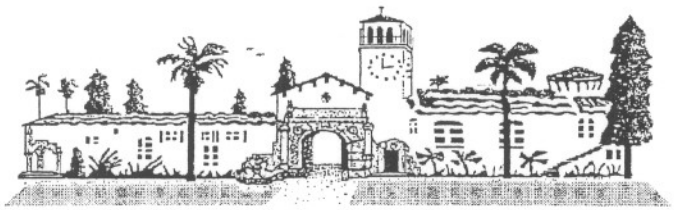
Appendix K.

Notice of Preparation
Scoping Document
Notice of Preparation Comments



County of Santa Barbara
Planning and Development

Dianne Meester, Assistant Director

NOTICE OF PREPARATION

TO: State Clearinghouse
Office of Planning and Research
1400 Tenth Street
Sacramento, California 95812-3044

FROM: Kevin Drude
Energy Divison
Santa Barbara County Planning and Development
123 East Anapamu Street
Santa Barbara, CA 93101-2058

SUBJECT: **Notice of Preparation of a Draft Environmental Impact Report**

PROJECT NAME: Tranquillon Ridge Development Project PROJECT CASE #: 94-DP-027 RV07

Planning and Development in conjunction with representatives from State Lands Commission and Coastal Commission will prepare an environmental impact report for the subject project. Planning and Development will act as Lead Agency. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering your permit or other approval for the project.

Santa Barbara County Planning and Development originally submitted a notice of preparation (NOP) for the Tranquillon Ridge Project on August 14, 2000. At that time, the project was proposed by Torch Operating Company, on behalf of Nuevo Energy Company and Bellwether Exploration Company, owners of the Point Pedernales Project. A State Clearinghouse Number was assigned (SCH 200071130) and a Draft Environmental Impact Report was prepared. The EIR (County EIR #01-EIR-04) was certified, but only for portions of the proposed project which were approved by the County. The EIR for the Tranquillon Ridge Project remained in draft form.

Plains Exploration and Production Company (PXP) has taken ownership of the Point Pedernales Project and resubmitted the application for the Tranquillon Ridge Project, with some minor revisions. A new draft EIR will be prepared. The PXP project description, location and the probable environmental effects are contained in the attached Scoping Document. If more detailed information is desired for purposes of document scoping, EIR SCH 200071130 may be consulted.

Due to the time limits mandated by State law, your response must be received at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Kevin Drude at the address shown above. We will need the name of a contact person in your agency.

Date: 2/8/2006 Planner: KJD

Division: Energy

Telephone: (805) 568-2519

cc: Clerk of the Board (please post for 30 days)
see attached list

Encl: Scoping Document

G:\GROUP\ENERGY\WP\OIL AND GAS PROJECTS\PXP - TRANQUILLON RIDGE\EIR\NOTICES\NOP

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold
Schwarzenegger
Governor

Sean Walsh
Director

Notice of Preparation

February 10, 2006

To: Reviewing Agencies

Re: PXP Tranquillon Ridge Offshore Oil and Gas Development Project
SCH# 2006021055

Attached for your review and comment is the Notice of Preparation (NOP) for the PXP Tranquillon Ridge Offshore Oil and Gas Development Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Kevin Drude
Santa Barbara County
123 E. Anapamu Street
Santa Barbara, CA 93101

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

for

Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2006021055
Project Title PXP Tranquillon Ridge Offshore Oil and Gas Development Project
Lead Agency Santa Barbara County

Type NOP Notice of Preparation

Description Plains Exploration & Production Company ("PXP"), owner and operator of the Point Pedernales Project, is requesting modification to the Santa Barbara County Point Pedernales Project Final Development Plan (FPD) to include development (drilling and production operations) of a California State Lease (Tranquillon Ridge Oil Field) within the existing FPD.

PXP has also applied to the State Lands Commission for the issuance of a lease of state tidelands for the purposes of oil and gas development. The proposed development of Tranquillon Ridge would introduce Tranaquillon Ridge production into the existing Point Pedernales facilities and would require modifications to existing facility equiment, increasing production levels above existing levels and extending the operating life of the original Pt. Pedernales Project.

Lead Agency Contact

Name Kevin Drude
Agency Santa Barbara County
Phone (805) 568-2519 **Fax**
email
Address 123 E. Anapamu Street
City Santa Barbara **State** CA **Zip** 93101

Project Location

County Santa Barbara
City Lompoc, Santa Maria
Region
Cross Streets
Parcel No. Numerous
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports Vandenberg AFB
Railways
Waterways Pacific Ocean, Santa Ynez River
Schools
Land Use Pipelines: Predominantly undeveloped open space and agriculture along the pipeline rights-of-way/ Unlimited Agriculture/ Agriculture
Lompoc Oil and Gas Processing Facility: Oil and Gas Processing/ Coastal Related Industry (M-CR)/ Agriclture with a Petroleum Resource Industry Overlay.

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Growth Inducing; Landuse; Noise; Public Services; Recreation/Parks; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Supply; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Conservation; California Energy Commission; Office of Historic Preservation; Department of Parks and Recreation; Department of Fish and Game, Region 5; Department of Fish and Game, Marine Region; Native American Heritage Commission; Public Utilities Commission; State Lands Commission; Caltrans, Division of Aeronautics; Caltrans, District 5; Regional Water Quality Control Board, Region 3

Note: Blanks in data fields result from insufficient information provided by lead agency.

Document Details Report
State Clearinghouse Data Base

Date Received 02/10/2006 ***Start of Review*** 02/10/2006 ***End of Review*** 03/13/2006

OP Distribution List

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SCH# 2006021055

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  San Diego Region (9)

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Last Updated on 02/9/06

Scoping Document

1.0 PROPOSED TRANQUILLON RIDGE DEVELOPMENT PROJECT

Plains Exploration and Production Company ("PXP"), as operator of the Point Pedernales Project (referred hereafter as "Applicant"), is requesting a modification to the Santa Barbara County Point Pedernales Project Final Development Plan (FDP) to include development (drilling and production operations) of a proposed California State Oil and Gas Lease (Tranquillon Ridge Oil Field). The proposed development of Tranquillon Ridge would introduce Tranquillon Ridge production into the existing Point Pedernales facilities, require modifications to existing facility equipment, increase production levels above existing levels and extend the operating life of the original Pt. Pedernales Project. Drilling and production descriptions for Tranquillon Ridge development are provided in the following descriptions.

2.0 EXISTING POINT PEDERNALES FACILITIES

The original Point Pedernales Project was approved by the County of Santa Barbara in April 1986 and has been operating since 1987. The Point Pedernales Project facilities include the following:

- An oil and gas drilling and production platform, Platform Irene, located on outer continental shelf (OCS) Lease P-0441;

- An oil dehydration and gas processing facility located 3 miles north of the city of Lompoc, known as the Lompoc Oil and Gas Plant (LOGP);

- Three pipelines, in one corridor, connecting Platform Irene with LOGP: a 20-inch wet oil line, an 8-inch gas line, and an 8-inch produced water line for discharge at the platform. The pipelines reach landfall just north of the Santa Ynez River and cross Vandenberg Air Force Base and PXP fee property;

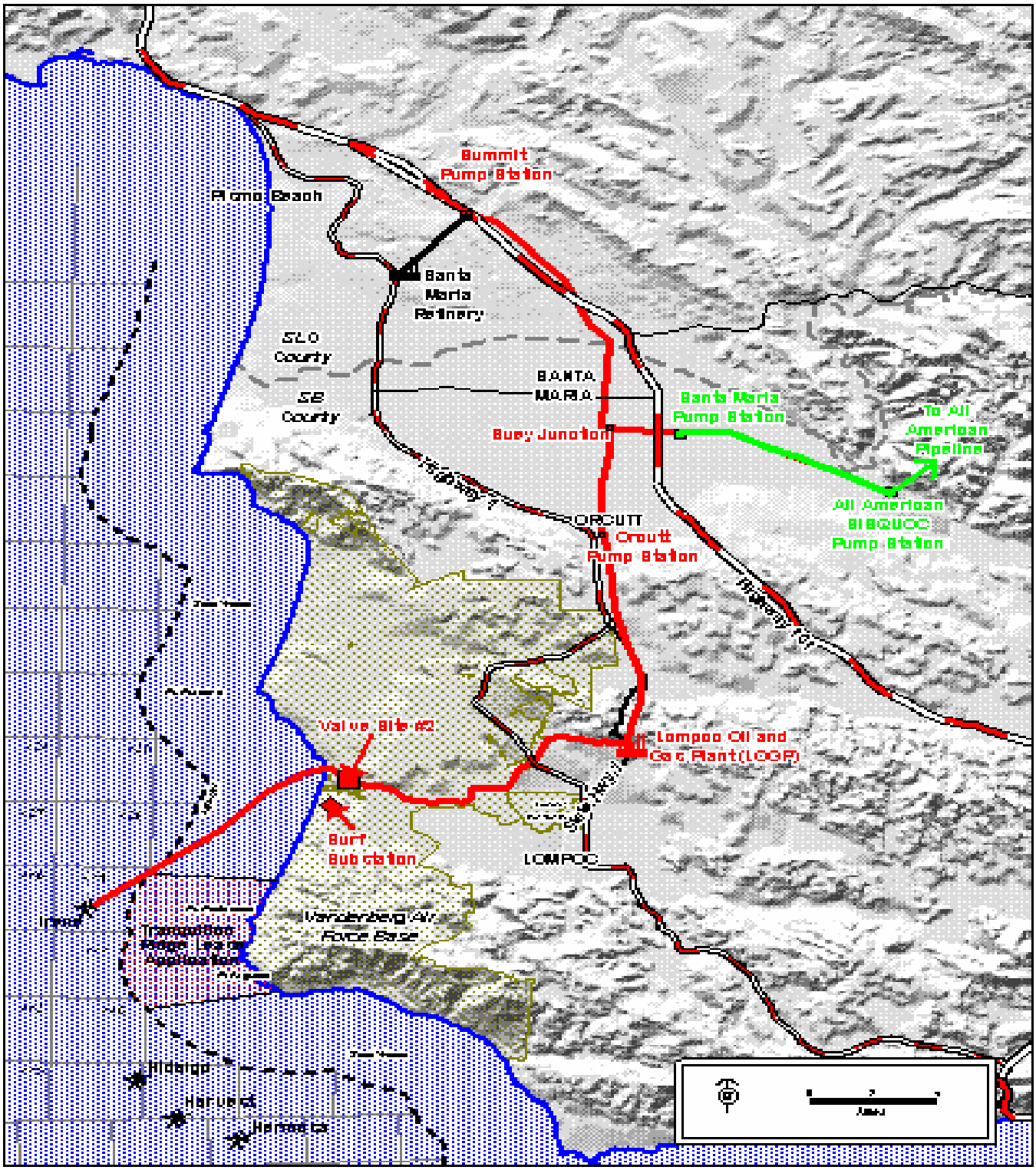
- A power supply system consisting of an electrical substation located on Southern Pacific Railroad property at Surf, a subsea power cable from the substation to Platform Irene, and an upgraded transmission line from the Pacific Gas and Electric power line north of Lompoc to the substation;

- A 12-inch sales gas pipeline from LOGP to Righetti Valve Box and a 6-inch sales gas pipeline from Righetti Valve Box to The Gas Company transmission line #1010; and

- Three onshore produced water disposal lines, one 10-inch and two 12-inch lines, used to transport wastewater from the LOGP to the Lompoc Oil Field for injection.

The proposed Tranquillon Ridge development project would use the above existing facilities and can fit within the existing framework of facility infrastructure at Platform Irene and the LOGP. Figure 1 shows the location of the Tranquillon Ridge Field, the Point Pedernales Facilities, and other facilities that are associated with the movement of the Point Pedernales oil and gas from the LOGP.

Figure 1 Location of the Tranquillon Ridge Field and Associated Point Pedernales Facilities



Currently, the Point Pedernales Project is permitted to operate under the following approved production/processing capacities: 36,000 barrels per day (BPD) of dry oil; 15 million standard cubic feet per day (MMSCFD) of natural gas with a maximum hydrogen sulfide (H_2S) concentration level of 8,000 parts per million (ppm); 9.205 MMSCFD of onshore gas reinjection (only during upset conditions); and a monthly average of 2.3 liquefied petroleum gas/natural gas liquids (LPG/NGL) truck trips per day.

Current Point Pedernales operations include drilling and production at Platform Irene, transportation of production via pipeline from offshore to onshore, oil dehydration and gas processing at the LOGP, and shipment of product for sale or further processing by pipeline or LPG trucks.

The produced liquid from Platform Irene is a combination of crude oil, gas, and water. The gas exists as free gas or is in solution in the oil, and the water exists both as free water and emulsion in the oil. The liquid stream is transferred to the LOGP through the 20-inch emulsion pipeline. The primary function of the LOGP is to lower the basic sediment and water content of the oil stream to less than three percent (known as dehydration) so the oil can be shipped and processed at a refinery and to compress, sweeten (remove the carbon dioxide (CO_2) and hydrogen sulfide (H_2S)), dehydrate and process the associated gas streams for sale and use at the LOGP.

A portion of the produced gas from Platform Irene, which is not in solution in the liquid stream, is separated from the liquid and is transported to the inlet of the LOGP gas sweetening and processing equipment through an 8-inch pipeline. Prior to being transported to the LOGP, the produced gas is dehydrated offshore.

Process operations at the LOGP include oil dehydration, produced water treatment, and shipment for reinjection offshore at Platform Irene and onshore into the Lompoc Oil Field, oil reclamation, oil storage, oil shipment, gas compression, gas reinjection, gas sweetening, gas dehydration, gas sales, LPG/NGL stabilization and storage, LPG/NGL and sulfur truck loading, and NGL/crude oil blending. The oil dehydration system is used to dehydrate a current average of 60,000 to 65,000 barrels per day of oil emulsion. The produced oil is characterized as heavy oil (16 degree API gravity). At the LOGP, water that has been removed from the gross fluid stream is treated with emulsion breaking chemicals to separate the trace oil, which is contained in the water. This oil is collected and sent to the reclaim oil tank for treatment. After the water is treated to recover the hydrocarbon liquids, the treated water is reinjected into the Lompoc Oil Field and shipped out to Platform Irene via the water pipeline for reinjection. Currently, 15,000 to 20,000 b/d of produced water is being injected at Platform Irene and 35,000 to 40,000 b/d of Point Pedernales produced water is being injected at the Lompoc Oil Field.

Another outlet for Point Pedernales produced water is offshore disposal. Prior to 1991, LOGP produced water was shipped to Platform Irene for discharge offshore. PXP retains a valid National Pollutant Discharge Elimination System (NPDES) permit authorizing discharge of produced water offshore from Platform Irene.

The existing oil processing and storage equipment at the LOGP includes heat exchangers, separators, free water knockout vessel, three heater treaters, SO_2 minimization scrubber, flare system, pressurized shipping vessel, wash tank, reject tanks, reclaimed oil storage tank, surge tank, vapor recovery system, gas compressors, and other miscellaneous pumps and equipment. Once the oil is dehydrated, it is sold to ConocoPhillips and shipped by pipeline from the LOGP to the Orcutt Pump Station and then to the Santa Maria Refinery, in San Luis Obispo County, for further processing.

The existing water treatment equipment at the LOGP consists of the Wemco flotation cell (currently out of service), wash tank, clean water tanks, and injection pumps. After treatment through this system, the water is shipped via the 8-inch produced water return line to Platform Irene for offshore disposal and shipped via onshore produced water disposal lines (one 10-inch and two 12-inch lines) to the Lompoc Oil Field for onshore injection.

Gas generated within the LOGP comes from two sources. One source is the solution gas separated from the emulsion, and the other from the vapor recovery system. The vapor recovery system collects vapors from all the tanks. Gases collected by the vapor recovery system and the solution gas separated from the emulsion are combined and compressed to the inlet of the gas sweetening and processing equipment.

The existing gas sweetening and processing equipment at the LOGP consists of an amine gas sweetening skid with an associated acid gas handling (Sulferox) system, a low temperature separation (LTS) skid, LPG/NGL stabilization skid and storage, LPG truck loading, and NGL/crude oil blending.

