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# Biological Resource Assessment

**28th Avenue Storage Facility Development Project**
**Assessor Parcel Number 208-0071-008**
**Rio Linda, CA**

*Prepared for*

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**November 02, 2022**

# Executive Summary

As lead agency, the county of Sacramento requires Pulltail, Inc. (Client) to provide a Biological Resource Assessment (BRA), for the construction of a truck trailer storage facility (Project) within the City of Rio Linda (City) in accordance with the California Environmental Quality Act (CEQA) prior to implementation of the proposed Project. Pulltail, Inc. has tasked Soar Environmental Consulting Inc. (Soar Environmental) to provide the BRA. The proposed Project Site is on 10 acres of land located at 7340 28th Avenue, comprised of Assessor Parcel Number (APN) 512-032-15. Soar Environmental prepared this Habitat Assessment Report for Pulltail, Inc. in support of CEQA requirements.

The objectives of this Assessment were to: 1) provide a general characterization of biological resources for the property; 2) inventory plant and wildlife species; 3) evaluate the potential for federal or state listed plants and animals species afforded other special regulatory protection; and 4) describe the property's sensitive biological resources and applicable federal, state, and local land use policies.

This BRA provides information about the biological resources within the Project Area. Prior to field activities, Soar Environmental researched the California Natural Diversity Database (CNDDB) and the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California, to compile a list of special-status species that could potentially be present in the vicinity of the Project Area. Soar Environmental researched specific species and habitat requirements for the species noted in the CNDDB, IPaC and CNPS databases and included species listing status, and proximal species observations in this report.

A Habitat Assessment was conducted on May 7, 2022, by Soar Biologist Travis Albert. No special-status plant or wildlife species were observed in the Project Area during the Habitat Assessment. However, based on proximity of documented occurrences of special-status species from the data records search and Literature Review section of this report, it was determined that special-status species with potential to occur in the vicinity of the Project Area include:

Special Status Wildlife Species

- Swainson's hawk
- Tricolored blackbird
- Vernal pool fairy shrimp
- Vernal pool tadpole shrimp

Special Status Plant Species

- Boggs Lake hedge-hyssop
- Dwarf downingia
- Legenere
- Sanford's arrowhead

Suitable habitat for the above-mentioned species was not present within the surrounding area of the Project Site and there were no habitat features, or conditions observed that would be conducive for any of the special-status species identified in this report. Based on the findings of this assessment, the proposed development of this property is unlikely to adversely affect any special-status species and is likely to have no effect for CEQA considerations. Soar Environmental Consulting, Inc. recommends that if any special status species are observed during construction activities, work be stopped immediately and CDFW is contacted.

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# 1. Introduction

The proposed Project is for construction of a truck trailer storage facility on 10 acres within the city of Rio Linda, California. Pulltail Inc. has tasked Soar Environmental Consulting with providing this Biological Resource Assessment (BRA) in accordance with CEQA requirements.

Based on a review of CNDDB and IPaC database it was determined that a Habitat Assessment was necessary to search for the potential suitable habitat or presence for the 18 following sensitive wildlife species: Amphibians; California red-legged frog, and California tiger salamander. Birds; bank swallow, California black rail, least Bell's vireo, tricolored blackbird, Swainson's hawk, yellow-billed cuckoo. Fish; delta smelt, steelhead, chinook salmon, and longfin smelt. Invertebrates; conservancy fairy shrimp, monarch butterfly, valley elderberry longhorn beetle, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Reptiles; giant garter snake.

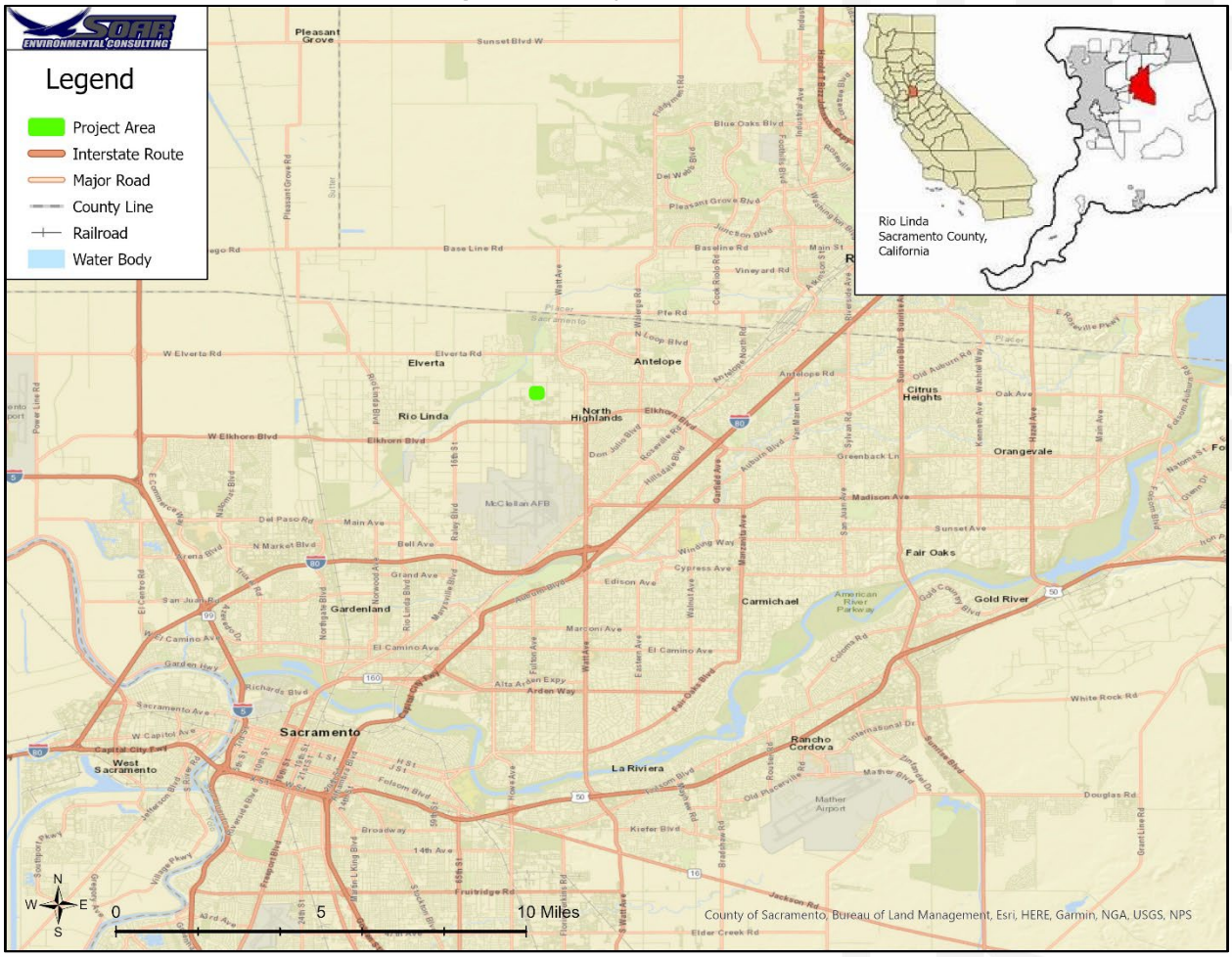
A review of the CNPS Inventory of Rare and Endangered Plants of California identified the following 4 sensitive plant species historically occurring in the vicinity of the Project Site: Boggs lake hedge- hyssop, dwarf downingia, legenere, and Sanford's arrowhead.

