



*NATURAL RESOURCES ASSESSMENT, INC.*

**General Biological Assessment  
Rancho San Jacinto 26  
San Jacinto, California**

**Prepared for:**

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**December 1, 2016**

**Project Number: BAW16-109**

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**CERTIFICATION**

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



KAREN NIUANI

Natural Resources Assessment, Inc.

December 1, 2016

Date

## **Executive Summary**

Natural Resources Assessment, Inc. (NRAI) was contracted by Bill Lo Consultant to conduct a general biological assessment for their proposed 26.59-acre development project.

The biological assessment was required because of the potential presence on site of sensitive biological resources, in particular the burrowing owl, identified in the Western Riverside County Multiple Species Habitat Conservation Plan (MSCHP).

Ms. Karen Kirtland of NRAI and Mr. Ricardo Montijo (subconsultant to NRAI) surveyed the site, evaluated the habitats present, and conducted a jurisdictional waters evaluation. Binoculars were used to aid in the identification of wildlife. All species identified by sight, call or sign (burrows, scat, tracks, etc.) were recorded.

No burrowing owls were found on the site; however, suitable burrows occur in the central portions of the two parcels that could offer suitable habitat for the species. We recommend project construction protective measures, including a pre-construction survey and monitoring requirements, as appropriate.

For the burrowing owl, it may be sufficient to passively relocate burrowing owls after nesting. If such mitigation is required, a Determination of Biological Equivalent or Superior Preservation Plan (DBESP) will have to be prepared that includes suitable mitigation and project measures to ensure proper implementation of the mitigation.

There will be no impacts to riparian/riverine, vernal pools, fairy shrimp or other jurisdictional waters.

Because of the proximity to local neighborhood parks, NRAI recommends that project construction follow the standard Best Management Practices outlined in the MSHCP.

The project will have no significant impacts to raptor and migratory bird foraging habitat.

Although it is very unlikely that nesting by protected bird species other than burrowing owl occurs on site, we recommend project construction protective measures, including a pre-construction survey and monitoring requirements, as appropriate.

No impacts to wildlife movement will occur.

## **1.0 Introduction**

Natural Resources Assessment, Inc. (NRAI) was contracted by Bill Lo Consultant to conduct a natural resources survey on a 26.59-acre development project. The biological assessment was required because of the potential presence on site of sensitive biological resources identified in the Western Riverside County Multiple Species Habitat Conservation Plan (MSCHP).

## **2.0 Site Location and Project Description**

The property is located in the City of San Jacinto, Riverside County, California (Figure 1). It consists of two parcels located at the intersection of Hewitt Street and Esplanade Avenue (Figure 2). An approximately 14-acre segment is located on the northeast corner of the intersection; a second 12-acre parcel is south of Esplanade Avenue. The northern parcel is bordered on the north by a park, and northeast and east by residential development. The southern parcel is bordered by a park on its northeast corner and residential development along its eastern border; a vacant lot occurs to the south.

The parcels are in the southeast portion of the San Jacinto Land Grant as depicted on the San Jacinto USGS 7.5-minute Quadrangle at Township 4 south, Range 1 west, San Bernardino Base and Meridian (Figure 3).

The proposed project is for commercial and/or residential development.

## **3.0 Methods**

### **3.1 Data Review**

NRAI conducted a data search for information on plant and wildlife species known occurrences within the vicinity of the project. This review included biological texts on general and specific biological resources, and those resources considered to be sensitive by various wildlife agencies, local governmental agencies and interest groups. Information sources included but are not limited to the following:

- Information provided by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) for the project site, Assessor's Parcel Numbers (APN) 437-310-029 and 439-180-015.
- U.S. Army Corps 404 requirements, State Water Resources Control Board requirements, California Department of Fish and Wildlife 1602 requirements.
- General texts and other documents regarding potential resources on the project

NRAI used the information to focus our survey efforts in the field. Please see Section 6.0 for a complete listing of documents reviewed.

### **3.2 Western Riverside County Multiple Species Habitat Conservation Plan**

The MSHCP is intended to balance the demands of the growth of western Riverside County with the need to preserve open space and protect species of plants and animals that are threatened with extinction. The MSHCP addresses incidental take of "covered" species. Of the 146 covered species addressed in the Western Riverside County MSHCP, 118 are considered to be adequately conserved simply by implementing the conservation program. Incidental take of these 118 species is permitted by the Western Riverside County MSHCP. The remaining 28 covered species are considered to be partially conserved – they would be adequately conserved when certain additional conservation requirements are implemented. The additional requirements are identified in the species-specific conservation objectives for those 28 species.





Figure 1. Project Location and Vicinity

Rancho San Jacinto 26  
APN 437-310-029 and 437-180-015  
San Jacinto, California

