Appendix C
Biological Technical Report

BIOLOGICAL TECHNICAL REPORT
THE AVENUE – BROOKFIELD PROPERTIES
ONTARIO, CALIFORNIA

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REPORT SUMMARY

The Avenue – Brookfield Properties (Project Site) consists of an approximately 204-acre property located within the City of Ontario in San Bernardino County. Brookfield Homes proposes to build a combination of low and medium density residential and commercial development within the Project Site within the City of Ontario's New Model Colony (NMC), Subarea 18 (The Avenue).

The scope of this biological technical report includes descriptions of all methods employed, existing conditions, survey results, documentation of existing botanical and wildlife resources identified, impact analysis and mitigation measures, and recommendations for ongoing and future surveys of the Project Site in order to ensure that no significant impacts occur or that any potential impacts are reduced to less than significant levels in accordance with the California Environmental Quality Act (CEQA). Methods of study include a review of relevant literature, general surveys, and a Geographic Information Systems (GIS)-based analysis of vegetation communities/land cover types. As appropriate, this report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDFG), and the California Native Plant Society (CNPS).

Biologists from Glenn Lukos Associates, Inc. (GLA) conducted general biological surveys on August 5 and August 31**,** 2008 within the Project Site. The field studies focused on a number of primary objectives that would comply with CEQA requirements: (1) general reconnaissance surveys and vegetation mapping; (2) general plant surveys; (3) general wildlife surveys; and (4) habitat assessments for special-status animals. Observations of all plant and wildlife species were recorded during each of the above-mentioned survey efforts.

The Project Site is located in Sections 13 and 14, Township 2 South, Range 7 West, in the City of Ontario, San Bernardino County, California and is bordered by Edison Avenue to the south, S. Archibald Avenue to the west, Schaefer Avenue to the north, and S. Haven Avenue to the east. The site comprises approximately 204 acres and supports no blue-line drainages (as depicted on the U.S. Geological Survey (USGS) topographic maps Guasti, California [dated 1966 and photorevised in 1981]), and Corona North, California (dated 1967 and photorevised 1981). Elevation ranges from approximately 710 feet to 750 feet above mean sea level (msl).

The Project Site is highly disturbed due to long established dairy and agricultural practices. During vegetation mapping conducted for the Project Site, four different vegetation/land use types were documented, the majority of which is developed and disturbed by active dairy operations and associated infrastructure and residences. Vegetated areas on site are predominantly ruderal in nature and are highly disturbed. No native vegetation types were identified on site. No special status vegetation communities as recognized by the California Natural Diversity Database (CNDDB 2008) were identified with the Project Site. During the general surveys, no special-status plant species and one special-status animal species, the burrowing owl (*Athene cunicularia*) was detected on site.

The Project Site does not support jurisdictional waters, including waters of the United States (including wetlands) subject to the jurisdiction of the U.S. Army Corps of Engineers and streams (including riparian vegetation) subject to the jurisdiction of the California Department of Fish and Game (CDFG).

In summary, construction of The Avenue – Brookfield Properties, with incorporation of appropriate mitigation measures would be compliant with the biological requirements of the California Environmental Quality Act (CEQA).

1.0 INTRODUCTION

1.1 Report Purpose

This document provides an update of existing biological conditions for portions of The Avenue Specific Plan located in the City of Ontario, San Bernardino County, specifically the areas referred as "The Avenue – Brookfield Properties". All or portions of the overall Specific Plan have been subject to several previous biological studies/environmental review, including the following:

- Glenn Lukos Associates, Inc., Results of Biological Constraints Analysis Conducted for the 30-acre Anderson Property, Incorporated Ontario, San Bernardino County, California, February 26, 2001.

- Chambers Group, Inc., Biological Technical Report for Ontario/Haakma Property in San Bernardino County, July 1, 2005.

- Chambers Group, Inc., Results of a Reconnaissance Biological Survey and Focused Sensitive Plant Survey for the Brookfield Homes Development Site North of Edison Avenue in the City of Ontario in San Bernardino County, California, September 5, 2005 and October 5, 2005.

- M.J. Klinefelter, General Biological Resources Assessment of Edison-Archibald Properties, October 4, 2005.

- Chambers Group, Inc., Biological Technical Report of Findings for the Parentex-Ontario Project Site, San Bernardino County, California, November 1, 2005.

- TeraCor Resource Management, General Biological Resources Assessment for a 38.88 Acre Property in Ontario, California, December 21, 2005.

- Stantec. The Avenue Specific Plan Environmental Impact Report. October 2006.

1.2 Location of Project Site

The 204-acre The Avenue – Brookfield Properties (referred to in this report as the "Project Site") is located in the City of Ontario, San Bernardino County, California [Exhibit 1 – Regional Map]. The Project Site consists of five properties (Kaplan – APN 218-201-18, DeGroot – APN 218-201-39, and 43, Ferreira – APN 218-201-42, Vander Eyk – APN – 218-201-30, and the Dykstra property – APN 218-201- 05, 45). The Project Site is bordered by Edison Avenue to the south, S. Archibald Avenue to the west, Schaefer Avenue to the north, and S. Haven Avenue to the east. The Site is located in Sections 13 and 14, Township 2 South, Range 7 West of the U.S. Geological Survey Guasti (dated 1966, photorevised 1981) and Corona North (dated 1967, photorevised 1981) Quadrangles [Exhibit 2 – Vicinity Map and Exhibit 3 – Site Map].

1.3 Project Description

Brookfield Homes proposes to build a combination of low and medium density residential and commercial development within the Project Site within the City of Ontario's New Model Colony (NMC), Subarea 18 (The Avenue).

1.4 Scope and Methodology

Biologists/Regulatory Specialists from Glenn Lukos Associates, Inc. (GLA) conducted general biological surveys at the Project Site on August 5 and August 31, 2008. The scope of this report includes a discussion of existing conditions for the overall Project Site, all methods employed regarding general surveys, the documentation of botanical and wildlife resources identified (including special-status species), an analysis of impacts to biological resources, and proposed mitigation measures to offset resource impacts pursuant to CEQA. Methods of study included a review of relevant literature, general surveys, and a Geographical Information System (GIS)-based analysis of vegetation communities. As appropriate, this report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDFG), and the California Native Plant Society (CNPS).

Field studies included a jurisdictional determination to determine the presence of features subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act, and the CDFG jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the California Fish and Game Code.

The field studies focused on a number of primary objectives that would comply with CEQA requirements, including: (1) general reconnaissance surveys and vegetation mapping; (2) general wildlife surveys; (3) habitat assessments for special-status plants; (4) habitat assessments for special-status animals; and (5) determination of areas potentially subject to the jurisdiction of the Corps and CDFG.

1.5 Existing Conditions

The five properties that constitute the Project Site are comprised primarily of a fallow field located within the western portion of the Project Site and four active dairies located within the central and eastern portion of the Project Site [Exhibit 3 – Site Map]. These properties support active residences, a commercial truck parking lot, and dairy operations including associated buildings, structures, pasture land, and evaporation ponds. The Project Site is relative flat ranging in elevation from approximately 710 feet to 750 feet above mean sea level (msl).

The Project Site is heavily disturbed and mostly unvegetated due to long-established dairy and agricultural practices. Vegetated portions on site are dominated by non-native, ruderal species. Surrounding areas that adjoin the Project Site include residential and vacant lands to the north, dairies and agricultural land to the east, and dairies to the south and west.

2.0 METHODOLOGY

In order to identify and evaluate biological resources and potential impacts associated with development of the Project Site and the relationship of the proposed project to the CEQA, GLA assembled biological data through: (1) review of existing information describing the biological resources on the property, (2) general biological surveys, including general floristic and wildlife surveys, and vegetation mapping; and (3) habitat assessments for special-status plants and animals. GLA biologist Jeff Ahrens surveyed the site on August 5 and August 31, 2008. Observations of all plant and animal species were recorded during both survey visits. A floral compendium is attached as Appendix A and faunal compendium is attached as Appendix B.

2.1 Literature Review

Prior to conducting field surveys, a literature review was conducted to identify special-status species and habitats previously identified at the Project Site and in the vicinity, in order to assist with habitat assessments of the site. The literature review included the following: California Native Plant Society *Inventory of Rare and Endangered Plants of California* (Seventh Edition) [CNPS 2007], and a search of the California Natural Diversity Data Base (CNDDB 2008) for the Guasti and Corona North Quadrangles, as well as the neighboring Fontana, Ontario, Riverside West, and Prado Dam Quadrangles. A number of other references were consulted and are listed in Section 1.1 above, which are also addressed later in this report. The Natural Resource Conservation Service (NRCS) was consulted to prepare a soil map for the Project Site.