A Habitat Assessment was conducted in the Project Area on May 7, 2022, by Soar Environmental biologist Travis Albert. The purpose of the Habitat Assessment Survey was to search for the presence of special-status species that have historically been observed within, or surrounding, the Project Area, as well as any other biological or environmentally sensitive resources. No special-status species were observed during the site visit, and suitable habitat for most listed species in this report does not occur within the vicinity of the Project Site.

## 1.1 Project Location

The Project Site is located at 7340 28th Street, Rio Linda, CA 95673, Sacramento County, comprised of Assessor Parcel Number (APN) 208-0071-008. The Project Area is in the northeastern corner of the city limits, approximately 1 mile west of Watt Avenue and 4 miles north of Interstate 80 (I-80), between Elverta Road and Elkhorn Boulevard. Located in the USGS *Rio Linda* 7.5-minute quadrangle in Township 10 North, Range 5 East, just below section 23 in an undesignated area north of the Sacramento McClellan Airport. The confluence of the Sacramento River and the American River is approximately 9 miles southwest of the Project Site. The Cherry Island Golf Course and Soccer Complex is approximately 0.25 miles north. The Project Site is otherwise surrounded by fallow fields, residential houses, with several other truck-trailer storage facilities similar to the proposed Project nearby.

Figure 1. Project Location




## 1.2 Environmental Setting

The Project Site is a vacant field dominated by ruderal grasses. The surrounding area is mostly similar grassy fields and residential structures sparsely scattered around the area. There is a truck trailer storage facility similar to the proposed project adjacent to the eastern and southern boundaries. A well-established drainage exists along the southern boundary, and there is evidence of stormwater draining across the southwest corner of the property. In the southwest corner there is a grove of tree of heaven, and a small grove of eucalyptus trees in the northwest corner of the property. No other trees occur on the property and no bird nests were observed in the vicinity of the Project Site. There are swales and some evidence of ponded water, however no vernal pools were observed at the time of the site visit, and grasses are well established throughout the site.

Figure 2 – Project Site Boundary

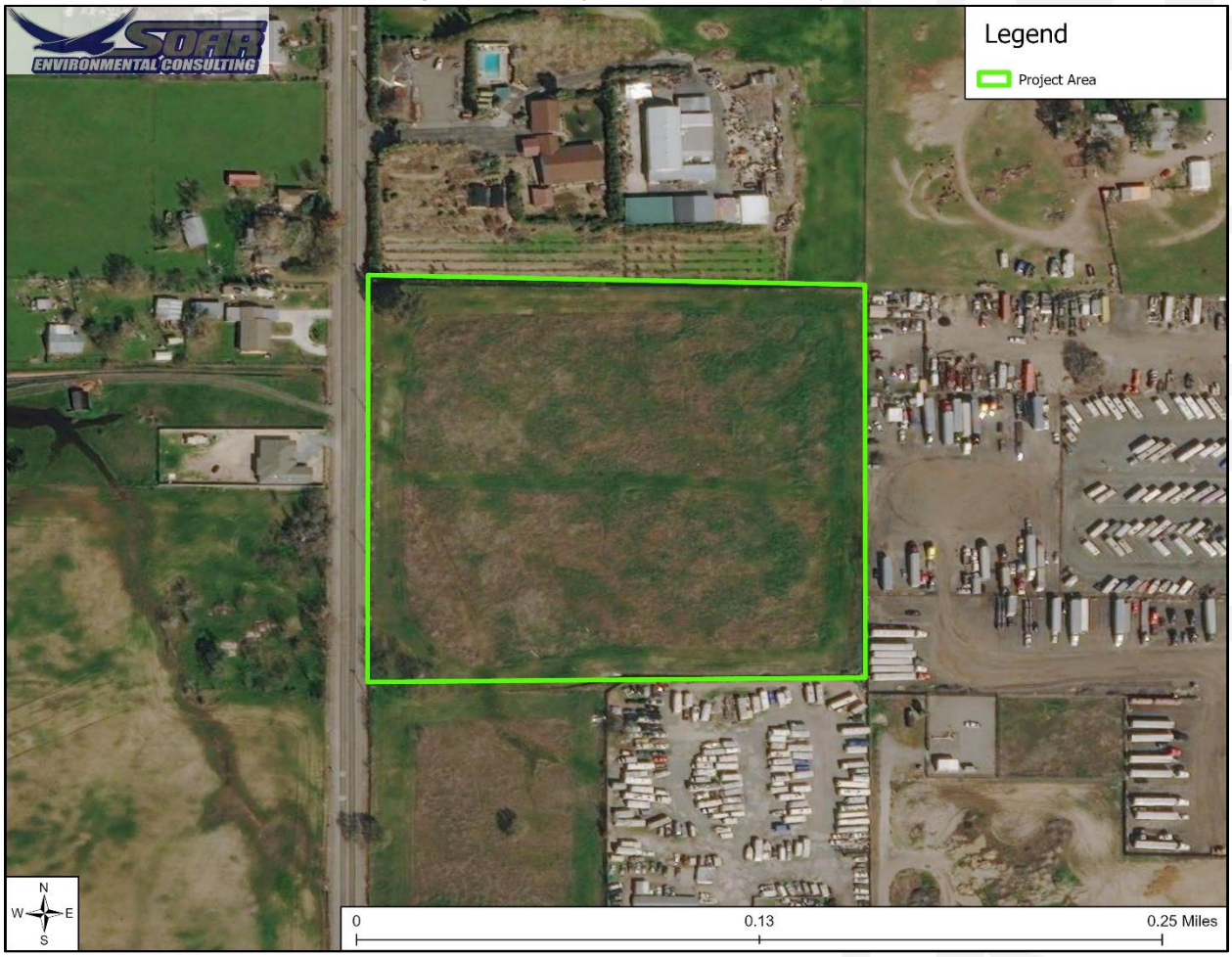
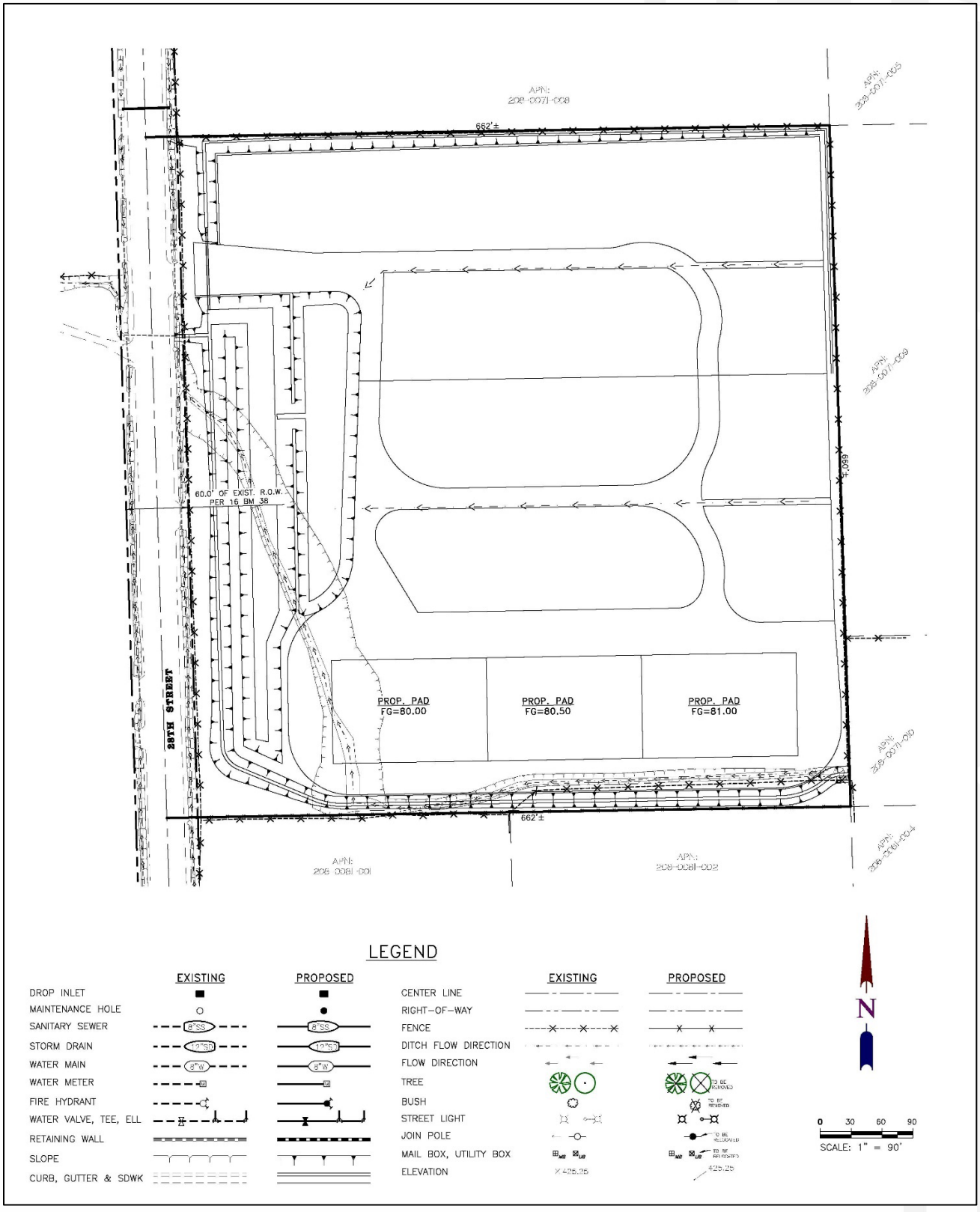


