Appendix D: Biological Resources Study

Biological Resources Study
Grand Park Specific Plan
City of Ontario, San Bernardino County, California

Corona North, California, USGS 7.5-minute Topographic Quadrangle Map
Township 3 South, Range 7 West, Section 14
APN numbers: 021-824-111, 021-824-114, 021-824-122, 021-824-110, 021-824-119, 021-824-113, 021-824-106

Prepared for:

City of Ontario
303 East "B" Street
Ontario, CA 91764
909.395.2036

Contact: Richard Ayala, Senior Planner

Prepared by:

Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602
714.508.4100

Contact: Diana Lloyd, Biologist

Michael Brandman Associates

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SECTION 1: SUMMARY

A biological resources study was conducted to document the existing biological conditions within the Grand Park Specific Plan area located in Ontario, San Bernardino County,, California. Totaling approximately 320 acres, the proposed use of the project site is residential development.

Potentially suitable habitat is present for burrowing owl, a California species of concern, and focused surveys are recommended to determine presence or absence of this species

The site provides potentially suitable habitat for nesting birds, therefore, if suitable nesting habitat must be removed during the nesting season, a qualified biologist should 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.

No potentially jurisdictional feature was observed on the site; therefore, a jurisdictional delineation is not necessary.

The site does not provide any wildlife movement corridor features.

The City of Ontario regulates activities pertaining to parkway trees, however, the only trees on the site adjacent to roadways are present within a eucalyptus windrow, and therefore do not qualify as parkway trees.

SECTION 2: INTRODUCTION

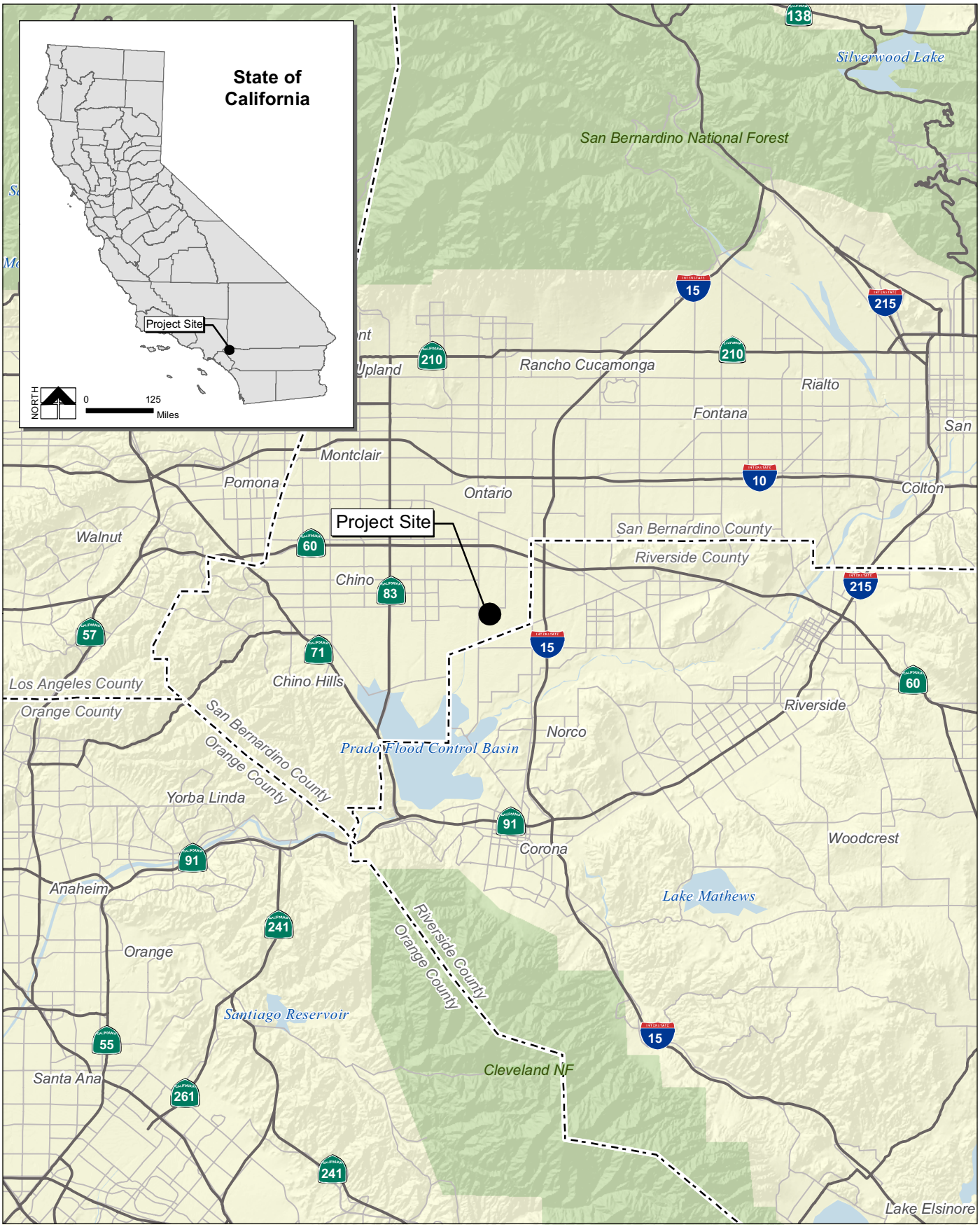
At the request of the City of Ontario, Michael Brandman Associates (MBA) conducted a biological resources study to document the existing conditions within the approximately 320-acre Grand Park Specific Plan site, hereafter referred to as project site or site, located in Ontario, San Bernardino County, California. This report provides a detailed description of existing conditions. The information contained herein is intended to provide a baseline for which subsequent evaluations can be made of potential biological resource impacts associated with future projects, based upon the environmental policies and regulations discussed in Appendix D, including the Clean Water Act (CWA), the Federal Endangered Species Act (ESA), the California Endangered Species Act (CESA), and California Environmental Quality Act (CEQA). This is an existing conditions document and therefore it does not include a project specific impact analysis.

2.1 - Project Site Location

The project site is located north of State Route (SR) 91, south of SR-60, east of SR-71, and west of Interstate (I) 15 (Exhibit 1). It is located on the Corona North, California, United States Geological Survey (USGS) 7.5-minute topographic quadrangle map, Section 14 of Township 3 South, Range 7 West (Exhibit 2). The site is specifically located north of Eucalyptus Avenue, south of Edison Avenue, east of South Archibald Avenue, and west of Summer Avenue/Haven Avenue (Exhibit 3). The project site consists of Assessor's Parcel Numbers (APN) 021-824-111, 021-824-114, 021-824-122, 021-824-110, 021-824-119, 021-824-113, 021-824-106.

2.2 - Project Description

The proposed project is the Grand Park Specific Plan for the development of a master planned residential community on approximately 320 acres of land. The Grand Park Specific Plan is divided into 10 planning areas and an approximately 130-net-acre Grand Park. Planning Area 10 includes a high school and Planning Area 9 includes an elementary school. The remaining planning areas contain a mix of low-density, medium-density and high-density residential development. The Grand Park Specific Plan is comprised of 5 land use designations: 1) Residential: Low-Density (6-12 DU/AC Gross Max); 2) Residential: medium-Density (12-18 DU/AC Gross Max); 3) Residential: High-Density (18-25 DU/AC Gross Max): 4) public schools; and 5) the Grand Park. The Specific Plan area anticipates the development of up to 1,327 residential units with trails and pocket parks, a high school, elementary school, and the Grand Park. It is also anticipated that Tentative Tract Map application(s), Development Agreement(s), and Williamson Act contract cancellation application(s) will be submitted in conjunction with the Specific Plan.



Source: Census 2000 Data, The CaSIL, MBA GIS 2012.

Michael Brandman Associates

NORTH

5 2.5 0 5 Miles

Exhibit 1
State and Regional Location

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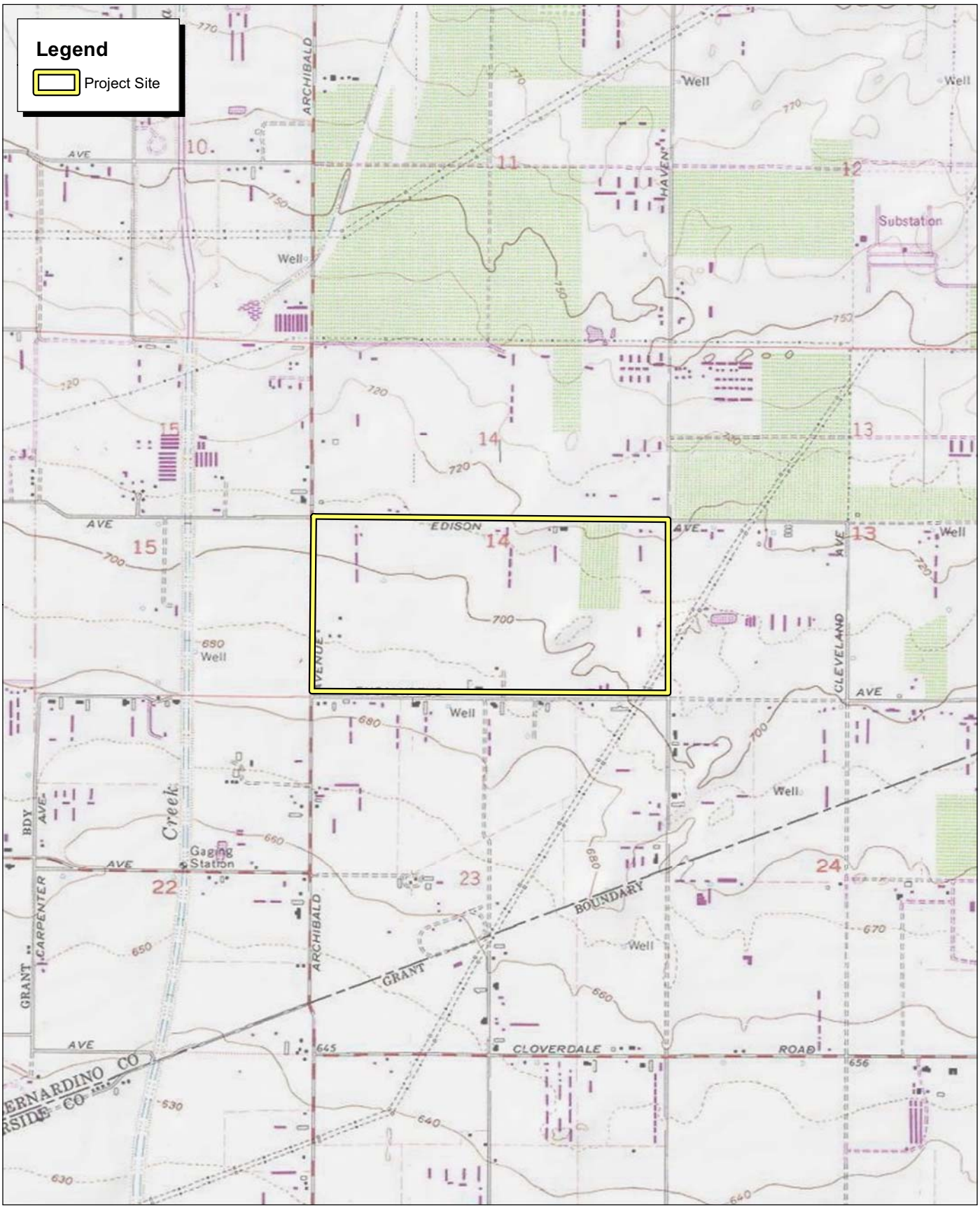
CITY OF ONTARIO • GRAND PARK SPECIFIC PLAN
BIOLOGICAL RESOURCES STUDY



