IV.D BIOLOGICAL RESOURCES

1. Introduction

This section provides a discussion of the existing biological resources occurring on-site and an analysis of the potential impacts to such biological resources as a result of project development. The analysis is based on information contained in the Biological Resources Study performed by Michael Brandman Associates in July 2012. The Biological Resources Study is located in Appendix D.

The 2012 Biological Resources Study for the Grand Park Specific Plan was conducted by Michael Brandman Associates (MBA) to document the existing biological conditions within the Grand Park project site. As part of the literature review, MBA examined existing environmental documentation for the project site and local vicinity. This documentation included previously conducted biological studies for the site, literature pertaining to habitat requirements of special status species potentially occurring in the vicinity of the site, as well as federal register listings, protocols, and species data provided by the United States Fish and Wildlife Service and the California Department of Fish and Wildlife.[1] MBA staff conducted a reconnaissance-level field survey of the project site in June 2012 and special attention was paid to sensitive habitats or those areas potentially supporting sensitive floral and faunal species. The field survey is intended to ascertain general site conditions and identify potentially suitable habitat areas for various sensitive plant and wildlife species.

2. Environmental Setting

a) Regulatory Framework

As part of the proposed project's review and approval there are a number of performance criteria and standard conditions that must be met. These include compliance with all of the terms, provisions, and requirements of applicable laws that relate to Federal, State, and local regulating agencies for impacts to sensitive habitats, sensitive plant and wildlife species, wetlands, riparian habitats, and stream courses. The following provides an overview of the applicable regulations with regard to the biological resources that may be present at the project site.

1) State of California Fish and Game Code, Sections 1602 and 3503

The California Department of Fish and Wildlife has jurisdiction over areas extending to the bank of the stream or to the limit of the adjacent riparian vegetation. Section 1602 of the

[1] Effective January 1, 2013 the California Department of Fish and Game was renamed to the California Department of Fish and Wildlife.

California Fish and Game Code requires any entity (e.g., person, State or local government agency, or public utility) who proposes a project that will substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, to notify CDFG of the proposed project and the availability of documentation prepared pursuant to CEQA. In the course of this notification process, the CDFG will review the proposed project and this Draft EIR for potential effects on streambed habitats within the project site. The CDFG may then place conditions on the Section 1602 authorization (i.e., the Streambed Alteration Agreement) to avoid, minimize, and mitigate the potentially significant adverse impacts within CDFG jurisdictional limits.

In addition, Section 3503 of the California Fish and Game Code states that, "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

2) Federal Clean Water Act, Section 404

Section 404 of the Clean Water Act (CWA) regulates the discharge of dredged material, placement of fill material, or excavation within "waters of the U.S." and wetlands and authorizes the Secretary of the Army, through the Chief of Engineers, to issue permits for such actions. "Waters of the U.S." are defined by the CWA as "rivers, creeks, streams, and lakes extending to their headwaters and any associated wetlands." Wetlands are defined by the CWA as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions." Any impacts to "waters of the U.S." or wetlands requires a Nationwide Permit (NWP), or an Individual Permit (IP) for projects that cannot be permitted under a NWP and must undergo a more extensive review. The permit review process entails an assessment of potential adverse impacts to ACOE jurisdictional "waters of the U.S." and wetlands and may be conditioned with specific terms regarding construction protocol, use of best management practices, avoidance of endangered species habitat, and mitigation requirements to ensure that the project will have minimal incremental or cumulative impacts to aquatic resources. Where a Federally listed species may be affected, they will also require Section 7 consultation with the USFWS under the Federal Endangered Species Act (ESA).

3) Federal Clean Water Act, Section 401

The mission of the California RWQCB is to develop and enforce water quality objectives and implement plans, which will best protect the beneficial uses of the State's waters, recognizing local differences in climate, topography, geology, and hydrology. Section 401 of the CWA requires that:

"any applicant for a Federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act."

Therefore, before the ACOE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the RWQCB. A complete application for Water Quality Certification will include a conceptual Water Quality Management Plan that will address the key water quality features of the project to ensure the integrity of water quality in the area during and post-construction.

Under separate authorities granted by State law (i.e., the Porter-Cologne Water Quality Control Act), the RWQCB may assert jurisdiction over dredge or fill activities within non-Federal, State waters through issuance of Waste Discharge Requirements (WDRs). Processing of a WDR is similar to that of a Section 401 certification and addressing impacts to non-Federal waters may be streamlined within the 401 process at the RWQCB's discretion.

4) Federal Endangered Species Act, Section 10 and Section 7

Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any threatened or endangered species without a special permit. "Take" is defined in Section 3(18) of the FESA as: "...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 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.

Section 10(a)(1)(B) of the ESA allows for take of a threatened or endangered species incidental to development activities once a Habitat Conservation Plan (HCP) has been prepared to the satisfaction of the USFWS. For projects where Federal agency action is involved (including those involving Federal funding), consultation under Section 7 of the Act may be required. If the listed species or Federally designated "critical habitat" for that species occurs in a portion of the project subject to Federal jurisdiction or activity (such as "waters of the United States"), Section 7 allows for consultation between the affected agency and the USFWS and/or the National Marine Fisheries Service (NMFS) to determine what measures may be necessary to compensate for the incidental take of a listed species.

5) 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 species 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."

Article 3, Sections 2080 through 2085, of the CESA addresses the take of threatened or endangered 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." 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." Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

Additionally, some sensitive mammals and birds are protected by the State as Fully Protected Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California Species of Special Concern 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 Natural Diversity Database (CNDDB) project. Informally listed taxa are not protected per se, 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.

6) Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) and Fish and Game Code Section 3503

The Federal Migratory Bird Treaty Act (MBTA) protects most native bird species from destruction or harm. This protection extends to individuals as well as any part, nest, or eggs of any bird listed as migratory. Most native North American bird species are on the MBTA list.

In practice, Federal permits potentially impacting migratory birds typically have conditions that require pre-disturbance surveys for nesting birds, and, in the event nesting is observed, a buffer area with a specified radius must be established, within which no disturbance or intrusion is allowed until the young have fledged and left the nest. If not otherwise specified in the permit, the size of the buffer area varies with species and local circumstances (e.g., presence of busy roads), and is based on the professional judgment of the monitoring biologist.

7) City of Ontario Parkway Tree Regulations

The proposed project will abide by the guidelines set forth in the Parkway Tree Regulations of the City of Ontario (City) Municipal Code, Title 10. Parks and Recreation, Chapter 2: Parkway Trees. The purposes of the regulations are to preserve parkway trees; to regulate the maintenance and removal of such trees; and to establish the varieties, minimum size, methods, and locations for the planting of parkway trees. Parkway trees are defined as trees maturing at a height in excess of ten feet within any public street right-of-way between the right-of-way boundary line and the curb line and also the area enclosed within the curblines of a median divider.

3. Existing Conditions

a) Biological Survey Methods

The following information about the current status of the project site is based on the field survey conducted for MBA's 2012 Biological Resources Study. The majority of the site is comprised of active or abandoned dairy farms with associated farm buildings and infrastructure such as cattle ponds and manure spreading grounds. Two large abandoned dairy farms and one small abandoned dairy farm are present on the site. These areas contain remnants of dairy farm infrastructure, and all undeveloped areas are vegetated with ruderal species. Active demolition was observed at the large abandoned dairy farm on the east during the survey.

Three large active dairy farms are present on the west, middle, and east portions of the site. One large active agricultural field is present in the middle of the site and has recently been tilled and seeded. A smaller adjacent agricultural field appears to be used for growing alfalfa. One gravel mining operation is located in the southeast corner of the site. Many areas along the boundary of the active farms are currently used as roads or for staging farm equipment. The entire western and southern boundary consisted of an approximately 8-foot tall berm adjacent to the roads. The northern and eastern boundaries consisted of either eucalyptus windrows or flat areas associated with agricultural activities. Several residences were scattered along the boundary of the site.

Overall, the project site is heavily disturbed. The entire site has been developed for agricultural and dairy farm purposes, and contains crop fields, structures associated with agriculture, animal pens, parking lots, and private residences. Development and disturbance has had a major impact on vegetation at the site, which is dominated by non-native, ruderal vegetation with low species diversity.

b) Plant Communities

The Grand Park Specific Plan project site area has been historically utilized for agricultural production since the early 1900s. Previous land use of the project site included large-scale dairy and agricultural operations. The project area was initially used for row crops and citrus production, with on-site dairy operations beginning in the late 1950s and early 1960s. Dairy-related uses now occupy the majority of the Specific Plan area. Since the start of agricultural operations on-site, the project area has been subsequently improved with residential structures associated with farming and dairy activities, irrigation piping and wells, shade and storage structures, septic systems and wastewater sumps, corrals, power poles and overhead lines, livestock feed and water containers, dairy runoff retention ponds, and other agriculture-related equipment.