Figure 3 – Site Plan



# 2. Methods

## 2.1 Literature Review

Prior to performing the Habitat Assessment, Soar Environmental conducted a records search for threatened or endangered species that could potentially occur in the vicinity of the Project Area. The records search included a review of the California Natural Diversity Database (CNDDB), the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), and California Native Plant Society (CNPS) Online Rare Plant Inventory. The area covered by the data records search included the USGS 7.5 minute quadrangles of *Rio Linda, Carmichael, Citrus Heights, Pleasant, Roseville, Sacramento East, Sacramento West, Taylor Monument,* and *Verona*. From these sources a list of special-status plant and animal species was generated. Proximal locations of special-status plant and animal species located within 5 miles of the Project Site are shown in (**Figure 4**).

The CNDDB records search indicated 13 State-listed special-status wildlife species most likely to occur within or near the Project Site would include:

- Bank swallow (*Riparia riparia*)
- California black rail (*Laterallus jamaicensis coturniculus*)
- Least Bell's vireo (*Vireo bellii pusillus*)
- Swainson's hawk (*Buteo swainsoni*)
- Tricolored blackbird (*Agelaius tricolor*)
- Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)
- Chinook salmon (*Oncorhynchus tshawytscha*)
- Longfin smelt (*Spirinchus thaleichthys*)
- Steelhead (*Oncorhynchus mykiss irideus*)
- Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)
- Vernal pool fairy shrimp (*Branchinecta lynchi*)
- Vernal pool tadpole shrimp (*Lepidurus packardi*)
- Giant gartersnake (*Thamnophis gigas*)

The IPaC search revealed 5 additional Federally listed sensitive wildlife species likely to occur within or near the Project Site include:

- California Red-legged (*Rana draytonii*)
- California Tiger Salamander (*Ambystoma californiense*)
- Delta Smelt (*Hypomesus transpacificus*)
- Conservancy Fairy Shrimp (*Branchinecta conservatio*)
- Monarch Butterfly (*Danaus plexippus*)

A search of the California Native Plant Society (CNPS) Online Rare Plant Inventory identified the following 4 special-status plant species likely to occur within or proximate to the Project Site:

- Boggs Lake hedge- hyssop (*Gratiola heterosepala*)
- Dwarf downingia (Downingia pusilla)
- Legenere (Legenere limosa)
- Sanford's arrowhead (Sagittaria sanfordii)

## 2.2 Field Reconnaissance Methodology

On May 7, 2022, Soar Environmental biologist Travis Albert conducted a Habitat Assessment on the property for the above mentioned species. Walking the perimeter of the property, and meandering transects throughout the Project Site, the surveyor searched for signs of vernal pools, bird nests, identified vegetation, and looked for other signs of wildlife occupancy and suitable habitat for special status species identified in the Literature Review section of this report. Survey efforts emphasized the search for special-status species that had documented occurrences in the data records search of the CNDDB, IPaC, and CNPS databases. Photos were taken from the center of the Project Site in four cardinal directions depicting the habitat, Project boundaries, and any environmentally significant features on the property or within the vicinity of the Project Area. After surveying the Project Site, the surveyor drove the roads within 0.5 mile surrounding the Project footprint searching for potentially active nests, cavities in trees or powerline poles, vernal pools, special-status plant species, or any signs of wildlife occupancy or suitable habitat. None of these features were observed during the site visit for this assessment. Photos taken during the Project Site visit are documented in (**Appendix A**).

# 3. Habitat Assessment Results

During the site visit, there were no observations of special-status plant or wildlife species. Plant and wildlife species that were observed on the property are listed in (**Table 1**). The Project Site is a grassy field dominated by ruderal grasses. The surrounding area is mostly vacant grassy fields similar to the proposed Project Site, with some residential homes sparsely scattered around the area, and other truck trailer storage facilities similar to the proposed project adjacent to the east and south boundaries. A stormwater drainage is located along the southern boundary, which was completely dry and overgrown with grasses at the time of the survey. The majority of the property is absent of trees except for a small grove of tree of heavens (a non-native invasive tree species) in the southwestern corner. In the northwest corner there is a small grove of lemon scented gum trees. No bird nests were observed in the trees, grass thickets or powerline poles in the surrounding area. Ground cover is dominated by thick grasses and no small mammal burrows were observed. The ground is uneven with swales in some areas, and a prominent berm near the center of the property. There is evidence of stormwater runoff, however the field does not appear to be inundated for long periods of time.

