

Lantos Energy LLC – Marsalla 1

Marsh Development Permit MD-22-01 and

Administrative Permit AD-22-03

Recirculated Initial Study and

Mitigated Negative Declaration

State Clearinghouse No. 2023090596

June 2024

CEQA Lead Agency:

County of Solano

Prepared by:

Department of Resource Management

TABLE OF CONTENTS

CHAPTER 1 – PART II INITIAL STUDY OF ENVIRONMENTAL IMPACTS

1.1	INTRODUCTION.....	4
1.2	ENVIRONMENTAL DETERMINATION.....	5
1.3	ENVIRONMENTAL SETTING	6
1.4	PROJECT DESCRIPTION.....	8
1.5	ADDITIONAL DATA.....	15
1.6	LAND USE CONSISTENCY ANALYSIS.....	16
1.7	RESPONSIBLE, TRUSTEE, & AGENCIES THAT MAY HAVE JURISDICTION	17

CHAPTER 2 – ENVIRONMENTAL CHECKLIST

2.1	AESTHETICS.....	19
2.2	AGRICULTURAL AND FORESTRY RESOURCES.....	20
2.3	AIR QUALITY.....	21
2.4	BIOLOGICAL RESOURCES.....	22
2.5	CULTURAL RESOURCES.....	31
2.6	ENERGY.....	33
2.7	GEOLOGY AND SOILS.....	33
2.8	GREENHOUSE GAS EMISSIONS.....	35
2.9	HAZARDS AND HAZARDOUS MATERIALS.....	36
2.10	HYDROLOGY AND WATER.....	38
2.11	LAND USE AND PLANNING.....	40
2.12	MINERAL RESOURCES.....	41
2.13	NOISE.....	42
2.14	POPULATION AND HOUSING.....	43
2.15	PUBLIC SERVICES.....	44
2.16	RECREATION.....	45
2.17	TRANSPORTATION AND TRAFFIC.....	45

2.18 TRIBAL CULTURAL RESOURCES.....46

2.19 UTILITIES AND SERVICE SYSTEMS.....47

2.20 WILDFIRE.....48

2.21 MANDATORY FINDINGS OF SIGNIFICANCE.....49

CHAPTER 3 – AGENCY COORDINATION AND PUBLIC INVOLVEMENT

3.1 AGENCY COORDINATION AND PUBLIC INVOLVEMENT.....51

3.2 LIST OF PREPARERS.....51

3.3 DISTRIBUTION LIST.....51

APPENDICES.....53

A – Land Use Application Lantos Energy LLC

B – Biological Resources Assessment prepared by Booher Consulting, LLC

C – Air and Greenhouse Gas Emissions Study

CHAPTER 1 - PART II OF INITIAL STUDY OF ENVIRONMENTAL IMPACTS

1.1 INTRODUCTION

The following analysis is provided by the Solano County Department of Resource Management as a review of and supplement to the applicant's completed "Part I of Initial Study". These two documents, Part I and II, comprise the Initial Study prepared in accordance with the California Environmental Quality Act (CEQA) Guidelines, Section 15063.

Project Title:	Lantos Energy LLC – Marsalla 1
Application Number:	MD-22-01 and AD-22-03
Project Location:	Birds Landing Road Birds Landing, CA 94512
Assessor Parcel No.(s):	0090-070-420
Project Sponsor's Name and Address:	Lantos Energy LLC c/o Gary Grinsfelder 338 Harris Hill Road Williamsville, NY 14221

General Information

This Mitigated Negative Declaration (MND) has been prepared by the County of Solano, as lead agency, pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), to analyze and disclose the environmental effects associated with project. This document discusses the proposed project, the environmental setting for the proposed project, and the potential for impacts on the environment from the proposed project and any measures incorporated which will minimize, avoid and/or provide mitigation measures for the impacts of the proposed project on the environment.

- Please review this Initial Study. You may order additional copies of this document from the Solano County Department of Resource Management Planning Services Division at 675 Texas Street, Fairfield, CA, 94533.
- We welcome your comments. If you have any comments regarding the proposed project, please send your written comments to this Department by the deadline listed below.
- Submit comments via postal mail to:

Department of Resource Management
Planning Services Division
Attn: Eric Wilberg, Senior Planner
675 Texas Street
Fairfield, CA 94533

- Submit comments via email to: planning@solanocounty.com
- Submit comments by the deadline of: **July 15, 2024**

Next Steps


After comments are received from the public and any reviewing agencies, the Department may recommend that the environmental review is adequate and that a Negative Declaration be adopted or that the environmental review is not adequate and that further environmental review is required.

1.2 ENVIRONMENTAL DETERMINATION

On the basis of this Initial Study the Solano County Department of Resource Management finds:

- The proposed project could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- That although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the project proponent has agreed to revise the project to avoid any significant effect. **A MITIGATED NEGATIVE DECLARATION** will be prepared.
- The proposed project could have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT (EIR)** is required.
- The proposed project could have a significant effect on the environment, but at least one effect has been (1) adequately analyzed in a previous document pursuant to applicable legal standards, and (2) addressed by mitigation measures based on the previous analysis as described in the attached initial study. An EIR is required that analyzes only the effects that were not adequately addressed in a previous document.
- That although the proposed project could have a significant effect on the environment, no further environmental analysis is required because all potentially significant effects have been (1) adequately analyzed in an earlier EIR or **NEGATIVE DECLARATION** pursuant to applicable standards, and (2) avoided or mitigated pursuant to that earlier EIR or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are included in the project, and further analysis is not required.

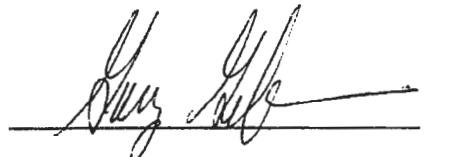
6/14/2024
Date


Eric Wilberg, Senior Planner
County of Solano
Department of Resource Management

INCORPORATION OF MITIGATION MEASURES INTO THE PROPOSED PROJECT

By signature of this document, the project proponent amends the project description to include the mitigation measures as set forth in Section 2.

6/3/24
Date


Gary Grinsfelder, Project Proponent

1.3 ENVIRONMENTAL SETTING:

The project is located within the southeast portion of unincorporated Solano County near the community of Birds Landing, nine (9) miles south of the City of Fairfield and 10.5 miles west of the City of Rio Vista. The proposed drilling pad and well location are located just north of Birds Landing Road and approximately one-half mile north of Montezuma Slough. The Suisun Marsh predominantly surrounds the project to the west and south and the Montezuma Hills and related wind energy development surround the project to the north and east.

The Suisun Marsh represents an area of significant aquatic and wildlife habitat and is an irreplaceable and unique resource to the residents of Solano County, the State, and Nation. The Marsh comprises approximately 85,000 acres of tidal marsh, managed wetlands, and waterways. It is the largest remaining wetland around San Francisco Bay and includes more than ten percent of California's wetland area. The Marsh is also a wildlife habitat of nationwide importance in that it provides wintering habitat for waterfowl of the Pacific Flyway. Because of its size and estuarine location at the confluence of the Sacramento and San Joaquin Rivers into the greater San Francisco Bay, the Marsh supports a diversity of plant communities which provide habitats for a variety of fish and wildlife, including several rare and endangered species.

In 1977, the California State legislature enacted the Suisun Marsh Preservation Act which provides a mechanism to preserve and enhance the wildlife habitat of the Suisun Marsh and to assure retention of upland areas adjacent to the marsh in uses compatible with its protection. A key component of the Act is the classification of two management areas within the Suisun Marsh. The Primary Management Area is under jurisdiction of the San Francisco Bay Conservation and Development Commission (BCDC) and the and the Secondary Management Area under local jurisdiction through the Solano County Local Protection Program (LPP).

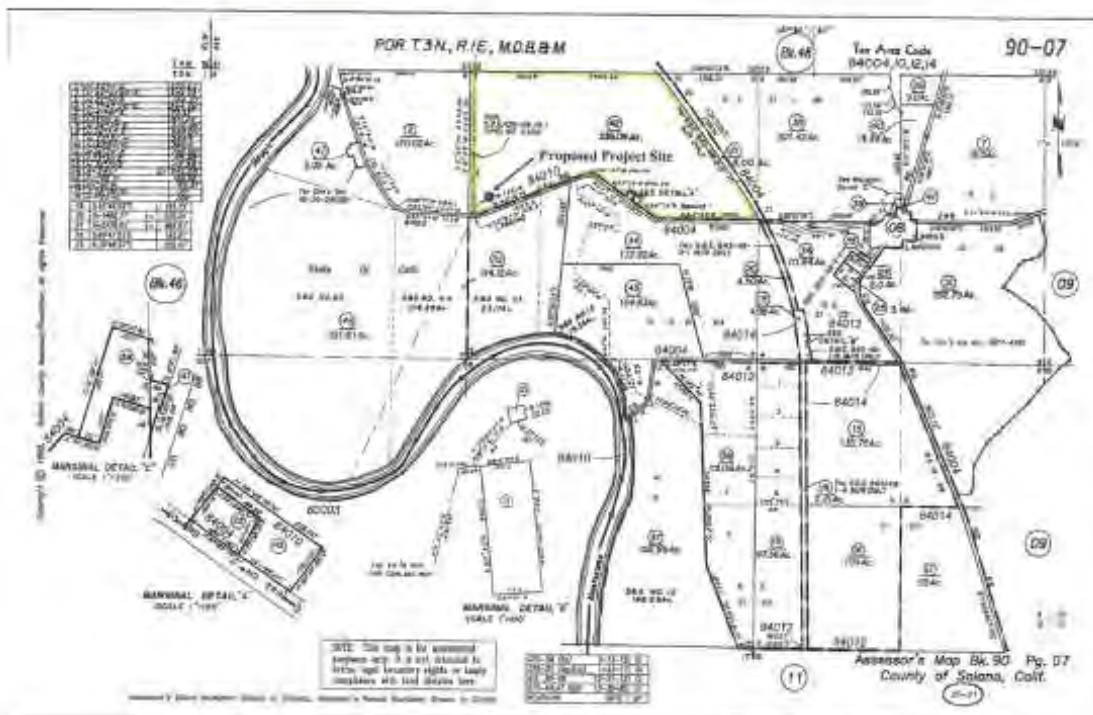
The entire project, including proposed drilling pad, gas well, pipeline, and access road are situated within the Secondary Management Area of the Suisun Marsh requiring issuance of a Marsh Development Permit from Solano County.

