General Biological Assessment

Main Street and Ramona Expressway
San Jacinto, California

Revised with Updated Site Plans
April 23, 2019

Prepared for:
Environmental Data Systems

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1.0 Introduction

ENVIRA was contracted by Environmental Data Systems, Inc. (EDS, Inc.) on behalf of the Soboba Band of Luiseño Indians to conduct a general biological assessment for their proposed 9.46-acre commercial development project. The survey was performed on August 18, 2017 between the hours of 6 and 11 a.m.

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

2.0 Site Location and Project Description

The property is located within the City of San Jacinto at the southwest corner of Main Street and Ramona Expressway (Figures 1 and 2). The northern border is Main Street. Immediately north of Main Street is a mix of fallow agricultural fields and residential development. The eastern border is formed by Ramona Expressway. To the west is the Durango residential development (single-family homes). To the south is the Soboba Indian Health Center and undeveloped commercial-designated lands along Donna Way.

3.0 Methods

3.1 Data Review

ENVIRA conducted a data search for known occurrences of plant and wildlife species in 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) 433-160-024, -027, -028, -029, -032, -033 and -034.
- 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

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

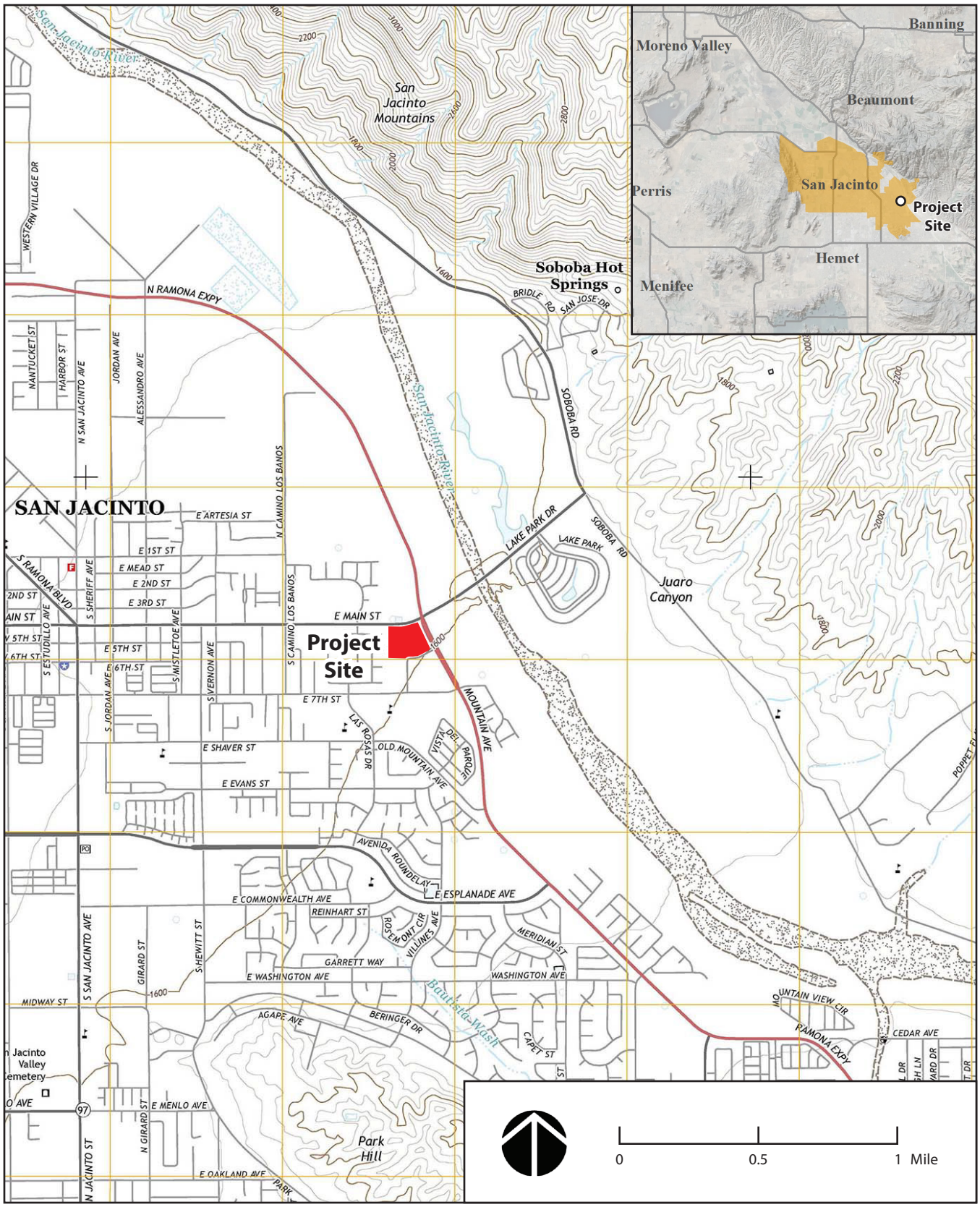


Figure 1

Regional Location Map

Figure 2

Project Site Vicinity and Location

3.2 Western Riverside County Multiple Species Habitat Conservation Plan

The MSHCP is intended to balance the demands of growth in 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 species addressed in the MSHCP, 118 are adequately conserved simply by implementing the conservation program. Incidental take of these 118 species is permitted by the MSHCP. The remaining 28 species are 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.

3.3 Field Assessment

Philippe Vergne of ENVIRA conducted a biological assessment of the proposed development area on August 18, 2017. Mr. Vergne 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.

Transects were walked across the entire parcel and zone of Influence, per the requirements for burrowing owl. This allowed for full coverage of all the natural areas of the site, including adjacent parcels.

4.0 Results

4.1 Weather, Topography and Soils

Weather at the beginning of the survey was 82 degrees Fahrenheit, with clear skies and winds of less than three miles per hour.

The site is generally flat with a very slight west to east inclination. It lies at the same elevation as Main Street and Donna Way and below the elevation of the Ramona Expressway. There are no drainages, culverts or other jurisdictional drainage features on site. There is a concrete swale (about 4 inches high) from the housing development border to the south to Donna Way.

There are two soils mapped by the Natural Resource Conservation Service on site (NRCS, 2017). The most common one is Metz loamy fine sand (MgB), a loamy fine sand found on zero to five percent slopes. This soil is mapped on approximately 90 percent of the project site. It has a gravelly sand substratum, and is made up of alluvium from sedimentary rock. Metz loamy fine sand is a somewhat excessively drained soil found on alluvial fans. It varies from non-saline to very slightly saline. The remainder of the project site soil is mapped as Dello loamy sand (DnB), which is found on zero to five percent slopes. This soil is a loamy sand with a gravelly substrate, made up of alluvium from granite rock. It is a somewhat poorly drained soil, non-saline to very slightly saline soil found on floodplains. All the soils on the site have been impacted by disking for fire control and possibly in the past by farming.

4.2 Land Uses

The project site appears to have been left fallow for the most part since the late 1990s. It has been mowed and possibly disked occasionally for weed control. The soil surface is broken, and old furrows were observed. Photos of the project site are provided in Appendix A.

4.3 Plant Communities

In the current vegetation mapping for the MSHCP, the property was mapped as disturbed annual grassland community.

Currently, the plant community found on site is a ruderal (weedy) grassland composed of a mix of non-native weeds such as Mediterranean grass (*Schismus barbatus*), short-pod mustard (*Hirschfeldia incana*), red-stemmed filaree (*Erodium cicutarium*).

Native shrub species such as California buckwheat (*Eriogonum fasciculatum*), California brittlebush (*Encelia farinosa*) and sweet bush (*Bebbia juncea*) occur as isolated plants. Herbaceous cover is estimated at 85 percent, and shrub cover at less than 1 percent.

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

4.4 Wildlife

Only a few day-time wildlife species were observed, mostly due to the lack of plant cover, water and native food resources. Bird species observed included common species such as mourning dove (*Zenaida macroura*), house sparrow (*Passer domesticus*), California towhee (*Pipilo crissalis*), and lark sparrow (*Chondestes grammacus*).

The Side-blotched lizard (*Uta stansburiana*) was the only reptile observed. No amphibian species were observed. Mammal species observed included Audubon's cottontail (*Syvilagus audubonii*), and Botta's pocket gopher (*Thomomys bottae*).

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

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. Appendix C contains a copy of the MSHCP printout for the APNs that comprise the property.

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 (Appendix C).

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, has sandy soils and has no riparian or riverine areas. There is no riparian or riverine habitat on site for riparian bird species.

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 Website.

Project Findings

The field team surveyed for vernal pools. Prior to 1990s, the site appears to have been in active agricultural use. Since then, it appears to have been occasionally disked for weed control.

The soils are all described as loamy sands or sandy loams. The Dello soil is described as somewhat poorly drained soils, while the Metz is excessively well-drained. Flooding in all the soils is rare, and ponding never occurs (NRCS, 2017).

Based on the survey results, soils type and history of the site, vernal pools are not 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 or ponding of water. 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.

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, 1981). 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.

Project Findings

The entire project site is within the survey area for the burrowing owl. Habitat for burrowing owl was assessed over the entire project site, including surveys conducted 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 sign of burrowing owls was observed on site. However, burrowing owls were observed in the zone of influence survey to the northeast across Main Street indicating that the site could be used for foraging by burrowing owl or could get colonized in the future (Photo 1).

