

**COUNTY OF SANTA BARBARA
PLANNING AND DEVELOPMENT**

TO: County Board of Supervisors
FROM: Glenn Russell, Ph.D., Director
DATE: November 1, 2016
RE: Pacific Coast Energy Company (PCEC) Orcutt Hill Resource Enhancement Plan Project
Case Nos. 13PPP-00000-00001, 14EIR-00000-00001

On October 11, 2016, the Board of Supervisors considered PCEC's appeal of the Planning Commission's July 13, 2016 denial of the proposed Orcutt Hill Resource Enhancement Plan project (OHREP). In their appeal, PCEC petitioned the Board to approve the Careaga Exclusion Alternative (the EIR-identified environmentally superior alternative), which would allow approximately 80% of the full project's production and serve to partially mitigate Class 1 impacts from oil seeps. The Careaga Exclusion Alternative was staff's original recommendation to the Planning Commission prior to their denial of the project. In petitioning the Board to approve the Careaga Exclusion Alternative, PCEC also presented new offers that were not considered by the Planning Commission during its deliberations. Specifically, PCEC offered the following measures that were not considered by the Planning Commission:

- A project labor agreement with the California Building Trades for work related to the PCEC operations;
- A draft Habitat Conservation Plan and conservation easement for California tiger salamander (CTS, a species federally and state-listed as Threatened), to aid in its recovery. When finalized, this would preserve and protect an approximately 21-acre area containing one known and one potential salamander breeding pond, as well as adjoining habitat;
- Funding, in the amount of \$25,000/year for five years, to support research into the conservation biology of Lompoc yerba santa, a plant species that is federally listed as Endangered and which occurs within the boundaries of PCEC's Orcutt Hills operations; and,
- A commitment to mitigate all project greenhouse gas emissions to zero, below the County-required mitigation threshold of 1,000 metric tons per year.

In addition to discussing the Careaga Exclusion Alternative and PCEC's new voluntary measures during the October 11 hearing, the Board also questioned whether another EIR-identified alternative, the Careaga and CTS Exclusion Alternative, should be further considered. The Careaga and CTS Exclusion Alternative would result in approximately 60% of the full project's production, serve to partially mitigate Class 1 impacts from oil seeps, and protect additional California tiger salamander upland habitat from the project's construction-related impacts.

At the conclusion of the hearing, the Board voted (4-1, Wolf no) to continue the item to November 1, 2016 and directed staff to provide additional information, including: a matrix comparison of the various project alternatives and details regarding end-of-life restoration of the

project site; and, draft conditions to ensure project safety, notification to interested parties, the provision of a new air quality monitoring station, and periodic reporting procedures to the Board for future oil seeps and related impacts.

The purpose of this memo is to provide the requested additional information. In its deliberations, the Board may consider the proposed project as well as the various project alternatives identified in the EIR and further described herein. The Board may also consider additional conditions of approval including those requested during the October 11 hearing and which are articulated below.

Project Alternative Matrix Comparison

The Board requested a matrix comparison of the various project alternatives and the measures and requirements associated with each one. The Board specified that an alternative representing denial of the project, called the Seep Can Only Alternative, be included in the analysis. A comparison matrix containing all project alternatives that have been considered is found in Table 1 below. Discussion of the Careaga Exclusion Alternative (as modified for the Board's October 11 hearing) and the Careaga and CTS Exclusion Alternative is also provided below.

Because the Board expressed interest in both the Careaga Exclusion and Careaga and CTS Exclusion Alternatives, staff prepared specific findings and conditions, as well as motions for approval of each for the Board's consideration on November 1. The findings and conditions for these two alternatives are similar and are presented in one document, included herein as Attachment 1. Language for the Careaga Exclusion Alternative is shown in plain text. Additional language for the Careaga and CTS Exclusion Alternative, where appropriate, is shown in underline. A brief description of each alternative follows:

Careaga Exclusion Alternative.

