

1.0 Introduction

This Environmental Impact Report (EIR) assesses the environmental impacts associated with the Aera East Cat Canyon Oil Field Redevelopment Project (proposed Project). Santa Barbara County, as lead agency under the California Environmental Quality Act (CEQA), determined that an EIR would be required as part of the permitting process for the proposed Project. In compliance with CEQA Guidelines, the County solicited public and agency input through distribution of a Notice of Preparation (NOP) on October 21, 2016. A public scoping meeting was also held on November 15, 2016 at the Betteravia Government Center in Santa Maria to provide an opportunity for the public to comment on the scope of the EIR. A Final Scoping Report (see EIR Appendix A) was prepared to document the methods used to notify the public and agencies about the scoping process conducted for the Project, and agency and public scoping input.

Aera Energy LLC (Aera or “Applicant”) is proposing the Project to re-establish oil production on its property and lease holdings within the Cat Canyon Oil Field, approximately 7 miles southeast of Santa Maria in northern Santa Barbara County. The proposed Project includes a request to the County of Santa Barbara (County) for the approval of an Oil and Gas Drilling and Production Plan and, Vesting Tentative Tract Map, for the construction and operation of the proposed Project, as follows:

- Oil Drilling and Production Plan (ODPP) (County Case No. 15PPP-00000-00001) to allow for reestablishment of oil and gas production operations, and construction of a 14-mile 8-inch Public Utility Commission (PUC) natural gas pipeline and associated facilities;
- Vesting Tentative Tract Map (15TRM-00000-00003) to reconfigure 14 lots into 12 lots for the approval of an Oil and Gas Drilling and Production Plan and Vesting Tentative Tract Map.

This section is organized as follows:

- 1.1 Overview of the Proposed Project
- 1.2 Objectives of the Proposed Project
- 1.3 Agency Use of the EIR
- 1.4 EIR Contents