Photo 1. Beechey ground squirrel burrows being used by burrowing owl pair off site in Zone of Influence.

4.5.3.2 San Bernardino Kangaroo Rat

The San Bernardino kangaroo rat (*Dipodomys merriami parvus*) (SBKR) is primarily associated with a variety of sage scrub vegetation, where the common elements are the presence of sandy soils and relatively open vegetation structure (McKernan 1997). Flood events break out of the main river channel in a complex pattern, resulting in a braided appearance to the flood plain. This dynamic nature to the habitat leads to a situation where not all the alluvial scrub habitat is suitable for the kangaroo rat at any point in time.

The SBKR prefers open habitat characterized by a low stature open scrub canopy cover of less than 22 percent. Occupied SBKR habitat also typically exhibits a reduced herbaceous cover with a low abundance of European grasses, such as brome species. This type of habitat is best described as early to intermediate phase alluvial sage scrub communities that are subject to frequent flooding/scouring. The open vegetation structure in these communities support the highest densities of SBKR.

Mature phase alluvial chaparral, which is usually located above the active channel or on higher benches are not usually occupied by SBKR, although individuals have been trapped in dense upland scrub adjacent to open habitat and SBKR populations (Vergne, 2008).

SBKR have been trapped on the property to the north of the project site across Main Street (Vergne, 2017) and across the Ramona Expressway.

Project Findings

The initial habitat assessment identified potential kangaroo rat burrows. To determine whether SBKR were present on the project site, a protocol trapping survey was conducted in September 2017 (Appendix D). The trapping surveys were conducted according to USFWS protocols established for SBKR, which require five nights of live-trapping. The SBKR was not captured, and the species is therefore considered absent from the project site.

4.5.3.3 Los Angeles Pocket Mouse

The Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) (LAPM) is one of two pocket mice found in this area of Riverside County. Both the LAPM and the San Diego pocket mouse

occupy similar habitats, but the San Diego pocket mouse has a wider range extending south into San Diego County. The habitat of the LAPM is described as confined to lower elevation grasslands and coast scrub habitats, in areas with soils composed of fine sands (Williams, 1986). The present known distribution of this species extends from Rancho Cucamonga east to Morongo Valley and south to the San Diego County border.

LAPM forage in open ground and underneath shrubs. Pocket mice in general dig burrows in loose soil, although this has not been completely documented for this subspecies.

The LAPM is listed as a California Species of Concern by the CDFW.

Project Findings

The initial habitat assessment identified burrows that could belong to the LAPM. However, during the subsequent protocol trapping survey, the LAPM was not captured (Appendix D). The species is therefore considered absent from the project site.

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 surrounded by paved roads, a medical building, vacant land, and single-family residential homes. The project site is physically separated from the San Jacinto River, by Ramona Expressway and the western levee along the river. There is no connection of the site to the river except overland across the Ramona Expressway (a busy roadway) and the levee.

The only open space directly adjacent to the property is to east which is a small parcel of hard packed soils owned and being fenced by the Eastern Municipal Water District. Although the site is located across and somewhat adjacent to the San Jacinto River, the separation of the site by housing, the Ramona Expressway and the existing San Jacinto levee make it unlikely any significant direct or indirect impacts will occur to wildlands due to project implementation.

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 not located within the SKR fee area.

4.5.6 Project Relationship to Reserve Assembly (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 Criteria Area", made of up of "Criteria Cells" identifies areas where conservation of habitat is needed to meet the needs of the covered species. In addition to existing habitat areas, the MSHCP proposes the conservation

of blocks of key habitat (cores) and movement corridors (linkages) which taken together will for the "Reserve Assembly."

Each Area has a designated conservation plan and is therefore referred to as an Area Plan. The smallest unit is the Cell, which individually form the basis for Cell Groups that make up Area Plans. The MSHCP defines [Criteria] Cells as "A unit within the Criteria Area generally 160 acres in size, approximating one quarter section", and Cell Groups as "An identified grouping of Cells within the Criteria Area".

All of 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 sensitive and require additional analysis.

Project Findings

The project site is wholly within the Criteria Area of Subunit 3, Upper San Jacinto River/Bautista Creek for the San Jacinto Valley Area Plan. Approximately 8.7 acres is within Cell 3098. Approximately 0.8 acres along the eastern margin of the project site is within Cell 3099, which is part of Cell Group Z (Figure 3).

Within cells 3098 and 3099, the MSHCP conservation goal is to contribute to a proposed habitat core area along the San Jacinto River (Proposed Core 5).

According to the MSHCP, Proposed Core 5 (Figure 4) is comprised of:

> …the portion of the upper San Jacinto River extending from the San Jacinto mountains to just west of State Street. It is contiguous with Core Areas in the San Jacinto Mountains and areas downstream along the San Jacinto River. Planning Species for which Habitat is provided within this Core include mountain yellow-legged frog, arroyo toad, least Bell's vireo, southwestern willow flycatcher, San Bernardino kangaroo rat, and Los Angeles pocket mouse. Maintenance of floodplain processes and water quality of the San Jacinto River is important for these species, as well as maintenance of habitat quality. This Core likely provides for movement of mammals such as mountain lion and bobcat, connecting to Core Areas in the San Jacinto Mountains, Lake Perris and San Jacinto Wildlife Refuge. In addition to indirect effects associated with adjacent planned land uses identified in Section 6.0 of this document, flood control activities resulting from adjacent planned land uses may also adversely affect species such as arroyo toad, San Bernardino kangaroo rat, least Bell's vireo, southwestern willow flycatcher and Los Angeles pocket mouse (MSHCP Section 3.2.3).

The MSHCP identifies the following specific conservation criteria:

> Cell Group Z (including Cell 3099)
>
> *Conservation within this Cell Group will contribute to assembly of Proposed Core 5. Conservation within this Cell Group will focus on grassland habitat. Areas conserved within this Cell Group will be connected to grassland habitat proposed for conservation in Cell #3098 to the west and #3204 to the south. Conservation within this Cell Group will be approximately 5% of the Cell Group focusing*