2.2 General Biological Surveys

General biological surveys were conducted for the Project Site to document existing conditions and all plant and animal species detected during the surveys. Transects were walked throughout the Project Site to provide a thorough coverage of the property. All species observed on site were documented in the field notes. Observations of special-status species were also noted, and the locations were marked on a color aerial photograph. A complete list of plant and animal species detected on site is provided as Appendix A and Appendix B, respectively. Table 2-1 provides a summary list of survey dates, survey types and personnel.

Table 2-1. Summary of Biological Surveys for the Project Site.

Survey Date	Survey Type	Surveying Biologist
8/5/08	Habitat Assessment General Biological Survey	JA
8/31/08	Habitat Assessment General Biological Survey	JA

JA – Jeff Ahrens

2.3 Botanical Resources

A site-specific survey program was designed to accurately document the botanical resources within the Project Site, and consisted of five components: (1) a literature search; (2) preparation of a list of target special-status plant species and sensitive vegetation communities that could occur on site; (3) general field reconnaissance surveys; (4) vegetation mapping based on the Holland Classification System; and (5) preparation of a vegetation map, including the location of the sensitive vegetation communities found on site.

All plant species detected during the field surveys were identified and recorded following the guidelines adopted by CNPS and CDFG (Nelson 1994). Scientific nomenclature and common names used in this report follow Hickman (1993). Vegetation associations were mapped based upon descriptions provided by Sawyer and Keeler-Wolf (1995) and Holland (1986) with, as appropriate, modifications to more accurately characterize on site conditions. Plant communities were mapped in the field directly on an aerial photograph.

Habitat assessments were conducted for the Project Site for all special-status plant species with the potential to occur on site. Habitat assessments took into account existing site conditions (i.e., presence or absence of potentially suitable habitats), as well as the locations of special-status plants documented within the vicinity of the Project Site by the CNDDB or other literature. A list of all special-status plants considered for the site is provided in Section 4.0 of this report.

2.3.1 Literature Search

Prior to conducting fieldwork, pertinent literature on the flora of the region was examined. A thorough archival review was conducted using available literature and other historical records. These resources included, but were not limited to, the following:

- California Native Plant Society *Inventory of Rare and Endangered Plants of California* (Seventh Edition) [CNPS 2007];
- California Natural Diversity Data Base (CNDDB) for the Guasti, Corona North, and surrounding USGS Quadrangle maps (CNDDB 2008).

2.3.2 Special-Status Plant Species Evaluated for the Project Site

The CNDDB and CNPS Inventory (CNPS 2007) were consulted to determine known occurrences of special-status plants in the region. Based on this information, a list of sensitive plant species and habitats that could occur within the Project Site was developed. Section 4.0 of this document provides a list of all special-status plants evaluated for the Project Site.

2.3.3 Vegetation Mapping

Vegetation communities were mapped based on the Holland Classification System (Holland 1986) and/or Sawyer and Keeler-Wolf (1995). Where necessary, deviations were made when

areas did not fit into exact habitat descriptions provided by Holland or Keeler-Wolf. Plant communities were mapped in the field directly onto a 600-scale (1"=600') aerial photograph. Exhibit 4 [Vegetation Map] provides vegetation mapping for the Project Site. Exhibit 5 [Site Map] provides representative photographs of site conditions.

2.4 Wildlife Resources

All animal species detected during the field surveys were documented in field notes, for the preparation of a comprehensive faunal compendium (Appendix B). Wildlife was detected during field surveys by sight, call, tracks, and scat. The surveys were conducted in such a manner as to allow inspection of the entire site by direct observation, including the use of binoculars. Observations of physical evidence (i.e., scat, tracks, burrows, etc.) and direct sightings of wildlife were recorded in field notes during each site visit. All wildlife species encountered during the site visits were recorded in field notes and mapped, if present, following a protocol similar to the botanical survey program described above. Scientific nomenclature and common names for vertebrate species referred to in this report follow Collins (1997) for amphibians and reptiles, Jones, et al. (1992) for mammals, and the AOU Checklist (1998) for birds.

Habitat assessments were conducted for the Project Site for all special-status plant species with the potential to occur on site. Habitat assessments took into account existing site conditions (i.e., presence or absence of potentially suitable habitats), as well as the locations of special-status animals documented within the vicinity of the Project Site by the CNDDB or other literature. A list of all special-status animals considered for the site is provided in Section 4.0 of this report.

2.4.1 Special-Status Animal Species Evaluated for the Project Site

The CNDDB was initially consulted to determine known occurrences of special-status animals in the region. Based on this information, a list of target animal species (including their suitable habitats) was developed and incorporated into a survey program to achieve the following goals: (1) prepare a detailed faunal compendium. A list of all special-status animals considered for the site is provided in Section 4.0 of this report.

2.5 Jurisdictional Waters

The Project Site was evaluated for the presence of jurisdictional waters, including waters of the United States (including wetlands) subject to the jurisdiction Corps and streams (including riparian vegetation) subject to the jurisdiction of CDFG.

2.5.1 Corps Jurisdiction

Pursuant to Section 404 of the CWA, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a) as:

(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
(2) All interstate waters including interstate wetlands;
(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:
(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
(ii) From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or
(iii) Which are used or could be used for industrial purpose by industries in interstate commerce...
(4) All impoundments of waters otherwise defined as waters of the United States under the definition;
(5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;
(6) The territorial seas;
(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

(8) Waters of the United States do not include prior converted cropland.[1] *Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.*

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(e) as:

...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the

[1] The term "prior converted cropland" is defined in the Corps' Regulatory Guidance Letter 90-7 (dated September 26, 1990) as "wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is inundated for no more than 14 consecutive days during the growing season…." [Emphasis added.]

> *presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

Pursuant to Article I, Section 8 of the U.S. Constitution, federal regulatory authority extends only to activities that affect interstate commerce. In the early 1980s the Corps interpreted the interstate commerce requirement in a manner that restricted Corps jurisdiction on isolated (intrastate) waters. On September 12, 1985, EPA asserted that Corps jurisdiction extended to isolated waters that are used or could be used by migratory birds or endangered species, and the definition of "waters of the United States" in Corps regulations was modified as quoted above from 33 CFR 328.3(a).

On January 9, 2001, the Supreme Court of the United States issued a ruling on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* (SWANCC). In this case the Court was asked whether use of an isolated, intrastate pond by migratory birds is a sufficient interstate commerce connection to bring the pond into federal jurisdiction of Section 404 of the CWA.

The written opinion notes that the court's previous support of the Corps' expansion of jurisdiction beyond navigable waters (*United States v. Riverside Bayview Homes, Inc*.) was for a wetland that abutted a navigable water and that the court did not express any opinion on the question of the authority of the Corps to regulate wetlands that are not adjacent to bodies of open water. The current opinion goes on to state:

> *In order to rule for the respondents here, we would have to hold that the jurisdiction of the Corps extends to ponds that are not adjacent to open water. We conclude that the text of the statute will not allow this.*

Therefore, we believe that the court's opinion goes beyond the migratory bird issue and says that no isolated, intrastate water is subject to the provisions of Section 404(a) of the CWA (regardless of any interstate commerce connection). However, the Corps and EPA have issued a joint memorandum which states that they are interpreting the ruling to address only the migratory bird issue and leaving the other interstate commerce clause nexuses intact.

The term "wetlands" (a subset of "waters of the United States") is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual generally requires that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual provides great detail in methodology and allows for varying special conditions, a wetland should normally meet each of the following three criteria:

- more than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the National List of Plant Species that Occur in Wetlands[2]);

- soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and

- hydrologic characteristics must indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year[3].

2.5.2 California Department of Fish and Game

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFG regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake which supports fish or wildlife.

CDFG defines a "stream" (including creeks and rivers) 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 surface or subsurface flow that supports or has supported riparian vegetation." CDFG's definition of "lake" includes "natural lakes or man-made reservoirs."

CDFG jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. CDFG Legal Advisor has prepared the following opinion:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways...

- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated by [CDFG] as natural waterways...

- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions...

Thus, CDFG jurisdictional limits closely mirror those of the Corps. Exceptions are CDFG's exclusion of isolated wetlands (those not associated with a river, stream, or lake), the addition of artificial stock ponds and irrigation ditches constructed on uplands, and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status.