The H_2S removed from the combined inlet gas streams is reduced to mostly elemental sulfur in the associated Sulferox unit. The recovered sulfur is trucked from the LOGP. The sweetened gas then flows into the LTS skid where it is dehydrated and the NGL/LPG is removed. The raw NGL formed during this process then flows to the LPG/NGL stabilization skid. LPG gas comes off the top of the stabilizer column and is condensed and stored for transport to other facilities for further fractionation. The LPG gas has never been used at the LOGP for fuel. The stabilized NGL liquids flow to the NGL surge tank for blending into dry crude oil to the maximum extent feasible. The processed “sweet” natural gas is sold and shipped by pipeline and/or used as fuel at the LOGP.

Sales gas is shipped from the LOGP through a 12-inch sales gas pipeline to the Righetti valve site. The length of this line is approximately 6.5 miles with operating pressure ranges from 800 to 1,000 psig. Sales gas is then shipped through a 6-inch sales gas pipeline to The Gas Company gas transmission line # 1010.

Point Pedernales treated oil is shipped from the LOGP to the Santa Maria Refinery by a system of pipelines known as the UNOCAP network, now referred to as Line 300, which is owned by ConocoPhillips. The oil from LOGP is transported northward through a 12-inch pipeline to the Orcutt Pump Station where it commingles with oil from the Orcutt area. It then flows northward through an 8-inch pipeline to Suey Junction where it commingles with oil from the Sisquoc and Santa Maria Pump Stations.

The combined stream then flows northward through a combination 10-inch and 12-inch pipeline to the Summit Pump Station. There is also an 8-inch pipeline which roughly parallels the 10/12-inch pipeline from Suey Junction to Summit. This pipeline is currently idle; however ConocoPhillips is permitted to use this line for emergency purposes. From Summit, the oil flows westward to the Santa Maria Refinery through a 12-inch pipeline. The oil is upgraded at the Santa Maria Refinery and then transported to the Bay Area via overland pipeline for final refining. These facilities are discussed in detail in the Tosco Sisquoc SEIR (2001).

3.0 PROPOSED TRANQUILLON RIDGE PROJECT

As stated above, PXP is requesting a permit modification to allow introduction of Tranquillon Ridge production into the existing Point Pedernales Project. The Tranquillon Ridge Project would mostly affect the Point Pedernales Project facilities and pipelines that are connected to these facilities. The original Point Pedernales Project (94-DP-027), including Platform Irene and the LOGP facility (formerly the Heating, Separation, and Pumping [HS&P] facility) located north of the city of Lompoc, was approved by the SBC Board of Supervisors in 1986. The MMS approved the federal portion of the project and the Coastal Commission concurred in a consistency certification in 1985/1986. The facility has operated since 1987. Gas treatment facilities were installed in 1997 that allowed for the production of sales quality natural gas at the LOGP.

3.1 Background Information

Pursuant to a Lease Line Well Agreement between the MMS and the California State Lands Commission dated February 13, 1997, Torch, as Operator for Nuevo and Bellwether, drilled Well A-28 on federal Lease OCS P-0441 from Platform Irene to a bottom hole location approximately fifty (50) feet from the seaward boundary of the State of California. This well drilling resulted in the discovery of a hydrocarbon-bearing structure. Recent 3-D seismic data and existing 2-D seismic data, along with a geologic interpretation developed by using the Point Pedernales Field as an analog, indicate that this structure continues and increases in size into the State lands. The Minerals Management Service and the California State Lands Commission subsequently entered into a Lease Line Well Royalty Sharing Agreement relating to production from Well A-28. The Well A-28 production is combined at Platform Irene with production from other federal leases and transported to the LOGP.

Well A-28 is currently draining oil and gas from lands owned by the State of California. Several additional wells can be drilled on Lease OCS P-0441 from Platform Irene to bottom hole locations near the seaward boundary of the State of California. These wells would also drain significant quantities of oil and gas from lands owned by the State of California, substantially in excess of that currently being drained. This method of developing the reservoir, i.e., utilizing bottom hole locations on federal lands to drain reserves from lands owned by the State of California, would be inefficient, would require a longer production period than producing from wells within State lands, and would not allow for the full

development of the Tranquillon Ridge Field, which would reduce the amount of royalty income the State would receive from the oil and gas reserves.

In the first quarter of 2004 Nuevo Energy Company merged with PXP, who is now applying to the County of Santa Barbara and the California State Lands Commission for permits to develop and produce the Tranquillon Ridge Field.

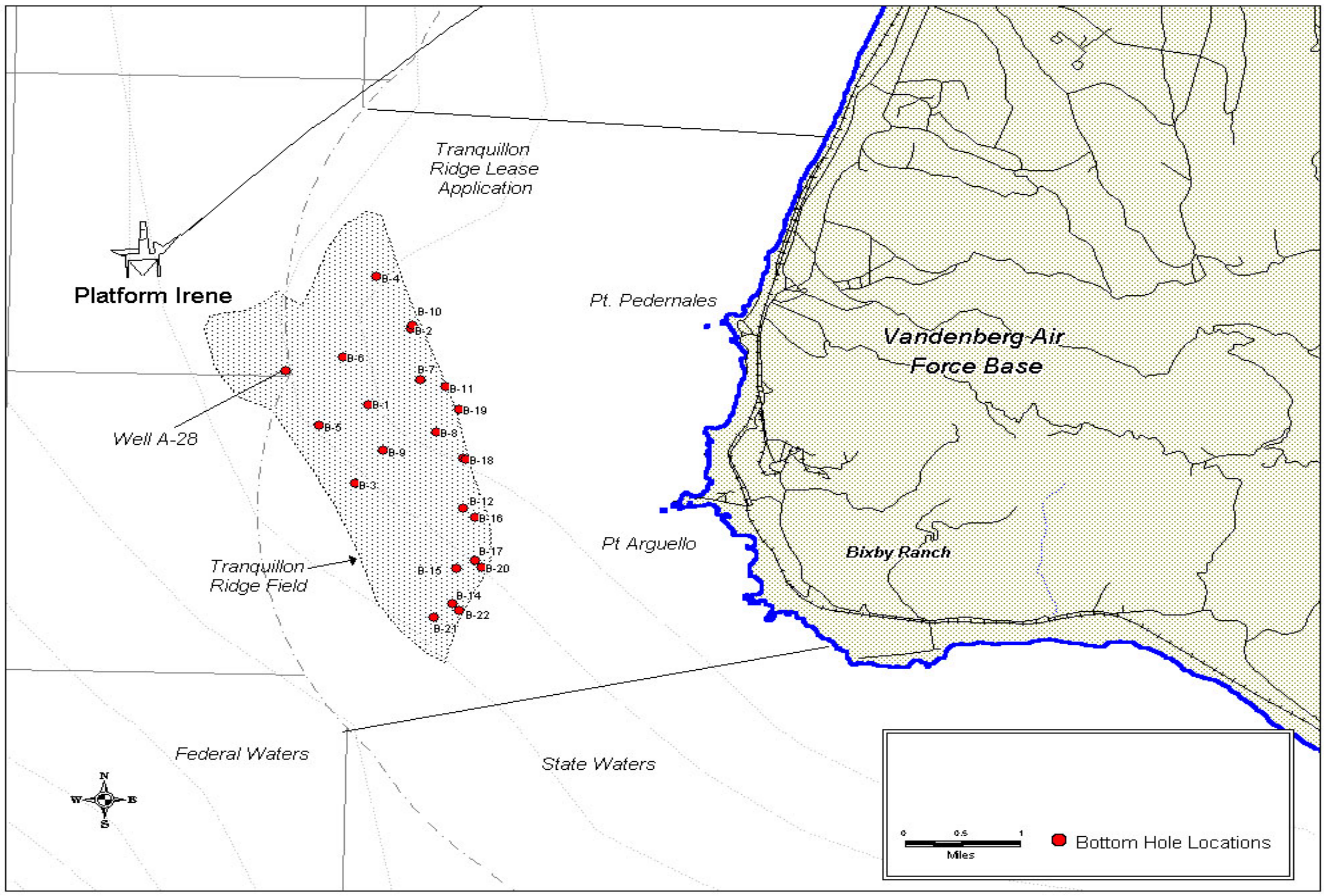
3.2 Tranquillon Ridge Field Development Summary

Present plans for development of the Lease propose drilling a maximum of thirty (30) wells (which would include 22 new wells and potential utility and redrilled wells) from Platform Irene into State lands, utilizing extended reach drilling technology. Access to State lands would be accomplished solely through underground approach, several thousand feet below the ocean floor. The horizontal distances of the wells are well within the capability of existing drilling technology. Drilling plans were developed using Point Pedernales Field drilling experience as an analog. Actual drilling results may indicate that fewer than thirty (30) wells would be needed to develop the Lease.

The Applicant has preliminarily determined the bottom hole locations of the twenty-two (22) new wells to be drilled. Bottom hole locations for additional wells, if needed, would be determined as additional information is obtained from drilling. Figure 2 shows the proposed location of the 22 new Tranquillon Ridge wells. The remaining eight (8) wells could be used for redrills or for utility purposes such as water injection. PXP has not identified which of the eight (8) wells would be used for redrills or utility purposes. This can not be determined until the field is in development and PXP can determine how the reservoir is performing. Any determination of how these eight (8) wells would be used in the future would be speculative at this time.

It is likely that the bottom hole locations presently determined would be revised as additional information is obtained. Specific drilling programs and bottom hole locations for each well would be submitted to the State Lands Commission prior to drilling. It is anticipated that recompletion in a well, if needed, would commence eight (8) to ten (10) years after the initial completion date of a well.

Figure 2 Proposed Bottom Hole Locations for Tranquillon Ridge Wells



Total well drilling and completion times are anticipated to range between 60 and 120 days per well. These times are consistent with drilling and completion times of similar length development wells drilled from Platform Irene in the Point Pedernales Field. However, actual drilling times for wells of similar length may vary due to dynamic dependencies on equipment, total well length, angle, completion techniques, and even weather.

The twenty-two (22) well development plan that is being proposed for the Tranquillon Ridge Field is designed to provide 80-acre well spacing in all of the four commercial Monterey zones. Each well would be directionally drilled using extended-reach technology from unused well slot locations currently available on Platform Irene. Total measured well lengths would exceed in some instances twenty-five thousand feet (25,000 feet), with overall vertical depths below the ocean surface averaging between three and five thousand feet (3,000–5,000 feet). Extended-reach drilling development methodology would maximize production acceleration while staying within the existing framework of facility infrastructure. This methodology would not only maximize hydrocarbon recoveries from the field, but would also minimize well population, development costs, and field life. Table 1 provides a listing of the proposed well locations and distances.

To fit within the existing framework of the facility infrastructure at Platform Irene and the LOGP, the proposed 22-well development program would have to be drilled over a fifteen-year time period.

Acceleration beyond this schedule would involve major infrastructure additions at both Platform Irene and the LOGP, which the Applicant is not advocating.

Table 1 Proposed Well Locations and Distances

Approximate Drilling Order	Approximate Measured Length, feet	Estimated Drilling Days	Horizontal Distance from Irene, feet
B-1	15,000	60	13,250
B-2	15,000	60	13,250
B-3	17,300	90	15,600
B-4	13,090	60	11,250
B-5	14,060	60	12,250
B-6	12,850	60	10,975
B-7	16,200	90	14,600
B-8	18,100	90	16,600
B-9	16,860	90	15,300
B-10	15,000	60	13,250
B-11	17,370	90	15,800
B-12	21,540	120	20,000
B-13	19,800	120	18,400
B-14	24,700	120	23,300
B-15	23,390	120	22,050
B-16	22,225	120	20,750
B-17	23,750	120	22,300
B-18	19,900	120	18,500
B-19	18,650	90	16,900
B-20	24,070	120	22,750
B-21	24,900	120	23,400
B-22	25,150	120	23,800

Note: the wells may not be drilled in numerical order.

Due to the dynamics associated with developing a California Monterey oil-bearing structure, production estimates can only be made from studying similar reservoirs. Fortunately, Tranquillon Ridge is similar in structure and chemical makeup to and is adjacent to the Point Pedernales Field, so analogies between the two fields can be made. The Applicant has used analogies with Point Pedernales production data to provide a statistical background for building the Tranquillon Ridge well drilling schedules and production forecasts. Figures 3 and 4 provide projected estimates of the oil and gas production, respectively, for the proposed

Tranquillon Ridge Project. The figures show the estimated oil and gas production from the Tranquillon Ridge Field, the Point Pedernales Field as well as total estimated production from Platform Irene.

Production from the Tranquillon Ridge Field is estimated to peak at around 28,000 bbls/day of oil and 8 mmscfd of gas. With the proposed Tranquillon Ridge Project, production from Platform Irene would peak at around 30,000 bbls/day of oil and 8 mmscfd of gas in year 16 of the project. Based upon the Applicant's estimates, the ultimate recovery at the economic limit for the Tranquillon Ridge Field is estimated to be approximately 170 to 200 million barrels of oil and 40 to 50 billion standard cubic feet of gas.

The oil and gas production estimates for Tranquillon Ridge and Platform Irene are based on limited data, and may not represent the actual production achieved once the wells are drilled. The actual production would depend on the number of wells that are drilled, the rate at which the wells are drilled, and the performance of each development well. It should not be assumed that the estimated production curves are what would actually occur with the development of the Tranquillon Ridge Field. They can only be used to provide information on the expected trends that would be associated with development of the Tranquillon Ridge Field.

Figure 3 Estimated Oil Production for the Tranquillon Ridge and Point Pedernales Fields

