

Biological Resources and Waters Resources Desktop Assessment

Addendum to **Revised Biological Survey Report**

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

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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** and **Figure 2**). 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, 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.

Transport of crude oil via trucking is required due to recent operational changes at the Santa Maria Pump Station, which effective as of January 2023 no longer accepts crude oil via Line 300 which previously conveyed crude oil from the Lompoc Oil Field to the Santa Maria Pump Station. No other common carrier pipelines are available to replace Line 300 at this time. In a letter dated March 15, 2023, the County of Santa Barbara Planning and Development Department (County) requested that SPR conduct a desktop analysis of potential special-status species along the trucking route from Lompoc Oil Field to the Coalinga Station, due to the potential risk to these resources if an inadvertent release were to occur during transport. In accordance, AECOM Technical Services, Inc. (AECOM) has prepared this Biological Resources and Waters Resources Desktop Assessment, summarizing information on potential special-status species and wetlands and waters features along the trucking route.

1.1 Project Description

The Project includes 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 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 new electrical poles. A detailed project description is provided in the Revised Biological Resources Survey Report (AECOM 2023).

The purpose of the Project is to facilitate transport of crude oil via truck from the facilities at the Lompoc Oil Field to the Coalinga Station. The proposed trucking route is approximately 165 miles in length from the proposed truck loading rack to the Coalinga Station, utilizing primarily major roads and highways. Approximately six loads (or twelve one-way trips) are anticipated daily, with up to a maximum of 10 loads per day in special circumstances. No more than 2,000 truck trips would occur annually, with each truck holding up to 160 barrels of oil. Trucking is anticipated to occur for a period of 50 years.

1.2 Project Location

The Project is located on the Lompoc Oil Field approximately 4.5 miles north of the City of Lompoc in northern Santa Barbara County, California. 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 Lompoc Oil and Gas Plant, east of Harris Grade Road, and encompasses approximately 0.39 acres. The associated access roads include about 3,000 feet of unpaved lease roads.

The proposed trucking route begins at the Lompoc Oil Field on Harris Grade Road, then travels south on Harris Grade Road at State Highway 1 at Mission Hills, west on Highway 1/Highway 135 past Vandenberg Space Force Base, and north on Highway 135 to Betteravia Road, turning east through Santa Maria, California to Highway 101. The trucking route then heads north on Highway 101 to Highway 46 in Paso Robles, follows Highway 46 east to Highway 41 in the San Joaquin Valley, continues on Highway 41 to Highway 33 near Kettleman City, then takes Highway 33 to Coalinga, ending at the Coalinga Station at 37509 Oil City Road (**Figure 1**).

1.3 Habitats and Land Uses

The proposed trucking route consists of existing paved roads and highways. The trucking route traverses a number of natural habitat types and anthropogenic land uses. All areas along the route are currently used for public and commercial transportation. Land uses present include developed and disturbed land associated with existing cities, agricultural lands and grazing lands that support cattle, as well as open grasslands and shrublands, with more limited woodlands and localized riparian corridors associated with permanent and intermittent waterways. The topography along the route varies but is generally flat to moderately sloping. The elevation along the proposed trucking route ranges from less than 20 meters above mean sea level (msl) to more than 460 meters above msl.

2.0 Methodology

The following sections describe the methodology employed to identify biological resources and waters resources that may be present along the proposed trucking route.

2.1 Biological Resources

To determine the biological resources with potential to occur along the proposed trucking route, the California Natural Diversity Database (CNDDDB) was searched for records in proximity to the proposed trucking route. The CNDDDB is an inventory of the status and locations of special-status plant and wildlife species throughout the state; it combines historic records as well as more recent data. CNDDDB occurrence records may vary in their geographic accuracy depending on their source; some records are specific to less than 100 meters, while others encompass entire 7.5-minute USGS quadrangles or are characterized as "non-specific".

It is assumed that biological resources closest to the trucking route would be more vulnerable to transport-related oil spills, with vulnerability decreasing with increasing distance from the roadway. Multiple queries were conducted at varying geographic scales to accurately characterize the resources that could occur in the vicinity of the trucking route. A baseline of 500-feet was used as

the conservative estimated distance which oil may travel overland in the event of a spill during transport. However, radii larger than 500 feet also were included in the assessment to account for the fact that the CNDDDB is not considered a complete and all-inclusive dataset, and biological resources, especially wildlife, may move over the landscape over time. The queries included records that overlapped or intersected the proposed trucking route; records within a 500-foot radius of the trucking route; and records within a 1-mile radius and a 5-mile radius of the trucking route.