The Careaga Exclusion Alternative would only allow drilling of new wells from surface areas that are not located above the Careaga tar zone and production from the Diatomite Formation in areas where the Diatomite Formation does not directly underlie the Careaga tar zone formation. Historically, oil seeps have been produced in areas that are primarily associated with activities conducted in Diatomite that underlies the Careaga tar zone formation. This alternative would act to reduce the occurrence of oil seeps relative to the proposed project by limiting the areas where drilling and production could occur. This alternative would likely result in 20% reduced production relative to the proposed project and result in 88 new wells with 24 replacement wells (Table 1).

Careaga and CTS Exclusion Alternative.

The Careaga and CTS Exclusion Alternative would incorporate the restrictions of the Careaga Exclusion Alternative by prohibiting the drilling of new wells in the Diatomite Formation that underlies the Careaga tar zone areas while also prohibiting drilling activities in areas within 2,200 feet of known and potential CTS ponds. The removal of pods closer than 2,200 feet would reduce the probability of impacts to CTS by placing equipment and activities farther from known and potential breeding ponds. This alternative would not eliminate the probability of impacts to CTS upland habitat, as the entire site has a potential of supporting CTS. This alternative would

eliminate Pods 8, 10, 11 and 12 while leaving Pods 9, 13, 14 and 15 the same as the proposed Project. The limitation of wells to non-Careaga tar zone areas and non-CTS dispersal zone areas would likely reduce crude oil production by 40% and result in 53 new wells and 24 replacement wells (Table 1).

Table 1. PCEC Orcutt Hill Resource Enhancement Project Alternatives Matrix

Project Configuration	Project Attributes						
	Percent Production	Wells ⁽²⁾	GHG Mitigation	CTS Easement	Yerba Santa Research	Labor Agreement	Class 1 Impacts
Original Project (as proposed by PCEC)	100	96 (48)	Yes; offset to 1,000 tpy County threshold	No	No	No	Yes
Careaga Exclusion Alternative (as denied by Planning Commission)	80 ⁽¹⁾	96 (48)	Yes; offset to 1,000 tpy County threshold	No	No	No	Yes; reduced by avoiding Careaga zone
Careaga Exclusion Alternative (as modified for Board, 10-11-2016)	80 ⁽¹⁾	88 ⁽³⁾ (24)	Yes; offset down to zero	Yes; 21-ac easement per FWS letter	Yes; \$25K/yr x 5 yrs for study	Yes, per PCEC commitment	Yes; reduced by avoiding Careaga zone
Careaga and CA Tiger Salamander Exclusion Alternative	60 ⁽¹⁾	53 ⁽³⁾ (24)	Yes; offset down to zero ⁽³⁾	Yes; 21-ac easement per FWS letter	Yes; \$25K/yr x 5 yrs for study ⁽³⁾	Yes, per PCEC commitment ⁽³⁾	Yes; reduced by avoiding Careaga zone and add'l CTS habitat
Seep Can Only Alternative	0	0	No	No	No	No	Yes, to extent that seeps continue to occur

Footnotes:

- (1) Estimated production, as described in project EIR
- (2) Numbers in parentheses represent “replacement” wells.
- (3) Pers. comm. with R. Breitenbach, PCEC. October 18, 2016.

End of Life Remediation (bonding) of Project Site

The California Public Resources Code requires operators to provide indemnity bonds for each well, and the bonds must be filed with the Department of Oil, Gas and Geothermal Resources (DOGGR). State law also permits an operator of more than 20 wells to file a blanket indemnity bond to cover the operations, in lieu of an individual indemnity bond for each well. The required bond(s) must be executed by the operator and an authorized surety company, and the bond requires compliance with all provisions of Division 3 (Oil and Gas) of the Public Resources

Code and that the state is secured against all losses, charges and expenses incurred by it to obtain compliance. When a well covered by a particular bond has been properly abandoned, the bond may be terminated. (Reference Sections 3202, 3204, 3205, and 3207 of the Public Resources Code). PCEC has the state-required bonds in place. It is important to note that these bonds are for the remediation of wells only and operators are not required to provide bonding for above ground facilities (i.e., tanks, pipelines, processing facilities).