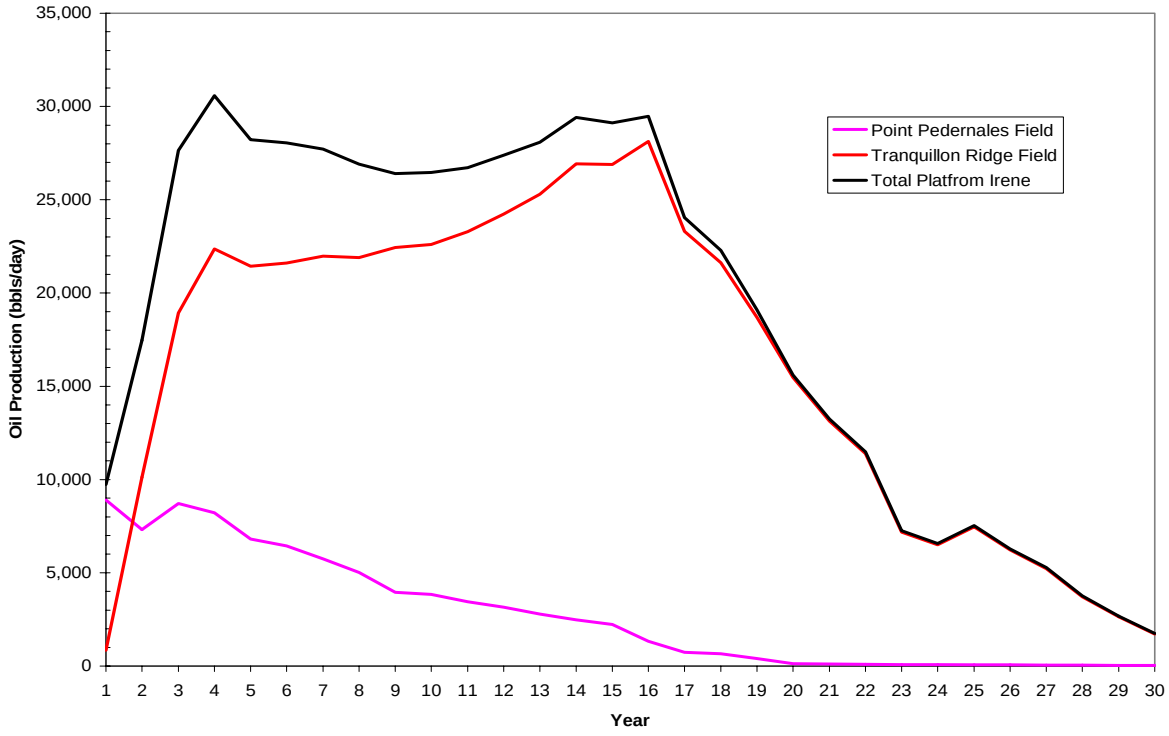
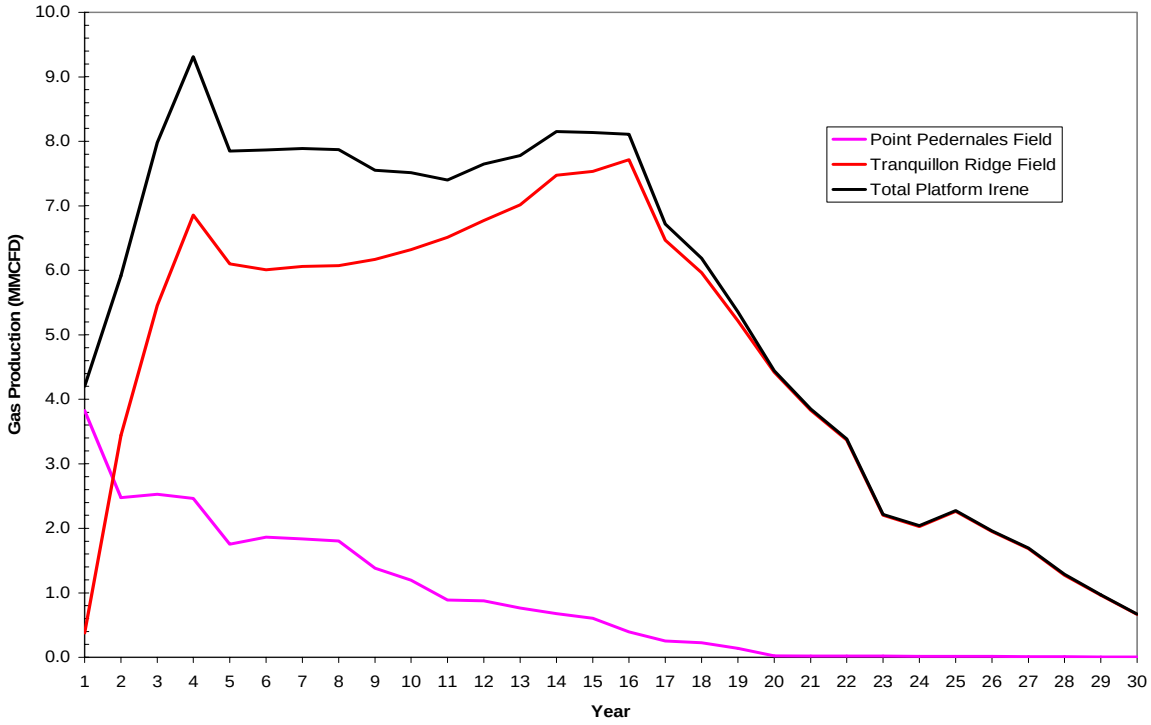


Figure 4 Estimated Gas Production for the Tranquillon Ridge and Point Pedernales Fields



Concentrations of H_2S gas are estimated to remain between 4,000 and 8,000 ppm with addition of Tranquillon Ridge gas production to the Point Pedernales produced gas. If Tranquillon Ridge production is similar to Point Pedernales production, then the H_2S concentration in the gas stream is expected to be lower during the initial period of production.

3.3 Platform Irene

Platform Irene is located approximately six miles west of Point Pedernales, California. The platform sits in 242 feet of water on OCS Lease P-0441 and was set in April 1986. A total of 72 well slots are contained on the platform. Oil and gas production is derived from the Point Pedernales Field.

Development drilling started in April 1987. Twenty-two wells were drilled, with a maximum of 14 wells producing in a given month. There are presently 12 production wells in service. The year-to-date average production from Irene (as of November 2005) is 8,587 barrels of oil per day, 70,035 barrels of water per day, and 3.4 million standard cubic feet of gas per day.

Production is transported via pipeline to the LOGP located north of Lompoc, California. Three pipelines in a single corridor are used: a 20-inch wet oil line, an 8-inch gas line, and an 8-inch produced water return line for disposal at the platform. The three lines reach landfall just north of the Santa Ynez River and cross VAFB and PXP fee property. Oil and gas are

sold and distributed via pipelines from the plant. The majority of the produced water is injected onshore at the Lompoc Oil Field with the remaining returned to Irene for offshore injection. Power is supplied to Irene via a subsea power cable from an electrical substation located on Southern Pacific Railroad property at Surf. The substation is connected to the Pacific Gas and Electric power line north of Lompoc.

Platform Irene is operated by PXP. Employees are housed on the platform and transported by helicopter. An average of 3 helicopter trips (round trips) per day is allowed; however, during normal operations, there are approximately 5 flights per week. The platform has a work force of 12 employees working on shift. Equipment and supplies are supplied by work boat. During normal operations, supply boat trips average 1 to 2 trips per month. During drilling, supply boat trips can increase to a maximum of 1 trip every 3 days. Manpower requirements and boat schedule can vary depending on the workload.

3.3.1 Platform Irene Modifications

The following discussion details the upgrades and minor modifications that are required on Platform Irene in order to integrate the proposed Tranquillon Ridge Project with the current operation of the Point Pedernales Project.

The proposed Tranquillon Ridge Project would require installing new pumps on Platform Irene. The Applicant proposes to replace three 600-horsepower electrical shipping pumps with three 1,250-horsepower electrical shipping pumps. In addition, approximately 15 of the new Tranquillon Ridge wells would utilize new 500-horsepower electrical submersible pumps. The other production wells would utilize gas-lift technology. The applicant would continue ongoing maintenance and upgrades of the electrical transformers and switchgear on the platform for these additional pump loads.

During the Tranquillon Ridge drilling operations on the platform, the Applicant proposes to batch discharge the muds and cuttings into the ocean in accordance with the current NPDES Permit. This permit allows for discharge of muds and cuttings from the Point Pedernales drilling operations. As proposed, this effluent would be discharged at a point approximately 150 feet below mean lower low water (MLLW). Any cuttings or muds which do not meet the current NPDES permit requirements would be stored in bins and hauled to a permitted disposal site onshore, or injected if feasible, for example, if oil-based mud is used.

Drilling activities and equipment would be similar to those of ongoing drilling programs, but with different frequency and duration. The existing drilling rig on Platform Irene would be used to drill the Tranquillon Ridge wells. The only additional equipment for drilling would be a new 1,600-horsepower electric pump for muds handling, as well as some refurbishing of the existing mud system.

The existing 8-inch produced water return pipeline is currently used to return part of the Point Pedernales produced water from the LOGP to Platform Irene for offshore water injection (a part is injected onshore into the Lompoc Oil Field). For the proposed Tranquillon Ridge

Project, a part of the produced water would continue to be transported offshore. This water would either be discharged to the ocean under the NPDES permit or injected offshore in accordance with the MMS authorization. Approximately 40,000 bpd of water produced from Point Pedernales and Tranquillon Ridge combined would be shipped from the LOGP to Platform Irene for discharge. The Applicant is authorized to discharge to the ocean from the platform up to 153,000 barrels of water per day in accordance with the current NPDES Permit. A part of the produced water that would be shipped to Platform Irene may still be injected into Point Pedernales reservoir wells, as is currently the operation. Offshore water injection would be conducted as authorized by the MMS.

The Platform Irene operations changes with the proposed project are summarized in Table 2.

3.3.2 Lompoc Oil and Gas Plant (LOGP)

The following minor modifications at the LOGP would be required in order to handle production from the proposed Tranquillon Ridge Project.

It may be necessary to heat the water and oil emulsion to aid in separation. If this is necessary, then the Applicant would return to service two existing plate and frame heat exchangers and install piping for the heat medium with the existing heater treater water outlets. In addition, the Applicant would install a new duplex feed strainer on the 20-inch pipeline inlet between the first and second plate and frame heat exchangers. One of the reasons the existing plate and frame heat exchangers are currently out of service is fouling from solid material in the emulsion stream.

Table 2 Summary of Changes to Platform Irene with Proposed Project

Parameter (Permitted Level[a])	**Platform Irene with Addition of Tranquillon Ridge Project**	
	During Normal Operations	**During Drilling of New Wells**
Total Employees	No additional personnel [b] (Currently there are 14-15 personnel).	Currently during drilling there are up to 70 personnel = 15 [normal operations] + 55 [drilling]).
Total Boat Trips (1 one-way trip every 3 days)	No increase (Currently [e] – 1 one-way trip every 3 to 4 days annual average or 98 trips per year).	Increase to a total of 1 one-way trip every 3 days or 120 trips per year (at the permitted limit).[c]
Total Helicopter Trips (3 round trips per day)	Increase of 1 one-way trips per week or 26 round trips per year (Currently [e] – 11 round trips per week annual average, or 573 annual round trips)	Increase to a total of 3 round trips per day annual average.
Equipment Additions, Upgrades or Replacements	1) Replacement of three 600 hp pumps with three 1,250 hp pumps. 2) Installation of 500 hp submersible pumps on 15 new wells.	Installation and operation of one 1,600 hp pump.

Table 2 Summary of Changes to Platform Irene with Proposed Project

	Platform Irene with Addition of Tranquillon Ridge Project	
	3) Ongoing transformer and switchgear upgrades.	
Additional Maintenance and Service of Wells	With addition of new wells could be up to 50% increase in maintenance and service.	None
Additional Electrical Power Requirement	104%[d]	104%[d]
Muds and Cuttings Disposal	N/A	Disposal into ocean outfall per the current NPDES permit or offshore injection if feasible.
Produced Water Disposal	Addition of 20,000 bpd for discharge offshore with a total of 40,000 bpd for injection or discharge to ocean. (Currently up to 20,000 bpd is injected offshore.)	N/A

N/A – not applicable; hp – horsepower; bpd – barrels per day

a. The permitted level is listed only where it is applicable.

b. Normal current operations include periodic well workover drilling, which takes 8 weeks per year and requires up to 55 personnel to operate the drilling rig and perform other work during the well workovers.

c. Assuming that drilling muds would be discharged into the ocean.

d. Data is annualized data and does not distinguish between normal operation and operation during drilling.

e. Currently maximum permitted helicopter trips and boat trips are occasionally utilized (e.g. during the platform shift change every Wednesday).

The installation of a feed strainer would facilitate the removal of solids, extend the time between cleaning, and maintain the efficiency of the exchangers. The duplex design would allow cleaning of one strainer while the other is online.

Other modifications include: installing internal coalescing assemblies inside the existing free-water knockout vessel and insulating its exterior; and, installing internal coalescing assemblies and four externally adjustable baffles on the three existing heater treaters. Installing baffles in the existing free water knockout and heater treaters would expand their emulsion breaking capacity. They would also aid in the water clarification process. Insulating the free water knockout would aid in heat retention and reduce the fuel consumption in the heater treaters.

Due to the increased use of the heater treaters for heating of the crude oil, natural gas consumption could increase by 100%. Electricity consumption at the LOGP could increase by approximately 30% due to the increased operations of the existing equipment. Increases in maintenance and service of the new equipment would not require additional new employees.

Currently there are 2.9 LPG/NGL truck trips per week (year 2000 annual average). It is expected that the Tranquillon Ridge project would generate up to two additional trips per week.

All LOGP upgrades and modifications would occur within the existing boundaries of the facility. No new grading or lighting would be required. Table 3 summarizes all the changes to the LOGP facility that would occur with the implementation of the Tranquillon Ridge Project.

Table 3 Summary of Changes to the LOGP with Tranquillon Ridge Project

Changes with Project	During Normal Operations
Additional Employees	None
Additional LPG/NGL Truck trips	Approximately 2 per week (to a total of 5 per week[a])
Additional Equipment Or Equipment Modifications	1) Return to service of two heat exchangers. 2) Addition of duplex feed strainer. 3) Addition of internal coalescing assemblies inside the existing free-water knockout vessel and insulation of its exterior. 4) Addition of internal coalescing assemblies and four (4) externally adjustable baffles on the three existing heater treaters.
Additional Maintenance	To be handled by the current employees.
Additional Electrical Power Requirement	30%[b]
Water Disposal Onshore	No increase

a. Based on the ratio of oil that could be generated to currently being produced.
b. The increase is due to increased operations due to production from Tranquillon Ridge.

3.3.3 Point Pedernales Pipeline Facilities

The Applicant is proposing the option to install crude oil booster pumps at Valve Site #2. No other modifications are proposed for the Platform Irene to LOGP pipelines. Monitoring of the pipelines would continue, and sections of existing pipe would be replaced with new pipe, as required, to maintain a sufficient Maximum Allowable Operating Pressure (MAOP) in order to continue operation of the Point Pedernales Project with the Tranquillon Ridge Project.

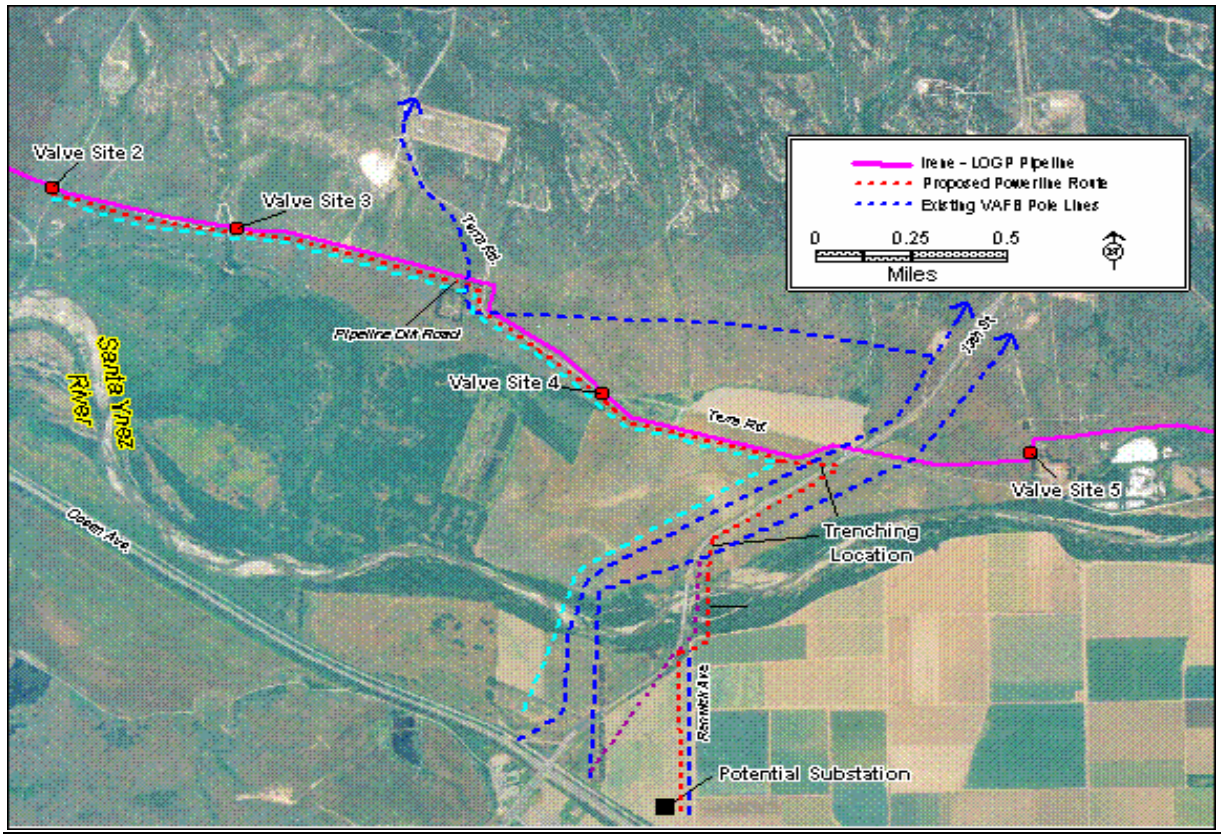
The expected volume of oil/water emulsion produced by Point Pedernales and Tranquillon Ridge combined is 90,000 bpd. Currently, the pressure rating on the 20-inch emulsion pipeline from Platform Irene to the LOGP is sufficient for the expected operation. However, during the course of Tranquillon Ridge project, if the MAOP of the 20-inch pipeline needs to

be lowered (i.e., the pipeline derated to less than 1,000 psig), then operation at the pressures needed to transport 90,000 bpd of emulsion would not be possible. In this case, the Applicant proposes to install three new 1,250-horsepower, electric booster pumps at Valve Site #2 in order to minimize the operating pressure of the offshore pipeline segment of the 20-inch oil pipeline. Two pumps would be operated with the third pump on standby. Apart from the power lines, all equipment modifications would be accommodated within the existing footprint of Valve Site #2 and would be integrated into the existing safety systems at the LOGP. The pumps and electrical upgrades described below would only be installed if needed.

