

**Dorsey Marketplace Development Project
Biological Technical Report
City of Grass Valley, California**

Prepared for:

The City of Grass Valley
125 E. Main Street
Grass Valley, CA 95945
Contact: Thomas Last, Community Development Director

Prepared by:

DUDEK
853 Lincoln Way, Suite 208
Auburn, CA 95603
Contact: Laura Burris
LBurris@dudek.com
530-863-4656

JULY 2016

Dorsey Marketplace Development Project

TABLE OF CONTENTS

<u>Section</u>	<u>Page No.</u>
1 INTRODUCTION.....	1
1.1 Project Location.....	1
1.2 Project Description.....	1
2 REGULATORY BACKGROUND.....	3
3 PROJECT SETTING.....	9
3.1 Land Uses.....	9
3.2 Soils and Topography.....	9
3.3 Watershed and Hydrology.....	9
4 METHODOLOGY.....	11
4.1 Literature Review and Background Research.....	11
4.2 Site Survey.....	11
4.2.1 Vegetation Community and Land Cover Types.....	11
4.2.2 Flora.....	12
4.2.3 Fauna.....	12
4.2.4 Jurisdictional Wetlands.....	12
5 RESULTS OF SURVEY.....	15
5.1 Land Cover Types.....	15
5.2 Special-Status Plant and Animal Species.....	16
5.2.1 Special-Status Plant Species.....	17
5.2.2 Special-Status Animal Species.....	19
5.3 Sensitive Resources and Habitats.....	20
5.4 Wildlife Corridors and Habitat Linkages.....	21
5.5 Aquatic Resources.....	21
6 CONCLUSIONS AND RECOMMENDATIONS.....	23
6.1 Potential Impacts.....	23
6.1.1 Special-Status Plant Species.....	23
6.1.2 Special-Status Wildlife Species.....	23
6.1.3 Sensitive Natural Communities.....	23
6.1.4 Aquatic Resources.....	23
6.2 Recommended Avoidance and Minimization Measures.....	24
7 REFERENCES CITED.....	27

Dorsey Marketplace Development Project

APPENDICES

- A Representative Photos
- B Plant Species Observed
- C Potentially Occuring Species Tables

FIGURES

Figure 1	Regional Location.....	29
Figure 2	Project Site and Vicinity.....	31
Figure 3	Vegetation Communities.....	33
Figure 4	Aquatic Resources.....	35

TABLES

Table 1	Vegetation Communities and Vegetation Types.....	15
Table 2	Special-status Plant Species with Potential to Occur in the Project site.....	18
Table 3	Special-status Animal Species with Potential to Occur in the Project Site.....	20
Table 4	Potentially Jurisdictional Wetlands and Waters of the U.S.....	21

Dorsey Marketplace Development Project

1 INTRODUCTION

This assessment describes the existing conditions for the proposed Dorsey Marketplace Project site in the community of Grass Valley, Nevada County, California (Figure 1). This report provides a preliminary assessment of the biological resources observed or potentially present on the site, potential constraints associated with development of the site, and related regulatory requirements.

1.1 Project Location

The proposed project site is located in the City of Grass Valley, which is located along State Route (SR) 20/49 between Nevada City and Alta Sierra. The project site is bordered by SR 20/49 to the west, Dorsey Drive to the north, the Old Barn and Ernie's Storage to the south and the Grass Valley Terrace Apartments to the east. The project would be accessible from Dorsey Drive and from Spring Hill Drive, which accesses Idaho-Maryland Road. The project is located in Section 23, Township 16 North, and Range 8 East of the U.S. Geological Survey (USGS) Grass Valley 7.5' quadrangle. The approximate center of the site corresponds to 39°13'39.3" North latitude and 121°2'31.7" West longitude (Figure 2).

1.2 Project Description

The currently proposed project at Dorsey Marketplace involves developing an approximately 27-acre parcel of land. Proposed land uses include commercial, residential, and recreational facilities. Two project designs are being considered; the development footprint would be substantially the same under either design.

The proposed project is requesting a General Plan Amendment and rezone to change the land use designation on the site from Business Park to Commercial (21.2 acres) and Residential Urban High Density (5.7 acres). The project is also requesting a rezone from Corporate Business Park to Commercial (C-2) and Residential (R-3). This would facilitate the proposed development. One project design would construct 181,900 square feet of commercial building space and 90 multi-family dwelling units. The other project design would construct 171 apartments, approximately 105,000 square feet of commercial space, and approximately 8,500 square feet of office space. Within the commercial component of the project, each project design includes four pads for drive-through restaurants (with sizes ranging between 3,000 and 4,000 square feet) while the number and size of major shops and small shops varies between the two designs. The proposed dwelling units would be offered as market-rate rental units and are expected to include 1-, 2-, and 3-bedroom units. They would be constructed as two-story buildings in the southeast corner of the project site in the project design that includes 90 apartments. In the project design that includes 171 apartments, the dwelling units would be constructed in two-story buildings in

Dorsey Marketplace Development Project

both the southeast and southwest corners of the site; some of the buildings in the southwest corner would also include the 8,500 square feet of office space included in this design. In both designs, the residential area would include an apartment clubhouse and pool and a tot lot and small dog park would also be provided within the project site.

2 REGULATORY BACKGROUND

Federal

The following federal regulations pertaining to biological resources would apply to the proposed project.

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) (16 USC 1533) gives joint authority to list a species as threatened or endangered to the Secretary of the Interior (represented by the U.S. Fish and Wildlife Service) and the Secretary of Commerce (represented by the National Marine Fisheries Service). Under FESA, the “take” of endangered or threatened fish, wildlife, or plants species or adverse modifications to critical habitat, in areas under federal jurisdiction is prohibited. Under the Act take is defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct”. The USFWS and NMFS have interpreted the definition of “harm” to include significant habitat modification that could result in the take of a species.

Either an incidental take permit under Section 10(a) or an incidental take statement under Section 7 is required if an activity would result in the take of a federally listed species. Section 7 requires the reviewing agency to determine whether any federally listed species, or species proposed for listing, may be present on the project site and if the project is likely to affect the species. Additionally, the reviewing agency must determine if a proposed project is likely to jeopardize the existence of a listed species or a proposed listed species, or result in destruction or adverse modification of proposed or designated critical habitat for such species. FESA requires the federal government to designate “critical habitat” for any listed species, which is defined as specific areas within the geographical area occupied by the species at the time of listing if they contain physical or biological features essential to the species conservation, and those features that may require special management considerations or protection. Additionally, it includes specific areas outside the geographical area occupied by the species if the regulatory agency determines that the area itself is essential for conservation.

USFWS and/or NMFS must authorize projects where a federally listed species is present and likely to be affected by an existing or proposed project. Generally, terrestrial and freshwater fish species are under the jurisdiction of USFWS, while marine and anadromous fish species are under the jurisdiction of NMFS. Project authorization may involve a letter of concurrence that the project will not result in the take of a listed species, or a Biological Opinion that describes what measures must be undertaken to minimize the likelihood of an incidental take. Projects determined by USFWS and NMFS to jeopardize the continued existence of a species cannot be

Dorsey Marketplace Development Project

approved under a Biological Opinion. Take that is incidental to the lawful operation of a project is permitted under Section 10(a) through approval of a Habitat Conservation Plan (HCP), where a federal agency is not authorizing, funding, or carrying out the project.

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) (16 USC Section 703, Supp. I, 1989) regulates and prohibits taking, killing, possessing, harming, or trading in migratory birds. The act addresses whole birds, parts of birds, and bird nests and eggs. This international treaty for the conservation and management of bird species that migrate through one or more countries is enforced in the United States by the U.S. Fish and Wildlife Service.

Clean Water Act

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical and biological integrity of waters of the United States (as defined in the Code of Federal Regulations 33 CFR 328.3[a]). Section 401 of the Act (33 USC 1341) prohibits the discharge of any pollutant into waters of the United States. Project applicants for a federal license or permit to conduct activities including, but not limited to, the creation or operation of facilities, which may result in discharge into waters of the United States, must obtain certification that the project would not violate applicable effluent limitations and water quality standards. Section 404 of the Act (33 USC 1344) requires a federal license or permit from the Army Corps of Engineers prior to the discharge of dredge or fill material into waters of the United States, unless activity is exempt from Section 404 permit requirements. Permit applicants must demonstrate that they have attempted to avoid or minimize impacts on the resource; however, if no further minimization of impacts is possible, the applicant is required to mitigate remaining impacts on all federally-regulated waters of the United States. In California the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) are responsible for the protection of water quality.

State

The following state regulations pertaining to biological resources would apply to the proposed project.

California Endangered Species Act

The California Endangered Species Act and Section 2081 of the California Department of Fish and Game Code identifies measures to ensure state-listed species and their habitats are conserved, protected, restored and enhanced. The Act requires permits from the CDFG for activities that could result in the take of a state-listed species threatened or endangered species.

Dorsey Marketplace Development Project

“Take” is defined as to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill (Fish and Game Code Section 86). Section 2080 of the Fish and Game Code prohibits the take of state-listed plants and animals unless otherwise permitted under Sections 2080.1, 2081, and 2835. Section 20814(b) affords CDFG the authority to issue permits for incidental take for otherwise lawful activities. To authorize an incidental take the impacts of the take must be minimized and fully mitigated. Issuance of incidental take permits for may not jeopardize the continued existence of a state-listed species. For species listed as threatened or endangered under FESA, CDFG may rely on a federal incidental take statement or permit to authorize an incidental take under CESA.

The California Fish and Game Commission maintains a list of threatened and endangered species (Fish and Game Code Section 2070). The California Fish and Game Commission maintains two additional lists; a Candidate species list, which identifies species under review for addition to either the endangered or threatened species list, and a species of special concern list which serves as a watch list based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value.