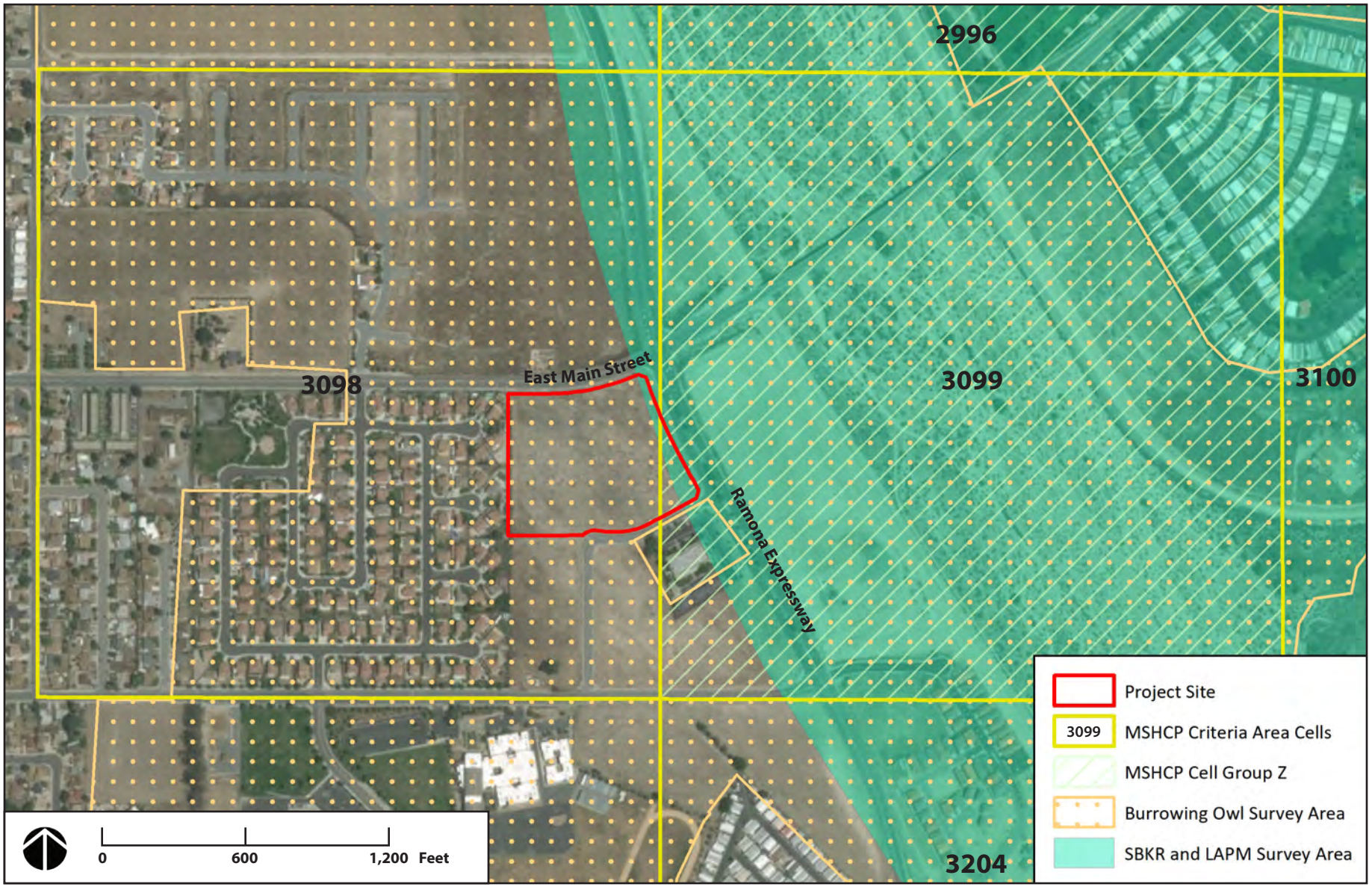
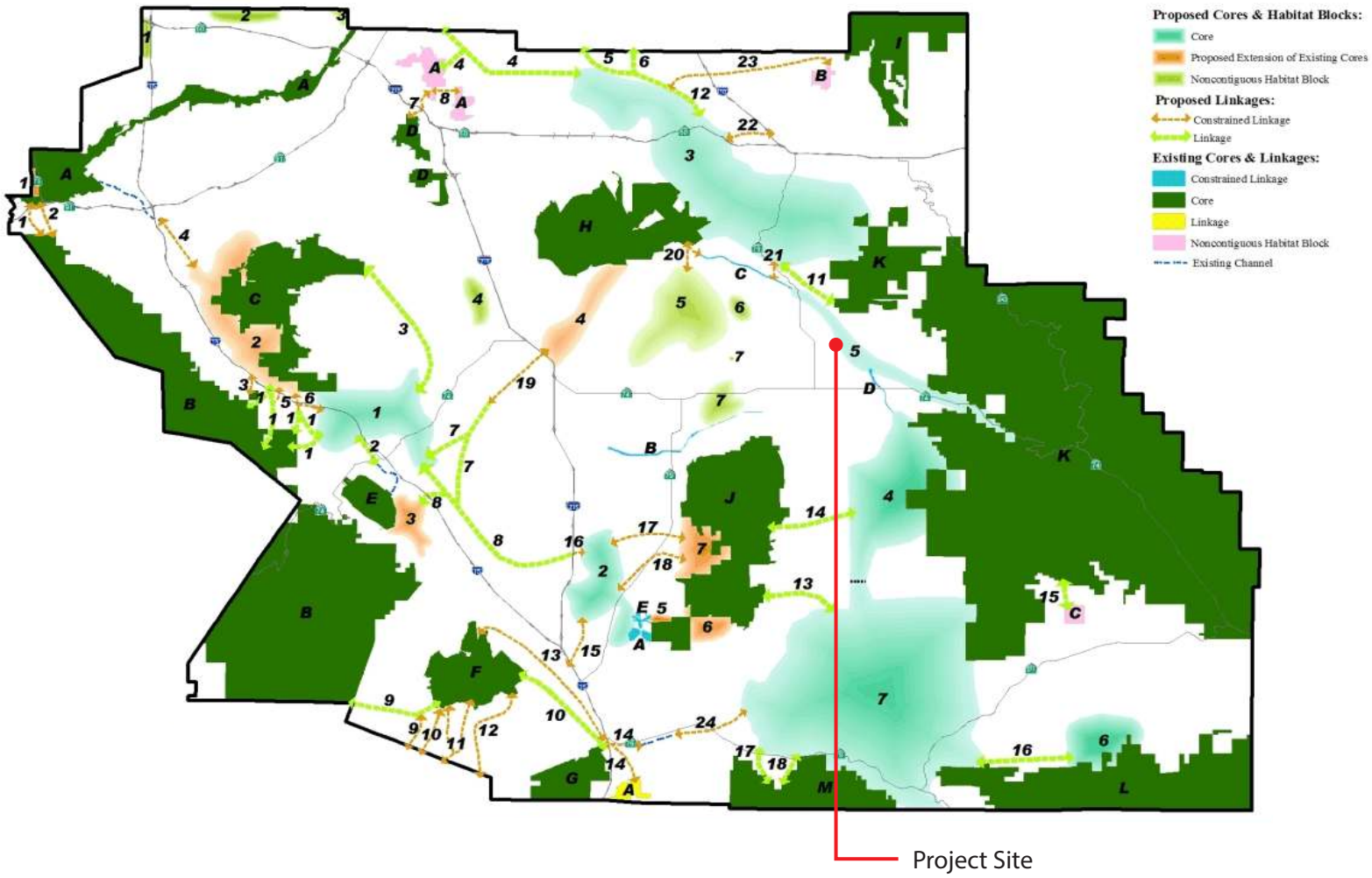


Figure 3

Site Relationship to Criteria Cells



Source: MSHCP Figure 3-2

Figure 4

MSHCP Cores and Linkage Map

in the southwestern portion of the Cell Group (MSHCP Section 3.3.13).

Cell 3098

Conservation within this Cell will contribute to assembly of Proposed Core 5. Conservation within this Cell will focus on grassland habitat adjacent to the San Jacinto River. Areas conserved within this Cell will be connected to grassland habitat proposed for conservation in Cell Group Z to the east. Conservation within this Cell will range from 5%-15% of the Cell focusing in the southeastern portion of the Cell (MSHCP Section 3.3.13).

A Core Area is defined in the MSHCP as:

> *A block of Habitat of appropriate size, configuration, and vegetation characteristics to generally support the life history requirements of one or more Covered Species. Although a more typical definition is population-related and refers to a single species ..., in the MSHCP this term is Habitat-related because of the multi-species nature of the MSHCP Plan (MSHCP, Section 3.2.3).*

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 the natural flow was altered years ago by the channeling of the San Jacinto River, the development to the west and east. There are no channels, culverts, waters or wetland habitats that would come under the jurisdiction of the Corps.

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

There are no wetland habitats, drainages, culverts, or other waters that would come under the jurisdiction of the Los Angeles 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 the natural flow was altered years ago by the channeling of the San Jacinto River, the development of agriculture and the construction of adjacent residential development. There are no riparian habitats, drainages, culverts, streams, or other waters 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 because of habitat loss. Some, such as the peregrine falcon, have also experienced population losses because 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 despite or as 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 other than for ground nesting species (burrowing owl, Killdeer, Larks). Portions of the site has been recently mowed and no native shrub and limited ground cover exists.

4.8 Habitat Fragmentation and Wildlife Movement

Wildlife movement and the fragmentation of wildlife habitat are recognized as critical 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 several 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 commercial 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

Development of the project site would result in a loss of approximately 9.46 acres of disturbed annual grasslands. No riparian habitat or vernal pools occur on the project site. No protected species are known to occupy the site. Because the project site is surrounded by urban land uses and doesn't provide habitat that supports protected species, the project would not have a significant impact on biological resources.

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)

The burrowing owl is resident adjacent to the site. Because animals are resident, we recommend the following prior to construction:

- If construction occurs during the breeding season February 1 to August 31), a burrowing owl breeding bird survey following the recommended guidelines of the MSHCP will be required to determine if nesting is occurring on site.
- Occupied nests will not be disturbed during the nesting season 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.

For the SBKR and the LAPM, a focused trapping survey was conducted (Appendix D). Both species are absent from the current project site.

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

ENVIRA evaluated the project with regard to Urban/Wildland Interface guidelines, as specified in the MSHCP:

1. Drainage

There is no direct connection through pipes or culverts into the San Jacinto River or those sections of the Criteria Areas that are proposed for acquisition and therefore no direct impacts. No indirect impacts are expected because the property is below the level of Ramona Expressway and the San Jacinto River levee.

Although no direct or indirect impacts are expected, ENVIRA recommends standard measures required for all projects. Project design shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that all measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas. Storm-water systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes in adjacent areas. Regular maintenance shall occur to ensure effective operations of runoff control systems.

2. Toxics

Land uses that use chemicals that are potentially toxic or may adversely affect wildlife species, habitat or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharge to natural areas. Measures such as those employed to address drainage issues shall be implemented.

3. Lighting

Night lighting shall be directed away from San Jacinto River and those portions of the Criteria Cells wanted for acquisition to protect species within these areas from direct night lighting. Shielding shall be incorporated in project designs to ensure ambient lighting adjacent to the San Jacinto River and Criteria Areas is not increased.

4. Noise

ENVIRA does not anticipate noise to be a significant impact. Existing Ramona Expressway traffic noise levels have already impacted wildlife along the San Jacinto River and the Criteria Cell acquisition areas, and the final development of this project is not expected to significantly increase that impact. In addition, the levee may partially act as a sound barrier, reducing the overall noise level.

For planning purposes, wildlife within the San Jacinto River and the Criteria Cell acquisition areas

should not be subject to noise that would exceed residential noise standards or existing ambient noise levels.

5. Invasive Plant Species

Landscaping for the proposed development may have an indirect impact on the San Jacinto River and Criteria Cell acquisition areas. Invasive species, particularly those that generate airborne seed and pollen, could conceivable travel and contaminate the native habitats along the River.

As part of the landscape design, the project proponent should consider the invasive, non-native plant species listed in Appendix E and shall require revisions to landscape plans (subject to the limitations of their jurisdiction) to avoid the use of invasive species for the portions of Development that are adjacent to the River and Criteria Cell acquisition areas. Considerations in reviewing the applicability of this list shall include proximity of planting areas to these areas, species considered in the planting plans, resources being protected within River and Criteria Cell areas, relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography and other features.

6. Barriers

The project is bounded by existing barriers, including housing, the Ramona Expressway, Main Street and East 7th Street and the San Jacinto River levee. It is the professional judgment of ENVIRA that barriers are not required for this project.