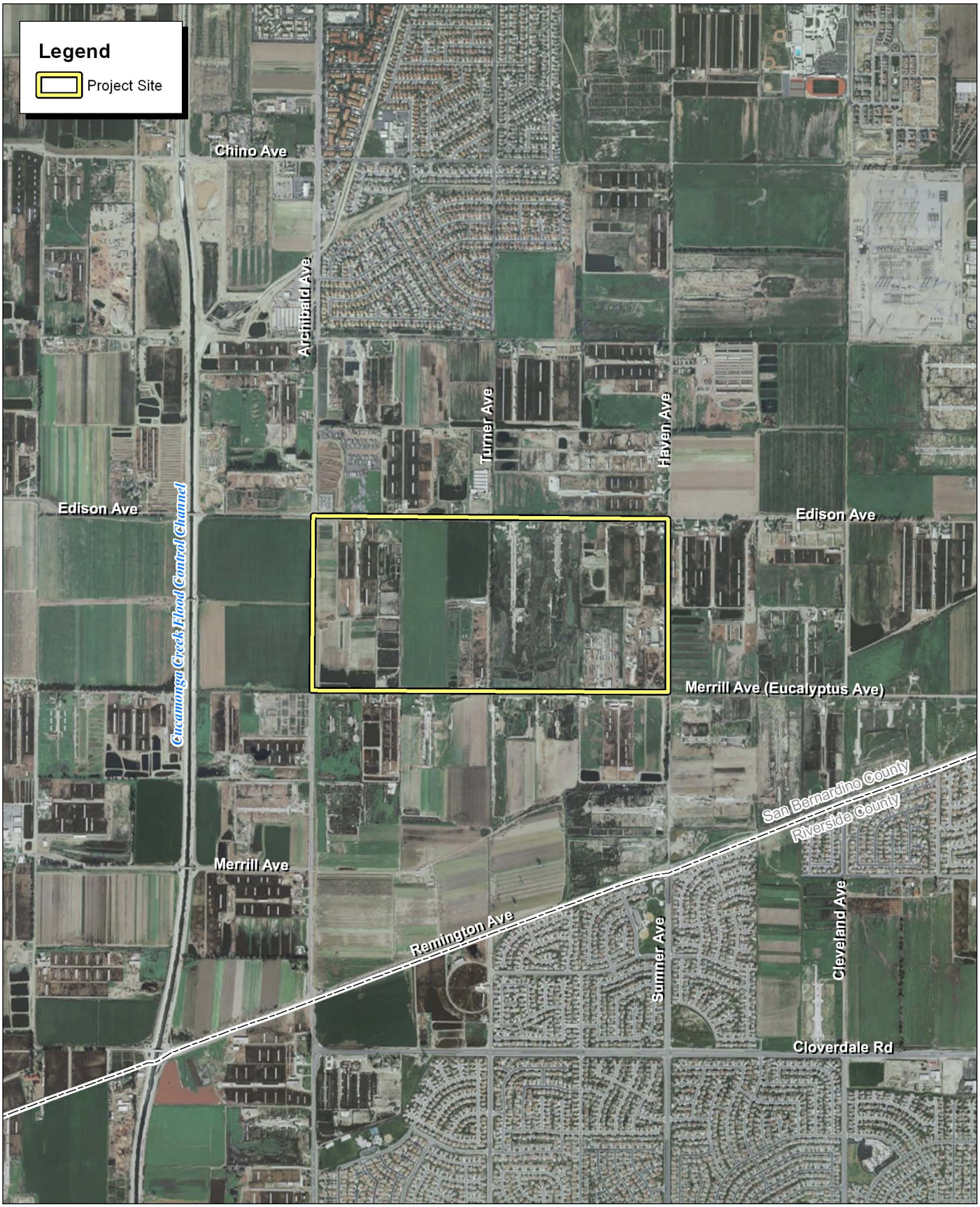
Source: USA TOPO Maps USGS Corona North, CA (1978) 7.5' DRG.

NORTH

2,000 1,000 0 2,000 Feet

Michael Brandman Associates

Exhibit 2
Local Vicinity Map
Topographic Base



Source: ESRI World Imagery.

NORTH

2,000 1,000 0 2,000

Feet

Michael Brandman Associates

Exhibit 3
Local Vicinity Map
Aerial Base

SECTION 3: METHODOLOGY

Analysis of the biological resources associated with the project site began with a thorough review of relevant literature followed by a reconnaissance-level field survey. The primary objective of the survey is to document existing site conditions and determine the potential presence of sensitive biological resources.

For the purpose of this report, sensitive species refers to all species formally listed as threatened and/or endangered under the ESA and CESA, California Species of Special Concern, designated as Fully Protected by CDFG; given a status of 1A, 1B, or 2 by the CNPS; or designated as sensitive by City, County, or other regional planning documents. Federal and state listed threatened and/or endangered species are legally protected under the ESA. The remaining species mentioned above have no direct legal protection, but require a significance analysis under CEQA guidelines.

3.1 - Literature Review

The literature review provides a baseline from which to evaluate the biological resources potentially occurring on the project site, as well as the surrounding area.

3.1.1 - Existing Environmental Documentation

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 USFWS and CDFG. These and other documents are listed in Section 8 below.

3.1.2 - Topographic Maps and Aerial Photographs

MBA reviewed current USGS 7.5-minute topographic quadrangle map(s) and aerial photographs as a preliminary analysis of the existing conditions within the project site and immediate vicinity. Information obtained from the review of the topographic maps included elevation range, general watershed information, and potential drainage feature locations. Aerial photographs provide an aerial perspective of the most current site conditions with regard to onsite and offsite land-use, plant community locations, and potential locations of wildlife movement corridors.

3.1.3 - Soil Surveys

Many sensitive plant species have a limited distribution based exclusively on soil type. The United States Department of Agriculture (USDA) has published soil surveys that describe the soil series that occur within a particular area. A soil series is a group of soils with similar profiles. These profiles include major horizons with similar thickness, arrangement, and other important characteristics. These series are further subdivided into soil mapping units, which provide specific information regarding soil characteristics. Pertinent USDA soil survey maps were reviewed to determine the

existing soil mapping units within the project site and to establish if soil conditions onsite are suitable for any sensitive plant species.

3.1.4 - Sensitive Species Database Search

MBA compiled a list of threatened, endangered, and otherwise sensitive species previously recorded to occur near the project site. The list was based on a search of the CDFG's California Natural Diversity Database (CNDDB), a sensitive species and plant community account database and the CNPS's Electronic Inventory of Rare and Endangered Vascular Plants of California database for the Ontario, Guasti, Corona North, and Prado Dam USGS 7.5-minute topographic quadrangle maps containing the project site and immediate vicinity.

The CNDDB GIS database along with ArcGIS software was used to determine the distance between known recorded occurrences of sensitive species and the project site.

3.2 - Reconnaissance-Level Field Survey

MBA biologist Diana Lloyd conducted the reconnaissance-level field survey on June 19, 2012. Special attention was paid to sensitive habitats or those areas potentially supporting sensitive floral and faunal species.

The reconnaissance-level survey was conducted on foot during daylight hours. The object of the survey was not to extensively search for every species occurring within the project site, but to ascertain general site conditions and identify potentially suitable habitat areas for various sensitive plant and wildlife species.

3.2.1 - Plant Community Mapping

Plant communities were mapped using 7.5-minute USGS topographic base maps and recent aerial photography. Sensitive or unusual biological resources identified during the literature review were ground-truthed during the reconnaissance-level survey for mapping accuracy. The plant communities within the project site were classified according to Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986 and 1996 update) and cross-referenced with CDFG Natural Communities List (2010). Modifications were made by MBA's biologists where appropriate. Acreages for each plant community are included as part of the discussion's heading as well as in the discussion.

3.2.2 - Plant Species

Common plant species observed during the reconnaissance-level survey were identified by visual characteristics and morphology in the field and recorded in a field notebook. Uncommon and less familiar plants were identified offsite using taxonomical guides. A list of all species observed on the project site was compiled from the survey data, shown in Appendix A. Taxonomic nomenclature used in this study follows Baldwin (2012). Common plant names, when not available from Hickman

(1993), were taken from other regionally specific references. In this report, scientific names are provided immediately following common names of plant species for the first reference only.

3.2.3 - Wildlife Species

Wildlife species detected during the reconnaissance-level survey by sight, calls, tracks, scat, or other signs were recorded in a field notebook. Notations were made regarding suitable habitat for those sensitive species determined to potentially occur within the project site. Appropriate field guides were used to assist with species identification during surveys. Common names of wildlife species are standard; however, scientific names are provided immediately following common names for the first reference only. Appendix A lists all wildlife species observed or detected on the site during the survey.

3.2.4 - Jurisdictional Waters and Wetlands

Prior to conducting the site visit, MBA's biologists reviewed USGS topographic maps and aerial photography to identify any potential natural drainage features and water bodies. In general, all surface drainage features indicated as blue-line streams on USGS maps and linear patches of vegetation expected to exhibit evidence of flows are considered potentially subject to state and federal regulatory authority as "waters of the US and/or state." The assessment was not intended as a formal delineation of waters of the U.S. or State but rather to identify areas that may require a formal delineation.

3.2.5 - Wildlife Movement Corridors

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat, separating different populations of a single species. Corridors effectively act as links between these populations.

The project site was evaluated for evidence of a wildlife movement corridor. However, the scope of the biological resources study did not include a formal wildlife movement corridor study utilizing track plates, camera stations, scent stations, or snares. The focus of this study was to determine if the alteration of current land use on the site will have significant impacts on the regional movement of wildlife. These conclusions are based on the information compiled from the literature review, including, aerial photographs, USGS topographic maps, and resource maps for the vicinity, the field survey, and knowledge of desired topography and resource requirements for wildlife potentially utilizing the project site and vicinity.

3.3 - Caveats and Limitations

The reconnaissance-level survey was conducted during early summer and the last rainfall event recorded in the area was over two weeks prior to the field survey. Therefore, most annual plants were withered and dead making identification of annual herbaceous species problematic.

Many amphibians, reptiles, and mammals are secretive by nature and some are nocturnally active, making diurnal observations problematic. Observations of diagnostic sign may provide evidence of occurrence of these species. Otherwise, conclusions regarding potential occurrence are based on consideration of habitat suitability factors.

Access was possible in all areas of the site that are currently abandoned or lacked fencing. No access was possible within residential plots, active dairy farms or the gravel mining property. Also, active construction was ongoing on Summer Avenue, therefore no access was allowed on the eastern boundary and observations were made from the northeast and southeast corners using binoculars and aerial imagery.