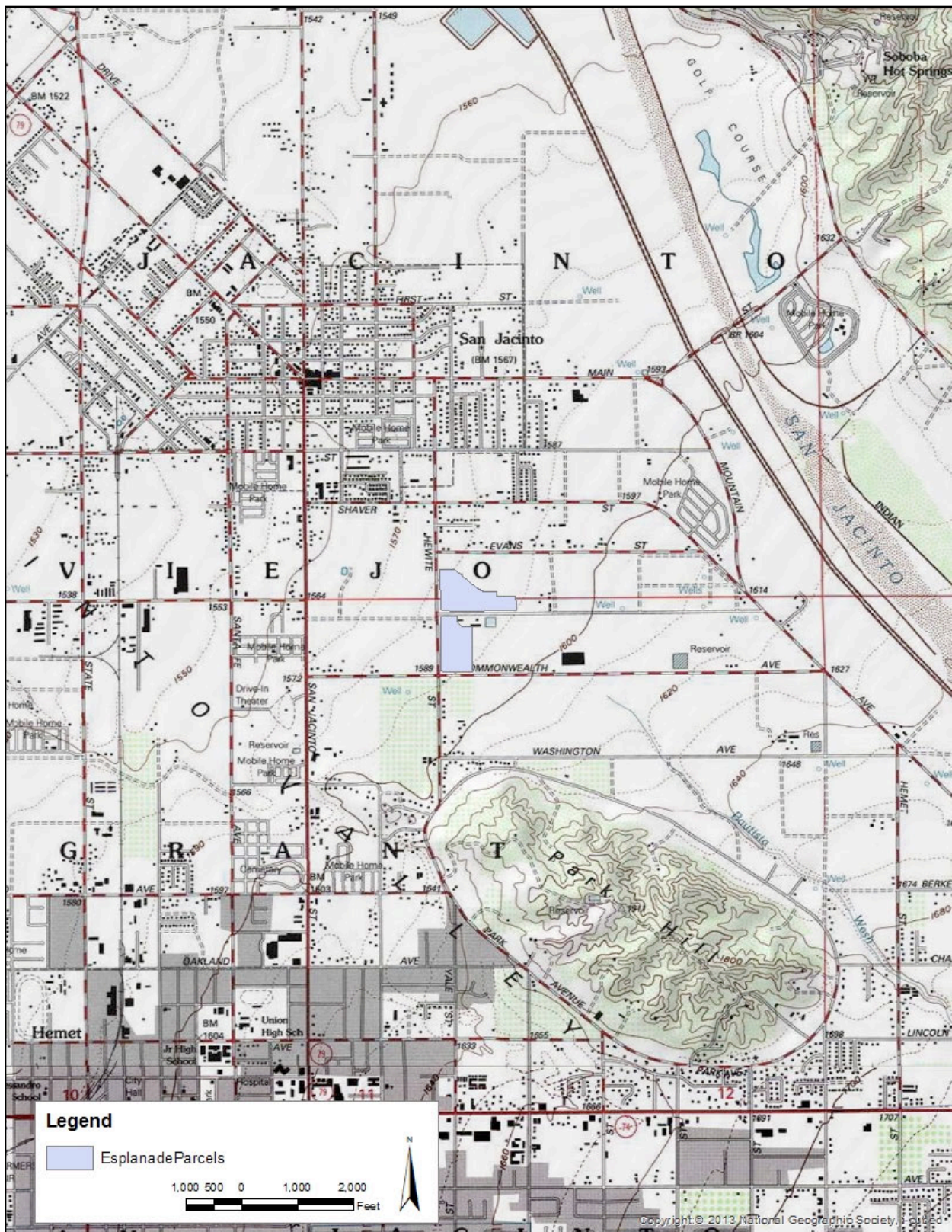




Figure 2. Project Parcels

Rancho San Jacinto 26  
APN 437-310-029 and 437-180-015  
San Jacinto, California





Map Base: San Jacinto (date unknown)  
7.5' USGS topographic quadrangle

Figure 3. USGS Topographic Depiction of the Subject Properties

Rancho San Jacinto 26  
APN 437-310-029 and 437-180-015  
San Jacinto, California



### **3.3. Field Assessment**

Ms. Karen Kirtland of NRAI and Mr. Ricardo Montijo (subconsultant to NRAI), conducted a biological assessment of the proposed development area on October 21, 2016. The field team evaluated the surrounding habitats, making notes on the general and sensitive biological resources present and taking representative photographs. The survey included focused habitat assessment surveys for resources covered under the MSHCP survey requirements.

## **4.0 Results**

### **4.1 Weather, Topography and Soils**

Weather at the beginning of the survey was 59 degrees Fahrenheit, with clear skies and no detectable wind. By the end of the survey, the temperature was 78 degrees Fahrenheit, with clear skies and winds of up to one mile per hour.

The site is generally flat.

There are four soil series on site (Figure 4, Natural Resources Conservation Service 2016<sup>1</sup>). The most common soil series is San Emigdio. Two phases of this soil type, San Emigdio fine sandy loam (SeA) found on zero to two percent slopes and San Emigdio fine sandy loam deep (SfA) found on zero to two percent slopes account for over 60% of the soils found on the two parcels. The San Emigdio series consists of very deep and well drained soils that formed in dominantly sedimentary alluvium. San Emigdio soils are on fans and floodplains and have slopes of 0 to 15 percent.

The next most common soil type is Metz loamy fine sand, gravelly sand substratum (MgB) found on zero to five percent slopes. The Metz series consists of very deep, somewhat excessively drained soils that formed in alluvial material from mixed, but dominantly sedimentary rocks. Metz soils are on floodplains and alluvial fans. This soil type dominates the west-central section of the northernmost parcel (APN 437-310-029) and accounts for 15% of the total area in the parcels.

Rough broken land (RuF) is a designation of soils that are of comparatively slight depth, often with rock fragments found throughout. The Natural Resources Conservation Service (NRCS) maps this soil type in the southernmost parcel (APN 439-180-015). It accounts for less than 15% of the total area in the parcel.

Grangeville sandy loam, drained, saline-alkali soils (GbP) account for roughly 7% of the total area in the parcels. This soil type occurs on zero to five percent slopes. The Grangeville series consists of very deep, somewhat poorly drained soils that formed in moderate coarse textured alluvium dominantly from granitic rock sources. Grangeville soils are on alluvial fans and floodplains.

All the soils on the site have been severely impacted by farming activities.

### **4.2 Land Uses**

A review of aerial imagery from the Waters Resources Institute (California State University San Bernardino<sup>2</sup>) indicates that the project site was farmed at least as far back as 1959 (earliest readily available aerial). It appears to be disked regularly, perhaps as part of fire safety compliance requirements.

Relatively recent disk furrows were evident during the field surveys.