The existing electrical system would be upgraded at Valve Site #2. Upgrading the system would consist of installing a new power line. Power is proposed to be supplied from one of two locations. The first choice is to supply power from the 115 kilovolt (kV) line that exists along Renwick Avenue in Lompoc. In this case, a substation would need to be constructed to step power down from 115 kV to 34.5 kV. The substation would be placed in the farm field on the northwest corner of Renwick and Ocean Avenues. Approximately 40 new power line poles would be installed along Renwick Avenue in the northerly direction. The second choice is to supply power from the existing 12 kV power line. There would be no need for the substation and the power line could be placed on the existing poles along Renwick Avenue. Figure 5 shows the route of the proposed power line to Valve Site #2.

At the northern end of Renwick Avenue the line would need to cross Santa Ynez River. The Applicant proposes that the power line cross the Santa Ynez River on a new set of poles that would be installed on both sides of the river. After crossing the river and crossing under the VAFB power line via trenching, the new power line would run along 13th Street on the east side, until the intersection with Terra Road. Once at Terra Road, the new power line would be run under 13th Street and under another VAFB power pole line that follows 13th Street in this location. This crossing would be done via trenching. After the power line emerges on the west side of 13th Street, it would follow Terra Road and the right-of-way of the Platform Irene to the LOGP pipeline route until it reaches the Valve Site #2. This option would require installation of approximately 35 new power poles.

Figure 5 Proposed Power line Route to Valve Site #2



For the portion of the route along Terra Road, the power line would be placed on new poles. The average height of power poles would be 60 feet and the average span between the poles would be 350 to 400 feet depending on the terrain. Installation of the power poles would require minimal grading and clearing around each installed pole as required by the fire department. Table 4 summarizes the changes to the Point Pedernales pipelines and associated facilities.

Table 4 Summary of Changes to Valve Site #2 with Proposed Project[a]

Changes with Tranquillon Project	During Normal Operations
Additional Equipment	1) Three 1,250 hp electrical booster pumps on 20-inch oil pipeline with an additional transformer and required switchgear. 2) New power lines with power poles, and possibly a new substation.
Additional Maintenance	One personnel month per year for maintenance to pump station equipment.

a. These changes would only be necessary if the 20-inch emulsion pipeline MAOP is derated.

The proposed oil pipeline operating pressure profile is based on an anticipated emulsion volume of approximately 90,000 barrels per day with a water cut rate of approximately 70%. The discharge operating pressure of the pumps on Platform Irene would be approximately 750 psig to 1,000 psig. The inlet receiving pressure at the LOGP would be approximately 140 psig.

The installation and operation of the booster pumps at Valve Site #2 may only be necessary if the offshore segment of the oil pipeline is derated below the current 1,000 psig. The use of the booster pumps at Valve Site #2 would provide flexibility for the continue operation of the oil pipeline with a decrease in operating pressure for the offshore segment.

With operation of the booster pumps at Valve Site #2, the discharge operating pressure of the pumps on Platform Irene would be approximately 200 to 400 psig. The suction pressure of the booster pumps at Valve Site #2 would be approximately 150 psig. The discharge pressure of the booster pumps at Valve Site #2 would be approximately 600 psig.

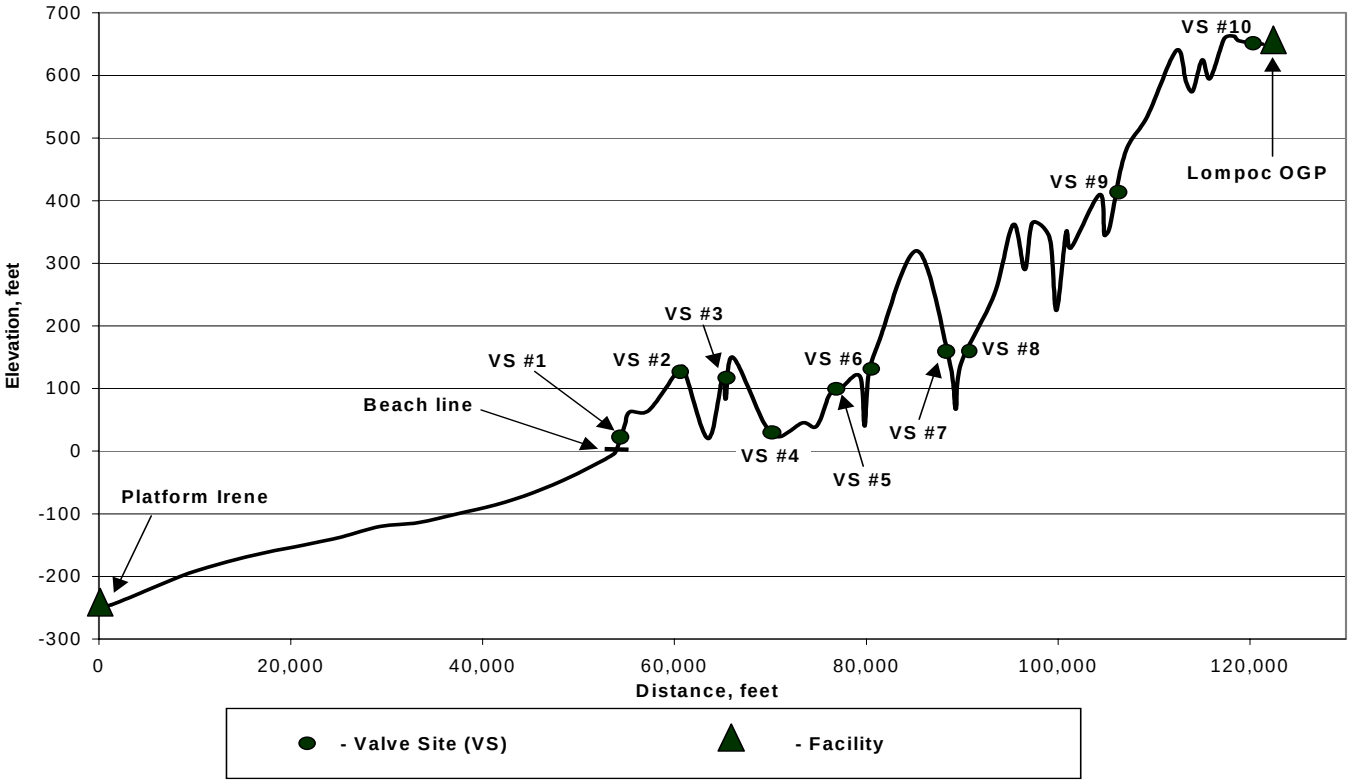
With inclusion of the booster pumps at Valve Site #2, there would be a decrease in the shipping pump pressure at Platform Irene. The elevation differential between Platform Irene and Valve Site #2 is only 85 feet and the distance is 61,000 feet. However the elevation differential between Valve Site #2 and the LOGP is 528 feet while the distance is only 58,000 feet. Therefore, the discharge pressure of the booster pumps at Valve Site #2 is much higher than the discharge pressure of the shipping pumps at Irene, even though Valve Site #2 is approximately at the midpoint between Platform Irene and the LOGP. Figure 6 shows the elevation profile for the 20-inch oil emulsion pipeline.

3.3.4 ConocoPhillips Point Pedernales Pipeline Changes

The ConocoPhillips Point Pedernales Pipeline Orcutt Pump Station modifications would be limited to placing a second electrically driven shipping pump, driven by 175 to 350-horsepower variable speed electric motor, back into service, or replacing it with a new pump. This would allow the system at the Orcutt Pump Station to be able to pump at the flow rate of up to 36,000 bpd. The pump is already permitted under the UNOCAP Point Pedernales Project permit No.94-DP-028 and SBCAPCD PTO 7511. Replacement of the permitted pump on as-needed basis is a part of normal operations at the pump station and does not represent new equipment installation.

The pipelines connecting the LOGP to the Summit Pump Station include the 8-inch pipeline from Orcutt to Summit through Suey Junction; and the 10/12-inch pipeline from Suey Junction to the Summit Station.

Figure 6 Platform Irene to LOGP 20-inch Oil Emulsion Pipeline Elevation Profile



Only the pipeline between the LOGP and Orcutt Pump Station and the 8-inch pipeline between Orcutt Pump Station and Suey Junction are expected to have increased oil throughput once Tranquillon Ridge production begins, since more oil would be shipped from the LOGP to the ConocoPhillips Santa Maria Refinery. Nonetheless, no modifications to the pipelines are expected. Some adjustments to the leak control and the overall pipeline operation control parameters may be necessary. Adjustment of these parameters is a usual operational matter that is handled by control operators on a regular basis. The proposed Tranquillon Ridge Project is not expected to result in a net increase in crude oil throughput for the other portions of the UNOCAP Line 300 pipeline system. This is because the additional oil from Tranquillon Ridge is anticipated to displace crude oil delivered into the UNOCAP pipelines system from other sources, primarily outer continental shelf crude entering the system at Sisquoc. Outer continental shelf crude oil that is displaced from the Sisquoc Pipeline would continue in the AAPL system and then on to refinery destinations in the Los Angeles Basin or the San Francisco Bay area.

ConocoPhillips may reapply to Santa Barbara County to reactivate the 8-inch oil pipeline between Suey Junction and the Summit Pump Station. That line is currently out of service but has a design capacity of 50 MBD oil. PXP anticipates that the Tranquillon Ridge Project would use the same pipeline network to transport the oil from LOGP to the Santa Maria Refinery. Regardless of the Tranquillon Ridge Project, in the event of a problem with the 10/12-inch pipeline from Suey Junction to Summit, ConocoPhillips could direct the oil from

the LOGP into the idle 8-inch line if the County approves the ConocoPhillips project. The control of the pipelines between Suey Junction and the Summit Pump Station are under the control of ConocoPhillips and not PXP. Any decision to use the 8-inch pipeline would have to be made by ConocoPhillips.

In the event that ConocoPhillips implements the Sisquoc Pipeline Reversal Project, PXP would consider using the Sisquoc Pipeline in the reverse direction in case the Santa Maria Refinery is shutdown for maintenance or flexibility to ship the crude oil to alternate refinery destinations.

3.3.5 Project Schedule, Equipment and Personnel Requirements

This section addresses schedule, and equipment and personnel requirements for the Tranquillon Ridge Project.

The addition of shipping pumps at Platform Irene and modifications at the LOGP are estimated to take approximately 9 months. The addition of booster pumps and associated equipment including the power pole installation at and to Valve Site #2 is estimated to take 14 weeks. Installing the transformer/substation is estimated to take 4 weeks. Electrical upgrades at Platform Irene would be conducted as needed throughout development of Tranquillon Ridge.

Tables 5 and 6 provide an estimate of personnel and equipment, which would be utilized to complete the onshore facilities upgrades and modifications at the LOGP and Valve Site #2.

Table 5 Personnel Requirements for Modifications at LOGP and Valve Site #2 (Including Transformer and Power Lines)

Position	Number of Personnel
Project Supervisor	1
Contract Crew Foreman	1
Electricians	3
Welders	3
Roustabouts	6
Equipment Operators	6
Total	**20**

Table 6 Equipment Requirements for Modifications at LOGP and Valve Site #2 (Including Transformer and Power Lines)

Equipment	Number of Equipment
Medium Duty Crane	1
Backhoe	1
Welding Machines/Track Mounted	2

Table 6 Equipment Requirements for Modifications at LOGP and Valve Site #2 (Including Transformer and Power Lines)

Concrete Trucks	1
A-Frame Trucks	2
Delivery Trucks	2
Total	**9**

The Tranquillon Ridge Project is expected to have a total life of 30 years from the time the first well is drilled. Drilling of the wells is expected to span 15 years. Figure 7 shows the proposed schedule for drilling of the Tranquillon Ridge wells.

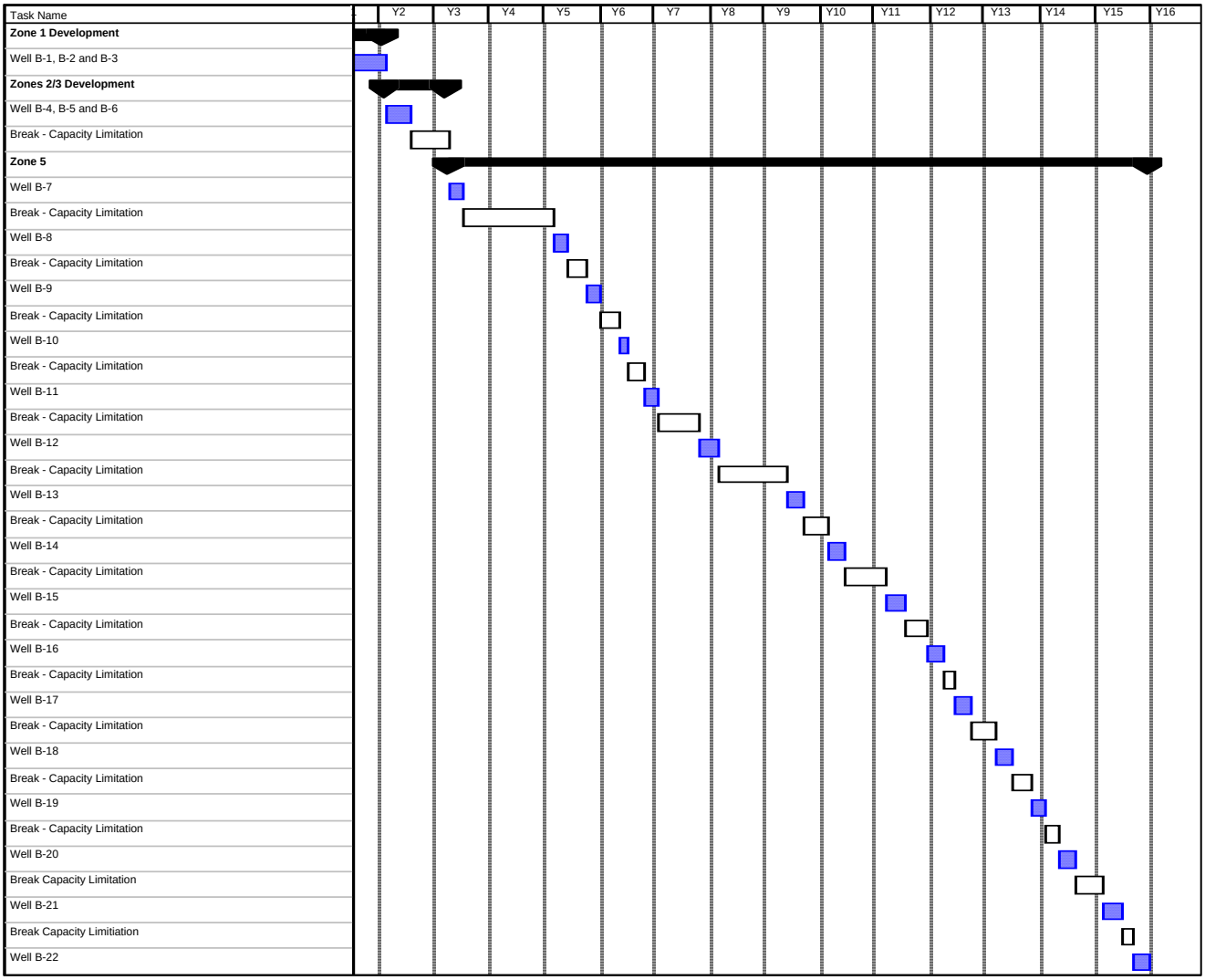
3.3.6 Extension of Life of Point Pedernales Facilities

The Tranquillon Ridge Project is expected to have a total life of 30 years from the time the first well is drilled; assuming that development of the Tranquillon Ridge Field is successful. It is possible that the initial wells drilled into the Tranquillon Ridge Field may not be commercially viable. Under this scenario, the full development of the Tranquillon Ridge Field would not occur. However, for the purposes of this application, it has been assumed that full development of the Tranquillon Ridge Field would occur.