SECTION 4: EXISTING CONDITIONS

The reconnaissance-level field survey was conducted on June 19, 2012 between 0700 and 1200 hours. Weather conditions during the field survey included temperatures ranging from 54.0 to 65.1 degrees Fahrenheit, with 100 percent cloud cover and winds between 0.0 and 1.0 miles per hour. There has been no rain in the region for a minimum of 14 days.

4.1 - Environmental Setting

The project site is comprised of an approximately 320-acre rectangular property. 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, disturbed land. 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. 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 encelioides*). Vegetation on areas mapped as Hilmar soils were dominated by lamb's quarters (*Chenopodium alba*), five-hook bassia, Bermuda grass (*Cynodon dactylon*), Palmer's amaranth (*Amaranthus palmeri*), and golden crownbeard.

4.1.1 - Topographic Features

Topographically, the project site is located on the southern portion of the San Bernardino Valley, east of Chino Hills, west of Norco Hills, south of Mount Baldy and north of the Santa Ana River. The site is relatively flat at approximately at 700 feet (210 meters) above mean sea level, and does not contain any distinct drainage features.

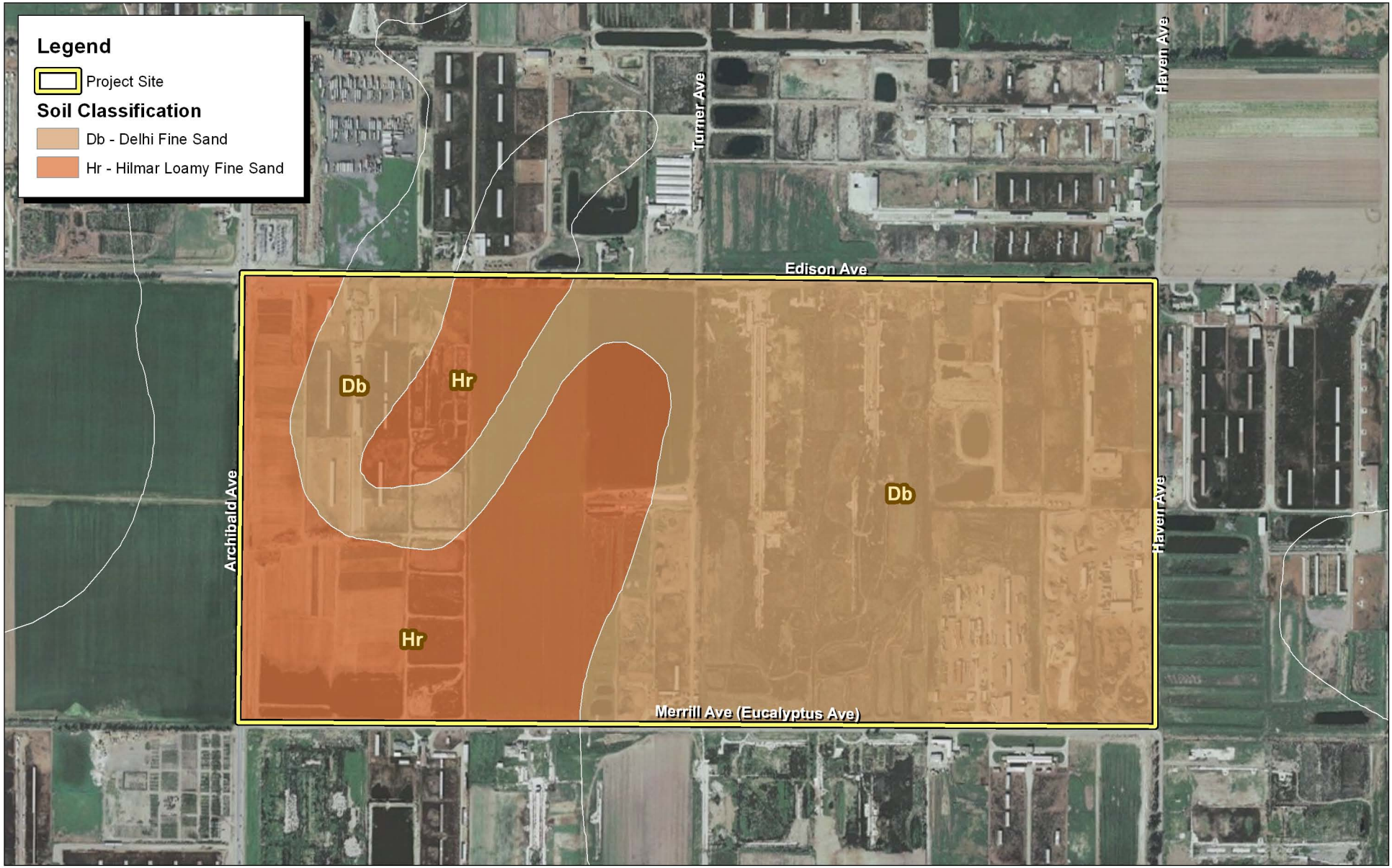
4.1.2 - Soils

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 (Exhibit 4).

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 (*Eriogonum californica*) 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 are 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*).



Source: ESRI World Imagery, USDA Soils Data.

NORTH

800 400 0 800

Feet

Michael Brandman Associates

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Exhibit 4
Soils Map

CITY OF ONTARIO • GRAND PARK SPECIFIC PLAN
BIOLOGICAL RESOURCES STUDY

4.2 - Plant Communities and Land Uses

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. Two very small stands of cattails (*Typha domingensis*) were observed near the center of the site; one stand was located adjacent to a pipe with flowing 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 (Exhibit 5).

Representative photographs of the communities are in Appendix B.

Table 1: Plant Community Acreages

Plant Community	Approximate Area (acres)
Ruderal	141.90
Active agriculture	55.15
Active dairy farm	46.21
Disturbed	23.71
Gravel mining	18.28
Abandoned development	14.05
Manure settling basin	5.86
Residential	4.58
Eucalyptus windrow	3.99
Commercial	0.70
Total	**314.43**

4.2.1 - Ruderal (141.90 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 141.90 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.

4.2.2 - Active Agriculture (55.15 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 55.15 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 Menzies' fiddleneck (*Amsinckia menziesii*), tocalote (*Centaurea melitensis*), Palmer's amaranth, 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.

4.2.3 - Active Dairy Farm (46.21 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 46.21 acres of the site.

4.2.4 - Disturbed (23.71 Acres)

Disturbed habitat includes human disturbance, especially in cases of permanent impacts to natural communities, and comprises approximately 23.71 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,

4.2.5 - Gravel Mining (18.28 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.

4.2.6 - Abandoned Development (14.05 Acres)

Abandoned development consists of abandoned cement infrastructure, rubble piles, and buildings. These areas cover 14.05 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.

4.2.7 - Manure Settling Basin (5.86 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 5.86 acres of the project site in three basins. The eastern pond currently supports a small, isolated stand of cattails.

4.2.8 - Residential (4.58 Acres)

Residential areas include inhabited homes and cover approximately 4.58 acres of the project site. The homes are currently occupied and include associated landscaping such as lawns and trees. These

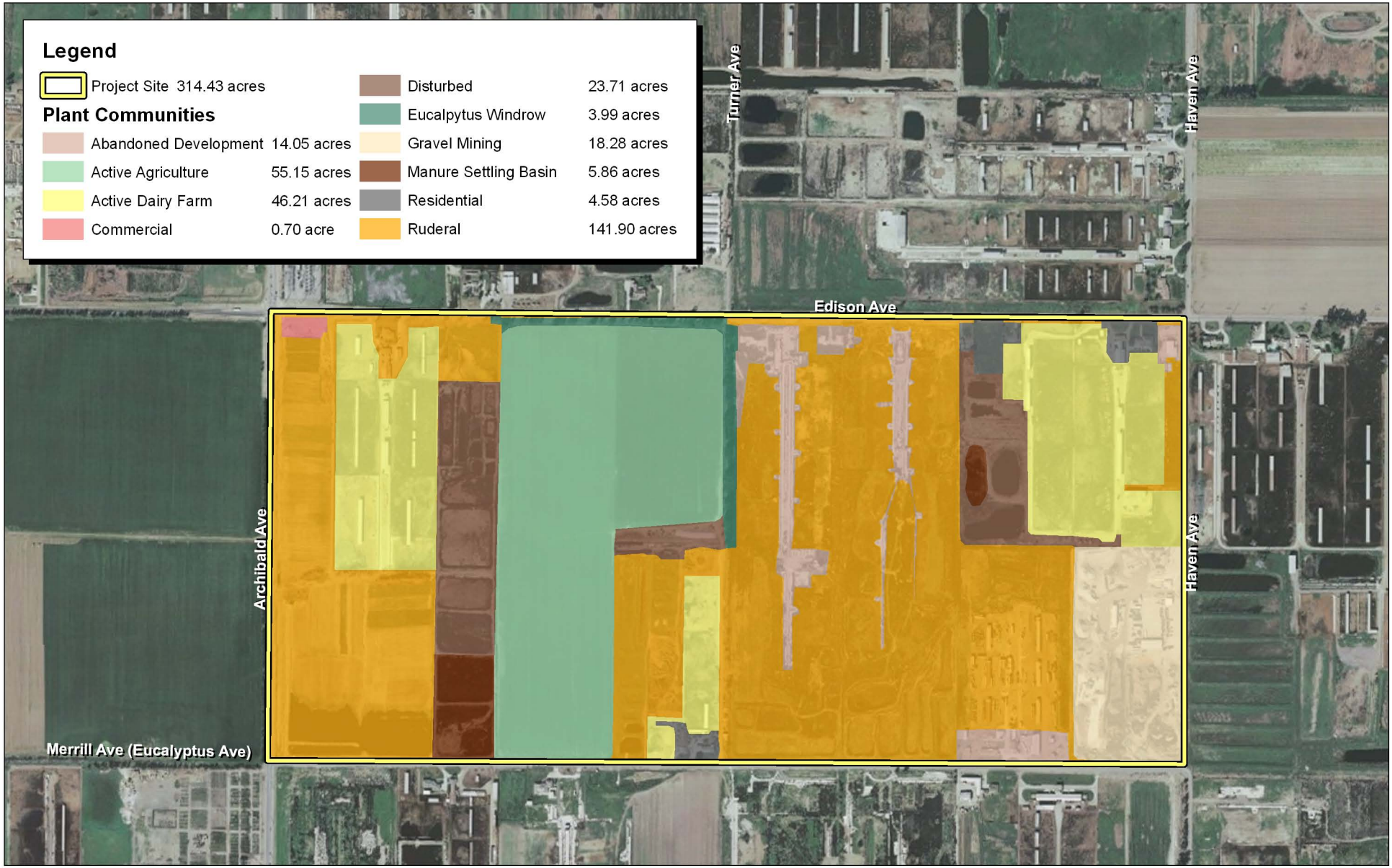
areas do not provide suitable habitat for sensitive species, but may provide suitable nesting habitat for common passerine birds.

4.2.9 - Eucalyptus Windrow (3.99 Acres)

The eucalyptus windrow land use borders the Active Agricultural fields on the north and east boundaries and covers approximately 3.99 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.

4.2.10 - Commercial (0.70 Acre)

Commercial land use covers approximately 0.70 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.



Source: Source: ESRI World Imagery, MBA Field Survey and GIS Data, 2012.