For the purposes of this assessment, a “special-status species” is defined as a species that meets at least one of the following conditions:

- Listed as threatened or endangered, or as a candidate for such a status, under the federal Endangered Species Act;
- Listed as threatened or endangered, or as a candidate for such a status, under the California Endangered Species Act;
- Designated as State Rare under the California Native Plant Protection Act;
- Designated as Fully Protect or as a California Species of Special Concern by the California Department of Fish and Wildlife;
- Designated with a Rare Plant Rank (RPR) of 1, 2, or 4 by the California Native Plant Society;
- Non-listed species tracked in the CNDDDB and considered sensitive by the CDFW; and,
- Sensitive habitats tracked in the CNDDDB.

Records that were characterized as “Extirpated” were excluded from the assessment; “Possibly Extirpated” records were retained. Non-specific geographic records were retained, and no records were excluded based on date of occurrence, occurrence type (natural occurrence, re-introduction into native range, or introduction outside native range), or other criteria.

2.2 Waters and Wetlands Features

Waters features that are known to occur along the proposed trucking route were identified using the National Hydrography Dataset (NHD; USGS 2023) and the National Wetland Inventory (NWI; USFWS 2023). Linear waters features were classified as ephemeral, intermittent, or permanent; non-linear water features identified in the NHD and NWI were also mapped. Using GIS analysis, mapped waters features were identified as intersecting the proposed trucking route or occurring within 500 feet or 1 mile of the trucking route. It is assumed that waterbodies that occur outside a 1-mile radius of the trucking route would not be subject to impacts due to an inadvertent oil spill during transport; for this reason, these features are excluded from the assessment. However, they are shown and labelled in the figure map book, for reference.

Features mapped in the NHD as ‘blue-line’ features are generally assumed to be federally- or state-jurisdictional within a portion of all of their length. No field investigations were conducted to verify the accuracy of the blue-line features identified during the records search, and no delineation of the boundaries of jurisdictional waters or wetlands was conducted. The proposed project does not include any planned impacts, temporary or permanent, to jurisdictional waters or wetlands along the proposed trucking route; therefore, no jurisdictional delineation is required.

3.0 Assessment Results

The desktop assessment identified numerous occurrences for biological and waters resources in the vicinity of the existing roadways that comprise the proposed trucking route. A summary of these records is provided below, with a focus on species identified as listed or as candidates for listing under the ESA or CESA with records within 500 feet of the proposed trucking route. Tables included in **Appendix A** list the species identified at each search radius. The map book, provided in **Appendix B**, graphically displays the locations of the biological occurrence records and mapped waters features along the proposed trucking route.

3.1 Biological Resources

The literature review of the CNDDDB identified numerous recorded occurrences for special-status plant and wildlife species and some sensitive natural communities along the proposed trucking route. **Table 1** below provides a summary of the records as a function of their distance from the proposed trucking route.

Table 1. Summary of Records Detected Along the Proposed Trucking Route

CNDDDB Occurrence Records	Intersecting Truck Route	500-foot Radius	1-mile Radius	5-Mile Radius
Plants	74 records 35 species	114 records 46 species	314 records 70 species	892 records 93 species
Wildlife	114 records 42 species	142 records 42 species	273 records 57 species	849 records 77 species
<i>Invertebrates</i>	19 records 11 species	25 records 11 species	42 records 13 species	99 records 19 species
<i>Fish</i>	7 records 3 species	7 records 3 species	10 records 3 species	17 records 3 species
<i>Amphibians</i>	5 records 3 species	12 records 3 species	49 records 6 species	232 records 6 species
<i>Reptiles</i>	21 records 6 species	33 records 6 species	68 records 6 species	206 records 10 species
<i>Birds</i>	23 records 7 species	24 records 8 species	38 records 14 species	97 records 22 species
<i>Mammals</i>	39 records 12 species	41 records 12 species	66 records 13 species	198 records 17 species
Natural Communities	3 records 2 communities	3 records 2 communities	11 records 8 communities	42 records 14 communities
Total Records	191	259	598	1,783
Distinct Species/Communities	80	91	135	184

3.1.1 Special-status Plant Species

A total of 74 occurrence records were identified as overlapping the proposed trucking route, including 35 distinct sensitive plant species. Among these records, six are state- or federally-listed, and the remaining 29 are sensitive but not listed.