7. Grading/Land Development

Any manufactured slopes are already confined within the existing limits of the project.

Compliance with these requirements will insure that there are no significant indirect project impacts due to the project site's proximity to an MSHCP Conservation Area.

5.2.5 Project Relationship to Reserve Assembly, San Jacinto Valley Area Plan (Section 3.3.9)

The conservation goals for Criteria Cells 3098 and 3099 are to contribute grassland habitat to the assembly of Proposed Core 5 – the MSHCP-proposed habitat core area along the San Jacinto River. Conservation goals are 5% of Cell Group Z (including 3099) and 5-15% of Cell 3098. Cell 3098 consists of a 160-acre block of land located mostly west of Ramona Expressway, and entirely west of the San Jacinto River. The only portion of Cell 3098 located east of Ramona Expressway and adjacent to the San Jacinto River/Proposed Core 5 is the northeastern corner of the Cell (see Figure 2). Based on the goal of 5-15% of the cell, between 8 and 24 acres of land within Cell 3098 are identified to be conserved. To date, no land within Cell 3098 has been conserved.

Except for the northeast corner of Cell 3098, property in this cell is situated west of Ramona Expressway, which would serve as a significant physical barrier to wildlife movement within Proposed Core 5. Ramona Expressway is a four-lane divided urban arterial with a posted speed limit of 55 miles per hour. Ramona Expressway was identified in the MSHCP as a major covered activity potentially affecting Proposed Core 5. Encouraging wildlife to use habitat in Cell 3098 west of Ramona Expressway as an extension of Proposed Core 5 would likely result in an increased incidence of roadkill as wildlife attempts to cross this busy arterial. Deterring wildlife such as mountain lions and bobcats from crossing Ramona Expressway using fencing or other physical barriers would be more beneficial as this wildlife would be encouraged to stay in

the River Corridor of Proposed Core 5 east of Ramona Expressway. Development of the project site is not expected to have a negative impact on wildlife movement through Proposed Core 5. In fact, conserving land west of Ramona Expressway for this purpose would most likely result in a significant impact to wildlife movement.

The project site is located within the general area described in the criteria for preservation within the cells. However, the project site is isolated from the habitat core area along the San Jacinto River by Ramona Expressway, the river levee, and an intervening property (EMWD) that is maintained devoid of vegetation. In addition, the project site is bordered on the north, west and south by developed city streets and residential and commercial development.

The site consists of ruderal grassland composed of a mix of non-native weeds (see Section 4.3 Plant Communities), while only a few day-time wildlife species were observed, mostly due to the lack of plant cover, water and native food resources (see Section 4.4 Wildlife). Multi-night trapping conducted on the project site for SBKR and LAPM did not yield the occurrence of either species on the project site. Additionally, no sign of burrowing owls was observed. Preserving ruderal grassland on the project site would not contribute to a "core area" that can support the life history of one or more covered species. Connectivity to Proposed Core 5 would require negotiating a four-lane urban arterial. Recent surveys and trapping efforts confirm lack of presence of any of the MSHCP covered species, which is somewhat expected given the isolated nature of the property.

Conserving some, or all, of the project site would not meet the conservation goals for Cells 3098 and 3099. Conservation of land is intended to add to the assembly of Proposed Core 5, which is located east of major physical barriers to both wildlife movement and habitat connectivity. Conserving an isolated patch of land that lacks connectivity to a larger Core area fails to serve a biological purpose consistent with the intent of the MSHCP. The MSHCP purpose of creating and conserving core areas that can sustain the life history requirements of covered species would be furthered by land conservation on the east side of Ramona Expressway. That way, direct connectivity to Proposed Core Area 5 could be provided without risking the health/life/safety of species/populations that use the Core area. The project site is not located east of Ramona Expressway, nor does there exist any connectivity to Proposed Core 5.

As such, conservation of the property, which does not currently support the targeted species (burrowing owl, SBKR, LAPM), would not contribute to the assembly of habitat along the San Jacinto River. Likewise, development of the property would not affect conservation of habitat in adjacent areas, as existing development in the area (roadways, residential and commercial development) has already fragmented habitat in the vicinity; no additional edge effects would occur.

5.3 Jurisdictional Waters

The project site does not have jurisdictional waters, wetland or riparian habitat. No further action is required.

5.4 Raptors and Nesting Habitats

Although it is very unlikely that ground nesting by protected bird species 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.

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

5.5 Habitat Fragmentation and Wildlife Movement

For the reasons stated in Section 5.2.6 above, the project will not add to the ongoing fragmentation of habitat in this area, nor will it substantially affect wildlife movement in this area of Riverside County.

6.0 References Cited or Reviewed

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Vergne, P. J. 2008. SBKR Trapping and Population Assessment for the Proposed Redlands SBKR Mitigation Area for Ryland Homes. Report prepared for Ryland Homes.

Vergne, P. J. 2017. SBKR trapping and Relocation for Horses–hoe Grande Site, Soboba Tribal Lands

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View west across project site from Ramona Expressway

View northeast across project site from Donna Way

*denotes non-native plants

ANGIOSPERMAE: DICOTYLEDONES	**DICOT FLOWERING PLANTS**
Apiaceae	**Carrot family**
**Foeniculum vulgare*	Sweet fennel
Asteraceae	**Sunflower family**
Ambrosia acanthicarpa	Annual bur-sage
Bebbia juncea	Sweetbush
Encelia farinosa	Desert brittlebush
**Chamomilla suaveolens*	Pineapple weed
Heterotheca grandiflora	Telegraph weed
Brassicaceae	**Mustard family**
**Hirschfeldia incana*	Short-podded mustard
**Sisymbrium irio*	London rocket
Chenopodiaceae	**Saltbush family**
**Chenopodium album*	Lamb's quarters
**Salsola tragus*	Russian thistle
**Sisymbrium irio*	London rocket
Geraniaceae	**Geranium family**
**Erodium cicutarium*	Red-stemmed filaree
Lamiaceae	**Mint family**
**Marrubium vulgare*	Horehound
Malvaceae	**Mallow family**
**Malva parviflora*	Cheeseweed
Polygonaceae	**Buckwheat family**
Eriogonum fasciculatum var. foliolosum	Interior California buckwheat
ANGIOSPERMAE: MONOCOTYLEDONAE	**MONOCOT FLOWERING PLANTS**
Poaceae	**Grass family**
**Bromus madritensis* ssp. *rubens*	Red brome
Hordeum jubatum	Foxtail barley
**Schismus barbatus*	Mediterranean grass

Taxonomy and nomenclature follow Hickman 1993 and Munz 1974.

Animals

REPTILIA	**REPTILES**
Phryonosomatidae	**Spiny lizards and their allies**
Uta stansburiana	Side-blotched lizard
AVES	**BIRDS**
Accipitridae	**Kites, hawks and eagles**
Buteo jamaicensis	Red-tailed hawk
Falconidae	**Caracaras and falcons**
Falco sparverius	American kestrel
Columbidae	**Pigeons and doves**
Zenaida macroura	Mourning dove
Tyrannidae	**Tyrantflycatchers**
Sayornis saya	Say's phoebe
Corvidae	**Crows and ravens**
Corvus corax	Common raven
Mimidae	**Mimic thrushes**
Mimus polyglottos	Northern mockingbird
Emberizidae	**Sparrows**
Zonotrichia leucophrys	White-crowned sparrow
crissalis	California towhee
Chondestes grammacus	Lark sparrow
Passerculus sandwichensis	Savannah sparrow
Icteridae	**Blackbirds, orioles and relatives**
Sturnella neglecta	Western meadowlark
Fringillidae	**Finches**
Carpodacus neomexicanus	House finch
Passeridae	**Old World sparrows**
Passer domesticus	House sparrow

MAMMALIA	**MAMMALS**
Leporidae	**Rabbits and hares**
Sylvilagus audubonii	Audubon's cottontail
Geomyidae	**Pocket gophers**
Thomomys bottae	Botta's pocket gopher

Nomenclature follows Borror & White 1970, Hall 1981 and Grenfell et al. 2003.

Riverside County Transporation and Land Management Agency - TLMA

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

APN	Cell	Cell Group	Acres	Area Plan	Sub Unit
433160024	3098	Independent	0.26	San Jacinto Valley	SU3 - Upper San Jacinto River/Bautista Creek
433160024	3099	Z	0.03	San Jacinto Valley	SU3 - Upper San Jacinto River/Bautista Creek
433160027	3098	Independent	0.45	San Jacinto Valley	SU3 - Upper San Jacinto River/Bautista Creek
433160028	3098	Independent	1.39	San Jacinto Valley	SU3 - Upper San Jacinto River/Bautista Creek
433160028	3099	Z	0.01	San Jacinto Valley	SU3 - Upper San Jacinto River/Bautista Creek
433160029	3099	Z	0.39	San Jacinto Valley	SU3 - Upper San Jacinto River/Bautista Creek
433160032	3098	Independent	2.05	San Jacinto Valley	SU3 - Upper San Jacinto River/Bautista Creek
433160033	3098	Independent	2.98	San Jacinto Valley	SU3 - Upper San Jacinto River/Bautista Creek
433160034	3098	Independent	1.2	San Jacinto Valley	SU3 - Upper San Jacinto River/Bautista Creek
433160034	3099	Z	0.1	San Jacinto Valley	SU3 - Upper San Jacinto River/Bautista Creek

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HABITAT ASSESSMENTS

Habitat assessment shall be required and should address at a minimum potential habitat for the following species:

APN	Amphibia Species	Burrowing Owl	Criteria Area Species	Mammalian Species	Narrow Endemic Plant Species	Special Linkage Area
433160024	NO	**YES**	NO	**YES**	NO	NO
433160027	NO	**YES**	NO	NO	NO	NO
433160028	NO	**YES**	NO	**YES**	NO	NO
433160029	NO	**YES**	NO	**YES**	NO	NO
433160032	NO	**YES**	NO	NO	NO	NO
433160033	NO	**YES**	NO	NO	NO	NO
433160034	NO	**YES**	NO	**YES**	NO	NO

Burrowing Owl

Burrowing owl.

