

Spring Plant Survey Report

Addendum to the **Revised Biological Survey Report**

for the **Proposed Truck Rack Project Lompoc Oil Field Santa Barbara County, California**

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July 2023

Table of Contents

1.0	Introduction	1
1.1	Project Description	1
1.2	Construction Details	2
1.3	Project Location	4
1.4	Study Area	4
2.0	Methodology.....	4
3.0	Survey Results	5
3.1	Special-status Plant Species Observations	5
3.1.1	La Purisima manzanita	5
3.1.2	Blue elderberry	6
3.1.3	Bishop pine	6
3.1.4	Black-flowered figwort	6
4.0	Potential Impacts to Sensitive Species Plants.....	7
5.0	Recommended Measures	7
5.1	General Measures	8
5.2	Habitat Restoration	9
6.0	References	9

Figures

Figure 1	Project Vicinity
Figure 2	Project Site
Figure 3	Spring Plant Survey Results

Appendices

Appendix A	Project Site Photographs (April 21, 2023)
Appendix B	Species Observed within the Project Study Area
Appendix C	Special-status Species Not Observed but with Records within 1 Mile of the Project Study Area

1.0 Introduction

Sentinel Peak Resources LLC (SPR) proposes to construct a truck loading facility at the Lompoc Oil Field, located in northern Santa Barbara County, California (**Figure 1**). The Lompoc Oil Field is a large, State-designated oil and natural gas production field located in the Purisima Hills region of northern Santa Barbara County, California. Discovered in 1903, the Lompoc Oil Field is one of the oldest oil fields in northern Santa Barbara County, producing approximately 260,000 barrels of oil in 2018. The on-site Lompoc Oil Treatment Facility (LOTF), operated by SPR, includes facilities and equipment to process, store, and transport produced oil and natural gas. The proposed Lompoc Oil Field Truck Rack Project (Project) includes the construction of a truck rack to facilitate the loading of crude oil into tanker trucks for transport to the Coalinga Station in Coalinga, California.

SPR is seeking a Land Use Permit (LUP) from the County of Santa Barbara Planning and Development Department (County) for the proposed Project; to support the permit application, AECOM Technical Services, Inc. (AECOM) conducted a field survey to document biological resources in the Project area in December 2022 at SPR's request. The results of that survey were documented in the *Biological Resources Survey Report for the Proposed Truck Loading Rack Project*, revised June 2023 (AECOM 2023). In a feedback letter dated March 15, 2023, the County stated that the timing of that survey was not ideal for detection of some botanical species and requested that SPR conduct "an in-season (spring) plant survey of the work area" to support the environmental review of the of the project. To fulfill this request, AECOM conducted a field survey of the proposed Project footprint and surrounding areas to document botanical resources present in the vicinity of the proposed Project in April 2023. This report summarizes the methods and results of the spring survey and assesses potential Project-related impacts to these resources, as an addendum to the *Revised Biological Resources Survey Report* (AECOM 2023).

The *Revised Biological Resources Survey Report* provides detailed information on the land covers and vegetation communities present, and coast live oaks trees (*Quercus agrifolia*) within the study area. For more information on these resources, refer to the *Revised Biological Resources Survey Report* (AEOCM 2023).

1.1 Project Description

The Project includes the construction of a new truck loading rack and associated infrastructure on an existing production pad associated with production well Purisima 33 (hereafter, Purisima 33 refers to the pad itself). Project components include new P-140 Lease Automatic Custody Transfer (LACT) charge pumps, LACT Unit, truck loading rack with impervious secondary containment suitable to load one (1) 160-barrel truck at a time, hydrogen sulfide (H₂S) removal system, Volatile Organic Compound (VOC) removal system, automatic shut-off valve, H₂S and reactive organic compound monitors, approximately 493 feet of new aboveground pipeline to connect existing infrastructure to the truck loading rack, and four (4) new electrical poles. The proposed truck loading rack will connect to the existing Sentinel Peak Resources 4-inch Oil Shipping Line, the production shipped through the proposed truck rack is under the ownership of Sentinel Peak Resources. The majority of the existing 4-inch line is above ground except at road crossings. Impervious surfaces necessary for secondary spill containment will encompass approximately 19,000 square feet (ft²), all of which will

be constructed on existing developed areas. Net fill is estimated to equal approximately 550 cubic yards (CY).

The proposed truck rack will be installed on an existing production pad within the Lompoc Oil Field, located immediately north of the Freeport-McMoRan operated Lompoc Oil and Gas Plant, east of Harris Grade Road. The truck loading rack will encompass approximately 11,000 ft² of the existing, developed pad and will include a new 4-inch oil line extension connecting to the existing 4-inch oil shipping line. All proposed work associated with the truck loading rack construction will be restricted to the existing developed production pad and existing access roads.

All equipment and material staging areas would occur on existing production pads and roadways, or within the developed Lompoc Oil Treatment Facility; no new areas of disturbance will be utilized for staging. Access to work areas will be via existing paved and unpaved roadways under the ownership of Sentinel Peak Resources. The site improvements will include a new v-ditch and AC berm to divert run-on around the loading rack pad to a new storm drain inlet. The storm drain will connect to a new drain line buried under the existing previously disturbed lease road. The drain line will terminate into a new rip-rap energy dissipater directing stormwater flow into the existing drainage. Additionally, the loading rack/Purisima 33 pad will have a new containment berm installed to capture potential spills and stormwater on the pad. The new pad drain will be valved and will follow existing requirements per our Industrial SWPPP prior to flowing into a new drain line installed under the existing previously disturbed well pad. The drain line will then connect to the new v-ditch drain line under the existing previously disturbed lease road.