California Fully Protected Species and Species of Special Concern

The classification of “fully protected” was the CDFG’s initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. California Fish and Game Code sections (fish at Section 5515, amphibians and reptiles at Section 5050, birds at Section 3511, and mammals at Section 4700) dealing with “fully protected” species states that these species may not be taken or possessed at any time and no provisions in this code or any other law shall be construed to authorize permits for the take of fully protected species. Species of special concern are broadly defined as animals not listed under the FESA or CESA, but which are nonetheless of concern to the CDFG because are declining at a rate that could result in listing or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to elicit special consideration for these animals by the CDFG, land managers, consulting biology, and others. Additionally, this is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them.

California Department of Fish and Game Code Section 3503

Birds of prey are protected in California under the Fish and Game Code (Section 3503.5, 1992). Under Section 3503.5 it is “unlawful to take, possess, or destroy any birds in the order Falconiformes (diurnal birds of prey) or Strigiformes (owls) or to take, possess, or destroy any nest or egg of any bird except as otherwise provided by this code or any regulation adopted

Dorsey Marketplace Development Project

pursuant thereto.” Disturbance during breeding season that results in the incidental loss of fertile eggs or nestlings or otherwise leads to nest abandonment is considered “taking” by the CDFG.

California Native Plant Protection Act

The California Native Plant Protection Act (California Fish and Game Code Sections 1900-1913) and the Natural Communities Conservation Planning Act provide guidance on the preservation of plant resources. Vascular plants which have no designated status or protection under state or federal endangered species legislation, but are listed as rare or endangered by the CNPS, are defined as follows:

1. List 1A: Plants presumed extinct
2. List 1B: Plants rare, threatened, or endangered in California and elsewhere
3. List 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere
4. List 3: Plants about which more information is needed – a review list
5. List 4: Plants of limited distribution – a watch list

Generally, plants on CNPS List 1A, 1B, or 2 are considered to meet the criteria for endangered, threatened or rare species as outlined by Section 15380 of the CEQA Guidelines. Additionally, plants listed on CNPS List 1A, 1B, or 2 also meet the definition of Section 1901, Chapter 10 (Native Plant Protection Act) and Sections 2062 and 2067 (CESA) of the California Fish and Game Code.

California Department of Fish and Game Code Sections 1600-1616

Under Sections 1600-1616 of the California Fish and Game Code, CDFG regulates activities that would substantially alter the flow, bed, channel, or bank of streams and lakes. Such activities require a 1602 Lake and Streambed Alteration Agreement from the CDFG. California Code of Regulations (CCR) defines a stream as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). The term stream includes rivers, creeks, ephemeral streams, dry washes, canals, aqueducts, irrigation ditches and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. Removal of riparian vegetation also requires a Section 1602 Lake and Stream Alteration Agreement from the CDFG.

Dorsey Marketplace Development Project

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) administers Section 401 of the CWA which requires that an applicant for a Section 404 permit first obtain a certification, or waiver thereof, that the project will not violate applicable state water quality standards. The authority to either grant certification or waive the requirement for certification has been delegated by the SWRCB to nine regional boards, including, in Sonoma County the North Coast Regional Water Quality Control Board (NCRWQCB). The SWRCB protects all waters of the State, but has special responsibility for isolated wetlands and headwaters. These waterbodies have high resources value but are vulnerable to filling and may lack regulation by other programs. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit, but does involve activities that may result in a discharge of harmful substances to waters of the State, the Water Boards have the option to regulate such activities under its State authority in the form of Waste Discharge Requirements or Certification of Waste Discharge Requirements.

Dorsey Marketplace Development Project

INTENTIONALLY LEFT BLANK

3 PROJECT SETTING

3.1 Land Uses

The project site is characterized as chaparral and coniferous woodland with several developed areas (Figure 3). It was the former location of the Spring Hill Mine, which operated at the site intermittently during the late 1800s and through the 1940s. Abandoned mine features located onsite include excavations, pits, remnants of building foundations, stockpiles of mine waste rock, and dry tailings ponds (Holdrege & Kull 2012). The project site is bounded on all sides by urban development.

3.2 Soils and Topography

In general, the native topsoil consists of clay, gravelly clay, and sandy clay; beneath the clay layer is the bedrock consisting of diabase and serpentine rock, which, in the trenches that appear on the site, are moderately to severely weathered. In these trenches, the clay layer over of the serpentine and diabase is approximately 2.5 feet thick. The Dubakella complex dominates the majority of the site's soil conditions (NRCS 2016). The site is a part of the ultramafic-mafic 'basement' of the Lake Combie complex. According to the Natural Resources Conservation Service (USDA 2016) the three soil types mapped within the site and include: Placer diggings; Rock outcrop-Dubakella complex, 5 to 50 percent slopes; and Sites loam, 9 to 15 percent slopes.

Placer diggings are generally found where historic mining practices have altered the land. Placer diggings consist of numerous minor components. Rock outcrops-Dubakella complex soils consist of ultrabasic rock outcrops in Dubakella soils on hills and mountains. These are rocky, well-drained soils that often contain serpentinite components. Sites loams consist of well-drained clay loams derived from metabasic residuum weathered from metasedimentary rock.

3.3 Watershed and Hydrology

The project site is located in the Upper Bear hydrological unit (HUC 18020126). Aquatic features within the site include numerous erosional channels and one depression at the southwestern end of the project site (Figure 4). Based on historic aerial photography and visual inspection during the site survey, these features are only periodically inundated and tend to remain inundated for short periods, depending on frequency and duration of rainfall events.

A formal wetland delineation has not been completed for the site. However, based on the site assessment, the numerous erosional features onsite appear to be the result of erosion of uplands from rainwater runoff and likely do not meet the three criteria for wetlands including hydrophytic vegetation, hydrology, and soils. Several flat areas at the top of the hill crest, in the center of the project site, were inundated with rainwater at the time of the site surveys; however,

Dorsey Marketplace Development Project

they did not contain any other indicators of hydrology, wetland vegetation, and were unlikely to remain inundated for extended periods of time. It is unlikely any of these features would be considered waters of the United States and the State of California, and would therefore not require permits from CDFW, ACOE and RWQCB if impacts to these features from development of the property are unavoidable. Although the depression at the southwestern end of the project site did not display any hydrophytic vegetation other than cottonwood trees on the margin, and was not inundated at the time of the site survey, this area appears to collect water that drains from the some of the linear drainage features and the sloped areas in the central portion of the site. The water exits this depression and enters travels through an intermittent drainage before entering a culvert and going underground at the southern property boundary. This depression and intermittent drainage may be considered jurisdictional by the ACOE or the RWQCB if the water moves through the storm drain system under the development to the south of the project site and eventually intersects with Wolf Creek to the south.

4 METHODOLOGY

4.1 Literature Review and Background Research

Prior to conducting fieldwork, the following available resources were reviewed to assess the potential for biological and wetland resources within the study area and vicinity:

- a 1:200-scale aerial photograph (Bing Maps 2014; Google Earth 2014),
- the USGS 7.5-minute topographic quadrangle (USGS 2014),
- a records search of the California Natural Diversity Database (Figure 3; CDFW 2016),
- a list of plants generated by a query of the California Native Plant Society's Inventory of Rare and Endangered Plants (CNPS 2016),
- A list of species generated from a review of the US Fish and Wildlife Service's (USFWS) list of federal endangered and threatened species (USFWS 2016),
- the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2016), and
- the National Wetland Inventory (USFWS 2016).

4.2 Site Survey

Potential biological and wetland constraints were assessed in the field by Dudek biologist Laura Burris on March 4 and July 22, 2016. The site surveys consisted of walking the project area to identify habitat conditions, document all plant and animal species observed, and to determine if potential wetlands and waters of the U.S. were present within the project site. A follow-up evaluation of potential wetland resources was conducted by Dudek biologists Laura Burris and Tera Stoddard on July 27, 2016. The Dudek biologist collected georeferenced photographic records that represent the onsite habitats and wetlands (Appendix A).

4.2.1 Vegetation Community and Land Cover Types

The surveys were conducted on foot to visually cover the entire site. An aerial photograph (Google Earth 2015) with an overlay of the property boundary, and surrounding buffer was utilized to map the vegetation communities and record any special-status or sensitive biological resources while in the field. Nomenclature for vegetation communities follows A Manual of California Vegetation, Second Edition (Sawyer, et.al. 2009).

Dorsey Marketplace Development Project

4.2.2 Flora

All plant species encountered during the field survey were identified to the lowest taxonomic group possible and recorded directly into a field notebook. Common and scientific names for plant species with a California Rare Plant Rank (CRPR, formerly CNPS List) follow the CNPS On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2015). Nomenclature for all other plant species observed on the site follows The Jepson Manual, Vascular Plants of California, Second Edition (Baldwin, ed 2012). A list of plant species observed on the site is presented in Appendix B.

4.2.3 Fauna

Wildlife species detected during the field survey by sight, calls, tracks, scat, or other signs were recorded directly into a field notebook. The site was scanned with and without binoculars to aid in the identification of wildlife. In addition to species actually detected during the surveys, expected wildlife use of the site was determined by known habitat preferences of local species and knowledge of their relative distributions in the area.

4.2.4 Jurisdictional Wetlands

Dudek conducted a constraints-level analysis for potentially jurisdictional waters and wetlands based on criteria provided by the following agencies:

- Waters of the U.S., including wetlands, under the jurisdiction of the U.S. Army Corps of Engineers (ACOE) pursuant to Section 404 of the federal Clean Water Act.
- Wetlands under the jurisdiction of the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the Clean Water Act and the Porter-Cologne Act.
- Wetlands under the jurisdiction of CDFW, pursuant to Section 1602 of the California Fish and Game Code.

Pursuant to the federal Clean Water Act (CWA), ACOE- and RWQCB-jurisdictional areas include those supporting all three wetlands criteria described in the ACOE manual: hydric soils, hydrology, and hydrophytic vegetation. Areas regulated by the RWQCB are generally coincident with the ACOE, but may also include isolated features that have evidence of surface water inundation pursuant to the state Porter Cologne Act. These areas generally support at least one of the three ACOE wetlands indicators but are considered isolated through the lack of surface water hydrology/connectivity downstream. The extent of CDFW-regulated areas typically include

Dorsey Marketplace Development Project

areas supporting a predominance of hydrophytic vegetation (i.e., 50% cover or greater) where associated with a stream channel.