1.1 Overview of the Proposed Project

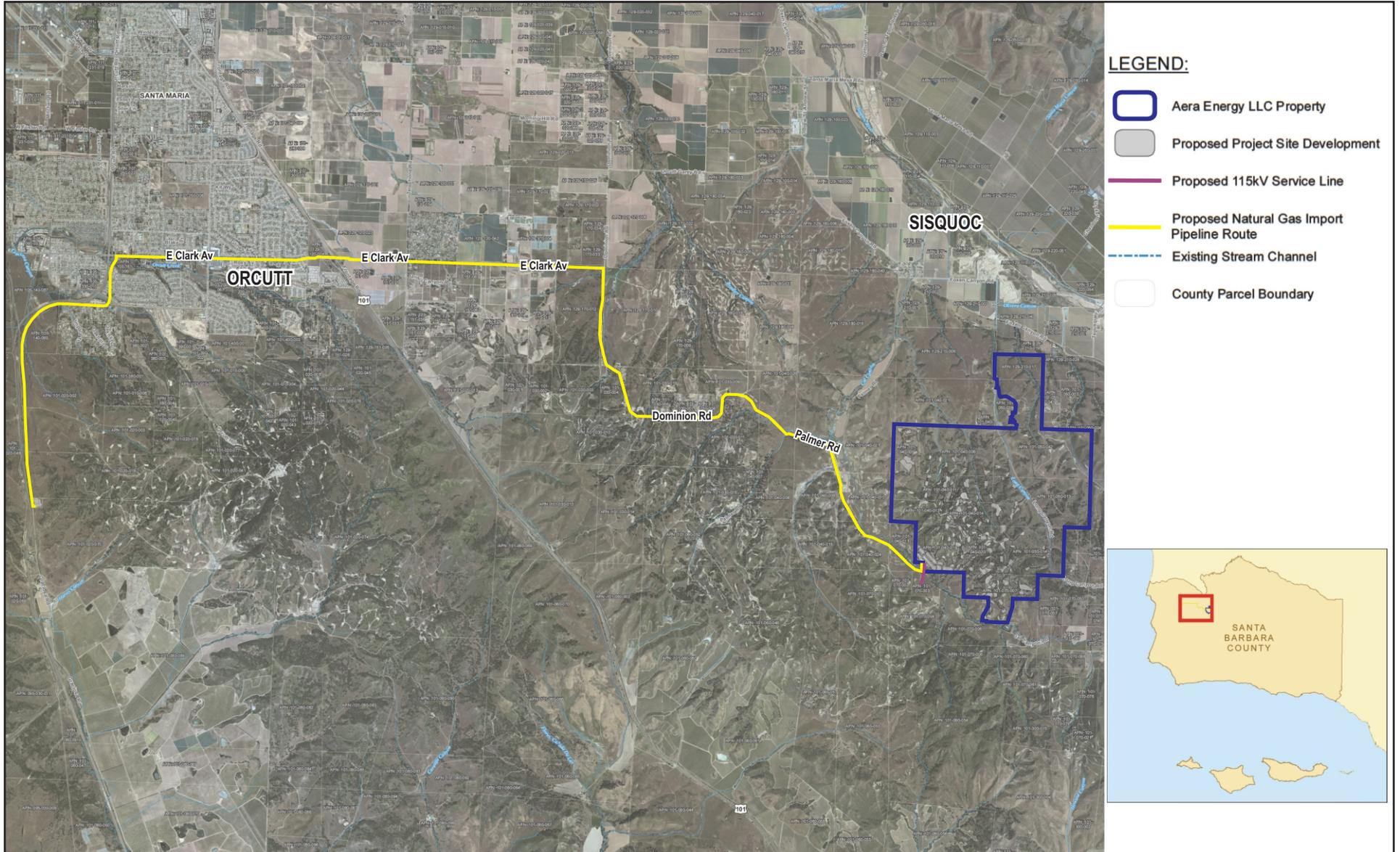
1.1.1 Location

The site for the proposed Project is located in the eastern area of the Cat Canyon Oil Field, which has been used for oil production purposes for more than 100 years. The Cat Canyon Oil Field is a State-designated oil field with boundaries defined by the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR), which covers over 26,440 acres and includes nearly 1,600 active, idle and plugged and abandoned oil wells. The application involves numerous properties located along Cat Canyon Road and Long Canyon Road in the County’s Fifth Supervisorial District, near the communities of Garey and Sisquoc. The proposed Project site consists predominantly of rolling hills with some steep slopes. Figure 1-1 (Project Location and Overview) shows where the Project site is located within Santa Barbara County.

The Project site is located within the Agricultural II (AG-II-100) and Agricultural Commercial (AC) zone districts. In accordance with the County Land Use and Development Code Table 2-1 and Section 35.5, oil and gas extraction is an allowed use within the AG-II and AC zone districts. No change in existing land use designation and/or zone district is proposed as part of the Project.

AERA East Cat Canyon Oil Field Redevelopment Plan

1.0 INTRODUCTION



Source: Aera, 2016.



Figure 1-1
Project Location and Overview

1.1.2 Proposed Project

Aera proposes to re-establish oil production at a forecasted level of up to 10,000 barrels of oil per day by implementing a thermal enhanced oil recovery process within the Sisquoc Formation (reservoir) underlying the eastern area of the existing Cat Canyon Oil Field. To do so, the Project wells, roads, utility and transportation infrastructure would be built out in two phases, Phase I and Phase II. The operational results and monitoring data collected from Phase I would help to confirm the Project's reservoir models and production forecasts, prior to additional investment and construction. Production from the Project is expected to continue for 30 to 50 years or more after initial production unless or until it is deemed uneconomic or undesirable to continue operation.

The proposed Project includes the following components:

Aera Oil Field Redevelopment

- **Well Pads** – Construction and restoration of approximately 72 well pad locations.
- **Wells** – Development and operation of up to 296 wells, including oil/gas production wells, steam injection wells, observation wells, non-potable water production wells, water injection wells, and fresh groundwater wells. No hydraulic fracturing would be used for this Project.
- **Access Roads** – Construction and restoration of over 9 miles of field access roads.
- **Processing Facilities** – Construction of new processing facilities, including:
 - Production group station for bulk separation of produced gas and liquids;
 - Central processing facility for oil cleaning, water cleaning, water softening, oil storage, and oil sales; and
 - Steam generation site with up to six once-through steam generators rated at 85 million British thermal units/hour (BTUs) each, a seventh once-through steam generator rated at 62.5 million BTUs/hour, an emergency flare, and ancillary facilities;
- **Field Systems** – Construction of new field systems, including
 - Production gathering and water distribution network;
 - Steam distribution network; and
 - Electrical power distribution, and supervisory control and data acquisition (SCADA) networks.
- **Fresh Water System** – Construction of a 3,000-barrel tank and water distribution pipelines for ancillary purposes, including fire protection, lavatories, showers, equipment cleaning, dust control, minor landscape irrigation, and also possibly for drinking water. No fresh water would be used to generate steam for the Project.
- **Support Infrastructure** – Construction of an office building, a multipurpose building, a warehouse and maintenance building, a facility control building, and an onsite septic system.
- **Tanker Truck Transport** – Importation of light crude via Compressed Natural Gas (CNG) trucks for blending from Aera's Belridge Producing Complex in the South Belridge Oil Field near Bakersfield (140.4 miles), and exportation of produced, blended crude oil back to Aera's Belridge Producing Complex.
- **Conservation Easement** – A permanent Conservation Easement, located in an area east of Long Canyon Road, where no surface oil production activities are proposed. The Conservation Easement would be used to provide mitigation for unavoidable Project impacts, and to provide conservation, educational, and recreational opportunities for the Santa Barbara County community.