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[2] Reed, P.B., Jr. 1988. National List of Plant Species that Occur in Wetlands. U.S. Fish and Wildlife Service Biological Report 88(26.10).

[3] For most of low-lying southern California, five percent of the growing season is equivalent to 18 days.

3.0 REGULATORY REQUIREMENTS/SETTING

The Project Site is subject to state and federal regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including: state- and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities.

3.1 State and/or Federally Listed Plants or Animals

3.1.1 State of California Endangered Species Act

California's Endangered Species Act (CESA) defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the ESA, CESA does not list invertebrate species.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

3.1.2 Federal Endangered Species Act

The FESA of 1973 defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any

species that is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a Federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

3.1.3 State and Federal Take Authorizations for Listed Species

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).
- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCP) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan .
- Sections 2090-2097 of CESA require that the state lead agency consult with CDFG on projects with potential impacts on state-listed species. These provisions also require CDFG to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFG to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

3.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Under the Act, unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not.

3.3 California Environmental Quality Act

3.3.1 CEQA Guidelines Section 15380

The CEQA requires evaluation of a project's impacts on biological resources and provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts. Sections 5.1.1 and 5.2.2 below set forth these thresholds and guidelines. Furthermore, pursuant to the CEQA Guidelines Section 15380, CEQA provides protection for non-listed species that could potentially meet the criteria for state listing. For plants, CDFG recognizes that plants on Lists 1A, 1B, or 2 of the California Native Plant Society (CNPS) *Inventory of Rare and Endangered Plants in California* may meet the criteria for listing and should be considered under CEQA. CDFG also recommends protection of plants, which are regionally important, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS Lists 3 or 4.

3.3.2 Special-Status Plants and Animals Evaluated Under CEQA

Federally Designated Special-Status Species

Within recent years, the USFWS instituted changes in the listing status of candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. Former C2 species (for which the USFWS had insufficient evidence to warrant listing) and C3 species (either extinct, no longer a valid taxon or more abundant than was formerly believed) are no longer considered as candidate species. Therefore, these species are no longer maintained in list form by the USFWS, nor are they formally protected. However, some USFWS field offices have issued memoranda stating that former C2 species are to be considered federal Species of Concern (FSC). This term is employed in this document, but carries no official protections. All references to federally-protected species in this report (whether listed, proposed for listing, or candidate) include the most current published status or candidate category to which each species has been assigned by USFWS.
For this report the following acronyms are used for federal special-status species:

- FE Federally listed as Endangered
- FT Federally listed as Threatened
- FPE Federally proposed for listing as Endangered
- FPT Federally proposed for listing as Threatened
- FC Federal candidate species (former C1 species)
- FSC Federal Species of Concern (former C2 species)

State-Designated Special-Status Species

Some mammals and birds are protected by the state as Fully Protected (SFP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California Species of Special Concern (CSC) are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This

list is primarily a working document for the CDFG's CNDDB project. Informally listed taxa are not protected, but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

For this report the following acronyms are used for State special-status species:

- SE State-listed as Endangered
- ST State-listed as Threatened
- SR State-listed as Rare
- SA Special Animal
- SCE State candidate for listing as Endangered
- SCT State candidate for listing as Threatened
- CFP California Fully Protected
- CP California Protected
- CSC California Species of Concern

California Native Plant Society

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. The California Native Plant Society's Sixth Edition of the *California Native Plant Society's Inventory of Rare and Endangered Plants of California* separates plants of interest into five categories. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California (CNPS 2008). The list serves as the candidate list for listing as threatened and endangered by CDFG. CNPS has developed five categories of rarity that are summarized in Table 3-1.

Table 3-1. CNPS Lists 1, 2, 3, & 4.

CNPS List	Comments
List 1A – Presumed Extinct in California	Thought to be extinct in California based on a lack of observation or detection for many years.
List 1B – Rare or Endangered in California and Elsewhere	Species, which are generally rare throughout their range that are also judged to be vulnerable to other threats such as declining habitat.
List 2 - Rare or Endangered in California, More Common Elsewhere	Species that are rare in California but more common outside of California
List 3 – Need More Information	Species that are thought to be rare or in decline but CNPS lacks the information needed to assign to the appropriate list. In most instances, the extent of surveys for these species is not sufficient to allow CNPS to accurately assess whether these species should be assigned to a specific list. In addition, many of the List 3 species have associated taxonomic problems such that the validity of their current taxonomy is unclear.
List 4 – Plants of Limited Distribution	Species that are currently thought to be limited in distribution or range whose vulnerability or susceptibility to threat is currently low. In some

	cases, as noted above for List 3 species above, CNPS lacks survey data to accurately determine status in California. Many species have been placed on List 4 in previous editions of the "Inventory" and have been removed as survey data has indicated that the species are more common than previously thought. CNPS recommends that species currently included on this list should be monitored to ensure that future substantial declines are minimized.

Table 3-2. CNPS Threat Code Extensions

Extension Code	Comment
0.1	Seriously endangered in California
0.2	Fairly endangered in California
0.3	Not very endangered in California

4.0 RESULTS

The following section documents the results of general biological surveys including vegetation mapping, habitat assessments, and a jurisdictional determination conducted for the Project Site.

4.1 General Reconnaissance

The Project Site is approximately 204 acres in size and is comprised of four contiguous properties (Degroot, Dykstra, Ferreira, and Vander Eyk), and one detached property to the west (Kaplan). The four contiguous properties are all active dairies and support associated infrastructure including cattle pens, dairy and associated buildings, residences, evaporation ponds, and grazing pasture. The fifth property is mostly ruderal in nature with evidence of prior agricultural practices including disking activities. A residence and commercial truck parking lot are located in the northern portion of the site. The entire Project Site is extremely flat and is highly disturbed and degraded due to long established agricultural and dairy practices.

4.2 Soils Mapping

The Soil Conservation Service's (SCS)[4] Soil Survey for San Bernardino Area, California, identifies two main soil types (series) for the overall Project Site [Exhibit 8]. The following soil types as occurring (currently or historically) within the overall Project Site:

4.2.1 Delhi fine sand (Db)

The Delhi series consists of somewhat excessively drained soils on dunes and alluvial fans. Slopes range from 0 to 15 percent. These soils developed in granitic material that was reworked by wind. The soil is used for irrigated crops, alfalfa, pasture, and for home sites. Delhi soils are near the Tujunga, Hanford, and Hilmar soils. Approximately 174.52 acres of the Project Site are

[4] SCS is now known as the National Resource Conservation Service or NRCS.

mapped as Delhi fine sand and occur over the majority of the Project Site, expect for the westernmost portion.

4.2.2 Hilmar loamy fine sand (Hr)

The Hilmar series consists of moderately well drained soils on alluvial fans. These soils developed in alluvium that was washed from soils formed in granitic material and reworked by wind. The vegetation is chiefly annual grasses and forbs. The Hilmar soils are used for irrigated pasture, grain, alflalfa, dryland grain, and homesites. Approximately 29.51 acres of the Project Site are mapped as Hilmar loamy fine sand and occur primarily in the westernmost portion of the Project Site

4.3 Vegetation/Land Use Mapping

During vegetation mapping of the Project Site, four vegetation/land use types were identified. Table 4-1 provides a summary of vegetation types/land uses and the corresponding acreage. Descriptions of each type follow the table. A vegetation map is attached as Exhibit 4. Site photographs depicting the various vegetation types and land uses are attached as Exhibit 5.

Table 4-1. Summary of Vegetation/Land Use types for The Avenue – Brookfield Properties

Vegetation/Land Use Type	Area (Acres)
Disturbed/Developed	106.7
Evaporation Ponds	27.6
Pasture	31.3
Ruderal Vegetation	38.4
Total Vegetation/Land Use Acreage	**204**

4.3.1 Disturbed/Developed

Approximately 106.7 acres of the Project Site are consist of various developed and disturbed areas, including the active dairies, private residences and associated ornamental vegetation, a commercial truck parking lot, dirt and paved roads, and other disturbed areas. The majority of these areas are devoid of vegetation and are disturbed regularly.

4.3.2 Evaporation Ponds

Approximately 27.6 acres of the Project Site consist of constructed basins that facilitate the storage of manure and waste from dairy operations. During both surveys, some evaporation ponds were inundated with waste water, completely filled with ruderal vegetation, or were completely dry.

4.3.3 Pasture

Approximately 31.3 acres of the Project Site consists of pasture land that are grazed regularly by cattle. These areas primarily support crabgrass (*Digitaria sanguinalis*) and other weedy species. Certain areas of pasture land are irrigated on occasion.