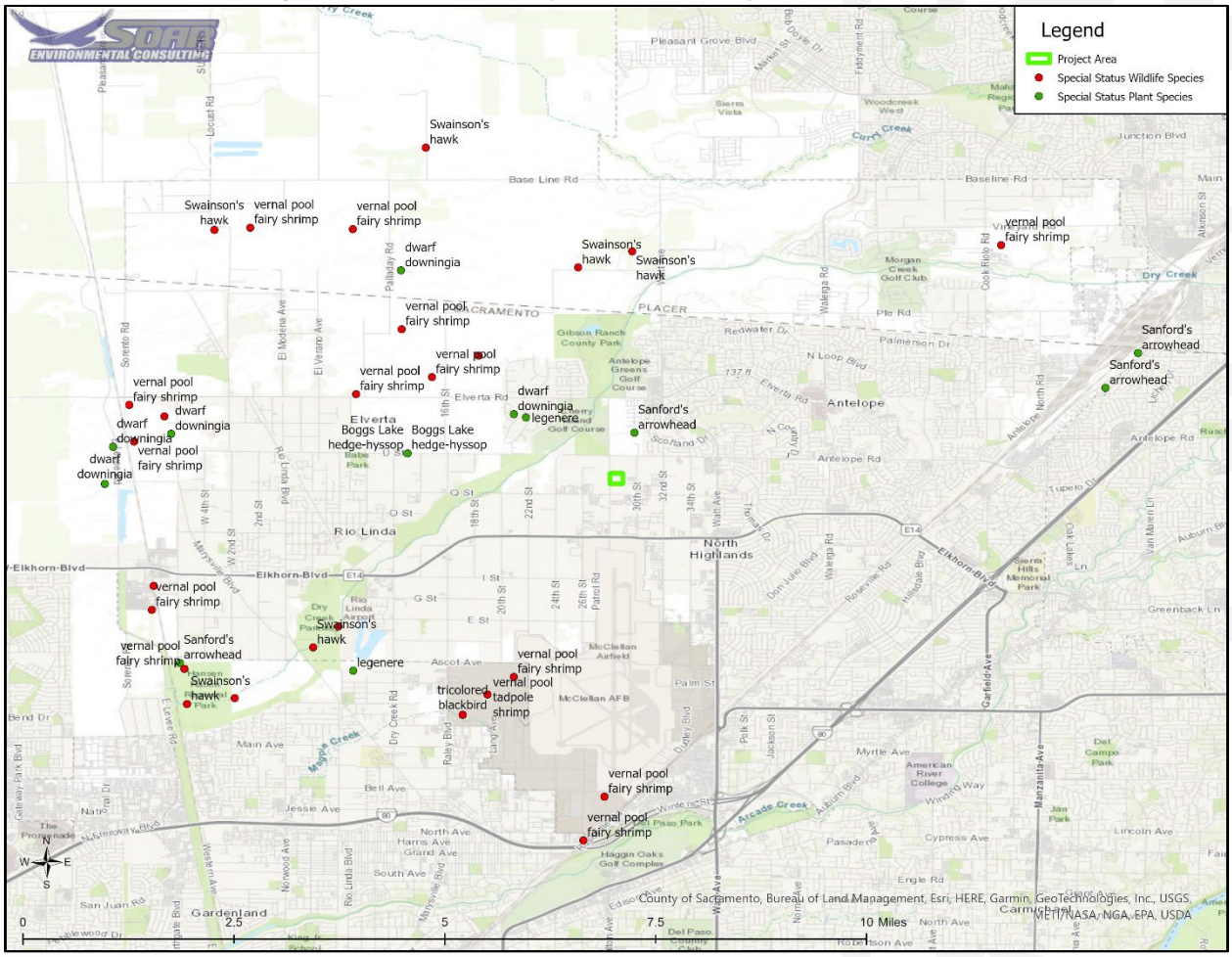
The survey was conducted within the blooming period for the sensitive plant species listed in (**Table 3**). No special-status plant species were observed in the vicinity of the Project Site. Conditions for these species do not appear to be conducive, due agricultural activities in the area and the surrounding urbanized environment. There is little herbaceous vegetation and/or observable seed bank for native plant species in the area.

No special-status plant or wildlife species were observed during the site visit. However, the Soar Environmental biologist observed some common bird species flying around the area, listed in Table 1 below, along with plant species observed onsite. No other wildlife species were observed during the Habitat Assessment.

Table 1– Species Observed on the Project Site

| Wildlife Species Observed | Listing Status |
|---|---|
| American crow (*Corvus brachyrynchos*) | None |
| House Sparrow (*Passer domesticus*) | MBTA |
| Mourning dove (*Zenaida macroura*) | MBTA |
| **Plant Species Observed** | **Listing Status** |
| Great brome (*Bromus diandrus*) | None |
| Hairy vetch (*Vicia villosa*) | None |
| Lemon Scented Gum (Eucalyptus citriodora) | None |
| Slender oat (*Avena barbata*) | None |
| Spike rush (*Eleocharis macrostachya*) | None |
| Tree-of-heaven (*Ailanthus altissima*) | Tree-of-heaven |
| Wall barley (*Hordeum murinum*) | None |

Figure 4 – Historical Special-Status Species Locations




This map shows the closest and most recent special-status species locations from the California Natural Diversity Database (CNDDB), and California Native Plant Society (CNPS) Online Rare Plant Inventory.

## 4. Special-Status Species

Special-status plants and animals that have a reasonable possibility to occur in the Project Area based on habitat suitability and requirements, elevation and geographic range, soils, topography, surrounding land uses, and proximity of known occurrences in the CNDDB, IPaC, and CNPS databases to the Project Area are listed in (**Tables 2 and 3**). The likelihood for occurrence of special-status species was assessed using information from the various listed sources, wildlife and botanical surveys. Narratives are provided for species for which there are land use planning and regulatory implications. Special-status species for which there are no habitat features are excluded from consideration due to the lack of suitable habitat and distance from the subject property.

Based upon a review of the resources and databases listed in Section 2.1 (Literature Review) for the *Rio Linda, Carmichael, Citrus Heights, Pleasant, Roseville, Sacramento East, Sacramento West, Taylor*

*Monument,* and *Verona* USGS 7.5-minute quadrangles; 22 special-status species have been documented in the vicinity of the Project Area. Of these 22 special-status species, 4 wildlife species and 4 special-status plant species were determined to have potential for occurrence.

***Species with Potential for Occurrence:***

Special Status Wildlife Species

- Swainson's hawk
- Tricolored blackbird
- Vernal pool fairy shrimp
- Vernal pool tadpole shrimp

Special Status Plant Species

- Boggs Lake hedge-hyssop
- Dwarf downingia
- Legenere
- Sanford's arrowhead

Special-status species and sensitive habitats include plant and wildlife taxa, or other unique biological features that are afforded special protection by local land use policies, state and federal regulations. Special-status plant and animal species are those that are listed as rare, threatened, or endangered under the state or federal Endangered Species Acts. Vegetation communities may warrant special-status if they are of limited distribution, have high wildlife value, or are particularly vulnerable to disturbance. Listed and special-status species are defined as:

- Listed or proposed for listing under the state or Federal Endangered Species acts.
- Protected under other regulations (e.g., Migratory Bird Treaty Act).
- CDFG Species of Special Concern.
- Listed as species of concern by CNPS or USFWS; or
- Receive consideration during environmental review under CEQA.

Special-status species considered for this analysis are based on field survey results, review of the CNDDB occurrence records of species, review of the USFWS lists for special-status species occurring in the region, and CNPS literature (**Tables 2 and 3**).

- **Present**: Species known to occur on the site, based on CNDDB records, and/or was observed on the site during the field survey.
- **High**: Species known to occur on or near the site (based on CNDDB records within 8 km or 5 mi) and there is suitable habitat on the site.
- **Low**: Species known to occur in the vicinity of the site, and there is marginal habitat onsite. -**OR**- Species is not known to occur in the vicinity of the site, however there is suitable habitat on the site.
- **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site. -**OR**- Species was surveyed for during the appropriate season with negative results.