Mammalian Species

3) San Bernardino kangaroo rat & L.A. pocket mouse.

If potential habitat for these species is determined to be located on the property, focused surveys may be required during the appropriate season.

Background

The final MSHCP was approved by the County Board of Supervisors on June 17, 2003. The federal and state permits were issued on June 22, 2004 and implementation of the MSHCP began on June 23, 2004.

For more information concerning the MSHCP, contact your local city or the County of Riverside for the unincorporated areas. Additionally, the Western Riverside County Regional Conservation Authority (RCA), which oversees all the cities and County implementation of the MSHCP, can be reached at:

Western Riverside County Regional Conservation Authority
3403 10th Street, Suite 320
Riverside, CA 92501

Phone: 951-955-9700
Fax: 951-955-8873

www.wrc-rca.org

Introduction

As urbanization has increased within western Riverside County, state and federal regulations have required that public and private developers obtain "Take permits" from Wildlife Agencies for impacts to endangered, threatened, and rare species and their Habitats. This process, however, has resulted in costly delays in public and private Development projects and an assemblage of unconnected Habitat areas designated on a project-by-project basis. This piecemeal and uncoordinated effort to mitigate the effects of Development does not sustain wildlife mobility, genetic flow, or ecosystem health, which require large, interconnected natural areas.

A variety of capitalized terms are used in this report. Definitions for those terms are provided at the end of this report.

The MSHCP is a criteria-based plan, focused on preserving individual species through Habitat conservation. The MSHCP is one element of the Riverside County Integrated Project (RCIP), a comprehensive regional planning effort begun in 1999.The purpose of the RCIP is to integrate all aspects of land use, transportation, and conservation planning and implementation in order to develop a comprehensive vision for the future of the County. The overall goal of the MSHCP is rooted in the RCIP Vision Statement and supporting policy directives. The MSHCP will enhance maintenance of biological diversity and ecosystem processes while allowing future economic growth. Preserving a quality of life characterized by well-managed and well-planned growth integrated with an open-space system is a component of the RCIP vision. The MSHCP proposes to conserve approximately 500,000 acres and 146 different species. Approximately 347,000 acres are anticipated to be conserved on existing Public/Quasi-Public Lands, with additional contributions on approximately 153,000 acres from willing sellers. The overall goal of the MSHCP can be supported by the following:

Biological Goal: In the MSHCP Plan Area, conserve Covered Species and their Habitats.

Economic Goal: Improve the future economic development in the County by providing an efficient, streamlined

regulatory process through which Development can proceed in an efficient way. The MSHCP and the General Plan will provide the County with a clearly articulated blueprint describing where future Development should and should not occur.

Social Goal: Provide for permanent open space, community edges, and recreational opportunities, which contribute to maintaining the community character of Western Riverside County.

This report has been generated to summarize the guidance in the MSHCP Plan that pertains to this property. Guidelines have been incorporated in the MSHCP Plan to allow applicants to evaluate the application of the MSHCP Criteria within specific locations in the MSHCP Plan Area. Guidance is provided through Area Plan Subunits, Cell Criteria, Cores and Linkages and identification of survey requirements. The guidance and Criteria incorporate flexibility at a variety of levels. The information within this report is composed of three parts: a summary table, Reserve Assembly guidance and survey requirements within the MSHCP Plan Area. The summary table provides specific information on this property to help determine whether it is located within the MSHCP Criteria Area or any survey areas. The Reserve Assembly guidance provides direction on assembly of the MSHCP Conservation Area if the property is within the Criteria Area. The survey requirements section describes the surveys that must be conducted on the property if Habitat is present for certain identified species within the Criteria Area or mapped survey areas.

Reserve Assembly Guidance within the Criteria Area

The Reserve Assembly guidance only pertains to properties that are within the Criteria Area. Please check the summary table to determine whether this property is within the Criteria Area. If it is located inside of the Criteria Area, please read both this section and the section about survey requirements within the MSHCP Plan Area. If the property is located outside the Criteria Area, only read the survey requirements within the MSHCP Plan Area section.

The Area Plan Subunits, Cell Criteria and Cores and Linkages provide guidance on assembly of the MSHCP Conservation Area. The Area Plan Subunits section lists Planning Species and Biological Issues and Considerations that are important to Reserve Assembly within a specific Area Plan Subunit. The Cell Criteria identify applicable Cores or Linkages and describe the focus of desired conservation within a particular Cell or Cell Group. Cores and Linkages guidance includes dimensional data and biological considerations within each identified Core or Linkage.

The following is the Area Plan text and Cell Criteria that pertains specifically to this property. The Area Plan text includes the target acreage for conservation within the entire Area Plan, identification of Cores and Linkages within the entire Area Plan and Area Plan Subunit Planning Species and Biological Issues and Considerations. It is important to keep in mind that the Area Plan Subunits, Cell Criteria and Cores and Linkages are drafted to provide guidance for a geographic area that is much larger than an individual property. The guidance is intended to provide context for an individual property and, therefore, all of the guidance and Criteria do not apply to each individual property.

San Jacinto Valley Area Plan

This section identifies target acreages, applicable Cores and Linkages, Area Plan Subunits and Criteria for the San Jacinto Valley Area Plan. For a summary of the methodology and map resources used to develop the target acreages and Criteria for the MSHCP Conservation Area, including this Area Plan, see Section 3.3.1.

Target Acreages

The target conservation acreage range for the San Jacinto Valley Area Plan is 21,740 – 29,665 acres; it is composed of approximately 10,200 acres of existing Public/Quasi-Public Lands and 11,540 – 19,465 acres of

Additional Reserve Lands. The City of Hemet and the City of San Jacinto sit entirely within the San Jacinto Valley Area Plan. The target acreage range within the City of Hemet is 620– 1,000 acres. The target acreage range within the City of San Jacinto Valley is 1,580– 2,680 acres. The target acreages of both Cities are included within the 11,540 – 19,465 acre target conservation range on Additional Reserve Lands for the entire San Jacinto Valley Area Plan.

Applicable Cores and Linkages

The MSHCP Conservation Area comprises a variety of existing and proposed Cores, Linkages, Constrained Linkages and Noncontiguous Habitat Blocks (referred to here generally as "Cores and Linkages"). The Cores and Linkages listed below are within the San Jacinto Valley Area Plan. For descriptions of these Cores and Linkages and more information about the biologically meaningful elements of the MSHCP Conservation Area within the San Jacinto Valley Area Plan, see Section 3.2.3 and MSHCP Volume II, Section A.

Cores and Linkages within the San Jacinto Valley Area Plan

- Contains a portion of Proposed Constrained Linkage 20
- Contains all of Proposed Constrained Linkage 21
- Contains a portion of Proposed Core 3
- Contains a portion of Proposed Core 4
- Contains most of Proposed Core 5
- Contains most of Proposed Linkage 11
- Contains a large portion of Proposed Linkage 14
- Contains eastern portion of Proposed Noncontiguous Habitat Block 5
- Contains all of Proposed Noncontiguous Habitat Block 6
- Contains a large portion of Proposed Noncontiguous Habitat Block 7
- Contains a small portion of Existing Constrained Linkage C
- Contains a small portion of Existing Core J

Descriptions of Planning Species, Biological Issues and Considerations and Criteria for each Area Plan Subunit within the San Jacinto Valley Area Plan are presented later in this section. These descriptions, combined with the descriptions of the Cores and Linkages referred to above, provide information about biological issues to be considered in conjunction with Reserve Assembly within the San Jacinto Valley Area Plan. As noted in Section 3.1, the Area Plan boundaries established as part of the Riverside County General Plan were selected to provide an organizational framework for the Area Plan Subunits and Criteria. While these boundaries are not biologically based, unlike the Cores and Linkages, they relate specifically to General Plan boundaries and the jurisdictional boundaries of incorporated Cities and were selected to facilitate implementation of the MSHCP in the context of existing institutional and planning boundaries.

Area Plan Subunits

The San Jacinto Valley Area Plan is divided into five Subunits. For each Subunit, target conservation acreages are established along with a description of the Planning Species, Biological Issues and Considerations, and Criteria for each Subunit. For more information regarding specific conservation objectives for the Planning Species, see Section 9.0. Subunit boundaries are depicted on the Cells and Cell Groupings map displays (Figures 3-26 and 3-27). Table 3-14 presents the Criteria for the San Jacinto Valley Area Plan.

Cell: 3098
Area Plan: San Jacinto Valley
Subunit: 3

Conservation within this Cell will contribute to assembly of Proposed Core 5.
Conservation within this Cell will focus on grassland habitat adjacent to the San Jacinto River.
Areas conserved within this Cell will be connected to grassland habitat proposed for conservation in Cell Group Z to the east.
Conservation within this Cell will range from 5%-15% of the Cell focusing in the southeastern portion of the Cell.

