

Spreckels Distribution Center Project

September 2024

General Biological Resources Assessment

Apple Valley North United States Geological Survey
7.5-Minute Topographic Quadrangle Map

Prepared By



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TABLE OF CONTENTS

Section	Page
1.0 INTRODUCTION AND EXECUTIVE SUMMARY	1-1
2.0 PROPERTY DESCRIPTION & LOCATION	2-1
3.0 FOCUSED STUDY/SPECIES OF CONCERN.....	3-1
4.0 METHODS.....	4-1
4.1 Focused Assessment	4-1
4.1.1 Burrowing Owl	4-2
4.1.2 Swainson's Hawk.....	4-2
4.1.3 Crotch's Bumblebee.....	4-2
4.1.4 San Joaquin Kit Fox.....	4-2
4.2 Evaluation of Wetlands and Waterways.....	4-3
5.0 GENERAL BIOLOGICAL SURVEY RESULTS	5-1
5.1 Vegetation Communities and Land Cover Types	5-1
5.2 Wildlife	5-1
5.3 Special-Status Plants	5-1
5.4 Special-Status Wildlife.....	5-1
5.4.1 Burrowing Owl	5-2
5.4.2 Swainson's Hawk.....	5-2
5.4.3 Crotch's Bumblebee.....	5-2
5.4.4 San Joaquin Kit Fox.....	5-3
5.5 Wetlands and Waterways	5-3
6.0 CONCLUSION AND RECOMMENDATIONS.....	6-1
7.0 CERTIFICATION.....	7-1

FIGURES

Figure 1	Regional Location.....	2-2
Figure 2	Site Vicinity.....	2-3
Figure 3	Vegetation Communities and Land Cover Types	5-4
Figure 4	Literature Review	5-5
Figure 5	Critical Habitat	5-6
Figure 6	Soils	5-7
Figure 7	National Wetland Inventory	5-8
Figure 8	Swainson's Hawk Literature Review	5-9

APPENDICES

Appendix A	Special-Status Species Potential for Occurrence within the Project Site
Appendix B	Photograph Log
Appendix C	Plant Species Observed within the Study Area
Appendix D	Wildlife Species Detected within the Study Area
Appendix E	Burrowing Owl Survey Report
Appendix F	San Joaquin County Multi-Species Habitat Conservation & Open Space Plan Spreckels Distribution Center Project Incidental Take Minimization Measures

1.0 INTRODUCTION AND EXECUTIVE SUMMARY

NOREAS Inc. (NOREAS) is pleased to provide this General Biological Resources Assessment for the Spreckels Distribution Center Project (hereafter referred to as the 'Project'). The Project Site is limited to ≤ 15 -acres – located at 407 Spreckels Avenue, which is part of the existing Spreckels Business Park in the City of Manteca, San Joaquin County, California. This document details the methods and results of baseline biological resources surveys and habitat assessments for the Project. For the purposes of this document, the “study area” includes the Project’s proposed ground disturbance footprint (Project Site), and a buffer (Figures 1 and 2).

The Project Site is currently vacant and covered in routinely disked ruderal habitat which has been substantially disturbed by human activity, and was previously developed as a portion of the Spreckels Sugar Factory. The sugar factory was built and began operation in 1918. The factory operated for over 75 years. The factory ceased operations in 1996, and after its closure, the plant was eventually demolished in 1997. Currently, the surrounding land uses include single-family residential units to the west, Spreckels Avenue to the east, and commercial and industrial land uses to the north and south.

The Project is within the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan boundaries as well. But all the land cover types within the Project Site are ruderal, developed or disturbed habitats. The Project Site has been significantly altered by human activities over the past 106 years, as it has been cleared, graded and includes a landscape which is dominated by non-native species due to human influence. The Project is not collocated with any United States Fish and Wildlife Service (USFWS) designated critical habitat, nor were any special status species detected during the 2020 and 2024 field survey events.

The regular disking of the Project Site’s non-native, developed and disturbed land cover has substantially decreased its value as suitable breeding, nesting, and foraging habitat for native species as well. Greatly reducing its value as a migration or dispersal habitat for native wildlife due to the severe constraints imposed by the surroundings residential homes, busy thoroughfares (e.g., Spreckels Avenue), commercial and industrial land uses. This situation underscores the Project’s limited ecological function within the broader landscape. In conclusion, the Project Site presents a unique scenario as an anthropogenic biome, deeply influenced and shaped by extensive human activities for over a century. This extensive development and disturbance regime have resulted in the creation of a location where sensitive biological resources, special-status species, or similar ecological concerns are notably absent.

2.0 PROPERTY DESCRIPTION & LOCATION

For the purposes of this document, the “study area” includes the Project’s proposed ground disturbance footprint (Project Site) and a buffer (Figure 2). The Project can be found on the Manteca United States Geological Survey (USGS) 7.5-Minute Topographic Quadrangle Map (USGS 1987), Mount Diablo Meridian, Township 2 South, Range 7 East, within Sections 3 and 4 (Figure 1).

The Project Site is currently vacant and routinely disked. The Project Site was previously developed as a portion of the Spreckels Sugar Factory. The sugar factory was built and began operation in 1918. The factory operated for over 75 years, producing refined sugar from sugar beets grown in the surrounding agricultural areas. It was one of the largest sugar beet processing plants in the world when it was built. The factory ceased operations in 1996, and after its closure, the plant was eventually demolished in 1997. Currently, the surrounding land uses include single-family residential units to the west, Spreckels Avenue to the east, and commercial and industrial land uses to the north and south. The Project is within the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan boundaries as well. But all the land cover types within the Project Site are ruderal, developed or disturbed habitats. The Project Site has been significantly altered by human activities over the past 106 years, as it has been cleared and graded and includes a landscape which is dominated by non-native species due to human influence.

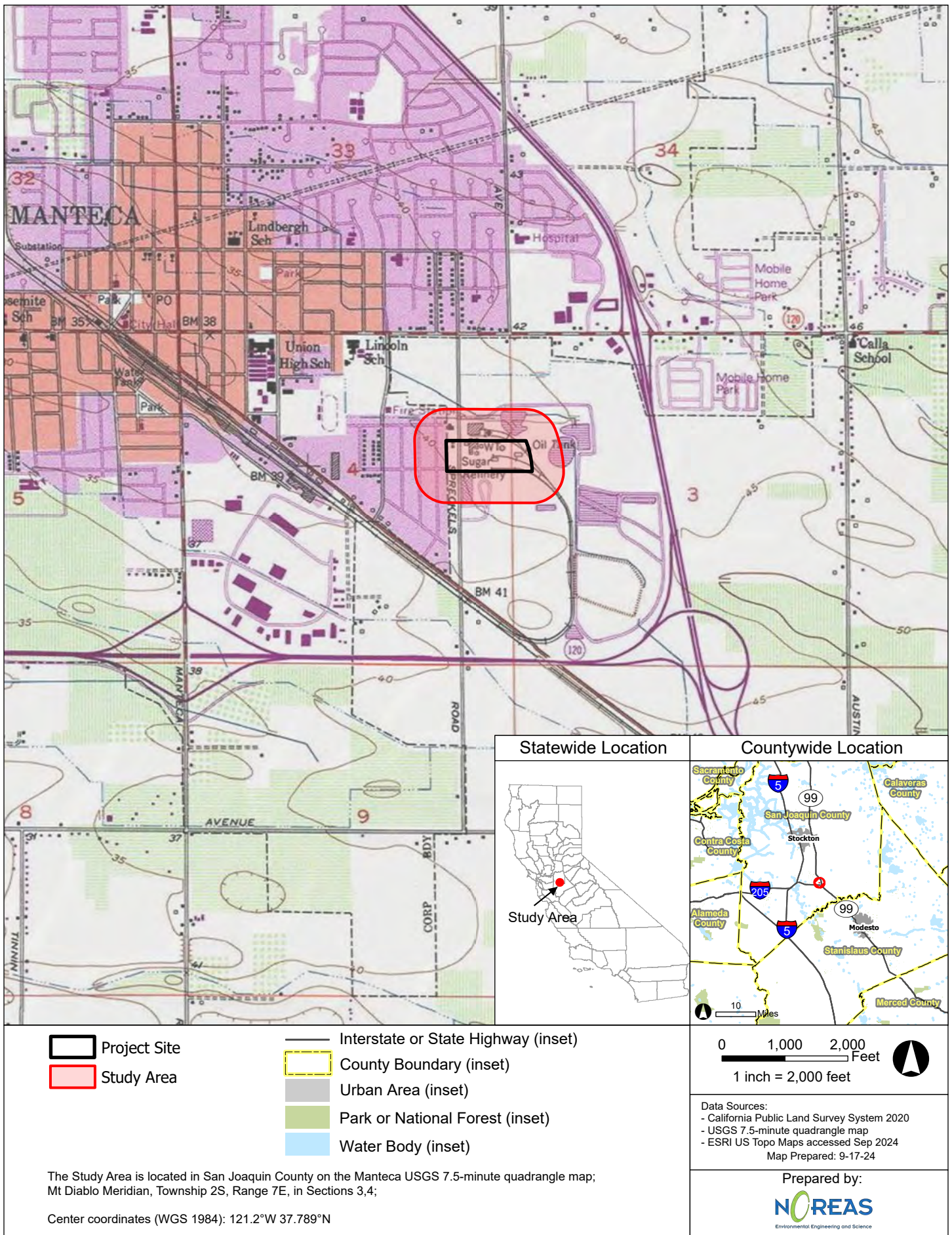


Figure 1. Regional Location



Figure 2. Site Vicinity

3.0 FOCUSED STUDY/SPECIES OF CONCERN

Prior to beginning field surveys, resource specialists were consulted and available information from resource management plans, databases and relevant documents were reviewed to determine the locations and types of biological resources¹ that have the potential to exist within - and adjacent to, the study area. Biological resources were evaluated within several miles of the Project.

The materials reviewed included - but were not limited to, the following:

- ✓ USFWS Critical Habitat Mapper and File Data (USFWS 2024a);
- ✓ USFWS San Joaquin County Field Office Species List (USFWS 2024b);
- ✓ USFWS National Wetlands Inventory database (USFWS 2024c);
- ✓ San Joaquin County Multi-Species Habitat Conservation & Open Space Plan (SJMSCP 2024);
- ✓ City of Manteca Development Services Department Spreckels Distribution Center Project Initial Study/Mitigated Negative Declaration (Raney Planning and Management Inc. 2021);
- ✓ Wetland & Biological Resources Assessment of 407 Spreckels Avenue in Manteca (Barnet Environmental 2020);
- ✓ Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys for the California Central Valley (Swainson's Hawk Technical Advisory Committee (SHTAC). 2000.);
- ✓ Home Range and Habitat Use of Breeding Swainson's Hawks in California. Journal of Raptor Research 29:193–197 (Babcock 1995);
- ✓ Effect of Vegetative Cover on Foraging Site Selection by Swainson's Hawk. Condor 84:153–159 (Bechard 1982);
- ✓ Biology, movements, and habitat relationships of the Swainson's Hawk in California (Estep 1989);
- ✓ Foraging by Swainson's Hawks on the landscape (Swolgaard et al. 2008);
- ✓ Regional South Coast Missing Linkages Project Report (South Coast Wildlands 2008);
- ✓ Fish and Game Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California (California Department of Fish and Game. 1994);
- ✓ California Natural Diversity Database maintained by the California Department of Fish and Wildlife (CDFW) (CDFW 2024);
- ✓ Natural Resource Conservation Service, Soil Survey Geographic Database (SSURGO) (USDA-NRCS 2024a);
- ✓ California Native Plant Society (CNPS) Electronic Inventory (CNPS 2024); and
- ✓ Aerial Photographs (Microsoft Corporation 2024).

¹ For the purposes of this analysis, "biological resources" refers to the plants, wildlife, and habitats that occur, or have the potential to occur, within the study area.

4.0 METHODS

To support the analysis detailed within Section 3.0 above, pedestrian-based field surveys were performed to assess land cover, general and dominant vegetation communities, habitat types, and species present within communities. Community descriptions were based on observed dominant vegetation composition, and derived from the criteria and definitions of widely accepted vegetation classification systems (Holland 1986 and Sawyer et al. 2009). Plants were identified to the lowest taxonomic level sufficient to determine whether the species observed were non-native, native, or special-status. Plants of uncertain identity were subsequently identified from taxonomic keys (Baldwin et al. 2012). Scientific and common species names were recorded according to The Jepson Manual (Baldwin et al. 2012). The presence of a wildlife species was based on direct observation or detection of wildlife sign (e.g., tracks, burrows, nests, scat, skeletal remains or vocalization). Field data compiled for wildlife species included scientific name, and common name. Wildlife of uncertain identity were documented and subsequently identified from specialized field guides and related literature (Burt and Grossenheider 1980; Halfpenny 2000; Sibley 2000; Elbroch 2003 and Stebbins 2003).

