Appendix C-1, **Biological Resources Assessment**

BIOLOGICAL RESOURCES ASSESSMENT OF THE 1,543-ACRE BUTTERFIELD SPECIFIC PLAN AREA LOCATED IN THE CITY OF BANNING AND COUNTY OF RIVERSIDE, CALIFORNIA

APN: 406-040-004, 406-040-006, 406-040-016, 406-040-017, 406-040-020, 408-120-001, 408-120-002, 408-120-019, 408-120-020, 408-120-022, 408-120-024, 408-120-025, 408-120-027, 408-120-028, 408-120-033, 408-030-001, 408-030-005, 531-080-013, 531-080-014,

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DATE: **SEPTEMBER 9, 2010**

CERTIFICATION

I hereby certify that the statements furnished below and in the attached exhibits present the 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.

DATE 9/9/2010 : SIGNED: _____

David Levine, Principal

DATE 9/9/2010 : SIGNED: _____

Eric Kline, Project Manager

TABLE OF CONTENTS

TABLES

EXHIBITS

APPENDICES

ACRONYMS USED IN THIS REPORT

USACE	U. S. Army Corps of Engineers
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Department of Fish and Game
CNPS	California Native Plant Society
CWHR	California Wildlife Habitat Relationships
DBESP	Determination of Biologically Equivalent or Superior Preservation
ESA	Endangered Species Act
GIS	Geographic Information Systems
GLA	Glenn Lukos Associates
MBTA	Migratory Bird Treaty Act
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
NRC	Natural Resource Consultants
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

EXECUTIVE SUMMARY

The approximately 1,543-acre Butterfield Specific Plan development project (the site) is located in the City of Banning and County of Riverside, California. Pardee Homes proposes to develop approximately 1,491.4 acres (96.6 percent) of the site for residential purposes. Project development will also include off-site improvements for the installation of water and sewer pipelines, two drainage basins, improvements to an existing culvert/drainage, and extension of Brookside Avenue. This biological resources assessment describes the biological resources occurring on site and in off-site improvement areas, including the results of NRC's general and sensitive biological surveys conducted between 2005 and 2010. In addition, this report evaluates the anticipated impacts of the proposed project on site-specific and regional biological resources and provides mitigation measures designed to offset adverse project-related effects. This document is consistent with the reporting requirements of the California Department of Fish and Game (CDFG), the U.S. Fish and Wildlife Service (USFWS), and the County of Riverside's Multiple Species Habitat Conservation Plan (MSHCP).

Based on a query of the Riverside County MSHCP website, the Butterfield site is located within the burrowing owl survey area and the Narrow Endemic Plant Survey Area 8 but is outside all other sensitive plant and wildlife survey areas. For projects located within MSHCP survey areas, a habitat assessment must be completed and, if necessary, focused surveys completed if sensitive species habitat is observed. Based on the presence of marginally suitable habitat for the burrowing owl (*Athene cunicularia*) and sensitive plants species, NRC conducted a focused search for Yucaipa onion (*Allium marvinii*) and many-stemmed dudleya (*Dudleya multicaulis*) in May 2005 and June 2010 and conducted focused surveys for burrowing owl in 2005, 2007, 2008, and 2010. No Yucaipa onion or many-stemmed dudleya plants were observed on site. In addition, no other special status plants have ever been observed on or in the vicinity of the site. Burrowing owls were detected on site during the focused surveys in 2007 and 2010. A total of six other special status wildlife species were also observed on the site. These species include double-crested cormorant (*Phalacrocorax auritus*), northern harrier (*Circus cyaneus*), California horned lark (*Eremophila alpestris actia*), loggerhead shrike (*Lanius ludovicianus*), coyote (*Canis latrans*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). The project would not result in significant impacts to any of these species with the exception of burrowing owl. To avoid and offset significant impacts to the burrowing owl, specific mitigations have been proposed. No federal or state-listed threatened or endangered plant or wildlife species was recorded on site.