As part of the environmental planning process, the applicant has submitted the results of a Biological Resources Assessment (Appendix B) which evaluates the project site and adjacent areas to identify special-status plant and special-status wildlife species that could potentially be impacted during implementation of the project.

Figure 1: Vicinity Map



Figure 2: Assessor's Parcel Map



1.4 PROJECT DESCRIPTION:

Project Objective and Overview

The project aims to locate untapped natural gas sources with development potential within or outside of existing natural gas fields with the objective to develop additional natural gas reserves in the State of California.

Lantos Energy LLC (Lantos) is proposing to construct a drill site and drill one (1) exploratory natural gas well from the proposed drill site over a one (1) year period. The proposed Marsalla 1 well is located at Latitude 38.133385 and Longitude 121.898040. If drilling is successful, Lantos proposes to install the required production equipment including a natural gas pipeline. The proposed pipeline would be constructed from the proposed drill site to an existing natural gas pipeline located approximately 0.04 miles (200 feet) southwest of the proposed well site. The proposed pipeline would be installed using traditional open-cut trench methods. No boring will be used to install the pipeline. No hydraulic fracturing is proposed. The entire proposed project will be located within the Secondary Management Area of the Suisun Marsh. The entirety of the proposed project would be installed on private lands.

The drill site location was selected to minimize impacts to sensitive resources including wetlands. The proposed well site will encompass an area of 100 feet by 170 feet (approximately 17,000 square feet, or 0.39 acres) with an access road measuring 40 feet in length and 20 feet in width (approximately 800 square feet, or 0.02 acres). All project impacts would occur in upland grassland habitat. The proposed project site was also selected because it is near an existing public road and would require only a short section of new access road to be constructed, minimizing disturbance to native habitats areas.

Figure 3: Proposed drill site and well location.



Project Phasing

The proposed project includes three (3) phases: a site preparation phase, a drilling and testing phase and a production phase. A detailed description of each phase is presented below.

Site Preparation Phase

Prior to initiating site preparation activities, all workers will be given an environmental orientation to ensure that those working in the project area understand the sensitivity of the areas adjacent to the proposed well site and proposed access road, and the necessity of avoiding disturbance to these areas. The environmental orientation will also discuss emergency response guidelines and conservation and mitigation measures designed to avoid or minimize potential environmental impacts.

Project area boundaries will be clearly delineated by project biologists to ensure all activities are confined to the approved work area and to avoid wetland areas outside of the proposed well site and proposed access road as previously delineated by wetland biologists. Project biologists will oversee removal of vegetation from the proposed well site and proposed access road. Any vegetation removed will be transported to an off-site waste disposal facility. Fill materials will be placed on the proposed well site and proposed access road to raise the elevation of the proposed well site and proposed access road. Fill materials will consist of sand and/or base rock.

Lantos will use above ground steel tanks to store its drilling cutting and excess mud during drilling and completion operation and no sump will be constructed as part of this project. All drilling mud and cuttings will be transported offsite to a disposal site. Existing public roads will be used to provide access from Birds Landing Road to the proposed project area. A new access road will need to be constructed from the existing private gravel road to the proposed well site; the new access road will encompass approximately 20 feet in width by 40 feet in length. Lantos estimates that approximately five (5) days will be needed to prepare the proposed well site and proposed access road. Site preparation activities will operate eight (8) hours per day.

Equipment Used During Site Preparation Phase

On Site Equipment	Number of Equipment	HP	Days of Operation	Total Hours/Day
Grader	1	140	5	8
Track Hoe/ Loader	1	100	5	8
Roller/Compactor	1	100	2	8
Mobile Sources	Number	Round Trip Distance (Miles)	Duration (days)	Total Miles Driven
Water Truck	1	100 miles/day	3	300
Passenger Car/Pickup Truck Round Trips	5	100 miles/day	8	4,000
Heavy Truck/Semi	2	100 miles/day	2	400

Drilling & Testing Phase

The drilling phase of the proposed project will last approximately 28 days. The drilling phase includes six (6) days for mobilization and demobilization of the drill rig, 22 days for drilling, and two (2) days for various tasks associated with the drilling phase including installation of blowout prevention equipment, cementing, mud-logging, etc.

Drilling equipment will be mobilized to the site and rigged up. The project will use Paul Graham Rig located in Rio Vista. The drill rig is registered in the California Portable Emission Registration Program. The proposed drill rig is the Ensign ADR 350 with a clear working height of 52 feet. Temporary facilities, equipment and materials necessary for the drilling operation will be set up and stored on the proposed well site (i.e., drilling mud supplies, water, drilling materials and casing, crew support trailers, pumps and piping, portable generators, fuels and lubricants, etc.).

The completion and testing phase of the project, if the well is not a dry hole, will take approximately three (3) days. Night lighting will be required and available only during the drilling phase. However, to the greatest extent possible night lighting will be directed inward and down to minimize off site impacts without compromising safety.

No hazardous materials will not be used or stored on the location with the exception of diesel fuel. However, the proposed project will not result in the production of hazardous waste as defined and regulated by Titles 22 and 23 of the California Code of Regulations. Rather, the project will generate non-hazardous designated waste, including drilling muds and oily wastes, able to be disposed of in a permitted Class II disposal facility. In the unlikely event an anticipated waste were to later be deemed a hazardous Class I waste by the state, such waste would be treated, stored and disposed of at an offsite facility permitted to accept Class I waste.

Any hazardous materials (very unlikely) and non-hazardous waste will be transported by a licensed transportation company. The commercial transportation, identification, and designation of appropriate shipping routes for these materials will be in conformance with the adopted Solano County and Incorporated Cities Hazardous Waste Management Plan (HWMP). California regulates the transportation of hazardous waste originating or passing through the State, by statute, in the California Health and Safety Code and Title 22 and 13 of the California Code of Regulations (CCR). The California Highway Patrol (CHP) and Caltrans have primary responsibility for enforcing these regulations and responding to hazardous materials transportation emergencies. The CHP enforces materials and hazardous waste labeling and packing regulations that prevent leakage and spills of material in transit and provide detailed information to cleanup crews in the event of an incident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the responsibility of the CHP. The CHP conducts regular inspections of licensed transporters to ensure regulatory compliance. Transportation of hazardous waste is also regulated under the Hazardous Materials Regulations Section 49 of the Code of Federal Regulations (CFR). The Environmental Protection Agency (EPA) has exempted the transportation of produced water, drilling fluids, drill cuttings and rig wash as the EPA believes these "special wastes" are lower in toxicity than other wastes being regulated as hazardous waste under Resource Conservation and Recovery Act (*Exemption of Oil and Gas Exploration and Production Wastes from Federal Hazardous Waste Regulations*, EPA, October 2002).

Above ground portable tanks will be used for mixing and storing drilling fluids. All fluids will be disposed of in accordance with the requirements of the Regional Water Quality Control Board

(RWQCB). The solids that accumulate in the above ground tanks will be transported offsite for disposal.

Surface casing would be set, cemented, and blowout prevention equipment installed at the wellhead and tested. The amount of surface casing used depends upon factors such as expected well pressures, the depth of fresh water, and the competence of the strata in which the well casing will be cemented. Blowout prevention equipment is bolted to the surface casing and will be tested per California Department of Conservation, Geologic Energy Management Divisions (CalGem) requirements. All successive drilling occurs through the blowout prevention equipment, which can be operated to control well pressures at any time. Blowout prevention equipment will be regulated by the CalGEM. CalGEM engineers will be notified for required tests and other operations (blowout prevention, surface casing integrity).

Well casing is designed to protect underground and surface waters suitable for irrigation or domestic purposes. CalGEM's well construction standards have the fundamental purpose to ensure zonal isolation. Zonal isolation means that natural gas coming up a well from the productive, underground geologic zone will not escape the well and migrate into other geologic zones, including zones that might contain fresh water. Zonal isolation also means that the fluids that are put down a well for any purpose will stay in that zone and not migrate to another zone. To achieve zonal isolation, CalGEM regulations require that a cement barrier be placed between the well and surrounding geologic strata or stratum. The cement bonds to the surrounding rock and well casing and forms a barrier against fluid migration. Cement barriers must meet certain standards for strength and integrity. If these cement barriers do not meet the standards, CalGEM requires the operator to remediate the cement barrier. Metal casings, which can be several layers depending on the depth of a well, also separate the fluids going up and down a well bore from the surrounding geology. If the integrity of a well is compromised by ground movement or other mechanisms, the well operator must remediate the well to ensure zonal isolation. Well casing standards are prescribed in Title 14 CCR, Division 2, Chapter 4, Subchapter 1, Article 3, Sections 1722.2 - 1722.4. Sufficient weighted drilling fluid would be used to prevent any uncontrolled flow from each well and additional quantities of drilling fluid would be available at each site (Title 14, CCR Section 1722.6).

Drilling will continue for the well until target depth is reached, approximately 6,600 feet to 8,000 feet. Once target depth is reached, the proposed well will be fully tested and evaluated. The proposed well will be tested with a flow line running to a portable test separator. Any produced gas will be flared, and liquids will be stored in a portable tank for transportation to an off-site facility.

Equipment, personnel and supply deliveries will continue through the course of the drilling program. Approximately 10 to 15 personnel will be on site at any given time during drilling operations and drilling activities will operate 24 hours per day. Should the proposed well be found to have insufficient commercial natural gas potential it would be plugged and abandoned per CalGEM regulations and specifications, in accordance with Title 14 CCR, Division 2, Chapter 4, Subchapter 1, Article 3, Sections 1723 - 1723.8 and the proposed well site restored for agricultural activities.