Additionally, the Project Site was assessed for its potential to support special-status species² based on habitat³ suitability comparisons with reported occupied habitats and the following potential for occurrence definitions were utilized within Appendix A:

- **Absent [A]** – Species distribution is restricted by substantive habitat requirements which do not occur – or are negligible within the Project Site, and no further survey or study is necessary to determine likely presence or absence of this species.
- **Habitat Present [HP]** – Species distribution is restricted by substantive habitat requirements which occur within the Project Site, and further assessment may be necessary to determine likely presence or absence of species.
- **Present [P]** – Species or species sign were observed within the Project Site, or historically has been documented within Project limits.
- **Critical Habitat [CH]** – The Project Site is located within a USFWS-designated critical habitat unit.

4.1 Focused Assessment

Additional surveys and assessments specifically targeted certain species of nesting birds and raptors (e.g., Burrowing Owl and Swainson's Hawk), small mammals (i.e., San Joaquin Kit Fox), Crotch's bumblebee (insect), and wetlands and waterways. It's crucial to note the ecological interconnections present among these species, so even those species not directly under our survey lens share habitats with the targeted species. This overlap is due to similarities in the vegetation communities and land cover types that cater to multiple species, both common and special status alike. Furthermore, many birds and annual plants share synchronized breeding and blooming cycles. Consequently, while we might have been focused on a specific species, the very nature of shared habitats and life cycles means that our comprehensive surveys and assessments within the Project Site would inherently detect and account for a broader spectrum of species. Hence, any species that shares habitat, reproductive or blooming cycles with our targeted species, would have been detected during the 2024 surveys.

² For the purposes of this analysis, "special-status species" refers to any species that has been afforded special protection by federal, state, or local resource agencies (e.g., U.S. Fish and Wildlife Service [USFWS], California Department of Fish and Wildlife [CDFW]) or resource conservation organizations (e.g., California Native Plant Society [CNPS], etc.). The term "special-status species" excludes those avian species solely identified under Section 10 of the Migratory Bird Treaty Act (MBTA) for federal protection. Nonetheless, MBTA Section 10 protected species are afforded avoidance and minimization protections per state and federal requirements.

³ A "habitat" is defined as the place - or type of locale, where a plant or animal, naturally or normally lives and grows.

4.1.1 Burrowing Owl

Survey methods for Burrowing Owl (*Athene cunicularia*) were derived from generally accepted professional standards, including – but not limited to, the 1993 California Burrowing Owl Consortium Survey Protocol and Mitigation Guidelines (CBOC 1993), the 1995 and 2012 California Department of Fish and Game Staff Reports on Burrowing Owl Mitigation (CDFG 1995 and 2012). Detailed Burrowing Owl survey methods, results, and assumptions are presented within Appendix E. Please note that Burrowing Owl is of limited distribution - or occurs infrequently throughout California, and therefore their status is monitored by resource agencies⁴. The Burrowing Owl is not a Federal or State listed species.

4.1.2 Swainson's Hawk

Survey methods for Swainson's Hawk (*Buteo swainsoni*) were derived from generally accepted professional standards including the 2000 Recommended Timing and Method for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000). Surveys were conducted in a manner that maximized the potential to observe adult Swainson's Hawks, as well as their nests and chicks. Census activities were conducted within a ½ mile of the Project Site. All avian species detected were noted. When a raptor was detected, either binoculars or a spotting scope was employed to identify the species. Behavior was also noted. Additionally, this evaluation included a review of the species natural history and field work assessed the Project Site to determine if it contained the essential habitat elements needed to provide the necessary physical and biological features required to support the survival and reproduction of the species. A literature review of the known Swainson's Hawk nests within 5 miles of the study area was also performed.

4.1.3 Crotch's Bumblebee

Survey methods for Crotch's Bumblebee (*Bombus crotchii* – [CBB]) were derived from generally accepted professional standards. Evaluation methods for assessing the suitability of the Project Site for CBB involved a thorough site visit to determine the presence of essential habitat elements. This approach included examining whether the Project Site had suitable nesting conditions and assessing the availability of diverse nectar and pollen resources critical for CBB colony development. The assessment also considered the Project's isolation from natural habitats that could support CBB and evaluated the surrounding landscape's composition and proximity to determine the likelihood of CBB occurrence.

4.1.4 San Joaquin Kit Fox

Survey methods for San Joaquin Kit Fox (*Vulpes macrotis mutica*) focused on the presence of essential features required for the survival and reproduction of the species within the Project Site. This included an evaluation of the following key physical and biological elements:

- ✓ Denning sites;
- ✓ Foraging habitat;
- ✓ Vegetative cover; and
- ✓ Movement corridors.

This assessment also included slowly and methodically inspecting the Project Site for drainages, wildlife trails, water sources, potential wildlife corridors, waterway crossings, and other micro-habitats that could encourage Canidae visitation.

⁴ This species could be important locally with deference to preparation of environmental documents relating to the California Environmental Quality Act (CEQA) - based on CEQA Guidelines §15125 (c), and/or §15380.

4.2 Evaluation of Wetlands and Waterways

The Project Site was examined to assess the presence of an ordinary highwater mark (OHWM), hydrophytes, distinct soils, riparian and riverine resources, lakes, rivers, streambeds, surface waters and wetlands, vernal pools, discernable bed and bank signatures, aquatic resources, or evidence of a change in vegetation type, density, or vigor. These field surveys were performed to map waters potentially regulated by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and streambeds and associated riparian habitat as regulated by the CDFW. This evaluation was completed using data acquired from current and historic imagery, hydrologic databases, analytic tools, and physical on the ground analyses and measurements by subject matter experts.

5.0 GENERAL BIOLOGICAL SURVEY RESULTS

Weather conditions during the during the 15 April, 08 May, 14 June and 11 July, 2024 surveys included clear to cloudy skies, temperatures ranging from 51–94°F, with winds fluctuating from 0 to 10 miles per hour (mph). Representative photos of the study area are provided in Appendix B.

5.1 Vegetation Communities and Land Cover Types

Two vegetation community and land cover types were observed within the study area: Ruderal and Developed/Disturbed/ (Figure 3). These types are described below.

Ruderal

The Project Site is characterized as a ruderal vegetation community that includes locations that have been subject to recent disking, grading, clearing, and other physical human modification of soils and vegetation. These lands also include areas with exposed soils with minimal vegetation, with moderate cover by various non-native annual grasses, and weeds (adapted for growth on substrates subject to disturbance). Common non-native plants species detected within this type include Maltese star-thistle (*Centaurea melitensis*), stinknet (*Oncosiphon piluliferum*), and cheeseweed (*Malva neglecta*).

Developed/Disturbed

Disturbed/Developed lands within the study area include locales that have been developed, paved, cleared, graded or otherwise altered by anthropogenic activities (i.e., single-family residential units, commercial and industrial land uses, paved roads, ornamental and irrigated landscaping, etc.). Common non-native plants species detected within this type included ripgut brome (*Bromus diandrus*), Sahara mustard (*Brassica Tournefortii*), Mexican fan palm (*Washingtonia Robusta*), and Schismus (*Schismus barbatus*).

5.2 Wildlife

Wildlife species observed within the study area consisted of commonly-occurring species - including, but not limited to, Common raven (*Corvus corax*), Red-tailed hawk (*Buteo jamaicensis*), and European starling (*Sturnus vulgaris*). Wildlife detected during the surveys are identified in Appendix D.

5.3 Special-Status Plants

No Federal or State listed plant species were observed within the Project Site during the 2024 field surveys. The 2024 survey results are consistent with prior surveys performed within the Project Site in 2020 (Barnet Environmental 2020). However, several have been documented within 10 miles of the Project (Figure 4). The Project Site includes no USFWS-designated critical habitat for plants (Figure 5). Special-status species known to occur within 10 miles of the Project, and their potential for occurrence, are detailed within Appendix A. Plant species observed during the field surveys are listed in Appendix C.

5.4 Special-Status Wildlife

No Federal or State listed wildlife species were observed within the Project Site during the 2024 field surveys. The 2024 survey results are consistent with prior surveys performed within the Project Site in 2020 (Barnet Environmental 2020). However, several have been documented within 10 miles of the Project (Figure 4). The Project Site includes no USFWS-designated critical habitat for wildlife (Figure 5). Special-status species known to occur within 10 miles of the Project, and their potential for occurrence, are detailed within Appendix A. Wildlife species observed during the field surveys are listed in Appendix D.

5.4.1 Burrowing Owl

Burrowing Owls were not detected nesting, foraging, or dispersing within the study area during any of the survey events in 2024. Additionally, no potential burrows or burrow complexes were detected within the Project Site. The lack of Burrowing Owl is likely a result of regular disking within the Project Site, and the presence of owl predators (e.g., Common raven, and Red-tailed hawk). The 2024 survey results are consistent with prior owl surveys performed within the Project Site in 2020 (Barnet Environmental 2020). Therefore, there is no presumption that Project implementation would result in the loss of individual Burrowing Owls, or that it would adversely affect local or regional populations of them. Wildlife species detected during the surveys are listed in Appendix D. Detailed Burrowing Owl survey methods, results, and assumptions are presented within Appendix E.

5.4.2 Swainson's Hawk

Our survey results are clear: no Swainson Hawk or Swainson Hawk nests were detected within a half-mile of the Project Site (Figure 8). Additionally, the Project Site offers poor foraging habitat, being surrounded by urban development and provides limited food sources for hawks. Habitat degradation, caused by regular disking, has reduced prey availability, including small mammals, insects, and reptiles. Without these essential food sources, the Project Site cannot support foraging Swainson's Hawk. The absence of water sources like rivers, streams, or ponds further reduces the likelihood of nesting within the Project Site, particularly since there is no riparian vegetation, which Swainson's Hawks rely on for nesting. Furthermore, the high levels of human activity—such as regular disking, nearby vehicle traffic and construction—create disturbances that deter hawks from both nesting and foraging within the Project Site. Taken together, these factors confirm that the Project Site and surrounding areas lack the critical habitat elements required to support Swainson's Hawk populations for nesting or foraging. These findings are also consistent with the potential for occurrence designation provided after the 2020 field surveys that were performed. These 2024 survey results are also consistent with potential for occurrence designation provided in 2020 (Barnet Environmental 2020).

5.4.3 Crotch's Bumblebee

The comprehensive assessment performed concludes that the Project Site lacks the essential habitat elements required for the survival and reproduction of CBB. The findings indicate that it is not reasonable to expect this Project Site to support a CBB population.

This determination is based on the following:

- ✓ Lack of Suitable Nesting Conditions and Foraging Habitat: The Project Site lacks suitable nesting conditions (such as abandoned rodent burrows) due to regular disking. Additionally, CBB relies heavily on native flowering plants for foraging. In this case, the dominance of non-native species such as Maltese star-thistle, stinknet, cheeseweed, riggut brome, Sahara mustard and Schismus within the Project Site significantly reduces the availability of the native plants that provide essential nectar and pollen. Without the availability of nectar-producing plants in the Project Site, it does not provide sufficient floral resources for feeding and nesting.
- ✓ Disturbed and Degraded Habitat: The CBB prefers open scrub, grasslands, and sage scrub that offer a diversity of flowering plants and undisturbed soil for nesting. The highly disturbed Project Site and surrounding urban landscape lack a noteworthy population of native plants, without the availability of nectar-producing plants on the Project Site, it is unlikely to provide the necessary conditions for nesting, overwintering, or foraging.
- ✓ Fragmented and Limited Native Vegetation: The limited availability of native plant species within the Project Site, results in a lack of nectar-producing plants and reduces the likelihood that CBB would be present, or able to establish a foraging area in such a fragmented environment.

- ✓ **Proximity to Higher-Quality Habitat:** Since the Project Site and surrounding areas are disturbed and developed, and lack nectar-producing plants, the bee will not be able to establish a viable population, as it depends on connectivity to larger, intact habitats with the resources it needs. This Project site is isolated from high-quality foraging and nesting areas, therefore the chances of CBB utilizing the site are negligible.

In conclusion, the combination of a disturbed and regularly disked environment, amount of non-native vegetation, lack of suitable nesting sites, and limited foraging opportunities due to the lack of native and nectar-producing plants would make the Project Site unlikely for CBB to be present. As the physical and biological features necessary for survival and reproduction for CBB include suitable nesting conditions, and a diverse range of nectar and pollen resources from specific native plant species. These resources must be successively available throughout the various seasons to support colony development. Given these conditions, the lack of diverse and durable native nectar species, combined with the Project Site's isolation from more suitable habitats, renders the Project inadequate for supporting CBB.