Specifically, Dudek performed a constraints-level wetland assessment on the property, reviewed current and historical aerial photography, and then identified potentially jurisdictional features based on aerial signatures and field observations.

Dorsey Marketplace Development Project

INTENTIONALLY LEFT BLANK

Dorsey Marketplace Development Project

5 RESULTS OF SURVEY

A total of 40 species of vascular plants were recorded during the site surveys (Appendix B). Of these 40 species, 27 are native to California. The rest of these species are non-native. The timing of the surveys was chosen to ensure identification of plants onsite to a taxonomic level sufficient to determine rarity.

Seven wildlife species or sign were observed during the field surveys: northern flicker (*Colaptes auratus*), several unidentified sparrows, dark-eyed junco (*Junco hyemalis*), bushtit (*Psaltriparus minimus*), and raccoon (*Procyon lotor*) scat.

5.1 Land Cover Types

Five land cover types exist on the project site. The majority of the site consists of whiteleaf manzanita (*Arctostaphylos viscida*) chaparral, McNab cypress (*Hesperocyparis macnabiana*) woodland (Figure 4). The remaining portion of the project site consists of, Ponderosa pine (*Pinus ponderosa*) forest, Fremont cottonwood (*Populus fremontii*) woodland, and ruderal/developed. These land cover types are described in Table 1 and in further detail below.

Table 1
Vegetation Communities and Vegetation Types

Alliance	Vegetation Type	Acres
Arctostaphylos viscida shrubland	California chaparral	11.76
(NA)	Developed	0.69
(NA)	Disturbed/Ruderal	5.22
Populous fremontii	Cottonwood forest	0.65
Pinus ponderosa forest	Mixed coniferous forest	6.62
Callitropsis macnabiana forest	McNabb Cypress Woodland	3.33
	Total	28.28

Whiteleaf Manzanita Chaparral. There are approximately 11.8 acres of whiteleaf manzanita chaparral onsite. The whiteleaf manzanita chaparral is dominated in most areas by whiteleaf manzanita. In other areas, whiteleaf manzanita is codominant in the canopy with scrub oaks (*Quercus berberidifolia* and *Q. durata*) and ceanothus (*Ceanothus cuneatus*). The shrub canopy in the chaparral is dense and little vegetation grows under the shrubs. The few herbaceous species noted in the chaparral included bedstraw (*Galium aparine*). Openings in the chaparral were either barren or dominated by annual grasses and forbs.

Dorsey Marketplace Development Project

McNabb Cypress Woodland. There are approximately 3.3 acres of McNabb cypress woodland onsite. McNabb cypress woodland is dominated by McNab cypress in the overstory. This canopy in this habitat type was generally short (less than 20 feet in height) and was either densely clustered or scattered with whiteleaf manzanita chaparral between trees. McNab cypress forms a dense canopy and herbaceous vegetation was minimal in the understory. This vegetation community is a fire-adapted species and is known to occur primarily on soils derived from basalt, conglomerate, gabbro, greenstone, or serpentine substrates (Sawyer et al 2009).

McNab cypress woodland has a State rarity ranking of S3.2 and a global rarity rank of G3 (CDFW 2010).

Ponderosa Pine Forest. There is approximately 6.6 acres of coniferous forest onsite. Ponderosa pine trees are the dominant plant in this vegetation community. The trees onsite are tall and well-spaced, allowing for the growth of a sparse shrub layer in the understory. The shrub layer consists of ceanothus, whiteleaf manzanita, toyon (*Heteromeles arbutifolia*), and immature madrone trees (*Arbutus menzesii*). Herbaceous vegetation is sparse and primarily consists of an unidentifiable lily.

Cottonwood Forest. An approximately 0.6-acre stand of mature Fremont cottonwood (*Populus fremontii*) occurs in the southwestern corner of the project site. This area is the lowest point on the property and it appears that water runoff from the hillside collects there. Associated species include Himalayan blackberry (*Rubus armeniacus*) and coyote brush (*Baccharis pilularis*). No standing water was noted at the time of the site survey.

Cottonwood forest has a State rarity ranking of S3.2 and a global rarity rank of G4 (CDFW 2010).

Ruderal/Developed. Approximately 5.9 acres of ruderal/developed land cover occurs on the project site. Developed areas on the project site include a gravel parking lot at the northern end and several cleared dirt access roads. Additionally, historic mining facilities are present in the western portion of the project area, including cement foundations and mine tailing depressions. These areas have been altered through human disturbance and may support a variety of native and nonnative vegetation.

5.2 Special-Status Plant and Animal Species

For the purpose of this constraints evaluation, special-status plant and animal species are defined as those species that fall into one or more of the following categories:

1. Officially listed or proposed for listing under the State and/or Federal Endangered Species Acts.

Dorsey Marketplace Development Project

2. State or Federal candidate for possible listing.
3. Species meeting the criteria for listing, even if not currently included on any list, as described in Section 15380 of the CEQA Guidelines.
4. Protected under the Federal Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act.
5. Species considered by the CDFW to be a “Species of Special Concern.”
6. Species that are biological rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring.
7. Populations in California that may be on the periphery of a species’ range, but are threatened with extirpation in California.
8. Species closely associated with habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, vernal pools, etc.).
9. Species designated as a special-status, sensitive, or declining species by other state, or federal agencies, or non-governmental organizations.

The potential occurrence of special-status plant and animal species on the Project site was initially evaluated by developing a list of special-status species that are known to or have the potential to occur in the Project vicinity. This list was primarily derived from a review of the California Natural Diversity Database (CDFG 2015), the CNPS Inventory of Rare and Endangered Plants (CNPS 2015), and the USFWS lists of federal endangered and threatened species (USFWS 2015) for all or some combination of the following USGS 7.5-minute quadrangles: Redwood Point, Newark, Niles, Milpitas, Mountain View, Palo Alto, Mindego Hill, Cupertino, and San Jose West.

5.2.1 Special-Status Plant Species

Results of the CNDDDB and CNPS searches revealed 11 special-status plant species that have potential to occur on or in the vicinity of the project site. Of these, four were removed from consideration due to lack of suitable habitat within or adjacent to the project area, or the project site is outside of the species’ known range (refer to Appendix C). Four special-status plant species have low potential to occur at the project site due to lack of appropriate soil substrates or habitat onsite. Three special-status plant species have moderate potential to occur at the project

Dorsey Marketplace Development Project

site. These include Stebbins' morning-glory (*Calystegia stebbinsii*), Follett's monardella (*Monardella follettii*), and Sierra blue grass (*Poa sierrae*). These species are discussed further in Table 2 and in the following section.

No special-status plants were observed during the field survey; however, the site survey was conducted at a time when special-status plants would not be evident and identifiable.

Table 2
Special-status Plant Species with Potential to Occur in the Project site

Common Name	Scientific Name	Status (Federal/State/CNPS)
Stebbins' morning-glory	<i>Calystegia stebbinsii</i>	FE/ CE/ 1B.1
Dubious pea	<i>Lathyrus sulphureus var. argillaceus</i>	None/ None/ 3
Sierra blue grass	<i>Poa sierrae</i>	None/ None/ 1B.3

Sources: CNPS 2016, CDFW 2016, USFWS 2016

Stebbins' Morning-glory

Stebbins' morning-glory (*Calystegia stebbinsii*) is a perennial rhizomatous herb found in serpentine or gabbroic soils in openings in chaparral and cismontane woodland (CNPS 2016). This species generally blooms from April through July. This species is known from El Dorado and Nevada Counties at elevations ranging from 600 to 3,600 feet above mean sea level (amsl).

The nearest previously documented occurrence of Stebbins' morning-glory is located approximately 3.8 miles southwest of the project site in similar habitat (CDFW 2016). Openings in the chaparral and serpentine soils within the project area provide potentially suitable habitat for this species. This species was not observed at the project site during the site surveys, which were conducted when it would be evident and identifiable. Thus, it is unlikely this species occurs within the Project site.

Dubious Pea

Dubious pea (*Lathyrus sulphureus var. argillaceus*) is a perennial herb found in cismontane woodland, lower montane coniferous forest, and upper montane coniferous forest (CNPS 2016). This species generally blooms from April through July (Jepson eFlora Project 2012). This species is known from Calaveras, El Dorado, Nevada, Placer, Shasta, and Tehama counties at elevations ranging from 192 to 3,051 feet amsl.

Dorsey Marketplace Development Project

The nearest previously documented occurrence of dubious pea is located approximately 0.35 miles southwest of the project site in similar habitat (CDFW 2016). Montane coniferous forest onsite provides potentially suitable habitat for this species. The common sweet pea (*Lathyrus latifolius*) was observed within the Project site. No other species of pea (*Lathyrus* spp.) were noted during the site surveys, which were performed when this plant would be evident and identifiable. Thus, it is unlikely this species occurs within the Project site.

Sierra Blue Grass

Sierra blue grass (*Poa sierrae*) is a perennial rhizomatous herb found in openings of lower montane coniferous forest (CNPS 2016). This grass species generally blooms from April through July. This species is known from Butte, El Dorado, Madera, Nevada, Placer, Plumas, and Shasta counties at elevations ranging from 1,198 to 4,921 feet amsl.

The nearest previously documented occurrence of this species is located approximately 7.5 miles southeast of the project site (CDFW 2016). The montane woodland onsite provides potentially suitable habitat for this species. This species was not observed within the project site during the site survey, which were performed when the grass species onsite, including those in the genus *Poa*, were evident and identifiable by habit, inflorescence, and fruit. Thus, it is unlikely this species occurs within the project site.