Existing power is routed to the pad; however, a portion will be rerouted to allow equipment access. The reroute will require the removal and replacement of one power pole and the installation of four new power poles. The electrical system is owned and operated by the Applicant. The proposed Project will require trimming a small number of oak trees along the access roads to Purisima 33 to allow overhead clearance of roadways. Overall, Project-related permanent impacts comprise approximately 31,000 ft², all of which will be restricted to previously disturbed areas immediately adjacent to existing developed areas. The Project proposes to add approximately 24,500 ft² of impervious surfaces.

1.2 Construction Details

The Applicant proposes to complete construction of the Project site within three (3) to six (6) months. Construction activities will occur during the day for eight (8) hour periods, five (5) days per week. Construction crews will utilize the following equipment:

- Backhoe
- Loader
- Motor Grader
- Elevating Scraper
- Dump Truck
- Crew Truck
- Welding Truck
- Crane
- Cement Mixer
- Paver
- Roller

SPR expects approximately eight (8) to ten (10) workers on-site during a given time. Grading activities consist of scraping 6 inches off the existing pad/road and adding 6 inches of compacted aggregate base for impervious containment. The above-mentioned equipment will be removed from the Project site upon completion of construction activities.

Table 1. Project Summary Table

Component	Existing	Proposed Project / Change
Acreage	39.51; 2,243 acres (parcels)	0.71 acres (proposed Project area, includes a small portion of APN 097-360-012)
Production* (Gross Average)	640 BOPD**, 570 MSCFD***, 57,000 BWPD****	No change
Commodity	21° API crude oil	No change
Number of Employees	Eight (8)	No change
Site Access	Harris Grade Rd	Private Lease Roads via Harris Grade Rd
Estimated Termination Date	-	50 years
Hours of Operation	24-hour operations	24-hour operation, no change
Water Use (Annually)	None	None
Phased Development	-	Three (3) - six (6) months (total construction period)
Earthwork/Grading	-	Cut: 150 CY Fill: 700 CY Net: 550 CY
Truck Trips	-	<ul style="list-style-type: none"> • Six (6) daily round trips per day (twelve (12) single trips), and; • Up to ten (10) round trips (twenty (20) one-way trips) per day under special circumstances. • Maximum of 2,000 truck trips annually
Truck Capacity	-	160 barrels
Truck Loading Rate	-	160 - 320 barrels/hour
Landscaping	None	None
Tree/Vegetation removal	None	None (trimming as needed)
Utilities	Water – Municipal Gas – N/A Electrical – PG&E Sewage - Septic	No change. This Project does not involve any new utility connections or requests for service.
Impervious Surfaces	None	24,500 SF
Equipment	<ul style="list-style-type: none"> • Stored pipes • Existing T-110/T-500 Oil Tanks 	<ul style="list-style-type: none"> • Truck Loading Rack with secondary containment • P-140 LACT Charge Pumps • LACT 150 Automatic Custody Transfer • H2S Removal System- 2 Vessel System • VOC Removal System- 2 Vessel System
Buildings	-	No habitable structures are proposed as part of this Project.
Lighting	None	Minimal lighting will be installed at the proposed truck loading area and around the equipment.
Security	Perimeter fencing	No change
Hazardous Materials	None	None
Fire Protection	Municipal water supply	No change

*Based on the 2021 gross average; ** Barrels of Oil per day; *** Million standard cubic feet per day; **** Barrels of water per day

1.3 Project Location

The proposed Project is located approximately 4.5 miles north of the City of Lompoc in northern Santa Barbara County, California, within the California Geologic Energy Management Division (CalGEMD) administrative boundary of the State-designated Lompoc Oil Field, which follows the line of the Purisima Hills roughly east-west. Portions of the Lompoc Oil Field overlap the Burton Mesa Ecological Reserve, which is operated by the California Department of Fish and Wildlife (CDFW) (**Figure 1**). Purisima 33 is located about 2,870 feet northeast of the boundary of the ecological reserve.

Project components occur within the boundaries of the existing Purisima 33 production pad and the pad's associated access roads. Purisima 33 is located approximately 108 feet north of the existing LOGP, east of Harris Grade Road, and encompasses approximately 0.39 acre. The associated access roads include about 3,000 feet of unpaved lease roads.

1.4 Study Area

The study area for the biological surveys encompasses the proposed Project footprint, which encompasses the boundaries of the production pad Purisima 33 and the associated existing unpaved access roads from their intersections with the larger lease roads to the production pad. The study area also includes a 100-foot buffer of these areas. The study area encompasses approximately 16.7 acres and ranges in elevation from about 680 feet to 740 feet above mean sea level (msl; **Figure 2**). This study area was consistent with that of the December 2022 field survey.

2.0 Methodology

AEOCM Senior biologist Ms. Wynter Dawson conducted a pedestrian survey of the study area on April 21, 2023. The survey was informed by the results of the literature review conducted in support of the *Revised Biological Resources Survey Report* (AECOM 2023) and focused on identification of all plant species observed within the study area.

Ms. Dawson conducted the biological field survey of Purisima 33 and the associated access roads from 9:00 a.m. to 1:00 p.m. on April 21, 2023. Conditions were clear and calm, with air temperatures ranging from 70° to 75° Fahrenheit. The survey consisted of meandering pedestrian transects with 100 percent coverage of the proposed Project disturbance footprint. Areas within the 100-foot buffer were surveyed on foot to the extent feasible; where steep slopes, dense vegetation, or poison oak (*Toxicodendron diversilobum*) limited access, the buffer area was surveyed from the edges using binoculars. A review of aerial photographs assisted with mapping of special-status tree and shrub species where the buffer could not be surveyed on foot.

The survey was focused on identifying common and special-status plant species not identifiable in December 2022 due to the natural growing season. Any special-status plant species documented in December 2022 were revisited to assess condition and search the immediate surroundings for new propagules. Locations of all special-status plant species were documented using a handheld GPS-capable cellular device. Photographs were taken to document site conditions. Incidental observations of wildlife were recorded in field notes and are provided as a supplement to those species documented in the *Revised Biological Resources Survey Report*.