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<sup>1</sup> <http://websoilsurvey.sc.egov.usda.gov>

<sup>2</sup> <http://wri.csusb.edu/index.html>

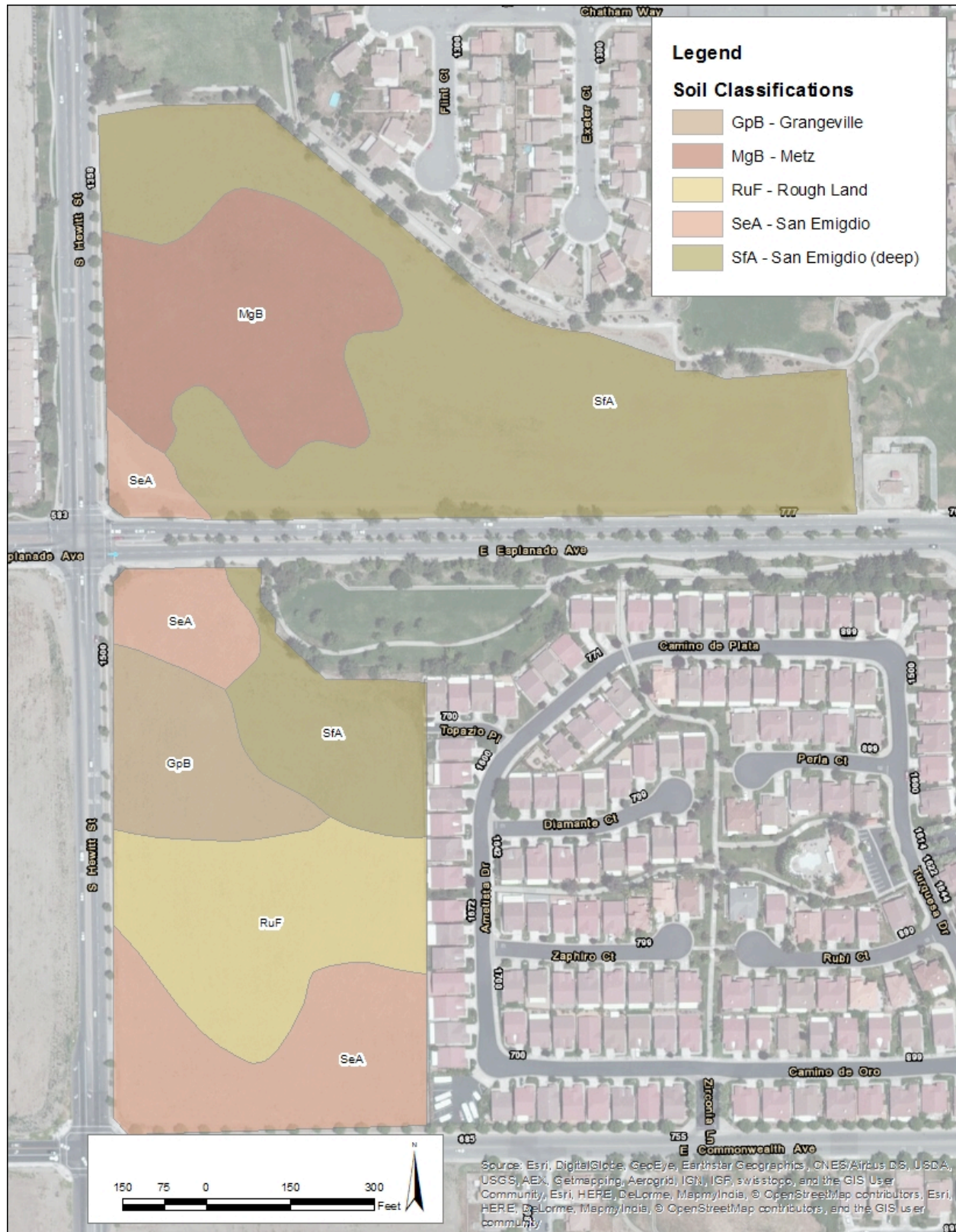


Figure 4. Properties Soil Map

Rancho San Jacinto 26  
APN 437-310-029 and 437-180-015  
San Jacinto, California



#### 4.3 Plant Communities

In the 1994 baseline and subsequent 2012 vegetation mapping for the MSHCP, the property was mapped as developed or disturbed land.

Currently, the plant community found on site is a ruderal (weedy) grassland (Photos 1 and 2) comprised of a mix of non-native weeds such as Mediterranean grass (*Schismus barbatus*), short-pod mustard (*Hirschfeldia incana*), red-stemmed filaree (*Erodium cicutarium*), red brome (*Bromus madritensis rubens*), tumbleweed (*Amaranthus albus*), cheeseweed (*Malva parviflora*) and Russian thistle (*Salsola tragus*). Near the parcel fringes, ornamental species are common, including Aleppo pine (*Pinus halepensis*), firethorn (*Pyracantha* sp.), fan palm (*Washingtonia* sp.), and bougainvillea (*Bougainvillea* sp.).

Very few native species occur, but one native shrub species coyotebrush (*Baccharis pilularis*) was recorded in the northern project site. The weedy native forb, telegraph weed (*Heterotheca grandiflora*) was observed on several locations on both parcels. Herbaceous cover is estimated at 50 percent, and shrub cover at less than 1 percent.

A list of all plant species observed is provided in Appendix A.

#### 4.4 Wildlife

Many bird species were observed, mostly along the property boundaries where weedy plants create an edge with planted ornamental species. Bird species observed included common species such as mourning dove (*Zenaida macroura*), California towhee (*Pipilo crissalis*), dark-eyed junco (*Junco hyemalis*), house finch (*Haemorhous mexicanus*), white-crowned sparrow (*Zonotrichia leucophrys*), common raven (*Corvus corax*), lark sparrow (*Chondestes grammacus*), California scrub jay (*Aphelocoma californica*), and northern mockingbird (*Mimus polyglottos*).

