p>

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Impact No./Description	Mitigation Measure Summary	Project Modification Discussion	Substantial Conformance?	
HAZ-2	<p>An oil spill could occur at abandoned wells or other surface locations at the project site during water injection or steam injection activities.</p>	<p>During water injection and steaming operations, PXP shall make daily inspections of drainages, known nearby well sites, and surface seeps within the 2,000 feet of the injection locations to identify oil release at the ground surface. In the event of a spill release, the applicant shall immediately notify the appropriate regulatory agencies of the discovery and implement spill response, mitigation, and clean-up activities. As required by DOGGR, abandoned oil wells identified to have the potential to release oil to the environment shall be re-abandoned to current DOGGR standards.</p> <p>HAZ-2B – The applicant shall store on-site cleanup materials including diking materials and absorbent material such as pads and booms that will be accessible to the fire department in case of emergency. The applicant shall provide CDF/County Fire with two gas detectors for the closest responding fire engines or HAZ MAT Unit who would respond to an incident at the oil fields or along the travel routes to the refinery. These detectors shall be capable of detecting combustible levels and Hydrogen Sulfide (H<sub>2</sub>S) levels and will be the equivalent of the iTX Multi-Gas Monitor.</p>	<p>Proposed project modifications would not affect the severity of this impact. Mitigation measures related to spill response would remain applicable.</p>	Yes
HAZ-3	<p>The proposed project could generate risks to the public safety and the environment by exposure to crude oil spills, subsequent fires during transportation and wildfires due to operations.</p>	<p>HAZ-3A – On an annual basis, the applicant shall provide CDF/County Fire and County Environmental Health with their emergency response plan for review and approval. The plan will include procedures and annual training exercises</p>	<p>Proposed project modifications would not affect the severity of this impact. Mitigation measures would be applicable to project modifications.</p>	Yes

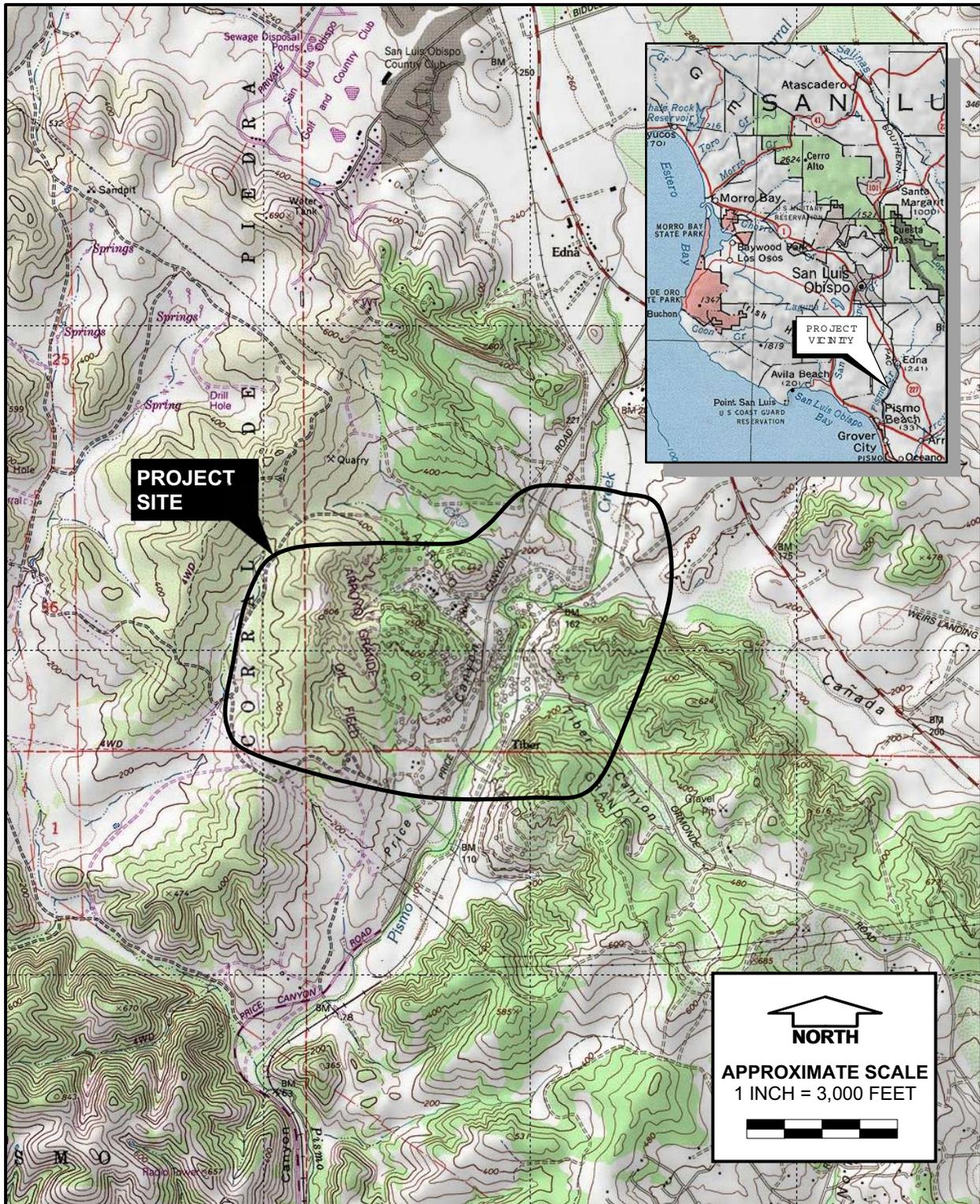
**TABLE 1  
SUMMARY OF APPLICABLE IMPACTS AND MITIGATION MEASURES  
PXP PHASE IV DEVELOPMENT PLAN PROJECT ADDENDUM (PULAS 5 AND 6)**