SoCalGas Natural Gas Pipeline

- **Natural Gas Pipeline** – Construction of a new, approximately 14-mile, 8-inch natural gas pipeline and associated facilities, which include above ground valves, underground valves, and a metering station at the pipeline terminus. Southern California Gas Company (SoCalGas) would design, build and operate the new natural gas pipeline, which would be subject to California Public Utilities Commission (CPUC) standards.

PG&E Electrical Power Line Interconnection

- **Electrical Power Line Interconnection** – Construction of a new, approximately 0.3-mile 115 kilovolt (kV) power line to interconnect Pacific Gas and Electric Company’s (PG&E’s) Sisquoc–Santa Ynez 115 kV power line to a new Aera-owned substation, located within the central processing facility. The 115 kV power line would be constructed, operated, and maintained by PG&E. The CPUC would have sole jurisdiction over the siting and design of the power line component of the Project

1.2 Objectives of the Proposed Project

Pursuant to Section 15124(b) of the California Environmental Quality Act (CEQA) Guidelines, the description of the proposed Project is to contain “a clearly written statement of objectives” that would aid the lead agency in developing a reasonable range of alternatives to evaluate in the Environmental Impact Report (EIR) and would aid decision makers in preparing findings and, if necessary, a statement of overriding considerations. The County is the lead CEQA agency preparing the EIR, considering the EIR for certification, and presenting the Project to the County Planning Commission for consideration of approval.

The Applicant’s stated Project Objectives are as follows:

1. Safely and economically produce crude oil while protecting the environment and creating new jobs, new tax revenue, community investment, and other benefits for Santa Barbara County;
2. Re-establish oil production at the East Cat Canyon Oil Field at a forecasted level of up to 10,000 barrels of oil per day in this existing oil field by drilling and operating oil/gas production wells, steam injection wells, observation wells, source water wells, water injection wells, fresh groundwater wells, production gathering systems, a central processing facility, steam generation and distribution systems, and related ancillary equipment;
3. Obtain the required natural gas and electric utility services to economically operate the Project site;
4. Protect human health and the environment by complying with all applicable laws and regulations and by implementing Aera’s System of Operating Excellence;
5. Economically and reliably transport produced crude to a competitive crude market destination having economic viability over the life of the Project;
6. Use existing well pads, roads, and other infrastructure where practical and feasible to minimize land disturbance;
7. Use non-potable brackish water as the primary source of water for steam generation to minimize use of potable groundwater; and
8. Reduce California’s reliance on imported oil by providing in-state supplies.

1.3 Agency Use of the EIR

A number of State and local governmental agencies require an environmental analysis of a proposed project consistent with the requirements of CEQA in order to act on a project. Table 1-1 provides a list of permits and other approvals that will (or may) be needed for the proposed Project. The County, as the CEQA lead agency, will act first on the project before any of the responsible agencies take action on the project. Santa Barbara County decision-makers (Planning Commission and Board of Supervisors) will use the EIR for decision-making regarding the proposed Project. If the proposed Project is approved by all required permitting agencies, the County would be responsible for reviewing and approving all pre-construction compliance plans, and ensuring that the proposed Project modifications and operations are conducted in accordance with the Oil Drilling and Production Plan for oil field development and Development Plan for the natural gas pipeline, mitigation measures, and other permit conditions.