Side-blotched lizard (*Uta stansburiana*) was the only reptile observed. No amphibian species were observed. Mammal species observed included coyote (*Canis latrans*) and Beechey's ground squirrel (*Spermophilus beecheyi*).

A list of all wildlife species observed is provided in Appendix A.

#### 4.5 MSHCP Consistency Analysis

Section 6 of the MSHCP states that all projects must be reviewed for compliance with plan policies pertaining to Riparian/Riverine resources, Criteria resources, Narrow Endemic Plant Species, urban/wildlands interface, and additional survey needs as applicable.

##### 4.5.1 Criteria Area and Narrow Endemic Plant Species

The Western Riverside County MSHCP did not identify the project area as having habitat for Criteria Area or Narrow Endemic Plant species.

##### 4.5.2 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (Section 6.1.2)

###### 4.5.2.1 Riparian/Riverine Areas

Riparian/Riverine Areas are defined by the MSHCP as “lands which contain Habitat dominated by tress [sic], shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year”.

#### Project Findings

The site is almost flat, and has no riparian or riverine areas.



Photo 1. Photo taken from the western border of the southern parcel (APN 439-180-015) looking north.



Photo 2. Northern parcel looking south from northern border. Shows disking of the site.



#### 4.5.2.2 Vernal Pools

Vernal pools are defined by the MSHCP as “seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season . . . Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records” (Riverside County Transportation and Land Management Agency<sup>3</sup>).

#### Project Findings

The field team surveyed for vernal pools. Until 2005, the site was in active agricultural production. Since then, it appears to have been occasionally disked for weed control, and some dirt/debris dumping followed by spreading in portions of the site.

The soils are all described as loamy sands or sandy loams. Metz soils are excessively well-drained and San Emigdio soils are well drained. Flooding in all the soils is rare, and ponding never occurs (Soil Survey Staff 2016).

Based on the survey results, soils type and history of the site, vernal pools are not expected to be present.

#### 4.5.2.3 Vernal Pool Fairy Shrimp

Vernal pool fairy shrimp (*Branchinecta lynchi*) is found in grasslands in ponded areas such as vernal pools, cattle watering holes, basins, etc. Fairy shrimp are confined to temporary pools that fill in spring and evaporate by late spring to early summer.

In southern California, this species is found primarily in the interior of western Riverside County, central Santa Barbara County, and eastern Orange County and more recently in Los Angeles County.

Since most pools preferred by fairy shrimp are found in flat areas, many have been lost to agricultural activities and residential development. The limited extent of available habitat, plus the ongoing loss has resulted in the vernal pool fairy shrimp being listed as threatened by the USFWS.

#### Project Findings

As described in the vernal pool section, the site appears unsuitable for the formation of vernal pools. The soils are unsuitable for the formation of long-term ponds, and no obligate wetland perennial plant species were observed. There are no other sources of standing water, such as cattle ponds or watering holes that would provide suitable habitat for the vernal pool fairy shrimp.

#### 4.5.2.4 Riverside Fairy Shrimp

Riverside fairy shrimp (*Streptocephalus woottoni*) are known only from ephemeral pools in farmlands and similar open, flat terrain. Fairy shrimp are confined to temporary pools that fill in spring and evaporate by late spring to early summer.

The Riverside fairy shrimp is known only from southern Orange and western Riverside and San Diego Counties. Ongoing farming and development in these areas has resulted in the loss and degradation of these habitats. Therefore, the USFWS has listed the Riverside fairy shrimp as endangered.

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<sup>3</sup> <http://www.rctlma.org>

## **Project Findings**

As described in the vernal pool section, the site appears unsuitable for the formation of pools. The soils are unsuitable for the formation of long-term ponds, and no obligate wetland perennial plant species were observed. There are no other sources of standing water, such as cattle ponds or watering holes that would provide suitable habitat for the Riverside fairy shrimp.

### **4.5.3 Additional Survey Needs and Procedures (Section 6.3.2)**

#### **4.5.3.1 Burrowing Owl**

The burrowing owl (*Athene cunicularia hypogea*) is a resident species in lowland areas of southern California (Garrett & Dunn 1980). It prefers open areas for foraging and burrowing, and is found widely scattered in open desert scrub. This species is scarce in coastal areas, being found mainly in agricultural and grassland habitats. The largest remaining numbers are in the Imperial Valley, where it is common in suitable habitat adjacent to the agricultural fields.

The burrowing owl prefers large flat open areas for nesting and hunting (Garrett & Dunn 1981). This species lives in burrows constructed by other ground-dwelling species in grassy or sparse shrubby habitat. Burrowing owls also take over other types of burrows, including manmade objects such as pipes. This species forages low over the ground surface for insect prey, and seldom flies very high in the air.

As a result of coastal development, the burrowing owl is declining in coastal habitats. The California Department of Fish and Wildlife (CDFW) has designated the burrowing owl as a California Species of Special Concern (CSC). These species are so designated because “declining population levels, limited ranges and/or continuing threats have made them vulnerable to extinction.” (California Department of Fish and Wildlife 2012).

## **Project Findings**

The southern parcel (APN 439-180-015) is within the survey area for the burrowing owl. Habitat for burrowing owl was assessed over the entire project site in accordance with MSHCP “Burrowing Owl Survey Instructions”. The assessment included looking for burrowing owl burrows, whitewash, pellets, animal remains and other burrowing owl indicators.

No burrowing owls or burrowing owl signs were observed, but ground squirrel burrows in active use on site may be used by burrowing owls at a later date.

### **4.5.4 Guidelines Pertaining to the Urban/Wildland Interface (Section 6.1.4)**

The Urban/Wildland Interface guidelines of the MSHCP address indirect effects associated with locating development in the MSHCP Conservation Area near wildlands or other open space areas.