The proposed project would result in the removal of 1,212.2 acres of agricultural lands, 5.1 acres of landscaping, 225.3 acres of disturbed/developed land, 27.9 acres of sandy wash, 19.1 acres of annual grassland, 1.4 acres of disturbed coastal sage scrub, and less than 0.4 acre of southern willow scrub on site. The project would also include permanent impacts to 0.6 acre of agricultural, 0.2 acre of disturbed ground, 0.2 acre of sandy wash, 0.1 acre of annual grasslands, 0.4 acre of disturbed coastal sage scrub, and less than 0.1 acre of mule fat scrub for off-site improvement areas. A total of 1,492.9 acres will be permanently removed by the project both on and off-site. Temporary impacts off-site would result in disturbance to 0.8 acre of agriculture, 0.4 acre of annual grasslands, and 0.4 acre of disturbed coastal sage scrub for a total of 1.6 acres of temporary impacts. The removal of agriculture, disturbed/developed land, annual grassland and disturbed coastal sage scrub are not significant impacts. The removal of 0.4 acre of southern willow scrub and mule fat scrub vegetation and jurisdictional portions of the sandy wash are significant and would be offset through the permit acquisition process with the appropriate regulatory agencies. NRC also assessed the site for the potential presence of vernal pools, vernal pool indicator plant species, and potential fairy shrimp habitat. NRC has determined that no vernal pools are present on the site and there is no suitable habitat for fairy shrimp.

Impacts to biological resources on the Butterfield site that would result from proposed development are not significant following mitigation. Open space areas that would remain after site development include 8.0 acres of agriculture, 11.7 acres of mixed chaparral vegetation, 31.7 acres of annual grasslands, and 0.6 acres of disturbed ground in the northern portion of the site for a total of 52.0 acres. Mitigation measures for impacts to nesting birds, including burrowing owls, would include a nesting bird survey prior to site disturbance. If necessary, burrowing

owls will be passively relocated once nesting is complete. No other direct or indirect impacts on biological resources would be significant. Following mitigation, all impacts to biological resources would be less than significant.

1.0 INTRODUCTION

Natural Resource Consultants (NRC) was retained by Pardee Homes to prepare a biological resources assessment for the approximately 1,543-acre Butterfield Specific Plan development project located in the City of Banning and County of Riverside, California. Pardee Homes proposes to develop approximately 1,491.4 acres (96.6 percent) of the site for residential purposes. Biological information described in this report incorporates the results of NRC's studies conducted during May 2005, September 2006, March 2007, May 2008, and March through August 2010. In addition, this report describes the existing biological conditions on the site and surrounding area (including proposed off-site improvement areas), evaluates the anticipated impacts of the proposed project on site-specific and regional biological resources, and provides mitigation measures designed to offset adverse project effects. Off-site improvement areas associated with the project include water and sewer pipelines, road, and detention basin and culvert/drainage improvements. The off-site pipelines are discussed under separate cover and will not be included in this biological resources assessment (NRC 2008). Project-specific mitigation measures are consistent with the requirements of the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG) and the County of Riverside's Multiple Species Habitat Conservation Plan (MSHCP).