Although an approximately 180-acre portion of the project site has not yet been surveyed as part of a biological assessment, given the similarity in physical site characteristics and current land uses occurring on all on-site properties, including row crops and dairy operations, it is anticipated that site conditions are comparable across the entire project site.

Likewise, the approximately 100-acre portion of the project site that has not yet been surveyed for DSFLF is also assumed to be in a similar condition to the surveyed portions. Currently, the majority of the Grand Park Specific Plan project site is comprised of agriculture and dairies and supports non-native vegetation and disturbed areas due to severe habitat disturbances from on-going farming operations. No native plant communities were documented. Native plant species recorded on-site in the 2003 BA were typically found singly or in very low numbers, and included annual burweed (*Ambrosia acanthicarpa*), annual sunflower (*Helianthus annuus*), mule fat (*Baccharis salicifolia*), horsetail (*Conyza canadensis*), and Mexican sprangletop (*Leptochloa uninervia*).

In 2003, Ornamental plantings around farmhouses and associated buildings were also observed. In addition, eucalyptus windrows are present along Edison Avenue and through the center of the project site.

Several manure-spreading basins associated with the dairies were identified on-site. Within a few of the basins, several relatively small stands of cattails (*Typha* sp.) were observed.

The information below is from the 2012 Biological Resources Study by MBA. The plant communities and Land Uses that occur within the project site include Ruderal, Active agriculture, Active dairy farm, Disturbed, Gravel mining, Abandoned development, Manure settling basin, Residential, Eucalyptus windrow, and Commercial (Table IV.D-1). Two very small stands of cattails (*Typha domingensis*) were observed near the center of the site; one stand was located adjacent to a pipe that emitted the sound of running water, while the other stand was located in the middle of a dairy effluent pond that had standing water. The site also contains disturbed/developed areas such as existing rural residences, structures associated with agricultural activities, and access roads.

Table IV.D-1: Plant Community Acreages

Plant Community	Approximate Area (acres)
Ruderal	142.45
Active agriculture	54.99
Active dairy farm	46.29
Disturbed	23.72
Gravel mining	18.33
Abandoned development	13.91
Manure settling basin	5.87
Residential	4.49
Eucalyptus windrow	3.97
Commercial	0.69
Total	**314.71**

Per the 2012 Biological Resources Assessment conducted in June 2012, below is a brief description of land uses on site:

Ruderal (142.45 Acres): Ruderal areas consist of weedy vegetation that is mostly non-native, but may include a few weedy native species. The majority of the site is comprised of ruderal areas, which cover 142.45 acres of the project site. Land form with ruderal vegetation varies on the project site, and includes disturbed roadsides, disturbed fields, and abandoned manure settling basins and cow pens that have become vegetated with ruderal species. Vegetation in these areas are dominated by ruderal (weedy) vegetation including lamb's quarters, five-hook bassia, golden crownbeard, and Russian thistle.

Active Agriculture (54.99 Acres): Active agriculture is a land use that includes fields that are currently being used to grow crops. These areas are characterized by frequent tilling or disking, seeding, and harvesting operations. Active agriculture occupies 54.99 acres in the central portion of the project site in two fields. The larger of the two fields has recently been seeded and a new crop is currently germinating. The smaller of the two fields currently supports a mature alfalfa crop. The edges of the two fields support weedy species associated with irrigated agricultural fields, such as common fiddleneck (*Amsinkia meziesiii*), tocalote (*Centaurea melitensis*), carelessweed, and Bermuda grass. These areas do not provide suitable habitat for sensitive species, although common birds may feed on the crops and surrounding weedy vegetation.

Active Dairy Farm (46.29 Acres): Active dairy farms consist of cow-pens, unpaved access roads, and associated outbuildings and infrastructure. All of the areas in active dairy farms are disturbed and devoid of vegetation. Active dairy farms occupy 46.29 acres of the site.

Disturbed (23.72 Acres): Disturbed habitat includes human disturbance, especially in cases of permanent impacts to natural communities, and comprises approximately 23.72 acres of the project site. By definition, disturbed areas include dirt roads, off-highway use, and permanent flood control measures. On the project site, these areas are used to stage farm equipment and hay bales, and as access roads or dry, manure-settling ponds. These areas are devoid of vegetation.

Gravel Mining (18.33 Acres): The southeast corner of the project site supports what appears to be a gravel mining and manure processing operation. This area is completely disturbed, and is completely devoid of vegetation except for a few ornamental trees on the eastern boundary.

Abandoned development (13.91 Acres): Abandoned development consists of abandoned cement infrastructure, rubble piles, and buildings. These areas cover 13.91 acres on the project site. The majority of these areas appear to have been dairy farms in the past, and active demolition was observed during the field survey in the center of the project site.

Manure Settling Basin (5.87 Acres): Manure settling basins consist of bermed areas used to contain dairy farm effluent for manure processing. Therefore, portions of these basins

contain water. Manure settling basins comprise 5.87 acres of the project site in three basins. The two southwestern basins were partially dry and were functioning similar to natural mud flats; American avocet (*Recurvirostra Americana*), and black-necked stilt were observed foraging within these basins during the site visit. The eastern pond currently supports a small, isolated stand of cattails.

Residential (4.49 Acres): Residential areas include inhabited homes and cover approximately 4.49 acres of the project site. The homes are currently occupied and include associated landscaping such as lawns and trees. These areas do not provide suitable habitat for sensitive species, but may provide suitable nesting habitat for common passerine birds.

Eucalyptus Windrow (3.97 Acres): The eucalyptus windrow land use borders the Active Agricultural fields on the north and east boundaries and covers approximately 3.97 acres of the project site. The windrow supports blue gum (*Eucalyptus globulus*) trees that were historically planted to protect the agricultural fields from wind. The trees are mature and provide suitable habitat for nesting birds, including raptors.

Commercial (0.69 Acre): Commercial land use covers approximately 0.69 acre and is located on the northwest corner of the site. The area supports a fresh strawberry sale stand and a gravel parking lot. This area is devoid of vegetation and does not provide suitable habitat for any sensitive species

c) Plant Species

The vegetation communities discussed above are comprised of numerous plant species. A list of all plant species observed within the project site can be found within Appendix D, Biological Resources Technical Reports, of this EIR. Sensitive plant species occurring or potentially occurring within the project site are discussed below under Sensitive Biological Resources.

During the June 2012 field survey by MBA, two distinct vegetation associates were evident, and each generally corresponded with the soil types mapped for the site. Vegetation on areas mapped as Delhi sands soils was dominated by the non-native five-hook bassia (*Bassia hyssopifolia*) and Russian thistle (*Salsola tragus*) and the native golden crownbeard (*Verbesina enceliodes*). Vegetation on areas mapped as Hilmar soils were dominated by lamb's quarters (*Chenopodium alba*), five-hook bassia, Bermuda grass (*Cynodon dactylon*), carelessweed (*Amaranthus palmerii*), and golden crownbeard.

d) Wildlife Species

The plant communities discussed above provide habitat for wildlife. While a few wildlife species are entirely dependent on a single natural community, the entire mosaic of all the plant communities within the project site and adjoining areas potentially constitutes a functional ecosystem for a variety of wildlife species, both within the project site and as part of the regional ecosystem. Wildlife diversity within the project site is relatively low,

commensurate with the amount of human activity within the project site and surrounding vicinity and disturbed nature of the area that comprises the project site.

Following are discussions of wildlife populations within the project site, segregated by taxonomic group. Representative examples of each taxonomic group either observed or expected within the project site are provided. A list of all wildlife species observed within the project site can be found within Appendix D of the Biological Resources Study. Sensitive wildlife species occurring or potentially occurring within the project site are discussed below under Sensitive Biological Resources.

1) Invertebrates

The project site is expected to support populations of a diverse assortment of invertebrates. Because of the presence of Delhi Sands within the project site, focused surveys for one terrestrial invertebrate, the DSFLF, were conducted and incidental observations of invertebrate species were recorded in field notes. No DSFLF were observed. Representative common invertebrate species observed within the project site include gray datura weevil (*Trichobaris compacta*), hover fly (*Eristalis aenius*), honey bee (*Apis mellifera*), and painted lady (*Vanessa cardui*). A list of all invertebrate species observed within the project site can be found within Appendix D of the Biological Resources Study. Sensitive invertebrate species occurring or potentially occurring within the project site are discussed below under Sensitive Biological Resources.