## **Project Findings**

The project site is bordered by residential development north, east and south, with additional residential and commercial development to the west. The only open space directly adjacent to the property is to the west of the southern parcel and is mostly disturbed or in agricultural production.

### **4.5.5 Habitat Conservation Plan for the Stephens Kangaroo Rat**

The species objectives for the Stephens kangaroo rat (SKR) in the Western Riverside MSHCP were designed to incorporate the objectives and be consistent with the Long-Term Stephens Kangaroo Rat Habitat Conservation Plan (SKR Plan). Any projects that are within the MSHCP boundaries must meet the SKR Plan requirements.



## **Project Findings**

The project is located within the SKR fee area.

### **4.5.6 Project Relationship to Reserve Assembly, San Jacinto Valley Area Plan (Section 3.3.13)**

Reserve assembly is concerned with the identification of specific areas that are necessary to assemble a sufficiently large and diverse parcel to protect the resources of concern for that reserve. The smallest unit of a Reserve Assembly is the Cell, which individually form the basis for Cell Groups that make up Area Plans. The project site is within the San Jacinto Valley Area Plan.

All the Cells have been identified during the preparation of the MSHCP and form the basis for identifying areas of sensitivity. Areas outside Cells are generally not considered to have a high sensitivity for the species identified by the MSHCP, although they could have resources such as riparian habitat that are considered to be sensitive and require additional analysis.

## **Project Findings**

The project site is not subject to cell criteria under the MSHCP.

## **4.6 Jurisdictional Waters**

### **4.6.1 Army Corps of Engineers**

The Corps regulates discharges of dredged or fill material into waters of the United States. These watersheds include wetlands and non-wetland bodies of water that meet specific criteria. The lateral limit of Corps jurisdiction extends to the Ordinary High Water Mark (OHWM) and to any wetland areas extending beyond the OHWM; thus, the maximum jurisdictional area is represented by the OHWM or wetland limit, whichever is greater.

Corps regulatory jurisdiction pursuant to Section 404 of the Clean Water Act is founded on a connection or nexus between the water body in question and interstate (waterway) commerce. This connection may be direct, through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce, or may be indirect, through a nexus identified in the Corps regulations.

## **Project Findings**

Water may have historically flowed across the project site, but historic natural flow in the region was altered years ago by channelization, the development of agriculture and the construction of adjacent residential development. There are no waters or wetland habitats that would be subject to Corps jurisdiction pursuant Section 404 of the Clean Water Act.

### **4.6.2 Regional Water Quality Control Board**

The Corps has delegated the authority for use of 404 permits to each individual state. The use of a 404 permit in California is regulated by the State Water Resources Control Board (SWRCB) under Section 401 of the Clean Water Act regulations. The Board has authority to issue a 401 permit that allows the use of a 404 permit in the state, with the authority in the state being vested in regional offices known as Regional Water Quality Control Boards (RWQCB).

Under the Porter-Cologne Act of 2003, the SWRCB has extended its responsibilities to include impacts to water quality from non-point source pollution.

In addition, the SWRCB has the responsibility to require that projects address ground water and water quality issues, which would be evaluated as part of the geotechnical and hydrology studies. Their authority extends to all waters of the State (of California).

### **Project Findings**

Water may have historically flowed across the project site, but historic natural flow in the region was altered years ago by channelization, the development of agriculture and the construction of adjacent residential development. There are no waters or wetland habitats that would come under the jurisdiction of the San Diego RWQCB or provide any Beneficial Uses (BUs) that might come under the RWQCB protection.

#### **4.6.3 California Department of Fish and Wildlife**

The California Department of Fish and Wildlife (CDFW), through provisions of the State of California Administrative Code, is empowered to issue agreements for any alteration of a river, stream or lake where fish or wildlife resources may adversely be affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. Lateral limits of jurisdiction are not clearly defined, but generally include any riparian resources associated with a stream or lake, CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream or lake as defined by CDFW.

### **Project Findings**

Water may have historically flowed across the project site, but historic natural flow in the region was altered years ago by channelization, the development of agriculture and the construction of adjacent residential development. There are no waters or wetland habitats that would come under the jurisdiction of the CDFW.

#### **4.7 Raptors, Migratory Birds, and Habitat**

Most of the raptor species (eagles, hawks, falcons and owls) are experiencing population declines as a result of habitat loss. Some, such as the peregrine falcon, have also experienced population losses as a result of environmental toxins affecting reproductive success, animals destroyed as pests or collected for falconry, and other direct impacts on individuals. Only a few species, such as the red-tailed hawk and barn owl, have expanded their range in spite of or a result of human modifications to the environment. As a group, raptors are of concern to state and federal agencies.

Raptors and all migratory bird species, whether listed or not, also receive protection under the Migratory Bird Treaty Act (MBTA) of 1918. The MBTA prohibits individuals to kill, take, possess or sell any migratory bird, bird parts (including nests and eggs) except according to regulations prescribed by the Secretary of the Interior Department (16 U. S. Code 703).

Additional protection is provided to all bald and golden eagles under the Bald and Golden Eagle Protection Act of 1940, as amended. State protection is extended to all birds of prey by the CDFW Code, Section 2503.5. No take is allowed under these provisions except through the approval of the agencies or their designated representatives.

### **Project Findings**

There is no nesting habitat for raptors or migratory birds on site. The site has been recently disked and no native shrub or ground cover exists that would be suitable for nesting birds. The surrounding neighborhood trees on both parcels (Photo 3), as well as the trees around the park (Photo 4) may provide some roosting habitat, but the lack of surrounding native scrub and other woodland habitats, and the location of the two properties in a busy residential neighborhood and neighborhood streets has limited the use of these trees as nesting sites.