The County's Petroleum Ordinance, Chapter 25 of the County Code, contains requirements for operators to restore leases to their original condition upon the termination of production activities. Section 25-31 details the County's well abandonment and lease restoration procedures which include strict requirements for the abandonment of wells and the removal of all tanks, facilities, pipelines and associated equipment. It is important to note that while the County may require operators to restore a lease at the end of its productive life pursuant to Chapter 25, no surety bonding for the removal of above ground facilities is required.

Potential Conditions for Board Consideration

1. SSRRC and SIMQAP Conditions

The Board expressed interest in requiring PCEC to participate in the county's Systems Safety and Reliability Review Committee (SSRRC). The SSRRC is responsible for identifying and requiring correction of possible design and operational hazards for oil and gas projects prior to construction, during project operations and for project modifications. The goal of SSRRC review is to substantially reduce the risks of project-related hazards that may result in loss of life and injury/damage to property and the natural environment. This process occurs through the review and approval of project designs and plans. In the event the Board would like to add a condition to the project to require SSRRC review, staff has prepared the following condition, which is applied similarly to other projects subject to SSRRC.

Systems Safety and Reliability Review Committee. The Owner/Applicant shall submit all project-related design and construction details (Process Flow Diagrams, P&IDs, Cause & Effect Charts, and other relevant engineering materials), facility start-up, commissioning and operating procedures, and a Process and Hazard Analysis (PHA) to the Systems Safety and Reliability Review Committee (SSRRC) for review and approval. The SSRRC consists of representatives from Planning and Development Department (Energy & Minerals and Building & Safety Divisions), County Fire Department, Environmental Health Services Hazardous Materials Unit (CUPA), Air Pollution Control District and County Executive Office (Office of Emergency Services). Other County departments are also expected to participate for specific issues as needed. The SSRRC may employ a third-party technical review to help identify and correct possible design and construction hazards and to ensure mitigation of potential public risk prior to construction and subsequent design modifications. The SSRRC review shall also evaluate all mitigations identified in the project's permit applications and environmental review documents (14EIR-00000-00001), as described in the project's conditions of approval. These shall include, but not be limited to, 1) a tank detection and monitoring system for any tanks at

the site that have vapor space H₂S above 1,000 ppm; 2) a Supplemental Pollution Control Plan including specific procedures for the discovery, assessment, response, monitoring, control, reporting and mitigation, including habitat restoration and a required timeframe of habitat restoration completion, of seeps and surface expressions of oil at the Orcutt Oil Field; 3) an Emergency Response Action Plan; and 4) procedures to ensure periodic pipeline leak and integrity testing and surveillance of oil gathering lines and the pipeline connecting the tank battery to the existing Oil Sales Pipeline. If any new oil seep occurs at the project site, Owner/Applicant shall within 15 working days of each occurrence submit a written engineering analysis to the SSRRC. The SSRRC shall review the likely causes and potential solutions to the incidence of seeps associated with PCEC's cyclic steaming activities. SSRRC shall coordinate its review with the California Division of Oil, Gas and Geothermal Resources (DOGGR). Solutions identified during the coordinated review shall be implemented immediately and may include, among other things, reduction or cessation of any cyclic steaming operations identified as causative or contributory to seep occurrence; shutting in of wells deemed to cause or contribute to seep occurrence or other appropriate response as determined by the SSRRC. Design and operational recommendations resulting from this review shall be incorporated into Owner/Applicant's plans prior to construction or other appropriate time as determined by the SSRRC. All reasonable costs associated with any review shall be borne by Owner/Applicant. Owner/Applicant shall be entitled to participate fully in the review process. The SSRRC shall require as-built inspections and the submittal of as-built drawings for approval prior to operations and for any modifications. **PLAN REQUIREMENT:** The system design details and PHA shall be reviewed by the SSRRC and approved by P&D prior to Zoning Clearance. The start up, commissioning and operating procedures shall be reviewed by SSRRC and approved by P&D prior to commencing operations. **TIMING:** These requirements shall be enforced throughout all construction periods and for the lifetime of the operation of the facilities or any modifications as applicable. **MONITORING:** P&D staff shall monitor the implementation of this condition through the oversight of the Systems Safety Review and Reliability Committee (SSRRC).