Table 1-1. Permits or Other Actions Required for Implementation of the Proposed Project

Agency	Jurisdiction	Permit/Action
Permitting Agencies		
Santa Barbara County	CEQA Lead Agency, Land Use authority, County Code Chapter 35 – County Land Use and Development Code	Certification of EIR Oil Drilling and Production Plan Compliance review and construction permits Operations compliance
Santa Barbara County Petroleum Administrator	County Code-Chapter 25, Petroleum Ordinance	New Well Permit
Santa Barbara County Air Pollution Control District	Federal Clean Air Act, State Clean Air Act, APCD Rules, CEQA	Authority to Construct Permit to Operate
California Division of Oil, Gas, and Geothermal Resources (DOGGR)	California Code of Regulations – Title 14	Oil and Gas Production Well Drill & Operate Permits Injection Well Permits Aquifer Exemption
Regional Water Quality Control Board, Central Coast Region	Clean Water Act, Porter-Cologne State Water Quality Act	Stormwater Pollution Prevention Plan General Waste Discharge Requirements Soil Beneficial Re-Use 401 Certification (if required)
Other Permitting Agencies		
U.S. Army Corps of Engineers	Section 404 Clean Water Act	Section 401/404 Permit – streambed alternation/crossing (if required)
U.S. Fish and Wildlife Service	Federally Listed, Threatened, and Endangered Species	Consultation for Section 7 of the Endangered Species Act (if required)
California Department of Fish and Wildlife	California Fish and Game Code, CEQA	Streambed Alteration 1602 Permit (if required) Incidental Take Permit (if required)

1.4 EIR Contents

This EIR was prepared in accordance with State and County administrative guidelines established to comply with the CEQA. Section 15151 of the State CEQA Guidelines provides the following standards for EIR adequacy:

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

This EIR is divided into the follow major sections. Figures are provided as necessary in each section to graphically represent the topic at hand.

- **Executive Summary.** Provides an overview of the project and a summary of the significant impacts identified in the analysis and associated mitigation measures. A summary of the alternatives and environmentally superior alternative is also provided. Within the Executive Summary, Impact Summary Tables are provided that summarize the identified impacts by significance class for the proposed project. The tables also provide a summary of proposed and/or recommended mitigation measures for the impacts.
- **Section 1. Introduction.** Provides an overview on the proposed Project evaluated in the EIR and a summary of the objectives for the project. This section also discusses agency use of the document, and provides a summary of the contents of the EIR.
- **Section 2. Proposed Project Description and Alternatives.** Provides a detailed description of the proposed project, as well as the project background, including current operations. Descriptions of the alternatives that were evaluated in this document are also provided. The section also presents an alternatives screening analysis that was used to identify alternatives that could reduce significant impacts associated with the proposed project. The alternatives that made it through the screening analysis are evaluated in detail throughout the document.
- **Section 3. Cumulative Scenario.** This Section provides a summary of the projects that have been included in the cumulative analysis, including a project location map. The cumulative analysis contained in this document covers the cumulative impacts of reasonably foreseeable projects located in the vicinity of the proposed project that have either been approved (but not yet constructed), proposed, or are in various stages of permitting.
- **Section 4. Environmental Analysis.** Describes the existing conditions found on the project site and vicinity, and assesses the potential environmental impacts that may be generated by implementation of the proposed Project. These potential project impacts are compared to various “thresholds of significance” in order to determine the severity of the impacts. Mitigation measures intended to reduce significant impacts are proposed where feasible. In addition, cumulative impacts are assessed for the proposed Project together with the other “reasonably foreseeable projects” listed in Chapter 3.0.
- **Section 5. Comparison of Alternatives.** This Section assesses the potential environmental impacts associated with the alternatives that passed the screening analysis presented in Section 2.0. This Section also provides a comparative analysis (matrix) to distinguish the relative effects of each alternative and its relationship to Project objectives and impacts. The alternatives analysis also identifies the “environmentally superior alternative,” as required by CEQA Guidelines Sections 15126.6(d) and (e)(2).
- **Section 6. Other CEQA Requirements.** This Section addresses a variety of CEQA topics, including: (1) significant environmental effects which cannot be avoided if the project is implemented, (2) significant irreversible changes, (3) growth-inducing impacts, and (4) a summary of the effects identified during the EIR scoping process as not significant.
- **Section 7. Mitigation Monitoring Program.** The Mitigation Monitoring Program includes the following: (1) applicant-proposed measures and mitigation measures that the applicant/owner must implement as part of the proposed Project, (2) the actions required to implement these measures, (3) the monitoring requirements, and (4) the timing of implementation for each measure.
- **Section 8. References.**

The EIR also contains a number of appendices that support the environmental analyses.