Within a 500-foot buffer of the proposed trucking route, a total of 114 records, comprising 46 distinct species, were identified during the desktop assessment (CDFW 2023a). Among these records, seven are state- or federally-listed, and the remaining 39 are sensitive but not listed. The seven listed species are discussed in further detail below.

California Jewelflower

California jewelflower (*Caulanthus californicus*) is state and federally endangered and has an RPR of 1B.1 (CDFW 2023a). It occurs on non-alkaline, sandy soils on flats and slopes in grassland chenopod scrub, and pinyon and juniper woodland habitats (CNPS 2023, Jepson eFlora 2023). One record for California jewelflower intersects the proposed trucking route; one additional record occurs within the 500-foot buffer (CDFW 2023a).

Chorro Creek Bog Thistle

Chorro creek bog thistle (*Cirsium fontinales* var. *obispoense*) is listed as federally and state endangered and is designated as RPR 1B.2 (CDFW 2023a). Chorro creek bog thistle occurs in serpentine seeps, streams, and drainages, in a variety of native habitats (CNPS 2023, Jepson eFlora 2023). There is one record for Chorro Creek bog thistle that intersects the trucking route, in the vicinity of Froom Creek in San Luis Obispo County; no additional records occur within the 500-foot buffer (CDFW 2023a).

Gambel's Water Cress

Gambel's water cress (*Nasturtium gambelii*) is listed as federally endangered and state threatened and has a RPR of 1B.1 (CDFW 2023a). Gambel's watercress occurs in marshes and on streambanks and lake margins (CNPS 2023, Jepson eFlora 2023). No records for Gambel's watercress intersect the trucking route; one record occurs within 500 feet of the trucking route and is associated with San Antonio Creek in Santa Barbara County (CDFW 2023a).

Kern Mallow

Kern mallow (*Eremalche parryi* ssp. *kernensis*) is federally endangered and has a RPR of 1B.2 (CDFW 2023a). It occurs in dry openings, including eroded hillsides and alkali flats, in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland areas (CNPS 2023, Jepson eFlora 2023). One record for kern mallow intersects the proposed trucking route in northeastern San Luis Obispo County; no additional records occur within 500 feet (CDFW 2023a).

San Joaquin Woollythreads

San Joaquin woollythreads (*Monolopia congodonii*) is listed as federally endangered and has a RPR of 1B.2 (CDFW 2023a). It inhabits sandy soils in chenopod scrub and valley and foothill grassland habitats (CNPS 2023, Jepson eFlora 2023). There are three records for San Joaquin woollythreads that intersect the trucking route; no additional records occur within the 500-foot buffer (CDFW 2023a).

Seaside Bird's-beak

Seaside bird's-beak (*Cordylanthus rigidus* ssp. *littoralis*) is listed as state endangered and has a RPR of 1B.1 (CDFW 2023a). It inhabits sandy soils and often disturbed areas in coastal scrub, coastal dunes, maritime chaparral, woodland and coniferous forest habitats (CNPS 2023, Jepson eFlora 2023). Two records for seaside bird's-beak intersect the trucking route, both in the vicinity of the Lompoc Oil Field; an additional three records occur within the 500-foot buffer (CDFW 2023a).

Vandenberg Monkeyflower

Vandenberg monkeyflower (*Diplacus vandenbergensis*) is federally endangered and has a RPR of 1B.1 (CDFW 2023a). It inhabits open, sandy sites among shrubs in chaparral, woodland, and coastal dune habitats (CNPS 2023, Jepson eFlora 2023). One record for Vandenberg monkeyflower intersects the proposed trucking route; an additional four records occur within the 500-foot buffer (CDFW 2023a).

3.1.2 Sensitive Natural Communities

A total of three occurrence records, comprising two distinct communities, were identified as overlapping the proposed trucking route; these results were consistent within a 500-foot radius of the trucking route (CDFW 2023a).

Two records of Central Maritime Chaparral were identified in the vicinity of the start of the trucking route near Lompoc, California. Central Maritime Chaparral is a CDFW-designated sensitive habitat that is dominated by La Purisima manzanita (*Arctostaphylos purisima*) and/or sand mesa manzanita (*A. rudis*), with other manzanita and native scrub shrub species (Sawyer et al. 2009). It is a common community within the Burton Mesa Ecological Preserve, located adjacent to the south of the Lompoc Oil Field (CDFW 2023a).

Southern California Threespine Stickleback Stream is an inland waters habitat type that is mapped in the vicinity of Orcutt, California in northern Santa Barbara County. This habitat supports the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) (CDFW 2023a).