5.2.2 Special-Status Animal Species

Results of the CNDDDB and USFWS searches revealed nine listed or special-status wildlife species, or species proposed for listing as rare, threatened, or endangered by either the CDFW or the USFWS. Of these, seven were removed from consideration due to lack of suitable habitat within or adjacent to the project area, or the project site is outside of the species' known range. These were California red-legged frog (*Rana draytonii*), foothill yellow-legged frog (*Rana boylei*), western pond turtle (*Actinemys marmorata*), California black rail (*Laterallus jamaicensis coturniculus*), Sierra Nevada red fox (*Vulpes vulpes necator*), west coast distinct population of fisher (*Pekania pennant*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). No suitable riparian or aquatic habitat exists for California red-legged frog, foothill yellow-legged frog, California black rail, or western pond turtle. There is an extremely low possibility of California black rail to utilize the depression in the southwest corner of the project site on the site due to its exposed nature and small size.

Blainville's horned lizard (*Phrynosoma blainvillii*) and northern goshawk (*Accipiter gentilis*) have low potential to be present within the site based on the available habitat. These species are discussed in Table 3 and in the following section.

Dorsey Marketplace Development Project

Table 3
Special-status Animal Species with Potential to Occur in the Project Site

Common Name	Scientific Name	Status (Federal/State)
Birds		
Northern goshawk	<i>Accipiter gentilis</i> (nesting)	None/ SSC
Reptiles		
Blainville's horned lizard	<i>Phrynosoma blainvillii</i>	None/ SSC

Sources: CDFW 2016, USFWS 2016

All raptor species found in California are protected by California Fish and Game Code 3503.5 and may use the site for nesting or foraging. Although raptor species have the potential to nest on the site and forage adjacent to the site, the site does not provide substantially important habitat, due to its small size, that would affect raptor species from continuing to exist within the area.

Northern Goshawk

Northern goshawks are known to nest within ponderosa pine forest; however, the site is surrounded by development and highly degraded areas and it is unlikely that this species would utilize this isolated stand for nesting (Shuford ed. 2008). Additionally, this species was not observed during the site survey. It is unlikely this species is nesting within the site.

Blainville's Horned Lizard

Blainville's horned lizard prefers sandy soil substrates; thus, although the openings in the chaparral habitat may provide potentially suitable habitat, it is unlikely this species would occur on the project site due to the lack of appropriate soils (Zeiner, ed. 1988-1990). This species was not observed within the project site during the site assessment; however, the weather during the site visit was cold and rainy and this species may not have been very active under such conditions.

5.3 Sensitive Resources and Habitats

One sensitive natural community occurs within the project site: McNabb cypress woodland. The location and extent of these resources are depicted in Figure 4. This woodland is ranked S3.2 and G3 and is known in the Sierra Nevada only from a few isolated stands in Butte, Yuba, Nevada, and Amador counties (Sawyer et al 2009).

Dorsey Marketplace Development Project

5.4 Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as stepping stones for wildlife dispersal.

The project site is bounded on all sides by development and is not contiguous with any wildlife habitat or corridors. The site may provide important island habitat for birds and other wildlife adapted to urban environments.

5.5 Aquatic Resources

The site visit conducted on July 27, 2016 focused on potentially jurisdictional aquatic features that were noted during the previous two site visits. Table 4 presents the aquatic features that were identified within the Project site and their potential jurisdiction. These features are displayed graphically in Figure 4.

Table 4
Potentially Jurisdictional Wetlands and Waters of the U.S.

Feature ID	Cowardin Code	Potential Jurisdiction	Acres	Linear Feet
Drainages				
Cement-lined drainage	None	None	0.05	750.00
Ephemeral Drainage – 01		None	0.016	350.50
Intermittent Drainage – 01		ACOE/RWQCB	0.011	118.00
Total			0.077	1,218.50
Wetlands				
Seasonal Wetland – 01		ACOE/RWQCB	0.065	N/A
Total			0.065	N/A

Drainages

Three types of linear drainages were observed in the project site: Cement-lined drainage, ephemeral drainage (ED), and intermittent drainage (ID). One wetland feature was observed at the site: seasonal wetland (SW). The Cement-lined drainage appears to have been constructed as part of the drainage system for the SR 20/49 and associated off-ramps. The drainage conveys rainwater runoff during storm events north to south through the western edge of the Project site.

Dorsey Marketplace Development Project

The water drains to ED-01, where it travels through a vegetated channel and appears to drain to SW-01.

Water from the surrounding hillsides appear to also collect at SW-01. Water exits SW-01 and travels through ID-01 before entering a culvert and going underground at the southern property boundary. Any connectivity to downstream waters of the U.S. is not apparent; however, if this water does move through the storm drain system under the development to the south of the Project site, and eventually intersects with Wolf Creek to the south, there is potential that ID-01 and SW-01 may be considered jurisdictional by the ACOE or the RWQCB.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 Potential Impacts

6.1.1 Special-Status Plant Species

Three special-status plant species have moderate potential to occur within the project site: Stebbins' morning-glory, dubious pea, and Sierra blue grass. No special-status plant species were observed on the site during the survey; however, the site survey was conducted when the plants were not evident or identifiable. Because there is suitable habitat for special-status plant species at the project site, there is potential that these species may be present.

Direct impacts to special-status plant species could result from project implementation as a result of ground disturbance and vegetation clearing. To reduce potential for impacts, avoidance and minimization measures including preconstruction surveys during the appropriate time of year, are included in Section 6.2.

6.1.2 Special-Status Wildlife Species

Two special-status species have the potential to utilize the site for nesting, foraging, cover and/or local migration routes. All native birds in California are protected by the federal Migratory Bird Treaty Act (MBTA) of 1918 and Section 3503.5 of the California Fish and Game Code, which specifically protects raptors. The site has suitable nesting habitat for several common raptor and other nesting bird species found in California such as northern flicker.

6.1.3 Sensitive Natural Communities

Potential impacts from the proposed project would occur to all land covers types present on site as described in Section 5. Sensitive natural communities onsite include McNabb cypress woodland and a small stand of Fremont cottonwood forest in the southwestern corner of the site. Dudek recommends avoidance of sensitive habitats to the extent feasible through the establishment of avoidance buffers prior to construction. If avoidance is not feasible, further mitigation such as enhancement, restoration, or compensation would be necessary.

6.1.4 Aquatic Resources

The erosional features throughout the site, the cement-lined drainage, and the vegetated upland swale of ED-01 are not likely jurisdictional under regulation of the ACOE, RWQCB, and CDFW. However, SW-01 and ID-01 may be considered jurisdictional if there is some connectivity or adjacency to other waters of the U.S. or state. Dudek recommends a detailed

Dorsey Marketplace Development Project

jurisdictional delineation be verified by the appropriate regulatory agencies (e.g., ACOE and CDFW) prior to any permanent plans for development of this property.

If any features are considered jurisdictional, impacts would require authorization from the resource agencies listed above in the form of wetland permits (e.g., 404 Nationwide Permit, 401 Water Quality Certification, and 1602 Streambed Alteration Agreement respectively). Required compensatory mitigation would provide no net loss of jurisdictional habitats. Examples of potential mitigation may include mitigation credits to be purchased at a wetlands mitigation bank, or alternatively, in-lieu fee mitigation could be arranged with the resource agencies. Permit processing can take six to nine months for minor impacts less than one half-acre in size; and up to 2 years for impacts greater than one half-acre with special status species impacts (Individual Permit). If the jurisdictional impacts exceed 300 feet, the project would technically require an Individual Permit, unless a waiver is granted to allow for issuance of a Nationwide Permit authorization.

6.2 Recommended Avoidance and Minimization Measures

With implementation of the following avoidance and minimization measures, potential impacts to special-status and sensitive biological and wetland resources should be reduced or eliminated.

AMM-01: Avoid Sensitive Habitat

- For the protection of potential wetland resources, McNab cypress forest, and cottonwood forest, these areas shall be avoided by all construction activities to the maximum extent feasible.
- If avoidance of potential wetland resources is not feasible, a wetland delineation and habitat assessment shall be prepared by a qualified biologist and consultation with the US Fish and Wildlife Service and the US Army Corps of Engineers would be required.
- If avoidance and preservation of McNab cypress forest is not possible, consultation with the CDFW would be required to devise appropriate onsite enhancement, restoration, or offsite compensation of impacts to sensitive natural communities such as McNab cypress woodland and cottonwood forest. For example, a 1:1 mitigation ratio for habitat preserved to habitat impacted will be implemented through purchase of offsite habitat or mitigation credits.

AMM-02: Conduct Preconstruction Surveys

- If construction takes place during the nesting bird season (February 1 through September 30), a nesting bird survey shall be completed by a qualified biologist two weeks prior to

Dorsey Marketplace Development Project

construction to determine if any birds are nesting on or near the site (including a 500 foot buffer for raptors). If no active nests are observed during the preconstruction survey, no further measures are required for nesting birds.

- If any active nests are observed during surveys, a suitable avoidance buffer from the nests will be determined and flagged by the qualified biologist based on species, location and planned construction activity. Consultation with CDFW may be required to determine appropriate buffer distances. These nests shall be avoided until the young have fledged and the nests are no longer active, as determined by the qualified biologist. Dudek also recommends removing any habitat (i.e. trees and brush) outside of the breeding bird season.
- Prior to construction, surveys for Blainville's horned lizard shall be conducted by a qualified biologist familiar with this species' biology. If this species is not observed during the preconstruction survey, no further measures for Blainville's horned lizard are required.
- If Blainville's horned lizard is noted within the project area, consultation with CDFW will be required to determine whether additional avoidance or mitigation measures are warranted.

AMM-03: Implement Worker Environmental Awareness Program

- A qualified biologist will develop and implement a worker environmental awareness program (WEAP) detailing protections for potential special-status species that may be encountered in or adjacent to the project site. The WEAP will describe identification and avoidance measures to ensure no impacts to special status species such as Blainville's horned lizard, special-status plant communities and species, and nesting birds.