Equipment Used During the Drilling Well

On-Site Equipment	Number	Horsepower	Days of Operation	Total Hours/Day
Backhoe	1	50 HP	10	4 hours
Forklift	1	50 HP	22	4 hours
Drill Rig Motor #1& 2 (Draw work Engines)	2	665 HP	22	17.5 hours
Drill Rig Motor #3 & 4 (Pump Engine)	2	1000 HP	18	20 hours
Drill Rig Motor #5 & 6 (Generators)	2	685 HP	22	24 hours
Mobile Sources	Number	Round Trip Distance(Miles)	Duration (days)	Total Miles Driven
Water Truck (Heavy Duty)	1	100 miles/day	12	1,200
Passenger Car/Pickup Trucks (Light Duty)	10	100 miles/day	25	25,000
Heavy Duty Trucks	2	100 miles/day	6	1,200

Equipment for Completion and Testing Phase

Equipment Type	Number	Horsepower	Days of Operation	Hours Operation Daily
Completion Rig	1	350	3	10
Oil/Gas Separator	1	N/A	1	24
500 BBL Portable Tanks	2	N/A	3	8
Testing Flare (Maximum heat output of less than/or equal to 50 mmbtu/day, natural gas fired)	1	N/A	1	24
Mobile Sources	Number	Round Trip Distance	Duration (days)	Total Miles Driven
Pick-up Truck	5	100 miles*	3	1,500
Heavy Duty Truck (Oil Transport)	1	100 miles*	3 trips	300

Figure 4: Proposed site plan.

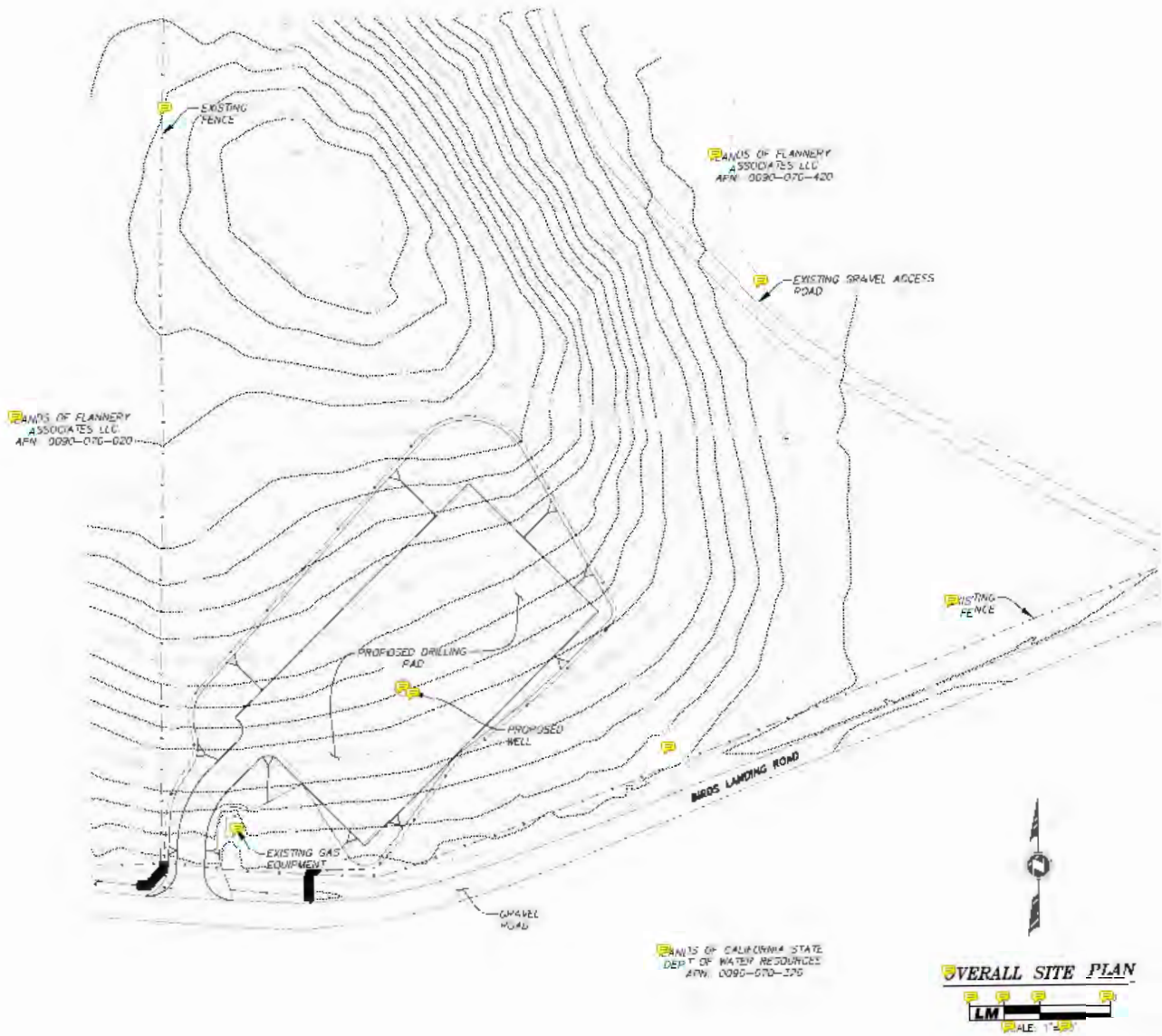
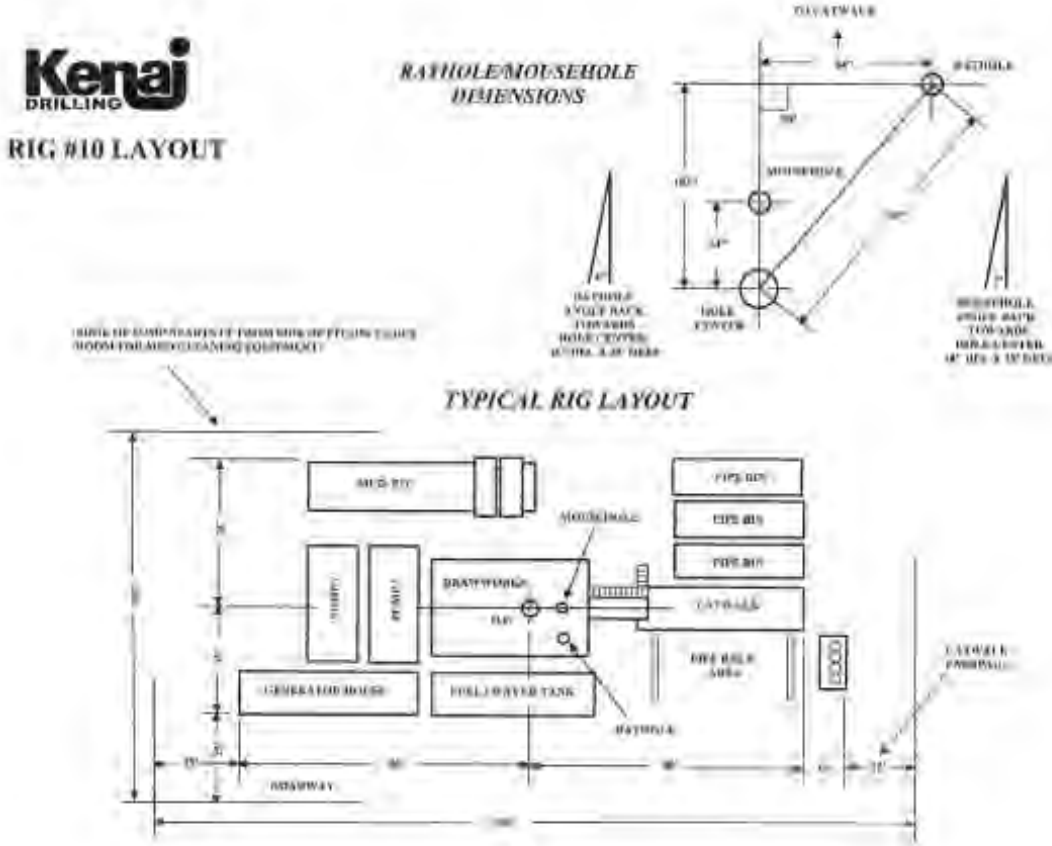


Figure 5: Proposed layout.



Production Phase

If economic quantities of natural gas are discovered, the well will be completed, and production facilities will be installed. Production facilities include a gas meter, a heater/separator, dehydrator, production water and condensate storage tanks. Lantos estimates that approximately 10 days will be required to install the necessary production equipment and pipeline.

A six (6)-inch natural gas pipeline collection system would also be installed during this phase of the project. Survey crews will be employed to set centerline stakes for the pipeline trenches and to delineate work areas prior to commencing pipeline installation activities.

Clearing of grassland habitat will be required along the proposed pipeline alignment. No disturbance or removal of any other vegetative community types will occur.

Open-Cut Trench Methods (Trenching)

Trenching requires the use of a trencher or backhoe to establish an open trench of approximately four (4) to six (6) feet deep and approximately two (2) feet wide. The pipeline work area will measure 10 feet wide by 200 feet in length (approximately 2,000 square feet, or 0.05 acres). Pipe will be placed beside the trench by the stringing crew. Pipe joints will be bonded together, and all joint connections will be inspected and tested prior to laying the pipe into the trench. The pipeline will then be lowered into the trench by a small side-boom crane.

The pipe will then be covered with soils that were excavated during the trenching operation and the ground compacted above the pipe.

Construction conditions may require pipe bends for which field bending would not be practical. In this case, pipe joints will be welded together, and all joint connections will be inspected prior to laying the pipe into the trench. The pipeline will then be lowered into the trench by a small side-boom crane. The pipe will then be covered with soils that were excavated during the trenching operation and the ground compacted above the pipe.

At the time of backfilling, a colored warning tape will be buried approximately 18 inches above the pipeline to indicate the presence of a buried pipeline to future third party excavators. [n roadways, the backfilled soil will be compacted using a roller or hydraulic compactor prior to placement of gravel or pavement. The surface of the road or area adjacent to the road will be returned to its condition prior to installation of this section of the proposed pipeline. After the pipeline is buried, the construction corridor will be re-contoured to approximately the same grade or slope that existed prior to pipeline installation. It should be noted that an exception to mechanical excavation would be hand digging to locate buried utilities, such as other pipelines, cables, and waterlines. Water trucks will be used for dust control along the ROW as required. Lantos estimates that the proposed pipeline would be completed within eight (8) days at the same time as the production equipment is being installed. Pipeline installation activities will operate 12 hours per day. Production activities will operate 24 hours per day.

Natural gas will be metered for customer sales at the proposed well site. The proposed well site will be inspected on a daily basis. By-products from natural gas production including production water will be stored temporarily on site. By-products will be periodically transported from the proposed well site by truck for off-site disposal and/or recycling at an applicable facility. During the producing life of a well, a workover service rig (a small mobile drilling rig) may be occasionally required to improve production.