As detailed in the 2012 Biological Resources Study by MBA, invertebrate activity was low during the field survey. Muscid flies were observed in the vicinity of the dairy farms and dairy effluent ponds, robber flies (*Efferia* sp. or *Megaphorus* sp.), harvester ant (*Pogonomyrmex* sp.), ground beetle (*Amara* sp.) and stink beetle (*Eleodes* sp.) were observed on sandy berms bordering the site, and checkered white butterfly (*Pontia protodice*) was observed flying over ruderal areas.

2) Amphibians

Terrestrial amphibian species may or may not require standing water for reproduction. Terrestrial species avoid desiccation by burrowing underground; within crevices in trees, rocks, and logs; and under stones and surface litter during the day and dry seasons. Due to their secretive nature, terrestrial amphibians are rarely observed, but may be quite abundant if conditions are favorable. Aquatic amphibians are dependent on standing or flowing water for reproduction. Such habitats include fresh water marshes and open water (reservoirs, permanent and temporary pools and ponds, and perennial streams). Many aquatic amphibians will utilize vernal pools as breeding sites. These pools are temporary in duration and form following winter and spring rains. Due to the presence of basins, the project site has the potential to support amphibian species such as the Pacific tree frog (*Hyla regilla*) and California toad (*Bufo boreas halophilus*). However, no amphibians were observed during any of the field visits. Sensitive amphibian species occurring or potentially occurring within the project site are discussed below under Sensitive Biological Resources.

As detailed in the 2012 Biological Resources Study by MBA, the project site does not contain any habitat suitable for amphibians. The dairy effluent ponds are filled with manure sludge and all are at least mostly dry. Furthermore, no suitable upland habitat (e.g., riparian forest) is present in the vicinity of the site. Therefore, no amphibians are expected to occur within the site.

3) Fishes

As detailed in the 2012 Biological Resources Study by MBA, the project site does not contain any aquatic habitat suitable for fishes. The dairy effluent ponds are filled with manure sludge and many have been allowed to dry out. Therefore, no fishes are expected to occur within the site.

4) Reptiles

Reptilian diversity and abundance typically varies with habitat type and character. Some species prefer only one or two natural communities; however, most will forage in a variety of communities. A number of reptile species prefer open habitats that allow free movement and high visibility. Most species occurring in open habitats rely on the presence of small mammal burrows for cover and escape from predators and extreme weather.

The project site has many essential reptilian habitat characteristics and possesses the potential to support several species. Representative reptile species observed within the project site include the western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), and gopher snake (*Pituophis catenifer*). A list of all reptile species observed within the project site can be found within Appendix D of the Biological Resources Study. Sensitive reptile species occurring or potentially occurring within the project site are discussed below under Sensitive Biological Resources.

As detailed in the 2012 Biological Resources Study by MBA, the project site has several essential reptilian habitat characteristics, such as disturbed open habitat with adjacent vegetation coverage, and possesses the potential to support species such as western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), gopher snake (*Pituophis melanoleucus*), and western whiptail (*Aspidoscelis tigris*). Side-blotched lizards were the only species of reptile observed onsite.

5) Birds

The study area provides some foraging and cover habitat for year-round residents, seasonal residents, and migrating songbirds. Representative avian species observed during 2006 surveys include the Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), horned lark (*Eremophila alpestris*), great egret (*Ardea alba*), cattle egret (*Bubulcus ibis*), mourning dove (*Zenaida macroura*), red-winged blackbird (*Agelaius phoeniceus*), burrowing owl (*Athene cunicularia*), and Anna's hummingbird (*Calypte anna*). A list of all avian species observed within the project site can be found within Appendix D of the Biological Resources Study. Sensitive bird species occurring or potentially occurring within the project site are discussed below under Sensitive Biological Resources.

As detailed in the 2012 Biological Resources Study by MBA, the project site contains disturbed agricultural and urban habitat that supports a variety of common bird species. Common passerine species observed within the site include American crow (*Corvus brachyrhynchos*), common grackle (*Quiscalus quiscula*), song sparrow (*Melospiza melodia*), red-winged blackbird (*Agelaius phoeniceus*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), and house sparrow (*Passer domesticus*).

Much of the habitat within the project site provides foraging opportunities for raptors common in urban and agricultural areas. There are several potential perching locations surrounding the site. The agricultural fields and sandy soils provide suitable habitat for small mammals. Collectively, the presence of prey and the availability of perching locations would suggest that the site may potentially be used by common raptor species. Furthermore, transmission-line towers and eucalyptus trees provide potentially suitable nesting habitat for raptors. Red-tailed hawk (*Buteo jamaicensis*) was the only species of raptor observed onsite during MBA's June 2012 site visit.

6) Mammals

Most mammals are either nocturnal, reclusive, or both, and are more often detected by their sign (burrows, scat, etc.). Representative mammal species observed within the project site include the Botta's pocket gopher (*Thomomys bottae*), Audubon's cottontail (*Sylvilagus audubonii*), California ground squirrel (*Spermophilus beecheyi*), striped skunk (*Mephitis mephitis*), and coyote (*Canis latrans*). A list of all mammals species observed within the project site can be found within Appendix D, Biological Resources Technical Reports, of this EIR. Sensitive mammal species occurring or potentially occurring within the project site are discussed below under Sensitive Biological Resources.

As detailed in the 2012 Biological Resources Study by MBA, the agricultural fields and sandy soils on the project site provide suitable habitat for a variety of small mammals. Mammal presence was deduced by diagnostic signs, such as track, scat, burrows, etc. Desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Otospermophilus beecheyi*), and pocket gopher (*Thomomys bottae*) were observed within the site, and the presence of coyote (*Canis latrans*) was indicated by scat. Other mammal species expected to occur within the site are those species that are better adapted to frequent human disturbance such as California vole (*Microtus californicus*), and deer mouse (*Peromyscus maniculatus*).

7) Wildlife Movement

The project site is situated within the City within an area that is predominately a mix of agriculture and dairy farms and, more recently, is being converted to residential development. Due to development and human activity within and around the project site, the project site does not likely serve as a component of a significant regional wildlife movement corridor, nor does it serve as a linkage between two or more larger habitat areas. Additionally, the project site is outside of any identified linkages within the Missing Linkages design (South Coast Wildlands Project. November 2, 2000. Missing Linkages: Restoring Connectivity to the California Landscape). The presence of urbanized areas

surrounding the project site inhibit the movement of larger mammals that require larger home range areas and dispersal distances or dense vegetative cover (e.g., mountain lion and bobcat). However, species that are less restricted in movement pathway requirements or are adapted to urban areas (e.g., raccoon, skunk, coyote, birds) likely move through the project site. Thus, the project site itself is unlikely to function as an integral part of regional wildlife movement for larger mammals such as mule deer and mountain lion; however, it may provide live-in and movement habitat for other wildlife.

As detailed in the 2012 Biological Resources Study by MBA, regarding wildlife movement corridors, the project site is immediately surrounded by dairy farms and similar agriculture with livestock fencing around the border of nearly every lot. This fencing would normally exclude large mammals. Residential and commercial development are present further to the north, south, and east. Topographically, the project site is situated in the center of a plain bordered by State Route 71 on the west, State Route 60 on the north, Interstate 15 on the east, and the Santa Ana River to the south. The highways and the river present formidable barriers to large wildlife attempting to move through the region. Furthermore, the site does not occur within a narrow corridor that links large areas of undeveloped open space; if wildlife needs to move through this region, it is most likely that the Santa Ana River would be used as the preferred corridor.

Therefore, the site is not likely located within a significant wildlife movement corridor. Common wildlife species such as coyotes, skunks, opossums, and raccoons may travel through the site and neighboring developed areas, but the site does not provide narrow connectivity between large areas of open space on a local or regional scale.

8) Jurisdictional Waters and Wetlands

As detailed in the 2012 Biological Resources Study by MBA, analysis of aerial photographs did not reveal any drainage features. Ground-truthing during the field visit confirmed that the topography of the site is flat and berms have been constructed to retain dairy effluent for treatment. Most of the areas used for dairy effluent containment were dry during the site visit. The southwest corner contained a small amount of standing water and several other ponds had some standing water, but were observed to be drying quickly. No jurisdictional waters or wetlands are present on the site.

9) Regulated Trees

A tree survey was not conducted, however, the only tree species discussed in the 2003 BA and focused survey reports was eucalyptus, and eucalyptus species are not regulated by the City Tree Ordinance.