Table 2 – Potentially Occurring Listed Wildlife Species

| Common/ Scientific Name | Listing Status* | Habitat Requirements | Potential for Occurrence |
|---|---|---|---|
| **Amphibians** | | | |
| California red-legged frog (*Rana draytonii*) | FT, SSC | Standing waters and freshwater marshes, wetland. Forest, scrub, and woodland riparian areas. Requires a breeding pond, slow-flowing stream. Will use small mammal burrows. | **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site. |
| California tiger salamander (*Ambystoma californiense*) | FT, ST | Grasslands, oak savannah riparian woodlands and lower elevations of coniferous forests, ditches, vernal pools, and wetlands. | **Low**: Species known to occur in the vicinity of the site, and there is marginal habitat onsite. |
| **Birds** | | | |
| Bank swallow (*Riparia riparia*) | ST, MBTA | Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole. | **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site. |
| California black rail (*Laterallus jamaicensis coturniculus*) | ST, MBTA | Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat. | **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site. |
| Least Bell's vireo (*Vireo bellii pusillus*) | FE, SE, BCC, MBTA | Willow-cottonwood forests, oak woodlands, shrubby thickets, and dry washes. During the migration- coastal scrub, woodland, and riparian habitats. | **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site. |
| Swainson's hawk (*Buteo swainsoni*) | ST, MBTA | Nests in isolated trees or riparian woodlands adjacent to suitable foraging habitat (agricultural fields, grasslands, etc.). | **Low**: Species known to occur in the vicinity of the site, and there is marginal habitat onsite. |
| Tricolored blackbird (*Agelaius tricolor*) | ST, BCC, MBTA | Found in areas near water, such as marshes, grasslands, and wetlands. They require some sort of substrate nearby to build nests. | **Low**: Species known to occur in the vicinity of the site, and there is marginal habitat onsite. |

| | | | |
|---|---|---|---|
| Yellow-billed cuckoo (*Coccyzus americanus*) | FT, SE, MBTA | Woodlands near streams or lakes, abandoned farmland, old fruit orchards, successional shrubland and dense thickets. | **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site. |
| **Fishes** | | | |
| Delta smelt (*Hypomesus transpacificus*) | FT | Shallow, fresh, or slightly brackish backwater sloughs and edge waters, with good water quality and substrate for spawning. | **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site. |
| Steelhead trout (*Oncorhynchus mykiss irideus*) | FT | Aquatic: Sacramento/San Joaquin flowing waters | **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site. |
| Chinook salmon (*Oncorhynchus tshawytscha*) | FT, ST | Aquatic: Sacramento/San Joaquin flowing waters | **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site. |
| Longfin smelt (*Spirinchus thaleichthys*) | ST | Estuaries and lakes. San Francisco Bay-Delta in California. | **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site. |
| **Invertebrates** | | | |
| Conservancy fairy shrimp (*Branchinecta conservatio*) | FE | Inhabit large, cool-water vernal pools from early November to early April, which fill with water in the rainy season, then slowly dry up. | **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site. |
| Monarch butterfly (*Danaus plexippus*) | FC | Closed-cone coniferous forest. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. | **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site. |
| Vernal pool fairy shrimp (*Branchinecta lynchi*) | FT | Grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in valley foothills grasslands, vernal pools, and wetlands. | **Low**: Species known to occur in the vicinity of the site, and there is marginal habitat onsite. |

| | | | |
|---|---|---|---|
| Vernal pool tadpole shrimp (*Lepidurus packardi*) | FE | Vernal pools, (hardpan, duripan, or claypan), grassland. Pools commonly found in grass-bottomed or mud-bottomed swales. | **Low**: Species known to occur in the vicinity of the site, and there is marginal habitat onsite. |
| **Reptiles** | | | |
| Giant garter snake (*Thamnophis gigas*) | FT | Marshes, sloughs, drainage canals, irrigation ditches, and prefers locations with vegetation close to water for basking. | **None**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site. |

*Listing Status Notes:

Federal: FE – Federally listed Endangered
FT – Federally listed Threatened
FC – Federal Candidate Species
WL – USFWS Watch list
BCC – USFWS Bird of Conservation Concern
MTBA – Migratory Bird Treaty Act

State: SE – State listed Endangered
ST – State listed Threatened
SC – State Candidate Species
SR – State Rare Species
SA – State Special Animal
FP – CDFW Fully Protected Species
SSC – CDFW Species of Special Concern
WL – CDFW Watch List

## Table 3 –Potentially Occurring Listed Plant Species

| Common/ Scientific Name | *Status Fed/CA/CNPS / Bloom Period | Habitat Description | Habitat Present/ Absent | Observed on Site Y/ N |
|---|---|---|---|---|
| Boggs Lake hedge- hyssop (*Gratiola heterosepala*) | 1B.2 Apr-Aug | Clay marshes and swamps (lake margins), vernal pools. 35 - 7790 ft elev. | Present | N |
| Dwarf downingia (*Downingia pusilla*) | 2B.2 Mar-May | Valley and foothill grassland, vernal pools. | Present | N |
| Legenere (*Legenere limosa*) | 1B.1 Apr-Jun | Vernal pools. | Present | N |
| Sanford's arrowhead (*Sagittaria sanfordii*) | FT/CT/1B.1 May-Nov | Marshes, ponds, ditches and swamps (freshwater) | Present | N |

*Listing Status Notes:

Federal: FE – Federally listed Endangered
FT – Federally listed Threatened
FC – Federal Candidate Species

State: SE – State listed Endangered
ST – State listed Threatened
SC – State Candidate Species
SR – State Rare Species

CRPR: California Native Plant Society Rare Plant Rank
CBR – Considered but Rejected
1B – Rare, threatened, or endangered in CA and elsewhere
2 – Rare, threatened, or endangered in CA but common elsewhere
4 – Limited distribution (Watch-list)
CBR – Considered but Rejected

CRPR Extensions 0.1 – Seriously endangered in California
0.2 – Fairly endangered in California
0.3 – Not very endangered in California

## 4.1 Special-Status Wildlife Species Descriptions

This section describes identifiable physical characteristics and habitat requirements for special-status species identified in the CNDDB records search that were within 5 miles of the Project Site.

### 4.1.1 Swainson's Hawk (*Buteo swainsonii*)

SWHA is listed as Threatened on the State level. SWHA favor open habitat for foraging such as agricultural fields, pastures, and row crops. They nest in scattered stands of eucalyptus, willow, oak, cottonwood, and conifers. On occasion, SWHA will nest on a power pole or transmission tower. Nests are constructed with loose bundles of sticks and debris items. Incubation period is approximately 35 days and nesting period is 17-22 days. The breeding season for this species begins in March and ends in September.

### 4.1.2 Tricolored Blackbird (*Agelaius tricolor*)

Males are larger than females and possess dark red shoulder patches with white median coverts on the wings, giving the species its name. Males have brown plumage in the fall. Females are shades of gray with a lighter gray throat. They are about 22 cm long with a 35.5 cm wingspan. They weigh approximately 59.5 grams.

Tricolored blackbirds are found in areas near water, such as marshes, grasslands, and wetlands. They require some sort of substrate nearby to build nests. This substrate is often in the form of aquatic vegetation. They also need foraging areas, which can consist of grassland or agricultural pastures such as rice, grain, or alfalfa.

### 4.1.3 Vernal Pool Fairy Shrimp (*Brachinecta lynchi*)

Vernal pool fairy shrimp is listed as Threatened on the Federal level and has no listing on the State level. Measuring 2.5 centimeters (one inch) long, translucent crustaceans with 11 pairs of appendages. Thy are limited to vernal pool habitats in Oregon and California and do not occur in riverine, marine, or other permanent bodies of water where fish are present. During the wet season, the females produce hardy resting eggs, called cysts, which survive the dry season and hatch when the rains come again.