Equipment Used During Installation of Production Equipment and Pipeline Phase

On-Site Equipment	Number	Horsepower	Days of Operation	Total Hours/Day
Backhoe/Trencher	1	50 HP	8	12
Welding Equipment	1	NA	8	12
Side-Boom Crane	1	300 HP	8	12
Mobile Sources	Number	Round Trip Distance (Miles)	Duration (days)	Total Miles Driven
Passenger Car/Pickup Trucks (Light Duty)	5	100	8	4,000
Heavy Duty Trucks	2	100 miles/day	8	800

Plugging and Abandonment

Once the well stops producing, or is deemed unable to become a producing well, it would be plugged and abandoned in accordance with CCR Sections 1723 – 1723.8. In this case, a Notice of Intention to abandon the well would be submitted to CalGEM for review and approval. During a typical well abandonment, recoverable casing would be salvaged from the well and the hole would be plugged with cement. The wellhead (and any other equipment) would be removed, the casing cut off six feet below ground surface, capped with a welded plate and the cellar backfilled. This

process would be completed in five (5) days. The land contours of the project site would be re-established to near grade conditions as present at the time of project initiation. After all equipment is removed, the site would be restored to its condition prior to construction of the well pad.

Equipment for Plugging and Abandonment Phase

On-Site Equipment	Number	Horsepower	Days of Operation	Total Hours/Day
Production Rig (Internal Combustion Engine)	1	600	5	12
Mobile Sources	Number	Round Trip Distance (miles)	Duration (days)	Total Miles Driven
Passenger Car/Pickup Trucks (Light Duty)	12	100 miles/day	5	6,000
Heavy Duty Trucks (Normal Operations)	12	100 miles/day	1	1,200

Photo 1: Proposed well site and access road. View south from center of project.



Photo 2: Proposed well site. View east from project site.



Photo 3: Proposed pipeline tie-in point. View west.



1.5 ADDITIONAL DATA

NRCS Soil Classification:	Altamont-Diablo clays & Solano Loam: Class III & IV
Agricultural Preserve Status/Contract No.:	Williamson Act Contract No. 746
Non-renewal Filed (date):	Not Applicable
Airport Land Use Referral Area:	Travis ALUC Plan, Zone C
Alquist Priolo Special Study Zone:	Not Applicable
Primary or Secondary Management Area of the Suisun Marsh	Secondary Management Area
Primary or Secondary Zone identified in the Delta Protection Act of 1992:	Not Applicable

Surrounding General Plan, Zoning and Land Uses

	General Plan	Zoning	Land Use
Subject	Marsh & Agriculture	Suisun Marsh Agriculture “ASM-160”	Grazing lands
North	Agriculture	Suisun Marsh Agriculture “ASM-160”	Grazing lands
South	Marsh & Agriculture	Marsh Preservation “MP”	Marsh and grazing
East	Agriculture	Exclusive Agriculture “A-160”	Residence and grazing
West	Marsh & Agriculture	Suisun Marsh Agriculture “ASM-160”	Marsh and grazing

1.6 LAND USE CONSISTENCY ANALYSIS

General Plan

A majority of the 236-acre subject property is designated Agriculture by the Solano County General Plan; however, all elements of the proposed project including the drilling pad, well, vehicle access, and pipeline connection are on land designated Marsh. General Plan Policy RS.P-55 allows for the responsible extraction, storage, and transportation of natural gas resources that minimize the impact on the natural environment. Natural gas exploration and production are consistent with the General Plan’s goals and policies within the Suisun Marsh.

Zoning

The entire property is zoned Agriculture Suisun Marsh “ASM-160” and natural gas extraction wells are a permitted land use within the ASM-160 district upon issuance of an Administrative Permit. As described throughout this Initial Study, along with the attached appendices, the proposed drilling operations are consistent with the Natural Gas Well standards specified in Section 28.78 of the

County Zoning Regulations. Drilling operations will conform to DOGGR regulations designed to prevent damage to natural resources and the well pad and pipeline would be confined to as small an area as practical and will not cause irreversible damage to unique vegetation or fish and wildlife habitats. There are a total of three (3) wells proposed to be drilled from one (1) well pad. This design element limits potential impacts when compared to an 'optimal' approach of drilling each well from individual locations

Suisun Marsh

The County's Policies and Regulations Governing the Suisun Marsh consolidate all of the policies and regulation contained in the County's Local Component of the Suisun Marsh Local Protection Program (LPP) as certified by BCDC. The local marsh protection policies set forth provisions for natural gas exploration within the Marsh and establish policies to provide safeguards for gas exploration drilling and production gas wells. These policies are designed to minimize any potential disturbance to the sensitive habitat of the Suisun Marsh. Utilization of existing pipeline infrastructure, pipeline design, construction methods, and time periods for construction are established in the LPP that accomplish this goal.

There are many aspects of the proposal that are influenced by these Policies which have been incorporated into the project either by design or through best management practices and re-enforced through appropriate conditions of approval. For example, the project is consistent with Chapter II – Natural Gas policy 1(f) in that a qualified biologist will be involved in many aspects of the proposal, including: conducting pre-construction surveys for special status species, providing environmental awareness training for construction personnel, and providing environmental monitoring throughout the construction process of the proposed well pad, access roadway, and installation of the natural gas pipeline and related components. Throughout these activities the biological monitor will ensure that conservation, avoidance, and minimization measures outlined in this document are adhered to. Implementation of project buffer(s) to special status species and/or habitat, proper installation of barrier fencing, and consultation with the CA Department of Fish & Wildlife are examples of how the biological monitor will ensure impact minimization remains consistent with Suisun Marsh policies and a less than significant environmental impact is achieved. In addition, drilling operations will conform to DOGGR regulations designed to prevent damage to natural resources. The project is also consistent with Policy 2(b) in that the proposed operation is being confined to as small an area as possible to drill one (1) natural gas well from the proposed 17,000 sq. ft. drilling pad.

Williamson Act

The proposed project is located on properties that have active land conservation contracts, under the Williamson Act. Oil and gas wells are considered a compatible land use within an agricultural preserve pursuant to Table A of Solano County Uniform Rules and Procedures Governing Agricultural Preserves and Land Conservation Contracts.

1.7 RESPONSIBLE, TRUSTEE, & AGENCIES THAT MAY HAVE JURISDICTION

Agencies that May Have Jurisdiction over the Project

- Bay Area Air Quality Management District
- California Department of Fish and Wildlife
- California Department of Conservation Geologic Energy Management (CalGEM)
- Montezuma Fire Protection District
- San Francisco Bay Conservation and Development Commission

- San Francisco Regional Quality Control Board
- Suisun Resource Conservation District
- U.S. Army Corps. Of Engineers: Sacramento District
- U.S. Fish & Wildlife Service

CHAPTER 2 - ENVIRONMENTAL CHECKLIST

This chapter discusses the potential for adverse impacts on the environment. Where the potential for adverse impacts exists, the report discusses the affected environment, the level of potential impact on the affected environment and methods to avoid, minimize or mitigate for potential impacts to the affected environment.

Findings of SIGNIFICANT IMPACT

Based on the Initial Study, Part I as well as additional application materials reviewed by the Department of Resource Management, the project does not have the potential for significant impacts to any environmental resources.

Findings of LESS THAN SIGNIFICANT IMPACT WITH MITIGATION MEASURES

Based on the Initial Study, Part I as well as the review of the proposed project by the Department of Resource Management, the project requires mitigation measures to reduce potential impacts to less than significant levels.

- | | |
|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Cultural Resources |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Noise |
| | <input type="checkbox"/> Mandatory Findings of Significance |

Findings of LESS THAN SIGNIFICANT IMPACT

Based on the Initial Study, Part I as well as the review of the proposed project by the Department of Resource Management, the following environmental resources were considered and the potential for impact is considered to be less than significant. A detailed discussion of the potential adverse effects on environmental resources is provided below:

- | | |
|--|--|
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Hydrology and Water Quality |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Land Use and Planning |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Hazards and Hazardous Materials | |

Findings of NO IMPACT

Based on the Initial Study, Part I as well as the review of the proposed project by the Department of Resource Management, the following environmental resources were considered but no potential for

adverse impacts to these resources were identified. A discussion of the no impact finding on environmental resources is provided below:

- | | |
|---|--|
| <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities and Service Systems |
| <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Recreation | |

2.1 Aesthetics

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. In nonurbanized areas, substantially degrade the existing visual character or quality of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project is situated within the Secondary Management area of the Suisun Marsh. All project activities are located in upland areas/non-native grassland. General topography is rolling hills with higher elevations in the north and lower elevations in the south where the project is proposed. The Resources Chapter of the General Plan identifies marshlands as a scenic resource; offering an abundance of scenic vistas.

Impacts Discussion

The drilling phase of the project is temporary in nature. Accordingly, visual impacts associated with drilling activities would also be temporary, including the presence of heavy equipment, machinery,

drilling rig, and safety lighting directed downward toward the project site to prevent glare and light pollution. Should economic quantities of gas be discovered, the applicant will establish a permanent production facility. Production facilities include; well head, a gas meter, a heater/separator, dehydrator, production water and condensate storage tanks. The existence of metal equipment could cause glare that may affect wildlife and recreational activities in the area. In order for the facility to blend in with the surrounding environs and prevent glare, mitigation will require the permittee to paint all permanent equipment in a camouflage, earthen tone. **Less than Significant Impact with Mitigation Incorporated.**

Mitigation Measures:

Mitigation Measure AESTH-1. Equipment Painting. The permittee shall paint all equipment in a camouflage, earthen tone.

Mitigation Measure AESTH-2. Lighting and Glare. All light fixtures shall be installed that have light sources aimed downward and shielded to prevent glare or reflection or any nuisance, inconvenience, and hazardous interference of any kind on adjoining streets or property.

2.2 AGRICULTURAL AND FORESTRY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

As referenced on the 2018 California Department of Conservation Important Farmland map, the subject site is classified as Grazing Land. The subject property is entered into an active land conservation contract, Williamson Act Contract No. 746.