As detailed in the 2012 Biological Resources Study by MBA, The City municipal code contains Parkway Tree Regulations (Chapter 2). The City defines “tree” as plant materials having a single upright woody stem or trunk, maturing at a height in excess of ten (10) feet. The regulations state that removal and installation of parkway trees can only be conducted with prior authorization from the City’s Public Works Agency. Since the eucalyptus

windrow trees located on the south side of Edison Avenue are part of the historic agricultural operations, these trees are located within private land and therefore do not qualify as parkway trees regulated by the Parkway Tree Regulations.

e) Soils

Per the 2012 Biological Resources Study by MBA, based on the San Bernardino County soils survey (Web Soil Survey 2012), the project site contains two distinct soil-mapping units: Delhi Fine Sand and Hilmar Loamy Fine Sand (refer to Figure IV.D-1).

The Delhi soil series consists of very deep, well drained soils that originated from granitic rock sources weathered by wind. Delhi soils are found on floodplains, alluvial fans, and terraces with slopes from 0 to 15 percent. Areas with this type of soil are usually used for agriculture and residential development. Native plants found on these soils generally consist of buckwheat and a few shrubs and trees; however, typical vegetation observed is annual grasses and forbs.

The Hilmar soil series consists of sandy over loamy soils. Typically, Hilmar soils have mildly alkaline, loamy sand layers at the surface with deeper layers consisting of strongly alkaline, loamy sand.

Neither of these soil types is considered hydric, or suitable for sensitive plants. Delhi Fine Sands, when unaltered by agriculture or development provides potentially suitable habitat for Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*).

f) Sensitive Biological Resources

Special status, or sensitive, biological resources include species that have been afforded special recognition by Federal, State, or local conservation agencies and organizations as endangered, threatened, rare, or otherwise sensitive, principally due to the species' declining or limited population sizes, usually resulting from habitat loss. Also included are habitats that are unique, of relatively limited distribution, or of particular value to wildlife. Watch lists of such resources are maintained by the CDFG, the USFWS, and groups such as the California Native Plant Society (CNPS).

1) Sensitive Resource Classification

Federal Protection and Classifications

A Federally endangered species is a species of invertebrate, plant, or wildlife formally listed by the USFWS under the ESA as facing extinction throughout all or a significant portion of its geographic range. A Federally threatened species is one formally listed by the USFWS as likely to become endangered within the foreseeable future throughout all or a significant portion of its range. "Take" of a federally endangered or threatened species or, in some cases, its habitat is prohibited by federal law without a special permit. The term "take," under the ESA, means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. The term "harm" is defined by the USFWS

to encompass "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering."

A Federal species of concern is an informal term that refers to a species that the USFWS believes might be declining and in need of concentrated conservation actions to prevent decline. These species receive no legal protection, and the use of the term does not mean that they will eventually be proposed for listing. The Federal species of concern status has not been maintained on a statewide basis, so this designation has been removed from CDFG's "Special Animals" list. Some USFWS field offices (e.g., Sacramento) maintain lists of Federal species of concern. The Ventura Fish and Wildlife Office does not maintain such a list for their jurisdiction, which includes Santa Cruz, San Benito, Monterey, Santa Barbara, Ventura, Mono, and Inyo counties and portions of San Luis Obispo, Kern, Los Angeles, and San Bernardino counties. Nevertheless, species with this designation are listed as "Federal species of concern"; therefore, this term is also used in this EIR.

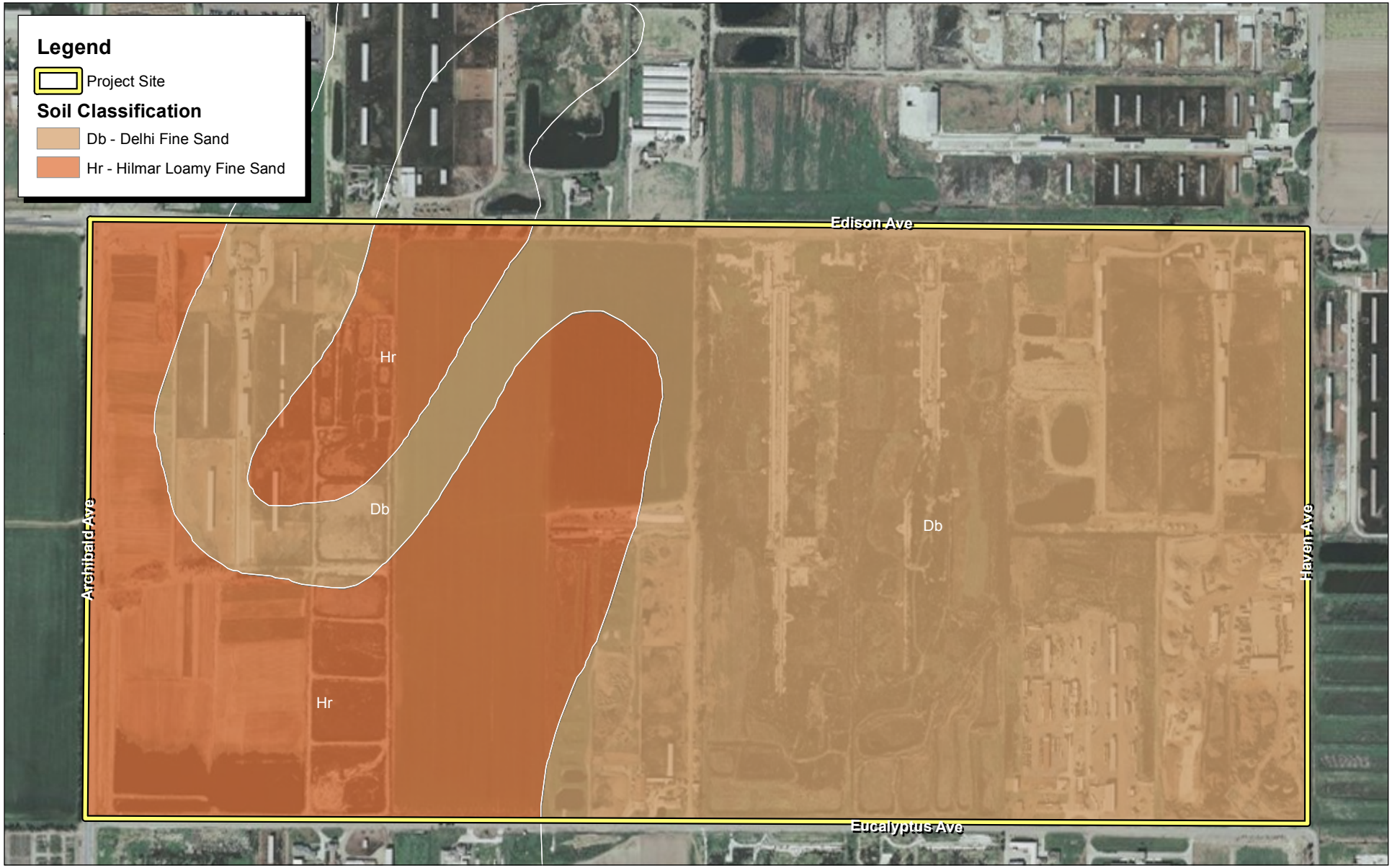
State of California Protection and Classifications

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is one present in such small numbers throughout its range that it is considered likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens.

The designation "rare species" applies only to California native plants. State threatened and endangered species include both plants and wildlife but do not include invertebrates and are legally protected against "take" as this term is defined in the California Endangered Species Act.[2]

Species of special concern is an informal designation used by the CDFG for some declining wildlife species that are not officially listed as endangered, threatened, or rare. This designation does not provide legal protection, but signifies that these species are recognized as vulnerable by CDFG. California fully protected species include those sensitive species protected by the State (i.e., Fully Protected Mammals or Fully Protected Birds as described in the California Fish and Game Code, Sections 4700 and 3511, respectively).

[2] California Fish & Game Code, Section 2050 et seq.



Source: ESRI World Imagery, USDA Soils Data.