### 4.1.4 Vernal Pool Tadpole Shrimp (*Lepidurus packardi*)

Vernal pool tadpole shrimp are distinguished from most other Lepidurus species by having a nuchal organ intersected by a line drawn between the posterior apices of the eyes. Length of adult vernal pool tadpole shrimp ranges from 15 to 86 mm from the anterior margin of the carapace to the tip of the caudal lamina. There is no set number of body rings (segments of the thorax and abdomen) or pairs of legs for the species, but most individuals fall in the ranges of 24 to 29 body rings and 30 to 35 pairs of legs. They may vary in coloration, depending on habitat, but are most commonly green.

Vernal pool tadpole shrimp occur in vernal pools, clay flats, alkaline pools, ephemeral stock tanks, and roadside ditches and ruts. Habitats include small, clear, well vegetated vernal pools to exceedingly turbid, alkali scald pools or large winter lakes. Typically, they are found in habitats that are deeper than 12 centimeters, retain water for 15 to 30 days and do not experience wide daily temperature fluctuations. Average pond depth of wetlands is 15.2 centimeters. Vernal pool tadpole shrimp are not currently known to use highly saline habitats.

### 4.2.1 Boggs Lake hedge-hyssop (*Gratiola heterosepala*)

Boggs Lake hedge hyssop occurs in vernal pools, marshy regions on the margins of reservoirs and lakes, and in human-made habitats including borrow pits and cattle ponds, most often in clay substrates. In California, wetlands containing Boggs Lake hedge hyssop occur among annual grassland, Quercus woodland, Juniperus woodland, or coniferous forest at elevations ranging from 25-5170 feet in elevation, and blooms April through September.

### 4.2.2 Dwarf downingia (*Downingia pusilla*)

Dwarf downingia is moderately threatened in California. It grows in wet areas such as ditches and vernal pools. Distinguishable from the other downingias by its smaller flowers, reaching 4 millimeters in width at maximum. It grows erect stems with few pointed leaves. The tiny tubular flower is white or blue, with yellow spots near the mouth of the tube. The fruit is a capsule two or three centimeters long.

### 4.2.3 Legenere (*Legenere limosa*)

Legenere is also known as Greene's legenere is and annual herb. It occurs in vernal pools and other moist habitats. Stems are reclining, 10 to 30 cm long, and the lateral slender branches are rigid. Legenere is associated with smaller, densely vegetated vernal pools ranging in depth from 4 to 38 cm.

### 4.2.3 Sanford's arrowhead (Sagittaria sanfordii)

Sanford's arrowhead is an aquatic perennial herb up to 130 cm tall, growing from a spherical tuber. The leaves are very often submerged, variable in shape, usually long and spade-shaped. Leaves may grow up to 25 cm long from the underwater stem. The plant is monoecious, with individuals bearing both male and female flowers. The inflorescence which rises above the surface of the water is a raceme made up of several whorls of flowers, the lowest node bearing female flowers and upper nodes bearing male flowers. The flower is up to 3. 5 cm wide with white petals. The male flowers have rings of stamens at the centers. Female flowers each have a spherical cluster of pistils which develops into a head of tiny fruits.

# 5. Findings

During the Habitat Assessment, Soar Environmental did not observe any of the referenced special-status species within the Project Site or environmental footprint. The proposed development of this property is unlikely to adversely affect any special-status species and is likely to have no effect for CEQA considerations. The findings for this report are summarized below.

The Project Site is a 10 acre vacant grass field. It is bounded by a truck trailer storage facility similar to the proposed Project on the eastern and southern boundaries of the property. It is also bounded by 28th Avenue on the western boundary, and a residence on an acreage to the north. A records search of the CNDDB, and IPaC databases, and CNPS Online Rare Plant Inventory identified proximal locations of the following special-status species within 5 miles of the Project Site: Swainson's hawk, Tricolored blackbird, Vernal pool fairy shrimp, Vernal pool tadpole shrimp, Boggs Lake hedge-hyssop, dwarf downingia, legenere, and Sanford's arrowhead. With the exception of Swainson's hawk, all of these species are highly associated with wetland habitat.

There is a stormwater drainage along the southern boundary which was completely dry and overgrown with weeds and grasses at the time of the Habitat Assessment. Dry Creek is the closest permanent waterbody approximately 0.56 miles northwest of the Project Site, however there are no water ways connected to the Project Site, other than the storm runoff drainage which flows into the city gutter. There are no structures on the property, and very few trees, bushes or marshlands that would provide adequate nesting habitat for the bird species listed in this report. No nests were observed in the tree groves in the southwest or northwest corner, nor were any ground nests observed. Powerline poles exist along the main roads, but not on the property itself, and did not appear to harbor any raptor nests.

There was one swale observed along the western boundary, a depression in the ground where ponded water likely accumulates during the rainy season, however the area did not appear to experience long periods of inundation. None of the special-status plant species associated with vernal pools identified in **Table 3** were observed within the vicinity of the Project Site. Vernal pool fairy shrimp are typically associated with the plant species: colusa grass (*Neostafia colusana*) and San Joaquin Orcutt grass (*Orcuttia inaequalis*), neither of which were observed within the area of the proposed Project. Due to urbanization, and agricultural activities in the area it is unlikely the proposed project would adversely affect vernal pool fairy shrimp, or any of the special-status species identified in this report.

From the information gathered in the data records search and analysis of the habitat on site, these species were found to have the highest potential for occurrence in the vicinity of the Project Site. However, due to habitat quality and proximity of historical occurrences, all of these species were found to be unlikely to occur within the vicinity of the Project Site. Based on the findings of this assessment, the proposed development of this property is unlikely to adversely affect any special-status species and is likely to have no effect for CEQA considerations.

## 6. Recommendations

No listed species were observed during the Habitat Assessment of the Project Site, and no suitable habitat features, or conditions were observed that would be conducive for any of the aforementioned species. The proposed development of this parcel is unlikely to adversely affect any special-status species. Soar Environmental Consulting, Inc. recommends that if any special status species are observed during construction activities, work be stopped immediately and CDFW is contacted.

## 7. Study Limitations

This Report has been prepared in accordance with generally accepted environmental methodologies and contains all the limitations inherent in these methodologies. The Report documents site conditions that were observed during field reconnaissance and do not apply to future conditions. No other warranties, expressed or implied, are made as to the professional services provided under the terms of our contract and included in this Report.

# 8. Works Cited

Calflora. (2022). *Taxon Report*. Retrieved from https://www.calflora.org

California Diversity Database (CNDDB). California Department of Fish and Wildlife RareFind. Retrieved from https://map.dfg.ca.gov/rarefind

CDFW. (2022). *California's Vernal Pools*. Retrieved from https://www.wildlife.ca.gov/Conservation/Plants/Vernal-Pools

U.S. Fish & Wildlife Service. (2022). Information for Planning and Consultation. https://ipac.ecosphere.fws.gov

California Native Plant Society. CNPS Rare Plant Inventory. https://rareplants.cnps.org

Audubon Guide to North American Birds. (2022). https://www.audubon.org

Calscape. (2022). Retrieved from https://calscape.org

Center for Biological Diversity. (2022). Retrieved from https://www.biologicaldiversity.org

eBird Database, Cornell University Lab of Ornithology. (2022). Retrieved from https://ebird.org

USFWS. (Sept. 2007). *Vernal Pool Tadpole Shrimp (Lepidurus packardi)*. Retrieved from https://ecos.fws.gov/docs/five_year_review/doc1160.pdf

Stephen Ward McCabe. University of California, Berkeley. The Jepson Herbarium. Vascular Plants of California. Thiede 2003 in Eggli (ed.) Illus Handbook Succulent Pls 6 (Crassulaceae):85--103. Springer. https://ucjeps.berkeley.edu/eflora/eflora

# APPENDIX A:

# Project Site Photographs

Photo 1 – Photos Taken of the Project Area


Arial imagery depicting Project Area and photo points.