3.1.3 Special-status Wildlife Species

A total of 114 occurrence records for special-status wildlife were identified as intersecting the proposal trucking route, representing 42 distinct species. Within a 500-foot radius of the trucking, the number of records increased to 142, although the number of distinct species remained consistent at 42 (CDFW 2023a). A summary by taxonomic group is provided below.

Invertebrates

A total of 19 occurrence records for special-status invertebrates intersect with the proposed trucking route, representing 11 distinct species. At a distance of 500-feet from the trucking route, a total of 25 records were identified (CDFW 2023a). The species represented are dominated by insects, with one mollusk, the San Luis Obispo pyrg (*Pyrgulopsis taylori*), a sensitive but not listed snail species, and one crustacean, the federally threatened vernal pool fairy shrimp (*Branchinecta lynchi*). The nine insect species include the monarch (*Danaus plexippus*), western bumblebee (*Bombus occidentalis*), and Crotch bumblebee (*B. crotchii*), which are candidates for listing under the

ESA or CESA, as well as one additional bumblebee species and five beetles, all of which are sensitive but not listed.

Vernal Pool Fairy Shrimp

Vernal pool fairy shrimp is a federally threatened freshwater crustacean that occurs in vernal pool habitats in California and southern Oregon (USFWS 2007a). One record for vernal pool fairy shrimp intersects the proposed trucking route in the vicinity of Paso Robles, California; two additional records occur within the 500-foot buffer. The records are dated from 2000 to 2005 (CDFW 2023a).

Monarch

The monarch butterfly is a candidate for listing under the ESA. The monarch is a globally-distributed butterfly that depends on milkweed (Genus: *Asclepias*) for breeding habitat and is migratory throughout most of its range. Monarch populations west of the Rocky Mountains may overwinter in Mexico or in coastal California (USFWS 2020a). Four records for monarchs intersect the proposed trucking route; an additional three records occur within the 500-foot buffer (CDFW 2023a). All records are within Santa Barbara and San Luis Obispo Counties and are associated with coastal overwintering sites.

Western Bumble Bee

The western bumble bee is a candidate for listing under the CESA. Western bumble bees require floral-rich habitats with a continuous blooming season from spring through fall to support their annual, underground colonies. They are generalist foragers and important pollinators for many species of wildflower and commercial agricultural crops (Defenders of Wildlife 2015). One record for western bumble bee intersects the proposed trucking route near Pismo Beach, California in San Luis Obispo County; this record is dated 1936 and is specific to a 1-mile radius. No additional records occur within 500 feet of the trucking route (CDFW 2023a).

Crotch Bumble Bee

Crotch bumble bee is a candidate for listing under CESA. Historically, Crotch bumble bees occupied grasslands and shrublands from southern to Central California, particularly in the Central Valley. Crotch bumble bees are generalist foragers and, like many other bumble bee species, build their colonies underground (CDFW 2019). Two records for Crotch bumble bee intersect the proposed trucking route; the records are dated 1959 and 1972 and occur in northern San Luis Obispo County. No additional records occur within a 500-foot radius (CDFW 2023a).

Fish

A total of seven occurrence records for special-status fish were identified both intersecting the trucking route and within a 500-radius of the route. Three species were represented, including one record for unarmored threespine stickleback, two records for tidewater goby (*Eucyclogobius newberryi*), and four records for steelhead (*Oncorhynchus mykiss irideus*) (CDFW 2023a).

Unarmored Threespine Stickleback

Unarmored threespine stickleback is listed as endangered under the CESA and ESA and is designated as a Fully Protected Species by the CDFW (CDFW 2023a). This species inhabits freshwater streams and river reaches with slow, continuous flows and moderate cover of algae, although individuals may occur in rapid headwaters and relatively still pools (USFWS 2021). One record for this species occurs along the trucking route at the crossing of San Antonio Creek (CDFW 2023a).

Tidewater Goby

Tidewater goby is listed as federally endangered. This species inhabits discrete stretches of brackish lagoons and estuaries along the California coast (USFWS 2007b). Two records for this species occur at the crossings of San Luis Obispo Creek and San Antonio Creek (CDFW 2023a).

Steelhead

All steelhead records along the trucking route fall within the range of the federally threatened south-central California Distinct Population Segment (DPS) of steelhead. This species breeds on gravel beds in freshwater creeks and streams, then migrates downstream to estuaries and the Pacific Ocean to mature; adults return to their natal stream to spawn (NMFS 2013). Four records for this species occur along the trucking route, at the crossings for Pismo Creek, San Luis Obispo Creek (two records), Arroyo Grande Creek (CDFW 2023a).