5.4.4 San Joaquin Kit Fox

This assessment has determined that the Project Site is unsuitable for supporting the San Joaquin Kitfox due to the absence of critical habitat features necessary for its reproduction and survival. First, the Project Site lacks suitable denning locations due to regular disking. Kitfoxes rely heavily on dens for shelter, protection, and raising their young. These dens are typically burrows dug by the foxes themselves or by other species. The Project Site lacks any visible natural or artificial burrows that could serve as denning sites, making it highly unlikely for the kitfox to establish or maintain a presence. Additionally, the Project Site fails to provide adequate foraging habitat. Kitfoxes are dependent on open grasslands or scrublands with abundant small mammals, such as kangaroo rats or ground squirrels, as their primary prey. The Project Site, however, has a negligible number of small mammals and is instead characterized by heavily disturbed land and unsuitable land cover, which does not support a robust prey base. As a result, there is insufficient food availability to sustain kitfox populations. Moreover, the lack of movement corridors further reduces the habitat's suitability. Kitfoxes require large, unfragmented landscapes to move freely between denning and foraging areas. The Project Site is isolated due to surrounding development, restricting the ability of kitfoxes to move across the landscape and access the resources they need to survive. Finally, the absence of low-growing vegetation compounds the Project Site's unsuitability. Kitfoxes use low shrubs and grasses for cover while hunting and avoiding predators. The current land cover within the Project Site provides inadequate concealment, leaving kitfoxes vulnerable and reducing the chances of successful foraging and predator evasion. Given these factors—the lack of suitable dens, insufficient foraging habitat, absence of movement corridors, and inadequate vegetative cover—the Project Site does not provide the physical and biological features necessary for the successful reproduction and survival of the San Joaquin Kitfox.

5.5 Wetlands and Waterways

The literature review and field survey data imply it is appropriate to characterize the Project Site as an upland, since no surface waters, drainages, water conveyance features, riparian or riverine habitats - or obvious indicators of well-defined bed, bank or channel were detected. The soils (Figure 6), vegetation, signatures present, and topography suggest that the Project Site lacks features which are typically subject to Clean Water Act and Fish and Game Code Section 1600 jurisdiction, or require the processing of a Waste Discharge Requirement pursuant to the California Water Code (Porter-Cologne Act). Furthermore, the National Wetland Inventory has no records of special aquatic resources within the Project Site (Figure 7).

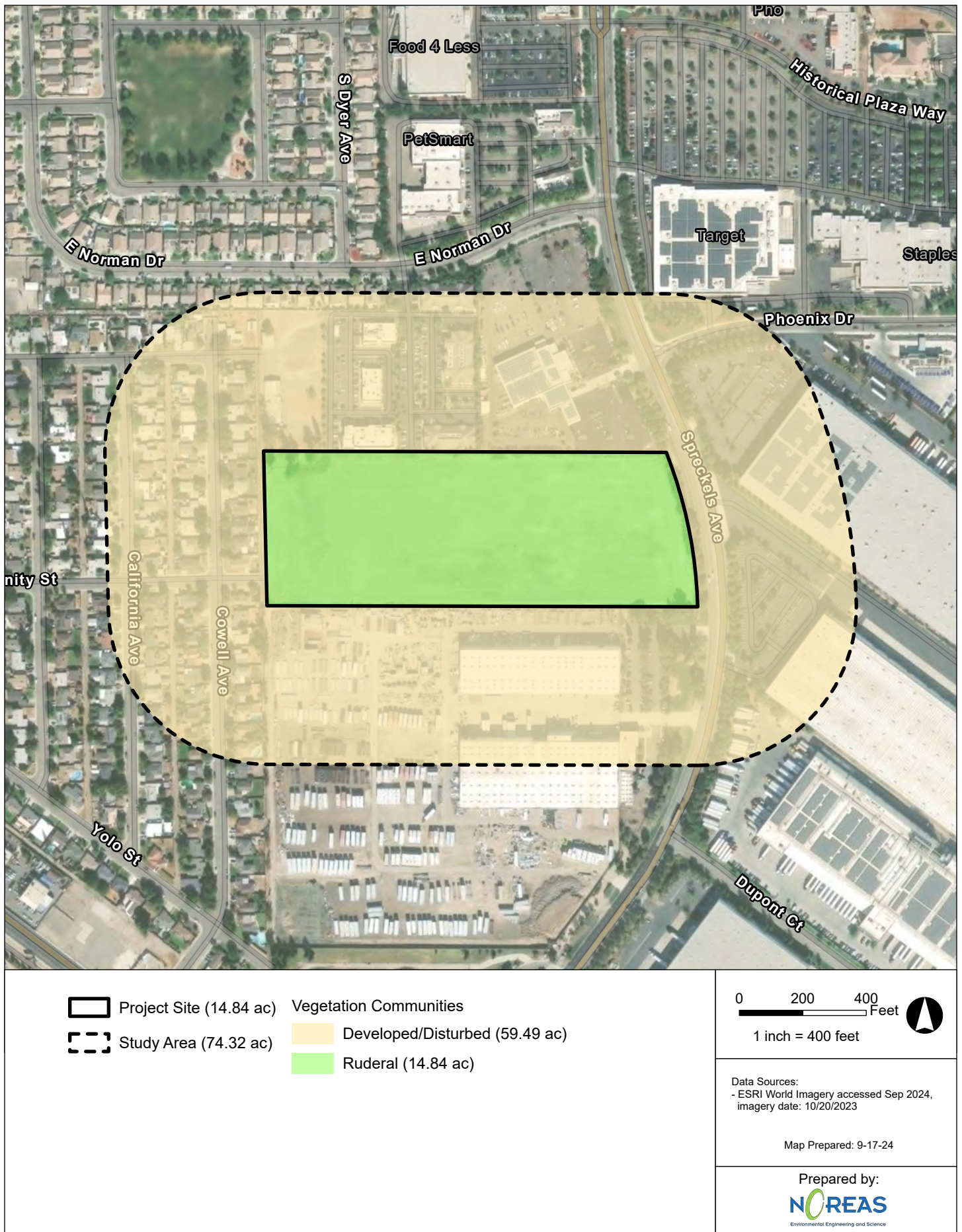
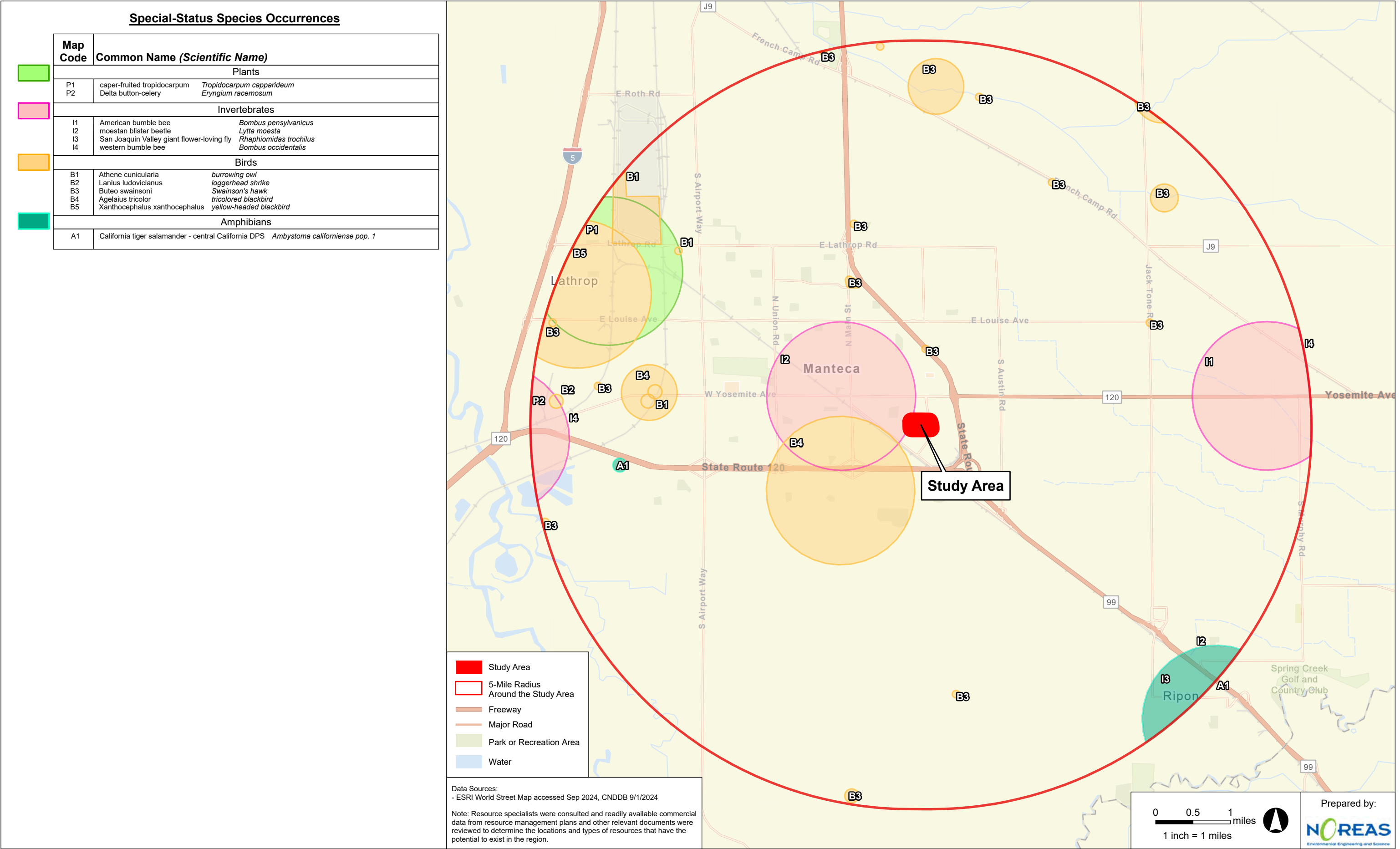