4.3.4 Ruderal Vegetation

Approximately 38.4 acres of the Project Site consist of degraded areas supporting a predominance of ruderal vegetation. Areas of ruderal vegetation occur throughout the Project Site and appear to receive some level of disturbance periodically. These ruderal areas are often adjacent to developed areas, roads, and agricultural areas, where past disturbance has allowed the establishment of non-native and native ruderal species. Plant species associated with areas of ruderal vegetation include, but are not limited to, Russian thistle (*Salsola tragus*), summer mustard (*Hirschfeldia incana*), Bermuda grass (*Cynodon dactylon*), filaree (*Erodium* sp.), lamb's quarters (*Chenopodium album*), cheeseweed (*Malva parviflora*), London rocket (*Sisymbrium irio*), five-hook bassia (*Bassia hyssopifolia*), wild radish (*Raphanus sativus*), ripgut brome (*Bromus diandrus*), horseweed (*Conyza* sp.), wild oat (*Avena* sp.), black mustard (*Brassica nigra*), annual burweed (*Ambrosia acanthicarpa*), and western sunflower (*Helianthus annuus*).

4.4 Special-Status Plants

No special-status plants were detected on site during the general biological surveys, and none are expected to occur due to a lack of suitable habitat. Past studies conducted for the overall Specific Plan, including focused plant surveys, did not detect any special-status plant species on site. Nearly all special-status species documented recently or historically in the vicinity of the site would not occur on site due to a lack of suitable habitat. For a few species, marginally suitable habitat was identified in prior studies, but none were detected during those studies. Therefore, based on a lack of suitable habitats and/or high levels of long-standing disturbance, and the lack of detection any special-status plants; the Project is not expected to support impact any special-status plant species.

Table 4-2 provides a list of special-status plants evaluated for the Project Site through habitat assessments and general biological surveys. Species were evaluated based on a number of factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the property (Exhibit 6 – CNDDB Map), and 2) any other special-status plants that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on site.

Table 4-2. Special-Status Plants Evaluated for the Project Site.

Species Name	Status	Habitat Requirements	Occurrence On Site
Peninsular nolina *Nolina cismontana*	Federal: None State: None CNPS: List 1B.2	Evergreen shrub. Occurs in coastal scrub and chaparral on sandstone and gabbro soils. From 140 to 1,275 meters in elevation. Blooming period from May to July.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Chaparral sand-verbena *Abronia villosa* var. *aurita*	Federal: None State: None CNPS: List 1B.1	Annual. Sandy soils in chaparral and coastal sage scrub. From 80 to 1,600 meters in elevation. Blooming period from January to September	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: None CNPS: List 1B.1	Annual. Playas, vernal pools, marshes and swamps (coastal salt). Up to 1,220 meters in elevation. Blooming period from February to June.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Coulter's saltbush *Atriplex coulteri*	Federal: None State: None CNPS: List 1B.2	Perennial. Mainly in alkali playas and grassland, but also occurs in coastal scrub, coastal dunes, coastal salt marshes, and vernal pools. Associated with alkaline or clay soils. From 3 to 460 meters in elevation. Blooming period from March to October.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Intermediate mariposa lily *Calochortus weedii* var. *intermedius*	Federal: None State: None CNPS: List 1B.2	Bulbiferous herb. Rocky soils in chaparral, coastal sage scrub, valley and foothill grassland. From 105 to 855 meters in elevation. Blooming period from May to July.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Many-stemmed dudleya *Dudleya multicaulis*	Federal: None State: None CNPS: List 1B.2	Perennial herb. Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils. From 15 to 790 meters in elevation. Blooming period from April to July.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Marsh sandwort *Arenaria paludicola*	Federal: FE State: SE CNPS: List 1B.1	Perennial herb. Occurs in sandy openings of bogs, fens, marshes, and swamps. From 3 to 170 meters in elevation. Blooming period from May to August.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.

Species Name	Status	Habitat Requirements	Occurrence On Site
Mesa horkelia *Horkelia cuneata* ssp. *puberula*	Federal: None State: None CNPS: List 1B.1	Perennial herb. Sandy or gravelly soils in coastal scrub, chaparral, and cismontane woodland. From 70 to 810 meters in elevation. Blooming period from February to July.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Nevin's barberry *Berberis nevinii*	Federal: FE State: SE CNPS: List 1B.1	Evergreen shrub. Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub. From 274 to 875 meters in elevation. Blooming from March to June.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Parish's bush-mallow *Malacothamnus parishii*	Federal: None State: None CNPS: List 1A	Deciduous shrub. Chaparral and coastal scrub. From 305 to 455 meters in elevation. Blooming period from June to July.	Presumed extinct. Would not occur on site due to a lack of suitable habitat.
Parish's desert thorn *Lycium parishii*	Federal: None State: None CNPS: List 2.3	Shrub. Coastal scrub and Sonoran desert scrub. From 305 to 1,000 meters in elevation. Blooming period from March to April.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Parish's gooseberry *Ribes divaricatum* var. *parishii*	Federal: None State: None CNPS: List 1A	Deciduous shrub. Riparian woodland from 65 to 300 meters in elevation. Blooming period from February to April.	Presumed extinct. Would not occur on site due to a lack of suitable habitat.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CNPS: List 3.2	Annual herb. Sandy or rock openings in coastal scrub and chaparral. From 40 to 1,705 meters in elevation. Blooming period from April to June.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Payson's jewelflower *Caulanthus simulans*	Federal: None State: None CNPS: List 4.2	Annual herb. Sandy or granitic soils in chaparral and coastal scrub. From 90 to 2,200 meters in elevation. Blooming period from March to May.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Plummer's mariposa lily *Calochortus plummerae*	Federal: None State: None CNPS: List 1B.2	Bulbiferous herb. Granitic or rocky soils in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland. From 100 to 1,700 meters in elevation. Blooming period from May to July.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.

Species Name	Status	Habitat Requirements	Occurrence On Site
Pringle's monardella *Monardella pringlei*	Federal: None State: None CNPS: List 1A	Annual herb. Sandy soils in coastal scrub. From 300 to 400 meters in elevation. Blooming period from May to June.	Presumed extinct. Would not occur on site due to a lack of suitable habitat.
Prostrate navarretia *Navarretia prostrata*	Federal: None State: None CNPS: List 1B.1	Annual herb. Mesic soils in coastal scrub, vernal pools, meadows and seeps, and alkaline valley and foothill grassland. From 15 to 700 meters in elevation. Blooming period from April to July.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Chaparral ragwort *Senecio aphanactis*	Federal: None State: None CNPS: List 2.2	Annual herb. Cismontane woodland, chaparral, and coastal scrub. From 15 to 800 meters in elevation. Blooming period from January to April.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Robinson's pepper-grass *Lepidium virginicum* ssp. *robinsonii*	Federal: None State: None CNPS: List 1B.2	Annual herb. Coastal scrub and chaparral up to 885 meters in elevation. Blooming period from January to July.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Salt marsh bird's-beak *Cordylanthus maritimus* ssp. *maritimus*	Federal: FE State: SE CNPS: List 1B.2	Annual herb. Coastal dunes and coastal salt marshes and swamps. Up to 30 meters in elevation. Blooming period from May to October.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Salt spring checkerbloom *Sidalcea neomexicana*	Federal: None State: None CNPS: List 2.2	Perennial herb. Alkaline and mesic areas in chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. From 15 to 1,530 meters in elevation. Blooming period from March to June.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
San Bernardino aster *Symphyotrichum defoliatum*	Federal: None State: None CNPS: List 1B.2	Near ditches, streams, and springs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland. From 2 to 2,040 meters. Blooming period from July to November.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
San Diego ambrosia *Ambrosia pumila*	Federal: FE State: None CNPS: List 1B.1	Rhizomatous herb. Occurs in chaparral, coastal scrub, valley and foothill grassland, and vernal pools, often in disturbed areas, and sometimes in	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological

Species Name	Status	Habitat Requirements	Occurrence On Site
		alkaline areas. From 20 to 415 meters in elevation. Blooming period from April to October.	studies.
Santa Ana River woolly star *Eriastrum densifolium* ssp. *sanctorum*	Federal: FE State: SE CNPS: List 1B.1	Perennial. Alluvial fan sage scrub and coastal sage scrub on alluvial deposits along the Santa Ana River. From 91 to 610 meters in elevation. Blooming period May to September.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Slender-horned spineflower *Dodecahema leptoceras*	Federal: FE State: SE CNPS: List 1B.1	Annual herb. Sandy soils in chaparral, cismontane woodland, and alluvial fan sage scrub. From 200 to 760 meters. Blooming period from April to June.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.
Smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CNPS: List 1B.1	Annual herb. Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grasslands. Often occurring in disturbed habitats up to 480 meters in elevation. Blooming period from April to September.	Not expected to occur on site due to a lack of suitable habitat and a lack of observation during previous biological studies.

