



1322 E. Shaw Avenue, Suite 400 Fresno, CA, 93710
www.soarhere.com • 559.547.8884

Biological Resource Assessment

4415 Wilson Road Zone Change Project
Assessor Parcel Numbers 441-382-03, 04 & 08
Bakersfield, CA



Prepared for

Rami Fahil
RamiFahil@gmail.com
661-440-4434

Prepared by



1401 Fulton St, Suite 918
Fresno, CA 93721

March 2023

Executive Summary

Rami Fahil (Client) proposes a General Plan Amendment (GPA) and Zone Change (ZC) for the property located at 4415 Wilson Road in the City of Bakersfield to construct 180 units on this location. The GPA intends to change the current status from Low-Density Residential (LDR) and General Commercial (GC) to High Medium Density Residential (HMR). Corresponding to the conversion of the GPA, the ZC would also be affected and require a modification from R-1 for One Family Dwelling to R-3, Multiple Family Dwelling. As lead agency, the City of Bakersfield (City) requires an environmental assessment including review of biological resources in the area, and reconnaissance survey of the property and preparation of a Biological Resources Assessment (BRA). The City will use this technical study in its review to approve the proposed Project. The Client has tasked Soar Environmental Consulting Inc. (Soar Environmental) to conduct the BRA in accordance with the California Environmental Quality Act (CEQA).

Soar Environmental Consulting, Inc. prepared this Habitat Assessment report in support of California Environmental Quality Act 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 Biological Resource Assessment (BRA) provides information about the biological resources within the Project Site. Prior to field activities, Soar Environmental researched the California Natural Diversity Database (CNDDDB) 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 Site. Soar Environmental researched specific species and habitat requirements for the species noted in the CNDDDB, IPaC and CNPS databases and included species listing status, and proximal species observations in this report.

No special-status plant or wildlife species were observed in the Project Site during the field survey on March 7, 2023. Based on a review of documented occurrences of special-status species in Section 2.1 Literature Review of this report, special-status species with the potential to occur in the Project Site include:

- American badger (*Taxidea taxus*)
- Bakersfield legless lizard (*Anniella grinnelli*)
- Burrowing owl (*Athene cunicularia*)
- California satintail (*Imperata brevifolia*)
- Hispid salty bird's-beak (*Chloropyron molle hispidum*)
- Horn's milk-vetch (*Astragalus hornii hornii*)
- Recurved larkspur (*Delphinium recurvatum*)
- San Joaquin kit fox (*Vulpes macrotis mutica*)
- Swainson's hawk (*Buteo swainsoni*)
- Tipton kangaroo rat (*Dipodomys nitratoide nitratoide*)

- Western mastiff bat (*Eumops perotis californicus*)

Survey efforts emphasized the search for presence and suitable habitat of the above mentioned species. All other special-status species identified in the record search are unlikely to occur on the Project Site, due to lack of suitable habitat, proximity, and time since historical occurrences. No listed species were observed during the Habitat Assessment of the Project Site.



Contents

Executive Summary	1
1. Introduction.....	5
1.1 Project Location.....	7
1.2 Project Description	8
1.3 Environmental Setting	8
2. Methods	10
2.1 Literature Review	10
2.2 Field Reconnaissance Methodology	13
3. Special-Status Species.....	13
3.1 Special-Status Wildlife Species Descriptions	24
3.2 Special-Status Wildlife Species Descriptions.....	30
4. Habitat Assessment Results.....	32
Table 3– Species Observed on the Project Site	33
5. Findings	34
6. Recommendations for Western Mastiff Bat	36
6.1 Species Specific Survey:	36
6.2 Mitigation Measures:.....	36
7. Study Limitations	37
Works Cited	38
APPENDIX A	40
Site Visit Photos.....	40
APPENDIX B.....	50
Site Plan.....	50
APPENDIX C.....	51
California Department of Fish and Wildlife California Natural Diversity Database	51
APPENDIX D	53
IPaC Resource List	57
Figure 1 - Project Location	7
Figure 2 - Project Site Boundary.....	8
Figure 3 - Site Plan	9
Figure 4 - Special-Status Species Locations Proximate to the Project Site	12



1322 E. Shaw Avenue, Suite 400 Fresno, CA, 93710
www.soarhere.com • 559.547.8884

Table 1 - Potentially Occurring Listed Wildlife Species.....	15
Table 2 - Potentially Occurring Listed Plant Species	20

1. Introduction

The proposed Project is to construct 180 units at 4415 Wilson Road in the City of Bakersfield, Assessor Parcel Numbers 441-382-03, 441-382-04 and 441-382-08. Currently, 4415 Wilson Road is marked for Low-Density Residential (LR) and General Commercial (GC) under the General Plan Amendment (GPA), and the corresponding Zone is R-1 for One Family Dwelling. A change to the current GPA and Zone is required in order to construct the 180 units proposed. Therefore the suggested GPA for the construction of the 180 units at 4415 Wilson Road is for a High Medium Density Residential (HMR) and a Zone Change (ZC) to R-3 for Multiple Family Dwelling. Soar Environmental Consulting (Soar) is tasked with providing this Biological Resource Assessment (BRA) in accordance with the California Environmental Quality Act (CEQA). Soar Environmental Consulting, Inc. (Soar Environmental) prepared this BRA in support of the CEQA requirements.

A review of California Natural Diversity Database (CNDDB) and the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) was conducted to identify sensitive wildlife species potentially occurring in the area. Results indicated a Habitat Assessment would be necessary to search for potential suitable habitat or presence for the 28 following sensitive wildlife species. Two amphibian species: California tiger salamander and western spadefoot. Eight birds: burrowing owl, California condor least Bell's vireo, southwestern willow flycatcher, Swainson's hawk, tricolored blackbird, western snowy plover, and western yellow-billed cuckoo. One fish: hardhead. Four invertebrates: Crotch bumble bee, monarch butterfly, valley elderberry longhorn beetle, and vernal pool fairy shrimp. Eight mammals: American badger, Buena Vista Lake ornate shrew, fisher, Fresno kangaroo rat, giant kangaroo rat, San Joaquin kit fox, Tipton kangaroo rat, and western mastiff bat. Five reptiles: Bakersfield legless lizard, blunt-nosed leopard lizard, California glossy snake, coast horned lizard, and western pond turtle.

Potential sensitive plant species were reviewed using the CNPS Inventory of Rare and Endangered Plants of California and CNDDB records. The data records search identified the following 34 sensitive plant species historically occurring in the vicinity of the Project Site: alkali mariposa-lily, Bakersfield cactus, Bakersfield smallscale, calico monkeyflower, California alkali grass, California jewelflower, California satintail, California screw moss, Comanche point layia, Coulter's goldfields, dwarf downingia, Greene's tutuoria, harity orcutt grass, Hartweg's golden sunburst, heartscale, hispid salty bird's-beak, Hoover's calycadenia, horn's milk-vethc, kern mallow, lost hills crownscale, madera leptosiphon, Mason's nestraw, Munz's tidy-tips, oil nestraw, pincushion navarretia, piute mountains navarretia, recurved larkspur, San Joaquin Valley orcutt grass, San Joaquin woollythreads, Sanford's arrowheads, spiny-sepaled button-celery, Succulent owl's-clover, Tejon poppy, and San Joaquin adobe sunburst.

A Habitat Assessment was conducted in the Project Site on March 7, 2023. The purpose of the Habitat Assessment Survey was to search for the presence of special-status species or suitable habitat for special-status species that have historically been observed within, or surrounding, the Project Site. No special-status species were observed during the site visit, however based on the results of the data record search, and reconnaissance of the Project Site, there is potential suitable habitat for the following special-status species:

- American badger (*Taxidea taxus*)
- Bakersfield legless lizard (*Anniella grinnelli*)
- Burrowing owl (*Athene cunicularia*)
- California satintail (*Imperata brevifolia*)
- Hispid salty bird's-beak (*Chloropyron molle hispidum*)
- Horn's milk-vetch (*Astragalus hornii hornii*)
- Recurved larkspur (*Delphinium recurvatum*)
- San Joaquin kit fox (*Vulpes macrotis mutica*)
- Swainson's hawk (*Buteo swainsoni*)
- Tipton kangaroo rat (*Dipodomys nitratoide nitratoide*)
- Western mastiff bat (*Eumops perotis californicus*)

1.1 Project Location

The Project Site is located at 4415 Wilson Road, Bakersfield, in the County of Kern, California. The Project Site is adjacent to a commercial property hosting The Salvation Army Bakersfield Corps Community Center to the west, R-1 residential properties to the east and south, and a mix of R-1 residential properties and Stine Elementary School to the north. Other points of interest near the Project Site includes: California State Highway 99 is located within 1 mile to the east, Pinewood Lake, a manmade lake within the gated community of Pinewood Lake is located 0.75 miles to the southeast, California State University, Bakersfield is located within 3 miles to the northwest, the Kern River is located within 3 miles to the north, and a water treatment plant with four evaporation ponds, two artificial ponds at Kaiser Permanente Sports Village Soccer Complex, and numerous agricultural and fallow fields located within 3 miles to the south. The Project Site is comprised of Assessor Parcel Numbers (APNs) 441-382-03, 441-382-04, and 441-382-08. Located in the USGS 7.5-minute Quadrangle of Gosford, it can be found in Township 30 South, Range 27 East, in the west of section 11 on the west side, at an elevation of approximately 370 feet (**Figure 1**).

Figure 1 - Project Location

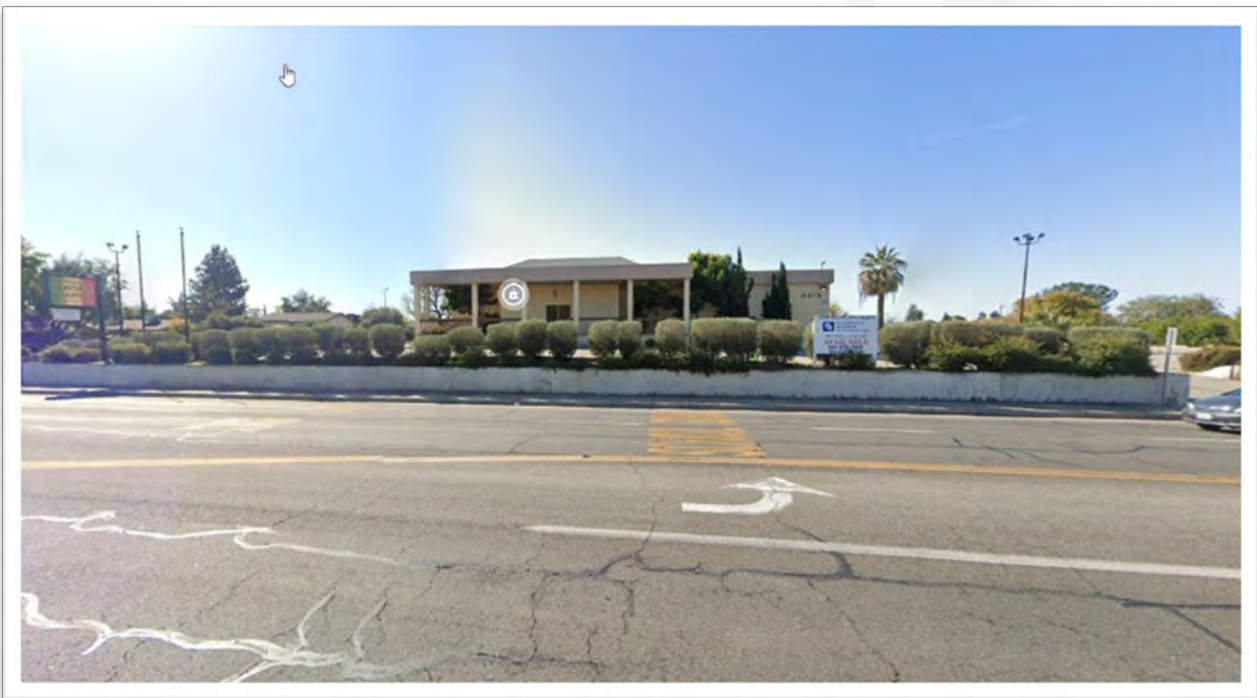


Photo taken from a street view on Wilson Road facing south and the Project Site. The Project Site is located at 4415 Wilson Road, Bakersfield, in the County of Kern, California.

1.2 Project Description

The proposed project plan is to synchronize the GPA and Zone on three adjacent APNs to construct 180 units at 4415 Wilson Road in the City of Bakersfield; APN 441-382-03, 441-382-04 and 441-382-08. The following change is requested for all three APNs: GPA change from LR and/or GC to HMR, and a ZC from R-1 to R-3. The site plan is shown in **Figure 3**, the full site plan and vicinity map is shown in **Appendix B**.