Amphibians

A total of five occurrence records for special-status amphibians were identified as overlapping the proposed trucking route, comprising of three species. Within a 500-foot radius, the number of records increased to 12, but no new species were represented. The species represented included the federally-threatened California red-legged frog (*Rana draytonii*), and the coast range newt (*Taricha torosa*) and western spadefoot toad (*Spea hammondi*), both designated California Species of Special Concern (SSC) by the CDFW (CDFW 2023a).

California red-legged frog

The California red-legged frog is federally threatened and a California Species of Special Concern (CDFW 2023a). It occurs near ephemeral or permanent freshwater ponds and streams with bank vegetation in lowlands and foothills, in woodland, grassland, coastal scrub habitats. Adults may use upland burrows as refugia, and breed in lakes, ponds, reservoirs, marshes, and streams with slow flows (Nafis 2023). A total of three records for California red-legged intersect the proposed trucking route; an additional five records occur within 500 feet of the proposed route. California red-legged frog records are associated with Paso Robles Creek, San Antonio Creek and its tributaries, and Graves Creek (CDFW 2023a).

Reptiles

A total of 21 occurrence records for special-status reptile species were identified as overlapping the proposed trucking route, representing six distinct species. Expanding the search radius to 500 feet, a total of 33 records were identified, but no new species were represented. The blunt-nosed leopard lizard (*Gambelia sila*) was the only species documented within a 1-mile radius of the proposed trucking route that is federally- or state-listed. Other species represented included the western pond

turtle (*Emys marmorata*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*), California glossy snake (*Arizona elegans occidentalis*), silvery legless lizard (*Anniella pulchra*), and coast horned lizard (*Phrynosoma blainvillii*), all of which are designated as Species of Special Concern (CDFW 2023a).

Blunt-nosed leopard lizard

Blunt-nosed leopard lizard is state and federally endangered and a CDFW Fully Protected species (CDFW 2023a). This species occurs in semi-arid grasslands, alkali flats, and washes, preferring relatively flat topography and areas with an open vegetation canopy. Individuals may use burrows and large shrubs for cover, shelter, and thermoregulation (Nafis 2023). Three records for blunt-nosed leopard lizard intersect the proposed trucking route, and an additional one record occurs within 500 feet. All records are either geographically non-specific or have a 1-mile radius and occur in Kings or Fresno County (CDFW 2023a).

Birds

A total of 23 occurrence records representing seven special-status bird species were identified as overlapping the proposed trucking route. Expanding the search radius to 500 feet, the number of occurrence records increased to 24, representing eight species. Three of the identified species were listed at the state or federal level, including the Swainson's hawk (*Buteo swainsoni*), tri-colored blackbird (*Agelaius tricolor*), and least Bell's vireo (*Vireo bellii pusillis*). Other species represented in the search included Le Conti's thrasher (*Toxostoma lecontei*, SSC), yellow rail (*Coturnicops noveboracensis*), the delisted American peregrine falcon (*Falco peregrinus anatum*), and the prairie falcon (*Falco mexicanus*), which is a CDFW Watch List species (CDFW 2023a).

The burrowing owl (*Athene cunicularia*, SSC) was the only new species when the search was expanded to a 500-foot radius; one record for this species was identified in the northeast corner of San Luis Obispo County (CDFW 2023a).

Swainson's Hawk

The Swainson's hawk is listed as threatened under CESA (CDFW 2023a). Swainson's hawks are medium-sized, grassland-adapted raptors that breed in the western United States and overwinter in South America. Their diet is varied but dominated by small rodents, and pairs may nest near agricultural fields, pastures, and roadsides where prey is plentiful (Battistone 2023). A total of seven records for Swainson's hawks intersect the proposed trucking route; no additional records occur within a 500-foot radius of the roadway (CDFW 2023a).

Tri-colored Blackbird

The tri-colored blackbird is listed as threatened under CESA and is a California Species of Special Concern (CDFW 2023a). Tri-colored blackbirds are residents in California that historically bred in large colonies in emergent vegetation of marshes and wetlands; destruction of wetland habitats has pressured this species to adapt to novel environments, such that tri-colored blackbirds increasingly use agricultural areas for foraging and breeding (USFWS 2019). One record for tri-colored blackbird intersects the proposed trucking route, located in an agricultural area in northwest Kings County near the boundary of Fresno County. No other records occur within the 500-foot buffer (CDFW 2023a).