4.5 Special-Status Animals

Table 4-3 provides a list of special-status animals evaluated for the Project Site through habitat assessments and focused surveys (where suitable habitat was present). Species were evaluated based on a number of factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the property (Exhibit 6 – CNDDB Map), 2) species identified in previously cited biological technical reports and in The Avenue Specific Plan EIR, as occurring within or having the potential to occur within the project site and adjacent area, and 3) any other special-status animals that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on site.

Table 4-3. Special-Status Animals Evaluated for the Project Site.

Species Name	Status	Habitat Requirements	Occurrence On Site
Invertebrates			
Delhi sands flower-loving fly *Rhaphiomidas terminatus abdominalis*	Federal: FE State: None	Fine, sandy soils, often associated with wholly or partially consolidated dunes referred to as the "Delhi" series. Vegetation consists of a sparse cover, including Californica buckwheat, California croton, deerweed, and evening primrose.	Not observed on site during general surveys. Not expected to occur on site due to the highly disturbed nature of the habitat. All previous focused DSF surveys conducted in the eastern portions of the site were negative.
Fish			
Arroyo chub *Gila orcutti*	Federal: None State: CSC	Slow-moving or backwater sections of warm to cool streams with substrates of sand or mud.	Does not occur within the Project Site due to a lack of suitable habitat.
Santa Ana speckled dace *Rhinichtys osculus*	Federal: FT State: CSC	Occurs in the headwaters of the Santa Ana and San Gabriel Rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temperatures of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	Does not occur within the Project Site due to a lack of suitable habitat.
Santa Ana sucker *Catostomus santaanae*	Federal: FT State: CSC	Small, shallow streams, less than 7 meters in width, with currents ranging from swift in the canyons to sluggish in the bottom lands. Preferred substrates are generally coarse and consist of gravel, rubble, and boulders with growths of filamentous algae, but occasionally they are found on sand/mud substrates.	Does not occur within the Project Site due to a lack of suitable habitat.
Amphibians			
Western spadefoot *Spea hammondii*	Federal: None State: CSC	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Not expected to occur on Project Site due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence On Site
Reptiles			
Belding's orange-throated whiptail *Aspidoscelis hyperythra beldingi*	Federal: None State: CSC	Coastal sage scrub, chaparral, non-native grassland, oak woodland, and juniper woodland.	Not expected to occur on site due to a lack of suitable habitat.
Coastal western whiptail *Aspidoscelis tigris stejnegeri*	Federal: None State: None	Open, often rocky areas with little vegetation, or sunny microhabitats within shrub or grassland associations.	Not expected to occur on site due to a lack of suitable habitat.
Northern red-diamond rattlesnake *Crotalus rubber ruber*	Federal: None State: CSC	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Does not occur within the Project Site due to a lack of suitable habitat.
San Diego banded gecko *Coleonyx variegatus abbotti*	Federal: None State: None	Primarily a desert species, but also occurs in cismontane chaparral, desert scrub, and open sand dunes.	Does not occur within the Project Site due to a lack of suitable habitat.
San Diego horned lizard *Phrynosoma coronatum blainvillei*	Federal: None State: CSC	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	Not observed on site, but has low potential to occur on site due to limited open sandy areas.
Silvery legless lizard *Anniella pulchra pulchra*	Federal: FSC State: CSC	Occurs primarily in areas with sandy or loose organic soil, or where there is plenty of leaf litter. Associated with coastal sage scrub, chaparral, coastal dunes, valley/foothill grasslands, oak woodlands, and pine forests.	Does not occur within the Project Site due to a lack of suitable habitat.
Southwestern pond turtle *Clemmys marmorata pallida*	Federal: None State: CSC	Inhabits slow moving permanent or intermittent streams, small ponds, small lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and sewage treatment lagoons	Not expected to occur on site due to a lack of suitable habitat.
Birds			
Bell's sage sparrow *Amphispiza belli belli*	Federal: FSC State: CSC	Chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and in the lower foothills of local mountains.	Does not occur within the Project Site due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence On Site
Burrowing owl (western) *Athene cunicularia hypugaea*	Federal: None State: CSC	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial, open areas as a yearlong resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and underpasses.	Two unpaired individuals observed on site. Three previous studies have identified burrowing owls within the portions of the Project Site, one of which nested (Klinefelter 2005, Chambers Group 2005, and TeraCor 2005).
California horned lark *Eremophila alpestris actia*	Federal: None State: CSC	Occupies a variety of open habitats, usually where trees and large shrubs are absent.	Not observed on site, but has the potential to forage on site. Not expected to nest on site due to constant irrigation and grazing of pastures.
Coastal cactus wren *Campylorhynchus brunneicapillus couesi*	Federal: None State: CSC	Occurs almost exclusively in cactus (cholla and prickly pear) dominated coastal sage scrub.	Does not occur within the Project Site due to a lack of suitable habitat.
Coastal California gnatcatcher *Polioptila californica californica*	Federal: FT State: CSC	Low elevation coastal sage scrub and coastal bluff scrub.	Does not occur within the Project Site due to a lack of suitable habitat.
Ferruginous hawk (wintering) *Buteo regalis*	Federal: None State: CSC	Open, dry country, perching on trees, posts, and mounds. In California, wintering habitat consists of open terrain and grasslands of the plains and foothills.	Not observed on site, but has limited potential to occur on site as a winter foraging species. No potential to breed on site.
Golden eagle *Aquila chrysaetos*	Federal: None State: None	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Does not occur within the Project Site due to a lack of suitable habitat.
Grasshopper sparrow *Ammodramus savannarum*	Federal: None State: CSC	Forages and nests in open grasslands.	Does not occur within the Project Site due to a lack of suitable habitat.
Least Bell's vireo *Vireo bellii pusillus*	Federal: FE State: SE	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Does not occur within the Project Site due to a lack of suitable habitat.
Loggerhead shrike *Lanius ludovicianus*	Federal: None State: CSC	Forages over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland,	Not observed on site, but has the potential to occur on site as a foraging species.

Species Name	Status	Habitat Requirements	Occurrence On Site
		agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs.	
Long-eared owl (nesting) *Asio otus*	Federal: None State: CSC	Riparian habitats are required by the long-eared owl, but it also uses live-oak thickets and other dense stands of trees.	Does not occur within the Project Site due to a lack of suitable habitat.
Merlin (wintering) *Falco columbarius*	Federal: None State: CSC	Breeds in open country (*e.g.*, open coniferous woodland, prairie) and winters in open woodland, grasslands, cultivated fields, marshes, estuaries and seacoasts. May occur locally as a very rare winter visitor throughout much of western Riverside County within suitable habitat.	Not observed on site, but has limited potential to occur on site as a winter foraging species. No potential to breed on site.
Prairie falcon (nesting) *Falco mexicanus*	Federal: None State: CSC	Breeds in mountainous regions and shortgrass prairies, nesting on cliff ledges.	Not observed on site, but has limited potential to occur on site as a winter foraging species**.** No potential to breed on site.
Sharp-shinned hawk (nesting) *Accipiter striatus*	Federal: None State: CSC	Breeds in young coniferous forests with high canopy associations. Habitats that they are documented to use include ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine.	Not observed on site, but has limited potential to occur as a winter foraging species. No potential to breed on site.
Short-eared owl (nesting) *Asio flammeus*	Federal: None State: CSC	Open areas with few trees, such as annual and perennial grasslands, prairies, tundra, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands. Requires dense vegetation and tall grasses, brush, ditches, and wetlands are used for resting and roosting cover.	Not observed on site, but has the potential to occur as a winter foraging species. No potential to breed on site.
Southwestern willow flycatcher *Empidonax traillii extimus*	Federal: FE State: SE	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	Does not occur within the Project Site due to a lack of suitable habitat.
Tricolored blackbird (nesting colony) *Agelaius tricolor*	Federal: None State: CSC	Breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or	Not observed on site, but is known to forage at dairies. No nesting colonies expected due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence On Site
		agricultural cropland.	
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	Federal: FC State: SE	Dense, wide riparian woodlands with well-developed understories.	Does not occur within the Project Site due to a lack of suitable habitat.
White-faced ibis (rookery site) *Plegadis chihi*	Federal: None State: CSC	Winter foraging occurs in wet meadows, marshes, ponds, lakes, rivers, and agricultural fields. Requires extensive marshes for nesting.	One individual was observed flying high over the Project Site, but did not land. This species has the potential to occur on site as a foraging species. No nesting colonies are expected due to a lack of suitable habitat.
White-tailed kite (nesting) *Elanus leucurus*	Federal: None State: CFP	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Not observed on site, but has the potential to occur on site as a foraging species. No potential to breed on site.
Yellow-breasted chat *Icteria virens*	Federal: None State: CSC	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Does not occur within the Project Site due to a lack of suitable habitat.
Yellow warbler *Dendroica petechia*	Federal: None State: CSC	Breeds in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, forages in woodland, forest, and shrub habitats.	Does not occur within the Project Site due to a lack of suitable habitat.
Mammals			
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	Federal: None State: CSC	Fine, sandy soils in coastal sage scrub and grasslands.	Not expected to occur on site, however, limited low quality areas of fine sandy soils occur on site.
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	Federal: None State: CSC	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Not expected to occur on site due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence On Site
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: FE State: CSC	Typically found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and floodplains, and along washes with nearby sage scrub.	Does not occur within the Project Site due to a lack of suitable habitat.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	Federal: None State: CSC	Occupies a variety of habitats, but is most common among shortgrass habitats. Also occurs in sage scrub, but needs open habitats.	Not observed on site, but has low potential to occur due to limited open habitats that provide cover.
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: CSC	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Does not occur within the Project Site due to a lack of suitable habitat.
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: FE State: ST	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Not expected to occur on site due to a lack of suitable habitat.
Bats (various)	Federal: None State: CSC (some species)	Variety of habitats, including rock outcrops, cliff faces, trees, and buildings.	Several species have the potential to forage on or over the site. See discussion below.