Figure 2 - Project Site Boundary



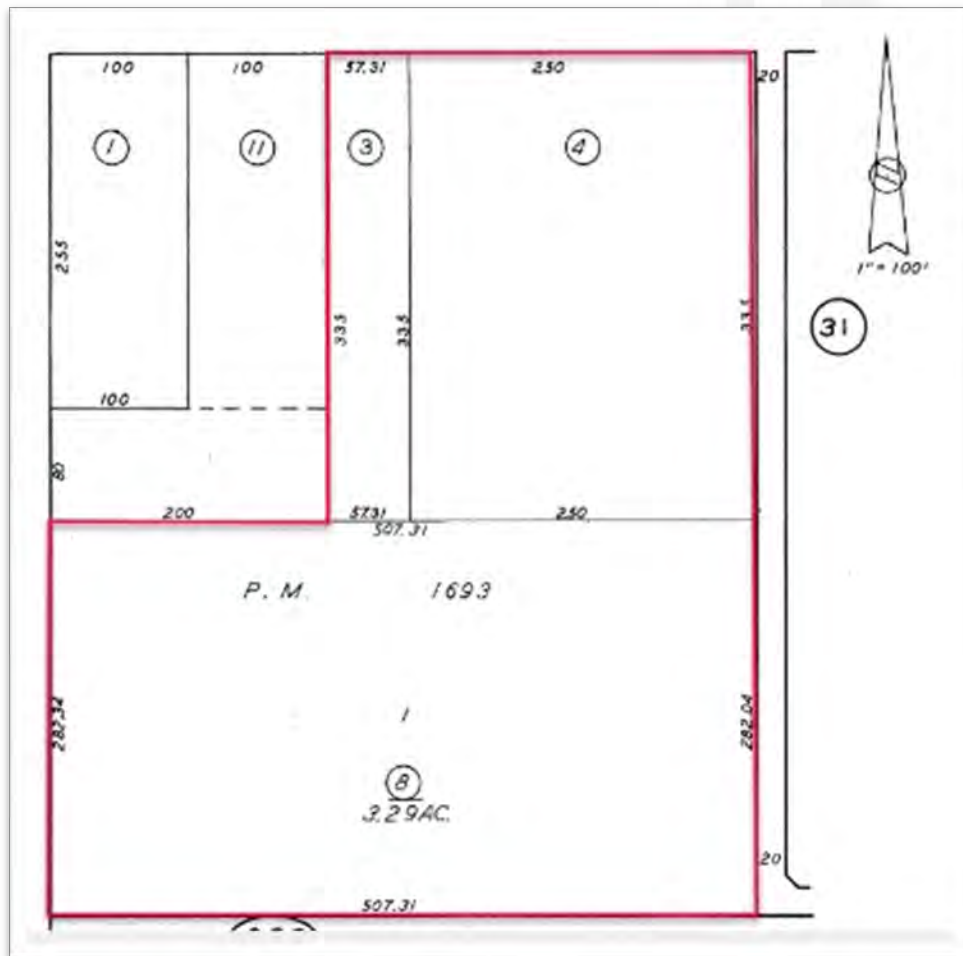
The Project Site is a mix between commercial and an undeveloped lot for R-1 single family dwelling for residential use.

1.3 Environmental Setting

The Project Site is located at approximately 370 feet of elevation, in the heart of the City of Bakersfield near the corner of Wilson Road and Stine Road. The topography of the Project Site is relatively flat. The proposed Project is in an urban setting between commercial and residential. The Kern River is located within 2.5 miles north of the Project Site. There are three dwellings located on the Project Site; one dwelling is located on APN 441-382-03 and two on APN 441-382-04. About 50% of APN 441-382-03 and -04 contains a paved parking lot. There is a paved road extending towards the dwelling on APN 441-382-03; thereafter, the road is partially paved until APN 441-382-08. On APN 441-382-08, vehicle trails can be seen in all directions throughout the property with some trails compacted and barren. All three APNs have been landscaped as evidenced by decorative plants throughout the property. These introduced species include olive tree (*Olea europaea*), boxwood (*Buxus sp.*), Chinese fan palm (*Livistona chinensis*), bottlebrush (*Collisternon sp.*), cypress (*Cupressus sp.*), Japanese camelia (*Camellia japonica*), blue atlas cedar (*Cedrus atlantica*), Peruvian pepper tree

(*Schinus molle*), and mulberry tree (*Morus sp.*). After the property was abandoned, aggressive and invasive plants such as black mustard (*Brassica nigra*), crab grass (*Digitaria sp.*), and fiddleneck (*Amsinckia sp.*) began taking over the property starting from the fallow field located at APN 441-382-08. Vagrants also inhabit the Project Site, evidenced by cardboard sleeping mats, graffiti, and vandalism. Vagrant activity near derelict dwellings on APN 441-382-04 resulted in damage to the buildings, such as producing attic/roof access from an uncontrolled fire, and generating small openings in another building in an attempt to break and enter the building. Trees are sparsely scattered throughout the Project Site, with a grove of mulberry trees near the fountain in the middle of APN 441-382-04. Two underground pits filled with garbage are located on the southeast corner of APN 441-382-04. Most of the ground on the Project Site was highly disturbed and compacted from foot and vehicle traffic. Suitable habitat for bat roost was observed in the grove of mulberry tree and abandoned dwelling on APN 441-382-04. No small mammal burrows or bird nests were observed on the Project Site.

Figure 3 - Site Plan



Tentative site plan map: APN 441-382-03 (top left, GPA: GC), 441-382-04 (top right, GPA: GC) and 441-382-08 (bottom, GPA: LR) are located in an R-1 Zone. The Project proposes to petition all three lots to the HMR GPA and R-3 Zone for the construction of 180 units.

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 Site. 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 nine USGS-7.5 minute quadrangles of *Lamont, Gosford, Oil Center, Oildale, Rosedale, Stevens, Weed Patch, Conner, and Millux*. 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 five miles of the Project Site are shown in (Figure 4).

Based on a review of CNDDb records (conducted March 1, 2023) it was determined there was potential for 62 State listed special-status wildlife and plant species to occur within or in the vicinity of the Project Site. The results from CNDDb indicated a Habitat Assessment would be necessary to search for potential suitable habitat or the presence of the following 19 sensitive wildlife species:

1. American badger (*Taxidea taxus*)
2. Bakersfield legless lizard (*Anniella grinnelli*)
3. Burrowing owl (*Athene cunicularia*)
4. California glossy snake (*Arizona elegans occidentalis*)
5. California tiger salamander – central California DPS (*Ambystoma californiense* pop. 1)
6. Coast horned lizard (*Phrynosoma blainvillii*)
7. Crotch bumble bee (*Bombus crotchii*)
8. Fresno kangaroo rat (*Dipodomys nigratoides exilis*)
9. Hardhead (*Mylopharodon conocephalus*)
10. Least Bell's vireo (*Vireo bellii pusillus*)
11. San Joaquin kit fox (*Vulpes macrotis mutica*)
12. Swainson's hawk (*Buteo swainsoni*)
13. Tricolored blackbird (*Agelaius tricolor*)
14. Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)
15. Vernal pool fairy shrimp (*Branchinecta lynchi*)
16. Western mastiff bat (*Eumops perotis californicus*)
17. Western pond turtle (*Emys marmorata*)
18. Western spadefoot (*Spea hammondi*)
19. Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)

The results from the CNPS Inventory of Rare and Endangered Plants of California and CNDDb identified 33 sensitive plant species historically occurring in the vicinity of the Project Site:

1. Alkali mariposa-lily (*Calochortus striatus*)
2. Bakersfield cactus (*Opuntia basilaris* var. *treleasei*)
3. Bakersfield smallscale (*Atriplex tularensis*)
4. Calico monkeyflower (*Diplacus pictus*)
5. California alkali grass (*Puccinellia simplex*)
6. California jewelflower (*Caulanthus californicus*)

7. California satintail (*Imperata brevifolia*)
8. California screw moss (*Tortula californica*)
9. Comanche point layia (*Layia leucopappa*)
10. Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)
11. Dwarf downingia (*Downingia pusilla*)
12. Greene's tuctoria (*Tuctoria greenei*)
13. Harity Orcutt grass (*Orcuttia pilosa*)
14. Hartweg's golden sunburst (*Pseudobahia bahiifolia*)
15. Heartscale (*Atriplex cordulata* var. *cordulata*)
16. Hispid salty bird's-beak (*Chloropyron molle* ssp. *hispidum*)
17. Hoover's calycadenia (*Calycadenia hooveri*)
18. Horn's milk-vetch (*Astragalus hornii* var. *hornii*)
19. Kern mallow (*Eremalche parryi* ssp. *kernensis*)
20. Lost hills crownscale (*Atriplex coronata* var. *vallicola*)
21. Madera leptosiphon (*Leptosiphon serrulatus*)
22. Mason's neststraw (*Stylocline masonii*)
23. Munz's tidy-tips (*Layia munzii*)
24. Oil neststraw (*Stylocline citroleum*)
25. Pincushion navarretia (*Navarretia myersii* ssp. *myersii*)
26. Piute mountains navarretia (*Navarretia setiloba*)
27. Recurved larkspur (*Delphinium recurvatum*)
28. San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*)
29. San joaquin woollythreads (*Monolopia congdonii*)
30. Sanford's arrowhead (*Sagittaria sanfordii*)
31. Spiny-sepaled button-celery (*Eryngium spinosepalum*)
32. Succulent owl's-clover (*Castilleja campestris* var. *succulenta*)
33. Tejon poppy (*Eschscholzia lemmonii* ssp. *kernensis*)

A search of the IPaC database indicated an additional Federally listed special-status plant species likely to occur within or near the Project Site include:

- San Joaquin adobe sunburst (*Pseudobahia peirsonii*)

The IPaC database also indicated 9 additional Federally listed special-status wildlife species likely to occur within or near the Project Site include:

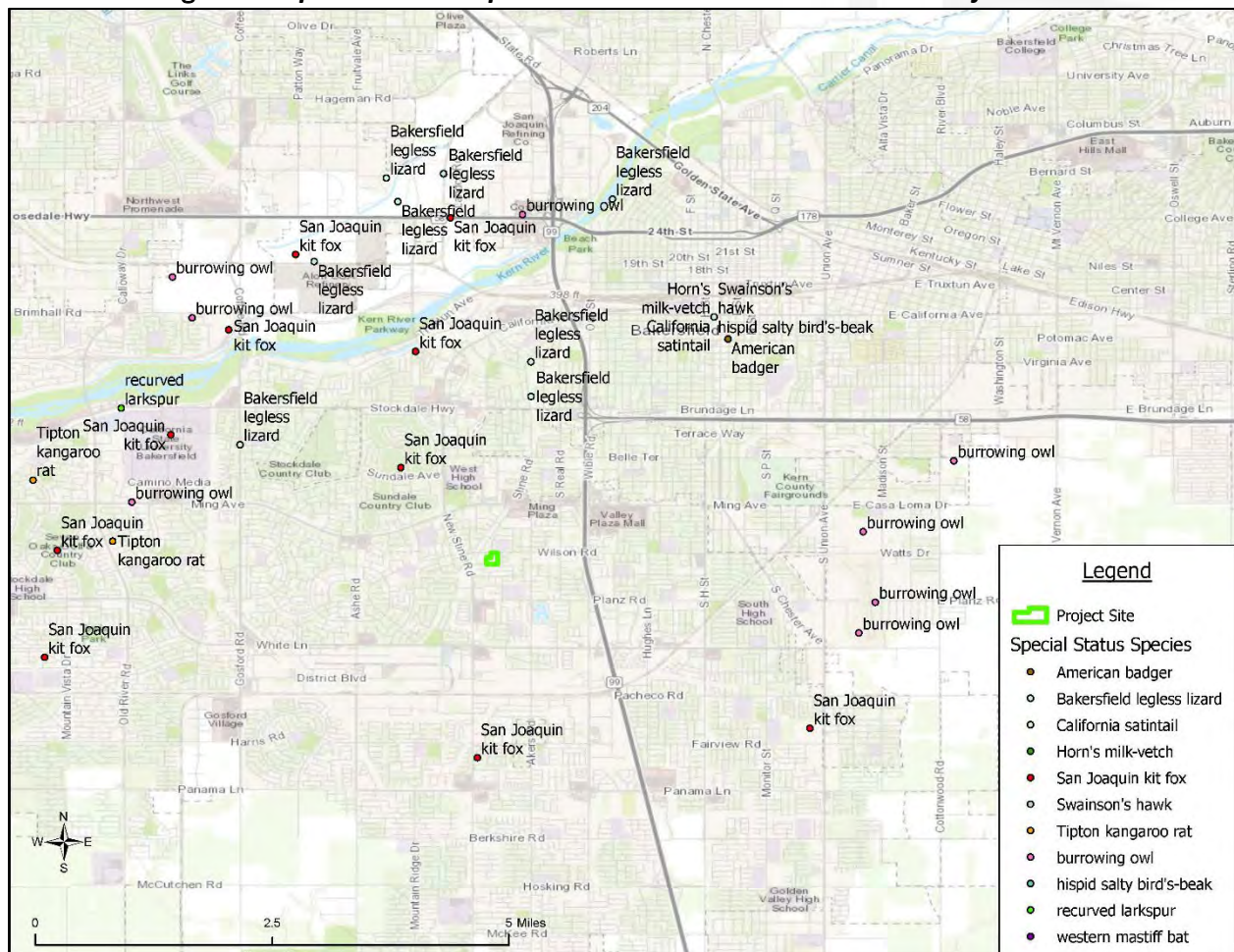
- Blunt-nosed leopard lizard (*Gambelia silus*)
- Buena Vista Lake ornate shrew (*Sorex ornatus relictus*)
- California condor (*Gymnogyps californianus*)
- Fisher (*Pekania pennanti*)
- Giant kangaroo rat (*Dipodomys ingens*)
- Monarch butterfly (*Danaus plexippus*)
- Southwestern willow flycatcher (*Empidonax traillii extimus*)
- Tipton kangaroo rat (*Dipodomys nitratoideus nitratoideus*)
- Western snowy plover (*Charadrius nivosus nivosus*)

A search of the California Native Plant Society (CNPS) Online Rare Plant Inventory identified 20 additional plant species not identified in the CNDDDB records search.