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Figure IV.D-1
Soils Map

California Native Plant Society

The CNPS is a statewide resource conservation organization that has developed an inventory of California's special status plant species. This inventory is a summary of information on the distribution, rarity, and endangerment of California's vascular plants. This rare plant inventory consists of five lists. CNPS List 1A plant species are presumed extinct in California because they have not been seen in the wild for many years. CNPS List 1B plants are considered as rare, threatened, or endangered throughout their range. List 2 plant species are considered rare, threatened, or endangered in California, but more common in other states. Plant species on lists 1A, 1B, and 2 generally meet the CDFG criteria for endangered, threatened, or rare listing. Plant species for which CNPS requires additional information in order to properly evaluate their status are included on List 3. List 4 plant species are those of limited distribution in California whose susceptibility to threat is considered low at this time, or for which more survey data must be acquired within the State to adequately assess whether the species is rare in California.

The CNPS added "threat ranks" which parallel the ranks used by the CNDDB. These ranks are added as a decimal code after the CNPS List (e.g., List 1B.1). The threat codes are as follows: .1 - Seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat); .2 - Fairly endangered in California (20 to 80 percent occurrences threatened); and .3 - Not very endangered in California (<20 percent of occurrences threatened or no current threats known).

The following sections indicate the habitats, as well as plant and animal species, present or potentially present within the study area that have been afforded special recognition. Sources used to determine the potential occurrence of special status resources in the vicinity of the study area include USFWS, CDFG, CNPS, and the CNDDB.

Sensitive Plant Communities

The project site does not support any plant communities or habitat types considered sensitive by the CDFG's CNDDB. Per the 2012 Biological Resources Study by MBA, the CNDDB record search list included California Walnut Woodland, Riversidian Alluvial Fan Sage Scrub, Southern California Arroyo Chub/Santa Ana Sucker Stream, Southern Cottonwood Willow Riparian Forest, Southern Sycamore Alder Riparian Woodland, Southern Willow Scrub, as being recorded within the general vicinity of the site. However, none of these communities are present on the project site.

Sensitive Plant Species

Table 2, *Sensitive Plant Species*, in the Biological Resources Study identifies the federal and state listed threatened, endangered plant species, and CNPS sensitive species that have a high, moderate, or low potential to occur within the project site. This table also includes the species' status and required habitat. Per the MBA 2012 Biological Resources Study, all sensitive plant species that have been determined not likely to occur onsite, primarily based on the absence of suitable habitat and recorded occurrence in the vicinity of the site, have

been excluded from further analysis in the Biological Resources Study. Further discussion of sensitive plant species occurring or potentially occurring on the project site can be found in MBA's 2012 Biological Resources Study.

The CNDDB contains records for 24 sensitive plant species within the general vicinity of the site. Based on the analysis summarized in Table 2 of the Biological Resources Study, 23 of the 24 species, are not expected to occur on or adjacent to the site due to its lack of suitable habitat for those species. The remaining sensitive plant species, smooth tarplant (*Centromadia pungens*), is not federal or state listed as endangered or threatened.

Due to the lack of suitable habitat found within the project site, no sensitive plant surveys were conducted. No sensitive plant species were observed within the project site during the 2003 Biological Assessment, 2012 Biological Resources Study or focused DSFLF surveys.

Sensitive Wildlife Species

Table 3, Sensitive Wildlife Species, contained in the Biological Resources Study identifies the federal and state listed threatened, endangered wildlife species, and species of special concern that have a high or moderate potential to occur within the project site. The table also includes the species' status and required habitat. All sensitive wildlife species that have been determined not likely to occur onsite, primarily based on the absence of suitable habitat and a recorded occurrence on the project site, have been excluded from further analysis within the 2012 Biological Resources Study.

The CNDDB contains records for 34 sensitive animal species within the general vicinity of the site. Based on the analysis summarized in the Biological Resources Study 23 of the 34 species are not expected to occur on the site due to lack of suitable habitat. Of the remaining 11 species, 6 have a low or very low potential to occur on the project site based on the very low quality of potentially suitable habitat. Of the sensitive wildlife species that have at least a moderate potential to occur onsite, 1 is federal and state listed as endangered, 4 are listed as a California Species of Concern species and 1 is listed as a Fully Protected species. The project site contains potentially suitable habitat for:

- Burrowing owl (*Athene cunicularia*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Tricolored blackbird (*Agelaius tricolor*)
- White-tailed kite (*Elanus leucurus*)

Further discussion of sensitive wildlife species occurring or potentially occurring on the project site can be found in MBA'S 2012 Biological Resources Study.

4. Project Impacts

a) Significance Thresholds

Appendix G of the California Environmental Quality Act (CEQA) Guidelines is used by public agencies in determining whether a project may have a significant impact on biological resources. Under Appendix G, a project may have a significant impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the CDFG or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, or regulations by the CDFG or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (possibly including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- 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
- Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan.

The biological resources of the project were evaluated on the basis of the above criteria in determining whether or not the proposed project would cause one or more significant impacts. The evaluation of whether an impact to biological resources would be significant considered the resource and how that resource fits into a regional or ecological context.

The definition of "significant," as applied for this assessment, considered both the local and regional status of each resource. Significant impacts are those that would diminish or result in the loss of an important biological resource, or those that would obviously conflict with local, State, or Federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant because, although they would result in an adverse alteration of existing local conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

1) Methodology

Project-related impacts to biological resources take two forms, direct and indirect. Direct impacts are considered to be those that involve the loss, modification or disturbance of natural habitats (i.e., vegetation or plant communities), which in turn, directly affect plant and wildlife species dependent on that habitat. Direct impacts also include the destruction of individual plants or wildlife, which is typically the case in species of low mobility (i.e., plants, amphibians, reptiles, and small mammals). The collective loss of individuals in these manners may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and, hence, population stability.

Indirect impacts are considered to be those that involve the effects of increases in ambient levels of sensory stimuli (e.g., noise, light), unnatural predators (e.g., domestic cats and other non-native animals), and competitors (e.g., exotic plants, non-native animals). Indirect impacts may be associated with the construction and/or eventual habitation/operation of a project; therefore, these impacts may be both short-term and long-term in their duration. These impacts are commonly referred to as "edge effects" and may result in changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

The determination of impacts in this analysis is based on both the features of the proposed project and the biological values of the habitat and/or sensitivity of plant and wildlife species to be affected. Project design features that avoid or preserve biological resources are taken into consideration and specifically described below prior to the assessment of potential adverse impacts.

The biological values of resources within, adjacent to, and outside the area to be affected by the project were determined by consideration of several factors. These included the overall size of habitats to be affected, the current level of disturbance of the habitats within the study area, the study areas surrounding environment and regional context, the study area's biological diversity and species abundance, the presence of sensitive and special-status plant and wildlife species, the study area's importance to regional populations of these species, and the degree to which habitats within the study area are limited or restricted in distribution on a regional basis and, therefore, are considered sensitive in themselves. Whereas this assessment is comprehensive, the focus is on sensitive plant communities/habitats, resources that play an important role in the regional biological systems, and special-status species.

2) Project Features

As detailed in Section II, Project Description, the Grand Park Specific Plan includes an approximately 320-acre development area. The proposed project would develop up to 1,327 residential units in a variety of housing types and densities, an elementary school on approximately 110.16 net-acres, a high school on approximately 50.11 net-acres, and the City "Grand Park" on approximately 130.52 net-acres.

3) Analysis of Project Impacts

Those impacts determined to be less than significant include impacts to biological resources that are relatively common or exist in a degraded or disturbed state, rendering them less valuable as habitat, or impacts that do not meet or exceed the significance thresholds defined previously. Those impacts determined to be significant are those that do meet the thresholds of significance defined above. Conclusions are based on both the features of the proposed project and the biological values of the habitat and/or sensitivity of plant and wildlife species to be affected. Specific considerations included the overall size of habitats to be affected, the study area's previous land uses and disturbance history, the study areas surrounding environment and regional context, the study area's biological diversity and abundance, the presence of sensitive and special-status plant and wildlife species, the study area's importance to regional populations of these species, and the degree to which habitats within the study area are limited or restricted in distribution on a regional basis and, therefore, are considered sensitive in themselves.

Plant Communities

Project development would result in the loss of 320 acres of agriculture and dairies, ornamental plant communities, basins, and assorted farm buildings. A Biological Resources Study was conducted in 2012 for the entire project site. Due to the dominance of non-native species and relatively low value as habitat, impacts are considered less than significant.

Plant Species

Project implementation would result in the direct removal of numerous common plant species within the project site. Common plant species present within the project site occur in large numbers throughout the region and impacts to them do not meet the significance thresholds defined in this document. Therefore, impacts to common plant species are considered to be less than significant.