Photo 3. Northern parcel. Trees along Esplanade Avenue and along the boundary with adjacent development  
Looking east from the western border.



Photo 4. Trees along the southern boundary of the park (southern parcel).

#### **4.8 Habitat Fragmentation and Wildlife Movement**

Wildlife movement and the fragmentation of wildlife habitat are recognized as important issues that must be considered in assessing impacts to wildlife. In summary, habitat fragmentation is the division or breaking up of larger habitat areas into smaller areas that may or may not be capable of independently sustaining wildlife and plant populations. Wildlife movement (more properly recognized as species movement) is the temporal movement of species along various types of corridors. Wildlife corridors are especially important for connecting fragmented wildlife habitat areas.

#### **Project Findings**

The project site is in area already fragmented and is surrounded by paved roads, residential and agricultural development. There are few native habitats left in the nearby surrounding areas, and impacts to wildlife movement and habitat fragmentation have already occurred. There will be no additional fragmentation of habitat.

### **5.0 Discussion**

#### **5.1 General Biological Resources**

There will be a loss of approximately 26 acres of mostly ruderal habitat. This impact is not considered to be significant.

#### **5.2 MSHCP Consistency Analysis**

##### **5.2.1 Criteria Area Plant Species and Narrow Endemic Plant Species**

There are no Criteria Area Plant Species or Narrow Endemic Plant Species identified as potentially present on site.

##### **5.2.2 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (Section 6.1.2)**

There are no riparian/riverine areas or vernal pools and therefore no requirement to protect species associated with these habitats.

##### **5.2.3 Additional Survey Needs and Procedures (Section 6.3.2)**

Suitable habitat for burrowing owl occurs on booth parcels. Most of the available habitat is of low quality, but it is located close to the San Jacinto River and open space areas. Because suitable habitat exists, we recommend the following prior to construction:

- A pre-construction burrowing owl breeding bird survey following the recommended guidelines of the MSHCP will be required to determine if nesting is occurring.
- Occupied nests will not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through non-invasive methods that either (a) the adult birds have not begun egg-laying and incubation; or (b) the juveniles from the occupied nests are foraging independently and are capable of independent survival.
- If the biologist is not able to verify one of the above conditions, then no disturbance shall occur during the breeding season within a distance determined by the qualified biologist for each nest or nesting site. For the burrowing owl, the recommended distance is a minimum of 160 feet.

Mitigation requirements under the MSHCP are not clear for species, such as these, which are not within conserved areas for Criteria Cells. For the burrowing owl, it may be sufficient to passively relocate burrowing owls after nesting. If mitigation is required, a Determination of Biological Equivalent or

Superior Preservation Plan (DBESP) will have to be prepared that includes suitable mitigation and project measures to ensure proper implementation of the mitigation.

#### **5.2.4 Guidelines Pertaining to the Urban/Wildlands Interface (Section 6.1.4)**

While there are no anticipated impacts to wildlands, because of the proximity to local neighborhood parks, NRAI recommends that the following Best Management Practices (BMPs) be implemented for this project:

1. Water pollution and erosion control plans shall be developed and implemented according to RWQCB requirements as appropriate.
2. The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.
3. Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, and CDFW, RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
4. The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.
5. Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible. This includes all species listed in Appendix C.
6. To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
7. Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas
8. The Permittee shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs.

#### **5.2.6 Project Relationship to Reserve Assembly, San Jacinto Valley Area Plan (Section 3.3.9)**

No further action is required.

#### **5.3 Jurisdictional Waters**

The project site does not have jurisdictional waters. No further action is required.



#### **5.4 Raptors and Nesting Habitats**

Although it is very unlikely that nesting by protected bird species other than burrowing owl occurs on site, we still recommend the following:

- A breeding bird survey will be required to determine if nesting is occurring. Occupied nests will not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through non-invasive methods that either (a) the adult birds have not begun egg-laying and incubation; or (b) the juveniles from the occupied nests are foraging independently and are capable of independent survival.
- If the biologist is not able to verify one of the above conditions, then no disturbance shall occur during the breeding season within a distance determined by the qualified biologist for each nest or nesting site.

This work can be done in conjunction with the burrowing owl survey.

There will be no significant impacts to foraging habitats for native birds.

#### **5.5 Habitat Fragmentation and Wildlife Movement**

The project will not contribute to ongoing fragmentation of habitat in this area, nor will it substantially affect wildlife movement in this area of Riverside County.

## 6.0 References

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## Appendix A - Plant and Animal Species Observed

### Plants

\*denotes non-native plants

#### GYMNOSPERMAE

##### Pinaceae

*Pinus halipensis*

#### GYMNOSPERMS

##### Pine family

Aleppo pine

#### ANGIOSPERMAE: DICOTYLEDONES

##### Amaranthaceae

\**Amaranthus albus*

##### Amaranth family

Pigweed amaranth

##### Asteraceae

*Ambrosia acanthicarpa*

*Baccharis pilularis*

*Erigeron canadensis*

*Helianthus annuus*

*Helianthus gracilentus*

*Heterotheca grandiflora*

##### Sunflower family

Annual bur-sage

Coyotebrush

Common horseweed

Common sunflower

Slender sunflower

Telegraph weed

##### Brassicaceae

\**Hirschfeldia incana*

\**Sisymbrium irio*

\**Sisymbrium altissimum*

##### Mustard family

Short-podded mustard

London rocket

Tumble mustard

##### Chenopodiaceae

\**Chenopodium album*

\**Salsola tragus*

##### Saltbush family

Lamb's quarters

Russian thistle

##### Euphorbiaceae

\**Euphorbia esula*

*Euphorbia polycarpa*

##### Euphorbia family

Wolf's milk.