No special-status plant or wildlife species were observed in the Project Site during the Habitat Assessment on March 7, 2023. However, based on a review of CNDDb, IPaC, and CNPS, and analysis of proximal historic occurrences, records indicated potential presence of the 11 following special-status species:

- 1) American badger (*Taxidea taxus*)
- 2) Bakersfield legless lizard (*Anniella grinnelli*)
- 3) Burrowing owl (*Athene cunicularia*)
- 4) California satintail (*Imperata brevifolia*)
- 5) Hispid salty bird's-beak (*Chloropyron molle hispidum*)
- 6) Horn's milk-vetch (*Astragalus hornii* hornii)
- 7) Recurved larkspur (*Delphinium recurvatum*)
- 8) San Joaquin kit fox (*Vulpes macrotis mutica*)
- 9) Swainson's hawk (*Buteo swainsoni*)
- 10) Tipton kangaroo rat (*Dipodomys nitratoideus nitratoideus*)
- 11) Western mastiff bat (*Eumops perotis californicus*)

Figure 4 - Special-Status Species Locations Proximate to the Project Site



This map shows the closest and most recent special-status species locations from the CNDDb, IPaC, and CNPS Online Rare Plant Inventory.

2.2 Field Reconnaissance Methodology

A Habitat Assessment was conducted on March 7, 2023, for the above mentioned species. Walking the perimeter of the property, and meandering transects throughout the Project Site, the surveyor searched for bird nests, possible small mammal dens, identified vegetation, and looked for vernal pools or other signs of wildlife occupancy. Survey efforts emphasized the search for special-status species and associated suitable habitats, that had documented occurrences in the data records search of the CNDDDB, IPaC, and CNPS databases. The surrounding area was also surveyed by vehicle in accessible areas within 0.5 miles of the Project Site, to look for biological resources and features that may be conducive for suitable habitat of the identified special-status species. Photos were taken of the Project boundaries, and other points of interest depicting the habitat and potential biological resources (**Appendix A**).

3. Special-Status Species

Special-status plants and animals that have a reasonable possibility to occur in the Project Site based on habitat suitability and requirements, elevation and geographic range, soils, topography, surrounding land uses, and proximity of known occurrences in the CNDDDB, IPaC, and CNPS databases to the Project Site are listed in **Tables 1 and 2**. 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 of occurrences from the subject property.

Based upon a review of the resources and databases listed in Section 2.1 (Literature Review) for the *Lamont, Gosford, Oil Center, Oildale, Rosedale, Stevens, Weed Patch, Conner, and Milux* USGS 7.5-minute quadrangles; it was determined that 34 special-status plant species have been documented in the vicinity of the Project Site. Of these 34 special-status species, 4 were determined to have potential for occurrence, but no species was determined to have a high potential for occurrence.

Plant Species Potential for Occurrence:

- 1) California satintail (*Imperata brevifolia*)
- 2) Hispid salty bird's-beak (*Chloropyron molle ssp. hispidum*)
- 3) Horn's milk-vetch (*Astragalus hornii var. hornii*)
- 4) Recurved larkspur (*Delphinium recurvatum*)

Per Section 2.1, 28 wildlife species was documented in the vicinity of the Project Site. Of these 28 wildlife species, 6 were determined to have potential for occurrence, and one was determined to have high potential.

Wildlife Species Potential for Occurrence:

- 1) American badger (*Taxidea taxus*)
- 2) Bakersfield legless lizard (*Anniella grinnelli*)
- 3) Burrowing owl (*Athene cunicularia*)
- 4) San Joaquin kit fox (*Vulpes macrotis mutica*)
- 5) Swainson's hawk (*Buteo swainsoni*)
- 6) Tipton kangaroo rat (*Dipodomys nitratoide nitratoide*)
- 7) Western mastiff bat (*Eumops perotis californicus*)

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 CNDDDB 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 CNDDDB records, and/or was observed on the site during the field survey.
- **High:** Species known to occur on or near the site (based on CNDDDB 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 1 - Potentially Occurring Listed Wildlife Species

Common/ Scientific Name	*Listing Status	Habitat Requirements	Potential for Occurrence
Amphibians			
California Tiger Salamander (<i>Ambystoma californiense</i>)	FT/ST/-	Grasslands, oak savannah riparian woodlands and lower elevations of coniferous forests, ditches, vernal pools, and wetlands.	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Western spadefoot (<i>Spea hammondi</i>)	FE/-/SSC	Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Birds			
Burrowing owl (<i>Athene cunicularia</i>)	-/-/SSC	Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Low: Species known to occur in the vicinity of the site, and there is marginal habitat onsite.
California condor (<i>Gymnogyps californianus</i>)	FE/SE/FP/MBTA/WL	Savannah, grasslands, chaparral, foothills. Deep canyons containing clefts in the rocky walls provide nesting sites.	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE/SE/BCC	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 in the vicinity of the site and there is no suitable habitat for the species on the site.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE/-/MBTA	Riparian forest in southern California.	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Swainson's hawk (<i>Buteo swainsoni</i>)	-/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 (<i>Agelaius tricolor</i>)	-/ST/BCC/ MBTA	Found in areas near water, such as marshes, grasslands, and wetlands. They require some sort of substrate nearby to build nests.	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.
Western snowy plover (<i>Charadrius nivosus nivosus</i>)	FT/SSC/MB TA	Barren to sparsely vegetated sandy beaches, shores, dry salt flats in lagoons, dredge spoils deposited on beach, levees and flats at salt-evaporation ponds, river bars, reservoirs, ponds, or large alkali or saline lakes. Needs sandy, gravelly or friable soils for nesting	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	FT/SE/MBT A	Woodlands near streams or lakes, abandoned farmland, old fruit orchards, successional shrubland and dense thickets.	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Fishes			
Hardhead (<i>Mylopharodon conocephalus</i>)	-/-/SSC	Found at low to mid-elevations in undisturbed habitats of larger streams with high water quality (clear, cool). Hardhead can acclimate to 12 and 18°C water temperatures, but prefer water temperatures of 19.6 to 20°C.	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			
Crotch bumble bee (<i>Bombus crotchii</i>)	FT/SC/-	Grasslands and shrublands, with food sources; milkweeds, dusty maidens, lupines, medics, phacelias, sages, clarkias, poppies, and wild buckwheat.	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 (<i>Danaus plexippus</i>)	FC/-/-	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.
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT/-/-	Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus mexicana</i>), in riparian scrub	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 (<i>Branchinecta lynchi</i>)	FT/-/-	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in valley foothills grasslands, vernal pools, and wetlands.	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Mammals			
American Badger (<i>Taxidea taxus</i>)	-/-/SSC	Uncommon, permanent resident found throughout most of the state, except in the northern North Coast area. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	Low: Species known to occur in the vicinity of the site, and there is marginal habitat onsite.
Buena Vista Lake ornate shrew (<i>Sorex ornatus relictus</i>)	FE/-/-	Found in marshlands and riparian areas in the Tulare Basin. Prefers moist soil. Uses stumps, logs, and litter for cover.	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Fisher (<i>Pekania pennanti</i>)	FE/-/-	Occurs in intermediate to large-tree stages of coniferous forests and deciduous-riparian habitats with a high percent canopy closure.	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Fresno kangaroo rat (<i>Dipodomys nitratoideus exilis</i>)	FE/SE/-	Arid and alkaline plains under shrub and grass vegetation, coastal scrub, open stages of chaparral, and desert scrub habitats, and in conifer woodlands.	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Giant kangaroo rat (<i>Dipodomys ingens</i>)	FE/-/-	Annual grasslands on the western side of the San Joaquin Valley, marginal habitat in alkali scrub. Need level terrain and sandy loam soils for burrowing. Chenopod scrub, valley and foothill grassland.	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE/SE/-	Arid flat grasslands, scrublands, and alkali meadows with short vegetation.	Low: Species known to occur in the vicinity of the site, and there is marginal habitat onsite.

Tipton kangaroo rat (<i>Dipodomys nitratoide</i> <i>nitratoide</i>)	FE/SE/-	Arid and alkaline plains under shrub and grass vegetation, coastal scrub, open stages of chaparral, and desert scrub habitats, and in conifer woodlands.	Low: Species known to occur in the vicinity of the site, and there is marginal habitat onsite.
Western mastiff bat (<i>Eumops perotis californicus</i>)	-/-/SSC	Found in open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	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.
Reptiles			
Bakersfield legless lizard (<i>Anniella grinnelli</i>)	-/-/SSC	Occurs in moist warm loose soil with cover. Occurs in the south San Joaquin Valley and east Carrizo Plains. Often can be found under surface objects such as plywood, flattened cardboard boxes, rocks, and logs. Sometimes found in suburban gardens in Southern California.	Low: Species known to occur in the vicinity of the site, and there is marginal habitat onsite.
Blunt-nosed leopard lizard (<i>Gambelia silus</i>)	FE/SE/FP	Semi-arid grasslands, alkali flats, and washes, utilize shrubs and small mammal burrows.	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
California glossy snake (<i>Arizona elegans occidentalis</i>)	-/-/SSC	Common throughout southern California especially in desert regions in desert habitats but also occur in chaparral, sagebrush, valley-foothill hardwood, pine-juniper, and annual grass. Found in elevations from below sea level to 1,830 m (6,000 ft).	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.

Coast horned lizard (<i>Phrynosoma blainvillii</i>)	-/-/SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial and abundant supply of ants and other insects.	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Western pond turtle (<i>Emys marmorata</i>)	-/-/SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. Found in elevations below 1,830 m (6,000 ft).	None: Species is not known to occur 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 2 - Potentially Occurring Listed Plant Species

Common/ Scientific Name	*Status Fed/CA/ CNPS/ Bloom Period	Habitat Description	Potential for Occurrence
Alkali Mariposa-Lily (<i>Calochortus striatus</i>)	1B.2 Apr-Jun	Chaparral, chenopod scrub, meadows and seeps, Mojavean desert scrub	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Bakersfield Cactus (<i>Opuntia basilaris</i> var. <i>treleasei</i>)	1B.1 Apr-May	Chenopod scrub, cismontane woodland, valley and foothill grassland	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Bakersfield Smallscale (<i>Atriplex tularensis</i>)	1A Jun-Oct	Chenopod scrub	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Calico Monkeyflower (<i>Diplacus pictus</i>)	1B.2 Mar-May	Broadleafed upland forest, cismontane woodland	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
California Alkali Grass (<i>Puccinellia simplex</i>)	1B.2 Mar-May	Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
California Jewelflower (<i>Caulanthus californicus</i>)	1B.1 Feb-May	Chenopod scrub, pinyon and juniper woodland, valley and foothill grassland	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.

California Satintail (<i>Imperata brevifolia</i>)	2B.1 Sep-May	Chaparral, coastal scrub, meadows and seeps (often alkali), Mojavean desert scrub, riparian scrub	Low: Species known to occur in the vicinity of the site, and there is marginal habitat onsite.
California Screw Moss (<i>Tortula californica</i>)	1B.2	Chenopod scrub, valley and foothill grassland	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Comanche Point Layia (<i>Layia leucopappa</i>)	1B.1 Mar-Apr	Chenopod scrub, valley and foothill grassland	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Coulter's Goldfields (<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>)	1B.1 Feb-Jun	Marshes and swamps (coastal salt), playas, vernal pools	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Dwarf Downingia (<i>Downingia pusilla</i>)	2B.2 Mar-May	Valley and foothill grassland (mesic), vernal pools	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Greene's Tuctoria (<i>Tuctoria greenei</i>)	1B.1 May-Jul(Sep)	Vernal pools	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Hairy Orcutt Sgrass (<i>Orcuttia pilosa</i>)	1B.1 May-Sep	Vernal pools	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Hartweg's Golden Sunburst (<i>Pseudobahia bahiifolia</i>)	1B.1 Mar-Apr	Cismontane woodland, valley and foothill grassland (clay or often acidic)	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species

			on the site.
Heartscale (<i>Atriplex cordulata</i> var. <i>cordulata</i>)	1B.2 Apr-Oct	Chenopod scrub, meadows and seeps, valley and foothill grassland (sandy)	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Hispid Salty Bird's-Beak (<i>Chloropyron molle</i> ssp. <i>hispidum</i>)	1B.1 Jun-Sep	Meadows and seeps, playas, valley and foothill grassland	Low: Species known to occur in the vicinity of the site, and there is marginal habitat onsite.
Hoover's Calycadenia (<i>Calycadenia hooveri</i>)	1B.3 Jul-Sep	Cismontane woodland, valley and foothill grassland (rocky)	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Horn's Milk-Vetch (<i>Astragalus hornii</i> var. <i>hornii</i>)	1B.1 May-Oct	Alkali sink, meadows, seeps, playas, wetland- riparian, and lake margins, often in alkaline soils.	Low: Species known to occur in the vicinity of the site, and there is marginal habitat onsite.
Kern Mallow (<i>Eremalche parryi</i> ssp. <i>kernensis</i>)	1B.2 Jan(Feb)Mar -May	Chenopod scrub, pinyon and juniper woodland, valley and foothill grassland	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Lost Hills Crownscale (<i>Atriplex coronata</i> var. <i>vallicola</i>)	1B.2 Apr-Sep	Chenopod scrub, valley and foothill grassland, vernal pools	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Madera Leptosiphon (<i>Leptosiphon serrulatus</i>)	1B.2 Apr-May	Cismontane woodland, lower montane coniferous forest	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Mason's Neststraw (<i>Stylocline masonii</i>)	1B.1 Mar-May	Chenopod scrub, pinyon and juniper woodland	None: Species is not known to occur in the vicinity of the site and there is no suitable

			habitat for the species on the site.
Munz's Tidy-Tips (<i>Layia munzii</i>)	1B.2 Mar-Apr	Chenopod scrub, valley and foothill grassland (alkaline clay)	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Oil Neststraw (<i>Stylocline citroleum</i>)	1B.1 Mar-Apr	Chenopod scrub, coastal scrub, valley and foothill grassland	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Pincushion Navarretia (<i>Navarretia myersii</i> ssp. <i>myersii</i>)	1B.1 Apr-May	Vernal pools (often acidic)	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Piute Mountains Navarretia (<i>Navarretia setiloba</i>)	1B.1 Apr-Jul	Cismontane woodland, pinyon and juniper woodland, valley and foothill grassland	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Recurved Larkspur (<i>Delphinium recurvatum</i>)	1B.2 Mar-Jun	Chenopod scrub, cismontane woodland, valley and foothill grassland	Low: Species known to occur in the vicinity of the site, and there is marginal habitat onsite.
San Joaquin Valley Orcutt Grass (<i>Orcuttia inaequalis</i>)	1B.1 Apr-Sep	Vernal pools	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
San Joaquin Wollythreads (<i>Monolopia congdonii</i>)	1B.2 Feb-May	Chenopod scrub, valley and foothill grassland (sandy)	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Sanford's Arrowhead (<i>Sagittaria sanfordii</i>)	1B.2 May-Oct(Nov)	Marshes and swamps (shallow freshwater)	None: Species is not known to occur in the vicinity of the site and

			there is no suitable habitat for the species on the site.
Spiny-sepaled button-celery (<i>Eryngium spinosepalum</i>)	1B.2 Apr-Jun	Valley and foothill grassland, vernal pools	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Succulent owl's-clover (<i>Castilleja campestris</i> var. <i>succulenta</i>)	1B.2 (Mar)Apr-May	Vernal pools (often acidic)	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
Tejon poppy (<i>Eschscholzia lemmonii</i> ssp. <i>kernensis</i>)	1B.1 (Feb)Mar-May	Chenopod scrub, valley and foothill grassland	None: Species is not known to occur in the vicinity of the site and there is no suitable habitat for the species on the site.
San Joaquin adobe sunburst (<i>Pseudobahia peirsonii</i>)	1B.1 Feb-Apr	Cismontane woodland, valley and foothill grassland	None: Species is not known to occur 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
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