Photo 2 – North Boundary (View West)

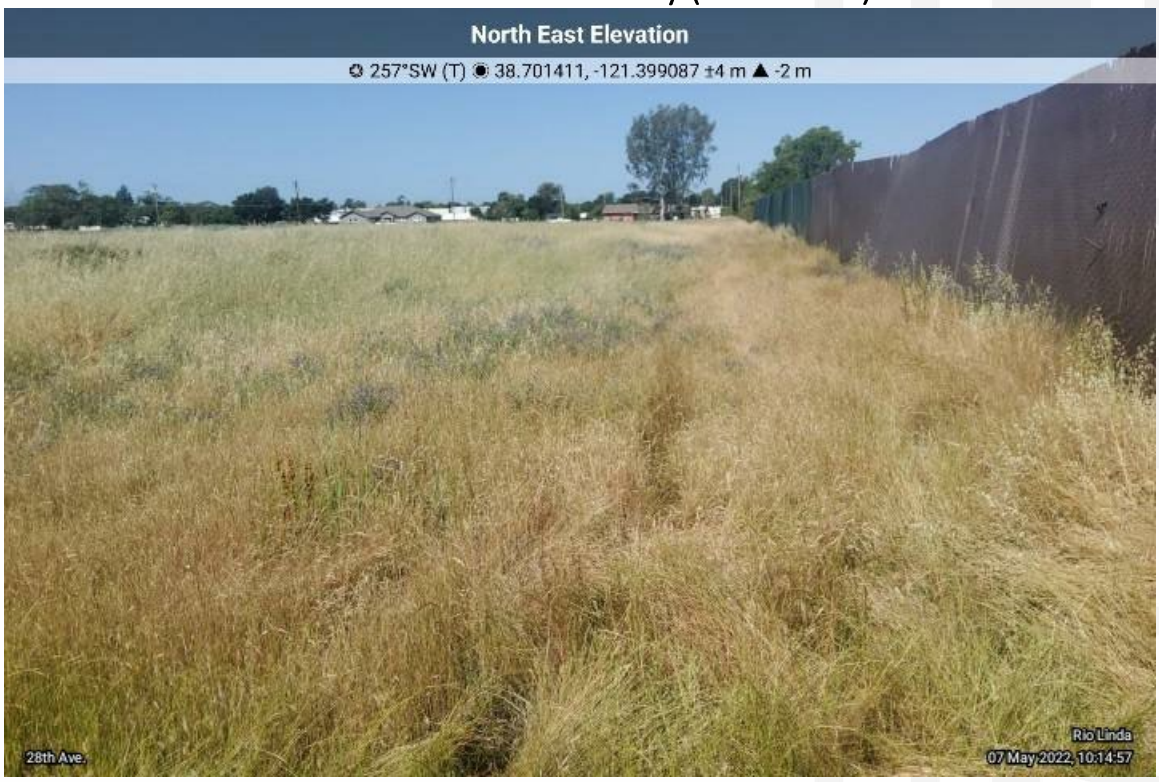



Photo 2 – East Boundary of Project Site (View South)

Photo 3 – South Boundary of Project Site (View West)

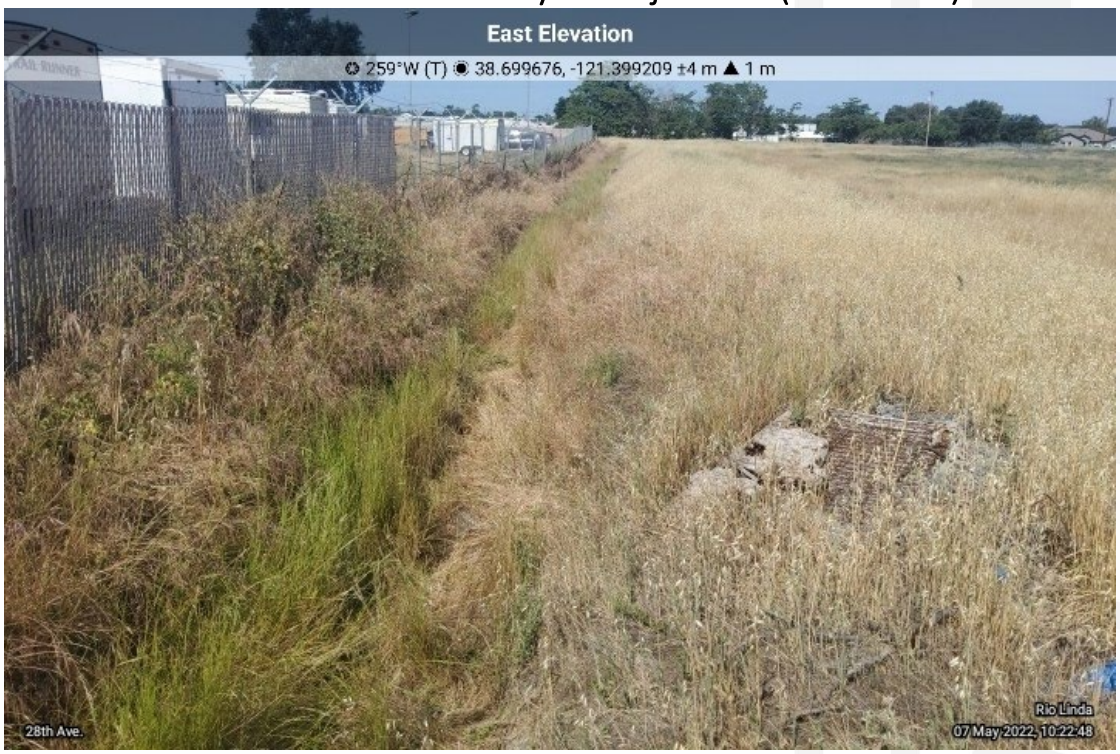



Photo 4 – West Boundary of Project Site (View South)