4.5.1 Special-Status Animals Observed On Site or with the Potential to Occur On Site

During the general biological surveys for the Project Site, one special-status animal, the western burrowing owl (*Athene cunicularia hypugaea*) was identified on site. Locations of special-status animals are shown on the attached Special-Status Species Map [Exhibit 7].

In addition to the western burrowing owl, other special-status animal species have some potential (although it may be very limited) to occur on site based on the presence of suitable habitat and/or their known occurrence in the region/vicinity of the project site. These species include the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diego horned lizard (*Phrynosoma coronatum blainvillei*), ferruginous hawk (*Buteo regalis*), loggerhead shrike (*Lanius ludovicianus*), merlin (*Falco columbarius*), prairie falcon (*Falco mexicanus*), sharp-shinned hawk (*Accipiter striatus*), white-tailed kite (*Elanus leucurus*), California horned lark (*Eremophila alpestris actia*), tricolored blackbird (*Agelaius tricolor*), white-faced ibis (*Plegadis chihi*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), Stephen's kangaroo rat (*Dipodomys stephensi*), and various bat species. Each of these species is discussed below.

Invertebrates

Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) – The Delhi sands flower-loving fly (DSF) is Federally listed as Endangered. The DSF is tied to fine, sandy soils, often with wholly or partly consolidated dunes referred to as the "Delhi" series (USFWS 1993). The DSF is typically found in relatively intact, open, sparse, native habitats with less than 50% vegetative cover (USFWS 1997). In most cases, California croton (*Croton californicus*), deerweed (*Lotus scoparius*), and telegraph weed (*Heterotheca grandiflora*) are associated with the presence of Delhi sands flower-loving fly (Ballmet 1989, USFWS 1997).

Approximately 175 acres of the 204-acre Project Site support Delhi soils, all of which have been highly disturbed and degraded over decades of continuous dairy and agricultural practices. These practices have converted the soils over time to grow crops; been trampled by years of cattle grazing; been converted into evaporation ponds to store manure and waste water; been developed for dairy infrastructure and on site residences; and introduced non-native ruderal vegetation and ornamental landscaping. Although portions of the Project Site support very limited areas of open sand, these areas have as previously mentioned, been highly disturbed by ongoing cattle grazing and agricultural practices including irrigation and disking, and therefore do not support any of the plant species typically associated with the presence of the DSF.

Additionally, previous biological studies conducted on the Project Site as referenced by the 2006 Avenue Specific Plan EIR (often on the same property) have determined that suitable habitat for DSF does not occur for the majority of the Project Site. Habitat suitability surveys conducted for Planning Areas 10 and 11 (which correspond respectively to the Project Site's southeastern and northeastern corners) recommended that two-year focused surveys be conducted in portions of each Planning Area. Focused surveys were completed in 2004 and 2005 for Planning Area 11 and after June 2005 (but not specified) for Planning Area 10 with negative results for the DSF.

General biological surveys conducted by GLA determined that mapped areas of Delhi sands are highly disturbed and degraded, support mostly non-native ruderal species and do not support any of the host plants required by the fly. Therefore, the Delhi sands flower-loving fly is not expected to occur on site.

Reptiles

San Diego Horned Lizard (*Phrynosoma coronatum blainvillei*) - The San Diego (coast) horned lizard is designated as a CSC. The species is found in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest (Klauber, 1939; Stebbins, 1954).

The San Diego horned lizard was not detected on site during the general biological surveys and is not expected to occur on site due to long established agricultural and dairy practices.

Birds

Burrowing Owl (*Athene cunicularia hypugaea*) - The western burrowing owl is designated as a FSC and a CSC. The burrowing owl occurs in shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), prairies, coastal dunes, desert floors, and some artificial, open areas as a year-long resident (Haug, et al. 1993). They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows (e.g., ground squirrels, rabbits, etc.). As a critical habitat feature need, they require the use of rodent or other burrows for roosting and nesting cover. They may also dig their own burrow in soft, friable soil (as found in Florida) and may also use pipes, culverts, and nest boxes where burrows are scarce (Robertson 1929). The mammal burrows are modified and enlarged. In the case of nesting owls, one burrow is typically selected for use as the nest; however, satellite burrows are usually found within the immediate vicinity of the nest burrow within the defended territory of the owl.

Two individual adult burrowing owls were observed on site on August 5, 2008 and were resighted at the same burrows on August 31, 2008. Exhibit 5, photographs 9 and 10 depict the earthern berm and burrow where one adult burrowing owl was located. Exhibit 7 (Sensitive Species Map) depicts the locations of both burrowing owls in relation to the Project Site. The entrances of both owl burrows exhibited diagnostic sign of occupation including whitewash, feathers and a couple of pellets. The western burrow had a few remnant pieces of dried cow dung near the burrow entrance. This is often an indicator of nesting as burrow entrances and the nest chamber will often be lined with shredded dung, that is replaced often thereby forming a debris trail of old nesting material. However, the few pieces of dung and the observation of only one owl at each burrow did not lead to conclusive evidence that burrowing owls had nested on site. However, three previous biological studies (Klinefelter 2005, Chambers Group 2005, and TeraCor 2005) conducted within portions of the Project Site each identified burrowing owls as occurring on site. One report identified nesting on site. Therefore, it is highly likely that burrowing owls routinely breed on site.

California Horned Lark (*Eremophila alpestris actia*) - The California horned lark is designated as a CSC. The horned lark is a common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent (Zeiner, et al. 1988). Range-wide, California horned larks breed in level or gently sloping shortgrass prairie, montane meadows, “bald” hills, opens coastal plains, fallow grain fields, and alkali flats (Grinnell and Miller 1944). Within southern California, horned larks breed primarily in open fields, (short) grasslands, and rangelands (Garrett and Dunn 1981).

During the general surveys at the Project Site, the horned lark was not observed on site. Horned larks are expected to occur on Project Site for foraging opportunities, but would not be expected to breed on site due to the highly disturbed nature of the habitat, including current dairy practices. These practices include routine irrigation of pasture areas and the frequent rotation of cattle through pasture and ruderal areas.

Ferruginous Hawk (*Buteo regalis*) - The ferruginous hawk is designated as a Federal Species of Concern and a California Species of Concern. The ferruginous hawk is an occupant of open dry country and will perch on badger mounds or hillocks when trees or posts are not available. There are no breeding records from California. Wintering habitat consists of open areas, but the hawk may also occur in areas of mixed grassy glades and pineries (Brown and Amadon 1968). Range-wide, within California, ferruginous hawks winter in open terrain and grasslands of plains and foothills (Grinnell and Miller 1944). Within southern California, ferruginous hawks typically winter in open fields, grasslands, and agricultural areas.