For the purposes of this report, special-status plant species are those species that meet one or more of the following criteria:

- Species listed as threatened, endangered, or as a candidate for threatened or endangered status under the federal Endangered Species Act;
- Species listed as threatened, endangered, or as a candidate for threatened or endangered status under the California Endangered Species Act;
- Plant species listed as Rare under the California Native Plant Protection Act;
- Plant species designated with a California Rare Plant Rank (CRPR) of 1, 2, or 4, by the California Native Plant Society (CNPS);
- Species considered to be locally sensitive by the County of Santa Barbara.

3.0 Survey Results

The proposed Project occurs on an existing production pad and unpaved roads within the Lompoc Oil Field. In April 2023, native and non-native plants in the study area were generally in active growth states, with both native and non-native species in bloom and identifiable to species. Most grass species were maturing seed, and few individuals had begun to dry out and die off. Recent rainfall was supporting strong growth on trees, shrubs, and herbaceous species. No special-status wildlife species were observed.

Appendix A provides photographic documentation of the site conditions at the time of the surveys. **Appendix B** provides a list of the plant species observed within the study area during the December 2022 and April 2023 surveys.

3.1 Special-status Plant Species Observations

The following sections described the special-status plant species observed during the winter and spring surveys. **Figure 3** provides a graphic representation of the locations of observed special-status species. Measures to avoid and minimize impacts to La Purisima manzanita are provided in **Section 5.0**.

3.1.1 La Purisima manzanita

La Purisima manzanita is a perennial evergreen shrub with red trunks, small, bright green spade-shaped leaves and small, white to pinkish flowers. It blooms from January to March. La Purisima manzanita occurs only within Santa Barbara County, on sandstone outcrops and sandy soils in chaparral habitats at elevations up to 300 meters (984 feet) above msl (CNPS 2023, Jepson 2023). La Purisima manzanita is designated with a CRPR of 1B.1 by the CNPS, and is threatened by urbanization, habitat conversion, and oil extraction activities (CNPS 2023).

One La Purisima manzanita was documented in December 2022, located off the edge of the western access road near Purisima 33 (**Figure 3**). This manzanita was determined to be in good condition in April 2023. Because of its position off the road edge, no impacts to the manzanita are anticipated. No additional manzanitas of any species were documented in April 2023.

3.1.2 Blue elderberry

Blue elderberry (*Sambucus nigra*) is a perennial shrub with bright green, serrated leaves and clusters of tiny, creamy white flowers that yield deep blueish fruit. It blooms from March to September. It ranges throughout California, favoring streambanks and open areas at elevations up to 3,000 meters (914 meters) above msl (Jepson 2023). Blue elderberry does not have a designated CRPR, but elderberry stands are considered a sensitive natural community by the CDFW (CDFW 2022).

Four blue elderberry shrubs were observed in the scrubland south of Purisima 33 in December 2022 (**Figure 3**). All were in a senescent condition during the survey, with limited to no foliage, due to the season. These shrubs were visited in April 2023 and all were found to be alive, with blooms, and in good condition. One shrub is located near the edge of the production pad but is outside the proposed secondary containment berms and will not be disturbed. One shrub is located south of the proposed storm drain pipeline; this shrub will also be avoided during construction. The other shrubs are downslope within the scrubland.

An additional 36 blue elderberry shrubs were identified in the buffer in April 2023. The majority of the newly identified shrubs are located off the roadway in dense shrubland along the eastern access road, in areas dominated by coyote bush (*Baccharis pilularis*) and poison oak (*Toxicodendron diversilobum*); foliated crowns and blooms were visible and distinguishable from other shrubs from the road. A small number of the new elderberry shrubs were very small and primarily consisted of new growth. Shrubs closest to the access road occur on the west shoulder, behind the existing aboveground pipeline. Three new blue elderberry shrubs were observed in the shrubland immediately south of Purisima 33.

There will be no trimming or removal of any blue elderberry shrubs.

3.1.3 Bishop pine

Bishop pine (*Pinus muricata*) is a coniferous tree with paired, green needles measuring 2 to 6 inches in length, ridged bark, and persistent, brown to grey generally closed cones. It ranges along the coast of California in closed-cone pine forests and chaparral habitats at elevations up to 300 meters (984 feet) above msl (Jepson 2023). Bishop pine does not have a designated CRPR, but Bishop pine woodland is considered a sensitive natural community by the CDFW (CDFW 2022b).

One Bishop pine was identified along the western access road in December 2022 (**Figure 3**). The tree is located at the edge of the road but does not overhang the road and would not be subject to trimming or removal. No impacts to Bishop pine are anticipated. One additional Bishop pine was mapped in the buffer in April 2023; this tree occurs along an abandoned road track on the western boundary of the study area.

3.1.4 Black-flowered figwort

Black-flowered figwort (*Scrophularia atrata*) is a perennial herb with triangular shaped basal leaves that occurs in chaparral, coastal dune, coastal scrub, riparian scrub, and coniferous forest habitats in Santa Barbara and San Luis Obispo Counties. This species favors areas with calcium-rich or diatom-rich soils at elevations up to 400 meters (1,312 feet) above msl. It flowers from April to July, bearing tall inflorescences with very small, bell-shaped dark red to almost black flowers (Jepson 2023, CNPS

2023). Black-flowered figwort has a CRPR of 1B.2, meaning it is considered rare and fairly threatened in California.