Smallseed euphorbia

##### Fabaceae

*Melilotus indica*

##### Pea family

Annual yellow sweetclover

##### Geraniaceae

\**Erodium cicutarium*

##### Geranium family

Red-stemmed filaree

##### Lamiaceae

\**Marrubium vulgare*

##### Mint family

Horehound

##### Malvaceae

\**Malva parviflora*

##### Mallow family

Cheeseweed



**Rosaceae**

*Pyracantha* sp.

**Rose family**

Fire Thorn

**Zygophyllaceae**

*Tribulus terrestris*

**Caltrop family**

Puncture vine

**ANGIOSPERMAE: MONOCOTYLEDONAE**

**MONOCOT FLOWERING PLANTS**

**Arecaceae**

*Washingtonia* sp,

**Palm family**

Fan palm

**Poaceae**

\**Bromus madritensis* ssp. *rubens*

\**Cortaderia jubatum*

*Cynodon dactylon*

*Hordeum jubatum*

\**Schismus barbatus*

**Grass family**

Red brome

Pampas grass

Bermuda grass

Foxtail barley

Mediterranean grass

Taxonomy and nomenclature follow Baldwin et al. 2012.

**Animals**

\*Non-native wildlife

**REPTILIA**

**REPTILES**

**Phrynosomatidae**

*Uta stansburiana*

**Spiny lizards and their allies**

Side-blotched lizard

**AVES**

**BIRDS**

**Trochilidae**

*Calypte anna*

*Calypte costae*

**Hummingbirds**

Anna's hummingbird

Costa's hummingbird

**Charadriidae**

*Charadrius vociferus*

**Plovers**

Killdeer

**Accipitridae**

*Buteo jamaicensis*

**Kites, hawks and eagles**

Red-tailed hawk

**Columbidae**

*Zenaida macroura*

\**Columba livia*

**Pigeons and doves**

Mourning dove

Rock pigeon

**Tyrannidae**

*Sayornis nigricans*

**Tyrant flycatchers**

*Black Phoebe*

*Sayornis saya*  
*Tyrannus vociferans*

Say's phoebe  
Cassin's kingbird

**Corvidae**

*Corvus brachyrhynchos*  
*Corvus corax*

**Crows and ravens**

American crow  
Common raven

**Alaudidae**

*Eremophila alpestris*

**Larks**

Horned lark

**Regulidae**

*Regulus calendula*

**Kinglets**

Ruby-crowned kinglet

**Mimidae**

*Mimus polyglottos*

**Mimic thrushes**

Northern mockingbird

**Sturnidae**

\**Sturnus vulgaris*

**Starlings and Allies**

European starling

**Parulidae**

*Setophaga coronata*

**Wood warblers**

Yellow-rumped warbler

**Emberizidae**

*Zonotrichia leucophrys*  
*Pipilo crissalis*  
*Chondestes grammacus*  
*Junco hyemalis*

**Sparrows**

White-crowned sparrow  
California towhee  
Lark sparrow  
Dark-eyed junco

**Fringillidae**

*Haemorhous mexicanus*

**Finches**

House finch

**Passeridae**

\**Passer domesticus*

**Old World sparrows**

House sparrow

Nomenclature follows Hall 1981, Laudenslayer et al. 1991, and Stebbins 1966.

## Appendix B - Definitions of Species Status Classification

### FED: Federal Classifications

END	Taxa listed as endangered
THR	Taxa listed as threatened
PE	Taxa proposed to be listed as endangered
PT	Taxa proposed to be listed as threatened
C2*	The U.S. Fish and Wildlife Service (USFWS) revised its classifications of candidate taxa (species, subspecies, and other taxonomic designations). Species formerly designated as "Category 1 Candidate for listing" are now known simply as "Candidate". The former designation of "Category 2 Candidate for listing" has been discontinued. The USFWS will continue to assess the need for protection of these taxa and may, in the future, designate such taxa as Candidates. NRAI has noted the change in species status by marking with an asterisk (*) those C2 candidates that were removed from the list.
C	Candidate for listing. Refers to taxa for which the USFWS has sufficient information to support a proposal to list as Endangered or Threatened and issuance of the proposal is anticipated but precluded at this time.
BCC	Bird of Conservation Concern
ND	Not designated as a sensitive species

### STATE: State Classifications

END	Taxa listed as endangered
THR	Taxa listed as threatened
CE	Candidate for endangered listing
CT	Candidate for threatened listing
CFP	California Fully Protected. Species legally protected under special legislation enacted prior to the California Endangered Species Act.
SSC	Species of Special Concern. Taxa with populations declining seriously or that are otherwise highly vulnerable to human development.
SA	Special Animal. Taxa of concern to the California Natural Diversity Data Base regardless of their current legal or protected status.
WL	Watch list.
ND	Not designated as a sensitive species

### CNPS: California Native Plant Society Classifications

- 1A Plants presumed by CNPS to be extinct in California
- 1B Plants considered by CNPS to be rare or endangered in California and elsewhere
- 2P Plants considered by CNPS to be rare, threatened or endangered in California, but which are more common elsewhere.
- 3 Review list of plants suggested by CNPS for consideration as endangered but about which more information is needed.
- 4 Watch list of plants of limited distribution whose status should be monitored

### CNPS: Threat Codes

- .1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- .2 Fairly endangered in California (20-80% occurrences threatened)
- .3 Not very endangered in California (<20% of occurrences threatened or no current threats known)