3.1 Special-Status Wildlife Species Descriptions

3.1.1 American Badger (*T. taxus*)

The American badger is not listed on the Federal level and is listed as a Species of Special Concern on the State level. It has a flat body with short legs and a triangular face with a long, pointed, tipped-up nose. It has long brown or black fur with white stripes on its cheeks and one stripe running from its nose to the back of its head. It has small ears on the side of its head and long, sharp front claws. It can be found in open areas like plains and prairies, farmland, and the edges of woods. American

badger burrows normally measure approximately 18 to 25 centimeters (7 to 10 inches) in diameter.

During the field survey, no signs of American badger were observed in the Project footprint or surrounding areas. The Project Site lacked suitable habitat features on site for this species such as the complex of burrows located in the dirt mounds. There are no CNDDDB records of species observation in the Project footprint. The most recent record of this species is 14.2 kilometers (8.8 miles) to the northeast of the Project Site and located in a fallow field, on the outskirts of the City of Bakersfield. The only other record of an American badger from CNDDDB within the nine USGS 7.5-minute quadrangle was harvested in 1900. This harvest is 4.95 kilometers (3.1 miles) to the northeast of the Project Site. The exact location is not known; the data from CNDDDB is an estimate using the center of the City of Bakersfield as a reference. According to CNDDDB, the American badger is presumed extant.

3.1.2 Bakersfield Legless Lizard (*A. grinnelli*)

Bakersfield legless lizard is a State listed Species of Special Concern. Formerly known as *Anniella pulchra* lineage C, in 2013, this species was determined to be morphologically and genetically distinct along with four other species of legless lizard found in California (Parham & Papenfuss 2009, Papenfuss & Parham 2013). Bakersfield legless lizard has a unique grayish red to purple colored ventral, a single lateral stripe, an average vertebral count of 81.2— a higher vertebral than the other species of *A. pulchra*, between 234 to 249 dorsal scales, an average 242.4 dorsal scales Adult male are 148 millimeters snout-vent length, 93 millimeters tail length, with 79 trunk vertebrae. Colors include light olive gray dorsal color, orange lateral color, grayish red ventral, a mid-dorsal black stripe one-half scale wide from the parietals to the tip of the tail, and lateral black stripes one scale wide from the eye to the tip of the tail (Papenfuss & Parham 2013).

The range for Bakersfield legless lizard is limited to the southern San Joaquin Valley and the east side of the Carrizo Plain. Two of the three known populations of Bakersfield legless lizard were destroyed by housing development. Their habitat includes cover objects such as plywood scraps and flattened cardboard boxes on sandy soil (Papenfuss & Parham 2013).

During the field survey, there were no signs of Bakersfield legless lizard within the Project footprint. Suitable habitat within the project area is poor for this species. No small mammal burrow was observed on the Project Site appeared due to heavy overgrowth of crab grass. According to CNDDDB records, there are 14 records of Bakersfield legless lizard within five miles of the Project Site. Of these 14, there are 10 records within a five mile radius to the Project Site. The nearest and most recent occurrence of this species was 6.61 kilometers (4.11 miles) north from the Project Site on January 5, 2022. This area was part of the historical Fruitvale oil field. A single individual was observed and photographed on April 20, 2011. Several individuals were collected in 2000, 2001, 2002, 2003, 2004, 2005 and 2006. The nine other occurrences of Bakersfield legless lizard includes:

1. 2.81 kilometers (1.75 miles) northwest on July 6, 2021 – located near the intersection of Ford Avenue and North Stine Road in the City of Bakersfield. An individual was observed in a residential yard while conducting yardwork and photographed on June 15, 2020.
2. 3.39 kilometers (2.10 miles) northeast on July 3, 2017 – based on a former research on *A. pulchra*, a single specimen was removed from this location on May 22, 1996
3. 3.85 kilometers (3.85 miles) north on January 15, 2019 – one individual observed in non-native grassland with oil wells surrounded by development and photographed on March 15,

2000

4. 4.00 kilometers (2.48 miles) northwest on July 11, 2017 – located on a road near cultivated yard and undeveloped sandy lots near the Stockdale Country Club with the general area largely undeveloped during the time of collection. The location is now developed for CSU Bakersfield and residential neighborhood. An individual was collected on June 2, 1955 and was discovered crawling across a street intersection. Others were discovered on nearby roads. Collection and identification was by T. Papenfuss (Papenfuss & Parham 2013).
5. 5.13 kilometers (3.19 miles) northwest on July 5, 2017 – located along the Kern River in an urban and suburban area west of downtown Bakersfield. This is an estimated location. An individual was collected on January 8, 1934, prior to the taxonomic changes.
6. 5.61 kilometers (3.49 miles) northwest on January 14, 2019 – located in a former swamp site; an individual was observed and photographed on March 17, 2015 and May 8, 2015. Further research warranted for individual photographed on March 17, 2015; individual photographed appears to have a yellow belly as opposed to the characteristic purple belly.
7. 6.32 kilometers (3.93 miles) northwest on July 6, 2021 – located along the east side of the Kern River about 0.4 miles upstream northeast of the 24th Street and Highway 178 bridge in the City of Bakersfield. Seven individuals were observed under cover objects and one was collected on March 10, 2013. Collection and identification was by T. Papenfuss (Papenfuss & Parham 2013). Two additional adults was found on January 12, 2020.
8. 6.56 kilometers (4.07 miles) north on January 4, 2022 – former Fruitvale oil field; several individuals collected in 2005, 2006, 2007, and 2010
9. 6.97 kilometers (4.33 miles) north on January 14, 2019 – located in the Fruitvale oil field; one carcass found and photographed on March 22, 2017 and one live individual observed and photographed on March 23, 2017

3.1.3 Burrowing Owl (*A. cunicularia*)

The burrowing owl (*Athene cunicularia*) is federally protected by the Migratory Bird Treaty Act of 1918 in the United States, Canada and Mexico. They are considered by the U.S. Fish and Wildlife Service (USFWS) to be a Bird of Conservation Concern (BCC). These small owls are between 19 to 25 centimeters (7.5 to 10 inches) tall with a wingspan of 53 to 61 centimeters (21 to 24 inches). They weigh between 128 to 255 grams (4.5 to 9 ounces). Unlike most owls, burrowing owl males are slightly heavier than females and have a longer wingspan.

Burrowing owls typically breed from mid-March through August. If owls are nesting, the site must be avoided until the chicks have fledged or it has been determined the nest has failed. Chicks may appear at the burrow entrance when they are about 10 days old. Usually nesting in abandoned ground squirrel burrows, the nest chamber might be lined with excrement, pellets, debris, grass, and feathers; sometimes, unlined. General habitat includes open dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.

During the field survey, there were no signs of burrowing owl within the Project footprint. Suitable habitat within the project area is poor for this species. No small mammal burrow was observed on the Project Site due to heavy overgrowth of crab grass. A search of CNDDDB records indicate the

nearest and most recent occurrence of burrowing owl is 4.97 miles (8 kilometers) away, at 82.60° east from the Project Site. This record was last updated on March 3, 2011 and 3 adults were observed on May 16, 2007 and May 21, 2007 about 0.3 miles near the intersection of Mount Vernon Avenue at East Belle Terrace in the City of Bakersfield. The habitat was brushland with ground squirrels detected within 100 meters of the burrowing owl observation. CNDDDB also yield 9 additional records of burrowing owl within five miles of the Project Site:

1. 5.82 kilometers (3.62 miles) 134.31 degrees northeast, last updated on December 12, 1995 – a single burrowing owl and its burrow was observed in 1987 south of Brimhall Road and 0.5 miles east of Calloway Drive in the City of Bakersfield.
2. 5.84 kilometers (3.63 miles) 183.75 degrees northeast, last updated on July 7, 2004 – a burrow with 2 adults and 3 juveniles was observed on May 17, 2004 at the base of an elevated pipeline support in an oilfield, located on the north side of California State Highway 58 and 0.2 mile west of California State Highway 99 in the City of Bakersfield. The habitat was a developed oil field; barren and devoid of vegetation.
3. 5.1 kilometers (3.16 miles) 100.71 degrees northwest, last updated on October 19, 2004 – Two burrows were observed 1 mile south of Stockdale Road and 2 miles southwest of Kern City. The first burrow was observed with 2 adults and 2 juveniles. The second burrow was observed with 2 adults. The habitat surrounding the burrows consisted of a previously disked vacant lot with Russian thistle and urban development.
4. 5.17 kilometers (3.21 miles) 84.96 degrees east, last updated on April 1, 2011 – an adult was observed on May 23, 2007 near the intersection of Watts Drive and Madison Street in the City of Bakersfield.
5. 5.23 kilometers (3.25 miles) 104.02 degrees southeast, last updated on March 3, 2011 – an adult was observed on May 23, 2007 near the intersection of Madison Avenue and White Lane on the south side of the Bakersfield Municipal Airport in the City of Bakersfield.
6. 5.36 kilometers (3.33 miles) 98.24 degrees southeast, last updated on March 3, 2011 – an adult was observed on May 23, 2007 near the intersection of Madison Avenue and Planz Road on the east side of the Bakersfield Municipal Airport in the City of Bakersfield.
7. 6.52 kilometers (4.05 miles) 136.76 degrees northeast, last updated on December 12, 1995 – a single burrowing owl was flushed upon approach to burrow approximately within 3 miles of the intersection of Calloway Drive and Coffee Road in the City of Bakersfield. Habitat consisted of a fallow agricultural field consisting of weedy annual grasses and herbs including *Bromus sp.*, *Festuca sp.* and *Erodium sp.*
8. 6.59 kilometers (4.09 miles) 75.43 degrees northeast, last updated on March 3, 2011 – 5 adults and 3 juveniles were observed on May 24, 2007 near the intersection of Cottonwood Road and East Belle Terrace in the City of Bakersfield. The habitat was a fallow field with ground squirrels detected within 100 meters of the burrowing owl observation.
9. 12.2 kilometers (4.34 miles) 63.43 degrees southwest, last updated on July 7, 2004 – located between Panama Land, Buena Vista Road and Old River Road in the City of Bakersfield. Three nesting burrows were observed in an abandoned agricultural field with mixed herbaceous vegetation. One burrow contained 2 adults and a nestling. A second

burrow nested along an abandoned irrigation ditch. The third burrow located in a bare area contained 2 adults and 4 juveniles.

3.1.4. San Joaquin Kit Fox (*V. macrotis mutica*)

The San Joaquin kit fox is listed as Threatened at the Federal level and Endangered at the State level. They are petite, light-colored canids, approximately 50 centimeters (20 inches) in length, with bushy, black-tipped tails, large ears, and pointed snouts.

San Joaquin kit fox is a desert-adapted species which occurs mainly in arid, flat grasslands, scrublands, and alkali meadows where the vegetation structure is relatively short. This species uses dens year-round and needs loose-textured soils suitable for burrowing. They primarily prey on kangaroo rats and other small rodents, as well as large insects and occasionally rabbits. A typical kit fox den is anywhere from four to 10 inches (25 cm) in diameter, and is taller than it is wide, often with a keyhole shape. Dens usually have dirt berms and matted vegetation adjacent to the entrances, and tracks and prey remains will normally be detected nearby. They may also utilize man-made structures such as pipes and culverts as dens.

There were no signs of San Joaquin kit fox at the time of the Habitat Assessment. Suitable habitat for this species is poor within the vicinity of the Project Site. No small mammal burrow was observed on the Project Site due to heavy overgrowth of crab grass. A search of CNDDDB records indicate the nearest and most recent occurrence of kit fox is 2 kilometers (1.24 miles) at 139.61 degrees northwest from the Project Site between January 2002 and June 4, 2003, as part of the Kit Fox Recovery Project by the California State University at Stanislaus (CSU Stanislaus). There are 14 other occurrences of San Joaquin kit fox in the CNDDDB within 5 miles of the Project Site.

In summary, those 14 locations are scattered from 7.75 kilometers (4.81 miles) at 186.43 degrees northeast to Project Site, counterclockwise towards 5.23 kilometers (3.25 miles) at 303.48 degrees southeast to Project Site. These 14 locations span between 1972 and 2017 with over 203 individuals observed within 5 miles to the Project Site.