Although basal leaves are present year-round, no black-flowered figworts were identified during the December 2022 survey. However, a total of 12 individuals were observed in April 2023 (**Figure 3**). All individuals occurred in dense stands of coyote bush and poison oak along the eastern access road and were identified from the road edge by their tall inflorescences. Plants on the western edge of the road occurred behind the existing aboveground pipeline. Plants on the eastern side of the road are set back in the shrubland. No black-flowered figworts were observed along the western access road or in the shrubland north or south of Purisima 33.

4.0 Potential Impacts to Sensitive Species Plants

The Project intends to avoid removal and trimming of sensitive plant species that occur in the vicinity of work activities. No sensitive plants were identified in the Project disturbance footprint, which includes the existing roadways, maintained road shoulder, and production pad. The only species observed immediately adjacent to Project work activities was blue elderberry, including one shrub near the proposed storm drain on the east side of Purisima 33. One La Purisima manzanita is also present along the existing access road west of Purisima 33. Individuals that are immediately adjacent to work activities will be marked and avoided during construction; no removal or trimming is anticipated. Further, the Project does not propose to remove any native shrubland habitat that supports these species. Habitat removal will be limited to non-native grassland areas that are not suitable to the special-status species observed in the Project area. **Section 5** outlines the avoidance and minimization measures that will be employed to avoid direct impacts to sensitive plant species in the Project vicinity.

Plants present in the Project buffer may be subject to limited indirect impacts during construction and operations, including fugitive dust due to vehicle use. However, these impacts would be limited for most individuals as the majority of the observed sensitive plants occur in dense shrubland dominated by common species, which would provide some protection from dust. Dust control Best Management Practices would be implemented during construction. Therefore, the level of fugitive dust is not expected to be substantially increased during Project construction.

The existing roads are currently used and maintained for oilfield vehicles. The Project does not propose additional levels of mowing beyond that which is currently conducted as a part of normal oilfield operations and are necessary for wildfire prevention and pipeline inspection and spill control. Use of the existing access road during Project operations is consistent with current, ongoing uses on the oilfield.

5.0 Recommended Measures

The following measures were proposed in the *Revised Biological Resources Survey Report* (AECOM 2023) to avoid impacts to sensitive plant resources due to Project-related activities. No additional measures or alterations to these measures are proposed as a result of the spring 2023 survey.

5.1 General Measures

BIO-1. **Pre-Construction Surveys.** A qualified biologist will conduct a comprehensive pre-construction survey for special-status plant and wildlife species within the Project footprint and a suitable buffer no more than seven (14) days prior to the start of construction. The survey will be focused on identifying and flagging special-status plants and identifying sign of special-status wildlife species (woodrat, American badger, etc.) within a 100-foot buffer of the Project footprint. Pre-construction surveys will be conducted by a qualified biologist experienced in identifying individuals and sign of special-status species known from or with potential to occur within the Lompoc Oil Field.

In the event that a special-status species is observed, efforts will be made to avoid impacts to the species through establishment of no-disturbance buffers. If listed species are observed, the appropriate agency will be contacted, and appropriate measures will be enacted prior to the start of construction.

BIO-2. **Worker Environmental Awareness Training (WEAT).** A Worker Environmental Awareness Training will be prepared and presented to all construction personnel at the start of Project-related activities. The training will discuss special-status species with the potential to occur within the Project footprint, including their regulatory status, description, and habitat requirements, and any sensitive habitat areas that may be encountered. The program will emphasize the importance of minimizing disturbance, and describe the federal, state, and local regulations protecting biological resources and the potential penalties for non-compliance with these laws and statutes.

BIO-3. **Biological Monitor.** A qualified biological monitor will be on-site during all initial ground-disturbance and vegetation removal activities. If special-status plant or wildlife species are detected within the Project footprint or buffer during pre-construction surveys, a biological monitor will be present during all work activities. The biological monitor will be the principal agent in the direct implementation of mitigation measures, including administering the WEAT, conducting pre-construction surveys and compliance monitoring, and completing necessary reporting.

BIO-5. **Special-Status Plants Protection.** Where pre-construction surveys identify La Purisima manzanita or any other manzanita species, mesa horkelia, blue elderberry, or any other special-status plant species, a no-disturbance buffer will be established using flagging or exclusionary fencing around all individuals in the vicinity of the Project footprint. No-disturbance buffers will measure no less than 12 inches from the live canopy of special-status plant species. Work will not occur within no-disturbance zones. Pedestrians will not enter a no-disturbance zone without a biological monitor present.

5.2 Habitat Restoration

The proposed Project does not plan to remove any special-status plants, and will implement the above-described biological monitoring, no-disturbance buffers, and visual barrier measures to protect sensitive plants in the Project area. However, if any special-status plants or native habitat are removed due to Project activities, SPR will implement Measure BIO-11 to restore the native habitat and replace removed plants.

BIO-11. Native Habitat Restoration. SPR will prepare a Habitat Restoration and Monitoring Plan (HRMP) for County approval, outlining the mitigation of impacts to native habitats. The HRMP will include a description of the habitats impacted and the location, proposed species palettes, installation methods, and maintenance and monitoring plan, for the habitat mitigation effort. Mitigation ratios will include a 1:1 ratio for temporary habitat impacts, a 3:1 ratio for permanent impacts to native habitats, and a 3:1 replacement ratio for any sensitive plant species removed due to Project-related activities.