Dorsey Marketplace Development Project

INTENTIONALLY LEFT BLANK

Dorsey Marketplace Development Project

7 REFERENCES CITED

- 16 U.S.C. 703–712. Migratory Bird Treaty Act, as amended.
- AOU. 2012. Check-List of North American Birds: List of the 2,078 Bird Species Known From the AOU Check-list Area. Accessed from <http://www.aou.org/checklist/north/full.php>
- California Department of Fish and Wildlife (CDFW). 2016. Special Animals List. Periodic publication. Natural Diversity Database. January 2016. 51 pp. Website <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline=1> (accessed March 2016).
- CDFW. 2016b. California Natural Diversity Database (CNDDDB). Rarefind, Version 5 (Commercial Subscription). Sacramento, California: CDFW, <http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>.
- CDFW. 2016c. “State and Federally Listed Endangered, Threatened, and Rare Plants of California.” California Natural Diversity Database. CDFW, Biogeographic Data Branch. July 2015, <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEPlants.pdf>.
- CDFW. 2016. Special Vascular Plants, Bryophytes, and Lichens List. California Natural Diversity Database. http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp.
- California Native Plant Society (CNPS), Rare Plant Program. 2016. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website <http://www.rareplants.cnps.org> (accessed February 2016).
- Jepson eFlora Project. 2012. Jepson eFlora. Berkeley, California: University of California. Accessed March 2016. http://ucjeps.berkeley.edu/cgi-bin/get_JM_name_data.pl
- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento. 1300 pp.
- Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- 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.

Dorsey Marketplace Development Project

INTENTIONALLY LEFT BLANK

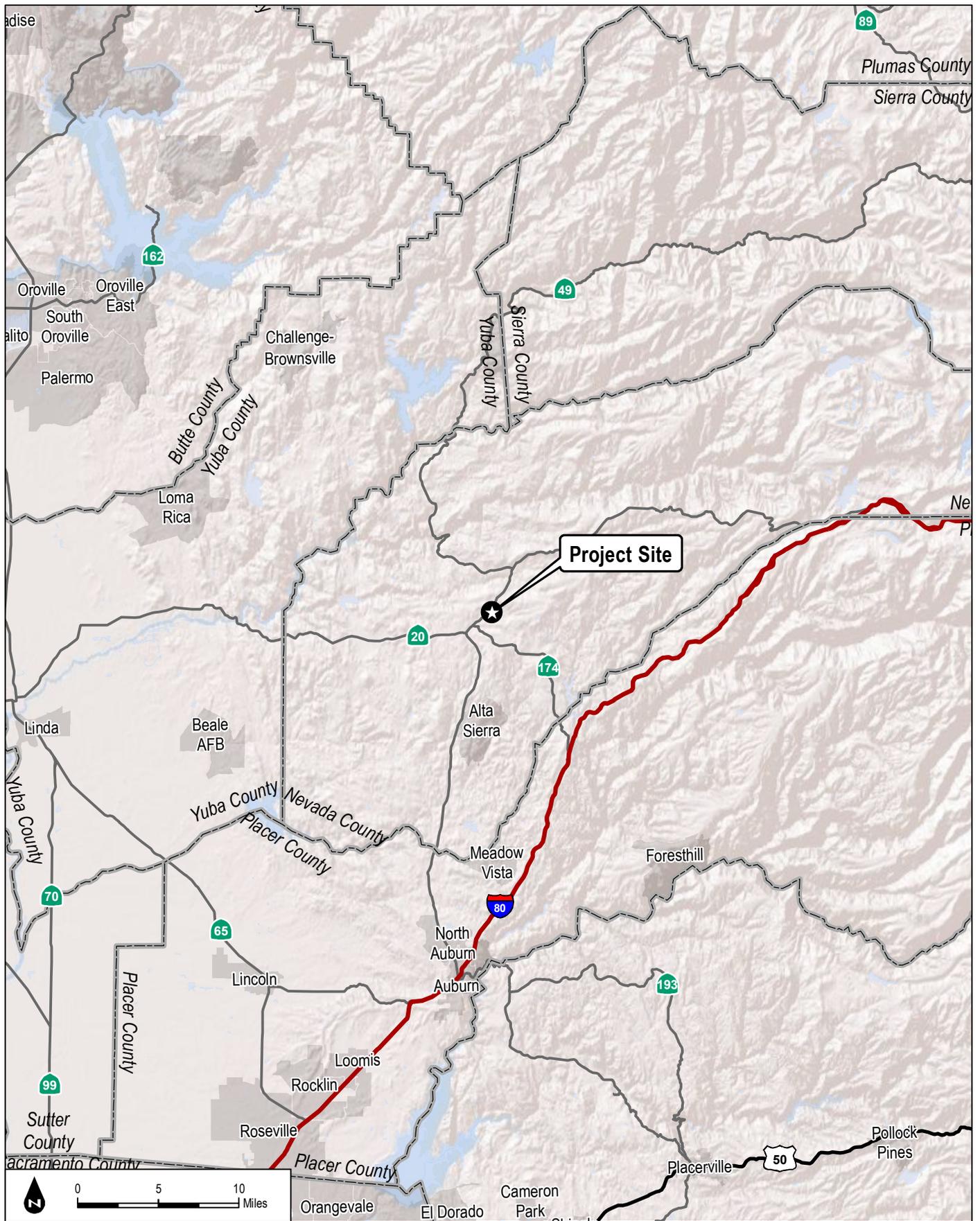
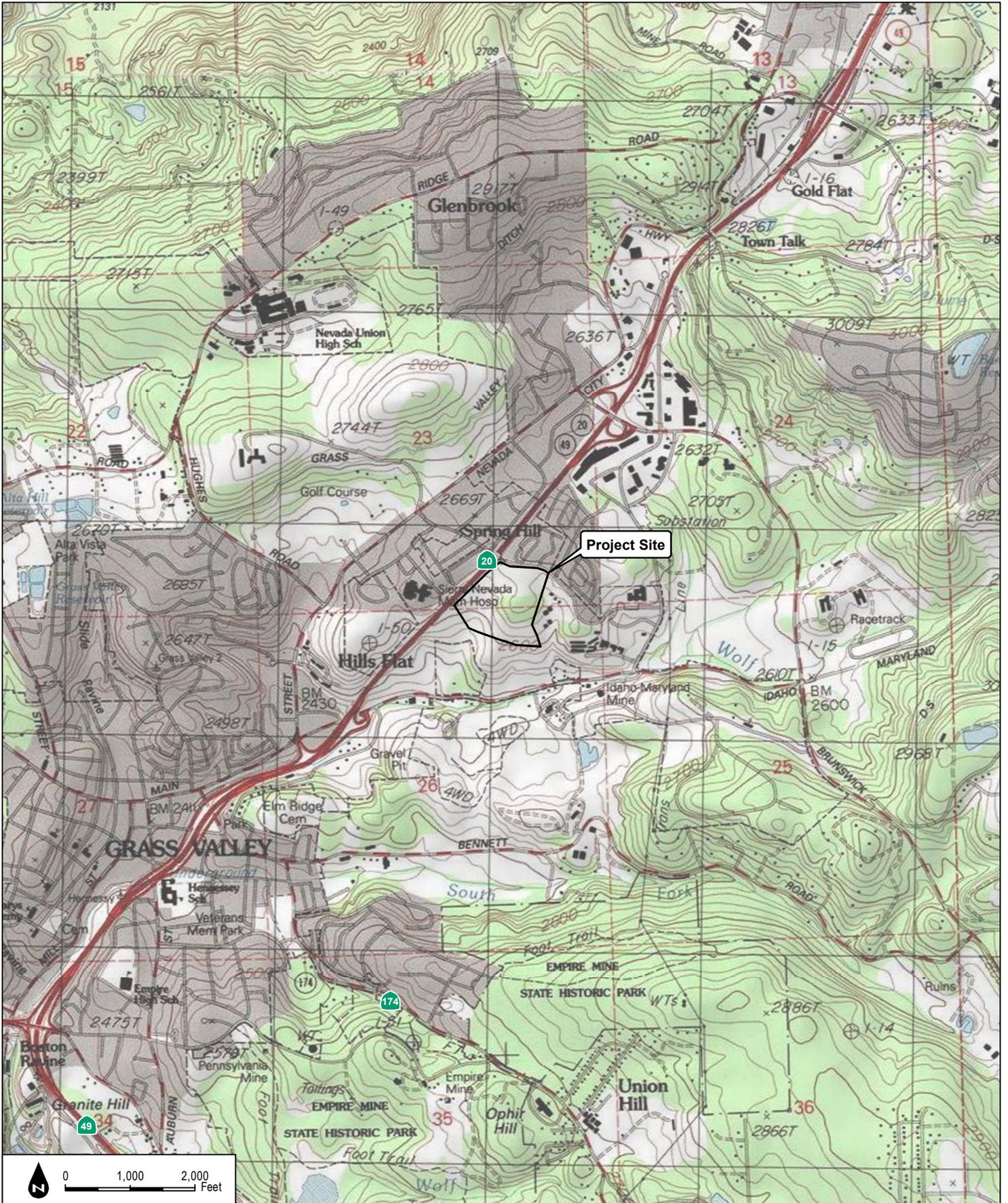


FIGURE 1
Regional Map

Dorsey Marketplace Development Project

INTENTIONALLY LEFT BLANK



SOURCE: USGS Topo 7.5-Minute Grass Valley Quadrangle.