Michael Brandman Associates

NORTH

800 400 0 800

Feet

Exhibit 5
Plant Communities and Land Use Map

4.3 - Wildlife

The plant communities discussed above provide habitat for a number of local wildlife species. The following are brief discussions of wildlife species observed within the project site during the field survey, separated into taxonomic groups. Each discussion contains representative examples of a particular taxonomic group either observed onsite or expected to occur. A complete list of wildlife species observed within the site during the field survey is presented in Appendix A.

4.3.1 - Invertebrates

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.) and darkling beetle (*Eleodes* sp.) were observed on sandy berms bordering the site, and checkered white butterfly (*Pontia protodice*) was observed flying over ruderal areas.

4.3.2 - Fishes

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.

4.3.3 - Amphibians

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.

4.3.4 - Reptiles

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.

4.3.5 - Birds

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

two southwestern basins on the site were partially dry and therefore functioning similar to natural mud flats; American avocet (*Recurvirostra Americana*) and black-necked stilt were observed foraging within these basins during the site visit. 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, powerline towers and eucalyptus trees provide potentially suitable nesting habitat for raptors. Red-tailed hawk (*Buteo jamaicensis*) was the only species of raptor observed onsite.

4.3.6 - Mammals

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 Botta's 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*).

SECTION 5: SENSITIVE BIOLOGICAL RESOURCES

Based on the results of the literature review and reconnaissance-level field survey, MBA documented existing site conditions and determined if sensitive biological resources occur or potentially occur within the project site.

5.1 - Sensitive Plant Communities

Plant communities are considered to be sensitive biological resources based on federal, state, or local laws regulating their development, limited distributions, and habitat requirements of sensitive plants or wildlife species that occur within them.

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.

5.2 - Sensitive Plant Species

The Sensitive Plant Species table (Table 2) 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. The table also includes the species' status and required habitat. It is important to note that all sensitive plant species that have been determined not likely to occur onsite, primarily based on the absence of suitable habitat and a recorded occurrence in the vicinity of the site, have been excluded from further analysis within this 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 below, 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 and only has a low potential to occur.

5.2.1 - California Native Plant Society List Species

Smooth Tarplant

Smooth tarplant is designated as a CNPS 1B.1 species. It is an annual herb that blooms from April to September and occurs in a variety of habitats including valley and foothill grassland, chenopod scrub, meadows, playas, riparian woodlands, watercourses and disturbed habitats, particularly in alkaline soils. The majority of the populations in western Riverside County are associated with alkali vernal plains. Smooth tarplant is found at scattered low elevation locations throughout much of western Riverside County. The most important populations are located at Salt Creek, along the San Jacinto

River, Temecula Creek, and northwest of Hemet. Other locations include: Sycamore Canyon Park, Moreno Valley, Lake Skinner, Clinton Keith Road east of Deer Creek Development, and Potrero Creek near Beaumont.

The closest records of this species are approximately 4 miles southeast and southwest of the site (CNDDB record from 1903). The Project Site is mapped as containing alkaline soils within disturbed areas, particularly on the western half of the site. These disturbed areas are vegetated with ruderal, non-native species. Most of the disturbed areas on the site are subject to frequent traffic from farm equipment making it less likely that a viable population occurs on the site. Therefore, smooth tarplant only has a low potential for occurrence and is not expected to occur on the site.

5.3 - Sensitive Wildlife Species

The Sensitive Wildlife Species table (Table 3) 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. It is important to note that 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 this study.

The CNDDB contains records for 34 sensitive animal species within the general vicinity of the site. Based on the analysis summarized in Table 3 below, 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, 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*)
- western mastiff bat (*Eumops perotis*)
- white-tailed kite (*Elanus leucurus*)

A discussion of each sensitive wildlife species recognized by the CNDDB and MBA as potentially present on the site is presented in Table 3.

5.3.1 - California Species of Special Concern

Burrowing Owl

Burrowing owl is designated as a California Species of Special Concern. Burrowing owls require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance

of active small mammal burrows. Typical habitat associated with the species includes short-grass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), prairies, coastal dunes, desert floors, and some artificial, open areas as a year-round resident. Burrowing owls may also use golf courses, cemeteries, road allowances within cities, airports, vacant lots in residential areas, and irrigation ditches.

Burrowing owls often require the use of existing rodent or other burrows for roosting and nesting. They may also use pipes and culverts where burrows are scarce. If left undisturbed, a burrowing owl pair will use the same burrow year after year for nesting.

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.

Loggerhead Shrike

The loggerhead shrike is a California Species of Special Concern. This species is a fairly common resident of lowlands and foothills in Southern California. Shrikes inhabit grasslands and other dry, open habitats. They can often be found perched on fences and posts from which prey items (large insects, small mammals, lizards) can be seen. Shrikes build stick nests in low trees or shrubs, where they raise two to four young.

A pair of loggerhead shrike were observed flying out of the project site southward across Eucalyptus Avenue during the survey. Suitable foraging habitat is present throughout the site and potentially suitable nesting habitat is present in the eucalyptus windrow and residential trees and shrubs on the site.

Tri-colored Blackbird

The tricolored blackbird (*Agelaius tricolor*) is a California Species of Special Concern that commonly occurs throughout central and coastal California. It is often found near fresh water and prefers emergent wetlands with tall, dense cattails or tules, but can also be found in thickets of willow, blackberry, wild rose, and other tall herbs. This species is known to forage on the ground in croplands, grassy fields, flooded land, and along the edges of ponds. The tricolored blackbird diet generally consists of insects and spiders as a juvenile, and seeds and cultivated grains, such as rice and oats, as an adult. The breeding season for this colonial breeding species generally ranges from mid-April to late July.

Potentially suitable habitat is present in the agricultural fields and two small isolated stands of cattail located near the center of the site. These two cattail stands appear to be supplied with sufficient water to persist; one was located near a water supply pipe that was open during the site visit and the other was located in a dairy effluent pond. No tri-colored blackbirds were observed onsite, but red-winged

blackbirds were observed in potentially suitable habitat for tri-colored blackbirds. The closest records (CNDDB record, nd) for this species were located within 3.5 and 4 miles of the project site. There is a moderate potential for tri-colored blackbird to occur on the site.

Western Mastiff Bat

The western mastiff bat (*Eumops perotis*) is a California Species of Special Concern and is also considered a High Priority species by the Western Bat Working Group (Western Bat Working Group 2007). This species ranges throughout California in a wide range of habitat types, typically below 9,000 feet in elevation. Distribution is correlated with suitable rock features required for roosting. Western mastiff bats are non-migratory, however may move short distances within their home ranges. This bat species does not hibernate and is active periodically throughout the winter. Greater western mastiff bat is generally a cliff-dwelling species, but also uses building crevices for day roosts (Barbour and Davis 1969), including in cities such as Tucson, Arizona and Los Angeles, California (Best and others 1996).

This species forages most frequently in broad open areas such as flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, montane meadows, and agricultural areas, and requires large, lakes or ponds at least 100 feet long for drinking. Western mastiff bat generally roosts high above the ground, allowing a clear vertical drop of at least 7 feet for flight. Maternity colonies range from 30 to several hundred individuals and generally include adult males. This species has an audible echolocation call and is easily detected while foraging. This bat forages primarily on moths, but also takes crickets and katydids, and most frequently forages in flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, montane meadows, and agricultural areas. The western mastiff bat also requires large, lakes or ponds at least 100 feet long for drinking. Breeding occurs from October to March, from which pups are born primarily in July and are volant at 4 to 6 weeks of age.

Potentially suitable day roosting habitat on the site is marginal and consists of a few abandoned buildings. Potentially suitable foraging areas is present throughout the site and the manure settling ponds may be used as a water source. The closest record (CNDDB 1997) of this species is approximately 3 miles to the southeast of the site. Therefore, this species has a moderate potential to occur onsite.

5.3.2 - Fully Protected Species

White-tailed Kite

The white-tailed kite is a California Fully Protected species that is found in agricultural areas, grasslands, marshes, savannas, and other open land or sparsely wooded areas from the West Coast and Gulf Coast of the United States into Central America and eastern South America. White-tailed kite preys on small mammals such as mice and voles, but will also occasionally hunt birds, reptiles, and amphibians. White-tailed kites lay 3 to 5 eggs on a platform nest located in the fork of a tree or bush. Eggs are incubated for about 30 days and chicks fledge about 6 later.

Potentially suitable foraging habitat is present due to the large expanses of open land on the site, and potentially suitable roosting sites are abundant. The eucalyptus wind row provides potentially suitable nesting habitat as well. However, this species was not recorded within the general vicinity of the site. Therefore, there is moderate potential for white-tailed kite to occur on the site.

Table 2: Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	CNPS			
Herbaceous Annuals							
Abronia villosa var. *aurita*	chaparral sand-verbena	None	None	1B.1	This species prefers sandy soils in chaparral, coastal scrub, and desert dunes from 75 - 1600 meters.	January - September	None – no suitable habitat present, not recorded within 3.0 miles of the site.
California macrophylla	round-leaved filaree	None	None	1B.1	This species prefers clay soils in cismontane woodland, valley and foothill grassland from 15 - 1200 meters.	March - May	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Centromadia pungens ssp. laevis	smooth tarplant	None	None	1B.1	This California endemic species prefers alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland from 0 - 640 meters.	April - September	Low- suitable soils and low quality chenopod scrub present on western half of site, but not recorded within 3.0 miles of the site.
Chorizanthe parryi var. *parryi*	Parry's spineflower	None	None	1B.1	This California endemic species prefers sandy or rocky soils in openings of chaparral, cismontane woodland, coastal scrub, valley and foothill grassland from 275 - 1220 meters.	April - June	None - prevalence of non-native species and lack of suitable elevation on the site.
Deinandra paniculata	paniculate tarplant	None	None	4.2	This species prefers vernally mesic soils, coastal scrub, valley and foothill grassland, vernal pools from 25 - 940 meters.	April - November	None - no suitable habitat present. Not recorded within 3.0 miles of the site.
Dodecahema leptoceras	slender-horned spineflower	FE	CE	1B.1	This California endemic species prefers sandy soils in chaparral, cismontane woodland, and alluvial fan coastal sage scrub from 200 - 760 meters.	April - June	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	None	None	1B.1	This species is found in costal salt marshes and swamps, playas, and vernal pools from 1 - 1220 meters.	February - June	None - no suitable habitat present. Not recorded within 3.0 miles of the site

Table 2 (cont.): Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	CNPS			
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None	None	1B.2	This species is found in chaparral and coastal scrub habitats from 1 - 885 meters.	January - July	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Navarretia prostrata	prostrate vernal pool navarretia	None	None	1B.1	This California endemic prefers mesic soils in coastal scrub, meadows and seeps, alkaline valley and foothill grassland, vernal pools from 15 - 1210 meters.	April - July	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Herbaceous Perennials							
Ambrosia pumila	San Diego ambrosia	FE	None	1B.1	This species prefers sandy loam or clay, often in disturbed areas, sometimes alkaline soils in chaparral, coastal scrub, valley and foothill grassland, vernal pools from 20 - 415 meters.	April - October	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Astragalus brauntonii	Braunton's milk-vetch	FE	None	1B.1	This California endemic species prefers recent burns or disturbed areas, usually sandstone with carbonate layers, in chaparral, coastal scrub, valley and foothill grassland from 4 - 640 meters.	January - August	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Atriplex coulteri	Coulter's saltbush	None	None	1B.2	This species prefers alkaline or clay soils in coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland from 3 - 460 meters.	March - October	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Calystegia sepium ssp. *binghamiae*	Santa Barbara morning-glory	None	None	1B.1	This California endemic was historically associated with wetland and marshy places, but possibly in drier soils as well. May be present in silty loam and alkaline soils in coastal marshes and swamps and alluvial riparian scrub from 0 - 220 meters.	April - May	None - no suitable habitat present. Not recorded within 3.0 miles of the site