6.0 References

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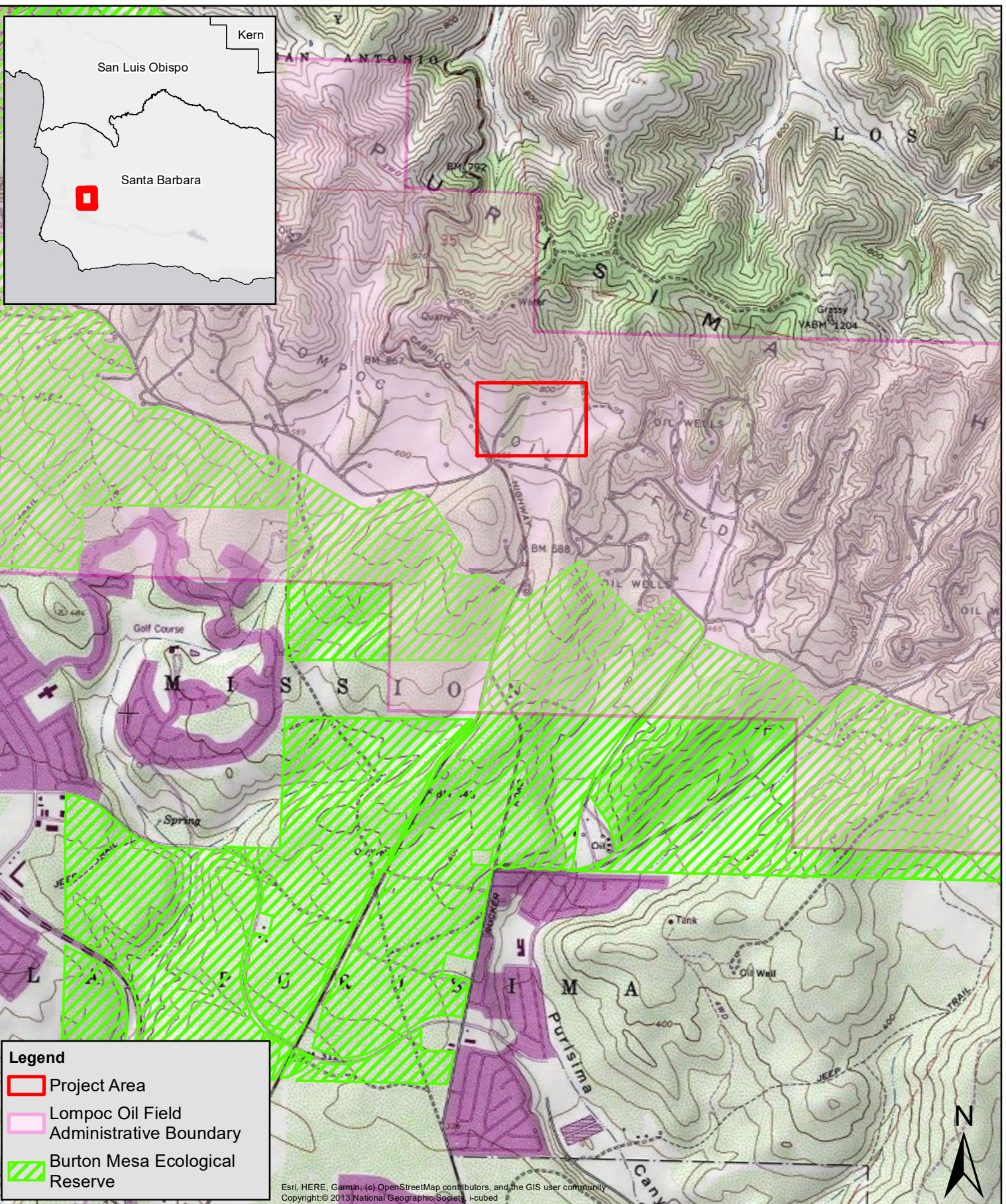
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FIGURES

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Legend

- Project Area
- Lompoc Oil Field Administrative Boundary
- Burton Mesa Ecological Reserve

Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
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0 0.125 0.25 0.5 0.75 1 Miles



**Proposed Truck Rack Project - Lompoc Oil Field
Sentinel Peak Resources
Figure 1 - Project Vicinity**



- Legend**
- Study Area
 - Purisima 33 Access Roads
 - Pad Purisima 33
 - Proposed oil pipeline
 - Proposed power pole
 - Lompoc Oil Field Administrative Boundary
 - Burton Mesa Ecological Reserve



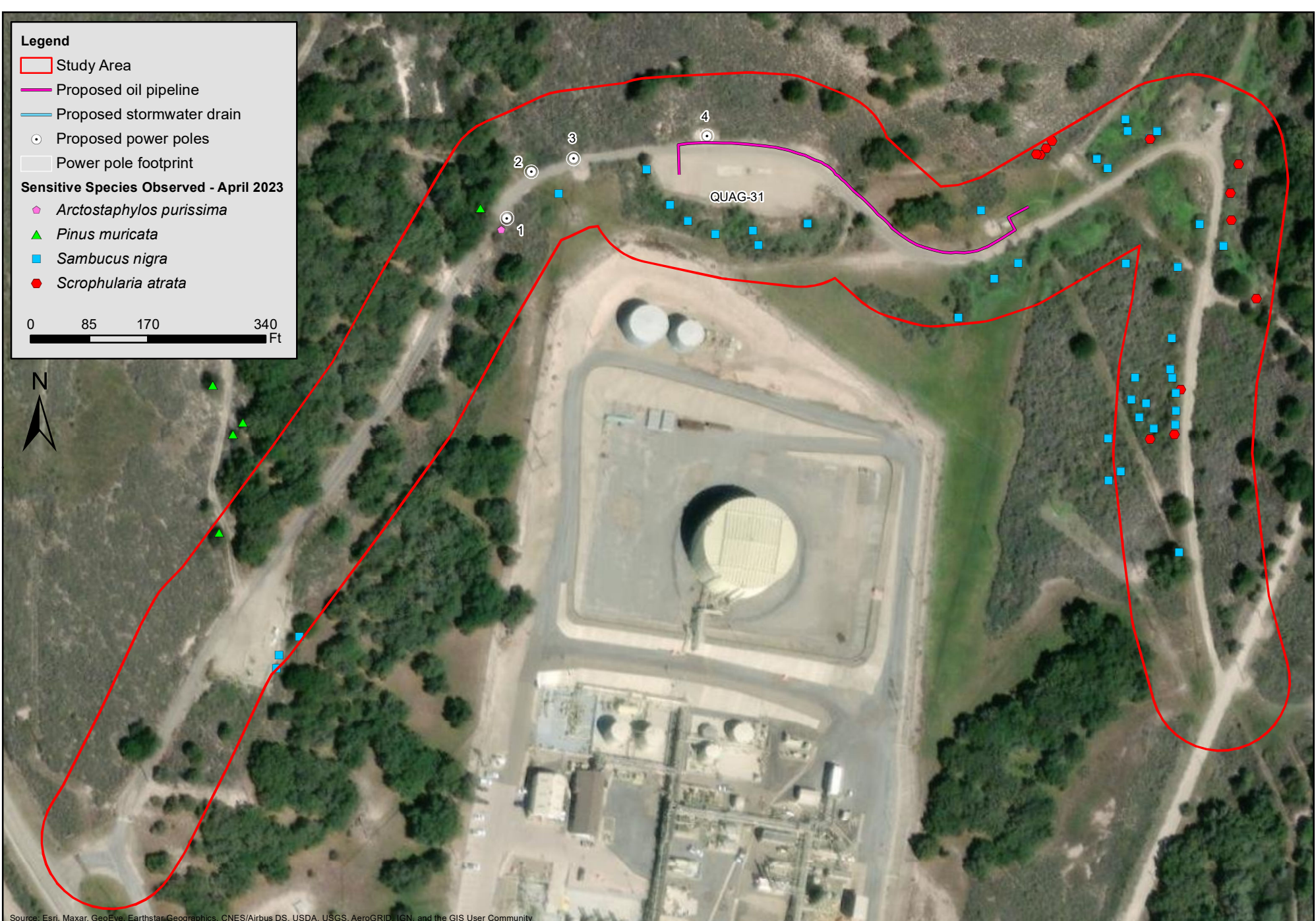
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