Wildlife Species

The primary impacts of the proposed project on non-sensitive wildlife species are the removal and disruption of habitat and the loss and displacement of common wildlife species, resulting in a less diverse and less abundant local faunal population. Adverse impacts to common wildlife are generally associated with the degree of habitat loss and fragmentation from the standpoint of physical character, quality, diversity, and abundance of vegetation. The proposed impacts would cause the direct mortality of some common wildlife species and the displacement of more mobile species to suitable habitat areas nearby. These impacts would not be expected to reduce general wildlife populations below self-sustaining levels within the region and impacts to non-sensitive wildlife species do not meet the significance thresholds defined in this document. Therefore, impacts are considered less than significant.

Potential adverse indirect impacts to vegetation and wildlife include: increased vehicular traffic and a corresponding increase in road kill and noise; an increase in human intrusion, including hikers and bicyclists; an increase in predatory and feral pets; an increase in litter,

pollutants, dust, oil, and other human debris; and, an increase in nighttime lighting. Common wildlife species using habitats on-site would avoid habitats affected by these "spillover" impacts, thereby decreasing diversity beyond the actual development envelope. These impacts would not be expected to reduce general wildlife populations below self-sustaining levels within the region, and impacts to common wildlife do not meet the significance thresholds defined in this document. Therefore, elimination or disruption of habitat for non-sensitive wildlife species is less than significant.

4) Wildlife Movement

Per MBA's 2012 Biological Resources Study, the project site is immediately surrounded by farms with livestock fencing around the border of nearly every lot. This fencing would normally exclude large mammals. Residential and commercial development are present further to the north, south, and east. The surrounding highways and the Santa Ana River present formidable barriers to large wildlife attempting to move through the region. Furthermore, the site does not occur within a narrow corridor that links large areas of undeveloped open space; if wildlife needs to move through this region, it is most likely that the Santa Ana River would be used as the preferred corridor. Therefore, the project site does not provide for regional wildlife movement and no additional action is required for potential impacts to wildlife movement corridors. Therefore, the project will have no impact to wildlife movement.

5) Jurisdictional Waters

Per MBA's 2012 Biological Resources Study, no potentially jurisdictional waters or wetlands occur on the site; therefore, a jurisdictional delineation is not necessary. Therefore, the project will have no impact regarding jurisdictional waters.

6) Regulated Trees

As detailed in the 2012 Biological Resources Study by MBA, since the eucalyptus windrow trees located on the south side of Edison Avenue are part of the historic agricultural operations, these trees are located within private land and therefore do not qualify as parkway trees regulated by the Parkway Tree Regulations. Because eucalyptus trees are not regulated by the City Tree Ordinance, impacts to these trees are considered less than significant.

7) Sensitive Plant Communities

As detailed in the 2012 Biological Resources Study by MBA, the site does not provide suitable habitat for any threatened or endangered plant species, therefore, no potential impacts to threatened or endangered plant species are anticipated, and no further action is required.

8) Sensitive Plant Species

Per the 2012 Biological Resources Study, focused surveys are typically recommended for sensitive plant species that are federally or state listed as endangered or threatened and have

moderate to high potential to occur on the project site. The site contains suitable habitat for smooth tarplant, a CNPS rank 1B.1 plant, which has a low potential to occur onsite.

9) Sensitive Wildlife Species.

Threatened and Endangered Species

Delhi Sands Flower-loving Fly

Although Delhi Sands occur within the project site, the project site does not support suitable habitat for the federally endangered DSFLF. However, focused surveys for the DSFLF were conducted in 2006 and 2007. No DSFLF were observed on-site. Therefore, no impacts are expected to occur to this species.

Per MBA's 2012 report, although the project is located within the Ontario Recovery Unit for this species, the USFWS recovery plan for DSFLF states that much of the habitat in the Ontario recovery unit has been eliminated by longstanding agricultural land uses; this is in fact the case at the project site (refer to Figure IV.D-2). Since the focused surveys are over two years old, the USFWS may request that updated focused surveys be required, however, based on past studies and the observations documented above, focused surveys are not recommended.

California Species of Special Concern

Burrowing Owl

Per MBA's 2012 Biological Resources Study, suitable habitat occurs on the site and burrowing owl has been recorded (CNDDB record from 1921) as occurring immediately adjacent to the site. In addition, burrowing owl has been observed on the site during previous surveys conducted by AMEC in 2003, 2006, and 2007. Therefore, this species has high potential to occur on site. Thus, mitigation is recommended for potential project impacts to this species.

Loggerhead shrike, Tri-Colored Black bird, White-tailed Kite

Loggerhead shrike, tri-colored black bird, and white-tailed kite are protected while nesting under the Migratory Bird Treaty Act. Since potentially suitable nesting habitat for all three of these species is present within the eucalyptus tree windrow and other residential trees, and mitigation regarding nesting birds (in Section 4, Mitigation Measures below) will result in avoidance.

Nesting Birds

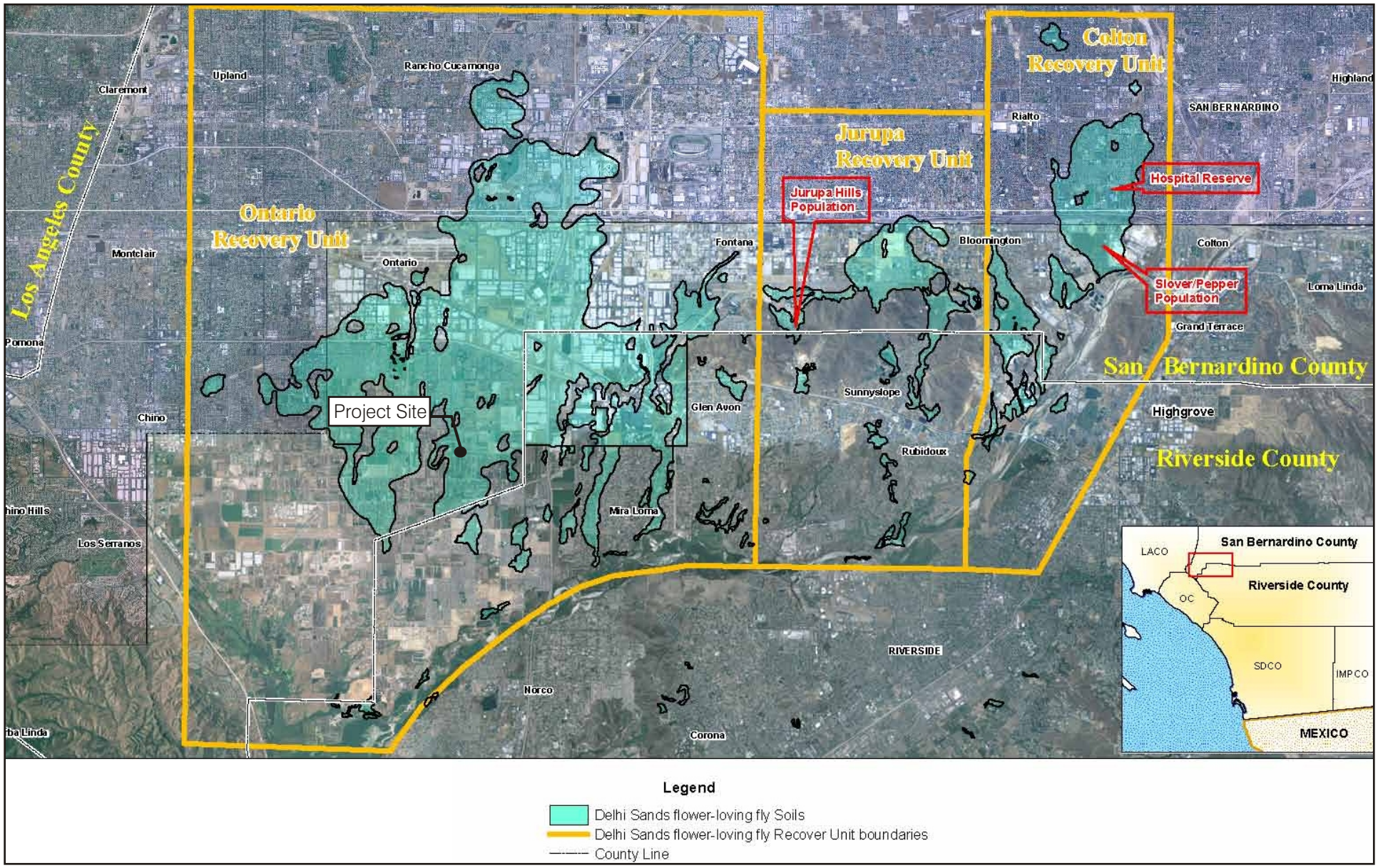
The Grand Park Specific Plan project site provides habitat for a variety of native bird species. Disturbance to any of these species during the nesting season (approximately mid-February to mid-August) would be a violation of the Migratory Bird Treaty Act of 1918. Nests and eggs of these species are also protected under Fish and Game Code Section 3503. In addition, the proposed project will result in the loss of eucalyptus tree windrows, which

provide potential foraging and nesting habitat for raptors. Prior to mitigation, the anticipated impact to nesting birds is considered significant as defined by Threshold 4.