Figure 3. Vegetation Communities and Land Cover Types



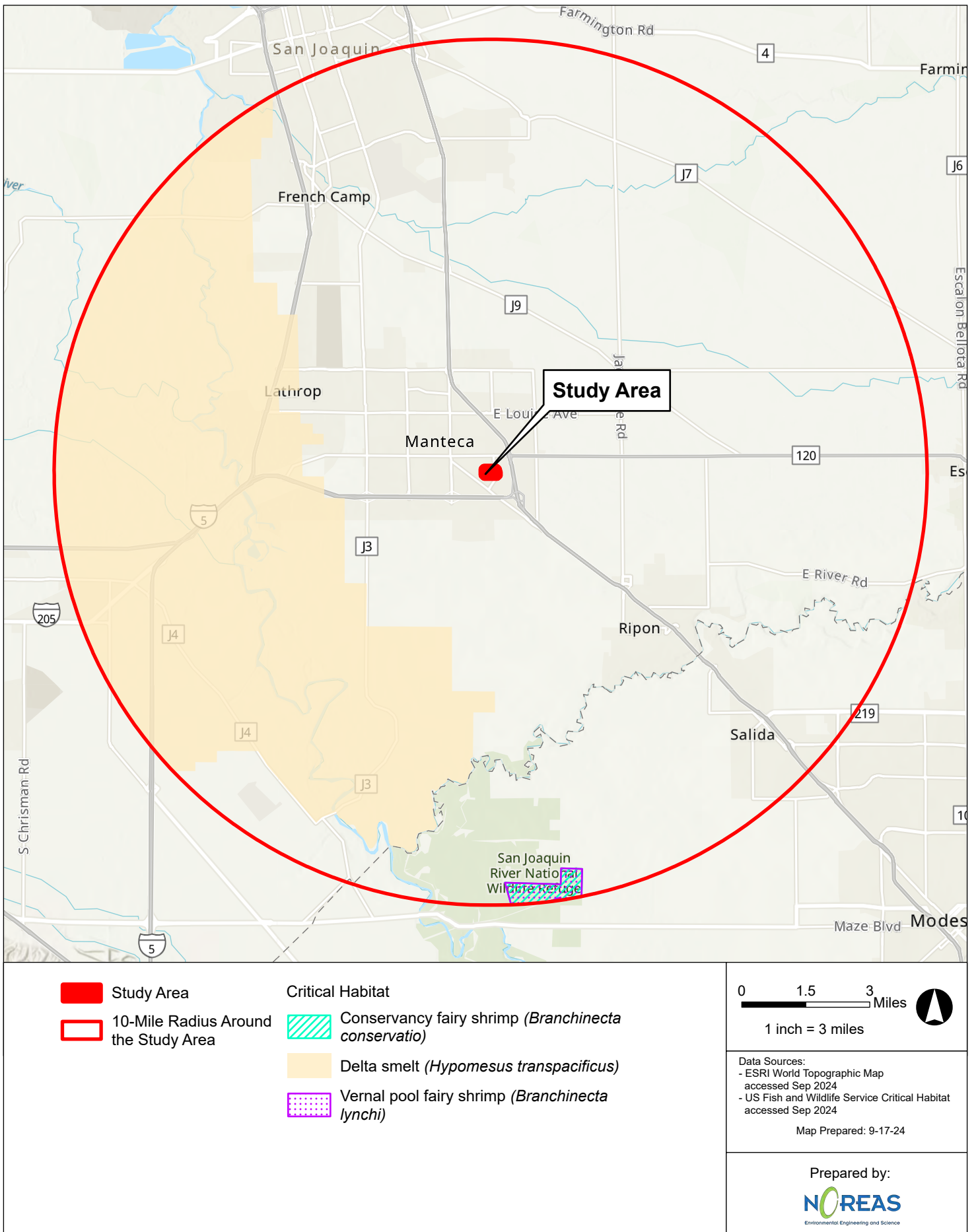


Figure 5. Critical Habitat

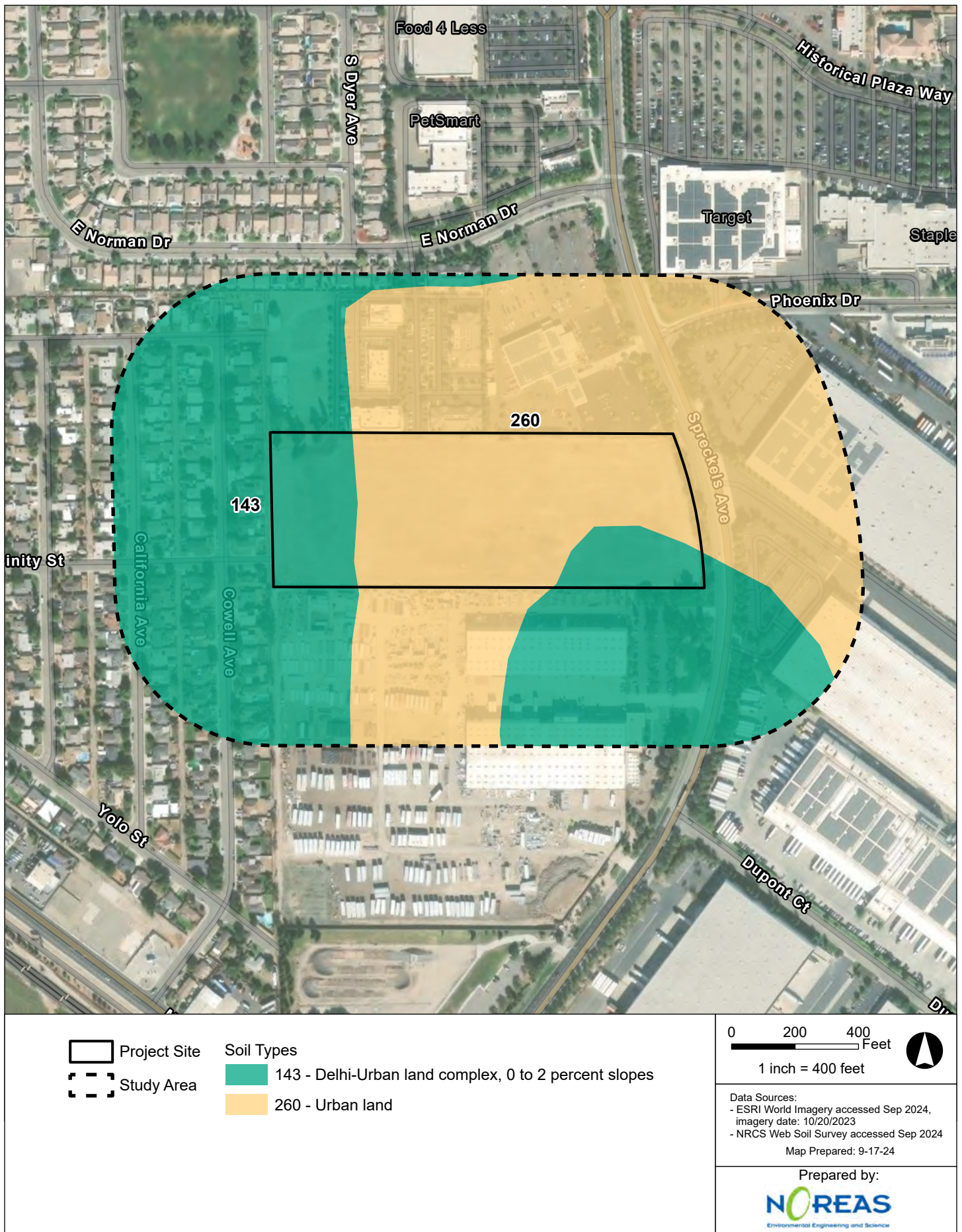


Figure 6. Soils Map

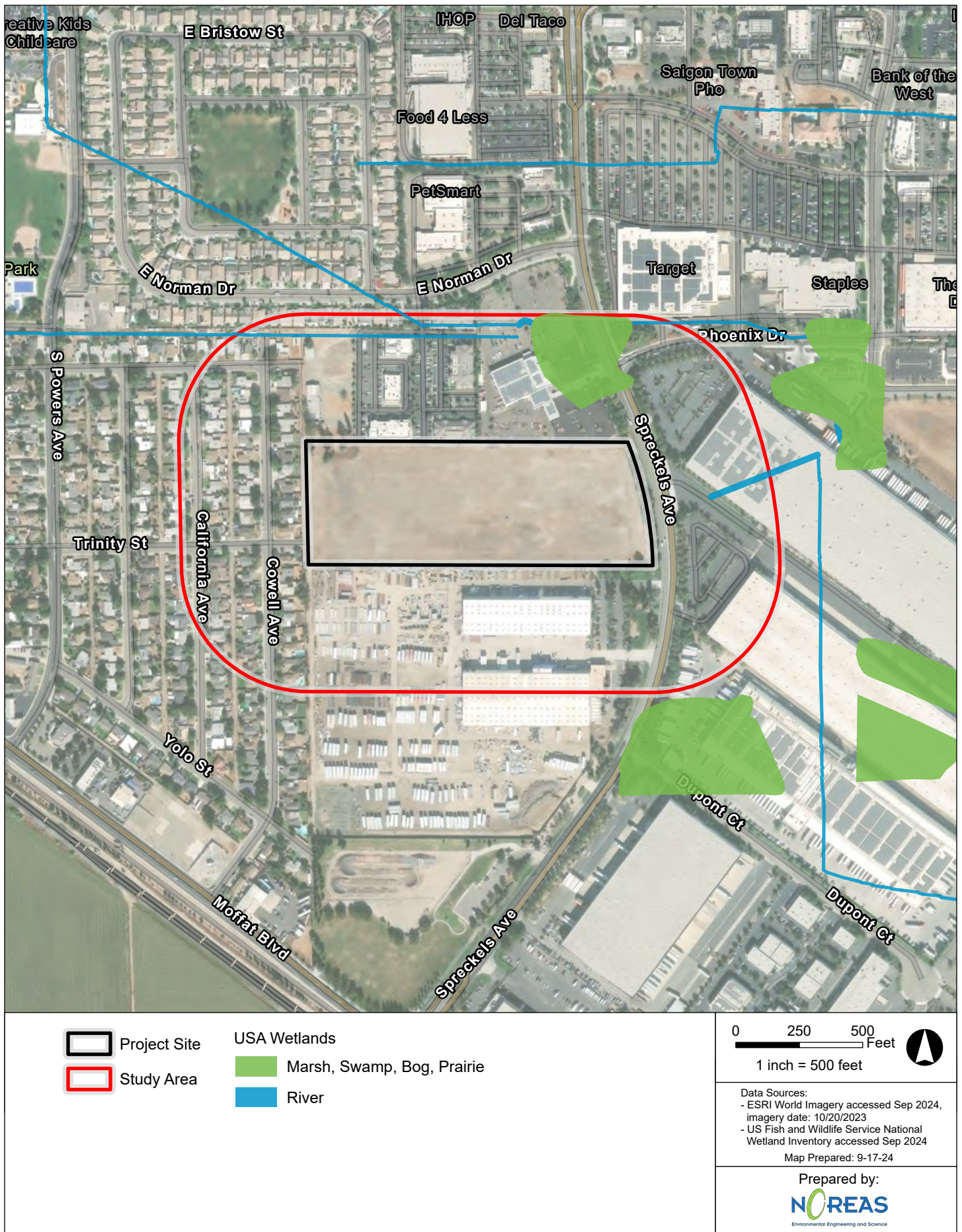


Figure 7. National Wetland Inventory

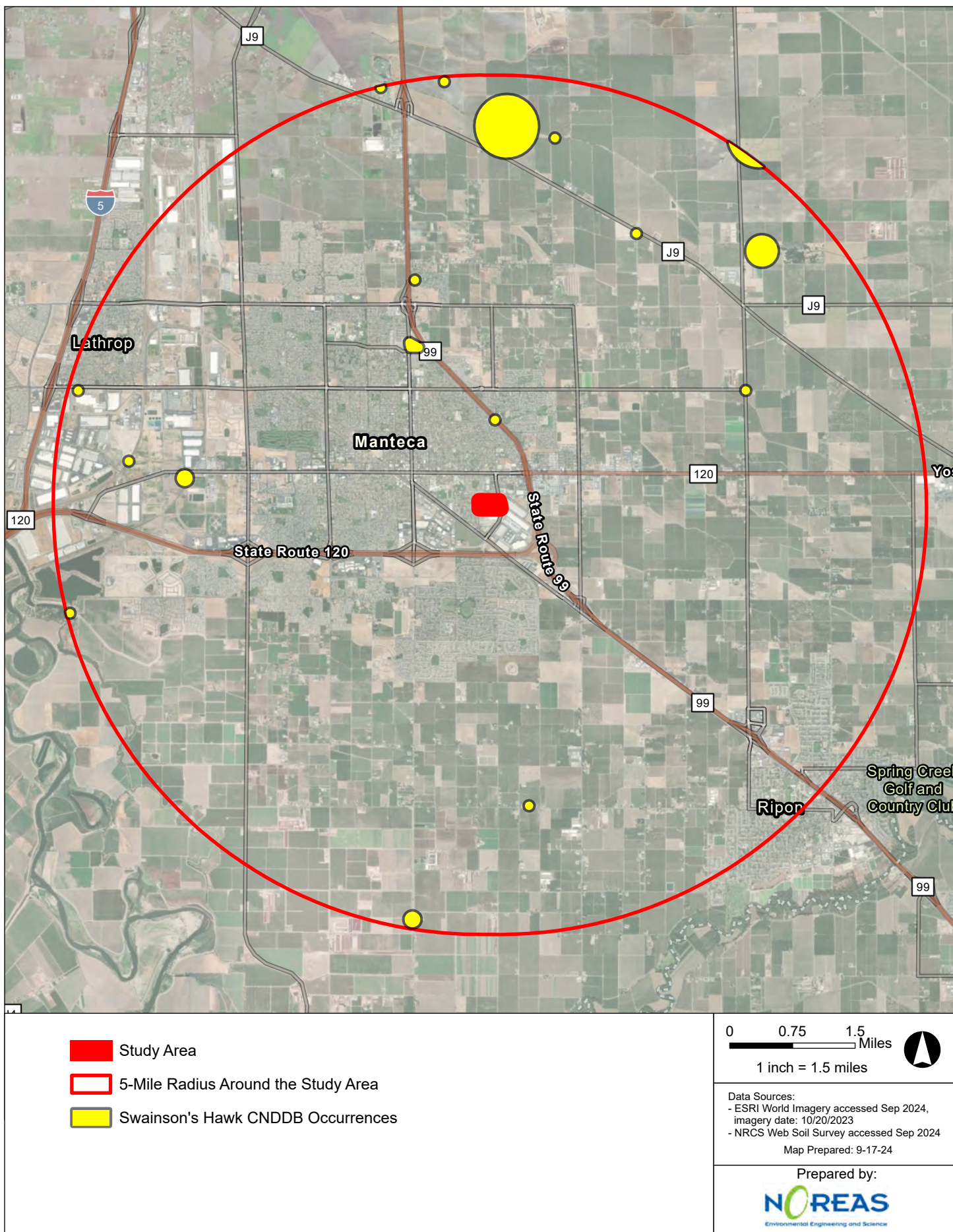


Figure 8. Swainson's Hawk Literature Review

6.0 CONCLUSION AND RECOMMENDATIONS

The Project Site is currently vacant and covered in routinely disked ruderal habitat which has been substantially disturbed by human activity, and was previously developed a portion of the Spreckels Sugar Factory. The sugar factory was built and began operation in 1918. The factory operated for over 75 years, producing refined sugar from sugar beets grown in the surrounding agricultural areas. It was one of the largest sugar beet processing plants in the world when it was built. The factory ceased operations in 1996, and after its closure, the plant was eventually demolished in 1997. Currently, the surrounding land uses include single-family residential units to the west, Spreckels Avenue to the east, and commercial and industrial land uses to the north and south.