0 125 250 500 750 1,000 Feet



Proposed Truck Ramp Project - Lompoc Oil Field
Sentinel Peak Resources
Figure 2 - Project Site

AECOM
DRWG: W. Dawson Date: 6/15/2023 Revision: 0



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Proposed Truck Ramp Project - Lompoc Oil Field
Sentinel Peak Resources

Figure 3 - Spring Plant Survey Results



APPENDIX A
Project Site Photographs
(April 21, 2023)



Photograph 1. View shrubland north of Pad Purisima 33, facing north from the production pad.



Photograph 2. View of the existing production pad Purisima 33, facing southeast from the access road.



Photograph 3. View of the existing cleared area associated with the SoCal Edison utility corridor, facing northwest from the access road. Vegetation removal was not associated with the Project or SPR.



Photograph 4. View of the southern boundary of Pad Purisima 33. Quag-31 is shown with a white arrow, blue elderberry (*Sambucus nigra*) with a yellow arrow.



Photograph 5. View south from Pad Purisima 33. Blue elderberry shrub in shrubland is indicated with yellow arrow.



Photograph 6. View of large blue elderberry on east slope of Pad Purisima 33, in the vicinity of the proposed storm drain feature.



Photograph 7. View from the start of the eastern access road, facing north-northwest along the road.



Photograph 8. View west along the eastern access road from with coyote bush (*Baccharis pilularis*) dominated shrubland on both sides of the road.



Photograph 9. View of black-flowered figwort (*Scrophularia atrata*) in flower (white arrow), with existing aboveground pipeline on right.



Photograph 10. View of dense shrubland east of the eastern access road. Black-flowered figwort inflorescence indicated with white arrow.



Photograph 11. View of disturbed, weed-dominated area around existing infrastructure north of the eastern access road, with native shrubland on slope in the background.



Photograph 12. View along the western access road during the April 2023 survey, facing south.



Photograph 13. View north from the end of the western access road.

APPENDIX B
Species Observed Within the Project
Study Area

TABLE B-1. Plant Species Observed Within the Project Study Area

Scientific Name	Common Name	Native /Introduced ¹	Regulatory Status	Observed	
				Dec 2022	Apr 2023
<i>Acmispon glaber</i>	Deerweed	N	-	X	X
<i>Arctostaphylos purissima</i>	La Purisima manzanita	N	1B.1	X	X
<i>Artemisia californica</i>	California sagebrush	N	-	X	X
<i>Artemisia campestris</i>	Field sagewort	N	-		X
<i>Atriplex semibaccata</i>	Australian saltbush	I ²	-	X	X
<i>Avena fatua/barbata</i>	Wild oats	I ²	-	X	X
<i>Baccharis pilularis</i>	Coyote brush	N	-	X	X
<i>Brassica nigra</i>	Black mustard	I ²	-		X
<i>Brassica rapa</i>	Common mustard	I ²	-		X
<i>Bromus catharticus</i>	Rescue grass	I	-		X
<i>Bromus diandrus</i>	Ripgut brome	I ²	-	X	X
<i>Bromus hordeaceus</i>	Soft brome	I ²	-		X
<i>Bromus madritensis</i>	Red brome	I ²	-	X	X
<i>Camissonia</i> sp.	Primrose	N	-	X	
<i>Camissonia strigulosa</i>	Contorted primrose	N	-		X
<i>Carduus tenuiflorus</i>	Italian thistle	I ²	-		X
<i>Centaurea melitensis</i>	Tocalote	I ²	-		X
<i>Chenopodium californicum</i>	California goosefoot	N	-		X
<i>Chenopodium murale</i>	Nettle leaf goosefoot	I	-		X
<i>Cirsium vulgare</i>	Bull thistle	I ²	-		X
<i>Conium maculatum</i>	Poison hemlock	I ²	-	X	X
<i>Cordateria selloana</i>	Pampas grass	I ²	-	X	X
<i>Croton californicus</i>	California croton	N	-		X
<i>Cynodon dactylon</i>	Bermuda grass	I ²	-		X
<i>Dipterostemon capitatus</i>	Blue dicks	N	-		X
<i>Diplacus [Mimulus] aurantiacus</i>	Sticky bush monkeyflower	N	-	X	X
<i>Ehrharta calycina</i>	Veldt grass	I ²	-	X	X
<i>Elymus condensatus</i>	Giant wild rye	N	-		X
<i>Eriodictyon crassifolium</i>	Thick-leaved yerba santa	N	-	X	X
<i>Eriogonum parvifolium</i>	Seacliff buckwheat	N	-		X
<i>Eriophyllum confertiflorum</i>	Yellow yarrow	N	-	X	X
<i>Erodium botrys</i>	Storksbill	I	-		X
<i>Erodium cicutarium</i>	Red-stem filaree	I ²	-	X	X
<i>Eschscholzia californica</i>	California poppy	N	-		X
<i>Festuca myuros</i>	Rat-tailed fescue	I ²	-		X
<i>Festuca perennis</i>	Italian fescue	I ²	-		X