3.1.5. Swainson's Hawk (*B. swainsoni*)

Swainson's hawk is listed as Threatened on the State level. This species favors open habitat for foraging such as agricultural fields, pastures, and row crops. They nest in scattered stands of eucalyptus, willow, oak, cottonwood, and conifers with a preference for the tallest tree in the area. On occasion, Swainson's hawk will nest on a power pole or transmission tower. Swainson's hawk returns to the Central Valley for the breeding season around February. They return later than other birds. Therefore, they typically utilize the same nests for generations or have several nests nearby. Nests are constructed quickly with loose bundles of sticks and debris items. The incubation period is approximately 35 days and the nesting period is 17 to 22 days. The breeding season for this species begins in March and ends in September.

During the field survey, no signs of Swainson's hawk were observed in the Project footprint or

surrounding areas. However, there are suitable habitat features such as the blue atlas cedar and electricity pole on the eastern boundary of the Project footprint. Foraging habitat within the Project Site is poor for this species.

The closest and most recent CNDDDB record was the observation of 2 adults observed foraging the area and in incubation posture on a nest on April 18, 2019. This observation is located 8.01 kilometers (4.98 miles) at 338.74 degrees southwest of the Project Site adjacent to California State Highway 99. The other CNDDDB record is 2 eggs collected on April 30, 1935 kilometers (3.19 miles) to the Project Site. The location is an estimate; the actual location is unknown. According to CNDDDB, Swainson's hawk is presumed extant within the 5-mile radius of the Project Site.

3.1.6. Tipton Kangaroo Rat (*D. nitratoides nitratoides*)

Tipton kangaroo rat is listed as Endangered at both the Federal and State level. This species has light brown bodies averaging 10 to 11 centimeters (4 inches) in length, long rear legs, short front legs adapted for digging, long tufted tails averaging 12.5 to 13 (approximately 5 inches) centimeters long, and large black eyes.

Tipton kangaroo rat inhabit saltbush scrub, sink scrub, and grassland habitats, from the floor of the San Joaquin Valley up to 91.4 meters (300 feet) in elevation, from north of Visalia, to south of Bakersfield, California. Tipton kangaroo rat is fossorial mammal whose burrows is typically less than three inches in diameter and is usually found at the base of shrubs.

During the field survey, there were no signs of Tipton kangaroo rat within the Project footprint. Suitable habitat within the project area is poor for this species. No small mammal burrow was observed on the Project Site appeared due to heavy overgrowth of crab grass. A search of CNDDDB records indicate the nearest and most recent occurrence of Tipton kangaroo rat is 5.28 kilometers (3.28 miles) at 93.40 degrees northwest from the Project Site on June 24, 1990. Four adults were observed freed and foraging the site, which would be developed into housing in the late 1990.

3.1.7. Western Mastiff Bat (*E. perotis californicus*)

Western mastiff bat is a State listed Species of Special Concern. This species has a brown fur body length of 14 to 19 centimeters (5.5 to 7.5 inches), a wingspan of over 56 centimeters (22 inches), and body mass range from 60 to 70 grams (2.1 to 2.5 ounces). Western mastiff bat is the largest native bat in the United States. Thus such morphology allows for rapid, sustained flight but limits maneuverability. This manner of flight is adaptive to flying in open habitats.

Western mastiff bat catches and feeds on insects while in flight. The insects consumed are typically relatively small, low-flying and weak-flying forms. Over rugged terrain western mastiff bats naturally forage at much greater heights of 60 meters (195 feet) above the ground. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting. When roosting in rock crevices, this species needs vertical faces to drop off to take flight.

Western mastiff bat has yearlong nocturnal activity. They generally go into daily torpor from December through February but usually resumes activity each night to feed, except when temperatures drop below 5°C (41°F). Nocturnal foraging range may exceed 24 kilometers (15 miles) from roost sites. Western mastiff bat rarely uses night roost and has an exceptionally long foraging period, up to 6-7 hours per night. Their echolocationary squeaks can be heard from up to 300 meters (980 feet) away. They are non-migratory with no known home range and no known territory. They are known to roost along or in small colonies with fewer than 100 bats, and commonly shares roost with other large bats such as *Eptesicus fuscus*, *Antrozous pallidus*, and *Tadarida brasiliensis*.

Western mastiff bat can be found in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Roosts are often found in crevices in cliff faces, buildings, trees and tunnels. Their range includes the southeastern San Joaquin Valley and Coastal Ranges, from Monterey County southward through southern California, and from the coast eastward to the Colorado Desert. Suitable habitat for western mastiff bat consists of extensive open areas with abundant roost locations provided by crevices in rock outcrops and buildings. They need at least 3 meters (9.8 feet) of open space under roosting spot for takeoff.

Nursery roosts are tight rock crevices at least 90 centimeters (35 inches) deep and 5 centimeters (2 inches) wide, or crevices in buildings. The duration of pregnancy is between 80 to 90 days with mating beginning in early spring (March). The gestation period is unknown. Parturition occurs from early April through August or September, and varies more than any other bat species in the United States. One young is produced per female bat per year.

During the field survey, there were no signs of western mastiff bat was observed within the Project Site. However, suitable habitat was present for western mastiff bat. The derelict buildings on APN - 441-382-04 with openings to the attic provides habitat for mastiff bat. A search of CNDDDB records indicates the nearest and most recent occurrence of western mastiff bat is 5.13 kilometers (3.19 miles) at 215.59 degrees northeast to the Project Site. The exact location is not known and the location mapped in CNDDDB is an approximate provided by Pierson and Rainey. A specimen was collected from Grinnell in 1918. According to CNDDDB, western mastiff bats are presumed extant. The only other occurrence of western mastiff bat in the CNDDDB within the nine USGS-7.5 minute quadrangles the Project Site is located is located 8.6 kilometers (5.34 miles) at 228.67 degrees northeast to the Project Site. This was a specimen collected by F.S. Wallace and the location provided by CNDDDB is also another approximate location, with the exact location unknown.

3.2 Special-Status Wildlife Species Descriptions

3.2.1. California Satintail (*I. brevifolia*)

California satintail (*I. brevifolia*) is a State listed as Rare or Endangered in California. California satintail is a perennial rhizomatous herb with a blooming period from September to May. This species can be found at elevations between 0 and 3,985 feet (0 to 1,215 meters). General habitat

includes chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali), and riparian scrub habitat.

The habitat assessment was conducted outside of the blooming for California satintail. No observations of California satintail and/or habitat conditions conducive for this species. CNDDDB records indicated the nearest occurrence of this species is 5.13 kilometers (3.19 miles) away at 215.59 degrees northeast from the Project Site. The exact location is unknown and was mapped by CNDDDB to be generally in the center of the City of Bakersfield. The occurrence was recorded in 1896 as a collection by Davy. No other records of California satintail is available within the nine USGS-7.5 minute quadrangles the Project Site is located in.

3.2.2. Hispid Salty Bird's-Beak (*C. molle hispidum*)

Hispid salty bird's-beak (*C. molle hispidum*) is a CNPS List 1B.1 plant in the Orobanchaceae family. Hispid salty bird's-beak is a hemiparasitic annual herb found in habitats with meadows and seeps, playas, and the grassland in the valley and foothill. The blooming period for hispid salty bird's-beak is between June and September.

The habitat assessment was conducted outside of the blooming period for hispid salty bird's-beak. There was no observation of hispid salty bird's-beak and/or habitat conditions conducive for this species. CNDDDB records indicated the nearest occurrence of this species is 5.13 kilometers (3.19 miles) at 215.59 degrees northeast from the Project Site. The exact location is unknown and was mapped by CNDDDB to be generally in the center of the City of Bakersfield. The occurrence was recorded from a 1927 Bauer collection. The only other occurrence of hispid salty bird's-beak is located 13.42 kilometers (8.34 miles) at 302.21 degrees southeast from the Project Site. This second observation was from a 1946 Ripley and Barneby collection east of Greenfield. The exact location is unknown and was also mapped by CNDDDB to be in this general vicinity.

3.2.3. Horn's Milk-Vetch (*A. hornii hornii*)

Horn's milk-vetch (*A. hornii hornii*) is a CNPS List 1B.1 plant in the Fabaceae family. Horn's milk-vetch is an annual herb found in habitats with meadows, seeps, playas, alkali sink, wetland-riparian, and lake margins, often in alkaline soils. Horn's milk-vetch can be found between 60 to 850 meters of elevation. The blooming period for Horn's milk-vetch is between May and October.

The habitat assessment was conducted outside of the blooming period for horn's milk-vetch. There was no observation of horn's milk-vetch and/or habitat conditions conducive for this species. CNDDDB records indicated the nearest occurrence of this species is 5.13 kilometers (3.19 miles) away at 215.59 degrees northeast from the Project Site. The exact location is unknown and was mapped by CNDDDB to be generally in the center of the City of Bakersfield. The occurrence was recorded in a 1932 collection by Benson generally describing the location as "East Bakersfield, Kern River, 700 feet." According to CNDDDB horn's milk-vetch is presumed extirpated from this occurrence.

3.2.4. Recurved Larkspur (*D. recurvatum*)

Recurved larkspur (*D. recurvatum*) is a CNPS List 1B.2 plant in the buttercup family that flowers

between March and June and is known to grow on poorly drained fine alkaline soils in grasslands, chenopod scrub (e.g., *Atriplex* spp.) or oak woodland.

The habitat assessment was conducted during the early blooming period for recurved larkspur. No observations of recurved larkspur and/or habitat conditions conducive for this species. CNDDDB records indicated the nearest occurrence of this species is kilometers (3.57 miles) at 116.45 degrees northwest to the Project Site. The exact location is an estimate provided by CNDDDB. The occurrence was a specimen collected by Mason in 1935. The most recent occurrence of recurved larkspur is 16.10 kilometers (10 miles) at 60.06 degrees southwest to the Project Site, approximately one mile southeast of the intersection of Interstate Highway 5 and California State Highway 119. Three plants were observed in 2006 in a field with a mix of valley sink scrub, valley saltbush scrub, and great valley mesquite scrub. According to CNDDDB, recurved larkspur is possibly extirpated due to development and urbanization.

4. Habitat Assessment Results

A Habitat Assessment survey was conducted in the Project Site on March 7, 2023. The purpose of the Habitat Assessment was to search for suitable habitats or presence of special-status species that have historically been observed within or surrounding the Project Site. Survey efforts emphasized the search for special-status species with moderate to high potential for occurrence based on section **2.1 Literature Review** of this report. No special-status species were observed during the Habitat Assessment; however, there is suitable habitat for western mastiff bat in the vicinity of the Project Site.

The area is highly disturbed and surrounded by urban development. APN 441-382-03 is developed with a single structure in poor condition and the remaining approximate 70% of the property is paved with cement as an extension of a parking lot to APN 441-382-04.

APN 441-382-04 has two derelict dwellings, with approximately 50% of the property paved with cement as a parking lot, located on the north side of the property adjacent to Wilson Road. The remaining 50% of the property was developed into a recreational area with decorative plants now overgrown with non-native invasive species. The recreational area has two underground pits filled with garbage on the east side within five feet to the fence line. The underground pits were observed filled with garbage. Woodpecker granaries were observed in an unmarked electricity pole and mulberry trees on the south section of APN 441-382-04. The crevices of mulberry trees and the two derelict dwellings on APN 441-382-04 are suitable habitat for bat roost. No day-time bat activity, guano, urine staining and culled insect parts was observed around the abovementioned habitat.

APN 441-382-08 is a fallow field with evidence of off-road vehicle travel throughout the property.

All APNs had non-native plant species including: crab grass (*Digitaria sp.*), black mustard (*Brassica nigra*), fiddleneck (*Amsinckia sp.*), mulberry (*Morus sp.*) and boxwood (*Buxus sp.*). Recent vagrant was also observed; such activities include evidence of human occupation (cardboard rest areas), shoes, clothes, Christmas home décor, graffiti, and vandalism.

Although there are small areas of potential grassland habitat within the Project Site, these areas consists of invasive, non-native plant species. No wetland or aquatic feature was present in the Project Site. There were no burrows or nests observed within the Project footprint. The surrounding area was single family homes and the Salvation Army, neither of which had burrows observable during the Habitat Assessment.

No special-status plant or wildlife species were observed during the site visit. However, the Soar Environmental biologist observed some common bird species flying through the area, listed in (Table 3), along with plant species observed onsite. No other wildlife species were observed during the Habitat Assessment.

Table 3– Species Observed on the Project Site

Wildlife Species Observed	Listing Status	Plant Species Observed	Listing Status
House sparrow (<i>Passer domesticus</i>)	MBTA	Olive tree (<i>Olea europaea</i>)	None
Mockingbird (<i>Mimus polyglottos</i>)	MBTA	Crab grass (<i>Digitaria sp.</i>)	None
American crow (<i>Corvus brachyrhynchos</i>)	MBTA	Dandelion (<i>Taraxacum sp.</i>)	None
House finch (<i>Haemorhous mexicanus</i>)	None	Black mustard (<i>Brassica nigra</i>)	None
Raven (<i>Corvus corax</i>)	MBTA	Chinese fan palm (<i>Livistona chinensis</i>)	None
Killdeer (<i>Charadrius vociferus</i>)	MBTA	Holly needlepoint shrub (<i>Ilex cornuta</i>)	None
Bumblebee (<i>Bombus vosnesenskii</i>)	None	Henbit deadnettle (<i>Lamium amplexicaule</i>)	None
Domestic cat (<i>Felis silvestris catus</i>)	None	Bottlebrush (<i>Callisternon sp.</i>)	None
		Blackberry bush (<i>Rubus sp.</i>)	None
		Trailing latana (<i>Lantana sp.</i>)	None
		Japanese camellia (<i>Camellia japonica</i>)	None
		Cypress (<i>Cupressus sp.</i>)	None
		Boxwood (<i>Buxus sp.</i>)	None
		Fiddleneck (<i>Amsinckia sp.</i>)	None

Blue atlas cedar (<i>Cedrus atlantica</i>)	None
Peruvian pepper tree (<i>Schinus molle</i>)	None
Mulberry tree (<i>Morus sp.</i>)	None

5. Findings

During the Habitat Assessment conducted March 7, 2023, Soar Environmental did not observe any of the referenced special-status species within the Project Site or environmental footprint. Suitable habitat for western mastiff bat on the Project Site is high. This species typically roost in colonies in cliff face, tall building, tree and tunnels with open spaces below vertical openings. The buildings and trees located on the Project Site have vertical crevices with open space below and are ideal for drop-off flight by western mastiff bat. Although the buildings on the property are not the tallest in the area, they sit at a slightly higher elevation than the surrounding commercial and residential buildings. Therefore, this makes the buildings on the Project Site appear taller than they actually are.