All the land cover types within the Project Site are ruderal, developed or disturbed habitats. The Project Site has been significantly altered by human activities over the past 106 years, as it has been cleared and graded and includes a landscape which is dominated by non-native species. The Project is not collocated with any USFWS designated critical habitat, nor were any special status species detected during the 2020 or 2024 field survey events.

The regular disking of the Project Site's non-native, developed and disturbed land cover has substantially decreased its value as suitable breeding, nesting, and foraging habitat for native species as well. Greatly reducing its value as a migration or dispersal habitat for native wildlife due to the severe constraints imposed by the surroundings residential homes, busy thoroughfares, commercial and industrial land uses. This situation underscores the Project's limited ecological function within the broader landscape. In conclusion, the Project Site presents a unique scenario as an anthropogenic biome, deeply influenced and shaped by extensive human activities for over a century. This extensive development and disturbance regime have resulted in the creation of a location where sensitive biological resources, special-status species, or similar ecological concerns are notably absent. In conclusion, the Project Site presents a unique scenario as an anthropogenic biome, deeply influenced and shaped by extensive human activities. This extensive development and disturbance have resulted in a landscape where sensitive biological resources, special-status species, or similar ecological concerns are notably absent. Consequently, traditional biological impacts requiring mitigation, as often encountered in less disturbed locations, are not applicable in this context.

Nonetheless, it is crucial to emphasize that the absence of such impacts does not exempt the project from adhering to all relevant and appropriate environmental regulations, and applicable requirements. Specifically, the Project must comply with Section 10 of the Migratory Bird Treaty Act and has voluntarily obtained SJMSCP Incidental Take Minimization Measures (Appendix F). Additionally, adherence to the California Fish and Game Code – more specially Sections 3500 to 3800 remain imperative. All these regulations and requirements safeguard that even in a landscapes profoundly transformed by human activity, the necessary measures are taken for the protection of birds, mammals, fish, amphibians, reptiles and invertebrates that persist in the area.

7.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached figures present the data and information required for this resource assessment, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this investigation was performed by me and under my direct supervision. The services performed and documented in this report have been conducted in a manner consistent with the level of care and skill ordinarily exercised by other professional consultants under similar circumstances. No other representations are either expressed or implied and no warranty or guarantee is included or intended in this report.

DATE: September 20, 2024

SIGNED: 
Lenny Malo, MS

REFERENCES

- Babcock. 1995. Home Range and Habitat Use of Breeding Swainson's Hawks in California. *Journal of Raptor Research* 29:193–197
- Baldwin, J., D. Goldman, D. Keil, R. Patterson, and T. Rosatti. 2012. *The Jepson Manual: Higher Plants of California*. Berkeley: University of California Press.
- Bechard. 1982. Effect of Vegetative Cover on Foraging Site Selection by Swainson's Hawk. *Condor* 84:153–159
- Burt, W. H. and R. P. Grossenheider. 1980. *A Field Guide to Mammals: North America; North of Mexico*. New York, NY: Houghton Mifflin Company.
- California Department of Fish and Game. 1994. State Fish and Game Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California.
- CDFW (California Department of Fish and Wildlife). 2024. RareFind. California Department of Fish and Game, Natural Diversity Database (CNDDB). Sacramento, CA: California Department of Fish and Game, Biogeographic Data Branch.
- CNPS (California Native Plant Society). 2024. CNPS Electronic Inventory of Rare and Endangered Plants: CNPS.
- Elbroch, M. 2003. *Mammal Tracks & Sign, A Guide to North American Species*. Mechanicsburg, PA: Stackpole Books.
- Estep. 1989. Biology, movements, and habitat relationships of the Swainson's Hawk in California
- Halfpenny, J.C. 2000. *Scats and Tracks of the Desert Southwest, A Field Guide to the Signs of 70 Wildlife Species*. Helena, MT: Falcon Publishing, Inc.
- Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California (California Department of Fish and Game, The Resources Agency, ed), p. 156. Sacramento, CA.
- Microsoft Corporation. 2024. Bing Maps Aerial Imagery. Redmond, WA
- San Joaquin County Multi-Species Habitat Conservation & Open Space Plan (SJMSCP 2024)
- Sawyer, J., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation*. Sacramento, CA: California Native Plant Society.
- Sibley, D.A. 2000. National Audubon Society. *The Sibley Guide to Birds*. New York, NY: Alfred A. Knopf, Inc.
- Stebbins, R.C. 2003. *A Field Guide to Western Reptiles and Amphibians*. New York, NY: Houghton Mifflin.
- Swainson's Hawk Technical Advisory Committee (SHTAC). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys for the California Central Valley.
- Swolgaard, Reeves, and Bell. 2008. Foraging by Swainson's Hawks on the landscape
- USGS (United States Geological Service). 1984 7.5-Minute Quadrangle Manteca California.
- USFWS (United States Fish and Wildlife Service). 2024a. Critical Habitat Portal. USFWS
- USFWS (United States Fish and Wildlife Service). 2024b. San Joaquin County Fish and Wildlife Office. Endangered and Threatened Species List. In: U.S. Department of the Interior, editor. San Bernardino, CA: USFWS.

APPENDIX A
SPECIAL-STATUS SPECIES POTENTIAL FOR
OCCURRENCE WITHIN THE PROJECT SITE

Potential for occurrence	Common name (Scientific name)	Federal listing status	State listing status	CNPS list	Number of records within 10 miles	Year(s) sighted
A	Moestan blister beetle (<i>Lytta moesta</i>)	None	None	-	2	1971
A	Tricolored blackbird (<i>Agelaius tricolor</i>)	None	Threatened	-	2	1936-1974
A	Swainson's hawk (<i>Buteo swainsoni</i>)	None	Threatened	-	17	1988-2012
A	Burrowing owl (<i>Athene cunicularia</i>)	None	None	-	3	1997-2016
A	American bumble bee (<i>Bombus pensylvanicus</i>)	None	None	-	1	1962
A	Western bumble bee (<i>Bombus occidentalis</i>)	None	None	-	2	1962
A	Caper-fruited tropidocarpum (<i>Tropidocarpum capparideum</i>)	None	None	1B.1	1	1881
A	Yellow-headed blackbird (<i>Xanthocephalus xanthocephalus</i>)	None	None	-	1	1894
A	California tiger salamander (<i>Ambystoma californiense</i> pop. 1)	Threatened	Threatened	-	2	1912-1996
A	San Joaquin Valley giant flower-loving fly (<i>Rhaphiomidas trochilus</i>)	None	None	-	1	1968
A	Delta button-celery (<i>Eryngium racemosum</i>)	None	Endangered	1B.1	1	1984
A	Loggerhead shrike (<i>Lanius ludovicianus</i>)	None	None	-	1	2016

CNPS List Definitions

List 1A: Plants presumed extinct in California

List 1B.1: Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California

List 1B.2: Plants rare, threatened, or endangered in California and elsewhere, fairly threatened in California

List 1B.3: Plants rare, threatened, or endangered in California and elsewhere, not very threatened in California

List 2.1: Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California

List 2.2: Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California

Potential for Occurrence Definitions

Absent [A] – Species distribution is restricted by substantive habitat requirements, which do not occur – or are negligible within the Project Site, and no further survey or study is obligatory to determine likely presence or absence of this species.

Habitat Present [HP] – Species distribution is restricted by substantive habitat requirements, which occur within the Project Site, and further survey or study may be necessary to determine likely presence or absence of species.

Present [P] – Species or species sign were observed within the Project Site, or historically has been documented within Project limits

Critical Habitat [CH] – The Project Site is located within a USFWS-designated critical habitat unit.

APPENDIX B PHOTOGRAPH LOG



Photograph 1. Representative Photo of the Project Site.



Photograph 2. Representative Photo of the Project Site.



Photograph 3. Representative Photo of the Project Site.



Photograph 4. Representative Photo of the Project Site.

APPENDIX C
PLANT SPECIES OBSERVED WITHIN THE STUDY AREA

Scientific Name	Common Name
<i>Liquidamber styraciflua</i> *	Sweetgum
<i>Pistachia chinensis</i> *	Chinese pistachio
<i>Searsia lacea</i> *	African sumac
<i>Cyclospermum leptophyllum</i> *	Marsh parsley
<i>Anthemis cotula</i> *	Mayweed
<i>Erigeron sp.</i>	Horseweed
<i>Lactuca serriola</i> *	Prickly lettuce
<i>Pseudognaphalium luteoalbum</i> *	Jersey cudweed
<i>Senecio vulgaris</i> *	Common groundsel
<i>Silybum marianum</i> *	Milk thistle
<i>Sonchus oleraceus</i> *	Sow thistle
<i>Brassica nigra</i> *	Black mustard
<i>Capsella bursa-pastoris</i> *	Shepherd's purse
<i>Lepidium didymium</i> *	Lesser swine cress
<i>Sisymbrium irio</i> *	London rocket
<i>Sisymbrium officinale</i> *	Hedge mustard
<i>Amsinckia intermedia</i>	Common fiddleneck
<i>Amsinckia menziesii</i>	Fiddleneck
<i>Stellaria media</i>	Chickweed
<i>Chenopodium sp.</i> *	Goosefoot
<i>Salsola sp.</i> *	Russian thistle
<i>Convolvulus arvensis</i> *	Field bindweed
<i>Escalonia rubra</i> *	Red escallonia
<i>Medicago polymorpha</i> *	Bur clover
<i>Melilotus indicus</i> *	Annual yellow-sweetclover
<i>Erodium cicutarium</i> *	Red stemmed filaree
<i>Erodium moschatum</i> *	White stemmed filaree
<i>Laurus nobilis</i>	Bay laurel
<i>Malva parviflora</i> *	Cheeseweed
<i>Claytonia perfoliata ssp. Perfoliate</i> *	Miner's lettuce
<i>Epilobium brachycarpum</i>	Willow herb
<i>Platanus occidentalis</i>	American sycamore
<i>Grevillea rosmarinifolia</i> *	Rosemary grevillea
<i>Avena barbata</i> *	Slender oat
<i>Bromus diandrus</i> *	Ripgut brome
<i>Bromus madritensis ssp. Madritensis</i> *	Foxtail chess
<i>Festuca myuros</i> *	Rattail sixweeks grass
<i>Festuca perennis</i> *	Italian rye grass
<i>Hordeum murinum ssp. Leporinum</i> *	Farmer's foxtail
<i>Cotoneaster sp.</i>	Silverleaf cortoneaster
<i>Rhaphiolepis indica</i>	Indian hawthorn
<i>Populus c.f. fremontii</i>	Fremont cottonwood
<i>Phoradendron leucocarpum ssp. macrophyllum</i>	Big leaf mistletoe

Nomenclature follows the Jepson Manual, Second Edition (Baldwin et al 2011).

* = naturalized, non- native plant species.

APPENDIX D
WILDLIFE SPECIES OBSERVED WITHIN THE STUDY AREA

Scientific name	Common name
Birds	
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Charadrius vociferus</i>	Killdeer
<i>Streptopelia</i>	Eurasian collared dove
<i>Zenaida macroura</i>	Mourning dove
<i>Aphelocoma californica</i>	California scrub jay
<i>Corvus corax</i>	Common raven
<i>Pica nuttallii</i>	Yellow-billed magpie
<i>Haemorhous mexicanus</i>	House finch
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Icterus bullockii</i>	Bullock's oriole
<i>Mimus polyglottos</i>	Northern mockingbird
<i>Setophaga coronata</i>	Yellow-rumped warbler
<i>Passer domesticus</i>	House sparrow
<i>Zonotrichia leucophrys</i>	White-crowned sparrow
<i>Sturnus vulgaris</i>	European starling
<i>Sialia mexicana</i>	Western bluebird
<i>Calypte anna</i>	Anna's hummingbird
<i>Myiarchus cinerascens</i>	Ash-throated flycatcher
<i>Sayornis nigricans</i>	Black phoebe
<i>Tyrannus verticalis</i>	Western kingbird
Mammals	
<i>Otospermophilus beecheyi</i>	California ground squirrel
Herpetofauna	
<i>Sceloporus occidentalis biseriatus</i>	San Joaquin fence lizard

APPENDIX E
BURROWING OWL SURVEY REPORT

Spreckels Distribution Center Project

September 2024

BURROWING OWL SURVEY

Manteca United States Geological Survey
7.5-Minute Topographic Quadrangle Map

Prepared By



16361 Scientific Way, Irvine, CA 92618
(949) 467-9100

TABLE OF CONTENTS

Section	Page
1.0 EXECUTIVE SUMMARY & INTRODUCTION	1-1
2.0 BURROWING OWL BACKGROUND.....	2-1
3.0 METHODS	3-1
4.0 BURROWING OWL SURVEY RESULTS	4-1
5.0 REFERENCES.....	5-1

FIGURES

Figure 1	Regional Location.....	1-2
Figure 2	Site Vicinity.....	1-3

1.0 EXECUTIVE SUMMARY & INTRODUCTION

NOREAS Inc. (NOREAS) is pleased to provide this Burrowing Owl (*Athene cunicularia*) survey report for the Spreckels Distribution Center Project (hereafter referred to as the 'Project'). The Project Site is limited to ≤ 15-acres – located at 407 Spreckels Avenue, which is part of the existing Spreckels Business Park in the City of Manteca, San Joaquin County, California. For the purposes of this document, the “study area” includes the Project’s proposed ground disturbance footprint (Project Site) and a buffer (Figure 2). The Project can be found on the Manteca United States Geological Survey (USGS) 7.5-MinuteTopographic Quadrangle Map (USGS 1987), Mount Diablo Meridian, Township 2 South, Range 7 East, within Sections 3 and 4 (Figure 1). This report provides the methods, assumptions, and results of focused surveys for Burrowing Owl.