Scientific Name	Common Name	Native /Introduced ¹	Regulatory Status	Observed	
				Dec 2022	Apr 2023
<i>Galium aparine</i>	Common bedstraw	N	-		X
<i>Galium porrigens</i>	Climbing bedstraw	N	-		X
<i>Heterotheca grandiflora</i>	Telegraphweed	N	-	X	X
<i>Hirschfeldia incana</i>	Summer mustard	I ²	-		X
<i>Hordeum murinum</i>	Mediterranean barley	I	-		X
<i>Hypochaeris glabra</i>	Smooth cat's ear	I ²	-		X
<i>Juncus patens</i>	Common rush	N	-		X
<i>Lamarckia aurea</i>	Goldentop grass	I	-		X
<i>Lasthenia gracilis</i>	Needle goldfields	N	-		X
<i>Lotus corniculatus</i>	Bird's foot trefoil	I	-		X
<i>Lupinus bicolor</i>	Bicolor lupine	N	-	X	X
<i>Lupinus chamissonis</i>	Silver dune lupine	N	-		X
<i>Lupinus microcarpus</i>	Chick lupine	N	-		X
<i>Lupinus truncatus</i>	Blunt leaves lupine	N	-		X
<i>Lysimachia arvensis</i>	Scarlet pimpernel	I	-		X
<i>Malva parviflora</i>	Cheeseweed mallow	I	-	X	X
<i>Marah fabacean</i>	California man-root	N	-		X
<i>Matricaria discoidea</i>	Pineapple weed	N	-		X
<i>Medicago polymorpha</i>	Burclover	I ²	-		X
<i>Melilotus indicus</i>	Annual sweetclover	I	-		X
<i>Nicotiana glauca</i>	Tree tobacco	I ²	-	X	X
<i>Nuttallanthus canadensis</i>	Canada toadflax	N	-		X
<i>Pinus muricata</i>	Bishop pine	N	CDFW Sensitive Community	X	X
<i>Phacelia viscida</i>	Sticky phacelia	N	-		X
<i>Pholistoma auritum</i>	Fiesta flower	N	-		X
<i>Plantago erecta</i>	Coastal plantain	N	-	X	X
<i>Polygonum aviculare</i>	Prostrate knotweed	I	-		X
<i>Pseudognaphalium californicum</i>	Ladies' tobacco	N	-	X	X
<i>Pseudognaphalium luteoalbum</i>	Jersey cudweed	I	-	X	X
<i>Quercus agrifolia</i>	Coast live oak	N	Locally sensitive	X	X
<i>Ranunculus californicus</i>	California buttercup	N	-		X
<i>Salsola tragus</i>	Russian thistle	I ²	-	X	X
<i>Salvia spathacea</i>	Hummingbird sage	N	-	X	X
<i>Sambucus nigra</i>	Blue elderberry	N	CDFW Sensitive Community	X	X

Scientific Name	Common Name	Native /Introduced ¹	Regulatory Status	Observed	
				Dec 2022	Apr 2023
<i>Schismus barbatus</i>	Common Mediterranean grass	I	-		X
<i>Scrophularia atrata</i>	Black-flowered figwort	N	1B.2		X
<i>Silene gallica</i>	Common catchfly	I	-		X
<i>Silybum marinum</i>	Milk thistle	I ²	-		X
<i>Sisymbrium orientale</i>	Hedge mustard	I ²	-		X
<i>Solanum douglasii</i>	Douglas' nightshade	N	-	X	X
<i>Solanum xanti</i>	Chaparral nightshade	N	-		X
<i>Sonchus asper</i>	Spiny sowthistle	I	-		X
<i>Spergula</i> sp.	Spurry	I	-		X
<i>Stachys bullata</i>	Southern hedge nettle	N	-	X	X
<i>Stipa pulchra</i>	Purple needlegrass	N	-		X
<i>Stipa millicea</i>	Smilo grass	I ²	-		X
<i>Trifolium willdenovii</i>	Tomcat clover	N	-		X
<i>Toxicodendron diversilobum</i>	Poison oak	N	-	X	X
<i>Uropappus lindleyi</i>	Silver puffs	N	-		X
<i>Urtica dioica</i>	Stinging nettle	N	-		X
<i>Verbena lasiostachys</i>	Common verbena	N	-		X
<i>Vicia sativa</i>	Spring vetch	I	-		X

¹ Source: Cal-IPC 2023.

² Species listed as limited, moderate, or high invasiveness by Cal-IPC for the Central West region.