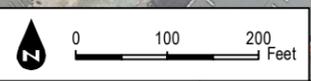
FIGURE 2
Site and Vicinity Map

Dorsey Marketplace Development Project

INTENTIONALLY LEFT BLANK



- Project Site
- Vegetation Communities
- CA-CHP - California chaparral
- DEV - Developed
- DIS/RUD - Disturbed/Ruderal
- FCF - Cottonwood forest
- MCF - Mixed coniferous forest
- MNCW - McNabb Cypress Woodland



SOURCE: Google Maps 2016

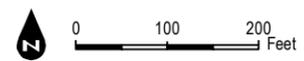
DUDEK

Dorsey Marketplace Biological Technical Report

FIGURE 3
Vegetation Communities

Dorsey Marketplace Development Project

INTENTIONALLY LEFT BLANK



SOURCE: Google Maps 2016

FIGURE 4

Potentially Jurisdictional Aquatic Features

Dorsey Marketplace Development Project

INTENTIONALLY LEFT BLANK

APPENDIX A

Representative Photos

INTENTIONALLY LEFT BLANK

APPENDIX A
Representative Photos



Photo 1: View of the California Annual Grassland, looking west. June 10, 2015



Photo 2: View of pickweed mats, facing north. October 28, 2015

APPENDIX A (Continued)



Photo 3: View of drainage ditch, facing southeast. October 28, 2015



Photo 4: View of developed habitat, facing northwest. October 28, 2015.

APPENDIX B
Plant Species Observed

INTENTIONALLY LEFT BLANK

APPENDIX B

Plant Species Observed

VASCULAR SPECIES

GYMNOSPERMS AND GNETOPHYTES

PINACEAE—Pine Family

Abies amabilis—Pacific silver fir

MONOCOTS

POACEAE—Grass Family

**Avena barbata*—slender oat

Bromus carinatus—California brome

Distichlis spicata—saltgrass

**Avena fatua*—wild oat

**Bromus diandrus*—ripgut brome

**Bromus hordeaceus*—soft brome

**Cynodon dactylon*—Bermudagrass

**Festuca myuros*—rat-tail fescue

**Festuca perennis*—Italian ryegrass

**Hordeum marinum* ssp. *gussoneanum*—Mediterranean barley

**Hordeum murinum*—mouse barley

EUDICOTS

AIZOACEAE—Fig-marigold Family

Sesuvium verrucosum—verrucose seapurslane

**Carpobrotus edulis*—hottentot fig

AMARANTHACEAE—Amaranth Family

Amaranthus blitoides—mat amaranth

APIACEAE—Carrot Family

**Foeniculum vulgare*—sweet fennel

ASTERACEAE—Sunflower Family

Baccharis pilularis—coyotebrush

Ericameria arborescens—goldenfleece

Grindelia hirsutula—hairy gumweed

**Carduus pycnocephalus*—Italian plumeless thistle

**Centaurea calcitrapa*—red star-thistle

**Cirsium vulgare*—bull thistle

**Helminthotheca echioides*—bristly oxtongue

**Pseudognaphalium luteoalbum*—Jersey cudweed

**Sonchus asper*—spiny sowthistle

BRASSICACEAE—Mustard Family

**Brassica nigra*—black mustard

CARYOPHYLLACEAE—Pink Family

Spergularia macrotheca—sticky sandspurry

CHENOPODIACEAE—Goosefoot Family

APPENDIX B (Continued)

- Salicornia depressa—Virginia glasswort
- Salicornia pacifica—Pacific swampfire
- *Atriplex semibaccata—Australian saltbush
- CONVOLVULACEAE—Morning-glory Family
 - *Convolvulus arvensis—field bindweed
- FABACEAE—Legume Family
 - *Lotus corniculatus—bird's-foot trefoil
 - *Melilotus albus—yellow sweetclover
- FAGACEAE—Oak Family
 - Quercus agrifolia—California live oak
- GERANIACEAE—Geranium Family
 - *Erodium cicutarium—redstem stork's bill
- LAMIACEAE—Mint Family
 - *Marrubium vulgare—horehound
- MALVACEAE—Mallow Family
 - Malvella leprosa—alkali mallow
 - *Malva pseudolavatera—Cornish mallow
- MYRTACEAE—Myrtle Family
 - *Eucalyptus globulus—Tasmanian bluegum
- PLANTAGINACEAE—Plantain Family
 - *Plantago coronopus—buckhorn plantain
 - *Plantago lanceolata—narrowleaf plantain
 - *Plantago major—common plantain
- POLYGONACEAE—Buckwheat Family
 - *Polygonum aviculare—prostrate knotweed
 - *Polygonum aviculare ssp. aviculare—prostrate knotweed
 - *Rumex conglomeratus—clustered dock
 - *Rumex crispus—curly dock
 - *Rumex pulcher—fiddle dock
- VERBENACEAE—Vervain Family
 - Phyla nodiflora—turkey tangle fogfruit

*nonnative species

APPENDIX C

Special-status Species Potential to Occur

INTENTIONALLY LEFT BLANK

APPENDIX C

Special-Status Species Potential to Occur Tables

Table 1: Special-status Plant Species Potential to Occur in the Project Site

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Acanthomintha duttonii</i>	San Mateo thorn-mint	FE/ CE/ 1B.1	Chaparral, Valley and foothill grassland/serpentine/ annual herb/ Apr-Jun/ 164-984	Not expected to occur. The site is outside of the species' known elevation range.
<i>Allium peninsulare</i> var. <i>franciscanum</i>	Franciscan onion	None/ None/ 1B.2	Cismontane woodland, Valley and foothill grassland/clay, volcanic, often serpentine/ perennial bulbiferous herb/ May-Jun/ 171-984	Not expected to occur. The site is outside of the species' known elevation range.
<i>Androsace elongata</i> ssp. <i>acuta</i>	California androsace	None/ None/ 4.2	Chaparral, Cismontane woodland, Coastal scrub, Meadows and seeps, Pinyon and juniper woodland, Valley and foothill grassland/ annual herb/ Mar-Jun/ 492-3,937	Not expected to occur. The site is outside of the species' known elevation range.
<i>Arctostaphylos regismontana</i>	Kings Mountain manzanita	None/ None/ 1B.2	Broadleafed upland forest, Chaparral, North Coast coniferous forest/granitic or sandstone/ perennial evergreen shrub/ Jan-Apr/ 1,001-2,395	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Astragalus tener</i> var. <i>tener</i>	alkali milk-vetch	None/ None/ 1B.2	Playas, Valley and foothill grassland (adobe clay), Vernal pools/alkaline/ annual herb/ Mar-Jun/ 3-197	Not expected to occur. The saline soils in the wetlands onsite do not provide suitable habitat for this species.
<i>Atriplex depressa</i>	brittlescale	None/ None/ 1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland, Vernal pools/alkaline, clay/ annual herb/ Apr-Oct/ 3-1,050	Not expected to occur. The saline soils in the wetlands onsite do not provide suitable habitat for this species.

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Atriplex minuscula</i>	lesser saltscale	None/ None/ 1B.1	Chenopod scrub, Playas, Valley and foothill grassland/alkaline, sandy/ annual herb/ May-Oct/ 49-6,56	Not expected to occur. The site is outside of the species' known elevation range and the saline conditions do not provide suitable soils for this species.
<i>Calandrinia breweri</i>	Brewer's calandrinia	None/ None/ 4.2	Chaparral, Coastal scrub/sandy or loamy, disturbed sites and burns/ annual herb/ Mar-Jun/ 33-4,003	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Campanula exigua</i>	chaparral harebell	None/ None/ 1B.2	Chaparral (rocky, usually serpentinite)/ annual herb/ May-Jun/ 902-4,101	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Centromadia parryi</i> ssp. <i>congdonii</i>	Congdon's tarplant	None/ None/ 1B.1	Valley and foothill grassland (alkaline)/ annual herb/ May-Oct (Nov)/ 0-755	Not expected to occur. The saline soils in the wetlands onsite do not provide suitable habitat for this species.
<i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Point Reyes bird's-beak	None/ None/ 1B.2	Marshes and swamps (coastal salt)/ annual herb (hemiparasitic)/ Jun-Oct/ 0-33	Moderate potential to occur. The wetlands and pickleweed mats onsite provide potentially suitable habitat for this species.
<i>Chorizanthe robusta</i> var. <i>robusta</i>	robust spineflower	FE/ None/ 1B.1	Chaparral (maritime), Cismontane woodland (openings), Coastal dunes, Coastal scrub/sandy or gravelly/ annual herb/ Apr-Sep/ 10-984	Not expected to occur. The soils onsite are not sandy or gravelly and do not provide suitable habitat for this species.

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Cirsium fontinale</i> <i>var. fontinale</i>	Crystal Springs fountain thistle	FE/ CE/ 1B.1	Chaparral (openings), Cismontane woodland, Valley and foothill grassland/serpentine seeps/ perennial herb/ May-Oct/ 148-574	Not expected to occur. The site is outside of the species' known elevation range.
<i>Cirsium</i> <i>praeteriens</i>	lost thistle	None/ None/ 1A	unknown/ perennial herb/ Jun-Jul/ 0-328	Low potential to occur. Although this species may be found in marshlands in the bay area, it is believed to be extirpated from its historic range in California.
<i>Clarkia concinna</i> <i>ssp. automixa</i>	Santa Clara red ribbons	None/ None/ 4.3	Chaparral, Cismontane woodland/ annual herb/ (Apr),May-Jun (Jul)/ 295- 4,921	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Clarkia lewisii</i>	Lewis' clarkia	None/ None/ 4.3	Broadleafed upland forest, Closed-cone coniferous forest, Chaparral, Cismontane woodland, Coastal scrub/ annual herb/ May-Jul/ 98-2,001	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Collinsia</i> <i>multicolor</i>	San Francisco collinsia	None/ None/ 1B.2	Closed-cone coniferous forest, Coastal scrub/sometimes serpentine/ annual herb/ Mar-May/ 98-820	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Cypripedium</i> <i>fasciculatum</i>	clustered lady's- slipper	None/ None/ 4.2	Lower montane coniferous forest, North Coast coniferous forest/usually serpentine seeps and streambanks/ perennial rhizomatous herb/ Mar-Aug/ 328-7,989	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Dirca occidentalis</i>	western leatherwood	None/ None/ 1B.2	Broadleaved upland forest, Closed-cone coniferous forest, Chaparral, Cismontane woodland, North Coast coniferous forest, Riparian forest, Riparian woodland/mesic/ perennial deciduous shrub/ Jan-Mar (Apr)/ 82-1,394	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Eriogonum nudum</i> var. <i>decurrens</i>	Ben Lomond buckwheat	None/ None/ 1B.1	Chaparral, Cismontane woodland, Lower montane coniferous forest (maritime ponderosa pine sandhills)/sandy/ perennial herb/ Jun-Oct/ 164-2,625	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Eriophyllum latilobum</i>	San Mateo woolly sunflower	FE/ CE/ 1B.1	Cismontane woodland (often serpentinite, on roadcuts)/ perennial herb/ May-Jun/ 148-492	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Eryngium aristulatum</i> var. <i>hooveri</i>	Hoover's button-celery	None/ None/ 1B.1	Vernal pools/ annual / perennial herb/ Jul (Aug)/ 10-148	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Fissidens pauperculus</i>	minute pocket moss	None/ None/ 1B.2	North Coast coniferous forest (damp coastal soil)/ moss/ N.A./ 33-3,360	Not expected to occur. There is no suitable habitat present.
<i>Fritillaria liliacea</i>	fragrant fritillary	None/ None/ 1B.2	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland/Often serpentinite/ perennial bulbiferous herb/ Feb-Apr/ 10-1,345	Not expected to occur. The saline soils in the wetlands onsite do not provide suitable habitat for this species.
<i>Hesperolinon congestum</i>	Marin western flax	FT/ CT/ 1B.1	Chaparral, Valley and foothill grassland/serpentinite/ annual herb/ Apr-Jul/ 16-1,214	Not expected to occur. The saline soils in the wetlands onsite do not provide suitable habitat for this species.