Based on a 30-year life for the Tranquillon Ridge Project, the Point Pedernales facilities (Platform Irene, the associated pipelines, and the LOGP) would have a total projected life of approximately 48 years (based on startup of Point Pedernales Field operations in 1987). This assumes that the first well for Tranquillon Ridge is drilled approximately in the fourth quarter of 2006.

The 1985 Point Pedernales EIR/EIS assumed a 20-year life expectancy for Platform Irene and a 30- to 35-year life expectancy for the pipelines and the Lompoc Oil and Gas Plant. However, the 35 year timeframe referenced in the EIR was predicated on the use of the Point Pedernales facilities to process reserves from five additional offshore platforms located in the Central Santa Maria Basin, which were part of the document's Area Study. Two of these platforms were in the Point Pedernales Unit, one was in the Santa Maria Unit, one was in the Purisima Point Unit, and one was in the Bonito Unit. Based on improvements in drilling technology, the two additional platforms in the Point Pedernales Unit would not be needed. Full development of this unit is occurring from Platform Irene.

Figure 7 Proposed Tranquillon Ridge Field Drilling Schedule



The 1993 Point Pedernales Supplemental EIR (SEIR), which evaluated the relocation of gas processing facilities from the Battles Gas Plant in Santa Maria to the Lompoc HS&P, assumed a life expectancy of 10 to 25 years for the new gas plant. Original estimates of Point Pedernales project life as well as the estimated life of the Point Pedernales facilities with Tranquillon Ridge field development are summarized in Table 7.

The 20-year life expectancy of Platform Irene, assumed in the 1985 Point Pedernales EIR/EIS was based on an estimated production curve submitted by the Applicant as part of its DPP submitted to the MMS in 1984. With startup in 1987 and an estimated life of 20 years the estimate was that production would continue until 2007. Current production forecasts for the Point Pedernales Field now project that the production would continue until 2012 to 2022,

which would represent a 25 to 35-year life. MMS has estimated that operations for Point Pedernales Field would end sometime between 2012 and 2018. These estimates are based on a number of assumptions that could change over time. CSLC (2001) has estimated that operations for the Point Pedernales Field would end around 2018-2022. This represents a life expectancy that is 9 to 15 years greater than what was assumed in the 1985 Point Pedernales EIR/EIS.

Table 7 Summary of Extension of Life Estimates from Environmental Documents

Existing Point Pedernales Facilities			
Project Component	**Original Estimated Life (Years)**	**Estimated Time Frame[a]**	**Source of Estimate**
Platform Irene	20	1987-2007	1985 Pt. Pedernales EIR/EIS
LOGP (HS&P) Gas Plant	30-35[b] 10-25	1987-2022 1997-2022	1985 Pt. Pedernales EIR/EIS 1993 Supplemental EIR
Tranquillon Ridge	30	2005-2035	Project Application
Estimated Increase in Life with Tranquillon Ridge			
Project Component	**Estimated Total Life (Years)**	**Estimated Total Time Frame**	**Net Increase in Life (Years)**
Platform Irene	45	1987-2032	28
LOGP (HS&P)	45	1987-2032	13[c]

[a] *Current production forecasts (MMS 2000 and CSLC 2001) show a current estimated Point Pedernales project life extending to between 2012 to 2022. Thus, the original project life for Platform Irene may have been underestimated by approximately 5 to 15 years.*
[b] *This estimate goes beyond permitted development levels, and was predicated on the development of up to six offshore platforms located in the Central Santa Maria Basin.*
[c] *The FDP would give a net increase in life of 28 years for the LOGP.*

The Santa Barbara County permit governing the Point Pedernales facilities contains conditions that address the scope of the project. Condition A-12 stipulates that oil production shall be limited to the Point Pedernales Field, leases OCS-P 0441, 0437, 0438, and 0440. Thus, the permit limits production to only a portion of the offshore development that was analyzed in the 1985 Point Pedernales EIR/EIS. On the other hand, the Santa Barbara County permit (Conditions Q-8 and Q-9) does provide a basis for future discretionary decisions to bring additional production into the Point Pedernales facilities. Based on the permit conditions, the life expectancy of the LOGP would have been based on the Point Pedernales Project only (20 years).

Due to the dynamics associated with developing a California Monterey oil-bearing structure, estimates of project life as well as ultimate recoveries are extremely difficult without extensive production data from a number of wells. This type of data is typically not available

during the permitting phase of the project. As such, the production and project life estimates made during the permitting phase are rough estimates and typically change over the course of the project's development. Other factors that affect total recoverable reserves and project life are changes in technology (e.g., enhanced oil recovery techniques), new well development technologies, and the price of crude oil.

If development of the Tranquillon Ridge Project is successful, the expected life of the Point Pedernales Facilities would be extended beyond what was projected for the current Point Pedernales Field operations. However, it is uncertain how long the proposed Tranquillon Ridge Project would extend the life of these facilities. Based on the current projections for the Tranquillon Ridge Project (30-year life), the life expectancy of the Point Pedernales Facilities would be extended approximately 13 to 23 years beyond what the MMS and CSLC have projected for the Point Pedernales Field. However, it is possible that due to changes in technology and oil prices that production from the Tranquillon Ridge Field could extend beyond the 30-year estimate, similar to what is now projected to occur for the Point Pedernales Field.

If the life expectancy assumed in the Point Pedernales 1985 EIR/EIS and 1993 SEIR and the estimated project life expectancy of the Tranquillon Ridge Project are used as the basis for estimating extension of life, then the Tranquillon Ridge project would be expected to extend the life of Platform Irene by approximately 28 years, and the LOGP by 13 years.

4.0 ENVIRONMENTAL SETTING

Pt. Pedernales Project Onshore Site Information	
Comprehensive Plan Designation	*The Lompoc Oil and Gas Plant itself is designated Petroleum Resource Industry. The majority of the onshore portion of the project ROW is located within VAFB. That portion of the ROW which lies outside of VAFB (i.e. from approximately 4,000 feet northwest of Vandenberg Village to the Lompoc Oil and Gas Plant) is designated A-II (Agriculture).*
Zoning District, Ordinance	*The Lompoc Oil and Gas Plant is zoned M-CR, Coastal Related Industry. That portion of the ROW which lies outside of VAFB is zoned U (Unlimited Agriculture) per the specifications of Santa Barbara County Zoning Ordinance No. 661.*
Site Size	*The onshore portion of the project ROW is approximately 12.4 miles in length.*
Present Use & Development	*Between landfall and its departure from VAFB, the ROW traverses predominantly undeveloped lands. Exceptions include the federal penitentiary and limited agricultural production. The eastern-most segment of the ROW, located between its departure from VAFB and the Lompoc Oil and Gas Plant, lies entirely within the state-designated Lompoc Oil Field.*
Surrounding Uses/Zoning	*For the purposes of this description the onshore portion of the pipeline has been divided into two segments.* ***Segment A*** *refers to that portion of*

Pt. Pedernales Project Onshore Site Information	
	the ROW located between landfall and its departure from VAFB property (approximately 4,000 feet northwest of Vandenberg Village). ***Segment B*** *refers to the remaining, and easternmost, 2.6 mile segment of the ROW. Because the pipeline generally trends in a west to east direction, the following description is presented in the context of the north and south sides of the ROW.* North Side of ROW: ***Segment A****: The majority of lands north of Segment A are undeveloped lands of VAFB, owned by the federal government. This segment includes one underground crossing of Highway 1, near Santa Lucia Canyon, and limited agricultural use, including cultivated fields near VAFB's 13th Street and Terra Road intersection and fields within Santa Lucia Canyon, east of Highway 1.* ***Segment B****: Land uses north of Segment B are limited to lands dedicated to the onshore oil production of the Lompoc Oil Field. This segment is adjacent to the Burton Mesa Ecological Reserves, and includes one underground crossing of Harris Grade Road.* South Side of ROW: ***Segment A****: The majority of lands south of Segment A are undeveloped lands of VAFB. This segment of the ROW traverses the northern and western borders of the federal penitentiary within VAFB.* ***Segment B****: Uses immediately south of Segment B are limited to lands dedicated to the onshore oil and gas production of the Lompoc Oil Field. It is noted, however, that residences of Vandenberg Village lie, at their closest proximity to this segment of the ROW, approximately 1,875 feet away. In addition, this segment is adjacent to the Burton Mesa Ecological Reserves.*
Access	*Access to the onshore portion of the Pipeline ROW is primarily limited to private, unimproved access roads of VAFB and the Lompoc Oil Field. The ROW does, however, include two underground crossings of public roads, including Highway 1 near Santa Lucia Canyon, and Harris Grade Road, west of the Lompoc Oil and Gas Plant.*
Public Services	Water Supply: *Water supply for the Lompoc Oil and Gas Plant is provided by the Mission Hills Community Services District. The process water, fire water, and irrigation water is provided by a private well which is owned by PXP. The well is located on the west side of H Street (Highway 1) just north of the Santa Ynez River.* Sewage: *Operation and maintenance of the pipeline requires no sewage disposal; sewage disposal for the Lompoc Oil and Gas Plant is provided by an onsite septic system.* Fire: *The closest Fire Station in proximity to the pipeline and Lompoc Oil and Gas Plant is County Fire Station 51, Battalion 2.* Other: *Cabrillo High School and the Buena Vista Elementary School, both located within Vandenberg Village, and Los Berros Elementary School, located within Mission Hills, fall under the administration of the Lompoc Unified School District. The closest Sheriff's Station to the*

Pt. Pedernales Project Onshore Site Information	
	pipeline ROW and Lompoc Oil and Gas Plant is the Lompoc Station; it is located adjacent to Fire Station 51 on Burton Mesa Boulevard.

1.1

10"/12" Santa Maria to Summit Pipeline ROW Assessor's Parcel Numbers (APNs)	
128-093-002; 128-066-038; 128-066-019; 128-066-018; 117-049-030; 117-025-026; 117-025-030; 117-025-001; 123-022-001; 123-022-001; 123-015-001; 123-014-003; 123-121-004; 123-111-009; 123-073; 123-072-001; 123-071-001; 123-032-001; 123-031-021; 119-261-001; 119-221-003; Railroad Avenue; 117-030-031; Taylor Street; 117-030-073; 117-030-057; 090-341-034; 090-341-019; 090-341-033; 090-281-024; 090-281-023; 090-281-018; 090-281-016; 090-281-015; 090-271-014; 090-271-015; 090-271-013; 090-271-004; 090-171-009; 090-111-002; 090-151-008; 091-300-004; 091-025-003; 091-090-011; 091-052-046.	
Santa Maria Pump Station Site Information	
Comprehensive Plan Designation	Agriculture II with Petroleum Industry overlay
Ordinance, Zoning District	Article III, General Industry (M-2)
Site Size	19 acres
Present Use & Development	Industrial, oil pumping station
Surrounding Uses/Zoning	***North:*** Agriculture/Agriculture II (AG-II-40) ***South:*** Agriculture/General Agricultural (10-AG) and Limited Agricultural (40-AL), Ord. 661 ***East:*** Agriculture/Limited Agricultural (40-AL), Ord. 661 ***West:*** Former Unocal Battles Gas Plant - permitting for remediation activities in progress/General Industry (M-2)
Access	Battles Road
Public Services	***Water Supply:*** Private Well ***Fire:*** 1. SM City Station 2 (2 miles); 2. County Station 21 (5 miles); 3. County Station 22 (7 miles)

** Due to the large number of parcels, specific site information is not provided for the pipeline route.*

5.0 POTENTIALLY SIGNIFICANT ISSUES

The following information summarizes the potential environmental impacts and recommended mitigation measures identified in Draft EIR (01-EIR-04) for the Torch/Nuevo Tranquillon Ridge Development proposal. This information is presented to only to assist in scoping the EIR for the PXP Tranquillon Ridge Development proposal which is similar in many ways to the earlier Torch/Nuevo proposal. It is not an analysis of the current PXP proposal. Actual impacts from the PXP proposed project may vary in type, quantity and significance than those described below.

5.1 Risk of Upset

Impact Summary: The 2002 EIR found that the Torch Tranquillon Ridge Project posed a number of potential safety impacts (injuries and deaths) due to variety of potential upset conditions. These upset conditions include leaks or ruptures of the crude oil pipeline on or offshore; leaks or ruptures of the off-to-onshore sour gas pipeline; and transportation of natural gas liquids from the LOGP. These impacts are currently associated with the Pt. Pedernales project but the duration of the potential impacts to the public and the severity of the impacts would increase due to the increased oil and gas production levels and the extension of life of the facilities. Of these potential impacts, only the transportation of natural gas liquids represents a significant unavoidable impact. The remaining impacts are classified as adverse but less than significant, assuming that existing permit conditions regarding safety remain in full force and effect.

Mitigation Measures: The 2002 EIR found that to minimize potential safety impacts the transportation of NGLs must be consistent with Board of Supervisor's Resolution 93-480. All other system safety measures that apply to the Pt. Pedernales project would also apply to the Tranquillon Ridge Project's use of the Pt. Pedernales facilities. Even with implementation of these measures, the residual impact of transporting of NGLs/LPGs would be significant and unavoidable.

In addition to the above measures, to ensure that public safety impacts of operating the sour gas pipeline remain less than significant, the Applicant would be required to ensure that pipeline operation does not exceed an operating pressure of 600 psig and a hydrogen sulfide concentration of 8,000 ppm.

5.2 Terrestrial and Freshwater Biology

Impact Summary: The 2002 EIR found that modification of Valve Site #2 and installation of power poles and a transformer station would result in disturbance or loss of less than one acre of native vegetation and wildlife habitat and possible injury to wildlife. These impacts are potentially significant but mitigable. Construction activities at the LOGP would be within previously disturbed areas, creating no new biological impacts. Construction activities at both these sites could, however, result in an increase in erosion and sedimentation in adjacent aquatic habitats.

Pipeline maintenance and repair, if needed, would result in potential removal of native vegetation and wildlife habitat and erosion and sedimentation as a result of ground disturbance. Pipeline repair may injure or eliminate individuals or colonies and habitat of state or federally listed plant species and may cause injury or mortality to individuals and affect habitat of common and federally and state-listed fish and other sensitive wildlife species. These impacts are potentially significant but mitigable.

A pipeline leak or rupture could result in an oil spill and subsequent significant and unavoidable degradation of upland, riparian and aquatic habitats and injury to plants and

terrestrial and aquatic wildlife through direct toxicity, smothering, and entrapment as well as through resultant cleanup efforts. Under the worst case, onshore spill volumes would increase by approximately 625 barrels (from 1,354 to 1,979 barrels) with a 0.6 percent increase in the probability of a rupture and 2 percent increase in the probability of a leak. A spill and/or subsequent cleanup efforts may directly or indirectly cause the loss of habitat and individuals or colonies of state- or federally-listed plant species including seaside bird's beak, Surf thistle, beach spectacle pod, La Graciosa thistle and possibly Pismo clarkia or degrade designated critical habitat for the Lompoc yerba santa and the La Graciosa thistle. An oil spill and/or subsequent cleanup effort may directly or indirectly cause the loss of individual state- or federally-listed wildlife species or cause the loss or degradation of sensitive species habitat. An oil spill and/or subsequent cleanup effort may impact designated critical habitat for steelhead, western snowy plover, and California red-legged frog.