San Jacinto Valley Area Plan
Cell Group: Z

Conservation within this Cell Group will contribute to assembly of Proposed Core 5.
Conservation within this Cell Group will focus on grassland habitat.
Areas conserved within this Cell Group will be connected to grassland habitat proposed for conservation in Cell #3098 to the west and #3204 to the south.
Conservation within this Cell Group will be approximately 5% of the Cell Group focusing in the southwestern portion of the Cell Group.

Surveys Within the MSHCP Plan Area

Of the 146 species covered by the MSHCP, no surveys will be required by applicants for public and private projects for 106 of these Covered Species. Covered Species for which surveys may be required by applicants for public and private Development projects include 4 birds, 3 mammals, 3 amphibians, 3 crustaceans, 14 Narrow Endemic Plants, and 13 other sensitive plants within the Criteria Area. Of these 40 species, survey area maps are provided for 34 species, and surveys will be undertaken within suitable Habitat areas in locations identified on these maps in the MSHCP Plan. The remaining six species are associated with riparian/riverine areas and vernal pools and include least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, and vernal pool fairy shrimp. Although there are no survey area maps for these six species, surveys for these species, if necessary, will be undertaken as described below. It is the goal of the MSHCP to provide for conservation of Covered Species within the approximately 500,000 acre MSHCP Conservation Area (comprised of approximately 347,000 acres of existing Public/Quasi-Public Lands and 153,000 acres of new conservation on private lands). Conservation that may be identified to be desirable as a result of survey findings is not intended to increase the overall 500,000 acres of conservation anticipated under the MSHCP. Please refer to Section 6.0 of the MSHCP Plan, Volume I for more specific information regarding species survey requirements.

As projects are proposed within the MSHCP Plan Area, an assessment of the potentially significant effects of those projects on riparian/riverine areas and vernal pools will be performed as currently required by the California Environmental Quality Act (CEQA) using available information augmented by project-specific mapping. If the mapping identifies suitable habitat for any of the six species associated with riparian/riverine areas and vernal pools listed above and the proposed project design does not incorporate avoidance ofthe identified habitat, focused surveys for these six species will be conducted, and avoidance and minimization measures will be implemented in accordance with the species-specific objectives for these species. For more specific information regarding survey requirements for species associated with riparian/riverine areas and vernal pools, please refer to Section 6.1.2 of the MSHCP Plan, Volume I .

Habitat conservation is based on the particular Habitat requirements of each species as well as the known distribution data for each species. The existing MSHCP database does not, however, provide the level of detail sufficient to determine the extent of the presence or distribution of Narrow Endemic Plant Species within the MSHCP Plan Area. Since conservation planning decisions for these plant species will have a substantial effect

on their status, additional information regarding the presence of these plant species must be gathered during the long-term implementation of the MSHCP to ensure that appropriate conservation of the Narrow Endemic Plants occurs. For more specific information regarding survey requirements for Narrow Endemic Plants, please refer to Section 6.1.3 of the MSHCP Plan, Volume I .

In addition to the Narrow Endemic Plant Species, additional surveys may be needed for certain species in conjunction with Plan implementation in order to achieve coverage for these species. The MSHCP must meet the Federal Endangered Species Act issuance criteria for Habitat Conservation Plans (HCP) which require, among other things, that the HCP disclose the impacts likely to result from the proposed Taking, and measures the applicant will undertake to avoid, minimize and mitigate such impacts. For these species in which coverage is sought under the MSHCP, existing available information is not sufficient to make findings necessary to satisfy these issuance criteria for Take authorization. Survey requirements are incorporated in the MSHCP to provide the level of information necessary to receive coverage for these species in the MSHCP.

Efforts have been made prior to approval of the MSHCP and will be made during the early baseline studies to be conducted as part of the MSHCP management and monitoring efforts to collect as much information as possible regarding the species requiring additional surveys. As data are collected and conclusions can be made regarding the presence of occupied Habitat within the MSHCP Conservation Area for these species, it is anticipated that survey requirements may be modified or waived. Please refer to Sections 6.1.3 and 6.3.2 of the MSHCP Plan, Volume I for more specific information regarding survey requirements.

MSHCP DEFINITIONS

Adaptive Management	To use the results of new information gathered through the Monitoring Program of the Plan and from other sources to adjust management strategies and practices to assist in providing for the Conservation of Covered Species.
Adaptive Management Program	The MSHCP's program of Adaptive Management described in Section 5.0 of the MSHCP, Volume I.
Additional Reserve Lands	Conserved Habitat totaling approximately 153, 000 acres that are needed to meet the goals and objectives of the MSHCP and comprised of approximately 56, 000 acres of State and federal acquisition and mitigation for State Permittees, and approximately 97, 000 acres contributed by Local Permittees (Lands acquired since February 3, 2000 are included in the Local Permittees' Additional Reserve Lands contribution pursuant to correspondence discussed in Section 4.0 of the MSHCP, Volume I and on file with the County of Riverside)
Agriculture	For the species analyses, references to agriculture refer to the Vegetation Community, Agriculture, as depicted on the MSHCP Vegetation Map, Figure 2- 1 of the MSHCP, Volume I.
Agricultural Operations	The production of all plants (horticulture), fish farms, animals and related production activities, including the planting, cultivation and tillage of the soil, dairying, and apiculture; and the production, plowing, seeding, cultivation, growing, harvesting, pasturing and fallowing for the purpose of crop rotation of any agricultural commodity, including viticulture, apiculture, horticulture, and the breeding, feeding and raising of livestock, horses, fur-bearing animals, fish, or poultry, the operation, management, conservation, improvement or maintenance of a farm or ranch and its buildings, tools and equipment; the construction, operation and maintenance of ditches, canals, reservoirs, wells and/or waterways used for farming or ranching purposes and all uses conducted as a normal part of such Agricultural Operations; provided such actions are in compliance with all applicable laws and regulations. The definition of Agricultural Operations shall not include any activities on state and federal property or in the MSHCP Conservation Area.
Allowable Uses	Uses allowed within the MSHCP Conservation Area as defined in Section 7.0 of the MSHCP, Volume I.
Annual Report	The reports prepared pursuant to the requirements of Section 6.11 of the MSHCP, Volume I.

San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*) and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) Presence/Absence Trapping Studies Main Street and Ramona

Prepared for:

Environmental Data Systems

Prepared By

ENVIRA
P.O. Box 2612, Ramona, California, USA 92065
Phone 619-885-0236 E-mail PHVERGNE@AOL.COM

Survey Dates September 7 to 12, 2017

Report Date September 14, 2017

CERTIFICATION

I hereby 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 presented are true and correct to the best of my knowledge and belief.

This report was prepared in accordance with professional requirements and recommended protocols for small mammal trapping studies.

Philippe Vergne (TE831207-3) Philippe Jean Vergne Date: September 14,2017

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Executive Summary

Philippe Vergne of ENVIRA, was contacted by Environmental Data Systems, Inc. (EDS, Inc.) on behalf of the Soboba Band of Luiseno Indians-SBLI to conduct a protocol trapping survey for their proposed 9.46 acre commercial development project. The live-trapping effort targeted the federally listed endangered San Bernardino kangaroo rat (*Dipodomys merriami parvus*)-SBKR and the state species of special concern the Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)-LAPM.

The focused trapping survey was required because of the potential presence on site of sensitive biological resources as identified in the Western Riverside County Multiple Species Habitat Conservation Plan (MSCHP). The site is within a Criteria Cell for the San Jacinto Valley Area Plan (Plan). Potential habitat and burrows for both SBKR and LAPM were identified during the course of the Phase One survey conducted on August 18, 2017.

A literature review and records check was conducted for sensitive resources within the vicinity of the proposed project. In addition to the literature review, a general field survey of the project area was conducted. The field survey provided information on the existing conditions of the site and the potential for sensitive resources to be present.

Four sensitive mammal species were identified as potentially present in the vicinity of the project site: the San Bernardino kangaroo rat, northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), Los Angeles pocket mouse, and the San Diego desert woodrat (*Neotoma lepida*). Focused trapping surveys for the San Bernardino kangaroo rat (SBKR) and (LAPM) were conducted in areas containing potential SBKR and LAPM habitat.

Trapping surveys were conducted according to U.S. Fish and Wildlife Service (USFWS) protocols established for SBKR. The current protocol calls for five nights of trapping.

The SBKR was not captured during the current survey. The species is therefore considered as absent from the proposed project footprint.

The Los Angeles pocket mouse was not captured during the focused survey.

It should be noted that the USFWS considers small mammal trapping surveys as valid for one year from the date of the trapping.

1.0 Introduction

Philippe Vergne of ENVIRA (TE831207-3), was contacted by Environmental Data Systems, Inc. (EDS, Inc.) on behalf of the Soboba Band of Luiseno Indians-SBLI to conduct a protocol trapping survey for their proposed 9.46 acre commercial development project. The live-trapping effort targeted the federally listed endangered San Bernardino kangaroo rat (*Dipodomys merriami parvus*)-SBKR and the state species of special concern the Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)-LAPM.

This report describes the existing conditions of the project site, the general biological resources observed on site, and the results of the trapping studies. The assessment was required to determine the presence or absence of the San Bernardino kangaroo rat (SBKR) on the property.