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Hoita strobilina</i>	Loma Prieta hoita	None/ None/ 1B.1	Chaparral, Cismontane woodland, Riparian woodland/usually serpentinite, mesic/ perennial herb/ May-Jul (Aug), (Oct)/ 98-2,822	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Iris longipetala</i>	coast iris	None/ None/ 4.2	Coastal prairie, Lower montane coniferous forest, Meadows and seeps/mesic/ perennial rhizomatous herb/ Mar-May/ 0-1,969	Not expected to occur. The saline soils in the wetlands onsite do not provide suitable habitat for this species.
<i>Lasthenia conjugens</i>	Contra Costa goldfields	FE/ None/ 1B.1	Cismontane woodland, Playas (alkaline), Valley and foothill grassland, Vernal pools/mesic/ annual herb/ Mar-Jun/ 0-1,542	Not expected to occur. The saline soils in the wetlands onsite do not provide suitable habitat for this species.
<i>Legenere limosa</i>	legenere	None/ None/ 1B.1	Vernal pools/ annual herb/ Apr-Jun/ 3-2,887	Not expected to occur. The saline soils in the wetlands onsite do not provide suitable habitat for this species.
<i>Leptosiphon acicularis</i>	bristly leptosiphon	None/ None/ 4.2	Chaparral, Cismontane woodland, Coastal prairie, Valley and foothill grassland/ annual herb/ Apr-Jul/ 180-4,921	Not expected to occur. The site is outside of the species' known elevation range.
<i>Lessingia hololeuca</i>	woolly-headed lessingia	None/ None/ 3	Broadleafed upland forest, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland/clay, serpentinite/ annual herb/ Jun-Oct/ 49-1,001	Not expected to occur. The site is outside of the species' known elevation range and the saline soils do not provide suitable habitat for this species.

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Malacothamnus arcuatus</i>	arcuate bush-mallow	None/ None/ 1B.2	Chaparral, Cismontane woodland/ perennial evergreen shrub/ Apr-Sep/ 49- 1,165	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Malacothamnus davidsonii</i>	Davidson's bush-mallow	None/ None/ 1B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland/ perennial deciduous shrub/ Jun-Jan/ 607-2,805	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Malacothamnus hallii</i>	Hall's bush-mallow	None/ None/ 1B.2	Chaparral, Coastal scrub/ perennial evergreen shrub/ May-Sep (Oct)/ 33- 2,493	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Micropus amphibolus</i>	Mt. Diablo cottonweed	None/ None/ 3.2	Broadleafed upland forest, Chaparral, Cismontane woodland, Valley and foothill grassland/rocky/ annual herb/ Mar-May/ 148-2,707	Not expected to occur. The site is outside of the species' known elevation range.
<i>Monardella antonina ssp. antonina</i>	San Antonio Hills monardella	None/ None/ 3	Chaparral, Cismontane woodland/ perennial rhizomatous herb/ Jun-Aug/ 1,050-3,281	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Monolopia gracilens</i>	woodland woolythreads	None/ None/ 1B.2	Broadleafed upland forest(openings), Chaparral (openings), Cismontane woodland, North Coast coniferous forest (openings), Valley and foothill grassland/Serpentine/ annual herb/ (Feb),Mar-Jul/ 328-3,937	Not expected to occur. The site is outside of the species' known elevation range.

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Navarretia myersii</i> <i>ssp. myersii</i>	pincushion navarretia	None/ None/ 1B.1	Vernal pools/often acidic/ annual herb/ Apr-May/ 66-1,083	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Navarretia prostrata</i>	prostrate vernal pool navarretia	None/ None/ 1B.1	Coastal scrub, Meadows and seeps, Valley and foothill grassland (alkaline), Vernal pools/Mesic/ annual herb/ Apr- Jul/ 49-3,970	Not expected to occur. The site is outside of the species' known elevation range and the saline soils do not provide suitable habitat for this species.
<i>Pedicularis dudleyi</i>	Dudley's lousewort	None/ CR/ 1B.2	Chaparral (maritime), Cismontane woodland, North Coast coniferous forest, Valley and foothill grassland/ perennial herb/ Apr-Jun/ 197-2,953	Not expected to occur. The site is outside of the species' known elevation range.
<i>Piperia candida</i>	white-flowered rein orchid	None/ None/ 1B.2	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest/sometimes serpentine/ perennial herb/ (Mar), May-Sep/ 98-4,298	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>	Choris' popcorn- flower	None/ None/ 1B.2	Chaparral, Coastal prairie, Coastal scrub/mesic/ annual herb/ Mar-Jun/ 49- 525	Not expected to occur. The site is outside of the species' known elevation range and the saline soils do not provide suitable habitat for this species.
<i>Plagiobothrys glaber</i>	hairless popcorn- flower	None/ None/ 1A	Meadows and seeps (alkaline), Marshes and swamps (coastal salt)/ annual herb/ Mar-May/ 49-591	Not expected to occur. The site is outside of the species' known elevation range and the saline soils do not provide suitable habitat for this species.

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Ranunculus lobbii</i>	Lobb's aquatic buttercup	None/ None/ 4.2	Cismontane woodland, North Coast coniferous forest, Valley and foothill grassland, Vernal pools/mesic/ annual herb/ Feb-May/ 49-1,542	Not expected to occur. The site is outside of the species' known elevation range and the saline soils do not provide suitable habitat for this species.
<i>Senecio aphanactis</i>	chaparral ragwort	None/ None/ 2B.2	Chaparral, Cismontane woodland, Coastal scrub/sometimes alkaline/ annual herb/ Jan-Apr/ 49-2,625	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	most beautiful jewel-flower	None/ None/ 1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland/serpentinite/ annual herb/ (Mar), Apr-Sep (Oct)/ 312-3,281	Not expected to occur. The site is outside of the species' known elevation range.
<i>Stuckenia filiformis</i> ssp. <i>alpina</i>	slender-leaved pondweed	None/ None/ 2B.2	Marshes and swamps (assorted shallow freshwater)/ perennial rhizomatous herb/ May-Jul/ 984-7,054	Not expected to occur. The site is outside of the species' known elevation range.
<i>Suaeda californica</i>	California seablite	FE/ None/ 1B.1	Marshes and swamps (coastal salt)/ perennial evergreen shrub/ Jul-Oct/ 0-49	High potential to occur. The pickleweed mats and the wetland onsite provide suitable habitat for this species. This species was not observed during the site visit.
<i>Trifolium amoenum</i>	two-fork clover	FE/ None/ 1B.1	Coastal bluff scrub, Valley and foothill grassland (sometimes serpentinite)/ annual herb/ Apr-Jun/ 16-1362	Not expected to occur. The site is outside of the species' known elevation range and the saline soils do not provide suitable habitat for this species.

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Trifolium hydrophilum</i>	saline clover	None/ None/ 1B.2	Marshes and swamps, Valley and foothill grassland (mesic, alkaline), Vernal pools/ annual herb/ Apr-Jun/ 0-984	Not expected to occur. The saline soils associated with the wetlands onsite do not provide suitable habitat for this species.
<i>Tropidocarpum capparideum</i>	caper-fruited tropidocarpum	None/ None/ 1B.1	Valley and foothill grassland (alkaline hills)/ annual herb/ Mar-Apr/ 3-1,493	Not expected to occur. The saline soils associated with the wetlands onsite do not provide suitable habitat for this species.

Status Legend:

FE: Federally listed as endangered

FT: Federally listed as threatened

FC: Federal Candidate for listing

DL: Delisted

CE: State listed as endangered

CT: State listed as threatened

CR: State Rare

CRPR 1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere

CRPR 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere

CRPR 2A: Plants Presumed Extirpated in California, But More Common Elsewhere

CRPR 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

CRPR 3: Plants About Which More Information is Needed - A Review List

CRPR 4: Plants of Limited Distribution - A Watch List

.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

APPENDIX C (Continued)

Table 2: Special-status Wildlife Species Potential to Occur in the Project Site

Common Name	Scientific Name	Status (Federal/ State)	Habitat	Potential to Occur
<i>Amphibians</i>				
California red-legged frog	<i>Rana draytonii</i>	FT/ SSC	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands.	Not expected to occur. There is no suitable freshwater aquatic breeding habitat for this species at the project site. Additionally, the project site does not provide suitable upland or migratory habitat for this species.
California tiger salamander	<i>Ambystoma californiense</i>	FT/ ST, SSC	Annual grassland, valley-foothill hardwood and valley-foothill riparian; vernal pools, other ephemeral pools, uncommonly along stream courses and man-made pools if predatory fishes are absent.	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable freshwater aquatic breeding habitat for this species.
<i>Reptiles</i>				
Alameda whipsnake	<i>Masticophis lateralis euryxanthus</i>	FT/ ST	Open areas in chaparral and scrub habitat; also adjacent grassland, oak savanna, and woodland.	Not expected to occur. There is no suitable open grassland adjacent to tree cover required by this species.
San Francisco garter snake	<i>Thamnophis sirtalis tetrataenia</i>	FE/ SE, FP	Wide range of habitats including grasslands or wetlands adjacent to ponds, marshes and sloughs.	Not expected to occur. There is no suitable freshwater aquatic habitat required by this species.
<i>Birds</i>				
Burrowing owl	<i>Athene cunicularia</i> (burrow sites & some wintering sites)	BCC/ SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows.	High potential to occur. Suitable burrow habitat for this species is located along the levee of the marsh to the north and east of the project site. The nearest documented occurrence for this species is located directly adjacent to the project site, on the levee to the northeast of the fence.