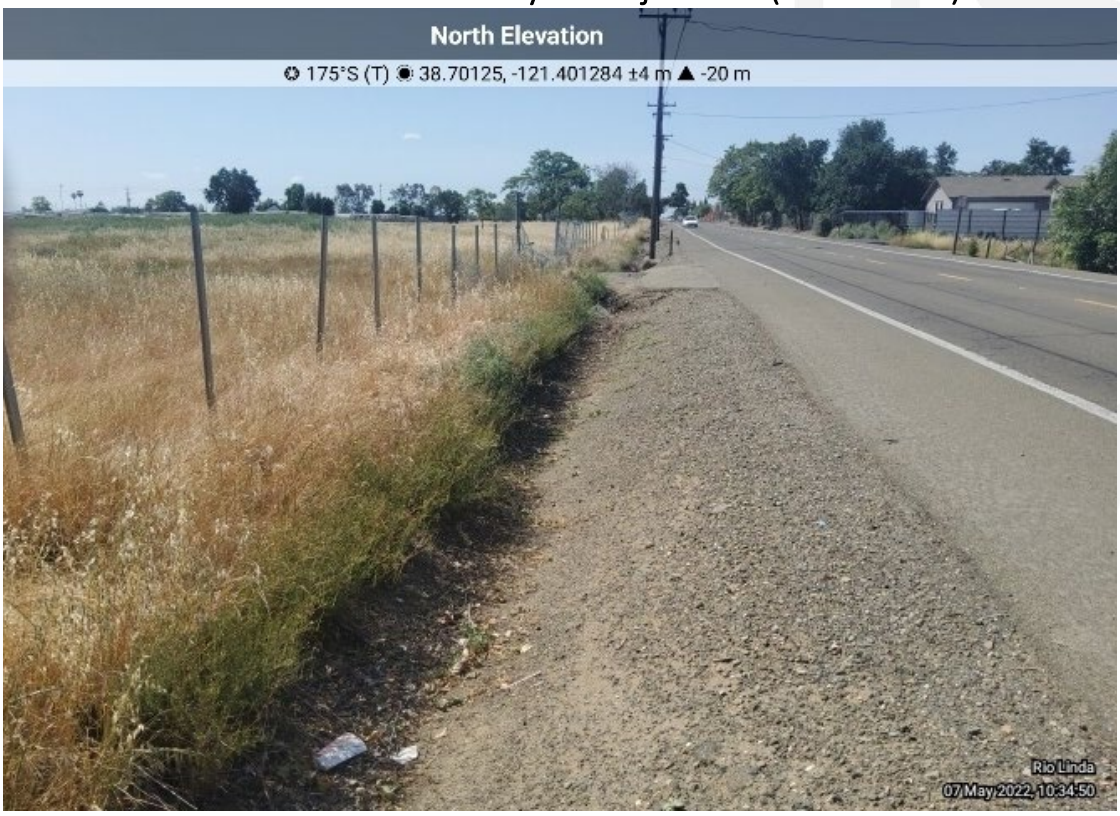


Photo 5 – Center of Project Area (View North)

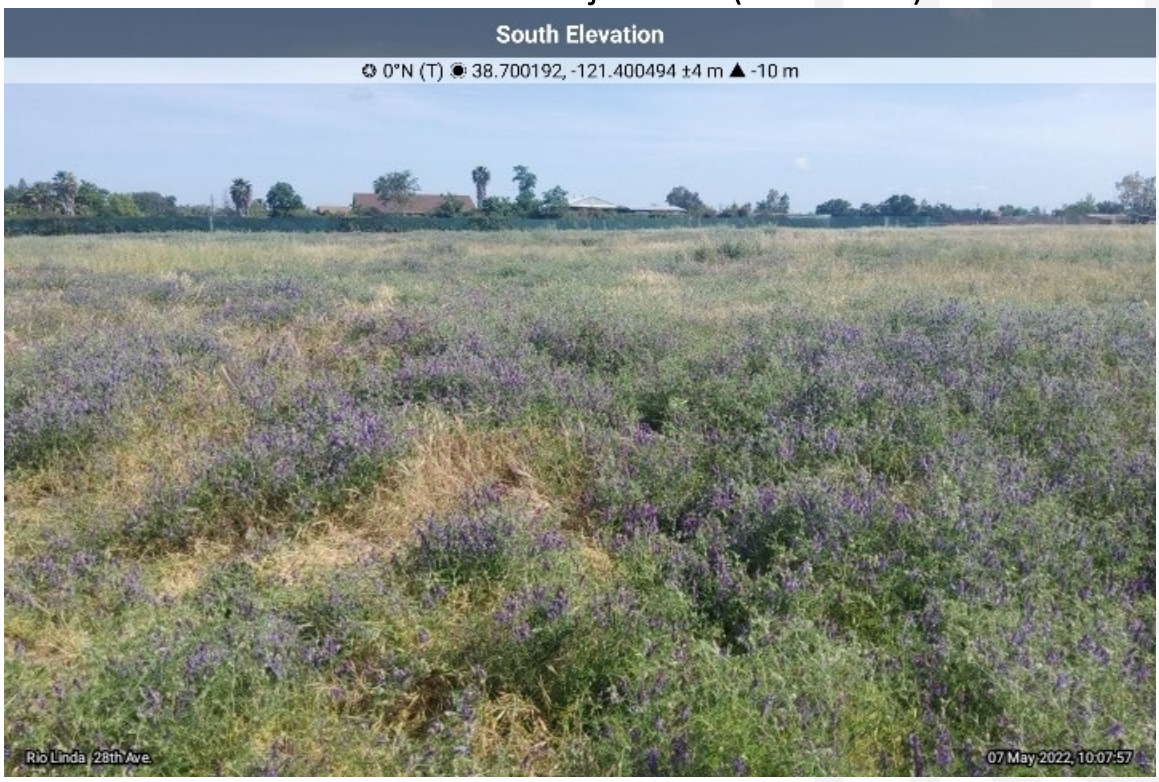



Photo 6 – Center of Project Area (View East)

Photo 8 – Center of Project Area (View South)

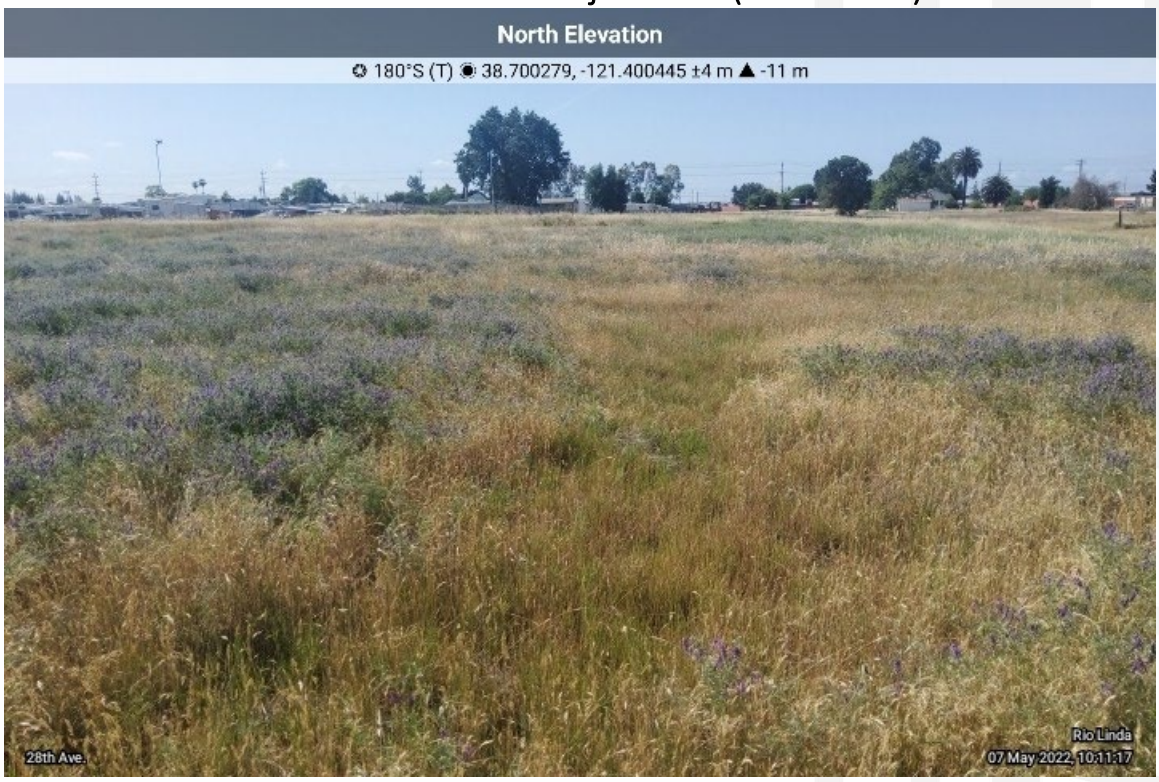



Photo 9 – Center of Project Area (View West)

Photo 10 – Stormwater Drainage Pipe (View Southeast)


Photo 11 – Ground Squirrel Burrow

Photo 13– Small Mammal Burrow (View West)