Mitigation Measures: The 2002 EIR found that in order to minimize the biological impacts associated with modifications to Valve Site #2, mitigation measures identified in the 2002 EIR include mounting the new lines on existing project area infrastructure (such as existing VAFB poles or the 13th Street Bridge) or if this is not feasible locating the poles and adjusting the height of the poles to minimize impacts to vegetation and to avoid conflicts with wildlife using the riparian corridor of the Santa Ynez River. Erosion and sedimentation impacts would be mitigated by timing construction to occur during the rainy season and the installation of erosion control measures.

To mitigate impacts to biological resources (including impacts to sensitive species) during pipeline repair and maintenance activities, the 2002 EIR identifies the need to develop and implement a standard maintenance and repair plan and to prepare and implement restoration, revegetation and erosion control plan. The 2002 EIR identifies specific updates to the Oil Spill Contingency Plan(s) to reduce spill-related impacts. Updates include revised spill volume calculations, identification of site-specific response and restoration measures, identification and use of low impact cleaning methods, and adequate training and spill response resources.

5.3 Geological Resources

Impact Summary: The 2002 EIR found that repair activities and potential oil spill remediation activities could increase slope failures, erosion, sedimentation, and gullying. Scouring along drainage areas could cause impacts to the pipeline and increase pipeline failure probabilities. Impacts to geological resources are generally significant but mitigable.

Mitigation Measures: The 2002 EIR found that in order to reduce geologic impacts erosion and sediment control best management practices (BMPs) would need to be implemented during construction and during remediation activities. The BMPs would be included in the Oil Spill Contingency Plan. A creek and drainage maintenance program would also be required to monitor and respond to scour in the drainage crossed by the pipeline.

5.4 Onshore Water Resources

Impact Summary: The 2002 EIR found that project-related construction, repair and maintenance activities, and/or oil spill remediation could cause erosion or siltation resulting in substantial degradation of surface water quality. In addition, a rupture or leak from the emulsion, produced water or dry oil pipelines could substantially degrade surface and groundwater quality. In addition to the water quality impacts discussed above, the LOGP's contribution to overdraft of the Lompoc groundwater basin would also be extended in duration.

Mitigation Measures: Measures identified in the 2002 EIR to address the aforementioned water resource impacts include: implementation of erosion and sediment control measures on any land disturbing activities; installing a new oil containment berm around Valve Station #2; upgrading the SCADA leak detection systems; updating the OSCP; maintenance of the existing oil catch basins; and restoring any disturbed creek beds to pre-spill conditions.

5.5 Marine Biology

Impact Summary: The 2002 EIR found that oil spills from the project may impact benthic and intertidal organisms, fish, marine mammals, marine birds, and marine turtles. These impacts could be potentially significant and unavoidable depending on the volume of oil released and the location of the spill. However, the potential worst case spill volume would increase with the proposed Tranquillon Ridge Project and the potential for a spill would occur over a longer duration (up to an additional 25 years). Offshore, the potential worst-case spill volume would increase by approximately 3,800 barrels (from 2,868 barrels to 6,718 barrels) with an 8.5 percent increase in the probability of a rupture and a 4.4 percent increased probability of a spill.

Plankton would be expected to be adversely but not significantly affected by a project-related oil spill. A number of other adverse but less than significant impacts to marine resources would also occur including effects due to the discharge of drilling mud and produced water at Platform Irene, impacts to marine mammals and birds from drilling noise, and the potential for increased collisions between vessels serving the platform and marine mammals and marine turtles.

Mitigation Measures: Mitigation measures identified in the 2002 EIR to reduce the oil spill impacts include: updating the oil spill response plans to address the change in operations and to incorporate lessons learned during the 1997 spill; discharging produced water at the existing 180-foot shunt depth; conducting a baseline oiling study; providing for wildlife care; and providing marine mammal observers on boats serving the platform. Even with implementation of the measures identified in the EIR, potential impacts to marine resources from a spill would remain significant.

5.6 Oceanography and Marine Water Quality

Impact Summary: The 2002 EIR found that accidental discharge of petroleum hydrocarbons into marine waters would significantly affect marine water quality. The increased risk of an ocean oil spill arises because of an increase in the facility lifetime, an increase in crude-oil throughput, and an increase in the blowout potential if the new wells encounter a pressurized reservoir. The combined probability of oil leaks, ruptures, blowouts, and spills from Platform Irene and the offshore portion of the wet-oil transmission line would approximately double under the proposed project.

Ocean impact areas were found to be similar for spills from Platform Irene and from the oil-emulsion pipeline. Spills could potentially extend substantial distances and impact the Channel Islands Marine Sanctuary and ocean areas south of the Channel Islands. Uncertainty concerning the influence of wind drift on spilled oil, limitations in the model, and the prevailing northward surface current flow suggest that oil spilled within the project area could also impact coastlines to the north, as well as open-ocean areas south of Point Sal.

Adverse but less than significant marine water quality impacts that would result from implementation of the project include: reduced marine water and sediment quality from increased oceanic discharge of drilling fluids and from discharge of produced water, and additional discharges of sanitary wastes, desalinization brine, and other materials from Platform Irene.

Mitigation Measures: As identified in the 2002 EIR, the significant marine water quality impacts of the project can be reduced (but not to a less than significant level) by revisions to the OSCP/OSRP and through regular inspections of the subsea pipelines. Other pipeline safety and water quality measures identified in the Pt. Pedernales FDP would continue to apply to the Pt. Pedernales facilities.

5.7 Commercial and Recreational Fishing/Kelp Harvesting

Impact Summary: The 2002 EIR found that oil spills may potentially impact commercial and recreational fishing in the proposed project area. This impact could be significant and unavoidable particularly to resources located in the intertidal zone. Oil spills and drilling muds and cuttings discharge may potentially impact commercial and recreational kelp harvests in the proposed project area. Impacts to kelp harvesting would be adverse but less than significant. The deposition of shells, or shell mounds, could prevent commercial trawling activities beneath Platform Irene; this would also be an adverse but less than significant impact due to the small area precluded.

Mitigation Measures: Mitigation measures identified in the 2002 EIR for oil spill related impacts are centered on the revisions to the Oil Spill Response Plan. Because there are limitations to thorough containment and cleanup of an offshore oil spill, significant impacts (Class I) remain for commercial and recreational fisheries in the intertidal zone. To minimize

trawling impacts the EIR identifies that the shell mounds shall be removed or modified using the best available technology.

5.8 Air Quality

Impact Summary: The 2002 EIR found that construction activities at Valve Site #2 and the LOGP would result in new short-term emissions. These emissions would be less than significant and would be reduced by implementation of dust control measures. Increased oil processing and drilling of the new Tranquillon Ridge Unit wells at Platform Irene would result in an increase in operational air emissions including emissions of particulate matter, NO_X and ROCs. Emissions from processing and drilling would be significant but mitigable. The project would also result in adverse but less than significant increased health risks from the increased emission of hazardous air pollutants at the LOGP.

The primary source of greenhouse gases (GHG) in the United States is energy-use related activities, which include fuel combustion, as well as energy production, transmission, storage and distribution. The proposed Tranquillon Ridge Project would result in the production of crude oil and natural gas. These products would be used to help meet the energy needs of California and the U.S. Fossil fuel combustion represents the vast majority of the energy related GHG emissions, with CO_2 being the primary GHG. The use of the fossil fuel produced from the proposed Tranquillon Ridge Project would generate GHGs, but would not result in any overall change to the U.S. GHG inventory.

Mitigation Measures: To reduce the operational emissions to a less than significant level, the 2002 EIR found that emission reductions must be provided to fully mitigate the increases in emissions consistent with SBCAPCD Rules and Regulations. Dust control measures would also be required.

5.9 Traffic

Impact Summary: The 2002 EIR found that onshore construction associated with the project would temporarily add to local road traffic predominantly on Highway 246 and Harris Grade Road. The increased pipeline throughput would result in increased production of NGLs/ LPGs and possibly sulfur products. These truck trips would increase from 2.9 per week to 5 per week. This impact to traffic represents an increase of 0.07 percent in daily vehicle trips on Harris Grade Road, which would not change the LOS. Construction traffic and new operational traffic would be adverse but not significant.

The proposed PXP Tranquillon Ridge Project would increase supply boat traffic servicing Platform Irene only during the drilling phase of the project. The impact during drilling would represent a one percent increase over existing levels and would not be considered significant. An oil spill could result in the closure of the Coast Guard's recommended marine traffic corridors through the Santa Barbara Channel and restrict boating along up to 70 miles of coastline and San Miguel, Santa Rosa, and western Santa Cruz Islands, a regionally significant impact.

Mitigation Measures: Mitigation measures in the 2002 EIR to reduce construction and operational traffic on project area roadways include requiring that project-related construction and operational trips occur outside of the peak transportation periods. Increases in vessel traffic would be mitigated by requiring supply boats from Port Hueneme to use the Coast Guard's recommended marine traffic corridors to the maximum extent feasible.

5.10 Noise

Impact Summary: The 2002 EIR found that drilling associated with the proposed project would increase ambient noise levels due to drilling rig operation and additional helicopter and supply boat trips. Increased noise from drilling and production would be audible to sensitive receptors but would not exceed the County's significance thresholds. Potential operational noise impacts from helicopter use would be considered insignificant as long as the increased helicopter flights maintain the current 1,000-foot minimum flight levels.

Construction and operational noise at Valve Site #2 would be audible to sensitive receptors but would not exceed applicable county noise thresholds.

Modifications at the LOGP are projected to last 9 months and to increase ambient noise levels at sensitive receptors in Vandenberg Village. Residences along Calle Lindero and Rucker Road in Mission Hills could experience increases of 14 dBA. Because these noise increases would not cause noise levels to exceed the construction significance criterion of 65 dBA, these temporary construction impacts would be considered adverse but not significant.

Mitigation Measures: To mitigate these adverse but less than significant impacts, the 2002 EIR identifies the need for a minimum helicopter flying height of 1000 feet and to limit construction hours to day time (7:00 am to 4:00 pm) and weekdays. No additional measures are identified to reduce the adverse but less than significant operational noise.

5.11 Fire Protection and Emergency Services

Impact Summary: The 2002 EIR found that operation of the new pumps at Valve Site #2 would increase the probability of an oil spill at this location. This increase in the probability of an oil spill would represent an increase in the demands on emergency response services. However, since there are sufficient resources to respond to an upset condition, these resources are located within 15 minutes response time from the valve site, and the likelihood of a fire is low; the impacts to fire protection and emergency response from the installation of the new pumps at Valve Site #2 are considered adverse but not significant.
The installation of new power lines to serve Valve Site #2 would also have a potentially adverse impact to emergency response resources. Overhead power lines have a risk of fire if a line breaks because of high wind, if the poles are hit by vehicles, or if brush in the vicinity of any transformers is not properly cleared. Because of the low likelihood of fire, adequate response times and capabilities, the impacts to fire protection and emergency response resources are considered to be adverse but not significant.

In the worst-case scenario, onshore spill rates would increase by 625 barrels, if the SCADA system is not operational, over current operations, which could result in a larger area being impacted as a result of a spill. However, the change in spill volumes is relatively small (3.3 to 9.8 percent), and response capabilities are currently available for spill volumes that could occur with the proposed projects. Given the nature of the crude oil (high water content), it is highly unlikely that a fire would result in the event of a spill.

Increased likelihood of upset conditions due to equipment modifications at the LOGP and potential increase of wet oil and sour gas quantities processed at the facility could create impacts to fire protection and emergency response. Because of adequate facility design, sufficient response capabilities and time, the impacts on the fire protection and emergency response resources for the LOGP facility are considered adverse, but not significant.

Mitigation Measures: The 2002 EIR identified that the primary measure to minimize impacts to emergency response resources would be implementation of the existing Pt. Pedernales conditions of approval and updates to the project's Fire Protection Plan to address the new equipment and production.

5.12 Cultural Resources

Impact Summary: The 2002 EIR found that there are 22 recorded archaeological sites located within 200 feet of the existing oil pipeline between landfall and the LOGP. Although these sites were previously disturbed by the construction of the existing pipeline, most are determined to be a potentially significant historic resource. Pipeline maintenance and repair, if needed, would result in ground disturbance and potentially significant impacts on any cultural resource in the affected areas.

Approximately three to five proposed power poles would be installed to support the proposed power line crossing of the Santa Ynez River. The new power poles would cause ground disturbance up to 10 to 12 feet deep. Approximately 300 feet of backhoe trenching would also be needed for under-grounding the power line under the VAFB power line immediately north of the river. Although there are no recorded cultural resources within the proposed power pole locations or within the small trenching area, there is a potential for unrecorded sites because these areas have never been surveyed for cultural resources. Areas adjacent to the Santa Ynez River are considered highly sensitive for cultural resources. The proposed pole line across Santa Ynez River and trenching in the area immediately adjacent to the river would be in areas that have not been previously surveyed. Therefore, there is a potential for significant impact to cultural resources.

Containment and cleanup activities associated with an accidental oil spill would result in ground disturbance and potential significant and unavoidable impacts on cultural resources. Containment activities that would potentially affect cultural resources include the use of heavy earth-moving equipment (e.g., graders, scrapers, front-end loaders) or manual excavation to remove oil-contaminated material.

Mitigation Measures: The 2002 EIR identified that Cultural Resources impacts due to pipeline maintenance activities would be minimized by providing monitors wherever pipeline construction would be within 200 feet of a recorded site or by requiring surveys on previously unsurveyed sections of pipeline. If resources are discovered, work would need to be stopped and Phase II and III (data collection) studies would be required. Potential impacts to cultural resources resulting from installing the new transmission lines would be reduced by requiring surveys of all unsurveyed portions of the alignment and by relocating the poles, if needed, to avoid observed resources.

If a spill occurred within areas of cultural sensitivity, impacts would likely be significant and unavoidable. However, to minimize impacts to these areas the Oil Spill Response Plan would be updated to include procedures for minimizing impacts on cultural resources during oil spill containment and cleanup activities.

5.13 Aesthetics/Visual Resources

Impact Summary: The 2002 EIR found that the presence of the offshore platform and the Surf Substation, which are visible from the public beach by marine and coastal recreational users and from the Union Pacific Railroad, creates a negative aesthetic impact. This impact was classified as significant in the 1985 Pt. Pedernales EIR/EIS. The proposed Tranquillon Ridge Project would continue but not worsen this impact due to the extended life of Platform Irene.

Three additional pumps to be installed at Valve Site #2 would be placed within the same fenceline as the valve site equipment. The pumps would be 7 feet in height from the ground. Given the low profile of the facility and its remote location, the visual impacts of the pump installation at the Valve Site #2 are considered adverse but not significant.

The portion of the proposed power line along Terra Road would be in the area where currently there are no other poles or man-made structures. Because the area along Terra Road and in the vicinity of Valve Site #2 is highly scenic and is close to visually sensitive resources of the coastal zone, visual impacts from the presence of the new power lines on poles in the area would be significant.

Lighting at the LOGP creates a significant nighttime glare that can be seen through most of the Lompoc area, (including public viewsheds), and as far away as Highway 101 north of Los Alamos. This glare reduces the darkness of the night sky and could obscure the stars and other astronomical phenomena. The proposed Tranquillon Ridge Project could prolong the life of the LOGP facilities beyond the projected lifetime of the approved Point Pedernales Project.

Mitigation Measures: Key mitigation measures identified in the 2002 EIR to reduce visual impacts include a revised landscaping plan for the Surf Substation, painting all new equipment in the colors that are compatible with the surroundings, undergrounding a portion of the new transmission line, and mounting the new transmission line on existing poles or the 13th Street Bridge, if feasible. The Pt. Pedernales project's contribution to the Coastal Resource Enhancement Fund would also be required over the extended life of the Tranquillon Ridge Project. Even with implementation of these measures the visual impacts of the

Platform, Surf Substation, and the nighttime visual impacts of the LOGP would continue to be significant and unavoidable.