APPENDIX C (Continued)

Common Name	Scientific Name	Status (Federal/ State)	Habitat	Potential to Occur
California black rail	<i>Laterallus jamaicensis coturniculus</i>	BCC/ ST, FP	Tidal marshes, shallow freshwater margins, wet meadows and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra foothill populations.	Moderate potential to occur. The project site is directly adjacent to tidal saltmarsh that provides suitable breeding habitat for this species. The nearest documented occurrence for this species is located directly southeast of the project area.
Northern harrier	<i>Circus cyaneus</i> (nesting)	None/ SSC	Nests in open wetlands including marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes, but also in drier habitats such as grassland and grain fields; forages in variety of habitats, including grassland, scrubs, rangelands, emergent wetlands, and other open habitats.	Low potential to occur. This species may utilize marsh habitat adjacent to the bay lands for nesting and foraging; however, it is unlikely to nest or forage within the project area.
Swainson's hawk	<i>Buteo swainsoni</i> (nesting)	BCC/ ST	Nests in open woodland and savanna, riparian and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture.	Not expected to occur. There is no suitable foraging habitat for this species; additionally, this species is primarily found in the Central Valley and is an uncommon visitor to the project area.
Tricolored blackbird	<i>Agelaius tricolor</i> (nesting colony)	BCC/ SE, SSC	Nests near fresh water, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture.	Not expected to occur. There is no suitable nesting or foraging habitat for this species within the project area or vicinity.
American peregrine falcon	<i>Falco peregrinus anatum</i> (nesting)	FDL/ SDL, FP	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present.	Not likely to occur. No suitable nesting habitat for this species occurs within the project area.

APPENDIX C (Continued)

Common Name	Scientific Name	Status (Federal/ State)	Habitat	Potential to Occur
Bank swallow	<i>Riparia riparia</i> (nesting)	None/ ST	Nests in riparian, lacustrine and coastal areas with vertical banks, bluffs and cliffs with sandy soils; open country and water during migration.	Not expected to occur. No suitable nesting habitat occurs within the project area.
Cooper's hawk	<i>Accipiter cooperii</i> (nesting)	None/ WL	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water.	Not expected to occur. No suitable nesting habitat occurs within the project area.
Long-eared owl	<i>Asio otus</i> (nesting)	None/ SSC	Nests in riparian habitat, live oak thickets, other dense stands of trees, edges of coniferous forest; forages in nearby open habitats.	Not expected to occur. No suitable nesting habitat occurs within the project area.
White-tailed kite	<i>Elanus leucurus</i> (nesting)	None/ FP	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands.	Not expected to occur. No suitable nesting habitat occurs within the project area.
Golden eagle	<i>Aquila chrysaetos</i> (nesting & wintering)	BCC/ FP, WL	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats.	Not expected to occur. No suitable nesting habitat occurs within the project area.
Alameda song sparrow	<i>Melospiza melodia pusillula</i>	BCC/ SSC	Nests and forages in tidal saltmarsh.	High potential to occur. The project site is directly adjacent to tidal saltmarsh that provides suitable breeding habitat for this species. The nearest documented occurrence for this species is located directly southeast of the project area.

APPENDIX C (Continued)

Common Name	Scientific Name	Status (Federal/ State)	Habitat	Potential to Occur
Black-crowned night heron	<i>Nycticorax nycticorax</i> (nesting colony)	None/ None	Nests in dense-foliaged trees and dense fresh or brackish emergent wetlands associated with marshes, ponds, reservoirs, and estuaries.	Not expected to occur. No suitable nesting habitat occurs within the project area.
California least tern	<i>Sternula antillarum browni</i> (nesting colony)	FE/ SE, FP	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flat.	Moderate potential to occur. The tidal saltmarsh flats directly east and south of the project site provide suitable nesting and foraging habitat for this species.
Double-crested cormorant	<i>Phalacrocorax auritus</i> (nesting colony)	None/ WL	Nests in riparian trees near ponds, lakes, artificial impoundments, slow-moving rivers, lagoons, estuaries and open coastlines; winter habitat includes lakes, rivers, and coastal areas.	Not expected to occur. No suitable nesting habitat occurs within the project area.
Saltmarsh common yellowthroat	<i>Geothlypis trichas sinuosa</i>	BCC/ SSC	Nests and forages in emergent wetlands including woody swamp, brackish marsh, and freshwater marsh.	High potential to occur. The project site is directly adjacent to tidal saltmarsh that provides suitable breeding habitat for this species. The nearest documented occurrence for this species is located directly southeast of the project area.
Short-eared owl	<i>Asio flammeus</i> (nesting)	None/ SSC	Grassland, prairies, dunes, meadows, irrigated lands, saline and freshwater emergent wetlands.	Not expected to occur. No suitable nesting habitat occurs within the project area.
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i> (nesting)	FT, BCC/ SE	Nests dense, wide riparian woodlands and forest with well-developed understories.	Not expected to occur. No suitable nesting habitat occurs within the project area.

APPENDIX C (Continued)

Common Name	Scientific Name	Status (Federal/ State)	Habitat	Potential to Occur
<i>Fishes</i>				
southern steelhead - southern California DPS	<i>Oncorhynchus mykiss irideus</i>	FE/ SSC	Clean, clear, cool well-oxygenated streams. Needs relatively deep pools in migration and gravelly substrate to spawn.	Not expected to occur. No suitable aquatic habitat is present within the project area.
steelhead - central California coast DPS	<i>Oncorhynchus mykiss irideus</i>	FT/ None	Coastal basins from Redwood Creek south to the Gualala River, inclusive. Does not include summer-run steelhead.	Not expected to occur. No suitable aquatic habitat is present within the project area.
<i>Mammals</i>				
Pallid bat	<i>Antrozous pallidus</i>	None/ SSC	Grasslands, shrublands, woodlands, forests; most common in open dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees.	Not expected to occur. Suitable habitat for this species does not occur within the project area.
American badger	<i>Taxidea taxus</i>	None/ SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, pastures, especially with friable soils.	Not expected to occur. Suitable habitat for this species does not occur within the project area.
Salt-marsh harvest mouse	<i>Reithrodontomys raviventris</i>	FE/ SE, FP	Saline emergent wetlands, preference for pickleweed saline emergent wetlands; also use adjacent grasslands.	Moderate potential to occur. The tidal saltmarsh to the south and east of the project site may provide suitable habitat for this species. Picklweed mats and adjacent grasslands within the project site provide marginal habitat for this species. The nearest documented occurrence for this species is located directly east of the project site in the adjacent saltmarsh habitat.

APPENDIX C (Continued)

Common Name	Scientific Name	Status (Federal/ State)	Habitat	Potential to Occur
Salt-marsh wandering shrew	<i>Sorex vagrans halicoetes</i>	None/ SSC	Saltmarsh inundated daily by tidal waters.	Moderate potential to occur. The tidal saltmarsh to the south and east of the project site may provide suitable habitat for this species. Picklweed mats within the project site provide marginal habitat for this species. This species has not been previously documented within 5 miles of the project site.
San Francisco dusky-footed woodrat	<i>Neotoma fuscipes annectens</i>	None/ SSC	Forest habitats with a moderate canopy and moderate to dense understory.	Not expected to occur. Suitable habitat for this species does not occur within the project area.
Santa Cruz kangaroo rat	<i>Dipodomys venustus venustus</i>	None/ None	Chaparral in low foothills on sandy, loamy, and sandy loamy soils.	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable habitat present.
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	None/ SC, SSC	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, also man-made structures and tunnels.	Not expected to occur. Suitable roosting and foraging habitat for this species does not occur within the project area.
<i>Invertebrates</i>				
vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	FE/ None	Ephemeral freshwater habitats including alkaline pools, clay flats, vernal lakes, vernal pools, and vernal swales.	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable habitat in the project area.

APPENDIX C (Continued)

Common Name	Scientific Name	Status (Federal/ State)	Habitat	Potential to Occur
Bay checkerspot butterfly	<i>Euphydryas editha bayensis</i>	FT/ None	Serpentine or serpentine-like grasslands.	Not expected to occur. There is no suitable habitat or larval host plants for this species in the project area.

Status Abbreviations

- FE: Federally Endangered
- FT: Federally Threatened
- PFE: Proposed Federally Endangered
- PFT: Proposed Federally Threatened
- FC: Federal Candidate
- FDL: Federally Delisted
- BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
- BLM: Bureau of Land Management Sensitive Species
- USFS: U.S. Forest Service Sensitive Species
- SSC: California Species of Special Concern
- FP: California Fully Protected Species
- WL: California Watch List Species
- SE: State Endangered
- ST: State Threatened
- SC: State Candidate
- SDL: State Delisted
- SS: List Special Animals List, but no other status
- CDF: California Department of Forestry Sensitive Species
- HCP: Habitat Conservation Plan
- NCCP: Natural Community Conservation Plan