Table 2 (cont.): Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	CNPS			
Cladium californicum	California sawgrass	None	None	2.2	This species prefers meadows and seeps in either alkaline or freshwater marshes and swamps from 60 - 600 meters.	June - September	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Dudleya multicaulis	many-stemmed dudleya	None	None	1B.2	This California endemic species is often found in clay soils in chaparral, coastal scrub, valley and foothill grassland from 15 - 790 meters.	April - July	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	FE	CE	1B.1	This California endemic species prefers sandy or gravelly soils in alluvial fan coastal scrub from 91 - 610 meters.	May - September	None - no suitable habitat present. Recorded within 3.0 miles of the site.
Horkelia cuneata var. *puberula*	mesa horkelia	None	None	1B.1	This California endemic species prefers sandy or gravelly soils in maritime chaparral, cismontane woodland, coastal scrub from 70 - 810 meters.	February - September	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Monardella australis ssp. jokersti	Jokerst's monardella	None	None	1B.1	This California endemic species prefers steep scree or talus slopes between breccia, secondary alluvial benches along drainages and washes in chaparral, lower montane coniferous forest from 1350 - 1750 meters.	July - September	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Muhlenbergia californica	California muhly	None	None	4.3	This California endemic species prefers mesic, seeps and streambanks in chaparral, coastal scrub, lower montane coniferous forest, meadows and seeps from 100 - 2000 meters.	June - September	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Pseudognaphalium leucocephalum	white rabbit-tobacco	None	None	2.2	This species prefers sandy, gravelly soils in chaparral, cismontane woodland, coastal scrub, riparian woodland from 0 - 2100 meters.	July - December	None - no suitable habitat present. Not recorded within 3.0 miles of the site

Table 2 (cont.): Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	CNPS			
Sidalcea neomexicana	salt spring checkerbloom	None	None	2.2	This species prefers granitic, rocky soils in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland from 100 - 1700 meters.	March - June	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Perennial Bulbiferous herbs							
Calochortus plummerae	Plummer's mariposa lily	None	None	1B.2	This California endemic species prefers alkaline, mesic soils in chaparral, coastal scrub, lower montane coniferous forest, mojavean desert scrub, playas from 15 - 1530 meters.	March - June	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Calochortus weedii var. *intermedius*	intermediate mariposa lily	None	None	1B.2	This California endemic species prefers rocky, calcareous soils in chaparral, coastal scrub, valley and foothill grassland from 105 - 855 meters.	May - July	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Symphyotrichum defoliatum	San Bernardino aster	None	None	1B.2	This California endemic species is found in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, vernally mesic valley and foothill grassland, and near ditches, streams, and springs from 2 - 2040 meters.	July - November	None - no suitable habitat present. Not recorded within 3.0 miles of the site
Shrubs							
Nolina cismontana	chaparral nolina	None	None	1B.2	This California endemic species prefers sandstone or gabbro soils in chaparral, coastal scrub 140 - 1275 meters.	May - July	None - no suitable habitat present. Not recorded within 3.0 miles of the site

Table 2 (cont.): Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	**Common Name**	**ESA**	**CESA**	**CNPS**			
ESA FE Federally listed endangered FT Federally listed threatened FPE Federally proposed endangered FPT Federally proposed threatened FC Federal candidate		CESA SE State listed endangered ST State listed threatened SR State listed rare			CNPS 1A Presumed extinct in California. 1B Rare, threatened, or endangered in California and elsewhere. 2 Rare, threatened, or endangered in California, but more common elsewhere.		

Species Present - The species was observed on the project site at the time of the survey or during a previous biological survey.
High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the project site, within 3 miles.
Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project site, but there is not a recorded occurrence of the species within the immediate vicinity, within 3 miles. Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.
Low Potential to Occur - There is a historical record of the species in the vicinity of the project site and potentially suitable habitat onsite, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.

Table 3: Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	**Common Name**	**ESA**	**CESA**	**Other**		
Invertebrates						
Rhaphiomidas terminatus abdominalis	Delhi Sands flower-loving fly	FE	none	none	Delhi sands and Delhi sand dunes with less than 50% vegetation cover. Typical vegetation includes California buckwheat (Eriogonum fasciculatum), California croton (Croton californicus), and telegraph weed (Heterotheca grandiflora).	Low - Majority of site disturbed by agriculture and dairy farming, only marginally suitable habitat in a few areas along the northeast and southeast boundaries of the site. Not recorded in previous focused surveys (2006, 2007). Not recorded in CNDDB within 3.0 miles of the site.
Fishes						
Catostomus santaanae	Santa Ana sucker	FT	None	CSC	Perennial streams with rock or cobble substrate	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Gila orcutti	Arroyo Chub	none	none	CSC	South coastal streams	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Reptiles						
Anniella pulchra pulchra	silvery legless lizard	none	none	CSC	Moist sandy loam soil with some vegetation cover. Dry soils are avoided. Typically found beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces.	Low - Reported in the CNDDB approximately 3.0 miles northwest of the property in 1922. Potentially suitable habitat is indicated by sandy or sandy loam soils, but frequent disturbance makes it unlikely that a viable population occurs onsite.
Aspidoscelis hyperythra	orange-throated whiptail	none	none	CSC	Chaparral or sage scrub, frequently found where loose sand/soil is present.	Very low - Although suitable soils present, only marginally suitable habitat because preferred vegetation community is absent and frequent disturbance makes it unlikely that a viable population occurs onsite. Not recorded within 3.0 miles of the site

Table 3 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	Other		
Crotalus ruber ruber	Northern Red-Diamond Rattlesnake	none	none	CSC	Variety of habitats, but especially chaparral, desert scrub, rocky alluvial fans.	Very low - Site lacks native shrub cover and frequent disturbance makes it unlikely that a viable population occurs onsite. Not recorded within 3.0 miles of the site
Emys marmorata	Southwestern Pond Turtle	none	none	CSC	Permanent, or nearly permanent fresh water areas	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Phrynosoma blainvillei	San Diego Horned Lizard	none	none	CSC	Sandy soil with low vegetation cover, Coastal sage scrub and chaparral with friable, rocky or shallow sandy soils.	Low - Suitable soils and prey are present onsite (harvester ant), but preferred vegetation is absent and frequent disturbance makes it unlikely that a viable population can occur onsite. Not recorded within 3.0 miles of the site
Thamnophis hammondii	Two-Striped Garter Snake	none	none	CSC	Permanent fresh water, along stream with rocky bed bordered by willows or riparian growth	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Birds						
Agelaius tricolor	tricolored blackbird	none	none	CSC	Cattail, or tule marshes, fields	Moderate - Potentially suitable habitat present in agricultural fields and two small isolated stands of cattail onsite. Not recorded within 3.0 miles of the site.
Aimophila ruficeps canescens	Southern California Rufous-Crowned Sparrow	none	none	CSC	Resident in southern California coastal sage scrub and sparse mixed chaparral.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Ammodramus savannarum	grasshopper sparrow (nesting)	none	none	CSC	Well-drained grasslands, hayfields, and prairies with patches of bare ground. Found in native bunchgrass, wild rye, wet meadows, annual grasslands with scattered shrubs, and rarely in pasturelands and annual grasslands dominated by star thistle.	None - no suitable nesting habitat present, not recorded within 3.0 miles of the site.

Table 3 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	Other		
Amphispiza belli	Bell's sage sparrow	none	none	CSC	Foothills, chaparral, sage scrub	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Aquila chrysaetos	golden eagle	none	none	CSC	Open mountains, foothills, plains with native vegetation far from developed areas. Prefer mountains, canyons, rimrock terrain, and riverside cliffs and bluffs. Cliffs or steep escarpments in grassland, chaparral, shrubland, or forest necessary for nesting.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Asio otus	Long-Eared Owl	none	none	CSC	Riparian bottomlands, belts of live oak	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Athene cunicularia	Burrowing Owl	none	none	CSC	Open, dry, grasslands, desert, and scrublands with low growing vegetation.	High - Reported onsite in previous reports, and recorded in CNDDB immediately north and south of the site as well as in surrounding areas.
Campylorhynchus brunneicapillus couesi	Coastal Cactus Wren	none	none	CSC	Coastal sage scrub with large stands of Opuntia sp.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	none	SE	none	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Dense willow thickets with cottonwoods.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Dendroica ptechia brewsteri	Yellow Warbler	none	none	CSC	Riparian areas and montane shrubbery in coniferous forests.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Elanus leucurus	White-Tailed Kite	none	none	FP	Open savanna, grasslands, and fields.	Moderate - Potentially suitable foraging habitat present in agricultural fields and potentially suitable nesting habitat in eucalyptus windrow onsite. Not recorded within 3.0 miles of the site

Table 3 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	Other		
Empidonax traillii extimus	Southwestern Willow Flycatcher	FE	none	none	Drier willow thickets, alders.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Icteria virens	yellow-breasted chat	None	None	CSC	Dense, brushy thickets and tangles near water, and thick understory in riparian woodland.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Lanius ludovicianus	loggerhead shrike (nesting)	None	None	CSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground and low or sparse herbaceous cover. Nests in densely-foliaged shrubs or trees.	Present - a pair of loggerhead shrikes were observed flying south from the site across Eucalyptus Avenue during the survey.
Polioptila californica californica	Coastal California Gnatcatcher	FT	none	CSC	Coastal scrub, dry washes, ravines.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Vireo bellii pusillus	Least Bell's Vireo	FE	SE	none	Low riparian growth in the vicinity of water or in dry river bottoms.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Mammals						
Antrozous pallidus	pallid bat	none	none	CSC	Caves, tunnels, mines, crevices in rock used for roosts.	Very low - Site lacks preferred habitat, however site contains a few abandoned buildings that could be used as roosts. Recorded in the CNDDB within 3.0 miles of the site (2002).
Chaaetodipus fallax fallax	Northwestern San Diego Pocket Mouse	none	none	CSC	Coastal scrub, chaparral, grasslands, sagebrush.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Dipodomys merriami parvus	San Bernardino kangaroo rat	FE	none	CSC	Primary and secondary alluvial fan sage scrub habitat with sandy soils deposited by fluvial (water) rather than aeolian (wind) processes.	None - no suitable habitat present, not recorded within 3.0 miles of the site.