Of the three buildings on the Project Site, only one building was secured. The integrity of the other two buildings was compromised from vandalism. The larger of the two buildings have openings where objects were inserted. These areas include the wall and doors. The second building is smaller, and located behind the larger building. This building was burnt superficially on one side. The area in front of the door was char with pieces of the building on the ground and access to the roofline exposed. The integrity of the roofline appears intact. No damage to the roof, on all three buildings, was observed. The resulting opening of the roofline provides a potential habitat for western mastiff bat.

Woodpecker granaries were also observed on the mulberry trees and the single unmarked electricity pole on the Project Site. No woodpecker cavity was observed in the mulberry trees and electricity pole.

The mulberry trees on the Project Site have crevices suitable for western mastiff bat roosts. Crevices were approximately between 1 and 6 inches with open areas directly below. These crevices are suitable for roosting western mastiff bat. The mulberry trees were positioned in a semi-circle around a white fountain with no water. The two buildings with suitable habitat for bat roosts are located north of the mulberry trees. To the south, there is an open field on the Project Site. This open field is adjacent to the mulberry trees. Mockingbirds were observed foraging for insects and eating a worm in the open field. Western mastiff bats are insectivores and feed on small low flying and weak flying insects. Which presumes western mastiff bat feeds on insects closer to the ground. The presence of mockingbirds foraging through the crabgrass indicates an appropriate or similar food source to that of the western mastiff bat.

Suitable habitat for Bakersfield legless lizard, burrowing owl, San Joaquin kit fox, and Tipton kangaroo rat is marginal due to lack of burrows on the Project Site. Bakersfield legless lizard, burrowing owl, San Joaquin kit fox and Tipton kangaroo rat are burrowing species occurring within

five miles of the Project Site. This Project Site did not have any burrows or signs of ground squirrel. All of these species with the exception of San Joaquin kit fox have been known to use or build on ground squirrel burrows. Loose soil or easily movable soil is also a requirement for the above listed burrowing species. The open field on the Project Site is compacted from off-road vehicle travel, which makes this soil not ideal for burrowing species including the San Joaquin kit fox.

The Project Site has low potential for Swainson's hawk and American badger based on CNDDDB, but none are anticipated due to the lack of suitable habitat and the lapse of time from the last observation, respectively. No nest was observed during the Habitat Assessment. Swainson's hawk is known to nest in isolated trees in open fields. Swainson's hawk has also been documented to nest in electricity poles adjacent to busy freeways. They prefer to nest in isolated areas with a vantage point of their foraging area. A nest can be used for several generations and is often the case due to their late return to the Central Valley for the mating season. The tallest tree on the Project Site is a blue atlas cedar with less than 20% canopy located along the fence line with a full view to the open field, but no nest was observed. Other trees around the property were on average the same height as the single family dwellings nearby, and none of the trees had nests as well.

Data from CNDDDB shows the only occurrence of American badger recorded within 5 miles to the Project Site was one that was collected in July 1900. The only other CNDDDB record of an American badger occurs 4.95 kilometers (3.1 miles) in a fallow field, on the outskirts of the City of Bakersfield on September 25, 2008. This species is presumed extant in these locations. However, with 1,023 years since the last known record of the American badger and no burrows on the Project Site, the likelihood of observing an American badger on the Project Site is low.

Although five special status plants occur within five miles of the Project Site, the Bakersfield smallscale is extirpated, leaving four special status plants with the potential to occur within the Project Site. The Habitat Assessment was conducted during the early blooming period of recurved larkspur and none was detected. The Habitat Assessment was conducted outside the blooming period for California satintail, hispid salty bird's-beak, and horn's milk-vetch. None of these three species and the habitat conditions conducive for them was observed. Therefore, the presence of California satintail, hispid salty bird's-beak, horn's milk-vetch, and recurved larkspur is low with low habitat suitability.

In conclusion, the Project Site has a high potential with suitable habitat for western mastiff bat; low potential and no habitat suitability for Bakersfield legless lizard, burrowing owl, San Joaquin kit fox, and Tipton kangaroo rat; no potential and low habitat for Swainson's hawk and American badger. Four special status plant species near the Project Site have low potential and low habitat suitability; California satintail, hispid salty bird's-beak, horn's milk-vetch and recurved larkspur. Utilization of the mitigation measures listed in Section 6 lists recommendations to avoid the incidental take of western mastiff bats during construction activities. A species specific survey for bat is recommended to supplement the Habitat Assessment, but a bat survey does not negate or eliminate mitigation measures.

6. Recommendations for Western Mastiff Bat

A species specific survey for bat can help determine if there is a presence or absence of bat in and around the Project Site, but mitigation measures is recommended regardless if a bat survey is conducted.

6.1 Species Specific Survey:

A daytime survey can be used to assess suitable habitat for nocturnal species, but is limited to the detection of those species. An evening species specific survey for bats is recommended to determine the absence or presence of bats in and around the Project Site.

There is only one other occurrence of bat reported by CNDDDB within the nine USGS 7.5-minute quadrangles of the Project Site. A single occurrence for Hooray bat, a common and non-listed species, was recorded in June 1894 and presumed extant. A specimen was collected approximately 6.32 kilometers (3.93 miles) at 155.11 degrees northwest to the Project Site. The exact location is unknown; the location provided by CNDDDB is an approximation in the center of Fruitvale.

If a bat survey is conducted, a qualified biologist will conduct the survey to identify suitable bat maternity roosting habitat within 7 days of the tree and dwelling removal date. For trees and dwelling with suitable habitat with bat roosting, follow-up emergence surveys and/or acoustic monitoring shall be conducted for ½ hour prior to sunset and 1 hour after sunset. If bats are not detected emerging from trees and acoustic activity indicates no roosting bats are present, no additional measures are required. Positive detection would be the presence of other bats and/or the western mastiff bat. Absence detection would be the lack of detection of any bat species, including non-listed species such as the Hooray bat.

6.2 Mitigation Measures:

For western mastiff bat roosts detected in trees:

- Prioritize limbs without roost features such as crevices and cavities to be trimmed first to encourage bats to vacate roost features.
- Create noise and vibration disturbance on the tree such as concussive hitting with equipment and/or chainsaw cutting for at least two minutes before working areas with roost features.
- Where feasible, carefully cut successive sections above the cavity to open it, waiting up to ten minutes in between each cut, and inspect to assess if cavity is empty or allow any bats inside to crawl or fly out.

- Where feasible, leave large limbs with roost features on the ground overnight to allow remaining bats to vacate.

For western mastiff bat roosts detected in building:

- Avoid activities during maternity roosting between April and August.

7. Study Limitations

This Report has been prepared in accordance with generally accepted environmental methodologies and contains all the limitations inherent in these methodologies. This Report documents Project Site conditions observed during field reconnaissance and does 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.

Works Cited

- Audubon Guide to North American Birds. (2022). <https://www.audubon.org>
- Bakersfield Legless Lizard - Anniella grinnelli*. (n.d.). Californiaherps.com Retrieved on March 10, 2023, from <https://californiaherps.com/lizards/pages/a.grinnellii.html#:~:text=Sometimes%20found%20in%20suburban%20gardens%20in%20Southern%20California.&text=Restricted%20to%20the%20southern%20San,the%20city%20limits%20of%20Bakersfield.>
- 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>
- California Native Plant Society. CNPS Rare Plant Inventory. <https://rareplants.cnps.org>
- CDFW. (17 June 2013). *California's Vernal Pools*. Retrieved from <https://www.wildlife.ca.gov/Conservation/Plants/Vernal-Pools>
- Center for Biological Diversity. (2022). Retrieved from <https://www.biologicaldiversity.org>
- Charadrius nivosus nivosus* | U.S. Fish & Wildlife Service. (n.d.). FWS.gov. Retrieved on March 10, 2023, from <https://ecos.fws.gov/ecp/species/8035>.
- D. Person, E., & Rainey, W. E. (1998). Distribution, Habitat Associations, Status, and Survey Methodologies for Three Molossid Bat Species (*Eumops perotis*, *Nyctinomops femorosaccus*, *Nyctinomops macrotis*) and the Vespertilionid (*Euderma maculatum*) Final Report. In <https://nrm.dfg.ca.gov/documents/Default.aspx> (98_05). California Department of Fish and Wildlife. Retrieved March 12, 2023, from <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=2913>
- eBird Database, Cornell University Lab of Ornithology. (2022). Retrieved from <https://ebird.org>
- Gary M. Fellers and Kathleen L. Freel. A Standardized Protocol for Surveying Aquatic Amphibians. Technical Report NPS/WRUC/NRTR-95-01 United States Department of the Interior National Park Service - Western Region National Biological Service - Cooperative Park Studies Unit The University of California - Davis, California. May 1995
- Geluso, K. N. 1978. Urine concentrating ability and renal structure of insectivorous bats. *J. Mammal.* 59:312-323.
- Hall, E.R. 1981. *The Mammals of North America*. 2 Vol. New York, New York: John Wiley and Sons, Inc.
- Howell, D. J. 1980. Adaptive variation in diets of desert bats has implications for evolution of feeding strategies. *J. Mammal.* 61:730-733.

Papenfuss, T. J. & J. F. Parham. 2013. Four new species of California legless lizards (*Anniella*). *Breviora* 536:1-17.

Parham, J. F. & T. J. Papenfuss. 2009. High genetic diversity among fossorial lizard populations (*Anniella pulchra*) in a rapidly developing landscape (central California). *Conservation Genetics* 10(1):169-176.

Sorex ornatus relictus | U.S. Fish & Wildlife Service. (n.d.). FWS.gov. Retrieved on March 9, 2023 from <https://www.fws.gov/species/buena-vista-lake-ornate-shrew-sorex-ornatus-relictus>

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

The IUCN Red List of Threatened Species. (n.d.). IUCN Red List of Threatened Species. Retrieved on March 10, 2023 from <https://www.iucnredlist.org/>

The State of California Natural Resources Agency Department of Fish and Game Report to the Fish and Game Commission - A Status Review of the California Tiger Salamander (*Ambystoma californiense*) January 11, 2010.

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

United States Geological Survey (USGS). (2022). NAS - Nonindigenous Aquatic Species. U.S. Department of the Interior. <https://nas.er.usgs.gov/>

Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California.