The ferruginous hawk was not observed on site during the general surveys and is not expected to regularly occur on site. However, areas of pasture and unvegetated or low growing ruderal areas have the potential to provide limited foraging opportunities, when not frequented by cattle.

Loggerhead Shrike (*Lanius ludovicianus*) - The loggerhead shrike is designated as Federal Species of Concern and a California Species of Concern. The loggerhead shrike is known to forage over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs (Unitt 1984; Yosef 1996).

The loggerhead shrike was not observed on site during the general surveys, and is not expected to nest on site, although it may occasionally forage on site due to the presence of low quality habitat.

Merlin (*Falco columbarius*) - The merlin is designated as a California Species of Concern. Range-wide, merlin breed in open country (*e.g.*, open coniferous woodland, prairie) and winter in open woodland, grasslands, cultivated fields, marshes, estuaries and seacoasts (AOU 1998). Within southern California, the merlin is a winter visitor (Garrett and Dunn 1981).

During the general surveys, the merlin was not observed on the Project Site as it is a winter visitor to southern California. However, the species has the potential to occasionally forage on site to forage on site as a winter migrant.

Prairie Falcon (*Falco mexicanus*) - The prairie falcon is designated as California Species of Concern. Habitat use of the prairie falcon includes annual grasslands to alpine meadows, but they are also associated with perennial grasslands, savannahs, rangeland, some agricultural fields, and desert scrub areas, typically dry environments of western North American where there are cliffs or bluffs for nest sites (Brown and Amadon 1968). The species requires sheltered cliff ledges for cover and nesting which may range in height from low rock outcrops of thirty feet to vertical, 400 feet high (or more) cliffs and typically overlook some treeless country for hunting. During the general surveys conducted for the Project Site, no prairie falcons were observed on site. It is expected that during the non-breeding season, prairie falcons occur on site for foraging. The Project Site does not provide suitable breeding habitat for the hawk.

Sharp-Shinned Hawk (*Accipiter striatus*) – The sharp-shinned hawk is designated as a California Species of Concern. The species breeds in young coniferous forests with high canopy associations. Although they seem to prefer riparian habitats they are not restricted to them and are found in mid-elevation habitats such as pine forests, woodlands and mixed conifer forests and appear to nest in forested areas particularly with some conifers (Bildstein and Meyer 2000). For nesting they occur in dense tree stands that are cool, moist, well shaded, and usually near water. Sharp-shinned hawks may occur in a large variety of woodland habitats during winter and migration periods and are most common in southern California in the coastal lowlands and desert areas (Garrett and Dunn 1981).

The sharp-shinned hawk was not observed on site during general biological surveys, but has the potential to occur on site for winter foraging. The Project Site does not provide suitable breeding habitat for the hawk. Regardless, the sharp-shinned hawk is generally not known to breed within southern California.

Tricolored Blackbird (*Agelaius tricolor*) - The tricolor blackbird is designated as a Federal Species of Concern and a California Species of Concern when associated with a nesting colony. The tricolored blackbird forms the largest colonies of any North American passerine bird. Breeding colonies may attract thousands of birds to a single site. These colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat composed of grassland, woodland, or agricultural cropland. In winter, they often form single-species, and sometimes single-sex, flocks, but they also flock with other blackbird species. The tricolored blackbird breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs and forages in grassland and cropland Habitats (Ziener *et al.* 1988).

The tricolored blackbird was not observed on site during the general biological surveys. The Project Site itself does not contain suitable breeding habitat for the tricolored blackbird, although the species has the potential to forage throughout portions of the site as they are known to frequent active dairies.

White-Faced Ibis (*Plegadis chihi*) - The white-faced ibis is designated as a California Species of Concern when associated with a breeding colony. Migrant and wintering white-faced ibis may be found foraging in shallow lacustrine waters, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries (Zeiner et al. 1988). In southern California, extensive marshes are required for nesting (Garrett and Dunn 1981). The species prefers shallow, grassy marshes and nests in dense, fresh emergent wetland (Zeiner, et al. 1988).

The white-faced ibis was observed flying high over the Project site, but did not land on site. This species is presumed on occasion to use the evaporation ponds and pasture lands to forage. However, the Project Site does not support suitable habitat for breeding colonies to establish.

White-Tailed Kite (*Elanus leucurus*) - The white-tailed kite is designated as California Fully-Protected Species. The white-tailed kite inhabits low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Riparian areas adjacent to open areas

are also used (Dunk 1995). The white-tailed kite uses trees with dense canopies for cover and the specific plant associations seem to be unimportant with the vegetation structure and prey abundance apparently more important (Dunk 1995).

During the general surveys the white-tailed kite was not observed on site. The species would be expected to forage over ruderal and pasture lands on occasion, but would not be expected to nest on site due to a lack of suitable habitat.

Mammals

Bats (Various Species)

The Project Site contains low quality habitat for various bat species including the pallid bat (*Antrozous pallidus*), pocketed free-tailed bat (*Nyctinomops femorosaccus),* western yellow bat (*Lasiurus xanthinus*), Townsend's western big-eared bat *Plecotus townsendii pallescens*), California mastiff bat (*Eumops perotis californicus),* California leafnosed bat *(Macrotus californicus),* and big free-tailed bat *(Nyctinomops macrotis*). None of these species are Federally or State listed, although several are designated as California Species of Concern. In general, bat habitats include rock outcrops, crevices in cliff faces, caves, trees, buildings, tunnels, bridges, etc.

Although unlikely due to the high level of disturbance and dairy activity on site, within the Project Site, roosting areas for bats are limited and would occur in dairy structures and ornamental tree species including Mexican fan palm (*Washingtonia robusta*) and Fremont cottonwood (*Populus fremontii*), located within on site residences. In addition, evaporation ponds that are ponded, likely provide limited foraging opportunities for bats.

Los Angeles Pocket Mouse (*Perognathus longimembris brevinasus*) - The Los Angeles pocket mouse is designated as a California Species of Concern. Habitat of the Los Angeles pocket mouse (LAPM) has never been specifically defined, although Grinnell (1933) indicated that the subspecies "inhabits open ground of fine sandy composition" (cited in Brylski *et al.* 1993). This observation is supported by others who also state that the Los Angeles pocket mouse prefers fine, sandy soils and may utilize these soil types for burrowing (*e.g*., Jameson and Peters 1988). The subspecies may be restricted to lower elevation grassland and coastal sage scrub (Patten *et al.* 1992). The habitat associated with the MSHCP database records for which precision codes are level 1 or 2 include non-native grassland, Riversidean sage scrub, Riversidean alluvial fan sage scrub, chaparral and redshank chaparral.

The Los Angeles pocket mouse was not observed on site and is not expected to occur on site due to the highly disturbed nature of the area.

San Bernardino Kangaroo Rat (*Dipodomy merriami parvus*) – The San Bernardino kangaroo rat (SBKR) is Federally listed as Endangered and is designated as a California Species of Concern. The San Bernardino kangaroo rat is typically occurs in Riversidean alluvial fan sage scrub and flood plains, and to a lesser extent in grasslands in upland habitats .

The San Bernardino kangaroo rat is not expected to occur on site due to a lack of suitable habitat and no records of this species occur within vicinity of the Project Site.

Stephen's Kangaroo Rat (*Dipodomys stephensi*) - Stephens' kangaroo rat (SKR) is Federally listed as Endangered and State listed as Threatened. Stephens' kangaroo rat is found almost exclusively in open grasslands or sparse shrublands with cover of less than 50% during the summer (e.g., Bleich 1973; Bleich and Schwartz 1974; Grinnell 1933; Lackey 1967; O'Farrell 1990; Thomas 1973). O'Farrell (1990) further clarified this association and argues that the proportion of annual forbs and grasses is important because Stephens' kangaroo rats avoid dense grasses (for example, non-native bromes [*Bromus* spp.]) and are more likely to inhabit areas where the annual forbs disarticulate in the summer and leave more open areas. Soil type also is an important habitat factor for Stephens' kangaroo rat occupation (O'Farrell and Uptain 1989; Price and Endo 1989). As a fossorial (burrowing) animal, the Stephens' kangaroo rat typically is found in sandy and sandy loam soils with low clay to gravel content, although there are exceptions where they can utilize the burrows of Botta's pocket gopher (*Thomomys bottae*) and California ground squirrel (*Spermophilus beecheyi*).