5.14 Recreation/Land Use/Policy Consistency Analysis

Impact Summary: The 2002 EIR found that an offshore spill caused by an accident or failure at Platform Irene or in the offshore pipeline could lead to beach closures and boating restrictions during spill response and cleanup and a lingering public perception that recreation resources are polluted, even after the cleanup period. A worst-case scenario oil spill could reach recreational resources as far north as Montana de Oro State Park near Morro Bay and as far south as the Santa Barbara Channel Islands. The area from Point Sal to Point Arguello is at greatest risk from a spill due to its proximity to the Pt. Pedernales facilities; therefore Ocean Beach County Park, Point Sal Beach State Park, and Jalama Beach County Park would be impacted more than other recreation areas, with as much as 4,000 barrels of oil reaching the beaches.

An onshore spill further inland could adversely affect recreational resources such as the Burton Mesa Ecological Reserve, the Santa Ynez River, and Ocean Beach Park (via a spill into the river).

Mitigation Measures: According to the 2002 EIR, recreational impacts due to a spill would be reduced, but not to a less significant level, by implementation of the existing system safety related conditions contained in the existing FDP and by the additional measures (e.g., OSRP/OSCP updates, SCADA system updates, etc.) proposed to address biological resources, water quality, risk of upset, and commercial and recreational fishing impacts. Continued CREF payments to address the extended recreational impacts would also be required.

5.15 Agricultural Resources

Impact Summary: The 2002 EIR noted that modifications to Valve Site #2 would include installing new electrical pumps, a transformer station and a power line to provide electricity for the pumps. Several of these facilities would be located on or traverse agricultural lands. Because of the very small areas of agricultural land that would be converted to non-agricultural use relative to the existing operation, the impacts on agricultural resources would be adverse but not significant. The additional truck trips to the LOGP are not expected to hinder the movement of farm equipment or generate dust that could impair the existing agricultural productivity of project area agricultural uses.

Oil spills can directly affect agricultural operations by reducing the availability or quality of soil, water, nutrients, and oxygen to plant root systems, hindering growth and possibly causing mortality in crops exposed to oil. Further, recovery of affected soils would be slow due to lingering toxicity and altered soil characteristics. Indirect effects from oil spill cleanup could include clearing and grading for access and removal of oiled crops and soil. Impacts to agricultural land could also occur during pipeline maintenance and repair operations as the existing Pt. Pedernales pipeline alignment traverses a number of agricultural lands.

Mitigation Measures: Measures identified in the 2002 EIR to reduce agricultural impacts include revising the Oil Spill Contingency Plan (OSCP) to incorporate specific cleanup techniques on agricultural land (focusing on minimizing removal of top soil), conducting repairs when fields are fallow and using dust control measures, compensating for lost productivity and restoring disturbed crops or grazing land on a 1:1 basis. With implementation of these measures agricultural impacts would be reduced to a less than significant level.

5.16 Energy and Mineral Resources

Impact Summary: The 2002 EIR found that construction of the Tranquillon Ridge Project would be short-term and is not expected to require unusually high amounts of energy resources, or result in the use of energy in a wasteful or inefficient manner.

The Pt. Pedernales facilities are entirely dependent on the grid. The proposed Tranquillon Ridge Project would increase demand for electricity. The maximum electricity usage increase due to the proposed project (174.1 MWh/day or 63.5 GWh/year) is approximately 0.02 percent of the electricity consumption within the State of California and does not represent a substantial increase in demand for electricity.

Over the project's life it has been estimated that it would produce around 170 to 200 million barrels of oil. In 2000, the State of California consumed 2 million bpd of crude oil. Seventy-seven to ninety percent of the oil production would be used to produce fuels such as gasoline, diesel and jet fuels. This means that the Tranquillon Ridge Project would generate between 5.9 and 7.5 billion gallons of fuel per year. Therefore, the fuels produced from the Tranquillon Ridge Project would provide approximately 77 to 100 days of fuel supply for California based upon year 2000 consumption data. During the peak year of production, the project would provide approximately 2.2 billion standard cubic feet of natural gas, which is about 0.01 percent of the total annual demand for natural gas within the State of California. The natural gas produced from the Tranquillon Ridge would be used to supply the local gas distribution system in Santa Barbara County. During the peak years of gas production, the Tranquillon Ridge Project would provide approximately 25 percent of the natural gas demand in Santa Barbara County.

The Tranquillon Ridge project would be a net producer of oil and gas, which would represent a beneficial impact to energy resources. The project would also use the existing Pt. Pedernales infrastructure, which minimizes energy demand from fabricating and installing new facilities. However, no audit has been conducted on the existing Point Pedernales facilities to determine if petroleum-based fuels are currently used in the most energy-efficient manner.

Mitigation Measures: No mitigation measures were identified to address the adverse but less than significant energy impacts resulting from construction and operation of the project.

6.0 PROJECT ALTERNATIVES

The following potential project alternatives were examined in the 2002 EIR and should be carried forward in the update. Most of the alternatives described below require updates only and are marked as such. The onshore drilling and production site on VAFB was dismissed during the screening analysis in the 2002 EIR but should be carried forward in this update.

6.1 **No Project Alternative** (Update Only If Necessary)

The No Project Alternative for the Tranquillon Ridge Project would involve development of only the federal portion of the Tranquillon Ridge Field. The federal portion is estimated to be about eleven percent of the entire Tranquillon Ridge Field. It has been estimated that three new wells would be drilled from Platform Irene into locations in federal waters. Nuevo drilled one well into the federal portion of the Tranquillon Ridge Field as part of the Point Pedernales development.

Based upon MMS data for Pt. Pedernales wells, it is estimated that oil production from the federal portion of the Tranquillon Ridge Field would peak at around 4,100 bpd, 27 months after drilling began. The peak production from Platform Irene would be about 9,000 bpd, which is close to the average production in 2000 (7,300 bpd) and the peak monthly production in 2000 of 8,500 bpd. Gas production from Platform Irene was estimated to peak at around 3.5 mmscfd, with the estimated recoverable reserves being about 5 percent of the proposed Tranquillon Ridge Project.

Under the No Project Alternative, the life of the Tranquillon Ridge Field has been estimated to be approximately 10 more years, which is within the current projected life of the Pt. Pedernales Field operations. The wells necessary to develop the federal reserve involve directional drilling, which has high costs. Therefore, the limited production that may be possible may or may not be justified based on the costs of production and other economic factors, including the sale price of oil.

6.2 **Casmalia Processing Site** (Update Only If Necessary)

The County's North County Siting Study (October 2000) identified several onshore processing locations that could serve as possible consolidated oil and gas processing facilities in the North County. Specifically, potential sites in the Casmalia oil field and Casmalia Canyon are more rural and would potentially result in lower impacts than the LOGP facility. Oil and gas processing at the Casmalia East site would require the construction of completely new processing facilities and additional pipelines. New wet oil and sour gas pipelines would need to be constructed from the LOGP to the Casmalia site. In addition, a new gas compressor station and wet oil/produced water pump station would need to be built at the LOGP site to move the wet oil and sour gas to the Casmalia site and the produced water back to Platform Irene for disposal.

6.3 Alternative Onshore Drilling and Production Site on VAFB (New Alternative)

The Torch Tranquillon Ridge EIR, Section 3.1.2.1, notes that advances in extended reach drilling technology make it possible to reach the Tranquillon Ridge Field from an onshore location. Development would need to occur on the southern portion of VAFB near the southern launch facilities. The onshore alternative described in the EIR would be sited on the coast in the southern part of VAFB. The site would have to contain a drill rig and support equipment, well heads and well head test separators, three phase separators, a flare system, office and maintenance space, and various tank pumps and compressors. This type of facility would require three to five acres of land. It was assumed that 30 wells would be drilled and that the production life time would be the same as for the proposed offshore project. Approximately five miles of new wet oil and sour gas pipelines would have to be built to connect the production site with the pipelines that landfall just north of the mouth of the Santa Ynez River at Wall Beach and run to the LOGP. The oil and gas production would be processed at the LOGP as described for the proposed project.

Section 3.2 of the Torch EIR is the alternative Screening Analysis Results. EIR Section 3.2.1.1 states that use of the onshore drilling/production site at Vandenberg would: 1) serve to reduce the severity and scope of the significant impacts to marine resources associated with a potential blowout of a Tranquillon Ridge well and extension of life of Platform Irene; 2) continue to use the major portions of the onshore oil and gas pipelines from Surf to the LOGP; and 3) require the construction and operation of approximately five miles of new wet oil pipeline that would run from south Vandenberg to the north side of the Santa Ynez River to tie into the pipelines to the LOGP. This could result in an increase in the severity and scope of the significant impacts to onshore biology, water resources and recreation in the event of an oil spill from the proposed project.

Most importantly, this onshore alternative was noted to potentially impose severe safety considerations on any VAFB launch operations, especially during launch windows. In conclusion, the EIR identified that given that southern VAFB is an active area for missile launches, it is unlikely that this type of development would be approved at a location on the Base where development wells could be drilled into Tranquillon Ridge. For these reasons, this drilling and production alternative was dropped from further consideration in the Torch EIR.

However, in a letter dated July 8, 2005 from Paul R. Klock, Chief of Plans and Programs at VAFB to Robert Nunn, Sunset Exploration Company (attached), Mr. Klock indicated that VAFB is willing to review a Sunset proposal to develop Tranquillon Ridge from an onshore site similar to that described above. The letter states that VAFB staff "will require further detailed information before a final assessment of the impact to Vandenberg can be made."

Because VAFB is at this time willing to entertain an onshore proposal to develop the oil and gas resources from the Tranquillon Ridge Field, an onshore alternative to the offshore project should also be evaluated in this EIR.

6.4 New Emulsion Pipeline from Platform Irene to the LOGP (Tranquillon Ridge Only) (Requires Attention)

Under this alternative, the emulsion pipeline between Platform Irene and the LOGP would be replaced with a new pipeline of the same diameter. The primary objective of this alternative would be to address potential impacts associated with the integrity (cracking and corrosion) of the existing pipeline as a result of the increased throughput and extended project life associated with the proposed project. This newer pipeline would allow for the operation of the pipeline at higher pressures and therefore may eliminate the need for the Valve Site #2 pumps and associated power lines.

Current internal and external pipeline inspection data, as well as detailed corrosion control and monitoring data are available to supplement analysis of this alternative.

6.5 Alternative Power Line Routes to Valve Site #2 (Update Only If Necessary)

The proposed Tranquillon Ridge Project may require the construction of new power lines to Valve Site #2 to power three 1,250 horse-power (hp) electrical booster pumps that are proposed to be installed on the 20-inch oil pipeline between Platform Irene and the LOGP. These pumps and associated power line would only be needed if the oil pipeline's working pressure has to be derated below 1,000 pounds per square inch (psig) sometime in the future. The main power line route that was proposed by the Applicant would deliver power from an existing power line located on Ocean Avenue, using new power poles that would run from Ocean Avenue to Valve Site #2. Three different alternative power line routes have been evaluated in this EIR. Two of the alternative routes involve alternate locations/methods of crossing the Santa Ynez River. One of the alternatives involves under-grounding the power lines underground along a portion of the route to Valve Site #2.

6.6 Alternative Muds and Cuttings Disposal Options (Update Only If Necessary)

The Applicant has proposed to discharge the drill muds and cutting to the ocean in accordance with the existing NPDES permit. One of the alternatives would involve collecting and injecting the muds and cuttings into an appropriate underground reservoir for disposal. Equipment required to inject the drill muds and cuttings would include a holding tank, pulverizing pump, injection pump, and piping connections to an injection well head on a dedicated disposal well. The feasibility of this approach is dependent on the availability of suitable underground formations.

The other alternative would be to move the muds and cuttings via boat to shore for disposal at an approved site. Once ashore, trucks would transport the used drill muds and cuttings to an approved disposal site or, if feasible, to a facility for recycling.

7.0 PREVIOUS ENVIRONMENTAL DOCUMENTS

- Final Environmental Impact Report (SBC EIR #84-EIR-97/ SLC-EIR #379, SCH #84062703) for the Union Oil Project/Exxon Project Shamrock and Central Santa Maria Basin Area Study EIS/EIR
- Final Supplemental Environmental Impact Report (SBC 92-EIR-13) and subsequent addenda for gas reinjection, Torch gas plant, and H_2S concentration increases for the Unocal Point Pedernales Project.
- Final Environmental Impact Report (EIR #91-EIR-08) for the Unocal Sisquoc Pipeline Project.

Attachments: July 8, 2005 Paul R. Klock letter to Robert Nunn
January 6, 2005 APCD letter

G:\GROUP\ENERGY\OIL&GASPROJECTS\PXP-TRANQUILLON RIDGE\NOP\SCOPING DOC FOR NOP

Notice of Preparation Comments

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805. 549-3101
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http://www.dot.ca.gov/dist05/

Flex your power!
Be energy efficient!

March 10, 2006

SB-1/101/135-Var
SCH#2006021055

Kevin Drude
Santa Barbara County
123 E. Anapamu Street
Santa Barbara, CA 93101

PXP TRANQUILLON RIDGE OFFSHORE OIL AND GAS DEVELOPMENT PROJECT – NOTICE OF PREPARATION

Dear Mr. Drude:

The California Department of Transportation (Department) District 5, Development Review, has reviewed the above-referenced document and offers the following comments for your consideration:

1. If it is determined that any of the alternatives suggested within the NOP will generate additional traffic to that outlined in the NOP, a Traffic Impact Study will need to be developed for the State's review. Because the Department is responsible for the safety, operations, and maintenance of the State transportation system, our Level of Service (LOS) standards should be used to determine the significance of the project's impact. We endeavor to maintain a target LOS at the transition between LOS C and LOS D on All State transportation facilities. In cases where a State facility is already operating at an unacceptable LOS, *any* additional trips added should be considered a significant cumulative traffic impact, and should be mitigated accordingly. To ensure the traffic study includes the information needed by the Department to analyze impacts (both cumulative and project-specific), it is recommended that the analysis be prepared in accordance with the *Department's "Guide for the Preparation of Traffic Impact Studies."* A copy of the guidelines is available on the Caltrans website at http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_guidelines_procedures.htm.

2. From the information provided in the NOP, it appears that the project will involve work within the State highway right of way. There is no guarantee that any improvements planned within the state right of way will be acceptable until the Department has the opportunity to review the traffic study, complete engineering drawings and complete environmental documents. Due to the preliminary nature of the information describing this project some items may not have been identified in this review. Significant mitigation measures not identified at this point may be required as a condition of the encroachment permit for any work within the State Highway System. Detailed information such as complete engineering

drawings, traffic studies, hydraulic calculations and environmental reports outlining impacts to environmental resources (biological, cultural, visual, etc.) within the state R/W may need to be identified, quantified and submitted for the Encroachment Permit review. These as well as other documents may need to be submitted and reviewed as part of the encroachment permit application before the Department can make a final determination as to the appropriateness of the mitigation measures within the State Highway System. The recommendations made in this review should be considered preliminary and subject to change based on more detailed review of the applicants final engineered construction level plans, final engineered traffic studies and actual field review of the proposed project site. In all cases, any deviation from the Departments Design standards should not be considered to be a viable option until the applicant has been issued an approved exception to Design Standards. .

3. If archaeological resources may be impacted by the project, avoidance or further study will be required. This information must be reviewed and approved by the D5 Environmental Planning Branch before issuance of the Encroachment Permit. Inclusion of this specific information in the project environmental document can help to expedite the approval of the Encroachment Permit.

District 5 staff has been and will continue to be committed to working very closely with you to achieve a shared vision of how the transportation system should and can accommodate interregional and local travel. Please don't hesitate to call me at (805) 549-3615 if you have questions or concerns.