APPENDIX A

Site Visit Photos

Project Site



Photo 1. Northern boundary

BRG: 0°N (T) POS: 35.331785°N, 119.053419°W ±9ft ALT: 396ft



Photo 2. Western boundary

BRG: 260°W (T) POS: 35.331786°N, 119.053426°W ±13ft ALT: 397ft



Photo 3. Southern boundary

BRG: 179°S (T) **POS:** 35.331790°N, 119.053414°W ±9ft **ALT:** 398ft

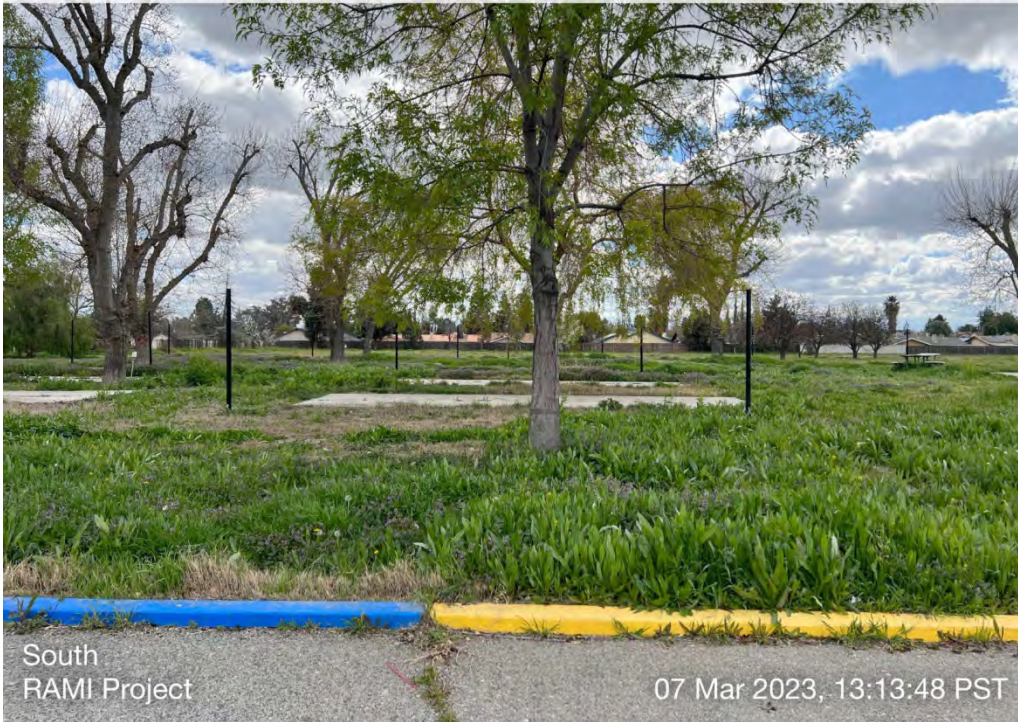


Photo 4. Eastern boundary

BRG: 90°E (T) **POS:** 35.331768°N, 119.053400°W ±9ft **ALT:** 394ft



Photo 5. Middle of the Project site facing east

BRG: 90°E (T) **POS:** 35.331048°N, 119.053864°W ±13ft **ALT:** 384ft

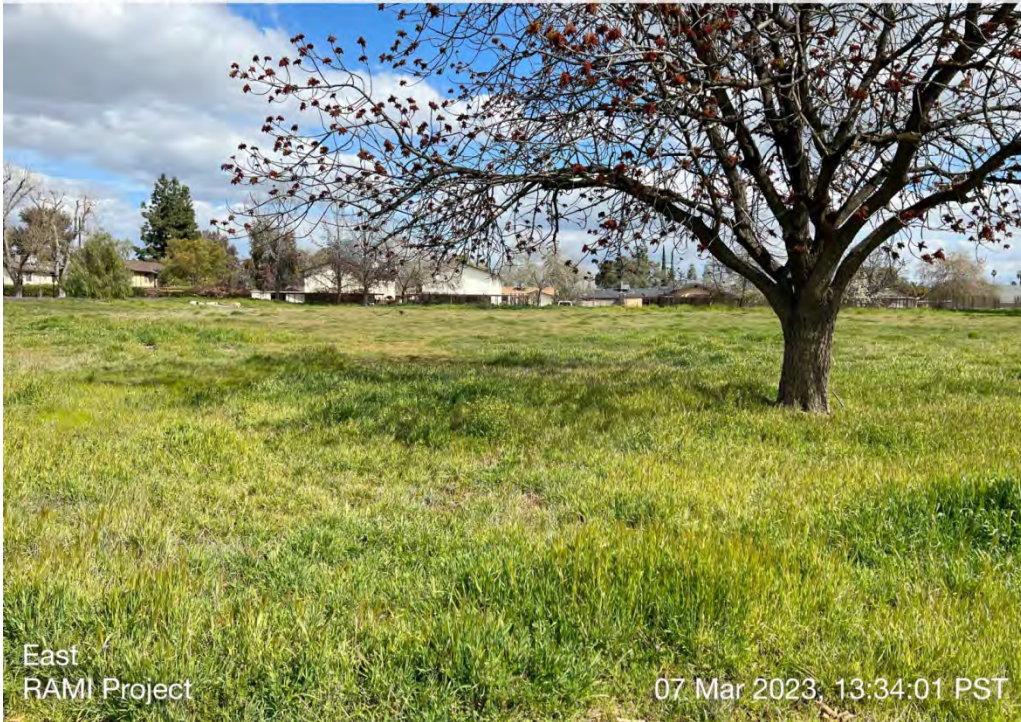


Photo 6. Middle of the Project site facing south

BRG: 180°S (T) **POS:** 35.331065°N, 119.053853°W ±13ft **ALT:** 378ft



Photo 7. Middle of the Project site facing west

BRG: 268°W (T) **POS:** 35.331036°N, 119.053852°W ±13ft **ALT:** 385ft



Photo 8. Middle of the Project site facing north

BRG: 0°N (T) **POS:** 35.331019°N, 119.053835°W ±9ft **ALT:** 392ft



Photo 9. Woodpecker granary in mulberry tree in middle of property

BRG: 244°SW (T) POS: 35.331663°N, 119.053693°W ±13ft ALT: 400ft



Photo 10. Blue atlas cedar tree with less than 20% canopy on southeast quarter of property in APN 441-382-08

BRG: 132°SE (T) POS: 35.330891°N, 119.053038°W ±9ft ALT: 395ft



Photo 11. Grove of mulberry trees with woodpecker damage located on the south section of property in APN 441-382-04

BRG: 350°N (T) POS: 35.331164°N, 119.053150°W ±13ft ALT: 393ft



Photo 12. Top of an unmarked electricity pole with woodpecker damage located on the northeast quarter of APN 441-382-04



Photo 13. Unmarked electricity pole with woodpecker damage located on northeast quarter of APN 441-382-04

BRG: 174°S (T) **POS:** 35.331547°N, 119.052945°W ±13ft **ALT:** 391ft



Photo 14. In-ground pit filled with garbage located on the southeast quarter of APN 441-382-04

BRG: 353°N (T) **POS:** 35.331629°N, 119.052949°W ±9ft **ALT:** 404ft



Photo 15. In-ground pit filled with garbage located on the southeast quarter of property in APN 441-382-04



Photo 16. Burnt outer building located in the middle of the property with potential suitable habitat for bat roost located in the middle of the property in APN 441-382-04



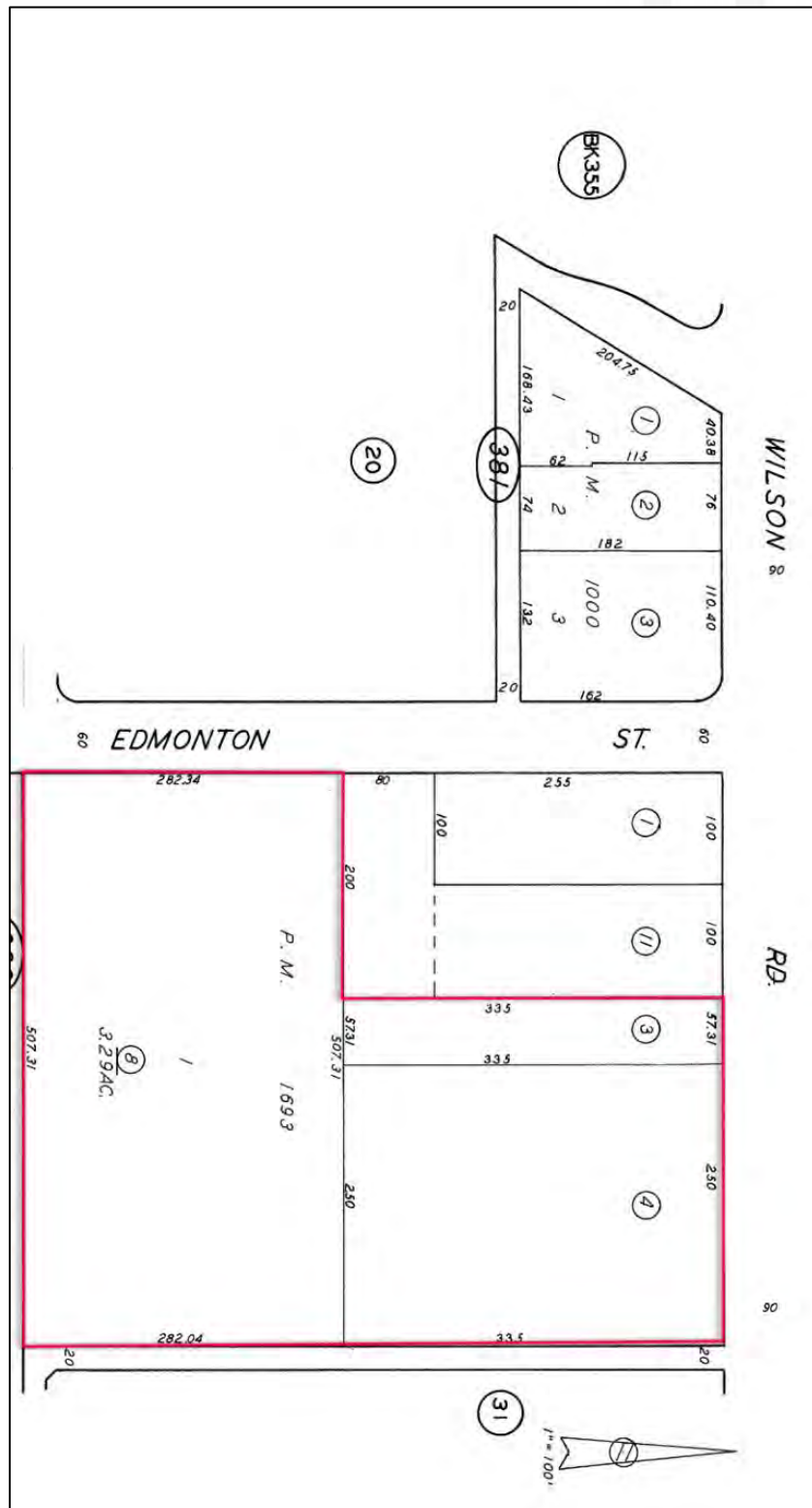
Photo 17. Damaged side doors on the main (larger) building located on the north section of APN 441-382-04

BRG: 272°W (T) POS: 35.331992°N, 119.053210°W ±9ft ALT: 401ft



APPENDIX B

Site Plan





1322 E. Shaw Avenue, Suite 400 Fresno, CA, 93710
www.soarhere.com • 559.547.8884

APPENDIX C

California Department of Fish and Wildlife California Natural
Diversity Database



Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Lamont (3511838) OR Gosford (3511931) OR Oil Center (3511848) OR Oildale (3511941) OR Rosedale (3511942) OR Stevens (3511932) OR Weed Patch (3511828) OR Conner (3511921) OR Millux (3511922))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
alkali mariposa-lily <i>Calochortus striatus</i>	PMLIL0D190	None	None	G3	S2S3	1B.2
American badger <i>Taxidea taxus</i>	AMAJF04010	None	None	G5	S3	SSC
Bakersfield cactus <i>Opuntia basilaris</i> var. <i>treleasei</i>	PDCAC0D055	Endangered	Endangered	G5T1	S1	1B.1
Bakersfield legless lizard <i>Anniella grinnelli</i>	ARACC01050	None	None	G2G3	S2S3	SSC
Bakersfield smallscale <i>Atriplex tularensis</i>	PDCHE04240	None	Endangered	GX	SX	1A
blunt-nosed leopard lizard <i>Gambelia sila</i>	ARACF07010	Endangered	Endangered	G1	S1	FP
Buena Vista Lake ornate shrew <i>Sorex ornatus relictus</i>	AMABA01102	Endangered	None	G5T1	S1	SSC
burrowing owl <i>Athene cunicularia</i>	ABNSB10010	None	None	G4	S3	SSC
calico monkeyflower <i>Diplacus pictus</i>	PDSCR1B240	None	None	G2	S2	1B.2
California alkali grass <i>Puccinellia simplex</i>	PMPOA53110	None	None	G2	S2	1B.2
California glossy snake <i>Arizona elegans occidentalis</i>	ARADB01017	None	None	G5T2	S2	SSC
California horned lark <i>Eremophila alpestris actia</i>	ABPAT02011	None	None	G5T4Q	S4	WL
California jewelflower <i>Caulanthus californicus</i>	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
California legless lizard <i>Anniella</i> spp.	ARACC01070	None	None	G3G4	S3S4	SSC
California satintail <i>Imperata brevifolia</i>	PMPOA3D020	None	None	G3	S3	2B.1
California screw moss <i>Tortula californica</i>	NBMUS7L090	None	None	G2G3	S2?	1B.2
coast horned lizard <i>Phrynosoma blainvillii</i>	ARACF12100	None	None	G3G4	S4	SSC
Comanche Point layia <i>Layia leucopappa</i>	PDAST5N0A0	None	None	G1	S1	1B.1
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	PDAST5L0A1	None	None	G4T2	S2	1B.1



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Crotch bumble bee <i>Bombus crotchii</i>	IIHYM24480	None	Candidate Endangered	G2	S2	
fulvous whistling-duck <i>Dendrocygna bicolor</i>	ABNJB01010	None	None	G5	S1	SSC
giant kangaroo rat <i>Dipodomys ingens</i>	AMAFD03080	Endangered	Endangered	G1G2	S1S2	
great egret <i>Ardea alba</i>	ABNGA04040	None	None	G5	S4	
Great Valley Cottonwood Riparian Forest <i>Great Valley Cottonwood Riparian Forest</i>	CTT61410CA	None	None	G2	S2.1	
Great Valley Mesquite Scrub <i>Great Valley Mesquite Scrub</i>	CTT63420CA	None	None	G1	S1.1	
heartscale <i>Atriplex cordulata</i> var. <i>cordulata</i>	PDCHE040B0	None	None	G3T2	S2	1B.2
hispid salty bird's-beak <i>Chloropyron molle</i> ssp. <i>hispidum</i>	PDSCR0J0D1	None	None	G2T1	S1	1B.1
hoary bat <i>Lasiurus cinereus</i>	AMACC05032	None	None	G3G4	S4	
Hoover's eriastrum <i>Eriastrum hooveri</i>	PDPLM03070	Delisted	None	G3	S3	4.2
Horn's milk-vetch <i>Astragalus hornii</i> var. <i>hornii</i>	PDFAB0F421	None	None	GUT1	S1	1B.1
Kern mallow <i>Eremalche parryi</i> ssp. <i>kernensis</i>	PDMAL0C031	Endangered	None	G3G4T3	S3	1B.2
Kern shoulderband <i>Helminthoglypta callistoderma</i>	IMGASC2080	None	None	G1	S1	
Lost Hills crownscale <i>Atriplex coronata</i> var. <i>vallicola</i>	PDCHE04371	None	None	G4T3	S3	1B.2
Mason's neststraw <i>Stylocline masonii</i>	PDAST8Y080	None	None	G1	S1	1B.1
moestan blister beetle <i>Lytta moesta</i>	IICOL4C020	None	None	G2	S2	
monarch - California overwintering population <i>Danaus plexippus plexippus</i> pop. 1	IILEPP2012	Candidate	None	G4T1T2	S2	
Morrison's blister beetle <i>Lytta morrisoni</i>	IICOL4C040	None	None	G1G2	S2	
Nelson's (=San Joaquin) antelope squirrel <i>Ammospermophilus nelsoni</i>	AMAFB04040	None	Threatened	G2G3	S2S3	
oil neststraw <i>Stylocline citroleum</i>	PDAST8Y070	None	None	G3	S3	1B.1
Piute Mountains navarretia <i>Navarretia setiloba</i>	PDPLM0C0S0	None	None	G2	S2	1B.1



Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
recurved larkspur <i>Delphinium recurvatum</i>	PDRAN0B1J0	None	None	G2?	S2?	1B.2
San Joaquin coachwhip <i>Masticophis flagellum ruddocki</i>	ARADB21021	None	None	G5T2T3	S3	SSC
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	AMAJA03041	Endangered	Threatened	G4T2	S2	
San Joaquin pocket mouse <i>Perognathus inornatus</i>	AMAFD01060	None	None	G2G3	S2S3	
San Joaquin Valley giant flower-loving fly <i>Rhaphiomidas trochilus</i>	IIDIP05010	None	None	G1	S1	
San Joaquin woollythreads <i>Monolopia congdonii</i>	PDASTA8010	Endangered	None	G2	S2	1B.2
short-nosed kangaroo rat <i>Dipodomys nitratooides brevinasus</i>	AMAFD03153	None	None	G3T1T2	S1S2	SSC
snowy egret <i>Egretta thula</i>	ABNGA06030	None	None	G5	S4	
Swainson's hawk <i>Buteo swainsoni</i>	ABNKC19070	None	Threatened	G5	S3	
Tejon poppy <i>Eschscholzia lemmonii ssp. kernensis</i>	PDPAP0A071	None	None	G5T2	S2	1B.1
Tipton kangaroo rat <i>Dipodomys nitratooides nitratooides</i>	AMAFD03152	Endangered	Endangered	G3T1T2	S1S2	
tricolored blackbird <i>Agelaius tricolor</i>	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
Tulare grasshopper mouse <i>Onychomys torridus tularensis</i>	AMAFF06021	None	None	G5T1T2	S1S2	SSC
valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	IICOL48011	Threatened	None	G3T2T3	S3	
Valley Sacaton Grassland <i>Valley Sacaton Grassland</i>	CTT42120CA	None	None	G1	S1.1	
Valley Saltbush Scrub <i>Valley Saltbush Scrub</i>	CTT36220CA	None	None	G2	S2.1	
Valley Sink Scrub <i>Valley Sink Scrub</i>	CTT36210CA	None	None	G1	S1.1	
western mastiff bat <i>Eumops perotis californicus</i>	AMACD02011	None	None	G4G5T4	S3S4	SSC
western pond turtle <i>Emys marmorata</i>	ARAAD02030	None	None	G3G4	S3	SSC
western ridged mussel <i>Gonidea angulata</i>	IMBIV19010	None	None	G3	S1S2	
western snowy plover <i>Charadrius nivosus nivosus</i>	ABNNB03031	Threatened	None	G3T3	S3	SSC



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
western spadefoot <i>Spea hammondi</i>	AAABF02020	None	None	G2G3	S3S4	SSC
western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
white-faced ibis <i>Plegadis chihi</i>	ABNGE02020	None	None	G5	S3S4	WL
white-tailed kite <i>Elanus leucurus</i>	ABNKC06010	None	None	G5	S3S4	FP
yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 66



1322 E. Shaw Avenue, Suite 400 Fresno, CA, 93710
www.soarhere.com • 559.547.8884

APPENDIX D

IPaC Resource List
(USFWS)

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Kern County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

🏢 (916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act requires Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are not shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Buena Vista Lake Ornate Shrew <i>Sorex ornatus relictus</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1610	Endangered
Fisher <i>Pekania pennanti</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3651	Endangered
Giant Kangaroo Rat <i>Dipodomys ingens</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6051	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2873	Endangered
Tipton Kangaroo Rat <i>Dipodomys nitratoides nitratoides</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7247	Endangered

Birds

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8193	Endangered

Southwestern Willow Flycatcher *Empidonax traillii extimus* Endangered

Wherever found

There is final critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/6749>

Western Snowy Plover *Charadrius nivosus nivosus* Threatened

There is final critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/8035>

Yellow-billed Cuckoo *Coccyzus americanus* Threatened

There is final critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/3911>

Reptiles

NAME

STATUS

Blunt-nosed Leopard Lizard *Gambelia silus* Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/625>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus* Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Crustaceans

NAME

STATUS

Vernal Pool Fairy Shrimp *Branchinecta lynchi* Threatened

Wherever found

There is final critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/498>

Flowering Plants

NAME	STATUS
Bakersfield Cactus <i>Opuntia treleasei</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7799	Endangered
California Jewelflower <i>Caulanthus californicus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4599	Endangered
San Joaquin Adobe Sunburst <i>Pseudobahia peirsonii</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2931	Threatened
San Joaquin Woolly-threads <i>Monolopia (=Lembertia) congdonii</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3746	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow <i>Passerculus sandwichensis beldingi</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15

Black Tern *Chlidonias niger*

Breeds May 15 to Aug 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3093>

Black-chinned Sparrow *Spizella atrogularis*

Breeds Apr 15 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9447>

Bullock's Oriole *Icterus bullockii*

Breeds Mar 21 to Jul 25

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

California Gull *Larus californicus*

Breeds Mar 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

California Thrasher *Toxostoma redivivum*

Breeds Jan 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Cassin's Finch *Carpodacus cassinii*

Breeds May 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9462>

Clark's Grebe *Aechmophorus clarkii*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat *Geothlypis trichas sinuosa*

Breeds May 20 to Jul 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Golden Eagle *Aquila chrysaetos*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Lawrence's Goldfinch *Carduelis lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Long-eared Owl *asio otus*

Breeds Mar 1 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3631>

Marbled Godwit *Limosa fedoa*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9481>

Nuttall's Woodpecker *Picoides nuttallii*

Breeds Apr 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9410>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Pinyon Jay *Gymnorhinus cyanocephalus*

Breeds Feb 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9420>

Tricolored Blackbird *Agelaius tricolor*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3910>

Western Grebe *aechnophorus occidentalis*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/6743>

Willet *Tringa semipalmata*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

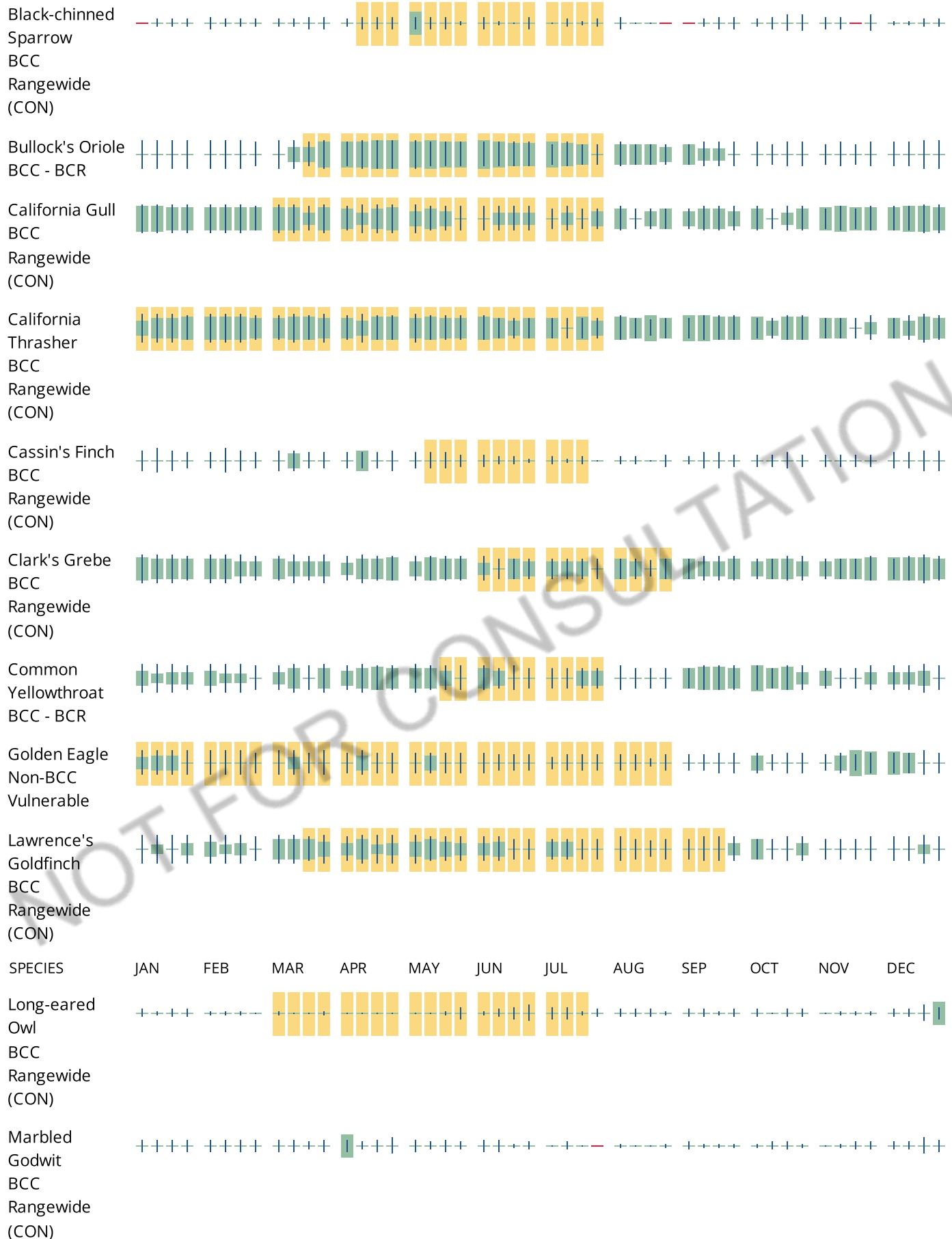
The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

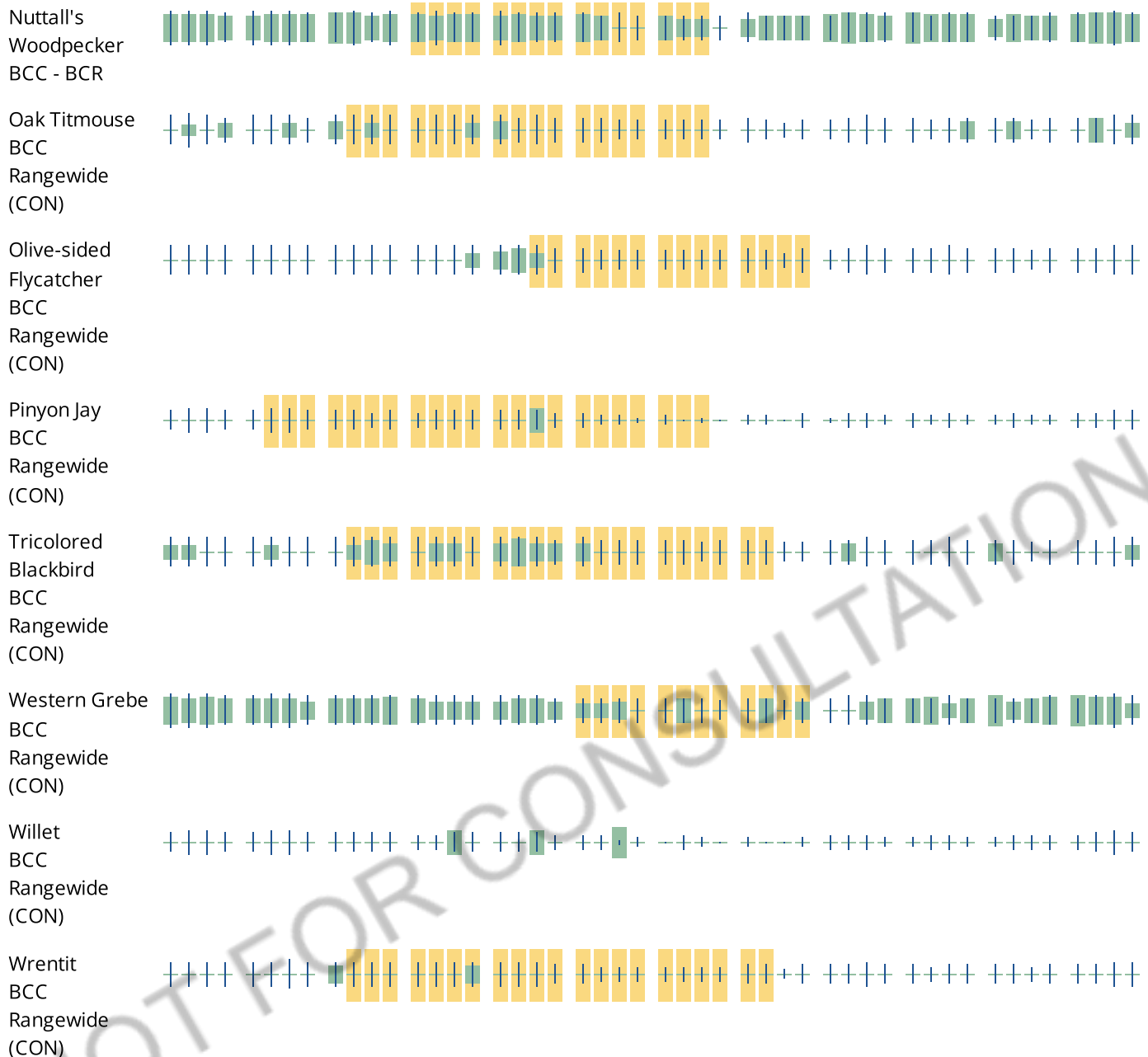
Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid

and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and

geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.