The Board also expressed interest in requiring PCEC to develop a Safety Inspection, Maintenance and Quality Assurance Program (SIMQAP) to be reviewed and approved by the SSRRC. The SIMQAP is a guidance document that identifies a facility's safety related features, processes and procedures. Development and implementation of a SIMQAP is overseen by the SSRRC. In the event the Board would like to add a condition to the project to require the development of a SIMQAP, staff has prepared the following condition, which is substantially similar to other projects subject to SSRRC.

Safety, Inspection, Maintenance, and Quality Assurance Program. Owner/Applicant shall submit a detailed Safety Inspection, Maintenance and Quality Assurance Program (SIMQAP) for both construction and operation phases. This Program is a dynamic document and, as such, updates including the relevant recommendations and mitigations of the project's environmental review document (14EIR-00000-00001) shall be addressed in the plan. The Program shall follow the County of Santa Barbara SSRRC and SIMQAP

Administrative Guidance document and shall describe the facilities operations, safety systems, fire suppression systems, fire water systems and supply, and access to the facilities. The Program shall also include, but not be limited to, establishing procedures for review of safety inspection records; regular maintenance and safety inspections; periodic safety audits; development of safety system testing protocols; as built facility diagrams and pipeline maps; operator safety and refresher training; and monitoring of critical safety devices and systems. The Program shall include provisions for inspection of the facilities, including well pads, the oil and gas plants and pipelines, on a regular basis and at least annually, as determined by the County and other appropriate regulatory agencies through the life of the project. The Program shall include a pre-operation baseline inspection. Inspections shall use the Best Available Technology (BAT) to identify any facility or pipeline anomalies. Where the County and/or other appropriate regulatory agency identify structural anomalies that compromise the integrity of the facilities, operations shall cease until repairs can be made to restore facility integrity. Owner/Applicant shall implement the approved Program and shall provide for involvement of the Onsite Environmental Coordinator, County staff or its consultants' involvement in all inspections. All costs associated with this review process shall be borne by Owner/Applicant. **PLAN REQUIREMENT:** The Construction SIMQAP shall be reviewed by SSRRC and approved by P&D prior to Zoning Clearance. The Operational SIMQAP shall be reviewed by SSRRC and approved by P&D prior to commencing the operation of the facilities. The plan shall be revalidated biennially. **TIMING:** The SIMQAP requirements shall be enforced throughout all construction periods and for any subsequent modifications for the life of the project. **MONITORING:** P&D staff shall monitor the implementation of this condition through the Systems Safety Review and Reliability Committee (SSRRC) process.

2. Seep Notification and Reporting Condition

The Board expressed interest in requiring specific notification to interested parties and reporting procedures to the Board in the case of future oil seeps. Staff has prepared the following condition to require notification and reporting of future seeps.

Seep Noticing and Reporting. Upon receiving an application for a Zoning Clearance for the installation of each seep can, P&D staff shall: 1) send a notice acknowledging the receipt of the application to all Energy & Minerals Division interested parties; and 2) provide the Board of Supervisors with an informational report on the Board's next practically available administrative agenda.

3. Air Quality Monitoring Station in Vicinity of Project

The Santa Barbara County Air Pollution Control District (APCD) receives air quality information from a network of 18 monitoring stations throughout the county. The primary purpose of the network is to collect air pollution and meteorological data that are used to characterize the quality of the County's air against health-based state and federal air quality standards. Additionally, a subset of the stations also monitors the downwind air pollution impacts related to specific large petroleum projects that have been permitted within the County.

Currently, the closest monitoring stations to the project site are in downtown Santa Maria (approximately 7.7 mi N) and at the Freeport-McMoRan Lompoc Oil and Gas Plant (approximately 7.8 mi SSW). At the October 11, 2016 hearing, the Board expressed interest in the installation of an additional air quality monitoring station in the vicinity of the project site to collect health-related air quality data. The additional station would add to the existing network and collect similar air pollution and meteorological data. APCD advises staff that the initial capital cost for such a monitoring station is approximately \$100,000, and that annual operational and maintenance costs are in that same range. Staff has prepared the following condition to require the installation and operation of a new air quality monitoring station should the Board so choose.