Sincerely,

Tamara S. Babcock

TAMARA S. BABCOCK
Associate Transportation Planner
District 5 Development Review Coordinator

cc: Gary Ruggerone (D5)
Jim McKrell (D5)
David M. Murray (D5)
Jim Mills (D5)
Pat Mickelson (D5)
Steve Senet (D5)
Michael Powers (SBCAG)
File

DOWNEY | BRAND ATTORNEYS LLP

FACSIMILE TRANSMISSION

Date: March 8, 2006

To:

Name	Fax	Phone
Kevin Drude Santa Barbara County Planning and Development	805-568-2030	805-568-2000

From: Julie A. Carter

Re: Notice of Preparation/Tranquillon Ridge Development Project

File No.: Number of Pages, Including Cover: 2

Message:

555 Capitol Mall, 10th Floor Sacramento, CA 95814 P: 916/444-1000 F: 916/444-2100

737356.1

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ATTORNEYS LLP

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P: 916/444-1000
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downeybrand.com

Julie A. Carter
jcarter@downeybrand.com

March 8, 2006

VIA FAX

Kevin Drude
Energy Division
Santa Barbara County Planning and Development
123 East Anapamu Street
Santa Barbara, CA 93101-2058

Re: **Notice of Preparation / Tranquillon Ridge Development Project**

Dear Mr. Drude:

We are writing on behalf of Sunset Exploration Co. ("Sunset"). We have reviewed the Notice of Preparation ("NOP") for the Tranquillon Ridge Development Project. We are pleased to note that the onshore project alternative of drilling from Vandenberg Air Force Base, as set out at Section 6.3 of the NOP, will now be fully evaluated in the environmental impact report. As you know, Sunset has proposed such an alternative and believes this alternative is both viable and would substantially reduce project impacts associated with offshore development. Should you need any information with regard to Sunset's proposal, please do not hesitate to call me or Tracy Hunckler at the number listed above.

Sincerely,

DOWNEY BRAND LLP

FOR

Julie A. Carter

Enclosures

cc: Tracy Hunckler (DB)
Tom Henry (DB)

TAH:mrf
737332.1

State of California – The Resources Agency ARNOLD SCHWARZENEGGER, *Governor*

DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201

March 10, 2006

Kevin Drude
Santa Barbara County Planning and Development Department – Energy Division
123 East Anapamu Street
Santa Barbara, CA 93101

Notice of Preparation of a Draft Environmental Impact Report for the PXP Tranquillon Ridge Offshore Oil and Gas Development Project SCH #2006021055

The Department of Fish and Game (Department) appreciates this opportunity to comment on the above-referenced project, relative to impacts to biological resources. The proposed project involves increased oil and gas production through drilling additional offshore wells from an existing offshore oil platform, and upgrades to existing pipelines and an oil and gas production facility. The project sites extend from about 4 miles offshore of Point Perdenales, across Vandenberg Air Force Base at the Santa Ynez River, then north toward Santa Maria, in northern Santa Barbara County. The proposed project has potential for impacts to both terrestrial and marine resources.

To enable Department staff to adequately review and comment on the proposed project we recommend the following information, where applicable, be included in the Draft Environmental Impact Report:

1. A complete, recent assessment of flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, and locally unique species and sensitive habitats.

    a. A thorough recent assessment of rare plants and rare natural communities, following the Department's Guidelines for Assessing Impacts to Rare Plants and Rare Natural Communities (attachment).

    b. A complete, recent assessment of sensitive fish, wildlife, reptile, amphibian and marine species. Seasonal variations in use of the project area should also be addressed. Recent, focused, species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and U.S. Fish and Wildlife Service.

    c. Rare, threatened, and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, § 15380).

d. The Department's California Natural Diversity Data Base in Sacramento should be contacted at (916) 324-3812 to obtain current information on any previously reported sensitive species and habitats, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. Also, any Significant Ecological Areas (SEAs)), Significant Natural Areas (SNAs), or Environmentally Sensitive Habitats (ESHs) or any areas that are considered sensitive by the local jurisdiction located in or adjacent to the project area must be addressed.

2. A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. This discussion should focus on maximizing avoidance, and minimizing impacts.

a. CEQA Guidelines, § 15125(a), direct that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.

b. Project impacts should also be analyzed relative to their effects on off-site habitats and populations. Specifically, this should include nearby public lands, open space, adjacent natural habitats, and riparian ecosystems. Impacts to and maintenance of wildlife corridor/movement areas, including access to undisturbed habitat in adjacent areas, should be fully evaluated and provided. The analysis should also include a discussion of the potential for impacts resulting from such effects as increased vehicle traffic and outdoor artificial night lighting.

c. A cumulative effects analysis should be developed as described under CEQA Guidelines, § 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

d. Impacts to migratory wildlife affected by the project should be fully evaluated. This can include such elements as migratory butterfly roost sites and neo-tropical bird and waterfowl stop-over and staging sites. All migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of birds and their active nests, including raptors and other migratory nongame birds as listed under the MBTA.

e. Impacts to all habitats from City or County required Fuel Modification Zones.(FMZ). Areas slated as mitigation for loss of habitat shall not occur within the FMZ.

f. Proposed project activities (including disturbances to vegetation) should take place outside of the breeding bird season (February 1- August 15) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). If project activities cannot avoid the breeding bird

season, nest surveys should be conducted and active nests should be avoided and provided with a minimum buffer as determined by a biological monitor (the Department recommends a minimum 500 foot buffer for all active raptor nests).

3. An EIR shall describe feasible measures which could minimize significant adverse impacts (CEQA Guidelines §15126.4(a)(1)). Mitigation measures for project impacts to sensitive plants, animals, and habitats should emphasize evaluation and selection of alternatives which avoid or otherwise minimize impacts. Compensation for unavoidable impacts through acquisition and protection of high quality habitat elsewhere should be addressed.

    a. The Department considers Rare Natural Communities as threatened habitats having both regional and local significance. Thus, these communities should be fully avoided and otherwise protected from project-related impacts. The List of California Terrestrial Natural Communities is available on request or may be viewed and downloaded online by visiting the Department's website at http://www.dfg.ca.gov/whdab/html/natural_communities.html.

    b. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Department studies have shown that these efforts are experimental in nature and largely unsuccessful.

4. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated. A range of alternatives which avoid or otherwise minimize impacts to sensitive biological resources including wetlands/riparian habitats, alluvial scrub, coastal sage scrub, native woodlands, etc. should be included. Specific alternative locations should also be evaluated in areas with lower resource sensitivity where appropriate.

5. A California Endangered Species Act (CESA) Permit must be obtained, if the project has the potential to result in "take" of species of plants or animals listed under CESA, either during construction or over the life of the project. CESA Permits are issued to conserve, protect, enhance, and restore State-listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to the proposed project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, require that the Department issue a separate CEQA document for the issuance of a CESA permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a CESA permit. For these reasons, the following information is requested:

    a. Biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA Permit.

    b. A Department-approved Mitigation Agreement and Mitigation Plan are required for plants listed as rare under the Native Plant Protection Act.

6. The Department opposes the elimination of watercourses and/or their channelization or conversion to subsurface drains. All wetlands and watercourses, whether intermittent, ephemeral, or perennial, must be retained and provided with substantial setbacks which preserve the riparian and aquatic habitat values and maintain their value to on-site and off-site wildlife populations.

    a. The Department requires a streambed alteration agreement, pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant prior to any direct or indirect impact to a lake or stream bed, bank or channel or associated riparian resources. The Department's issuance of a stream bed alteration agreement may be a project that is subject to CEQA. To facilitate our issuance of the agreement when CEQA applies, the Department as a responsible agency under CEQA may consider the local jurisdiction's (lead agency) document for the project. To minimize additional requirements by the Department under CEQA the document should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the agreement. Early consultation is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources.

The Department suggests a pre-project or early consultation planning meeting for all projects. For terrestrial issues, please call Martin Potter, Wildlife Biologist, at (805) 640-3677. For marine issues, please call Thomas Napoli, Staff Environmental Scientist, at (562) 342-7164. Thank you for this opportunity to provide comment.

Sincerely,

For Larry L. Eng, Ph.D.
Regional Manager
South Coast Region

attachment

cc: Ms. Morgan Wehtje
Department of Fish and Game
Camarillo, California

Mr. Martin Potter
Department of Fish and Game
Ojai, California

Mr. Thomas Napoli
Department of Fish and Game
Los Alamitos, California

Mr. Scott Morgan
State Clearinghouse
Sacramento, California

Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities

State of California
THE RESOURCES AGENCY
Department of Fish and Game
December 9, 1983
Revised May 8, 2000

The following recommendations are intended to help those who prepare and review environmental documents determine **when** a botanical survey is needed, **who** should be considered qualified to conduct such surveys, **how** field surveys should be conducted, and **what** information should be contained in the survey report. The Department may recommend that lead agencies not accept the results of surveys that are not conducted according to these guidelines.

1. Botanical surveys are conducted in order to determine the environmental effects of proposed projects on all rare, threatened, and endangered plants and plant communities. Rare, threatened, and endangered plants are not necessarily limited to those species which have been "listed" by state and federal agencies but should include any species that, based on all available data, can be shown to be rare, threatened, and/or endangered under the following definitions:

   A species, subspecies, or variety of plant is "endangered" when the prospects of its survival and reproduction are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, or disease. A plant is "threatened" when it is likely to become endangered in the foreseeable future in the absence of protection measures. A plant is "rare" when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens.

   Rare natural communities are those communities that are of highly limited distribution. These communities may or may not contain rare, threatened, or endangered species. The most current version of the California Natural Diversity Database's List of California Terrestrial Natural Communities may be used as a guide to the names and status of communities.

2. It is appropriate to conduct a botanical field survey to determine if, or to the extent that, rare, threatened, or endangered plants will be affected by a proposed project when:

   a. Natural vegetation occurs on the site, it is unknown if rare, threatened, or endangered plants or habitats occur on the site, and the project has the potential for direct or indirect effects on vegetation; or
   b. Rare plants have historically been identified on the project site, but adequate information for impact assessment is lacking.

3. Botanical consultants should possess the following qualifications:

   a. Experience conducting floristic field surveys;
   b. Knowledge of plant taxonomy and plant community ecology;
   c. Familiarity with the plants of the area, including rare, threatened, and endangered species;
   d. Familiarity with the appropriate state and federal statutes related to plants and plant collecting; and,
   e. Experience with analyzing impacts of development on native plant species and communities.

4. Field surveys should be conducted in a manner that will locate any rare, threatened, or endangered species that may be present. Specifically, rare, threatened, or endangered plant surveys should be:

   a. Conducted in the field at the proper time of year when rare, threatened, or endangered species are both evident and identifiable. Usually, this is when the plants are flowering.

which rare, threatened, or endangered plants are likely to occur [illegible]. nearby accessible occurrences of the plants (reference sites) should be observed to determine that the species are identifiable at the time of the survey.

b. Floristic in nature. A floristic survey requires that every plant observed be identified to the extent necessary to determine its rarity and listing status. In addition, a sufficient number of visits spaced throughout the growing season are necessary to accurately determine what plants exist on the site. In order to properly characterize the site and document the completeness of the survey, a complete list of plants observed on the site should be included in every botanical survey report.

c. Conducted in a manner that is consistent with conservation ethics. Collections (voucher specimens) of rare, threatened, or endangered species, or suspected rare, threatened, or endangered species should be made only when such actions would not jeopardize the continued existence of the population and in accordance with applicable state and federal permit requirements. A collecting permit from the Habitat Conservation Planning Branch of DFG is required for collection of state-listed plant species. Voucher specimens should be deposited at recognized public herbaria for future reference. Photography should be used to document plant identification and habitat whenever possible, but especially when the population cannot withstand collection of voucher specimens.

d. Conducted using systematic field techniques in all habitats of the site to ensure a thorough coverage of potential impact areas.

e. Well documented. When a rare, threatened, or endangered plant (or rare plant community) is located, a California Native Species (or Community) Field Survey Form or equivalent written form, accompanied by a copy of the appropriate portion of a 7.5 minute topographic map with the occurrence mapped, should be completed and submitted to the Natural Diversity Database. Locations may be best documented using global positioning systems (GPS) and presented in map and digital forms as these tools become more accessible.

5. Reports of botanical field surveys should be included in or with environmental assessments, negative declarations and mitigated negative declarations, Timber Harvesting Plans (THPs), EIR's, and EIS's, and should contain the following information:

a. Project description, including a detailed map of the project location and study area.
b. A written description of biological setting referencing the community nomenclature used and a vegetation map.
c. Detailed description of survey methodology.
d. Dates of field surveys and total person-hours spent on field surveys.
e. Results of field survey including detailed maps and specific location data for each plant population found. Investigators are encouraged to provide GPS data and maps documenting population boundaries.
f. An assessment of potential impacts. This should include a map showing the distribution of plants in relation to proposed activities.
g. Discussion of the significance of rare, threatened, or endangered plant populations in the project area considering nearby populations and total species distribution.
h. Recommended measures to avoid impacts.
i. A list of all plants observed on the project area. Plants should be identified to the taxonomic level necessary to determine whether or not they are rare, threatened or endangered.
j. Description of reference site(s) visited and phenological development of rare, threatened, or endangered plant(s).
k. Copies of all California Native Species Field Survey Forms or Natural Community Field Survey Forms.
l. Name of field investigator(s).
j. References cited, persons contacted, herbaria visited, and the location of voucher specimens.

PXP

Plains Exploration & Production Company

March 14, 2006

Kevin Drude
Energy Division
123 E Anapamu St
Santa Barbara, CA 93101

Dear Kevin,

I have reviewed the Tranquillon Ridge EIR Scoping Paper and your answers to the contractor questions and offer the following comments:

Scoping Paper:

Page 3 and 4 – We no longer discharge 100 barrels of water per quarter overboard. The sentences at the bottom of page 3 beginning with "Currently 100 barrels" to the end of the paragraph should be deleted.

Page 4, last paragraph – The Righetti valve site is not located in the Lompoc oil field.

Page 12 first paragraph – The Platform Irene NPDES permit allows us to discharge up to 153,000 b/d.

Page 24 Public Services Section – Mission Hills Community Services District only provides water to the LOGP control room and warehouse. The process water, fire water, and irrigation water is provided by a private well which is owned by PXP. The well is located on the west side of H Street (Highway 1) just north of the Santa Ynez River.

Page 24 Public Services Section – Mission Hills Community Services District does not provide sewage disposal services for LOGP. There is a septic system on site.

Page 29 Section 5.7 Impact Summary – The sentence "The shells or shell mounds, could prevent commercial trawling activities beneath Platform Irene" is immaterial since the platform structure will preclude any trawling.

201 S. Broadway ▪ Orcutt, CA 93455-4606 ▪ 805-937-6377 ▪ Fax 805-937-0237

Page 30 Section 5.9 Impact Summary second paragraph – "Torch" should be replaced with PXP.

Page 31 Section 5.10 The paragraph beginning with " Pump operation at the LOGP" – Is this paragraph talking about the water transfer pumps which we are in the process of installing? If so, it should be noted that these pumps are now part of the baseline since the pumps were certified as part of the previous EIR.

Page 31 Section 5.11 last paragraph on the page – The term "onshore spill rates" should be replaced with "onshore spill volume".

Page 37 Section 6.3 first and second paragraphs – The document states that the existing pipelines run from Surf to the LOGP. The pipelines run from north of the Santa Ynez River at Wall Beach to the LOGP. In the second paragraph, the pipeline from the alternative onshore site would need to run from south Vandenberg to the north side of the Santa Ynez River to tie into the pipelines to LOGP.

Pre-Bid Conference:

In reviewing the response to bidder question #7, the County seems to imply that there is still a long-term corrosion problem with the emulsion pipeline. The response also states that seriousness of the problem is not yet determined in terms of the proposed extended use of the emulsion pipeline. PXP does not feel that this is an accurate statement. PXP submitted a comprehensive corrosion evaluation report to the County that was reviewed by the SSRRC. The data in this report demonstrated that the emulsion pipeline, at the present corrosion rates, would have a life of greater than 200 years. PXP believes that with the current corrosion control and monitoring program, that the pipelines do not have a "corrosion problem" since the rates of corrosion are now well within the design limits of the pipeline. PXP has acknowledged that with the previous owner, there was a corrosion problem with the emulsion pipeline. However, PXP has made substantial modifications to the corrosion control and monitoring program that have served to eliminate the previous corrosion problems with the pipeline. The EIR preparer should be provided a copy of the corrosion evaluation report and the current corrosion control and monitoring program to assist them in conducting their environmental review of the continued use of the emulsion pipeline.

Sincerely,

Chuck Partridge
Senior Facility Engineer