Impacts Discussion

The project would not convert Important Farmland. Natural gas wells are identified as a compatible

land use with contracted properties pursuant to the County’s Uniform Rules and Regulations Governing Agricultural Preserves and Land Conservation Contracts. The proposed use is permitted within the Suisun Marsh Agriculture ‘ASM-160’ Zoning Districts upon issuance of an Administrative Permit. **No Impact.**

2.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The Project site is located in the southern portion of Solano County, part of the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB is comprised of complex terrain types, including coastal mountain ranges, inland valleys, and the San Francisco Bay. The SFBAAB is generally bordered on the west by the Pacific Ocean, on the north by the Coast Ranges, and on the east and south by the Diablo Range.

Impacts Discussion

At the regional level, the Bay Area Air Quality Management District (BAAQMD) has jurisdiction over the nine-county SFBAAB and is responsible for attaining and maintaining air quality in the SFBAAB within federal and state air quality standards, as established by the federal Clean Air Act (CAA) and California Clean Air Act (CCAA), respectively. The BAAQMD has the responsibility to monitor ambient air pollutant levels throughout the SFBAAB and to develop and implement strategies to attain applicable federal and state standards. The BAAQMD (2017a) adopted the most recent air quality plan, the 2017 Clean Air Plan, on April 19th, 2017.

Diesel engines used to operate drilling equipment, machinery, and gasoline powered vehicles may create objectionable odors in the immediate vicinity of the project site. However, drilling activities are short term and temporary in nature. Production operations will not create objectionable odors or emit hazardous or toxic gas into the environment.

Because temporary construction and operational emissions are negligible with respect to the regional BAAQMD CEQA significance thresholds, the project would not have regionally significant

impacts impeding the implementation of the control strategies or the attainment of goals set in the BAAQMD's 2017 Clean Air Plan. Therefore, the project would have a **Less than Significant Impact** on Air Quality resources.

2.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act including, but not limited to, marsh, vernal pool, coastal, etc., through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The applicant has provided a Biological Resources Assessment (BRA) prepared by Synthesis Planning to provide sufficient detail to determine the potential effects of the proposed project on federally- and state-listed wildlife and plant species. This BRA was conducted to determine the potential for special-status vegetation communities, plant and animal species to occur within

the project study area, and to identify the limitations to potential development of the project. The BRA is prepared in accordance with legal requirements found in Section 7 (a)(2) of the Endangered Species Act (16 U.S. C 1536(c)) and also provides information required for an Initial Study/Mitigated Negative Declaration as part of the California Environmental Quality Act (CEQA) review for the project. A detailed discuss of the environmental setting is provided in the Biological Resources Assessment and included as Appendix B.

Impacts Discussion

This section summarizes the potential biological impacts from implementation of the proposed project. The analysis of these effects is based on a reconnaissance-level biological survey of the project site and buffer area, a review of existing databases and literature, and personal professional experience with biological resources of the region. Potential effects to federally- and state-listed special-status animal species may occur from the proposed project. Standard Construction Conditions for these biological impacts are provided below. A synopsis of the species potentially affected is presented in Table 1, and is followed by mitigation measures to avoid "take" of individuals.

Table 1: Special Status Animal Species Potentially Affected by the Proposed Project

Species	Status (Federal/State)	Habitat Present/Absent	Avoidance Yes/No
Short-eared owl	-/CSC	Present	.Yes
Burrowing owl	-/CSC	Present	Yes
Yellow rail	-/CSC	Present	Yes
California black rail	-/CT	Present	Yes
Song sparrow	-/CSC	Present	.Yes
Suisun song sparrow	-/CSC	Present	.Yes
California Ridgeway's rail	FE/CE	Present	.Yes
San Joaquin kit fox	FE/CT	Present	.Yes
Northern California legless lizard	-/CSC	Present	.Yes
California glossy snake	-/CSC	Present	.Yes
Western pond turtle	-/CSC	Present	.Yes

Potential Impacts to Common Wildlife and Plant Populations from Project Activities

Direct mortality or injury to common wildlife and plant populations could occur during ground disturbance activities associated with implementation of the project. Small vertebrate, invertebrate, and plant species are particularly prone to impact during project implementation because they are much less to non-mobile, and cannot easily move out of the path of project activities. Other more mobile wildlife species, such as most birds and larger mammals, can avoid project-related activities by moving to other adjacent areas temporarily. Increased human activity and vehicle traffic in the vicinity may disturb some wildlife species. Because common wildlife species found in the project area are locally and regionally common, potential impacts to these resources are considered less than significant. Therefore, no avoidance or minimization measures are proposed at this time.

Potential Impacts to Nesting Special-Status Avian Species from Project Activities

Implementation of the proposed project could potentially impact individual, foraging, and nesting migratory birds, raptor species, as well as short-eared-eared owls, burrowing owls, yellow rail, salt marsh common yellowthroat, California black rail, song sparrow, Suisun song sparrow, and California Ridgeway's rail (formerly California clapper rail) should they become established within the proposed project site or buffer area prior to project implementation. Impacts to these species could occur through crushing by construction equipment during implementation of project activities. Actively nesting birds could also be affected due to noise and vibration from project activities, if nests are located close enough to project activities. Project related noise and vibration could cause the abandonment of active nest sites. Impacts to these species would be considered significant. In the event that nesting birds become established in the proposed project site or buffer area, the following mitigation measures will be implemented:

Mitigation Measure

BIO-1. Special-Status Avian Species Pre-construction Survey.

If ground disturbing activities occur during the breeding season of these avian species (generally between February through mid-September), surveys for active nests will be conducted by a qualified biologist no more than 10 days prior to start of activities. Pre-construction nesting surveys shall be conducted for nesting migratory avian and raptor species in the project site and buffer area. Pre-construction biological surveys shall occur prior to the proposed project implementation, and during the appropriate survey periods for nesting activities for individual avian species. Surveys will follow required CDFW and USFWS protocols, where applicable. A qualified biologist will survey suitable habitat for the presence of these species. If a migratory avian or raptor species is observed and suspected to be nesting, a buffer area will be established to avoid impacts to the active nest site. Identified nests should be continuously surveyed for the first 24 hours prior to any construction-related activities to establish a behavioral baseline. If no nesting avian species are found, project activities may proceed and no further Standard Construction Conditions measures will be required. If active nesting sites are found, the following exclusion buffers will be established, and no project activities will occur within these buffer zones until young birds have fledged and are no longer reliant upon the nest or parental care for survival.

- Minimum no disturbance of 250 feet around active nest of non-listed bird species and 250 foot no disturbance buffer around migratory birds;
- Minimum no disturbance of 500 feet around active nest of non-listed raptor species;
- and 0.5-mile no disturbance buffer from listed species and fully protected species until breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.
- Once work commences, all nests should be continuously monitored to detect any behavioral changes as a result of project activities. If behavioral changes are observed, the work causing that change should cease and the appropriate regulatory agencies (i.e. CDFW, USFWS, etc.) shall be consulted for additional avoidance and minimization measures.
- A variance from these no disturbance buffers may be implemented when there is compelling biological or ecological reason to do so, such as when the project area would be concealed from a nest site by topography. Any variance from

these buffers is advised to be supported by a qualified wildlife biologist and is recommended that CDFW and USFWS be notified in advance of implementation of a no disturbance buffer variance.

In the case of Western Burrowing Owl, the following measures included in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) shall be implemented by the project proponent for the proposed project:

If preconstruction surveys determine that burrowing owls are present in the proposed project sites and/or buffer areas, a burrowing owl mitigation plan shall be prepared by a qualified biologist describing recommended site specific shelter-in-place measures, worker training, and/or other measures to ensure that Project construction does not result in adverse impacts to the burrowing owls.

Occupied burrows shall not be disturbed during the burrowing owl nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Burrowing owls present in the project sites or within 500 feet (as identified during preconstruction surveys) shall be moved away from the disturbance area using passive relocation techniques. Prior to commencement of relocation, a management plan shall be prepared and approved by CDFW. Relocation shall be completed between September 1 and January 31 (outside of breeding season). A minimum of one or more weeks is required to relocate the owls and allow them to acclimate to alternate burrows. Passive relocation techniques will follow the CDFG Staff Report on Burrowing Owl Mitigation Guidelines (2012) and include the following measures:

- Install one-way doors in burrow entrances. Leave doors in place for 48 hours to ensure owls have left the burrow.
- Allow one or more weeks for owls to acclimate to off-site burrows. Daily monitoring shall be required for the passive relocation period.
- Once owls have relocated off-site, collapse existing burrows to prevent reoccupation. Prior to burrow excavation, flexible plastic pipe shall be inserted into the tunnels to allow escape of any remaining owls during excavation. Excavation shall be conducted by hand whenever possible.
- Destruction of burrows shall occur only pursuant to a management plan approved by CDFW.
- As an alternative (if approved by CDFW), all occupied burrows identified off-site within 500 feet of construction activities outside of nesting season (September through January) and during nesting season (February 1 through August 31) could be buffered by hay bales, fencing (e.g. sheltering in place) or as directed by a qualified biologist and the CDFW.

California Ridgeway's rail typically nests and rears young from mid-March through late July. In order to avoid and minimize impacts on nesting California Ridgeway's rail, a 700-foot buffer will be established around active nests. No project related activities will be allowed to occur within this buffer until young have fledged. For the species are no longer attempting to nest.

The buffer area can be removed prior to July if a qualified biologist determines that all juveniles have fledged from occupied nests.

Potential Impacts to San Joaquin Kit Fox from Project Activities

Implementation of the proposed project could potentially impact individual San Joaquin kit foxes should they become established within the proposed project buffer area prior to or during project implementation. Impacts to this species could occur through crushing by construction equipment during the construction of the proposed project. These species could also be affected due to noise and vibration from project activities if occupied burrows are located in the vicinity of the proposed project site; project related noise and vibration could cause the abandonment of active denning sites. It should be noted that no San Joaquin kit fox or evidence of the species were observed during biological surveys completed by Synthesis Planning. Additionally, no potential burrows were observed within the boundary of the project site or buffer area. Impacts to these species would be considered significant.

If San Joaquin kit foxes become established within the proposed project site prior to project implementation, the project proponent will implement the following mitigation measures. These measures contained in the USFWS's *Standardized Recommendations For Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011) apply to the potential dens observed in the buffer area during biological surveys:

Mitigation Measure

BIO-2. San Joaquin Kit Fox Exclusion Zone(s).