Air Quality Monitoring Station. The Owner/Permittee shall fund the installation and ongoing operation of an air quality monitoring station in the vicinity of the project site. The exact specifications and location of the monitoring station shall be determined by the County Air Pollution Control District (APCD). The APCD shall oversee the ongoing operation of the monitoring station; all reasonable costs shall be borne by the Owner/Permittee.

4. Community Workshops and Periodic Reporting to the Board

The Board expressed interest in having P&D staff periodically host a community workshop and return to the Board with an annual report to include information on the status of seeps and restoration efforts at the site. Staff offers for consideration the following condition to require periodic reporting to the Board.

Periodic Reporting. The Applicant shall provide an annual report to P&D on the implementation of the Project including: the status of CTS habitat restoration; the status of Lompoc yerba santa on the site; and, the occurrence of seeps. Annual reports shall be reviewed and approved by P&D. P&D shall conduct a community workshop on the Project's implementation every 2 years following the issuance of the first zoning clearance for construction of the Project. A Project status update shall be provided by P&D to the Board of Supervisors following the community workshop. Copies of the annual reports required herein shall be provided to all interested parties and notice of the community workshops shall be given to all interested parties.

Potential Motions for Approval of the Careaga Exclusion and Careaga and CTS Exclusion Alternatives

If the Board chooses to approve the Careaga Exclusion Alternative, staff recommends the following motion.

Careaga Exclusion Alternative

- a) Deny the appeal, Case No. 16APL-00000-00020;

- b) Make the required findings for denial of the project, included as Exhibit 1 to the October 11, 2016 Board Letter;
- c) Find that denial of the project is exempt from CEQA pursuant to CEQA Guidelines Section 15270 as specified in Attachment B to the July 8, 2016 staff memo to the Planning Commission (Exhibit 2 of the October 11, 2016 Board Letter);
- d) Deny the project.
- e) Make the required findings for approval of the Careaga Exclusion Alternative, including CEQA findings, included as Attachment 1 to this Board Letter;
- f) Certify the Environmental Impact Report, Case No. 14EIR-00000-00001 (Attachment 4 of the October 11, 2016 Board Letter) for the Careaga Exclusion Alternative and adopt the mitigation monitoring program contained in the conditions of approval; and
- g) Grant *de novo* approval of the Careaga Exclusion Alternative, Case No. 13PPP-00000-00001, subject to the conditions included as Attachment 1 of this Board Letter.

If the Board chooses to approve the Careaga and CTS Exclusion Alternative, staff recommends the following motion.

Careaga and CTS Exclusion Alternative

- a) Deny the appeal, Case No. 16APL-00000-00020;
- b) Make the required findings for denial of the project, included as Exhibit 1 to the October 11, 2016 Board Letter;
- c) Find that denial of the project is exempt from CEQA pursuant to CEQA Guidelines Section 15270 as specified in Attachment B to the July 8, 2016 staff memo to the Planning Commission (Exhibit 2 of the October 11, 2016 Board Letter);
- d) Deny the project.
- e) Make the required findings for approval of the Careaga and CTS Exclusion Alternative, including CEQA findings, included as Attachment 1 to this Board Letter;
- f) Certify the Environmental Impact Report, Case No. 14EIR-00000-00001 (Attachment 4 of the October 11, 2016 Board Letter) for the Careaga and CTS Exclusion Alternative and adopt the mitigation monitoring program contained in the conditions of approval; and
- g) Grant *de novo* approval of the Careaga and CTS Exclusion Alternative, Case No. 13PPP-00000-00001, subject to the conditions included as Attachment 1 of this Board Letter.

Alternatively, refer to the Board Letter of October 11, 2016 for the motion for the Seep Can Only Alternative.

Attachments

1. Careaga Exclusion and Careaga and CTS Exclusion Alternatives Findings and Conditions