Table 3 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	Other		
Dipodomys stephensi	Stephens' Kangaroo Rat	FE	ST	none	Annual and perennial grassland, coastal scrub or sagebrush scrub, friable or sandy soils.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Eumops perotis	western mastiff bat	none	none	CSC	Buildings, crevices in cliffs, trees, tunnels for roosts	Moderate - Site contains a few abandoned buildings that could be used as roosts, not recorded within 3.0 miles of the site.
Lasiurus xanthinus	western yellow bat	None	None	CSC	Primarily known from dry, thorny vegetation on the Mexican Plateau, and in desert regions of the southwestern United States. Prefer palm trees for roosting and nesting but will use other desert riparian habitat types.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Neotoma lepida intermedia	San Diego desert woodrat	None	None	CSC	Joshua tree woodland, pinyon-juniper woodland, mixed chaparral, sagebrush, and desert habitats.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Nyctinomops femorosaccus	pocketed free-tailed bat	None	None	CSC	Pinon-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian habitats. Roosts primarily in crevices of rugged cliffs, high rocky outcrops and slopes, however may roost in buildings, caves, and roof tiles.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Nyctinomops macrotis	big free-tailed bat	None	None	CSC	Rocky habitats in arid landscapes associated with desert shrub, woodlands, and evergreen forests. Roosts by day in crevices on cliff faces.	None - no suitable habitat present, not recorded within 3.0 miles of the site.
Perognathus longimembris brevinasus	Los Angeles little pocket mouse	None	none	CSC	Grassland and coastal scrub.	None - no suitable habitat present, not recorded within 3.0 miles of the site.

Table 3 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	**Common Name**	**ESA**	**CESA**	**Other**		

ESA
FE Federally listed endangered
FT Federally listed threatened
FPE Federally proposed endangered
FPT Federally proposed threatened
FC Federal candidate

CESA
SE State listed endangered
ST State listed threatened

Other
CDFG:CSC California Species of Concern
CDFG:FP Fully Protected Species
CDFG:P Protected Species

Present - The species was observed on the project site at the time of the survey or during a previous biological survey.
High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the project site, within 3 miles.
Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project site, but there is not a recorded occurrence of the species within the immediate vicinity, within 3 miles. Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.
Low Potential to Occur - There is a historical record of the species in the vicinity of the project site and potentially suitable habitat onsite, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.

5.4 - Jurisdictional Waters and Wetlands

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.

5.5 - Nesting Birds

The project site contains several habitat types that provide suitable nesting habitat for several common bird species. The eucalyptus wind rows and residential trees provide suitable habitat for avian species that nest in trees, such as northern mockingbird, morning dove and red-tailed hawk. The agricultural fields provide suitable nesting habitat for ground-nesting sparrows. The partially dry dairy effluent ponds provide suitable nesting habitat for shorebirds commonly observed inland such as black-necked stilt and American avocet. Finally, the abandoned buildings and ruins provide potentially suitable nesting habitat for house finch, black phoebe, and mourning dove.

5.6 - 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. Further north, south, and east, residential and commercial development are present. 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 to travel though 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.

5.7 - City of Ontario Tree Ordinance

The City of Ontario (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 and do not qualify as parkway trees regulated by the Parkway Tree Regulations.

SECTION 6: RECOMMENDATIONS

This report was prepared to document the existing conditions within the project site and to provide a baseline to further analyze a proposed project under CEQA guidelines. Once the location of all permanent and temporary impacts associated with the project design have been determined, a Biological Resources Impact Analysis can be completed. The recommendations below are necessary to prepare that report.

6.1 - Sensitive Plant Species

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.

6.1.1 - Threatened and Endangered Species

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.

6.1.2 - California Native Plant Society List Species

No CNPS list species have a moderate or high potential to occur on the site, therefore, no potential impacts to CNPS list species are anticipated and no further action is required.

6.2 - Sensitive Wildlife Species

Focused surveys are typically recommended for sensitive wildlife 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 potentially suitable habitat for 11 sensitive wildlife species, 2 of which are federally or state listed as threatened or endangered. California Species of Special Concern (CSC) are not federally or state-listed as endangered or threatened and therefore have no direct legal protection. However, if a project is anticipated to have a potentially significant impact on a CSC, focused surveys may be recommended to determine presence or absence and thus determine whether the project will in fact pose a significant impact to a CSC.

6.2.1 - Threatened and Endangered Species

Delhi Sands Flower-loving Fly

The Delhi sands flower-loving fly (DSFLF)only has a low potential to occur on the project site on portions of the northern and southern boundaries of the site. These areas appear to be relatively undisturbed except for few scattered patches of sand mixed with manure. Previous habitat assessments for the DSFLF resulted in documentation of highly disturbed soils throughout the majority of the project site (AMEC 2006, AMEC 2007a, AMEC 2007b); even the least disturbed sands on the site did not support the indicator vegetation species that generally occur in DSFLF

occupied habitat (California buckwheat [*Eriogonum fasciculatum*],Canadian horseweed [*Conyza canadensis*], California croton [*Croton californicus*]). Focused surveys conducted by AMEC in 2004, 2006 and 2007 on the western and eastern portions of the site, resulted in negative findings for DSFLF, and a reduction in potentially suitable habitat areas in 2007. AMEC concluded that DSFLF was not expected to occupy the project site in the "foreseeable future." Given the description of the project site in 2007, the project site conditions have not changed significantly, Even the best potentially suitable habitat consists of a few patches of disturbed sandy soil along the northern and southern boundaries on the eastern half of the site. These areas contain sand that is either mixed with dried manure on top of a berm that was at one time used to contain a manure settling basin, or are immediately adjacent to roadways where vehicular traffic disturbance is frequent. Therefore, the site does not provide suitable habitat that can support a viable population of DSFLF.

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. Although the focused surveys are over two years old, the USFWS may request that updated focused surveys be required. However, based on the findings of the previous studies and the current site conditions, focused surveys are not recommended.

6.2.2 - California Species of Special Concern

Burrowing Owl

Suitable habitat for burrowing owl (BUOW) is present on the site, therefore, 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.

It is recommended that protocol surveys following the 2012 CDFG staff report regarding burrowing owl Four focused surveys must 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, a pre-construction surveys will be required no 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.

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.

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.

Onsite Mitigation

Onsite habitat may be preserved in a conservation easement and managed to maintain BUOW habitat, if the occupied habitat onsite is determined to be crucial for long-term conservation of the BUOW. Typically, this includes properties that have three or more pairs of BUOW on site. This mitigation measure must be negotiated with CDFG following the results of the BUOW Survey to determine the total amount of mitigation land that would be necessary to reduce the impact to a level less than significant.

Offsite Mitigation

If the project will impact occupied habitat that is crucial for long-term conservation, but the habitat will be unavoidably impacted, the habitat should be replaced at an approved off-site location. Offsite 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.

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, the recommendations in Section 6.5 (Nesting birds) will result in avoidance.

Western Mastiff Bat

Since the potential for western mastiff bat is moderate on the site, and the abandoned buildings that represent a potential day roost location will be demolished for the project, a pre-construction bat and roost survey is recommended prior to ground disturbance to determine presence or absence.

The survey should be conducted on foot to visually inspect all buildings and potentially suitable crevices for guano and bats. Acoustic and visual monitoring should also be conducted at dusk near

potential roost sites on two consecutive nights. Acoustic monitoring surveys should be conducted on two different evenings between the months of May and September. The survey must be conducted when weather is favorable.

If bats are observed breeding between mid-October and the end of June, the biological monitor shall establish an appropriate no-work buffer around the breeding or roost site for the duration of the breeding season. If work must be conducted within the no-work buffer during the breeding season, the biological monitor shall conduct a daytime survey prior to construction to determine whether the bats are still present. When the biological monitor determines that the bats are no longer breeding, construction may commence within the no-work buffer. All construction activity in the vicinity of an active roost must be limited to daylight hours and lights should not be used around roost sites at night. Demolition of any roost sites must be timed for the period when bats are not breeding on the site.

6.2.3 - Fully Protected Species

The white-tailed kite is listed as a Fully Protected Species by the California Department of Fish and Game. A Fully Protected Species is protected by the California Department of Fish and Game Code and does not allow for any permits for incidental take of the species. Therefore, any project related impacts associated with the white-tailed kite are considered significant.

This bird is not known to nest within the project site, but has been known to forage in similar agricultural areas. These birds often eat their prey on the ground within shrub covered areas. It is unlikely that a white-tailed kite would be directly impacted during project installation; however, a biological monitor may be required during the initial vegetation removal, if a white-tailed kite is observed nesting within 250 feet of the project site.

6.3 - Jurisdictional Waters and Wetlands

No potentially jurisdictional waters or wetlands occur on the site; therefore, a jurisdictional delineation is not necessary

6.4 - Nesting Birds

The project site contains suitable nesting habitat for several tree, shrub, and ground-dwelling avian species. Therefore, pursuant to the MBTA and CFG Code, removal of any trees, shrubs, or any other potential nesting habitat should 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 must 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. Construction activities may proceed within the buffer area at the discretion of the biological monitor.

6.5 - Wildlife Movement Corridors

No wildlife movement corridors occur on the site; therefore, no additional action is necessary.

SECTION 7: CERTIFICATION

I herby certify that the statements furnished above and in the attached exhibits present data and information required for this biological evaluation, and that the facts, statements, and information.

Date: December 17, 2012 Signed:

Diana Lloyd
Michael Brandman Associates
Irvine, California

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SECTION 9: PROJECT RESPONSIBILITY

Principal-In-Charge ..... Kenneth J. Lord, Ph.D.
Senior Project Biologist..... Scott Crawford
Project Manager ..... Diana Lloyd
Project Biologist ..... Diana Lloyd
Biological Resources Assessment Report: Primary Author ..... Diana Lloyd
Technical Review of Biological Resources Assessment ..... Scott Crawford
Field Personnel ..... Diana Lloyd
Senior Editor and Document Processor ..... Sandra L. Tomlin
Graphics..... Karlee McCracken
Reprographics..... Jose Morelos
Photography (Site Photographs) ..... Diana Lloyd

All staff responsible for report preparation and fieldwork are MBA employees and can be contacted at 714.508.4100.