For kit fox dens within 200 feet of proposed construction area(s), exclusion zones shall be established prior to construction by a qualified biologist. Exclusion zones shall be roughly circular with a radius of the following distances measured outward from the entrance:

Potential den (50 feet)

Atypical den (50 feet)

Known den (100 feet)

Natal/pupping den – Contact USFWS (occupied and unoccupied)

Protective exclusion zones can be placed around all known and potential dens which occur outside the project footprint (conversely, the project boundary can be demarcated).

- To ensure protection of known dens, exclusion zones should be demarcated by fencing that encircles each den at the appropriate distance and does not prevent access to the den by kit foxes. Acceptable fencing includes untreated wood particle-board, silt fencing, or orange construction fencing, as long as it has opening for kit fox ingress/egress and keeps humans and equipment out.
- Exclusion zone barriers shall be maintained until all construction related or operational disturbances have been terminated. At that time all fencing shall be removed to avoid attracting subsequent attention to the dens.
- For potential and/or atypical dens, placement of 4-5 flagged stakes 50 feet from the den entrance(s) will suffice to identify the den location; fencing will not be required, but the exclusion zone must be observed.

- Only essential vehicle operation on existing roads and foot traffic should be permitted. Otherwise, all construction, vehicle operation, material storage, or any type of surface-disturbing activity should be prohibited or greatly restricted within the exclusion zones.
- If a natal/pupping den is discovered within the project site or within 200-feet of the project boundaries, the USFWS shall be immediately notified and under no circumstances should the den be disturbed or destroyed without prior authorization. If the preconstruction/preactivity survey reveals an active natal pupping den or new information, the project proponent should contact the USFWS immediately to obtain the necessary take authorization/permit.

Destruction of any known or natal/pupping kit fox den requires take authorization/permit from the USFWS. Limited destruction of kit fox dens may be allowed, if avoidance is not a reasonable alternative, provided the following procedures are observed:

- Known dens occurring within the footprint of the project must be monitored for three (3) consecutive days with tracking medium or an infra-red camera beam to determine the current use. If no kit fox activity is observed during this period, the den(s) should be destroyed immediately to preclude subsequent use.
- If kit fox activity is observed at the den(s) during this period, the dens) should be monitored for at least five (5) consecutive nights from the time of the observation to allow any resident animal to move to another den during its normal activity. Only when the den(s) are determined unoccupied may the den(s) be excavated.
- Destruction of the den(s) should be accomplished by careful excavation until it is certain that no kit foxes are inside. The den(s) should be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter to use the den(s) during the construction period. If at any point during excavation, a kit fox is discovered inside the den(s), the excavation activity shall cease immediately and monitoring the den as described above should resume. Destruction of the den(s) may be completed when in the judgment of the biologist, the animal has escaped, without further disturbance, from the partially destroyed den(s).
- Potential dens occurring within the footprint of the project or within 50 feet must be monitored for three (3) consecutive days with tracking medium or an infra-red camera beam to determine the current use. [f no San Joaquin kit fox activity is observed during this period, the den(s) should be destroyed immediately to preclude subsequent use.
- Destruction of the den(s) should be accomplished by careful excavation until it is certain that no kit foxes are inside. The den(s) should be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter to use the den during the construction period. If at any point during excavation, a kit fox is discovered inside the de, the excavation activity shall cease immediately and monitoring the den as described above should resume. Destruction of the den may be completed when in the judgment of the biologist, the animal has escaped without further disturbance from the partially destroyed den.
- If any burrow is considered to be a potential den, but is later determined during monitoring or destruction to be currently, or previously used by kit fox (e.g., if kit fox

sign is found inside), then all construction activities shall cease and the USFWS shall be notified immediately.

Potential Impacts to Northern California Legless Lizard and California Glossy Snake from Project Activities

Implementation of the proposed project could potentially impact individual Northern California legless lizards and California glossy snakes should they be present within the site during project implementation. Impacts to these species could occur through crushing of individuals by construction equipment during the implementation of the proposed project. It should be noted that these species were not observed in the project site and buffer area during biological surveys by Synthesis Planning. Impacts to these species would be considered significant. In the event that these species become established in the proposed project site prior to project implementation, the following mitigation measures will be implemented to protect these species from potential impacts:

Mitigation Measure

BIO-3. Northern California Legless Lizard and California Glossy Snake Pre-construction Survey.

Prior to the commencement of construction activities, but not more than two (2) days before ground clearance, a qualified biologist shall conduct pre-construction surveys of the project site. If individuals of these species are discovered, a qualified biologist shall capture and translocate individuals to similar habitat in the general vicinity of the project site. The translocation process shall be conducted until it is determined that all special-status animal species have been removed from the disturbance boundary. The candidate sites for relocation shall be identified before construction and shall be selected based on the size and type of habitat present, the potential for negative interactions with resident species, and the species' range. A final report identifying the number of animals moved and any mortality identified during the relocation event shall be completed at the end of construction. The disturbance zone shall be cleared of vegetation as soon after clearance of these species as possible to ensure the species do not re-enter the disturbance area.

As part of the worker environmental training awareness program, project personnel shall be trained to identify this species, its natural history, its habitat, and protective measures. The above procedures shall be conducted during the installation of the proposed pipeline as well.

Potential Impacts to Pond Turtles from Project Activities

Implementation of the proposed project (specifically, ground disturbance activities) could potentially result in significant adverse impacts on pond turtles, including the crushing of individual turtles and their nest sites. These impacts could result in the direct mortality of individual northwestern pond turtles, and the degradation of upland nesting habitat. These impacts would be avoided or reduced through the implementation of the following mitigation measures:

Mitigation Measure

BIO-4. Pond Turtle Pre-activity Survey.

A qualified biologist will conduct pre-activity surveys for pond turtles within areas proposed for ground disturbance. If pond turtles are not found within the project disturbance zone, project activities may proceed without any further actions. If juvenile or adult turtles are found within

the project disturbance zone, the individual turtles shall be moved out of the project disturbance zone by a qualified biologist. If a nest is found in the project area, CDFW shall be notified immediately to determine appropriate measures to protect or relocate the nest.

- If this species is observed within the project disturbance zone at any time during project activities, work shall cease within 150 feet of the area until the animal can be moved by a biological monitor to a safe location consistent with CDFW regulations.
- As part of the worker environmental training awareness program, project personnel shall be trained to identify this species, its natural history, its habitat, and protective measures.

Potential Impacts to Special-Status Plant Species from Project Activities

Review of the USFWS (USFWS 2022), the CNPS (CNPS 2022), and the CNDDDB (CNDDDB 2022)

revealed that 45 listed plant species and species of concern have potential to occur in the general project area. Potential habitat is present for 33 of these 45 plant species within the project site and buffer area. Botanical surveys were conducted on November 29, 2021. These surveys were conducted within the blooming period of five (5) of these 33 special-status plant species (see list below):

- Pappose tarplant
- Soft salty bird's-beak
- Carquinez goldenbush
- Mason's lilaeopsis
- Suisun Marsh aster

Survey findings for the five (5) targeted special-status species that had blooming periods during the surveys were negative. Therefore, no impacts to those species are expected due to project implementation. Because botanical surveys were conducted outside of the blooming period of the remaining 28 special-status plant species that bloom outside of the survey dates, it's not definitive that these species do not occur within the proposed project site or buffer area.

Implementation of the proposed project could potentially result in impacts on these 28 special-status plant species if they are located within the proposed project site during project activities. Direct impacts to these plant species could result from ground disturbance activities during project implementation within areas of potential habitat. Special-status plant species could be directly impacted by crushing of plants by construction equipment. These impacts could result in direct mortality of individuals or small populations of special-status plant species.

Mitigation Measure

BIO-5. Special-Status Plant Species Pre-construction Survey.

A qualified botanist shall conduct pre-construction field surveys to identify any populations of special-status plant species within the proposed project site that will be disturbed during project activities. These surveys shall be conducted prior to the initiation of any construction activities and coincide with the appropriate flowering period of the special-status plant species with the potential to occur in the project area. If any special-status plant species populations are identified within or adjacent to the proposed disturbance areas, the project proponent shall implement the following measures to avoid impacts to these species:

- If any population(s) of special-status plant species is identified directly adjacent to the proposed project site, a qualified biologist retained by project proponent will clearly delineate the location of the plant population, and install protective fencing between the disturbance zone and the plant population to ensure that the plant population is adequately protected.
- If a special-status plant population is identified within the proposed disturbance zone, the project proponent will consult with CDFW and USFWS to determine the appropriate measures to avoid or mitigate for impacts to the species or population. The project proponent will adjust the boundaries of the disturbance zone, where feasible, to avoid impacts to the plant species/population. Where avoidance is not feasible, the project proponent will implement one or more of the following measures: (1) transplant potentially affected plants to areas not planned for disturbance. If a plant is transplanted, two more plants shall be planted. Plantings shall be managed and monitored by the applicant and shall survive to 5 years after planting; (2) seed or purchase plants and place them in an area adjacent to the disturbance zone; (3) purchase credits at an approved mitigation bank at a ratio approved by CDFW, USFWS, and the project proponent.

Mitigation Measure

BIO-6. General Project Mitigation Measures.

Implementation of the following avoidance/minimization measures is recommended to avoid or reduce potential impacts to special-status wildlife and plant species:

- Worker Environmental Awareness Training shall be presented to all personnel working in the field on the proposed project site. Training shall consist of a brief presentation in which biologists knowledgeable of endangered species biology and legislative protection shall explain endangered species concerns. Training shall include a discussion of special-status plants and sensitive wildlife species. Species biology, habitat needs, status under the Endangered Species Acts, and measures being incorporated for the protection of these species and their habitats shall also be discussed.
- As close to the beginning of project activities as possible, but not more than 14 days prior, a qualified biologist shall conduct a final pre-construction survey of the proposed project site and buffer area to verify that no special-status wildlife species have become established in the project site or buffer area. A qualified biologist shall be present immediately prior to project activities that have potential to impact sensitive species to identify and protect potentially sensitive resources.
- Project site boundaries shall be clearly delineated by stakes and /or flagging to minimize inadvertent degradation or loss of adjacent habitat during project operations. Staff and/or its contractors shall post signs and/or place fence around the project site to restrict access of vehicles and equipment unrelated to drilling operations.
- A project representative shall establish restrictions on project-related traffic to approved project areas, storage areas, staging and parking areas via signage. Off-road traffic outside of designated project site shall be prohibited.