2.0 Site Location and Project Description

The property is located within the City of San Jacinto at the southwesterly corner of Main Street and Ramona Expressway (Figure 1). The northern border is Main Street. Immediately south of Main Street is a mix of agricultural fields and residential development. The eastern border is formed by Ramona Expressway and the San Jacinto levee projected.

SBLI is proposing to develop the entire 9.46-acre site. The proposed project use is commercial.

3.0 Methods

A literature review and records check was conducted for sensitive resources within the vicinity of the proposed project. In addition to the literature review, a general field survey of the project area was conducted. The field survey provided information on the existing conditions of the site and the potential for sensitive resources to be present. Trapping surveys for SBKR and LAPM were conducted on areas containing potential habitat for both species..

3.1 Literature Review and Records Check

The literature review and records check included a review of standard field guides and texts on sensitive and non-sensitive biological resources potentially onsite, as well as the following sources:

1. List of sensitive biological resources provided by the California Natural Diversity Data Base (CNDDB).
2. *The Status and Known Distribution of the San Bernardino Kangaroo Rat (Dipodomys merriami parvus). Field surveys conducted between 1987 and 1996* (McKernan 1997).
3. *Endangered and Threatened Wildlife and Plants; Final Rule to List the San Bernardino Kangaroo Rat as Endangered; and Notice of Public Hearing* (U. S. Fish and Wildlife Service 1998).

Figure 1

Project Site Vicinity and Location

4. Information provided by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) for the project site as outlined in Phase One Report ENVIRA 2017.

3.2 Habitat Evaluation Surveys

Mr. Philippe Vergne, a certified kangaroo rat biologist holding U. S. Fish and Wildlife Permit No. TE831207-3 and current California Department of Fish and Game (CDFW) Memorandum of Understanding, inventoried and evaluated the condition of the soils and plant communities on site in order to assess the potential trapping locations for SBKR or other sensitive species. Mr. Vergne took notes during the surveys of all plant and animal species observed.

An intensive search was conducted in all potential habitat areas for such diagnostic kangaroo rat sign as habitat, scat, tracks, dust bowls and burrows. All species identified by sight, call or sign (burrows, scat, tracks, etc.) and visual observation were recorded. Mr. Vergne identified sign belonging to one or more kangaroo rat species.

In addition, site characteristics such as soils, topography, the condition of the plant communities, and evidence of human use of the site were noted. A list of plant and wildlife species observed during the survey is included in Appendix A.

3.3 San Bernardino Kangaroo Rat Trapping Surveys

Trapping surveys for SBKR were conducted according to USFWS protocols established for SBKR. The current protocol calls for five nights of trapping, conducted when the species is active aboveground at night and preferably during a new moon phase. One trapping session was conducted from September 7 to 12, 2017.

Three areas on the property were trapped. Trapping Grids of seven by seven (49 traps each), set 12 meters apart, were set in trapping areas A through C (Figure 2). Traps were placed in areas containing sandy loam soils showing sign of small mammal use.

Each trap was baited with birdseed placed at the back of the traps. The traps were picked up and replaced each day. Each trap was set at dusk each night and inspected once during the night and at dawn each morning. All animals were identified and released at the point of capture.

Notes were taken on the habitat conditions where the traps were placed. Weather conditions at the time of the trapping were also noted.

4.0 Results

4.1 Sensitive Biological Resources

Four sensitive mammal species were identified as potentially present in the vicinity of the project site. They are the San Bernardino kangaroo rat (*Dipodomys merriami parvus*), the northwestern San Diego pocket mouse (*Chaetodipus*

Figure 2

Location of Trapping Grids

fallax fallax), the Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), and the San Diego desert woodrat (*Neotoma lepida*).

Of the animal species potentially present, only the San Bernardino kangaroo rat (USFWS) and the LAPM (WRCMHCP) requires specific survey protocols to establish presence or absence. These specific survey protocols are required for areas where impacts may occur to the sensitive species or their occupied habitat. The remaining species are usually identified through casual observation or as part of the overall trapping effort.

4.1.1 San Bernardino Kangaroo Rat

The San Bernardino kangaroo rat (*Dipodomys merriami parvus*) is described as being confined to primary and secondary alluvial fan scrub habitats, with sandy soils deposited by fluvial (water) rather than aeolian (wind) processes (McKernan 1997, U. S. Fish and Wildlife Service 1998a and 1998b). Burrows are dug in loose soil, usually near or beneath shrubs. In recent years, they have been found in highly disturbed habitats adjacent to otherwise suitable habitat. Burrows are dug in loose soil, usually near or beneath shrubs.

The San Bernardino kangaroo rat is one of three subspecies of the Merriam kangaroo rat (*Dipodomys merriami*). The Merriam kangaroo rat is a widespread species that can be found from the inland valleys to the deserts (Hall 1981 and Ingles 1965). The subspecies known as the San Bernardino kangaroo, however, is confined to inland valley scrub communities, and more particularly, to scrub communities occurring along rivers, streams and drainage.

Like all kangaroo rats, the San Bernardino kangaroo rat is primarily a seed eater, feeding on the seeds of both annual and shrub species. It also feeds on green vegetation and insects when these are available. Being primarily a desert species, the San Bernardino kangaroo rat obtains nearly all of its water from the food it eats, and can subsist indefinitely on water extracted from dry seeds. It forages in open ground and underneath shrubs. Burrows are dug in loose soil, usually near or beneath shrubs.

The breeding season extends primarily from January through late November, with peak reproduction occurring in late June. Usually, only one litter is produced per year with an average of only two to three young.

Most of the original drainages used by this species have been historically altered as a result of flood control efforts. The resulting increased use of river resources, including mining, off road vehicle use and road and housing development. This increased use of river resources has resulted in a reduction in both the amount and quality of habitat available for the San Bernardino kangaroo rat. The past habitat losses and potential future losses prompted the emergency listing of the San Bernardino kangaroo rat as an endangered species (U. S. Fish and Wildlife Service, 1998a).

The edge of the project is located within the USFWS designated critical habitat for SBKR.

4.1.2 Northwestern San Diego Pocket Mouse

The northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) is one of five subspecies of the San Diego pocket mouse. The San Diego pocket mouse is a large species of pocket mouse, and is characterized by long spine-

like hairs on the rump and hips. This characteristic differentiates this species from the silky pocket mice of the genus *Perognathus*.

The San Diego pocket mouse is a common resident of open, sandy herbaceous areas, usually in association with rocks or course gravel in southwestern California. It occurs mainly in arid coastal and desert border areas in San Diego Co., Riverside Co., and San Bernardino Co. The subspecies designated as the northwestern San Diego pocket mouse occurs in open scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland in the valleys and foothills of southwestern California (Hall 1981; Lackey 1996). This species is reported in high numbers in rocky and gravely areas (Zeiner, et al 1990). Burrows can be found in sandy or gravely soils. Higher densities in rocky and graveled areas are attributed to the greater availability of cover from visually oriented predators (Lackey 1996).

The northwestern San Diego pocket mouse primarily is a granivore (seed eater). Like other pocket mice, this species possess external, fur-lined cheek pouches for collecting and caching seeds. They eat grass seeds from summer to early winter, switching to shrub seeds and annual weed seeds for the rest of the year. They are nocturnal, active all year round (although surface activity is reduced during cold spells) and tend to forage under shrub and tree canopies, or around rock crevices (Lackey 1996).

Typical of desert adapted rodents, the northwestern San Diego pocket mouse likely has a relative low reproductive output. The typical litter size is four young.

The range of the species extends from Orange County to San Diego County, and includes Riverside and San Bernardino counties out into the desert border areas. The northwestern San Diego pocket mouse subspecies is confined to Orange County and the coastal habitats of San Diego, Riverside and San Bernardino counties.

The northwestern San Diego pocket mouse appears to be sensitive to habitat fragmentation and degradation, and its historical range has been reduced by urban development and agriculture (California Department of Fish and Game 2004). As a result, the subspecies has been designated as a California Species of Special Concern by the California Department of Fish and Game (CDFG 2004; Lackey 1996).

4.1.3 Los Angeles Pocket Mouse

The Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) is one of two pocket mice found in this area of Riverside County (Williams 1986). Both the Los Angeles pocket mouse and the northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) occupy similar habitats, but the northwestern San Diego pocket mouse has a wider range extending south into San Diego County. The habitat of the Los Angeles pocket mouse is described as being confined to lower elevation grasslands and coastal sage scrub habitats, in areas with soils composed of fine sands (Williams 1986). This species prefers habitat similar to that of the SKR and SBKR. It occurs in open sandy areas in the valley and foothills of southwestern California (Hall 1981).

Los Angeles pocket mouse, like other subspecies of *Perognathus longimembris*, are granivorous rodents and specialize on grass and scrub seeds, but will take insects when available (French 1999; Meserve 1976). Pocket mice

possess external, fur-lined cheek pouches used in collecting and caching of seeds. Seeds are cached for use during the colder months of the year.

They spend most of their foraging time in or near bushes, scrubs, rock crevices, or other sources of cover. The Los Angeles pocket mouse is primarily nocturnal and exhibits a distinct seasonal pattern in surface activity. During colder months the pocket mouse may enter into torpor (dormancy) and not engage in surface activity. This species may enter torpor as early as the end of September; the exact date may depend on the nightly low temperatures, and the availability of food.