Appendix A:
Floral and Faunal Compendia

Flora Compendia

Cupressaceae		**Cypress Family**
Cupressus	*sempervirens*	Italian cypress
Amaranthaceae		**Amaranth Family**
Amaranthus	*palmeri*	Palmer's amaranth
Bignoniaceae		**Bignonia Family**
Jacaranda	*mimosifolia*	Jacaranda
Carduus	*pycnocephalus*	Italian thistle
Centaurea	*melitensis*	tocalote
Senecio	*vulgaris*	common groundsel
Verbesina	*encelioides*	crownbeard
Boraginaceae		**Borage Family**
Amsinckia	*menziesii*	Menzies' fiddleneck
Brassicaceae		**Mustard Family**
Sisymbrium	*irio*	London rocket
Cactaceae		**Cactus Family**
Opuntia	*× occidentalis*	western prickly pear
Chenopodiaceae		**Goosefoot Family**
Bassia	*hyssopifolia*	five-hooked bassia
Chenopodium	*album*	lamb's quarters
Salsola	*tragus*	Russian thistle
Cucurbitaceae		**Gourd Family**
Citrullus	*lanata*	watermellon
Malvaceae		**Mallow Family**
Malva	*parviflora*	cheeseweed
Myrtaceae		**Myrtle Family**
Eucalyptus	*globulus*	blue gum
Portulacaceae		**Purslane Family**
Portulaca	*oleracea*	little hogweed
Simaroubaceae		**Quassia Family**
Ailanthus	*altissima*	tree of heaven
Solanaceae		**Nightshade Family**
Datura	*stramonium*	jimson weed
Ulmaceae		**Elm Family**
Ulmus	*parvifolia*	Chinese elm
Zygophyllaceae		**Caltrop Family**
Tribulus	*terrestris*	puncture vine
Arecaceae		**Palm Family**
Washingtonia	*robusta*	Mexican fan palm
Poaceae		**Grass Family**

Flora Compendia

Bromus	*rubens*	red brome
Cynodon	*dactylon*	Bermuda grass
Typhaceae		**Cattail Family**
Typha	*domingensis*	southern cattail

Fauna Compendia

Acrididae		**Short-horned Grasshoppers**
Chloealtis	*gracilis*	slant-faced grasshopper
Asilidae		**Robber Flies**
Diogmites	*sp.*	robber fly
Muscidae		**Muscid Flies**
Musca	*domestica*	house fly
Formicidae		**Ants**
Pogonomyrmex	*californicus*	harvester ants
Phrynosomatidae		**Lizards**
Uta	*stansburiana*	side-blotched lizard
Cathartidae		**Vultures**
Cathartes	*aura*	turkey vulture
Accipitridae		**Hawks**
Buteo	*jamaicensis*	red-tailed hawk
Falconidae		**Falcons**
Falco	*sparverius*	American kestrel
Recurvirostridae		**Stilts/Avocets**
Himantopus	*mexicanus*	black-necked stilt
Recurvirostra	*americana*	American avocet
Columbidae		**Pigeons/Doves**
Columba	*livia*	rock pigeon
Zenaida	*macroura*	mourning dove
Tyrannidae		**Flycatchers**
Sayornis	*nigricans*	black phoebe
Tyrannus	*verticalis*	western kingbird
Laniidae		**Shrikes**
Lanius	*ludovicianus*	loggerhead shrike
Corvidae		**Jays/Crows**
Corvus	*brachyrhynchos*	American crow
Hirundinidae		**Swallows**
Stelgidopteryx	*serripennis*	northern rough-winged swallow
Hirundo	*rustica*	barn swallow
Mimidae		**Mockingbirds/Thrashers**
Mimus	*polyglottos*	northern mockingbird
Sturnidae		**Starlings**
Sturnus	*vulgaris*	European starling
Emberizidae		**Warblers, sparrow, etc.**
Melospiza	*melodia*	song sparrow
Icteridae		**New world blackbirds**

Fauna Compendia

Agelaius	*phoeniceus*	red-winged blackbird
Quiscalus	*quiscula*	common grackle
Passeridae		**True sparrows**
Passer	*domesticus*	house sparrow
Leporidae		**Hares and Rabbits**
Sylvilagus	*audubonii*	desert cottontail
Sciuridae		**Squirrels**
Spermophilus	*beecheyi*	California ground squirrel
Geomyidae		**Pocket Gophers**
Thomomys	*bottae*	Botta's pocket gopher

Appendix B:
Site Photographs

Photograph 1: North facing view of abandoned dairy farm on the left and gravel mining and manure processing operations on the right, from Eucalyptus road. June 19, 2012.

Photograph 2: Northwest facing view of abandoned dairy farm infrastructure from Eucalyptus road. June 19, 2012.

Photograph 3: East facing view of sandy berm and residential development in the background from Eucalyptus road near the center of the site. June 19, 2012.

Photograph 4: North facing view of active agricultural field on the left and ruderal vegetation on the right, from Eucalyptus road. June 19, 2012.

Source: Michael Brandman Associates, 2012.

Photograph 5: East facing view of representative disturbed area used for staging equipement. From corner of two agricultural fields June 19, 2012.

Photograph 6: Northeast facing view of active agricultural field with alfalfa crop, with Eucalyptus windrow in background. From corner of two agricultural fields June 19, 2012

Photograph 7: West facing view of agricultural field and dairy farm in the background. From corner of two agricultural fields June 19, 2012.

Photograph 8: North facing view of dirt mound with rodent burrows. From Eucalyptus Road near southern manure settling basin. June 19, 2012.

Source: Michael Brandman Associates, 2012.

Photograph 9: Northwest facing view of manure settling basin where shorebirds were observed. From Eucalyptus Road. June 19, 2012.

Photograph 10: North facing view of ruderal areas adjacent to S. Archibald Avenue, from corner with Eucalyptus Avenue. June 19, 2012.

Photograph 11: Southwest facing view of ruderal area adjacent to S. Archibald Avenue with grading occuring in the background. From corner with Edison Avenue. June 19, 2012

Photograph 12: South facing view of ruderal area in, disturbed area in background, dairy farm on right, and agricultural field on left. From Edison Avenue. June 19, 2012

Source: Michael Brandman Associates, 2012.

Photograph 13: West facing view of eucalyptus windrow. From Edison Avenue. June 19, 2012.

Photograph 14: Southeast facing view of abandoned development. June 19, 2012.

Photograph 15: Southwest facing view of abandoned developmenting foreground, dairy farm in backround and gravel mining in background right. June 19, 2012.

Photograph 16: South facing view of abandoned development at corner of Edison Avenue and Haven - Summer Avenue. June 19, 2012.

Source: Michael Brandman Associates, 2012.

Appendix C:
California Natural Diversity Database Search Results

Selected Elements by Scientific Name

California Department of Fish and Game

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFG SSC or FP
American badger *Taxidea taxus*	AMAJF04010	None	None	G5	S4	SSC
arroyo chub *Gila orcuttii*	AFCJB13120	None	None	G2	S2	SSC
Bell's sage sparrow *Amphispiza belli belli*	ABPBX97021	None	None	G5T2T4	S2?	WL
big free-tailed bat *Nyctinomops macrotis*	AMACD04020	None	None	G5	S2	SSC
burrowing owl *Athene cunicularia*	ABNSB10010	None	None	G4	S2	SSC
Busck's gallmoth *Carolella busckana*	IILEM2X090	None	None	G1G3	SH	
California diplectronan caddisfly *Diplectrona californica*	IITRI23010	None	None	G1G2	S1S2	
California muhly *Muhlenbergia californica*	PMPOA480A0	None	None	G3	S3.3	4.3
California saw-grass *Cladium californicum*	PMCYP04010	None	None	G4	S2.2	2.2
California Walnut Woodland *California Walnut Woodland*	CTT71210CA	None	None	G2	S2.1	
chaparral nolina *Nolina cismontana*	PMAGA080E0	None	None	G2	S2	1B.2
chaparral ragwort *Senecio aphanactis*	PDAST8H060	None	None	G3?	S1.2	2.2
chaparral sand-verbena *Abronia villosa var. aurita*	PDNYC010P1	None	None	G5T3T4	S2	1B.1
coast horned lizard *Phrynosoma blainvillii*	ARACF12100	None	None	G4G5	S3S4	SSC
coast patch-nosed snake *Salvadora hexalepis virgultea*	ARADB30033	None	None	G5T3	S2S3	SSC
coastal cactus wren *Campylorhynchus brunneicapillus sandiegensis*	ABPBG02095	None	None	G5T3Q	S3	SSC
coastal California gnatcatcher *Polioptila californica californica*	ABPBJ08081	Threatened	None	G3T2	S2	SSC
coastal whiptail *Aspidoscelis tigris stejnegeri*	ARACJ02143	None	None	G5T3T4	S2S3	
Coulter's goldfields *Lasthenia glabrata ssp. coulteri*	PDAST5L0A1	None	None	G4T3	S2.1	1B.1
Coulter's saltbush *Atriplex coulteri*	PDCHE040E0	None	None	G2	S2.2	1B.2
Davidson's saltscale *Atriplex serenana var. davidsonii*	PDCHE041T1	None	None	G5T2?	S2?	1B.2

Selected Elements by Scientific Name

California Department of Fish and Game

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFG SSC or FP
Delhi Sands flower-loving fly *Rhaphiomidas terminatus abdominalis*	IIDIP05021	Endangered	None	G1T1	S1	
Desert cuckoo wasp *Ceratochrysis longimala*	IIHYM71040	None	None	G1	S1	
golden eagle *Aquila chrysaetos*	ABNKC22010	None	None	G5	S3	FP
grasshopper sparrow *Ammodramus savannarum*	ABPBXA0020	None	None	G5	S2	SSC
greenest tiger beetle *Cicindela tranquebarica viridissima*	IICOL02201	None	None	G5T1	S1	
intermediate mariposa-lily *Calochortus weedii var. intermedius*	PMLIL0D1J1	None	None	G3G4T2	S2.2	1B.2
Jokerst's monardella *Monardella australis ssp. jokerstii*	PDLAM18112	None	None	G4T1	S1	1B.1
least Bell's vireo *Vireo bellii pusillus*	ABPBW01114	Endangered	Endangered	G5T2	S2	
long-eared owl *Asio otus*	ABNSB13010	None	None	G5	S3	SSC
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	AMAFD01041	None	None	G5T1T2	S1S2	SSC
many-stemmed dudleya *Dudleya multicaulis*	PDCRA040H0	None	None	G2	S2	1B.2
marsh sandwort *Arenaria paludicola*	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
merlin *Falco columbarius*	ABNKD06030	None	None	G5	S3	WL
mesa horkelia *Horkelia cuneata var. puberula*	PDROS0W045	None	None	G4T2	S2.1	1B.1
northern leopard frog *Lithobates pipiens*	AAABH01170	None	None	G5	S2	SSC
northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	AMAFD05031	None	None	G5T3	S2S3	SSC
orangethroat whiptail *Aspidoscelis hyperythra*	ARACJ02060	None	None	G5	S2	SSC
pallid bat *Antrozous pallidus*	AMACC10010	None	None	G5	S3	SSC
Parish's desert-thorn *Lycium parishii*	PDSOL0G0D0	None	None	G3?	S2S3	2.3
Parry's spineflower *Chorizanthe parryi var. parryi*	PDPGN040J2	None	None	G2T2	S2	1B.1
Plummer's mariposa-lily *Calochortus plummerae*	PMLIL0D150	None	None	G3	S3	1B.2

Selected Elements by Scientific Name

California Department of Fish and Game

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFG SSC or FP
pocketed free-tailed bat *Nyctinomops femorosaccus*	AMACD04010	None	None	G4	S2S3	SSC
prairie wedge grass *Sphenopholis obtusata*	PMPOA5T030	None	None	G5	S2.2	2.2
Pringle's monardella *Monardella pringlei*	PDLAM180J0	None	None	GX	SX	1A
prostrate vernal pool navarretia *Navarretia prostrata*	PDPLM0C0Q0	None	None	G2	S2	1B.1
red-diamond rattlesnake *Crotalus ruber*	ARADE02090	None	None	G4	S2?	SSC
rigid fringepod *Thysanocarpus rigidus*	PDBRA2Q070	None	None	G1G2	S1S2	1B.2
Riversidian Alluvial Fan Sage Scrub *Riversidian Alluvial Fan Sage Scrub*	CTT32720CA	None	None	G1	S1.1	
Robinson's pepper-grass *Lepidium virginicum var. robinsonii*	PDBRA1M114	None	None	G5T3	S3	1B.2
round-leaved filaree *California macrophylla*	PDGER01070	None	None	G2	S2	1B.1
salt marsh bird's-beak *Chloropyron maritimum ssp. maritimum*	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
Salt Spring checkerbloom *Sidalcea neomexicana*	PDMAL110J0	None	None	G4?	S2S3	2.2
San Bernardino aster *Symphyotrichum defoliatum*	PDASTE80C0	None	None	G2	S2	1B.2
San Bernardino kangaroo rat *Dipodomys merriami parvus*	AMAFD03143	Endangered	None	G5T1	S1	SSC
San Diego ambrosia *Ambrosia pumila*	PDAST0C0M0	Endangered	None	G1	S1	1B.1
San Diego banded gecko *Coleonyx variegatus abbotti*	ARACD01031	None	None	G5T3T4	S2S3	
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	AMAEB03051	None	None	G5T3?	S3?	SSC
San Diego desert woodrat *Neotoma lepida intermedia*	AMAFF08041	None	None	G5T3?	S3?	SSC
Santa Ana River woollystar *Eriastrum densifolium ssp. sanctorum*	PDPLM03035	Endangered	Endangered	G4T1	S1	1B.1
Santa Ana speckled dace *Rhinichthys osculus ssp. 3*	AFCJB3705K	None	None	G5T1	S1	SSC
Santa Ana sucker *Catostomus santaanae*	AFCJC02190	Threatened	None	G1	S1	SSC
Santa Barbara morning-glory *Calystegia sepium ssp. binghamiae*	PDCON040E6	None	None	G5T1	S1	1B.1