## Appendix C - Plants to be Avoided in Areas Adjacent to Wildlands

BOTANICAL NAME	COMMON NAME
<i>Acacia</i> spp. (all species)	acacia
<i>Achillea millefolium</i>	var. <i>millefolium</i> common yarrow
<i>Ailanthus altissima</i>	tree of heaven
<i>Aptenia cordifolia</i>	red apple
<i>Arctotheca calendula</i>	cape weed
<i>Arctotis</i> spp. (all species & hybrids)	African daisy
<i>Arundo donax</i>	giant reed or arundo grass
<i>Asphodelus fistulosus</i>	asphodel
<i>Atriplex glauca</i>	white saltbush
<i>Atriplex semibaccata</i>	Australian saltbush
<i>Carex</i> spp. (all species*)	sedge
<i>Carpobrotus chilensis</i>	ice plant
<i>Carpobrotus edulis</i>	sea fig
<i>Centranthus ruber</i>	red valerian
<i>Chrysanthemum coronarium</i>	annual chrysanthemum
<i>Cistus ladanifer</i>	(incl. hybrids/ varieties) gum rockrose
<i>Cortaderia jubata</i> [syn. <i>C. Atacamensis</i> ]	jubata grass, pampas grass
<i>Cortaderia dioica</i> [syn. <i>C. sellowana</i> ]	pampas grass
<i>Cotoneaster</i> spp. (all species)	cotoneaster
<i>Cynodon dactylon</i>	(incl. hybrids varieties) Bermuda grass
<i>Cyperus</i> spp. (all species*)	nutsedge, umbrella plant
<i>Cytisus</i> spp. (all species)	broom
<i>Delosperma 'Alba'</i>	white trailing ice plant
<i>Dimorphotheca</i> spp. (all species)	African daisy, Cape marigold
<i>Drosanthemum floribundum</i>	rosea ice plant
<i>Drosanthemum hispidum</i>	purple ice plant
<i>Eichhornia crassipes</i>	water hyacinth

BOTANICAL NAME	COMMON NAME
<i>Elaeagnus angustifolia</i>	Russian olive
<i>Eucalyptus</i> spp. (all species)	eucalyptus or gum tree
<i>Eupatorium coelestinum</i> [syn. <i>Ageratina</i> sp.]	mist flower
<i>Festuca arundinacea</i>	tall fescue
<i>Festuca rubra</i>	creeping red fescue
<i>Foeniculum vulgare</i>	sweet fennel
<i>Fraxinus uhdei</i>	(and cultivars) evergreen ash, shamel ash
<i>Gaura</i> (spp.) (all species)	gaura
<i>Gazania</i> spp. (all species & hybrids)	gazania
<i>Genista</i> spp. (all species)	broom
<i>Hedera canariensis</i>	Algerian ivy
<i>Hedera helix</i>	English ivy
<i>Hypericum</i> spp. (all species)	St. John's Wort
<i>Ipomoea acuminata</i>	Mexican morning glory
<i>Lampranthus spectabilis</i>	trailing ice plant
<i>Lantana camara</i>	common garden lantana
<i>Lantana montevidensis</i> [syn. <i>L. sellowiana</i> ]	lantana
<i>Limonium perezii</i>	sea lavender
<i>Linaria bipartita</i>	toadflax
<i>Lolium multiflorum</i>	Italian ryegrass
<i>Lolium perenne</i>	perennial ryegrass
<i>Lonicera japonica</i>	(incl. 'Halliana') Japanese honeysuckle
<i>Lotus corniculatus</i>	birdsfoot trefoil
<i>Lupinus arboreus</i>	yellow bush lupine
<i>Lupinus texanus</i>	Texas blue bonnets
<i>Malephora crocea</i>	ice plant

BOTANICAL NAME	COMMON NAME
<i>Malephora luteola</i>	ice plant
<i>Mesembryanthemum nodiflorum</i>	little ice plant
<i>Myoporum laetum</i>	myoporum
<i>Myoporum pacificum</i>	shiny myoproum
<i>Myoporum parvifolium</i>	(incl. 'Prostratum') ground cover myoporum
<i>Oenothera berlandieri</i>	Mexican evening primrose
<i>Olea europea</i>	European olive tree
<i>Opuntia ficus-indica</i>	Indian fig
<i>Osteospermum</i> spp. (all species)	trailing African daisy, African daisy
<i>Oxalis pes-caprae</i>	Bermuda buttercup
<i>Parkinsonia aculeata</i>	Mexican palo verde
<i>Pennisetum clandestinum</i>	Kikuyu grass
<i>Pennisetum setaceum</i>	fountain grass
<i>Phoenix canariensis</i>	Canary Island date palm
<i>Phoenix dactylifera</i>	date palm
<i>Plumbago auriculata</i>	cape plumbago
<i>Polygonum</i> spp. (all species)	knotweed
<i>Populus nigra</i> 'italica	Lombardy poplar
<i>Prosopis</i> spp. (all species*)	mesquite
<i>Ricinus communis</i>	castorbean
<i>Robinia pseudoacacia</i>	black locust
<i>Rubus procerus</i>	Himalayan blackberry
<i>Sapium sebiferum</i>	Chinese tallow tree
<i>Saponaria officinalis</i>	bouncing bet, soapwart
<i>Schinus molle</i>	Peruvian pepper tree, California pepper
<i>Schinus terebinthifolius</i>	Brazilian pepper tree
<i>Spartium junceum</i>	Spanish broom
<i>Tamarix</i> spp. (all species)	tamarisk, salt cedar
<i>Trifolium tragiferum</i>	strawberry clover



BOTANICAL NAME	COMMON NAME
<i>Tropaelolum majus</i>	garden nasturtium
<i>Ulex europaeus</i>	prickly broom
<i>Vinca major</i>	periwinkle
<i>Yucca gloriosa</i>	Spanish dagger
An asterisk (*) indicates some native species of the genera exist that may be appropriate.	
Sources: California Exotic Pest Plant Council, United States Department of Agriculture-Division of Plant Health and Pest Prevention Services, California Native Plant Society, Fremontia Vol. 26 No. 4, October 1998, The Jepson Manual; Higher Plants of California, and County of San Diego-Department of Agriculture.	