At some point when surface conditions are very cold and food is scarce, the animal cannot meet its energy needs by foraging and thus must shut down surface activity to survive the winter. Los Angeles pocket mouse must then survive on the food they have cached (Richman and Price 1993). Los Angeles pocket mice emerge in the spring when the surface ground temperatures are higher than the surrounding ground temperature in their burrows (French 1999).

The present known distribution of this species in Riverside and San Bernardino counties extends from the San Gabriel and San Bernardino mountains south to the Temecula and Aguanga areas, and from the east side of the Santa Ana Mountains east to Cabazon (Hall 1981).

4.1.4. San Diego Desert Woodrat

The desert woodrat (*Neotoma lepida*) is a relatively wide-ranging species extending along the coast of California from south of San Francisco through to the border with Baja California. This species also occurs in the Central Valley and the deserts of southern California and extends along the desert side of the Sierra Nevada into southeastern Oregon.

The coastal race of the desert woodrat, the San Diego desert woodrat, prefers scrub habitats such as coastal sage scrub, chaparral and alluvial fan sage scrub. It is more common in areas with rock piles and coarse sandy to rocky soils throughout coastal southern California. The range of this species extends from just south of Sacramento and the San Francisco area to the border with Baja California. The coastal subspecies of the widespread *Neotoma lepida* is listed as a CSC; its historical range has been impacted by the conversion of scrub habitats into residential, commercial and industrial use.

4.2 Weather, Soils, and Topography

Weather during the survey was clear skies, moderate wind and temperatures in the high eighties (degrees Fahrenheit).

The site is generally flat.

There are four soils on site (Soil Survey Staff 2016). The most common one is Dello loamy sand (DnB) found on zero to five percent slopes. This soil is a loamy sand with a gravelly substrate, made up of alluvium from granite rock. It is

a somewhat poorly drained soil, non-saline to very slightly saline soil found on floodplains. It is found in the eastern third and south central areas of the property.

Dello loamy fine sand (DrA) is a loamy fine sand found on zero to two percent slopes. It has a gravelly substrate and is made up of alluvium from granite rock. It is a somewhat poorly drained soil, non-saline o very slightly saline soil found on floodplains. Dello loamy fine sand is found in the in the central section of the property.

Metzo loamy fine sand ((MgB) is another loamy fine sand found on zero to two percent slopes. It has a gravelly sand substratum, and is made up of alluvium from sedimentary rock. Metzo loamy fine sand is a somewhat excessively drained soil found on alluvial fans. It varies from non-saline to very slightly saline.

San Emigdio fine sandy loam (SfA) is a deep soil found on zero to two percent slopes. This soil is a fine sandy loam made up of residuum from sedimentary rock. It is a well-drained, non-saline to very slightly saline soil found on alluvial fans. It occupies a small area along the western boundary.

All the soils on the site have been impacted by disking for fire control and possibly in the past by farming.

4.3 Land Uses

The project site has been farmed up to around 2005, and appears to have been left fallow for the most part since that time. It has probably been disked occasionally weed control. The soil surface is broken and furrows were observed across the site.

4.4 Plant Communities

In the current vegetation mapping for the MSHCP, the property was mapped as disturbed annual grassland community.

Currently, the plant community found on site is a ruderal (weedy) grassland composed of a mix of non-native weeds such as Mediterranean grass (*Schismus barbatus*), short-pod mustard (*Hirschfeldia incana*), red-stemmed filaree (*Erodium cicutarium*).

Native shrub species such as California buckwheat (*Eriogonum fasciculatum*), California brittlebush (*Encelia farinosa*) and sweet bush (*Bebbia juncea*) occur as isolated plants. Herbaceous cover is estimated at 85 percent, and shrub cover at less than 1 percent.

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

4.5 Wildlife

Wildlife activity was low during the trapping surveys. One reptile species, the side-blotched lizard (*Uta stansburiana*) was observed. Bird species observed included mourning dove (*Zenaida macroura*) and American kestrel (*Falco sparverius*).

4.6. San Bernardino Kangaroo Rat Trapping Surveys

4.6.1 Weather Conditions

Weather conditions during the trapping surveys included morning temperatures in the low seventies degrees Fahrenheit, with clear skies and winds of less than five miles per hour. No fog or rain occurred during the survey period. Daily weather conditions for each day are summarized in Table 1 below.

TABLE 1
Weather Summary

Date	Cloud Cover	Morning Temperatures (F)	Wind Speed (miles per hour)
9-7-2017	Clear	71	0
9-8-2017	Clear	73	0-3
9-9-2017	Clear	74	0-3
9-10-2017	Clear	75	0-3
9-11-2017	Clear	72	0
9-12-2017	Clear	74	0-3

4.6.2 Trap Site Descriptions

Traps Grids were set within open areas on sites that had small fossorial mammal sign.

4.6.3 Trapping Survey Results

Trapping success was low over the entire trapping period. This is possibly due to the continued disking of the site for fire control. A total of three small mammal species were trapped during the survey period.

Table 2 provides summary information on the species trapped per site.

TABLE 2
Trapping Results

		Western Harvest Mouse	Deer Mouse
Trap Grids	Number of Trap Nights	*Reithrodontomys megalotis*	*Peromyscus maniculatus*
A	245	1	6
B	245	2	4
Totals	**490**	**3**	**10**

5.0 Discussion

Trapping surveys were conducted according to U.S. Fish and Wildlife Service (USFWS) protocols established for SBKR. The current protocol calls for five nights of trapping.

The SBKR was not captured during the current survey. The species is therefore considered as absent from the proposed project footprint. However because of the project location within the edge of USFWS designated critical habitat, at least informal consultation with USFWS should be initiated prior to ground-breaking.

The Los Angeles pocket mouse was not captured during the focused survey.

It should be noted that the USFWS considers small mammal trapping surveys as valid for one year from the date of the trapping.

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Appendix A - Plant and Animal Species Observed

Appendix A - Plant and Animal Species Observed

*denotes non-native plants

ANGIOSPERMAE: DICOTYLEDONES	**DICOT FLOWERING PLANTS**
Apiaceae	**Carrot family**
**Foeniculum vulgare*	Sweet fennel
Asteraceae	**Sunflower family**
Ambrosia acanthicarpa	Annual bur-sage
Bebbia juncea	Sweetbush
Encelia farinosa	Desert brittlebush
**Chamomilla suaveolens*	Pineapple weed
Heterotheca grandiflora	Telegraph weed
Brassicaceae	**Mustard family**
**Hirschfeldia incana*	Short-podded mustard
**Sisymbrium irio*	London rocket
Chenopodiaceae	**Saltbush family**
**Chenopodium album*	Lamb's quarters
**Salsola tragus*	Russian thistle
**Sisymbrium irio*	London rocket
Geraniaceae	**Geranium family**
**Erodium cicutarium*	Red-stemmed filaree
Lamiaceae	**Mint family**
**Marrubium vulgare*	Horehound
Malvaceae	**Mallow family**
**Malva parviflora*	Cheeseweed
Polygonaceae	**Buckwheat family**
Eriogonum fasciculatum var. foliolosum	Interior California buckwheat
ANGIOSPERMAE: MONOCOTYLEDONAE	**MONOCOT FLOWERING PLANTS**
Poaceae	**Grass family**
**Bromus madritensis* ssp. *rubens*	Red brome
Hordeum jubatum	Foxtail barley
**Schismus barbatus*	Mediterranean grass

Taxonomy and nomenclature follow Hickman 1993 and Munz 1974.

Animals

REPTILIA	**REPTILES**
Phryonosomatidae	**Spiny lizards and their allies**
Uta stansburiana	Side-blotched lizard
AVES	**BIRDS**
Accipitridae	**Kites, hawks and eagles**
Buteo jamaicensis	Red-tailed hawk
Falconidae	**Caracaras and falcons**
Falco sparverius	American kestrel
Columbidae	**Pigeons and doves**
Zenaida macroura	Mourning dove
Tyrannidae	**Tyrantflycatchers**
Sayornis saya	Say's phoebe
Corvidae	**Crows and ravens**
Corvus corax	Common raven
Mimidae	**Mimic thrushes**
Mimus polyglottos	Northern mockingbird
Emberizidae	**Sparrows**
Zonotrichia leucophrys	White-crowned sparrow
crissalis	California towhee
Chondestes grammacus	Lark sparrow
Passerculus sandwichensis	Savannah sparrow
Icteridae	**Blackbirds, orioles and relatives**
Sturnella neglecta	Western meadowlark
Fringillidae	**Finches**
Carpodacus neomexicanus	House finch
Passeridae	**Old World sparrows**
Passer domesticus	House sparrow
MAMMALIA	**MAMMALS**

Cricetidae	**Cricetine mice and rats**
Reithrodontomys megalotis	Western harvest mouse
Peromyscus maniculatus	Deer mouse
Leporidae	**Rabbits and hares**
Sylvilagus audubonii	Audubon's cottontail
Geomyidae	**Pocket gophers**
Thomomys bottae	Botta's pocket gopher

Nomenclature follows Borror & White 1970, Hall 1981 and Grenfell et al. 2003.

Appendix B Site Photographs

Looking North Across APN 028 and 024

Looking West Across APN 034 and 033

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

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

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

BOTANICAL NAME	COMMON NAME
Tropaelolum majus	garden nasturtium
Ulex europaeus	prickly broom
Vinca major	periwinkle
Yucca gloriosa	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.	