The Project Site is currently vacant and routinely disked. The Project Site was previously developed as a portion of the Spreckels Sugar Factory. The sugar factory was built and began operation in 1918. The factory operated for over 75 years. The factory ceased operations in 1996, and after its closure, the plant was eventually demolished in 1997. Currently, the surrounding land uses include single-family residential units to the west, Spreckels Avenue to the east, and commercial and industrial land uses to the north and south. The Project is within the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan boundaries as well. But all the land cover types within the Project Site are ruderal, developed or disturbed habitats. The Project Site has been significantly altered by human activities over the past 106 years, as it has been cleared and graded and includes a landscape which is dominated by non-native species due to human influence.

Burrowing Owls were not detected nesting, foraging, or dispersing within the study area during any of the survey events in 2024. Additionally, no potential burrows or burrow complexes were detected within the Project Site. The lack of Burrowing Owl is likely a result of regular disking within the Project Site, and the presence of owl predators. The 2024 survey results are consistent with prior owl surveys performed within the Project Site in 2020 (Barnet Environmental 2020). Therefore, there is no presumption that Project implementation would result in the loss of individual Burrowing Owls, or that it would adversely affect local or regional populations of them.

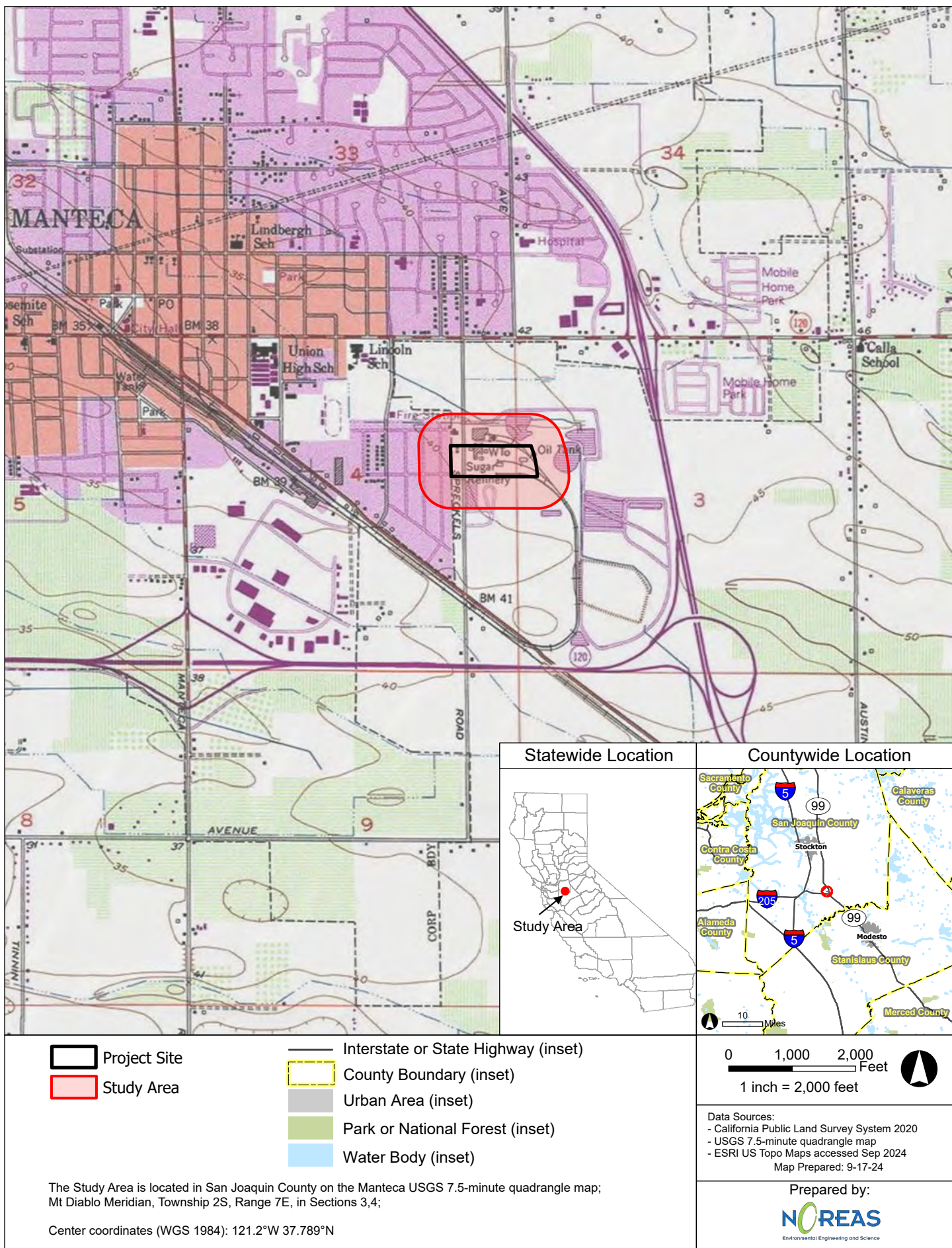


Figure 1. Regional Location



- Project Site (14.84 ac)
- Study Area (74.32 ac)

0 200 400 Feet
1 inch = 400 feet

Data Sources:
- ESRI World Imagery accessed Sep 2024,
imagery date: 10/20/2023

Map Prepared: 9-17-24

Prepared by:
NOREAS
Environmental Engineering and Science

Figure 2. Site Vicinity

2.0 BURROWING OWL BACKGROUND

The Burrowing Owl (*Athene cunicularia*) has been designated as a species of special concern by the California Department of Fish and Wildlife (CDFW). This status applies to species not listed under the federal Endangered Species Act or the California Endangered Species Act, but are experiencing declines that 'could' result in future state listing, or have historically low population numbers with existing threats to their persistence. The special concern designation aims to provide these species with special consideration during environmental review and permitting processes and to encourage research and management efforts to better understand and protect them (CDFG, 1995).

Burrowing Owls inhabit open, dry grasslands, agricultural and rangelands, deserts, and scrublands with low-growing vegetation. They rely heavily on mammal burrows, particularly those of ground squirrels, for nesting. These owls can be found at elevations from 200 feet below sea level to 9,000 feet above (CDFG, 1995). They are often seen perched on fence posts or mounds outside their burrows. Northern populations of Burrowing Owls are typically migratory, while southern populations may only move short distances or remain year-round (Haug et al., 1993; Botelho, 1996). Little is known about the winter ranges of migratory populations, but it is believed that they mix with resident populations in California during the winter months (Coulombe, 1971; Haug et al., 1993).

Burrowing Owls are opportunistic feeders with a diet that includes large arthropods such as beetles and grasshoppers, small mammals like mice, rats, gophers, and ground squirrels, and occasionally reptiles, amphibians, young cottontail rabbits, bats, and birds such as sparrows and Horned Larks. Insects become a larger part of their diet during the breeding season. They hunt by hovering and returning to perches to consume their prey. Burrowing Owls are primarily active at dusk and dawn but will hunt at any time if necessary (CBOC, 1993; CDFG, 1995; Rosenberg et al., 1998).

The breeding season for Burrowing Owls spans from March to late August, with the season lasting longer in the northern part of their range (CBOC, 1993; CDFG, 1995; Klute et al., 2003). Clutch sizes range from 1 to 12 eggs, averaging about 7 (Ehrlich, 1988). The incubation period lasts 28-30 days, with the female responsible for incubation and brooding while the male hunts. Young owls fledge at 44 days but stay near the burrow, joining adults in foraging flights at dusk (Ehrlich, 1988). The maximum lifespan recorded for a wild banded Burrowing Owl is approximately 8.5 years (Rosenberg et al., 1998).

In resident populations, nest site fidelity is common, with many adults nesting in the same burrow each year, and young often establishing nests near their natal sites (Trulio, 1997; Rosenberg et al., 1998). Migratory populations also exhibit nest site fidelity, especially following successful breeding seasons (Belthoff and King, 1997). The primary threats to Burrowing Owls are habitat loss, degradation, and fragmentation, though they do inhabit anthropogenic landscapes like agricultural fields, golf courses, and airport grasslands (Korfanta et al., 2005).

3.0 METHODS

Prior to beginning field surveys, resource specialists were consulted and available information from resource management plans and relevant documents were reviewed to determine the locations and types of resources that have the potential to exist within and adjacent to the study area. Resources were evaluated within several miles of the Project. The materials reviewed included, but were not limited to, the following:

- U.S. Fish and Wildlife Service (USFWS) Critical Habitat Mapper and File Data (USFWS 2024a);
- USFWS Field Office Species List for San Bernadino County (USFWS 2024b);
- California Natural Diversity Database maintained by the CDFW (CDFW 2024);
- 1993 California Burrowing Owl Consortium (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines;
- 2021 California Department of Fish and Game (CDFG) Staff Report on Burrowing Owl Mitigation;
- Wetland & Biological Resources Assessment of 407 Spreckels Avenue in Manteca (Barnet Environmental 2020);
- City of Manteca Development Services Department Spreckels Distribution Center Project Initial Study/Mitigated Negative Declaration (Raney Planning and Management Inc. 2021); and
- Aerial Photographs (Microsoft Corporation 2024).

Survey methods were derived from generally accepted professional standards including the 1993 California Burrowing Owl Consortium Survey Protocol and Mitigation Guidelines (CBOC 1993), the 1995 and 2012 California Department of Fish and Game Staff Reports on Burrowing Owl Mitigation (CDFG 1995 and 2012). Accordingly, a methodical pedestrian-survey for owl burrows and sign were conducted by walking through areas of suitable habitat within the study area (including evaluations of man-made structures, debris piles, etc.). Natural and non-natural substrates were examined for potential burrow sites. All potential burrows encountered were examined for shape, size, molted feathers, whitewash, cast pellets and/or prey remains. Disturbance characteristics and all other animal sign encountered within the study area were documented to the greatest extent practical. Several field surveys were conducted in April, May, June and July of 2024.

A hand-held, global positioning system (GPS) unit with sub meter accuracy was used to survey predetermined transects that were prepared within a Geographic Information System prior to the start of owl surveys (Figure 3). Survey transects were spaced at appropriate intervals to allow for complete visual coverage of the Project Site, and study area. Where necessary, transect spacing was reduced or expanded in the field - to account for differences in terrain, vegetation density, visibility and access (i.e., private property) considerations. Where access was limited, observations were made from the nearest appropriate vantage points by means of public rights-of-way with the use of binoculars and spotting scopes. The presence of a species was based on direct observations of individual(s), sign, and/or vocalization. Avian scientific nomenclature and common names follows Sibley (2000).

Field surveys were conducted when weather conditions were conducive to observing birds. Surveys were not performed during rain, extreme temperatures, high winds (> 25 miles per hour), or dense fog. Where access was limited, observations were made from the nearest appropriate vantage points with the use of binoculars and spotting scopes. Targeted owl surveys were performed from approximately 1

hour before sunrise to 2 hours after sunrise, and from approximately 2 hours before sunset to 1 hours after sunset - when weather conditions were conducive to observing owls outside of burrows.

4.0 BURROWING OWL SURVEY RESULTS

The Project Site is currently vacant and covered in routinely disked ruderal habitat which has been substantially disturbed by human activity, and was previously developed a portion of the Spreckels Sugar Factory. The sugar factory was built and began operation in 1918. The factory operated for over 75 years. The factory ceased operations in 1996, and after its closure, the plant was eventually demolished in 1997. Currently, the surrounding land uses include single-family residential units to the west, Spreckels Avenue to the east, and commercial and industrial land uses to the north and south. All the land cover types within the Project Site are ruderal, developed or disturbed habitats. The Project Site has been significantly altered by human activities over the past 106 years, as it has been cleared and graded and includes a landscape which is dominated by non-native species.