TABLE B-2. Wildlife Species Observed Within the Study Area in April 2023

Scientific Name	Common Name	Regulatory Status
Invertebrates		
<i>Danaus plexippus</i>	Monarch	Candidate
Reptiles		
<i>Aspidoscelis tigris</i>	California whiptail	-
<i>Sceloporus occidentalis</i>	Western fence lizard	-
Birds		
<i>Aphelocoma californica</i>	California scrub jay	-
<i>Callipepla californica</i>	California quail	-
<i>Calypte anna</i>	Anna's hummingbird	-
<i>Cathartes aura</i>	Turkey vulture	-
<i>Chamaea fasciata</i>	Wrentit	-
<i>Colaptes auratus</i>	Northern flicker	-
<i>Haemorhous mexicanus</i>	House finch	-
<i>Junco hyemalis</i>	Dark-eyed junco	-
<i>Melospiza crissalis</i>	California towhee	-
<i>Zenaidura macroura</i>	Mourning dove	-
<i>Zonotrichia leucophrys</i>	White-crowned sparrow	-
Mammals		
<i>Canis latrans</i>	Coyote	-
<i>Odocoileus hemionus</i>	Mule deer	-

APPENDIX C
Special-status Plant Species Not
Observed but with Records within 1
Mile of the Project Study Area

TABLE C-1. Special-Status Plant Species Not Observed but With CNDDDB Records Within 1 Mile of the Proposed Project

Common Name	Scientific Name	Regulatory Status*	Blooming Period	Habitat Requirements	Site Suitability	Potential to Occur
Seaside bird's-beak	<i>Cordylanthus rigidus</i> ssp. <i>littoralis</i>	CESA Threatened	Jul-Aug	Annual herb. Hemiparasitic. Occurs on sandy, often disturbed sites in dune, chaparral, coastal scrub, and closed-cone coniferous woodland habitats, at elevations up to 200 meters (656 feet) (Jepson 2023, CNPS 2023).	Species was not observed during surveys. Timing of survey may not have been suitable to detect this species. Potentially suitable habitats including disturbed sandy soils may occur along road and pad edges within the study area. Five records exist within a 1-mile buffer of the proposed Project, with the most recent in 2007; the nearest occurrence is about 680 feet south of the east end of the access road and was documented in 1985 (CDFW 2022a).	Low
Hoover's bent grass	<i>Agrostis hooveri</i>	CRPR 1B.2	Apr-Aug	Annual herb. Occurs on dry, sandy soils in open chaparral and oak woodland habitats, at elevations up to 600 meters (1,968 feet) (Jepson 2023).	Species was not observed during surveys. Timing of survey was suitable to detect this species. Potentially suitable sandy soils and compatible habitats do occur within the study area but are not present within the Project footprint. One record within 1-mile radius of Project, approximately 435 feet south of the western end of the access road and was documented in 1991 (CDFW 2022A).	Very Low
Refugio manzanita	<i>Arctostaphylos refugioensis</i>	CRPR 1B-2	Dec-Feb	Perennial evergreen shrub. Occurs on sandstone outcrops in chaparral habitats, at elevations of 300 to 820 meters (984-2,690 feet) (Jepson 2023).	Species was not observed during surveys and chaparral habitats are not present. One record within 1-mile radius of Project, located approximately 0.79 mile south of the western end of the access road and was documented in 2004 (CDFW 2022a).	No
Sand mesa manzanita	<i>Arctostaphylos rudis</i>	CRPR 1B.2	Nov-Feb	Perennial evergreen shrub. Occurs on sandy soils in chaparral habitats, at elevations up to 380 meters (1,247 feet) (Jepson 2023).	Species was not observed during surveys and chaparral habitats not present. One record within 1-mile radius of Project, approximately 440 feet south of the western end of the access road, documented in 2012 (CDFW 2022a).	No

Common Name	Scientific Name	Regulatory Status*	Blooming Period	Habitat Requirements	Site Suitability	Potential to Occur
Southern curly-leaved monardella	<i>Monardella sinuate</i> ssp. <i>sinuata</i>	CRPR 1B.2	Apr-Sep	Annual herb. Occurs on sandy soils in coastal strand, dune, sagebrush scrub, coastal chaparral, and oak woodland habitats, at elevations up to 300 meters (984 feet) (Jepson 2023).	Species was not observed during surveys. Timing of survey was suitable to detect this species. Potentially suitable habitats do occur within the study area, but species was not observed during surveys. One record within 1-mile radius of the Project, located approximately 0.74 mile southwest of the western end of the access road and documented in 2004 (CDFW 2022a).	Very low
Mesa horkelia	<i>Horkelia cuneata</i> var. <i>puberula</i>	CRPR 1B.1	Mar-Jul	Perennial herb. Occurs on dry, sandy, or gravelly soils in coastal scrub, cismontane woodland, and chaparral habitats, at elevations from 70 to 870 meters (230 – 2,855 feet) (CNPS 2023, Jepson 2023)	Species was not observed during surveys, and potentially suitable habitat limited in study area. One record within 1-mile radius of Project, located approximately 1,085 feet southeast of the western end of the access road, documented in 1988 (CDFW 2022a).	Very low
California spineflower	<i>Mucronea californica</i>	CRPR 4.2	Mar-Jul	Annual herb. Occurs on sandy soils in chaparral, cismontane woodland, coastal dune and scrub, and grassland habitats, at elevations up to 1,400 meters (4,595 feet) (CNPS 2023).	Species was not observed during surveys. Timing of survey was suitable to detect this species. Species is not tracked in the CNDDDB but is known to occur along pipeline rights-of-way and other open areas on the Lompoc Oil Field where suitable soils occur. Suitable soils may be present within the Study Area.	Very low

*Source: CNPS 2023.

Status Definitions:

CRPR = California Rare Plant Rank

1B = Plants rare, threatened, or endangered in California and elsewhere

0.1 = Seriously threatened in California

0.2 = Moderately threatened in California