Selected Elements by Scientific Name

California Department of Fish and Game

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFG SSC or FP
silvery legless lizard *Anniella pulchra pulchra*	ARACC01012	None	None	G3G4T3T4Q	S3	SSC
slender-horned spineflower *Dodecahema leptoceras*	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
smooth tarplant *Centromadia pungens ssp. laevis*	PDAST4R0R4	None	None	G3G4T2	S2.1	1B.1
Southern California Arroyo Chub/Santa Ana Sucker Stream *Southern California Arroyo Chub/Santa Ana Sucker Stream*	CARE2330CA	None	None	G?	SNR	
southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	ABPBX91091	None	None	G5T2T4	S2S3	WL
Southern Coast Live Oak Riparian Forest *Southern Coast Live Oak Riparian Forest*	CTT61310CA	None	None	G4	S4	
Southern Cottonwood Willow Riparian Forest *Southern Cottonwood Willow Riparian Forest*	CTT61330CA	None	None	G3	S3.2	
Southern Sycamore Alder Riparian Woodland *Southern Sycamore Alder Riparian Woodland*	CTT62400CA	None	None	G4	S4	
Southern Willow Scrub *Southern Willow Scrub*	CTT63320CA	None	None	G3	S2.1	
southwestern willow flycatcher *Empidonax traillii extimus*	ABPAE33043	Endangered	Endangered	G5T1T2	S1	
Stephens' kangaroo rat *Dipodomys stephensi*	AMAFD03100	Endangered	Threatened	G2	S2	
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	None	G2G3	S2	SSC
two-striped garter snake *Thamnophis hammondii*	ARADB36160	None	None	G3	S2	SSC
Walnut Forest *Walnut Forest*	CTT81600CA	None	None	G1	S1.1	
western mastiff bat *Eumops perotis californicus*	AMACD02011	None	None	G5T4	S3?	SSC
western pond turtle *Emys marmorata*	ARAAD02030	None	None	G3G4	S3	SSC
western yellow bat *Lasiurus xanthinus*	AMACC05070	None	None	G5	S3	SSC
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	ABNRB02022	Candidate	Endangered	G5T3Q	S1	
white rabbit-tobacco *Pseudognaphalium leucocephalum*	PDAST440C0	None	None	G4	S2S3.2	2.2
white-tailed kite *Elanus leucurus*	ABNKC06010	None	None	G5	S3	FP
yellow warbler *Dendroica petechia brewsteri*	ABPBX03018	None	None	G5T3?	S2	SSC

Selected Elements by Scientific Name

California Department of Fish and Game

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFG SSC or FP
yellow-breasted chat *Icteria virens*	ABPBX24010	None	None	G5	S3	SSC

Record Count: 85

Appendix D:
Regulatory Framework

REGULATORY FRAMEWORK

Sensitive Plant and Wildlife Species

Sensitive species are native species that have been accorded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

Federal Endangered Species Act

The United States Fish and Wildlife Service (USFWS) administers the Federal Endangered Species Act (ESA). The ESA provides a process for listing species as either threatened or endangered, and methods of protecting listed species. The ESA defines as "endangered" any plant or animal species that is in danger of extinction throughout all or a significant portion of its known geographic range. A "threatened" species is a species that is likely to become endangered. A "proposed" species is one that has been officially proposed by the USFWS for addition to the federal threatened and endangered species list.

Per § 9 of the ESA, "take" of threatened or endangered species is prohibited. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. Take can include disturbance to habitats used by a threatened or endangered species during any portion of its life history. The presence of any federally threatened or endangered species in a project area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under the regulations of the ESA, the USFWS may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

California Endangered Species Act

The California Department of Fish and Game (CDFG) administers the California Endangered Species Act (CESA). The State of California considers an "endangered" species 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 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 portion of its known geographic range that it may become endangered if its present environment worsens. The rare species designation applies to California native plants. State threatened and endangered species are fully protected against take, as defined above. The term "species of special concern" is an informal designation used by CDFG for some declining wildlife species that are not state candidates for listing. This designation does not provide legal protection, but signifies that these species are recognized as sensitive by CDFG.

California Native Plant Society

The California Native Plant Society (CNPS) is a California resource conservation organization that has developed and inventory of California's sensitive plant species. This inventory summarizes information on the distribution, rarity, and endangerment of California's vascular plants. The inventory is divided into four lists based on the rarity of the species. In addition, the CNPS provides an inventory of plant communities that are considered sensitive by the state and federal resource agencies, academic institutions, and various conservation groups. Determination of the level of sensitivity is based on the number and size of remaining occurrences as well as recognized threats.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects all common wild birds found in the United States (U.S.) except the house sparrow, starling, feral pigeon, and resident game birds such as pheasant, grouse, quail, and wild turkey. Resident game birds are managed separately by each state. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird including feathers, parts, nests, or eggs.

California Fish and Game Code - § 3503 and § 3511

The CDFG administers the California Fish and Game Code (CFG Code). There are particular sections of the CFG Code that are applicable to natural resource management. For example, § 3503 of the CFG Code states it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird that is protected under the MBTA. CFG Code § 3503.5 further protects all birds in the orders Falconiformes and Strigiformes, birds of prey such as hawks and owls, and their eggs and nests from any form of take. CFG Code § 3511 lists fully protected bird species where the CDFG is unable to authorize the issuance of permits or licenses to take these species.

Jurisdictional Waters and Wetlands

Impacts to natural drainage features and wetland areas are regulated by the United States Army Corp of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFG based upon the policies and regulations discussed below.

United States Army Corp of Engineers Regulations

Federal Clean Water Act - § 404

The USACE administers § 404 of the federal Clean Water Act (CWA). This section regulates the discharge of dredge and fill material into waters of the U.S. USACE has established a series of nationwide permits that authorize certain activities in waters of the U.S., if a proposed activity can demonstrate compliance with standard conditions. Normally, USACE requires an individual permit for an activity that will affect an area equal to or in excess of 0.5 acre of waters of the U.S. Projects that result in impacts to less than 0.5 acre can normally be conducted pursuant to one of the nationwide permits, if consistent with the standard permit conditions. USACE also has discretionary

authority to require an Environmental Impact Statement for projects that result in impacts to an area between 0.1 and 0.5 acre. Use of any nationwide permit is contingent on the activities having no impacts to endangered species.

Waters of the United States

Waters of the U.S., as defined in the Code of Federal Regulations (CFR) § 328.3, include all waters or tributaries to waters such as lakes, rivers, intermittent and perennial streams, mudflats, sand-flats, natural ponds, wetlands, wet meadows, and other aquatic habitats. Frequently, waters of the U.S., with at least intermittently flowing water or tidal influences, are demarcated by an ordinary high water mark (OHWM). The OHWM is defined in CFR § 328.3(e) as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. In this region, the OHWM is typically indicated by the presence of an incised streambed with defined bank shelving.

In June 2001, the USACE South Pacific Division has issued Guidelines for Jurisdictional Delineations for Waters of the United States in the Arid Southwest. The purpose of this document was to provide background information concerning physical characteristics of dryland drainage systems. These guidelines were reviewed and used to identify jurisdictional drainage features within the Project Site.

Wetlands

According to the USACE Wetlands Delineation Manual, Technical Report, three criteria must be satisfied to classify an area as a jurisdictional wetland:

1. A predominance of plant life that is adapted to life in wet conditions (hydrophytic vegetation)
2. Soils that saturate, flood, or pond long enough during the growing season to develop anaerobic conditions in the upper part (hydric soils)
3. Permanent or periodic inundation or soils saturation, at least seasonally (wetland hydrology)

Wetland vegetation is characterized by vegetation in which more than 50 percent of the composition of dominant plant species are obligate wetland, facultative wetland, and/or facultative species that occur in wetlands. As a result of the 2001 Solid Waste Agency of North Cook County (SWANCC) case, a wetland must show connectivity to a stream course in order for such a feature to be considered jurisdictional. Although wetland criteria was used to identify if areas were considered wetlands, the exact limits of jurisdiction were not measured based on the standard wetland delineation protocol as described in the 1987 USACE manual.

United States Army Corp of Engineers Regulated Activities

The USACE regulates the discharge of dredged or fill material including, but not limited to, grading, placing of rip-rap for erosion control, pouring concrete, laying sod, and stockpiling excavated material. Activities that generally do not involve a regulated discharge, if performed specifically in a manner to avoid discharges, include driving pilings, drainage channel maintenance, temporary mining and farm/forest roads, and excavating without stockpiling.

Regional Water Quality Control Board Regulations

Clean Water Act - § 401

Per § 401 of the CWA, "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 USACE will issue a § 404 permit, applicants must apply for and receive a § 401 water quality certification from the RWQCB.

Porter-Cologne Water Quality Act

The RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the state" (water code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (water code § 13050 (e)).

Regional Water Quality Control Board Regulated Activities

Under § 401 of the CWA, the RWQCB regulates all activities that are regulated by the USACE. Additionally, under the Porter-Cologne Water Quality Act, the RWQCB regulates all activities, including dredging, filling, or discharge of materials into waters of the state that are not regulated by the USACE due to a lack of connectivity with a navigable water body and/or lack of an OHWM.

California Department of Fish and Game Regulations

California Fish and Game Code - § 1600 to § 1603

The CFG Code mandates that "it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds, without first notifying the department of such activity." CDFG jurisdiction includes ephemeral, intermittent, and perennial watercourses, including dry washes, characterized by the presence of hydrophytic vegetation, the location of definable bed and banks, and the presence of existing fish or wildlife resources.

Furthermore, CDFG jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function as part of the riparian system. Historic court cases have further extended CDFG jurisdiction to include watercourses that seemingly

disappear, but re-emerge elsewhere. Under the CDFG definition, a watercourse need not exhibit evidence of an OHWM to be claimed as jurisdiction. However, CDFG does not regulate isolated wetlands; that is, those that are not associated with a river, stream, or lake.

California Department of Fish and Game Regulated Activities

The CDFG regulates activities that involve diversions, obstruction, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife resources.