Burrowing Owls were not detected nesting, foraging, or dispersing within the study area during any of the survey events in 2024. Additionally, no potential burrows or burrow complexes were detected within the Project Site. The lack of Burrowing Owl is likely a result of regular disking within the Project Site, and the presence of owl predators (e.g., Common raven [*Corvus corax*], and Red-tailed hawk [*Buteo jamaicensis*]). The 2024 survey results are consistent with prior owl surveys performed within the Project Site in 2020 (Barnet Environmental 2020). Therefore, there is no presumption that Project implementation would result in the loss of individual Burrowing Owls, or that it would adversely affect local or regional populations of them. Survey conditions during the field events are presented in Table No. 1.

TABLE NO. 1 - SUMMARY OF SURVEY CONDITIONS

Survey Dates	Surveyors	Survey Type	Time ¹ Start/End	Temperature °Fahrenheit Start/End	Wind Speed (MPH)	Start/End Cloud Cover (%)	Date of Last Precipitation Prior to Survey
4/15/24	Chris Winchell	Burrow Survey and Crepuscular BUOW	0600-1100	51/60	0-08	60%/Clear	04/06/2024
5/8/24	Chris Winchell	Crepuscular BUOW	0600-1100	59/64	0-05	Clear/Clear	04/26/2024
6/14/24	Chris Winchell	Crepuscular BUOW	0630-1100	63/70	0-03	Clear/Clear	04/26/2024
7/11/24	Chris Winchell	Crepuscular BUOW	0600-1130	79/94	0-04	Clear/Clear	04/26/2024
BUOW = Burrowing Owl MPH = Miles Per Hour							

Representative photographs of the study area are provided below, and wildlife detected during the surveys are provided within Table No. 2.

¹ While targeted owl surveys were limited to approximately 1 hour before sunrise to 2 hours after sunrise and 2 hours before sunset to 1 hour after sunset; the start and end times presented within this table details all time spent within the study area on any given day - which include setup, reporting and demobilization activities.



Photograph 1. Representative Photo of the Project Site.



Photograph 2. Representative Photo of the Project Site..



Photograph 3. Representative Photo of the Project Site.



Photograph 4. Representative Photo of the Project Site.

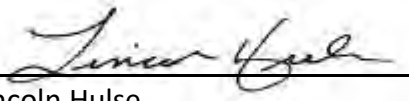
TABLE NO. 2 – WILDLIFE DETECTED DURING FIELD SURVEYS

Scientific name	Common name
Birds	
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Charadrius vociferus</i>	Killdeer
<i>Streptopelia</i>	Eurasian collared dove
<i>Zenaida macroura</i>	Mourning dove
<i>Aphelocoma californica</i>	California scrub jay
<i>Corvus corax</i>	Common raven
<i>Pica nuttallii</i>	Yellow-billed magpie
<i>Haemorhous mexicanus</i>	House finch
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Icterus bullockii</i>	Bullock's oriole
<i>Mimus polyglottos</i>	Northern mockingbird
<i>Setophaga coronata</i>	Yellow-rumped warbler
<i>Passer domesticus</i>	House sparrow
<i>Zonotrichia leucophrys</i>	White-crowned sparrow
<i>Sturnus vulgaris</i>	European starling
<i>Sialia mexicana</i>	Western bluebird
<i>Calypte anna</i>	Anna's hummingbird
<i>Myiarchus cinerascens</i>	Ash-throated flycatcher
<i>Sayornis nigricans</i>	Black phoebe
<i>Tyrannus verticalis</i>	Western kingbird
Mammals	
<i>Otospermophilus beecheyi</i>	California ground squirrel
Herpetofauna	
<i>Sceloporus occidentalis biseriatus</i>	San Joaquin fence lizard

The services performed and documented in this report have been conducted in a manner consistent with the level of care and skill ordinarily exercised by other professional consultants under similar circumstances. No other representations are either expressed or implied and no warranty or guarantee is included or intended in this report, despite due professional care.

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

DATE: September 20, 2024

SIGNED: 
Lincoln Hulse

5.0 REFERENCES

- Barnet Environmental. 2020. Wetland & Biological Resources Assessment of 407 Spreckels Avenue in Manteca (Barnet Environmental 2020)
- Belthoff, J. R., and R. A. King. 1997. Between-year movements and nest burrow use by burrowing owls in southwestern Idaho. Technical Report No. 97-3. Idaho Bureau of Land Management.
- Botelho, E. S. 1996. Behavioral ecology and parental care of breeding western burrowing owls (*Speotyto cunicularia hupugaea*) in southern New Mexico, USA. Dissertation, New Mexico State University, Las Cruces.
- California Burrowing Owl Consortium (CBOC). 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines. San Francisco CA
- California Department of Fish and Game (CDFG). 1995. Staff Report on Burrowing Owl Mitigation. Sacramento CA
- _____. 2012. Staff Report on Burrowing Owl Mitigation. Sacramento CA
- California Department of Fish and Wildlife (CDFW). 2024. RareFind California Department of Fish and Game Natural Diversity Database (CNDDDB) Apple Valey North USGS 7.5-Minute Quadrangles. Sacramento, CA: California Department of Fish and Game, Biogeographic Data Branch.
- City of Manteca Development Services Department Spreckels Distribution Center Project Initial Study/Mitigated Negative Declaration (Raney Planning and Management Inc. 2021);
- Coulombe, H. N. 1971. Behavior and population ecology of the burrowing owl, *Speotyto cunicularia*, in the Imperial Valley of California. Condor 73:162–176.
- Ehrlich, P. R. 1988. The Birders Handbook: Natural History of North American Birds. Simon and Schuster Inc. New York
- Haug, E. A., B. A. Millsap, and M. S. Martell. 1993. The burrowing owl (*Speotyto cunicularia*). In A. Poole and F. Gill (eds.), The Birds of North America, No. 61. Philadelphia, PA: The Academy of Natural Sciences and Washington, DC: The American Ornithologists' Union.
- Klute, D. S., L. W. Ayers, M. T. Green, W. H. Howe, S. L. Jones, J. A. Shaffer, S. R. Sheffield, and T. S. Zimmerman. 2003. Status Assessment and Conservation Plan for the Western Burrowing Owl in the United States. U.S. Department of Interior, Fish and Wildlife Service, Biological Technical Publication FWS/BTP-R6001-2003, Washington, D.C.
- Korfanta, N.M., D.B. McDonald, and T.C. Glenn. 2005. Burrowing owl (*Athene cunicularia*) population genetics: A comparison of North American forms and migratory habits. *Auk* 122(2): 464-478.
- Microsoft Corporation. 2024. Bing Maps Aerial Imagery. Redmond, WA.
- Rosenberg, D. K., J. Gervais, H. Ober, and D. DeSante. 1998. An adaptive management plan for the burrowing owl population at Naval Air Station Lemoore, Lemoore, California.

Sibley, D.A. 2000. The Sibley Guide to Birds. Random House Press, New York, New York. 201 pp.

Trulio, L. 1997. Burrowing owl demography and habitat use at two urban sites in Santa Clara County, California. *Journal of Raptor Research* 9:84–89.

United States Fish and Wildlife Service (USFWS). 2024. Critical Habitat Portal. USFWS

United States Geological Service (USGS). 1984. 7.5-Minute Quadrangle Manteca, California.

APPENDIX F
SAN JOAQUIN COUNTY MULTI-SPECIES HABITAT CONSERVATION & OPEN SPACE
PLAN SPRECKELS DISTRIBUTION CENTER PROJECT INCIDENTAL TAKE
MINIMIZATION MEASURES



S J C O G, Inc.

555 East Weber Avenue • Stockton, CA 95202 • (209) 235-0574 • Email: boyd@sjcog.org

*San Joaquin County Multi-Species Habitat Conservation &
Open Space Plan (SJMSCP)*

**Spreckels Distribution Center Project
SJMSCP Incidental Take Minimization Measures
(APN: 221-250-35)**

Date: August 28, 2024

Findings: Potential habitat for Swainson's hawk

Potential nesting habitat for common birds (Migratory Bird Treaty Act)

Total Disturbed Acres Anticipated: 14.83 acres

Habitat Types to be Disturbed: Urban (U) Habitat Land
(City of Manteca Compensation Map)

Project Jurisdiction: City of Manteca

Advisory Statements

After inspecting the project site, and project site conditions, the San Joaquin Council of Governments (SJCOG) provides the following *advisory statements* to the applicant. No further action is required with the SJCOG with respect to the following statements. SJCOG does not accept any liability for the accuracy of these statements since each regulatory agency discussed below must determine the extent of its own regulatory authority with respect to the proposed project.

It should be noted that two important federal and state agencies (U.S. Army Corps of Engineers and the California Regional Water Quality Control Board) and California Department of Fish and Wildlife Streambed Alteration requirements have not issued permits to the SJCOG and so payment of the fee to use the SJMSCP will not modify requirements (1600/1602) now imposed by these agencies. **If potential waters of the United States [pursuant to Section 404 Clean Water Act] may occur on the project site**, it therefore may be prudent to obtain a preliminary wetlands map from a qualified consultant. If waters of the United States are confirmed on the project site, the Corps and the Regional Water Quality Control Board (RWQCB) would have regulatory authority over those mapped areas [pursuant to Section 404 and 401 of the Clean Water Act respectively] and permits would likely be required from each of these resource agencies prior to impacting these features on the project site.

The SJMSCP covers lawful activities which must comply with all federal, state and local laws for coverage. The **Migratory Bird Treaty Act (MBTA)** is a federal act which protects many birds and their habitats. Those species go beyond the listed SJMSCP species but are included as protective measures for compliance with the federal MBTA measures. The measures will be stated under **MBTA Compliance** in the prescribed ITMM.

The ITMM is not deemed complete until finalized by SJCOG, Inc. staff and provided back to the project.

Conditions

Prior to ground disturbance:

1. Incidental Take Minimization Measures (ITMMs) will be issued to the project and must be signed by the project applicant prior to any ground disturbance but no later than six (6) months from receipt of the ITMMs. If ITMMs are not signed within six months, the applicant must reapply for SJMSCP Coverage. Upon receipt of signed ITMMs from project applicant, SJCOG, Inc. staff will sign the ITMMs. This is the effective date of the ITMMs.

2. Under no circumstance shall ground disturbance occur without compliance and satisfaction of the ITMMs.

3. Upon issuance of fully executed ITMMs and prior to any ground disturbance, the project applicant must:
 - a. Post a bond for payment of the applicable SJMSCP fee covering the entirety of the project acreage being covered (the bond should be valid for no longer than a 6 month period); or
 - b. Pay the appropriate SJMSCP fee for the entirety of the project acreage being covered; or
 - c. Dedicate land in-lieu of fees, either as conservation easements or fee title; or
 - d. Purchase approved mitigation bank credits.

4. Within 6 months from the effective date of the ITMMs or issuance of a building permit, whichever occurs first, the project applicant must:
 - a. Pay the appropriate SJMSCP for the entirety of the project acreage being covered; or
 - b. Dedicate land in-lieu of fees, either as conservation easements or fee title; or
 - c. Purchase approved mitigation bank credits.

Failure to satisfy the obligations of the mitigation fee shall subject the bond to be called.

Pay appropriate SJMSCP 2024 fees based on habitat categories and rates to **SJCOG, Inc.:**

- Urban (U) Habitat – 14.83 acres x \$0.00 per acre = **\$0.00**

Total Fee due: \$0.00

Note: If fees are not paid prior to January 1, 2025 this project will be subject to the subsequent fee change, and the fee above will no longer be applicable.

Project Proponent Must Initial Here As to Understanding the Note Above:

Initial
MS

Surveys

Initial and/or follow up surveys shall be conducted no greater than 14 days prior to construction for Swainson's hawk and all raptor species protected under the Migratory Bird Treaty Act (MBTA). If these species are observed on the project site then the following Incidental Take Minimization Measures shall be implemented.

5.2.4.11 Swainson's Hawk

The Project Proponent has the option of retaining known or potential Swainson's hawk nest trees (i.e., trees that hawks are known to have nested in within the past three years or trees, such as large oaks, which the hawks prefer for nesting) or removing the nest trees.

If the Project Proponent elects to retain a nest tree, and in order to encourage tree retention, the following Incidental Take Minimization Measure shall be implemented during construction activities:

If a nest tree becomes occupied during construction activities, then all construction activities shall remain a distance of two times the dripline of the tree, measured from the nest.

If the Project Proponent elects to remove a nest tree, then nest trees may be removed between September 1 and February 15, when the nests are unoccupied.

These Incidental Take Minimization Measures are consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G).

MBTA Compliance:

Listed below are effective measures that should be employed at all project development sites nationwide with the goal of reducing impacts to birds and their habitats. A qualified biologist will be required to be on site as a biological monitor during these activities. These measures are grouped into three categories: General, Habitat Protection, and Stressor Management. These measures may be updated through time. We recommend checking the MBTA Conservation Measures website regularly for the most up-to-date list.