- Project-related traffic shall observe a 10 mph speed limit in the project site except on County roads and State and federal highways to avoid impacts to special-status and common wildlife species.
- Hazardous materials, fuels, lubricants, and solvents that spill accidentally during project-related activities shall be cleaned up and removed from the project as soon as possible according to applicable federal, state and local regulations.
- All equipment storage and parking during site development and operation shall be confined to the proposed project site or other offsite previously disturbed areas.
- All excavated steep-walled holes or trenches in excess of three (3) feet in depth shall be provided with one or more escape ramps constructed of earth fill to prevent entrapment of endangered species or other animals. Ramps shall not be less than 45-degree angles. Trenches shall be inspected for entrapped wildlife each morning prior to onset of project activities and immediately prior to the end of each working day. Before such holes or trenches are filled they shall be inspected thoroughly for entrapped animals. Any animals discovered shall be allowed to escape voluntarily without harassment before project activities related to the trench resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.
- All food-related trash items such as wrappers, cans, bottles or food scraps generated during project activities shall be disposed of only in closed containers and regularly removed from the proposed project site. Food items may attract wildlife species onto the proposed project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.
- To prevent harassment or mortality of wildlife species via predation, or destruction of their dens or nests, no domestic pets shall be permitted on-site.

2.5 CULTURAL RESOURCES

Would the project:	Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The approximately half-acre project has been historically disturbed by other natural gas well and distribution pipeline development within the vicinity and predominantly utilized for cattle grazing.

Impacts Discussion

- a. *Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines §15064.5?*

The subject site is actively farmed and undeveloped. **No Impact.**

- b. *Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?*

No known cultural resources are located within the project area. However, there is potential for construction activities to result in the inadvertent discovery and disturbance of a cultural resource, which would be considered a significant impact. Impacts would be reduced to **Less than Significant Impact with Mitigation Incorporated.**

- c. *Disturb any human remains, including those interred outside of formal cemeteries?*

Reference (b) above.

Mitigation Measure

CUL-1. Site Discovery.

All construction shall stop if signs of an archeological site are discovered during construction of the project. If remains of Native American origin are discovered during project construction, it will be necessary to comply with state laws concerning the disposition of Native American burials, which fall within the NAHC's jurisdiction (PRC 5097). If any human remains are discovered or recognized in any location other than a dedicated cemetery, there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the following steps occur:

- The Solano County Coroner's Office has been informed and has determined that no investigation of the cause of death is required.
- If the remains are of Native American origin, either of the following occurs:

The descendants of the deceased Native Americans have made a recommendation to the landowner or person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC 5097.98.

The NAHC was unable to identify a descendant, or the descendant failed to make a recommendation within 24 hours after being notified.

According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100) and disturbance of Native American cemeteries is a felony (Section 7052). Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are Native American. If the remains are determined to be Native American, the coroner must contact NAHC within 24 hours.

2.6 ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Impacts Discussion

a. *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

No Impact.

b. *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

No Impact.

2.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- | | | | | | |
|----|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| b. | Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. | Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. | Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. | Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. | Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Environmental Setting

The Seismic Shaking Potential map on page HS-31 of the Solano County General Plan depicts the project outside of the Highest Potential Earthquake Damage Area and within approximately one-half mile of the Vaca-Kirby Hills Fault. The project is not located within an Alquist-Priolo fault zone. The project site is classified Very Low per the Liquefaction Potential map. The Landslide Stability map depicts the project within an area of unclassified area of landslide susceptibility.

Impacts Discussion

a. *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:*

i. *Rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*

The site is not located within an Alquist-Priolo Fault Zone. The project is approximately one-half mile from the Vaca-Kirby Hills Fault. **No Impact.**

ii. *Strong seismic ground shaking?*

The project area could experience ground shaking from earthquakes generated along active faults located offsite. The intensity of ground shaking would depend upon the magnitude of the earthquake, distance to the epicenter, and the geology of the area between the epicenter and the project. **No Impact.**

iii. *Seismic-related ground failure, including liquefaction?*

The project site has Very Low liquefaction potential. **No Impact.**

iv. Landslides?

The subject site is located an area susceptible to Landslide. **No Impact.**

b. Result in substantial soil erosion or the loss of topsoil?

The project requires grading for drilling pad and access road construction. **Less than Significant Impact** with plan submittal and grading permit requirement.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, differential settlement, liquefaction or collapse?

Reference discussion (a) above. **No Impact.**

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Reference discussion (a) above. **No Impact.**

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The project does not involve septic. **No Impact.**

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No unique paleontological resource or unique geologic feature have been identified on-site. **No Impact.**

2.8 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Greenhouse Gases (GHGs) are defined as any gas that absorbs infrared radiation in the atmosphere. GHGs include, but are not limited to, water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorocarbons. These GHGs lead to the trapping and buildup of

heat in the atmosphere near the Earth’s surface, commonly known as the Greenhouse Effect. The atmosphere and the oceans are reaching their capacity to absorb CO2 and other GHGs without significantly changing the Earth’s climate. Unlike criteria pollutants and TACs, which are pollutants of regional and local concern, GHGs and climate change considered a global concern.

Impacts Discussion

GHGs from construction activities emitted either directly or indirectly would not have a significant impact on the environment or substantially contribute to global GHG emissions. Therefore, the project would not conflict with applicable plans, policies, or regulations adopted for the purposes of reducing GHG emissions. A detailed air and greenhouse gas emissions study is provided in Appendix C. **Less than Significant Impact.**

2.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Expose people or structures to a significant risk of loss, injury or death involving wildland fires,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Environmental Setting

The project area is within the Secondary Management area of the Suisun Marsh with agricultural land and open space surrounding the project site. The area is largely undeveloped with the community of Birds Landing 1.5 miles to the east. Several petroleum product and natural gas pipelines traverse within the vicinity through the Suisun Marsh. The area has no industrial or commercial developments. Searches of the State Water Resources Control Board (SWRCB) GeoTracker and Department of Toxic Substances Control (DTSC) Envirostor databases showed no potentially contaminated sites within the area.

Impacts Discussion

- a. *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

The project would involve the routine transport, storage, use, and disposal of small quantities of hazardous materials during construction. Products used during construction such as gasoline, diesel, lubricants, and solvents are categorized as hazardous materials, and are highly regulated by federal, state, and local laws and regulations.

The storage and handling of these materials during the project would be managed in accordance with applicable laws and regulations, which would include storing incompatible hazardous materials

separately, using secondary containment for hazardous materials storage, requiring the contractor to use trained personnel for hazardous materials handling, keeping spill clean-up kits available on site, and designating specific sites with appropriate spill containment within the construction area as refueling stations for construction equipment.

Based upon the proposed materials and handling methods described above, any potential impact to the public or the environment through the routine transport, use, or disposal of hazardous materials would be **Less than Significant Impact**.

- b. *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Reference discussion (a) above. **Less than Significant Impact**.

- c. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The project is not located within one-quarter mile of a school. **No Impact**.

- d. *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

The project is not located on a hazardous materials site as defined in Government Code Section 65962.5. **No Impact**.

- e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*

The project is located within an airport land use area of influence, but not within two miles of a public airport. The project is located within Compatibility Zone C of the Travis Air Force Base Airport Land Use Plan. Per the Travis Air Force Base Airport Land Use Compatibility Plan, Table 2A, airspace review of the project by the Solano Airport Land Use Commission is required for objects greater than 100 feet in height above ground level. The proposed drilling rig is 52 feet in height, therefore **No Impact**.

- f. *Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?*

The project will not affect any adopted emergency response plans. **No Impact**.

- g. *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

The project is not located in the vicinity of any wildland/urban interface areas. **No Impact**.

2.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- | | | | | | |
|------|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| iii) | Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv) | Impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. | In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. | Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Environmental Setting

Suisun Marsh is part of the San Francisco Estuary and is the largest contiguous brackish marsh on the West Coast. Fresh water from the rivers and numerous smaller tributaries flows out through the Sacramento and San Joaquin Rivers, Suisun Bay, San Pablo Bay, the San Francisco Estuary and ultimately to the Pacific Ocean.

Freshwater inflows, tidal flows, and their interactions largely determine variations in the hydrology of the San Francisco Estuary, including Suisun Marsh. The normal tidal range within Suisun Marsh is approximately 5 feet. Tidal velocities in Suisun Marsh channels and sloughs, which depend on the size of the channel cross section and the upstream tidal volume, are generally moderate, with maximum velocities of between 1 and 2 feet per second.

Most tidal channels in Suisun Marsh are bordered by levees that protect managed wetlands. These levees are often a mix of dredged sediment and artificial materials such as riprap and often have fringing vegetation. Montezuma Slough is the major tidal channel within Suisun Marsh, and is located west of the project site.

Impacts Discussion

- a. *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

The proposed natural gas well may pass through both fresh and saltwater aquifers. This presents potential for pollution of freshwater aquifer resources by saltwater aquifers via cross contamination during drilling. However, the California Department of Conservation Geologic Energy Management Division enforces a comprehensive regulatory program establishing requirements for drilling, casing of producing gas wells, and the abandonment and plugging of gas wells. These regulations are designed to protect groundwater resources from contamination, thereby reducing this potential impact to a level of insignificance. **Less than Significant Impact.**

- b. *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

The project does not involve groundwater extraction or interfere with its recharge. **No Impact.**

- c. (i – iv) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces?*

Stormwater runoff and subsequent drainage pattern on and off site will be regulated through the review and issuance of a grading and drainage permit. **Less Than Significant Impact.**

- d. *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

The project is located outside of flood hazard area identified in the General Plan and would not experience inundation by seiche, tsunami, or mudflow. **No Impact.**

- e. *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Reference (a) above. **No Impact.**

2.11 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The subject site is predominantly designated Agriculture by the Solano County General Plan and a portion designated Marsh. The parcel is zoned Suisun Marsh Agriculture “A-SM-160” consistent with the General Plan designation. As seen in Section 28.22 of the Solano County Zoning Regulations, gas wells are an allowable use upon issuance of an Administrative Permit.