Impact No./Description	Mitigation Measure Summary	Project Modification Discussion	Substantial Conformance?	
		<p>with CDF/County Fire, the County Hazardous Materials Team, and other appropriate agencies on handling a petroleum or hydrogen sulfide emergency at the Project Site. See Mitigation Measure HAZ-1A.</p> <p>HAZ-3B – The applicant shall produce CDF/County Fire a Fire Hydrant System plan for approval prior to construction. This plan shall be implemented before construction commences.</p> <p>HAZ-3C – PXP shall submit a vegetation management plan to CDF/County Fire for approval prior to issuance of construction permits. This will identify measures to minimize the risk of wildfires due to operation of existing and proposed new pipelines and powerlines. It will also make recommendations for protection of such facilities from a wildlife fire.</p>		
HAZ-5	An accidental release of gas containing hydrogen sulfide could pose a risk to on-site worker or adjacent populations.	Refer to Measures HAZ-2 and HAZ-3A.	Proposed project modifications would not affect the severity of this impact. Mitigation measures would be applicable to project modifications.	Yes

**TABLE 1  
SUMMARY OF APPLICABLE IMPACTS AND MITIGATION MEASURES  
PXP PHASE IV DEVELOPMENT PLAN PROJECT ADDENDUM (PULAS 5 AND 6)**

<b>Impact No./Description</b>	<b>Mitigation Measure Summary</b>	<b>Project Modification Discussion</b>	<b>Substantial Conformance?</b>
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## FIGURES



Source: TOPO! © 2001 National Geographic Holdings (www.topo.com)



## APPENDIX

## **Mitigation Monitoring Field Report**

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Project: **PXP 2008 Drill Program**

Date of Inspection: September 12, 2008

Present: Mitch Siemens, Project Wildlife Biologist, LFR Inc

### **Observations:**

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Mitch Siemens, Project Wildlife Biologist (LFR Inc.) inspected the **Pulas 5** and **Pulas 6** Pads for California Horned Lizard Prior to the initiation of 2008 drilling activities. These are the only pads scheduled for drilling in September.

These Pads are located outside the Phase IV boundary. Native vegetation is located outside an existing berm. Native oaks and Wells Manzanita have been avoided. No special status species will be removed.

All construction access routes have been established in previously developed areas containing no vegetation.

PXP is **compliant** with preconstruction mitigation concerning Pulas 5 and Pulas 6 for the 2008 drilling program.

**Condition 21** and Mitigation Measure Bio-3 requires California Horned Lizard surveys prior to drilling or construction during April through September. No sensitive wildlife species were found at any of these locations. PXP is compliant.

Lindsay Corica  
Environmental Planner

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**Action:**       Compliance Noted       Re-inspect When Complete  
                  Stop Work                       Other:

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**Copies:** Jeff Oliviera, Paul Delorenzo, file

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