Least Bell's Vireo

The least Bell's vireo is listed as endangered under the ESA and the CESA (CDFW 2023a). The least Bell's vireo are obligate riparian species that breeds in early successional, structurally diverse woodland habitats along waterways. Historically, the species ranged from northern California south to Baja California; extensive habitat loss reduced their distribution severely, such that most breeding habitat occurs from Santa Barbara County south to Mexico (USFWS 1998). One record for least Bell's vireo occurs along the proposed trucking route; the record is associated with the Salinas River in the vicinity of Paso Robles, California and is dated 1947. No additional records occur within 500 feet of the route (CDFW 2023a).

Mammals

A total of 39 occurrence records for special-status mammals intersect the proposed trucking route, representing 12 distinct species. An additional two records also occur within a 500-foot radius of the route, but no new species are represented. Two federally- or state-listed species, including the San Joaquin kit fox (*Vulpes macrotis mutica*) and Nelson's antelope squirrel (*Ammospermophilus nelsoni*) are represented in the dataset. Other species represented include American badger (*Taxidea taxus*, SSC), short-nosed kangaroo rat (*Dipodomys nitratooides brevinasus*, SSC), Tulare grasshopper mouse (*Corynorhinus townsendii*, SSC), and five species of bats. Three of the bat species, including the pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), and western red bat (*Lasiurus frantzii*), are California Species of Special Concern (CDFW 2023a).

San Joaquin Kit Fox

San Joaquin kit fox is listed as federally endangered and state threatened (CDFW 2023a). This species inhabits areas with sparse vegetation on gentle slopes in scrubland and annual grassland communities where friable soils suitable for denning are present; anthropogenic communities, such as grazed lands, urban areas, oil and gas production fields, also may be occupied (USFWS 2020). The CNDDDB contains eight records for San Joaquin kit fox that intersect with the proposed trucking route in western San Luis Obispo County and Kings County; no additional records occur within the 500-foot buffer (CDFW 2023a).

Nelson's Antelope Squirrel

Nelson's antelope squirrel is listed as threatened under CESA (CDFW 2023a). Nelson's antelope squirrels are ground-dwelling species that inhabit arid grassland, shrubland, and alkali sink habitats of the San Joaquin Valley and adjacent foothills (Brown and Williams 2023). The CNDDDB contains two records for Nelson's antelope squirrel that intersect with the proposed trucking route; no additional records occur within the 500-foot buffer (CDFW 2023a).

3.2 Waters and Wetlands Features

The proposed trucking route intersects numerous waterways at existing roadway crossings. The majority of these features are unnamed, ephemeral drainages, that are anticipated to convey water only during and for a short duration of time after significant rain events. The map book included in **Appendix B** displays the waterways' locations along the route.

Linear features that are mapped in the NHD as supporting perennial flows where they intersect with the trucking route include the following waterways:

- San Antonio Creek
- Arroyo Grande Creek
- Pismo Creek
- San Luis Obispo Creek
- Cholame Creek

Linear features that are mapped in the NHD as supporting intermittent flows where they intersect with the trucking route include the following waterways:

- Atascadero Creek
- Brizzolara Creek
- Dry Creek
- Estrella River
- Graves Creek
- Huerheuro Creek
- Los Berros Creek
- Nipomo Creek
- Orcutt Creek
- Paloma Creek
- Paso Robles Creek
- Pine Creek
- Prefumo Creek
- Salinas River
- Santa Margarita Creek
- Santa Maria River

Portions of San Antonio Creek and Santa Margarita Creek are perennial within the 500-foot buffer of the proposed trucking route, but the crossings are mapped in the NHD as intermittent.

Additionally, approximately 101 features mapped as ephemeral, intersect the proposed trucking route. Most of these are unnamed, with the exception of Froom Creek and a reach of Prefumo Creek that is mapped as ephemeral. Ephemeral waterways may include small tributaries of larger waterways, but also includes ditches, drainages, and manmade features that do not connect to other waterways. Ephemeral features are anticipated to support surface flows only during and immediately after significant rain events.

The NWI did not contain any records for vernal pool features within a 500-foot buffer of the proposed trucking route; other wetland features were generally associated with NHD-mapped linear waterways and are displayed in **Appendix B**.

4.0 References

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APPENDIX A
CNDDB Records Tables

APPENDIX B
Map Book