The Stephen's kangaroo rat is not expected to occur on site due to a lack of suitable habitat and no records of this species occur within vicinity of the Project Site.

4.6 Jurisdictional Waters

The Project Site does not support any blue-line drainages as depicted on the USGS Guasti and Corona North quadrangles not does the Project Site support waters of the United States subject to the jurisdiction of the Corps or CDFG jurisdiction.

4.7 Nesting Birds

The Project Site contains trees, shrubs, ground cover, and structures that provide suitable habitat for nesting migratory birds, including raptors. Impacts to nesting birds are prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.[5]

5.0 IMPACT ANALYSIS AND MITIGATION

The following discussion examines the potential impacts to plant and wildlife resources that would occur as a result of the proposed development of the site. Project-related impacts can occur in two forms, direct and indirect. Direct impacts are considered to be those that involve the loss, modification or disturbance of plant communities, which in turn, directly affect the flora and fauna of those habitats. Direct impacts also include the destruction of individual plants or

[5] The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R.21). In addition, sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

wildlife, which may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and population stability.

Indirect impacts pertain to those impacts that have the potential to occur along urban/wildland interface of the proposed project. Indirect impacts involve the effects of increases in ambient levels of noise or light, unnatural predators (i.e., domestic cats and other non-native animals), competition with exotic plants and animals, and increased human disturbance such as hiking and dumping of green waste on site. Indirect impacts are those associated with the subsequent day-to-day activities associated with project build-out, such as increased traffic use, permanent concrete barrier walls or chain-link fences, exotic ornamental plantings that provide a local source of seed, etc., which may be both short-term and long-term in their duration. These impacts are commonly referred to as "edge effects" and may result in a slow replacement of native plants by exotics, and changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

Potential significant adverse effects; either directly or through habitat modifications, on any special-status plant, animal, or habitat that could occur as a result of project development are discussed below.

5.1 California Environmental Quality Act (CEQA)

5.1.1 Thresholds of Significance

Environmental impacts relative to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, Section 21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

Determining whether a project may have a significant effect, or impact, plays a critical role in the CEQA process. According to CEQA, Section 15064.7 (Thresholds of Significance), each public agency is encouraged to develop and adopt (by ordinance, resolution, rule, or regulation) thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the development of thresholds of significance for impacts to biological resources CEQA provides guidance primarily in Section 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. Section 15065(a) states that a project may have a significant effect where:

"The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ..."

Therefore, for the purpose of this analysis, impacts to biological resources are considered potentially significant (before considering offsetting mitigation measures) if one or more of the following criteria discussed below would result from implementation of the proposed project.

5.1.2 Criteria for Determining Significance Pursuant to CEQA

Appendix G of the 2007 State CEQA guidelines indicate that a project may be deemed to have a significant effect on the environment if the project is likely to:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.2 Vegetation/Land Use Impacts

The proposed project will not impact any native habitats, including any special-status habitats. Proposed development will impact the entire Project Site, totaling approximately 204 acres, which includes several active dairy operations, associated pasturelands, additional ruderal

vegetation areas, miscellaneous treatment ponds, private residences, and ornamental landscaping. All areas to be impacted by the project are degraded and do not support any native habitats. Those areas that are vegetated predominately support non-native plant species. The miscellaneous ponds do not support any riparian habitat. All vegetation/land use impacts associated with the Project will be less than significant.

5.3 Special-Status Plants

Past studies conducted for the overall Specific Plan, including focused plant surveys, did not detect any special-status plant species on site. Nearly all special-status species documented recently or historically in the vicinity of the site would not occur on site due to a lack of suitable habitat. For a few species, marginally suitable habitat was identified in prior studies, but none were detected during those studies. Therefore, based on a lack of suitable habitats and/or high levels of long-standing disturbance, and the lack of detection of any special-status plants; the Project is not expected to impact any special-status plant species.

5.4 Special-Status Animals

The Project will result in the loss of actual or potential habitat for several special-status animals, including birds, reptiles, and small mammals. For nearly all of these special-status animals, the loss of habitat pertains to foraging opportunities. Much of the site provides marginal foraging habitat for a variety of migratory bird species, including songbirds, raptors, and waterfowl. However, due to the disturbed nature of the property, the loss of foraging habitat for these species would be less than significant.

For a few special-status bird species, the loss of habitat also pertains to potential nesting habitat. This includes the western burrowing owl, loggerhead shrike, and horned lark. Due to the disturbed nature of the site and the degraded habitats, the loss of breeding habitat for these species would be less than significant. However, the MBTA and the California Fish and Game Code prohibit direct impacts to individual migratory birds, including their active nests. As such, a mitigation measure is required to avoid impacts to nesting birds. Burrowing owls are particularly at risk for direct impacts, since they have the potential to be trapped within burrows crushed during construction activities. A mitigation measure is required to avoid direct impacts to burrowing owls, including pre-construction surveys and the relocation (i.e., exclusion) of owls from the Project Site prior to any impacts to their habitat. Both of these measures are discussed below.

The project will not result in impacts to the DSF. As previously discussed in this report, portions of the Project Site, as well as the overall Specific Plan are mapped as historically supporting Delhi soils. The 2006 EIR stated that the majority of the Specific Plan does not contain suitable habitat for the DSF and that the site was confirmed to be unoccupied by DSF. Focused surveys were conducted for DSF for portions of the Specific Plan, including focused protocol DSF surveys conducted for Planning Area 10A (survey dates were not specified, but were after June 2005), Planning Area 11 in 2004 and 2005, and for Planning Areas 1B, 3B, 5, and 8A in 2006 and 2007. To further ensure that no impacts to DSF would occur, the 2006 EIR included a

mitigation measure requiring updated biological surveys for Planning Areas 1A, 1C, 2B, 5, 8A, and 8B. However, these Planning Areas are not part of the Project Site addressed by this report. As such, combined with a lack of suitable habitat and/or negative focused survey results for the Project Site, no further surveys would be required for the Project, because the previous surveys established the absence of the DSF on the site.

5.5 Nesting Birds

The proposed Project will remove vegetation (i.e., trees, shrubs, and ground cover) suitable for nesting migratory birds, including raptors. Impacts to such species are prohibited under the MBTA and California Fish and Game Code.[6] As previously noted, a mitigation measure (see below), including seasonal avoidance of vegetation removal and/or nesting bird surveys will ensure that migratory birds (and their nests) will not be directly harmed.

5.6 Raptor Foraging Habitat

The proposed Project will result in the loss of marginal foraging habitat for raptors, including several special-status raptors. Available habitat for foraging raptors includes the pasturelands and other ruderal areas, and to some extent the treatment ponds. However, due to the minimal amount and degraded nature of the site, the loss of raptor foraging habitat would be less than significant.

5.7 Jurisdictional Waters

The proposed Project will not impact any jurisdictional waters, including waters of the United States subject to the jurisdiction of the Corps, or streams subject to the jurisdiction of CDFG.

5.8 Mitigation Measures

As noted above, mitigation measures are required to prevent direct impacts to migratory birds, including their active nests. This includes a general nesting bird measure to be applied to all migratory birds, as well as a measure specific to direct impacts to burrowing owls.

- To avoid impacts to nesting migratory birds, a nesting bird survey will be conducted by a qualified biologist prior to the removal of any potential nesting vegetation (or demolition of structures) between January 15 and August 31. This includes all trees, shrubs, herbaceous vegetation, ruderal areas, buildings, and other structures with the potential to support nesting birds. Nesting bird surveys will be conducted one week prior to any vegetation removal or demolition activities. If nesting birds are identified, then the vegetation or structures will be clearly marked with flagging, and the nest will not be

[6] The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R.21). In addition, sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

disturbed until the nesting event has completed. In addition, to avoid impacts to nesting birds through construction noise, the biologist will consult with CDFG and or USFWS to establish appropriate avoidance buffers from the nests.

- To avoid direct impacts to burrowing owls, a pre-construction survey will be conducted by a qualified biologist no more than 30 days prior to any ground-disturbing activities, including demolition, manure clean up, and site grading. If burrowing owls are detected on site, they will be relocated in accordance with current protocols recognized by the CDFG. If present on site, burrowing owls must be relocated outside of the nesting season (February 1 through August 31), unless a qualified biologist confirms that the burrowing owls are not nesting, and CDFG approves in writing the relocation during the nesting season. If ground-disturbing activities are delayed or suspended for more than 30 days after the pre-construction survey, then the site shall be re-surveyed for burrowing owls.

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