Because burrowing owls were observed within the project site in the 2006 Biological Assessment, and because suitable habitat for burrowing owl (BUOW) is present on the site, per MBA's 2012 Biological Resources Study, focused protocol surveys for BUOW should be conducted to map the location of suitable burrows, if any, and to formally determine presence or absence on the site.

5. Indirect Impacts

- **Drainage.** As detailed in Section IV.H, Hydrology and Water Quality, to protect water quality, a number of Best Management Practices (BMPs) have been incorporated into the project design. To further minimize direct and indirect impacts to water quality the following BMPs are proposed:
- **Animal Waste Collection.** Collection of animal wastes to reduce the levels of bacteria and organic matter released to surface waters.
- **Exposure Reduction.** Partial or total physical enclosure of stockpiled or stored material, loading and unloading areas, and processing operations and the capture of and filtration of drainage from these areas to remove metals, soils and grease, and other chemicals.
- **Recycling/Waste Disposal.** Community hazardous waste and waste oil recycling centers to encourage careful and correct disposal of potentially hazardous chemicals and materials.
- **Parking Lot and Street Cleaning.** Regular parking lot and street cleaning will be conducted by either property owners or the City as appropriate and will help reduce accumulation of pollutants deposited on paved surfaces.
- **Infiltration (Exfiltration) Devices.** This includes devices such as infiltration trenches, dry wells, and catch basins that can remove pollutants through adsorption onto soil particles, and biological and chemical conversion in the soil.
- **Oil and Grease Traps.** This includes devices such as oil-water separators, oil and grease trap catch basins, simple skimmers, and control structures to separate oils and grease and other sediments from storm water.
- **Sand Filters.** Sand filters achieve reduction of urban pollutants by passing storm water through beds of sand, allowing particles to settle out in the pre-treatment devices and by straining out particles in the filter.
- **Filter Strips.** This involves placement of close-growing vegetation (e.g., turfgrass) to trap sediments between pollutant source areas and the receiving water.



Source: US Fish and Wildlife Service.

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Figure IV.D-2
DSFLF Ontario Recovery Unit

- **Grass Swales.** Grass-lined drainage swales remove pollutants from surface flow by the filtering action of the grass, sediment deposition, and through infiltration into the soil.
- **Regular/Routine Maintenance.** Regular maintenance and cleaning of all pollution control devices within the public right-of-way to ensure that those devices are kept clean and unobstructed and are functioning correctly.
- **Lighting.** Lighting associated with the project would not be expected to significantly affect wildlife given the fact that surrounding land would be developed with urban development, and policies would therefore be implemented to minimize the potential for lighting-related adverse effects. As a result, impacts from lighting would be less than significant.
- **Noise.** Sources of urban noise (e.g., project construction, daily traffic) associated with the project would create a nuisance to surrounding wildlife resources. However, because the project site has already been heavily trafficked by human land use associated with farm operations and maintenance, and development surrounds the majority of the surrounding area, impacts from noise are considered less than significant.
- **Invasives.** To the maximum extent possible, native plants shall be used in the landscape plans for the common areas of the project. Impacts from invasives are considered less than significant.

6. Mitigation Measures

The following mitigation measures address the potentially significant impacts of the proposed project on sensitive species.

Burrowing Owl

BIO-1 Suitable habitat for burrowing owl (BUOW) is present on the site, therefore, prior to issuance of a grading permit, the project applicant shall have a biologist conduct focused protocol surveys for BUOW to map the location of suitable burrows, if any, and to formally determine presence or absence on the project site. Four focused surveys shall be conducted with at least one survey between 15 February and 15 April, and three surveys, at least three weeks apart, between 15 April and 15 July, with at least one survey after 15 June. The first focused survey can coincide with mapping of suitable burrows.

If no BUOW are found but suitable habitat is still present, repeat pre-construction surveys should be conducted not more than 30 days prior to initial ground-disturbing activity.

If BUOW is found during the focused surveys, the following mitigation measures should be implemented prior to the BUOW nesting season (February 1 through August 31).

Avoidance: No disturbance should occur within 160 feet (50 m) of occupied burrows during the non-breeding season, which extends between September 1 and January 31. No disturbance should occur within 250 feet (75 m) during the breeding season. In addition, a minimum of 6.5 acres of foraging habitat must be preserved contiguous with occupied burrow sites for each pair of breeding burrowing owls (with or without dependent young) or single unpaired resident bird.

On-site mitigation: If the avoidance requirements cannot be met, then passive relocation should be implemented; this measure can only be implemented during the non-breeding season. Passive relocation is conducted by encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are beyond 160 feet (50 m) from the impact area and are within or contiguous to a minimum of 6.5 acres of foraging habitat for each pair relocated. On-site habitat should be preserved in a conservation easement and managed to maintain BUOW habitat. Owls should also be excluded from burrows in the immediate impact area and within a 160-foot (50 m) buffer of the impact area by installing one-way doors in burrow entrances. These exclusion doors must be left on the burrows for 48 hours to ensure that owls have left the burrows before excavation occurs. One alternate natural or artificial burrow should be provided for each burrow that will be directly impacted. The impact area should be monitored for 1 week to ensure owl use of alternate burrows before excavation begins. When possible, burrows should be manually excavated and refilled to prevent re-occupation of burrows in the impact area.

Off-site mitigation: If the project will impact suitable habitat on-site below the threshold level of 6.5 acres per relocated pair or single bird, the habitat should be replaced off-site. Off-site habitat must be suitable and approved by CDFG, and the land should be placed in a conservation easement in perpetuity and managed for BUOW habitat. Off-site habitat preservation should be provided as summarized in Table IV.D-2:

Table IV.D-2: Offsite Habitat Preservation

Mitigation Type	Mitigation Ratio per pair or single BUOW
Replacement of occupied habitat with occupied habitat	1.5 times 6.5 (9.75) acres
Replacement of occupied habitat with habitat contiguous to currently occupied habitat	2 times 6.5 (13.0) acres
Replacement of occupied habitat with suitable unoccupied habitat	3 times 6.5 (19.5) acres

Nesting Birds

BIO-2 The project applicant will have a biologist prepare a pre-construction nesting bird survey, which will be required prior to any vegetation removal or ground disturbance activities. Any activity that may potentially cause a nest failure, requires a biological monitor including soil sampling, and tree removal.

Removal of any trees, shrubs, or any other potential nesting habitat shall be conducted outside the avian nesting season. The nesting season generally extends from early February through August, but can vary slightly from year to year based upon seasonal weather conditions.

If suitable nesting habitat must be removed during the nesting season, a qualified biologist shall conduct a nesting bird survey to identify any potential nesting activity. If active nests are observed, construction activity must be prohibited within a buffer around the nest, as determined by a biologist, until the nestlings have fledged. Because the proposed project will result in the loss of eucalyptus tree windrows, which provide potential foraging and nesting habitat for raptors, the proposed project will be subject to paying mitigation fees for the cumulative losses of raptor nesting and foraging habitat. This will mitigate the impact below a level significance.

Prior to issuance of grading permit(s), Project applicant(s) shall pay their fair share towards the $22.7 million for the habitat land acquisition within the Chino/El Prado Basin Area that shall serve as the designated Waterfowl and Raptor Conservation Area (WRCA). The fee shall be paid in accordance with the September 10, 2002 modification to NMC GPA Policy 18.1.12 and Implementation Measure I-6, that state a 145-acre WRCA shall be provided through either a mitigation land bank, or by purchasing a property through development mitigation/impact fees. The habitat land acquisition shall be managed by Land Conservancy, a non-profit organization selected by the City and The Endangered Habitat's League and the Sierra Club.