1. General Measures

- a. Educate all employees, contractors, and/or site visitors of relevant rules and regulations that protect wildlife. See the Service webpage on [Regulations and Policies](#) for more information on regulations that protect migratory birds.
- b. Prior to removal of an inactive nest, ensure that the nest is not protected under the Endangered Species Act (ESA) or the Bald and Golden Eagle Protection Act (BGEPA). Nests protected under ESA or BGEPA cannot be removed without a valid permit.
 - i. See the [Service Nest Destruction Policy](#)
- c. Do not collect birds (live or dead) or their parts (e.g., feathers) or nests without a valid permit. Please visit the [Service permits page](#) for more information on permits and permit applications.
- d. Provide enclosed solid waste receptacles at all project areas. Non-hazardous solid waste (trash) would be collected and deposited in the on-site receptacles. Solid waste would be collected and disposed of by a local waste disposal contractor. For more information about solid waste and how to properly dispose of it, see the [EPA Non-Hazardous Waste](#) website.
- e. Report any incidental take of a migratory bird, to the [local Service Office of Law Enforcement](#).
- f. Consult and follow applicable [Service industry guidance](#).

2. Habitat Protection

- a. Minimize project creep by clearly delineating and maintaining project boundaries (including staging areas).
- b. Consult all local, State, and Federal regulations for the development of an appropriate buffer distance between development site and any wetland or waterway. For more information on wetland protection regulations see the Clean Water Act sections [401](#) and [404](#).

- c. *Maximize use of disturbed land for all project activities (i.e., siting, lay-down areas, and construction).*
- d. *Implement standard soil erosion and dust control measures. For example:*
 - i. *Establish vegetation cover to stabilize soil*
 - ii. *Use erosion blankets to prevent soil loss*
 - iii. *Water bare soil to prevent wind erosion and dust issues*

3. **Stressor Management**

Stressor: Vegetation Removal

Conservation Goal: *Avoid direct take of adults, chicks, or eggs.*

Conservation Measure 1: *Schedule all vegetation removal, trimming, and grading of vegetated areas outside of the peak bird breeding season to the maximum extent practicable. Use available resources, such as internet-based tools (e.g., the FWS's Information, Planning and Conservation system and Avian Knowledge Network) to identify peak breeding months for local bird species; or, contact local Service Migratory Bird Program Office for breeding bird information.*

Conservation Measure 2: *When project activities cannot occur outside the bird nesting season, conduct surveys prior to scheduled activity to determine if active nests are present within the area of impact and buffer any nesting locations found during surveys.*

1. *Generally, the surveys should be conducted no more than five days prior to scheduled activity.*
2. *Timing and dimensions of the area to be surveyed vary and will depend on the nature of the project, location, and expected level of vegetation disturbance.*
3. *If active nests or breeding behavior (e.g., courtship, nest building, territorial defense, etc.) are detected during these surveys, no vegetation removal activities should be conducted until nestlings have fledged or the nest fails or breeding behaviors are no longer observed. If the activity must occur, establish a buffer zone (100-feet minimum) around the nest and no activities will occur within that buffer zone until nestlings have fledged and left the nest area. The dimension of the buffer zone may need to be expanded depending on the proposed activity, habitat type, and species present and should be coordinated with the biologist on site and/or SJMSCP.*
4. *When establishing the buffer zone, construct a barrier (e.g., plastic fencing) to protect the area. If the fence is knocked down or destroyed, work will suspend wholly, or in part, until the fence is satisfactorily repaired.*
5. *When establishing a buffer zone, a qualified biologist will be present onsite to serve as a biological monitor during vegetation clearing and grading activities to ensure no take of migratory birds occurs. Prior to vegetation clearing, the monitor will ensure that the limits of construction have been properly staked and are readily identifiable. Any associated project activities that are inconsistent with the applicable conservation measures, and activities that may result in the 'take of migratory birds' will be immediately halted and reported to the SJMSCP and the appropriate Service office within 24 hours.*
6. *If establishing a buffer zone of a minimum of 100-feet is not feasible, contact the Service for guidance to minimize impacts to migratory birds associated with the proposed project or removal of an active nest. Active nests may only be removed if you receive a permit from your local Migratory Bird Permit Office. A permit may authorize active nest removal by a qualified biologist with bird handling experience or by a permitted bird rehabilitator.*

Conservation Measure 3: *Prepare a vegetation maintenance plan that outlines vegetation maintenance activities and schedules so that direct bird impacts do not occur.*

Stressor: Invasive Species Introduction

Conservation Goal: *Prevent the introduction of invasive plants.*

Conservation Measure 1: *Prepare a weed abatement plan that outlines the areas where weed abatement is required and the schedule and method of activities to ensure bird impacts are avoided.*

Conservation Measure 2: *For temporary and permanent habitat restoration/enhancement, use only native and local (when possible) seed and plant stock.*

Conservation Measure 3: *Consider creating vehicle wash stations prior to entering sensitive habitat areas to prevent accidental introduction of non-native plants.*

Conservation Measure 4: *Remove invasive/exotic species that pose an attractive nuisance to migratory birds.*

Stressor: Artificial Lighting

Conservation Goal: *Prevent increase in lighting of native habitats during the bird breeding season.*

Conservation Measure 1: *To the maximum extent practicable, limit construction activities to the time between dawn and dusk to avoid the illumination of adjacent habitat areas.*

Conservation Measure 2: *If construction activity time restrictions are not possible, use down shielding or directional lighting to avoid light trespass into bird habitat (i.e., use a 'Cobra' style light rather than an omnidirectional light system to direct light down to the roadbed). To the maximum extent practicable, while allowing for public safety, low intensity energy saving lighting (e.g., low pressure sodium lamps) will be used.*

Conservation Measure 3: *Minimize illumination of lighting on associated construction or operation structures by using motion sensors or heat sensors.*

Conservation Measure 5: *Bright white light, such as metal halide, halogen, fluorescent, mercury vapor and incandescent lamps should not be used.*

Stressor: Human Disturbance

Conservation Goal: *Minimize prolonged human presence near nesting birds during construction and maintenance actions.*

Conservation Measure 1: *Restrict unauthorized access to natural areas adjacent to the project site by erecting a barrier and/or avoidance buffers (e.g., gate, fence, wall) to minimize foot traffic and off-road vehicle uses.*

Stressor: Collision

Conservation Goal: *Minimize collision risk with project infrastructure and vehicles.*

Conservation Measure 1: *Minimize collision risk with project infrastructure (e.g., temporary and permanent) by increasing visibility through appropriate marking and design features (e.g., lighting, wire marking, etc.).*

Conservation Measure 2: *On bridge crossing areas with adjacent riparian, beach, estuary, or other bird habitat, use fencing or metal bridge poles (Sebastian Poles) that extend to the height of the tallest vehicles that will use the structure.*

Conservation Measure 3: *Install wildlife friendly culverts so rodents and small mammals can travel under any new roadways instead of over them. This may help reduce raptor deaths associated with being struck while tracking prey or scavenging road kill on the roadway.*

Conservation Measure 4: *Remove road-kill carcasses regularly to prevent scavenging and bird congregations along roadways.*

Conservation Measure 5: *Avoid planting “desirable” fruited or preferred nesting vegetation in medians or Rights of Way.*

Conservation Measure 6: *Eliminate use of steady burning lights on tall structures (e.g., >200 ft).*

Stressor: Entrapment

Conservation Goal: *Prevent birds from becoming trapped in project structures or perching and nesting in project areas that may endanger them.*

Conservation Measure 1: *Minimize entrapment and entanglement hazards through project design measures that may include:*

- a) *Installing anti-perching devices on facilities/equipment where birds may commonly nest or perch*
- b) *Covering or enclosing all potential nesting surfaces on the structure with mesh netting, chicken wire fencing, or other suitable exclusion material prior to the nesting season to prevent birds from establishing new nests. The netting, fencing, or other material must have no opening or mesh size greater than 19 mm and must be maintained until the structure is removed.*
- c) *Cap pipes and cover/seal all small dark spaces where birds may enter and become trapped.*

Conservation Measure 2: *Use the appropriate deterrents to prevent birds from nesting on structures where they cause conflicts, may endanger themselves, or create a human health and safety hazard.*

- a) *During the time that the birds are trying to build or occupy their nests (generally, between April and August, depending on the geographic location), potential nesting surfaces should be monitored at least once every three days for any nesting activity, especially where bird use of structures is likely to cause take. It is permissible to remove non-active nests (without birds or eggs), partially completed nests, or new nests as they are built (prior to occupation). If birds have started to build any nests, the nests shall be removed before they are completed. Water shall not be used to remove the nests if nests are located within 50 feet of any surface waters.*
- b) *If an active nest becomes established (i.e., there are eggs or young in the nest), all work that could result in abandonment or destruction of the nest shall be avoided until the young have fledged or the nest is unoccupied. Construction activities that may displace birds after they have laid their eggs and before the young have fledged should not be permitted. If the project continues into the following spring, this cycle shall be repeated. When work on the structure is complete, all netting shall be removed and properly disposed of.*

Stressor: Noise

Conservation Goal: *Prevent the increase in noise above ambient levels during the nesting bird breeding season.*

Conservation Measure 1: *Minimize an increase in noise above ambient levels during project construction by installing temporary structural barriers such as sand bags*

Conservation Measure 2: *Avoid permanent additions to ambient noise levels from the proposed project by using baffle boxes or sound walls.*

Stressor: Chemical Contamination

Conservation Goal: *Prevent the introduction of chemicals contaminants into the environment.*

Conservation Measure 1: Avoid chemical contamination of the project area by implementing a Hazardous Materials Plan. For more information on hazardous waste and how to properly manage hazardous waste, see the [EPA Hazardous Waste](#) website.

Conservation Measure 2: Avoid soil contamination by using drip pans underneath equipment and containment zones at construction sites and when refueling vehicles or equipment.

Conservation Measure 3: Avoid contaminating natural aquatic and wetland systems with runoff by limiting all equipment maintenance, staging laydown, and dispensing of fuel, oil, etc., to designated upland areas.

Conservation Measure 4: Any use of pesticides or rodenticides shall comply with the applicable [Federal and State laws](#).

1. Choose [non-chemical](#) alternatives when appropriate
2. Pesticides shall be used only in accordance with their registered uses and in accordance with the manufacturer's instructions to limit access to non-target species.
3. For general measures to reducing wildlife exposure to pesticides, see EPA's [Pesticides: Environmental Effects](#) website.

Stressor: Fire

Conservation Goal: Minimize fire potential from project-related activities.

Conservation Measure 1: Reduce fire hazards from vehicles and human activities (e.g., use spark arrestors on power equipment, avoid driving vehicles off road).

Conservation Measure 2: Consider fire potential when developing vegetation management plans by planting temporary impact areas with a palette of low-growing, sparse, fire resistant native species that meet with the approval of the County Fire Department and local FWS Office.

During project construction:

All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from the construction site.

In reliance on the Section 10(a)(1)(B) Permit issued by the United States Fish and Wildlife Service and the Section 2081(b) Incidental Take Permit issued by the California Department of Fish and Wildlife, the City of Manteca has consulted with and agreed to allow coverage pursuant to the SJMSCP for the *Spreckels Distribution Center Project* its successors, agents and assigns pursuant to the "Implementation Agreement for the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan" which will allow the *Spreckels Distribution Center Project*, its successors, agents and assigns to construct, operate and maintain the Project commonly known as the *Spreckels Distribution Center Project* and located on Assessor Parcel Numbers 221-250-35 which could result in a legally permitted Incidental Take of the SJMSCP Covered Species in accordance with and subject to the terms and conditions of the *Spreckels Distribution Center Project* approved by the City of Manteca. This Certification applies only to activities on the subject parcel(s) which are carried out in full compliance with the approved plans for the *Spreckels Distribution Center Project*, Section 10(a)(1)(B) Permit, and Section 2081(b) Incidental Take Permit conditions.

I have read, acknowledge, and agree to the preceding conditions:

Signed by:

68F5C846ADE74DE...

9/4/2024

Project Proponent for the *Spreckels Distribution Center Project*

Date

Matthew Sims

Please Print Name Here

FOR SJCOG, Inc. Use Only:

SJCOG, Inc. Staff Signature

Official Date of Issuance

SJCOG, Inc. Staff Print Name Here

Mitigation Due Date

Account	Debit	Credit
1. Cash	10,000	
2. Accounts receivable	10,000	
3. Inventory	10,000	
4. Prepaid expenses	10,000	
5. Equipment	10,000	
6. Accounts payable		10,000
7. Notes payable		10,000
8. Common stock		10,000
9. Retained earnings		10,000
10. Dividends	10,000	
11. Salaries and wages	10,000	
12. Rent	10,000	
13. Utilities	10,000	
14. Insurance	10,000	
15. Depreciation	10,000	
16. Interest	10,000	
17. Income tax	10,000	
18. Profit		10,000
19. Loss	10,000	
20. Other	10,000	
21. Total	100,000	100,000

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