Impacts Discussion

- a. *Physically divide an established community?*

The project is not located within an established community. **No Impact.**

- b. *Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

The Suisun Marsh Protection Plan (SMPP) sets forth provisions for natural gas exploration within the Marsh and has established policies to provide safeguards for gas exploration drilling and production gas wells. These policies are designed to minimize any potential disturbance to the sensitive habitat of the Suisun Marsh. Utilization of existing pipeline infrastructure, pipeline

design, construction methods, and time periods for construction are established in the SMPP that accomplish this goal.

There are many aspects of the proposal that are influenced by these Policies which have been incorporated into the project either by design or are enforced through appropriate mitigation measures and subsequent conditions of approval for this permit. For example, Chapter II - Natural Gas, Policy 3 of the SMPP limits the time in which construction and drilling activities may occur (April 15 through October 15). Mitigation measures underscore this Policy and limits the proposal to this time period. In similar fashion, a series of additional best management practices are implemented that address disposal of drilling muds, protection of unique vegetation and fish and wildlife habitats, and minimization of overall site disturbance.

A qualified biologist will be involved in many aspects of the proposal, including: conducting pre-construction surveys for special status species, providing environmental awareness training for construction personnel, and monitoring throughout the construction process of the proposed well pad, access roadway, and installation of the natural gas pipeline and related components. Throughout these activities the biological monitor will be responsible for ensuring conservation, avoidance, and minimization measures outlined in environmental document are adhered to. Implementation of project buffer(s) to special status species and/or habitat, proper installation of barrier fencing, and consultation with the CA Department of Fish & Wildlife are examples of how the biological monitor will ensure minimization and mitigation remains consistent with SMPP Policies and a **Less than Significant** environmental impact is achieved.

2.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

As seen on the Mineral Resources map, Figure RS-4 of the Solano County General Plan, there are no active mines or mineral resource zones within the vicinity of the project site.

Impacts Discussion

a. *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

No known mineral resources exist at the site. **No Impact.**

b. *Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

Reference discussion (a) above. **No Impact.**

2.13 NOISE

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The proposed project site is located near the westerly terminus of Birds Landing Road, east of Montezuma Slough. No noise sensitive receptors are located within the immediate vicinity of proposed drill site. The closest sensitive receptor is a residence located approximately 2,800 feet to the west of the proposed drill site.

Impacts Discussion

Short-Term Impacts

Site preparation, drilling and testing, site restoration, and construction activities associated with the production phase are expected to use the following types of equipment: drilling equipment, truck-mounted crane, pumps, pneumatic tools, loaders, and a variety of miscellaneous equipment including air compressors. The number and type of equipment used during project activities would vary from day to day.

Since no permanently occupied residential dwellings are located in the vicinity, there is not expected to be a significant noise impact on humans. The incorporation of mitigation measures in the Biological Resources section, which restricts all drilling and construction to the April 15 through October 15 period in any given year (but no later than two weeks prior to the opening of duck hunting season), consistent with the Suisun Marsh Preservation Act, ensures that short term potential noise impacts at seasonally and intermittently occupied clubhouses are kept to a less than significant level.

Long Term Impacts (Production Phase)

Operation of production equipment could result in long term noise at the proposed project site. The primary source of noise associated with operating production equipment is from the compressor including its engine and cooling fan. However, use of a compressor is dependent upon the pressure of the well. Accordingly, until well pressure is tested, the need for compression at the well site cannot be determined. A well that does not require compression early in its life cycle may require compression at some later point in time.

Wildlife habituate to constant, repetitive background noise sources, such as railroad, vehicle, or aircraft traffic. Based on previous biologist’s testimony, if a producing well is discovered, a future compressor emitting a maximum of 70 decibels at 50 feet will not cause a significant impact (see U-00-31, Blackhawk Oil). The County has previously considered noise impacts on nearby wildlife. The County’s General Plan addresses noise standards as they pertain to residential zones (50 dBA) and business/noise sensitive industrial zones (60 dBA); but not specifically to wildlife areas. A measurement of 60 dBA at edge of the pad would be consistent with the community noise levels set forth in the General Plan for a new facility and would enhance reduction of any potential of cumulative noise impact. Muffling devices can be installed on compressors to reduce the noise output to 60 dBA or less. **Less than Significant Impact with Mitigation.**

Mitigation Measure

NOISE-1. Construction and Production Noise.

Best available technology for compressors, mufflers, and silencers shall be utilized at the production site. At no time during the life of the well shall the production facility emit a noise level in excess of 60 dBA as measured 100 feet from a compressor.

2.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project does not involve housing nor is located near housing.

Impacts Discussion

The project site will be completely uninhabited. It involves establishment of equipment only. There will be no need for additional housing and no population growth will be induced by this project. No impact anticipated. **No Impact.**

2.15 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project is access via Birds Landing Road (County Road No. 249).

Impacts Discussion

a. *Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

Access to the site is via Birds Landing Road, a public road. As conditioned by the permit, the applicant is required to apply for, obtain and comply with the requirements of an encroachment permit from the Solano County Public Works Division. The encroachment permit shall be for the construction of any driveway connections to the public road. The applicant shall also provide a security bond and agreement as required by the Public Works Division for any road damage from the drilling operation and construction of the pipeline. Obtaining an encroachment permit and posting a security bond are a standard requirement which must be satisfied prior to the issuance of any well drilling permit with Solano County. **Less than Significant Impact.**

2.16 RECREATION

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The proposed project does not involve nor affect recreational facilities.

Impacts Discussion

No Impact.

2.17 TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) "vehicle miles traveled"?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Existing public roads will be used to provide access from Birds Landing Road to the proposed project. A new access road will be constructed from the existing private gravel road to the proposed well site; the new access road will encompass approximately 20 feet in width by 40 feet in length. The project proponent estimates approximately five (5) days will be needed to prepare the proposed well site and access road. Site preparation activities will operate eight (8) hours per day.



Impacts Discussion

- a. *Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*

All phases of the project including site preparation, drilling, completion and testing, and installation of production equipment and construction of pipeline will require nine (9) truck trips and 25 vehicle trips. An average truck trip generation of less than ten (10) per day and less than 50 total vehicle trips per day falls below the County's level of significance threshold to further analyze impacts to traffic operations and vehicle mile traveled (VMT). **No Impact.**

- b. *Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) which establishes criteria for analyzing transportation impacts, in particular vehicle miles traveled?*

Reference discussion (a) above.

- a. *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Reference discussion (a) above.

- d. *Result in inadequate emergency access?*

Reference discussion (a) above.

2.18 TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project cause a substantial adverse change in the significance of a tribal resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project site has been historically disturbed by agricultural practices and natural gas well production.

Impacts Discussion

a. *Would the project cause a substantial adverse change in the significance of a tribal resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1.*

No tribal or historical resources have been identified on the subject site. **No Impact.**

2.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Require or result in the construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project has the potential to expand natural gas production in the region; however, as seen in this Initial Study effects to the environment are determined to be less than significant.

Impacts Discussion

Chemical toilets are proposed for use during the drilling phase of the project. Water needed for the project will be transported on-site by truck. All drilling mud and wastes will be contained in tanks and transported off-site by truck for disposal. Because the permanent facility will be unmanned, no impact is expected due to additional solid waste loads. **No Impact.**

2.20 WILDFIRE

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

As seen on Figure HS-12 of the Solano County General Plan Wildland Fire Hazard Area map, the property is located within outside of the areas designated as Very High Fire Hazard Severity Zone and outside the State Responsibility Area (SRA).

Impacts Discussion

a. *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

There are no identified adopted emergency response plans applicable to the project. **No Impact.**

b. *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

There are no identified wildfire risks associated with the project. **No Impact.**

c. *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

Reference discussion (b) above. **No Impact.**

- d. *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

Reference discussion (b) above. **No Impact.**

2.21 MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impacts Discussion

The applicant is required to obtain permit approval and other clearances from a number of regulating agencies including BCDC and the Solano County Resource Management Department, Public Works Division. Through the regulatory process and based on the attached biological assessment, no significant degradation of the environment will occur as long as the mitigation measures set forth in this Initial Study are incorporated into the project. The project presents no potential impact to human beings as the permanent facility will be completely unmanned and will not produce noxious odors or emit toxic substances into the environment.

It should be noted that natural gas well drilling has the potential to contribute to subsidence of Delta islands. However, subsidence that may be attributable to historical cumulative gas extraction projects in the Suisun Marsh area has been measured to be less than 0.2 inches per year. This rate is one order of magnitude less than the subsidence due to peat oxidation. Further, the scope

of the proposed project is only a fraction of the cumulative historical gas extraction projects, and has the potential to contribute only to a fraction of this subsidence rate. Impacts are considered less than significant.

Mitigation measures for all phases of the proposed project have been incorporated to avoid and reduce adverse potential impacts to the sensitive habitat of the Suisun Marsh to a less than significant level. Most of the additional on-site personnel, increased vehicle trips, noise, and increase in activity is associated with the drilling and construction phase and is temporary in nature. Through incorporation of the required mitigation measures into the project, this temporary drilling activity will not result in short-term, long-term, or cumulatively considerable impacts.

CHAPTER 3 – AGENCY COORDINATION AND PUBLIC INVOLVEMENT

3.1 Consultation and Coordination with Public Agencies

The Initial Study is being circulated for public comment and referred to the State Clearinghouse for coordinated review by state agencies.

3.2 Public Participation Methods

The Initial Study is also available at the Solano County Department of Resource Management and online at the Department's Planning Services Division website at:

<http://www.solanocounty.com/depts/rm/documents/eir/default.asp>

Interested parties may contact the planner assigned to this project at the contact points provided below:

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3.3 List of Preparers

Solano County Department of Resource Management

This Initial Study was prepared by the Solano County Department of Resource Management.

3.4 Distribution List

Federal Agencies

U.S. Army Corps of Engineers

U.S. Department of Fish and Wildlife

State Agencies

California Department of Conservation Geologic Energy Management Division
California Department of Fish and Wildlife

Regional Agencies

Bay Area Air Quality Management District – San Francisco
San Francisco Bay Conservation and Development Commission
San Francisco Regional Water Quality Board
Sonoma State University – Archaeological Study

Local Agencies

Montezuma Fire Protection District
Solano County Building & Safety Division
Solano County Environmental Health Division
Solano County Public Works Engineering Division
Suisun Resource Conservation District

APPENDICES

- A** – Land Use Application Lantos Energy LLC
- B** – Biological Resources Assessment prepared by Boher Consulting, LLC
- C** – Air and Greenhouse Gas Emissions Study