7. Cumulative Impacts

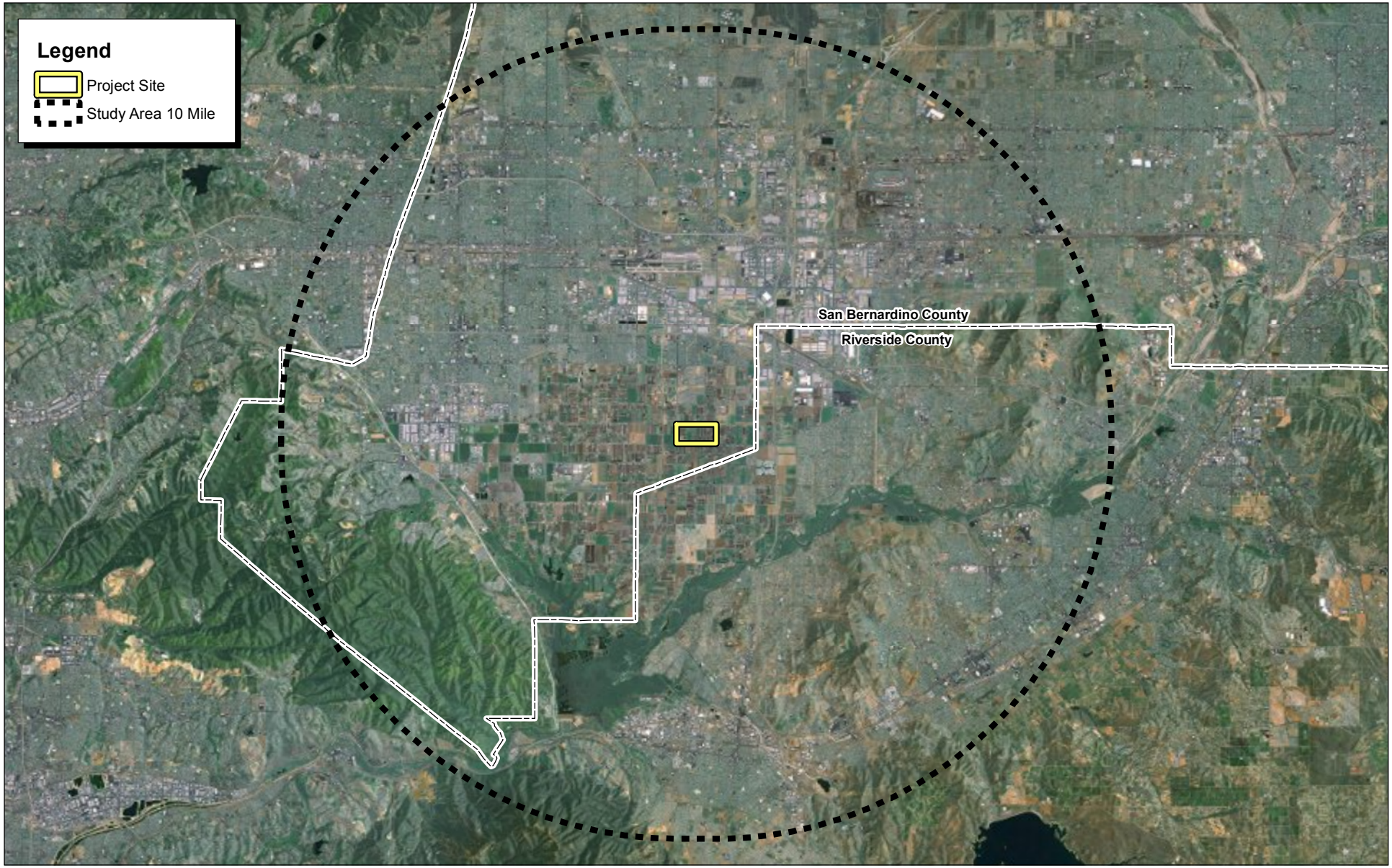
The intent of a cumulative impacts analysis and discussion is to understand cumulative project impacts in a regional context. CEQA Guidelines § 15130(a)(1) states that "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." A significant cumulative impact, for example, may occur when individual projects each have a small and insignificant effect on a resource, however when viewed as a whole, the additive effects of multiple projects in a region can have a marked effect on that same resource. Examples regarding biological resources include effects on the distribution or population numbers of plants or animals, the extent of vegetation communities, or the movement of wildlife populations.

This section discusses the added effects on resources when proposed development on the Grand Park Specific Plan project site and other planned developments in the vicinity of the City are considered along with recently developed areas and presents a "worst case" scenario regarding impacts to biological resources.

The cumulative impact study area was defined as the region of biological relevance to resources within the Grand Park Specific Plan project site, and incorporates approximately a 10-mile radius around the project site, including the City and neighboring cities (refer to Figure IV.D-3). The majority of the cumulative impact study area consists of developed areas and agricultural land uses, with a few patches of open space in the Chino Hills and surrounding the Santa Ana River.

a) Cumulative Impacts to Plant Communities

As described in MBA's 2012 Biological Resources Study, the majority of the site is comprised of ruderal areas, which cover 142.45 acres of the project site. Ruderal areas consist of weedy vegetation that is mostly non-native, but may include a few weedy native species. Landform with ruderal vegetation varies on the project site, and includes disturbed roadsides, disturbed fields, and abandoned manure settling basins and cow pens that have become vegetated with ruderal species. Vegetation in these areas are dominated by ruderal (weedy) vegetation including lamb's quarters, five-hook bassia, golden crownbeard, and Russian thistle. Because of the disturbed nature of the project site, and that a majority of the site contains ruderal areas, potential adverse cumulative effects to plant communities within the project site are less than significant.



Source: ESRI World Imagery

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Figure IV.D-3
Cumulative Impact Study Area

b) Cumulative Impacts to Plants and Wildlife

The area surrounding the Grand Park Specific Plan project site is dominated by development and agricultural land uses. Thus, there is a scarcity of native plant communities to support extensive plant and wildlife diversity.

1) Special Status Plant Species

As detailed in the 2012 Biological Resources Study, none of the 24 sensitive plant species are expected to occur on or adjacent to the site due to its lack of suitable habitat for those species. The remaining sensitive plant species, smooth tarplant (*Centromadia pungens*) is not federal or state listed as endangered or threatened. Therefore, potential adverse cumulative effects to sensitive plant species within the study area are less than significant.

2) Special Status Wildlife Species

Per the 2012 Biological Resources Study, the CNDDB contains records for 34 sensitive animal species within the general vicinity of the site with 23 of the 34 species not expected to occur on the site due to lack of suitable habitat. Of the remaining 11 species, 6 have a low or very low potential to occur on the project site based on the very low quality of potentially suitable habitat. Of the sensitive wildlife species that have at least a moderate potential to occur onsite, 1 is federal and state listed as endangered, 4 are listed as a California Species of Concern species and 1 is listed as a Full Protected species. The project site contains potentially suitable habitat for: burrowing owl (*Athene cunicularia*), loggerhead shrike (*Lanius ludovicianus*), tricolored blackbird (*Agelaius tricolor*), western mastiff bat (*Eumops perotis*) and white-tailed kite (*Elanus leucurus*). With implementation of mitigation measures, potential impacts to these species are anticipated to be reduced to a less than significant level, thereby reducing cumulative impacts to these species to a less than significant level.

The ornamental eucalyptus windrows, which provide potential foraging and nesting habitat for raptors and migratory birds, were found on-site. The project, as proposed, will eliminate the eucalyptus windrows; therefore, development of the project site, as well as development projected to occur in the surrounding vicinity, will result in the cumulative losses of foraging and nesting habitat for these species. However, it can be expected that, through the payment of mitigation fees, that potential adverse cumulative effects on these species would be less than significant.

3) Wildlife Movement

As discussed previously, the proposed project would not have a significant adverse effect on any known or suspected wildlife movement corridors. Within the cumulative impact study area, proposed development in the area would expand the urbanized zone of the City to replace land previously used for agriculture and dairy farms. As a result, the project's contribution to cumulative impacts on wildlife movement corridors is not cumulatively considerable. Thus, cumulative impacts to wildlife movement corridors are expected to be less than significant.

8. Level of Significance After Mitigation

The proposed project, inclusive of the project features and mitigation measures described, would mitigate significant impacts to species to a level below significance.

a) Burrowing Owl

Mitigation for impacts to Burrowing Owl includes conducting focused surveys prior to issuance of a grading permit for the project. With the implementation of the proposed mitigation, impacts to nesting birds are considered less than significant.

b) Nesting Birds

Mitigation for impacts to nesting birds includes a preconstruction nesting bird survey and payment of mitigation fees. In accordance with the Settlement Agreement (mentioned above in Mitigation Measure BIO-2), payment of mitigation fees for cumulative losses of raptor nesting and foraging habitat is required for any impacts to eucalyptus windrows on-site. With the implementation of the proposed mitigation, impacts to nesting birds are considered less than significant.