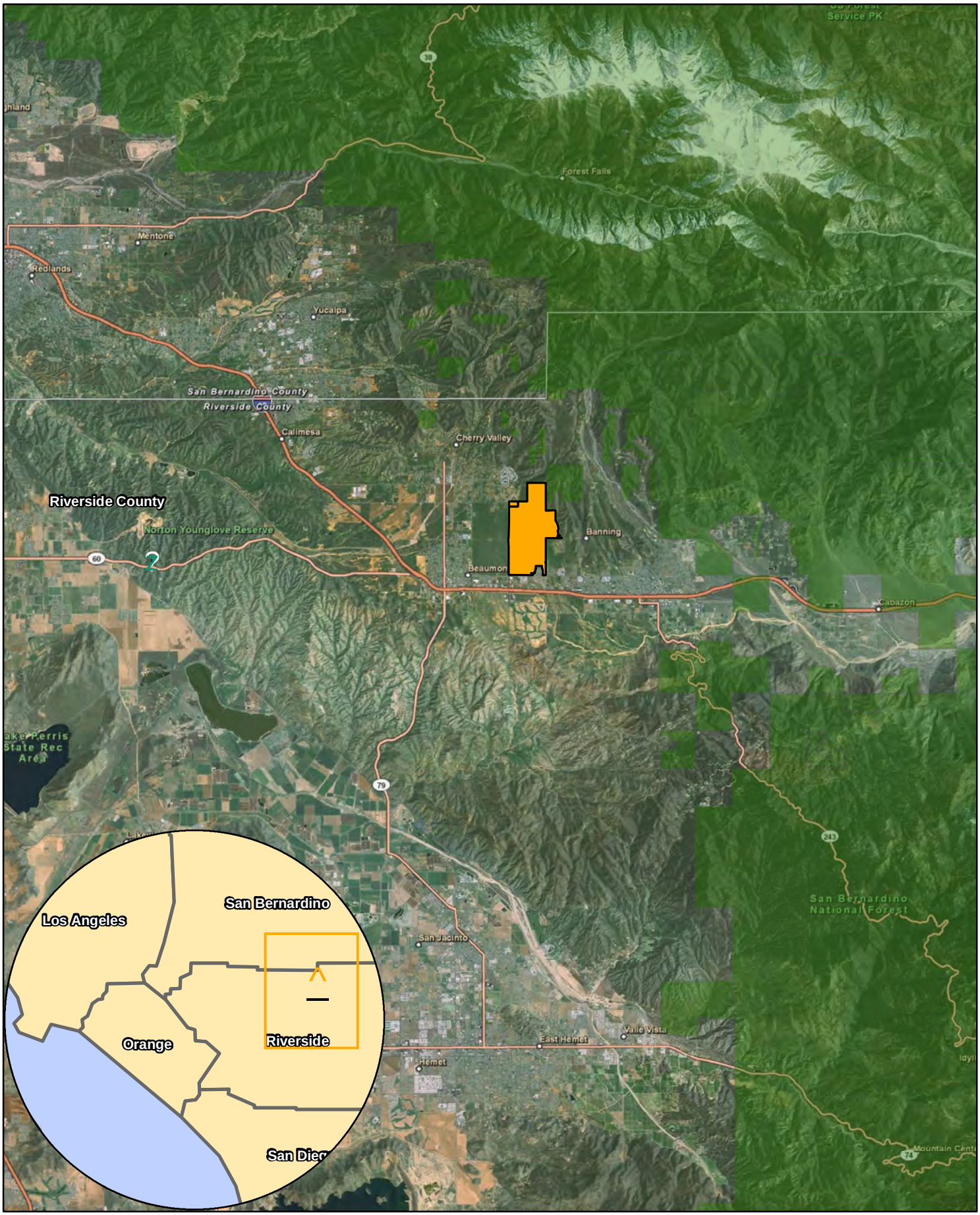
2.0 INTENT OF THIS DOCUMENT AND DEFINITION OF TERMS

This biological resources assessment describes the methods, results, and conclusions of NRC's surveys for general biological resources and sensitive plant and wildlife species potentially occurring on the 1,543-acre Butterfield Specific Plan development project. NRC has defined a "regional study area" which includes the U.S. Geological Survey (USGS) 7.5' *Yucaipa, Forest Falls, San Gorgonio Mountain, El Casco, Beaumont, Cabazon, Lakeview, San Jacinto and Lake Fulmor* quadrangles. The term "regional study area" will be used within this document as a primary parameter for determining which sensitive resources require evaluation.

3.0 SITE LOCATION AND DESCRIPTION

The Butterfield Project site is located at the northwest edge of the City of Banning and with a small portion located outside the city and in the County of Riverside, California (Exhibit 1). The site lies north of Interstate 10 and is bordered by Highland Springs Avenue to the west, mostly undeveloped land adjacent to the San Gorgonio Foothills to the north, Highland Home Road and undeveloped land to the east, and West Wilson Street to the south (Exhibit 2). The site is located in Section 1 of Township 3 South, Sections 25 and 36 of Township 2 South, Range 1 West and Section 31 of Township 2 South, Range 1 East as shown on the USGS 7.5' *Beaumont* quadrangle.

The Butterfield Specific Plan area (project area not including proposed off-site project related facilities) comprises approximately 1,543 acres. Pardee Homes is the property owner of approximately 1,522 acres of this area. The other approximately 21 acres in located in the northwest corner of the Specific Plan area, at the southeast corner of Highland Springs Ave. and Brookside Ave., is owned by the Highland Springs Country Club Owners Association, which is the existing development and golf course to the northwest of the Specific Plan area. This additional 21-acre area has been included in the proposed Butterfield Specific Plan area because it will be situated south of the proposed easterly extension of Brookside Ave. into the Specific Plan area, and from a planning perspective there is merit to including it in the Specific Plan planning area as it would be adjacent to the Plan area, and it would be separated from the other areas to the northwest by significant roadways. The 1,522 acres of the Butterfield Specific Plan owned by Pardee Homes is within the current Banning city limits. The 21-acre area in the northwest corner is not currently within the Banning city limits, but is within the City of Banning's adopted General Plan Planning Area. The 21-acre area is currently within Riverside County unincorporated area. The 21-acre area will not be subject to the provisions of the Butterfield Specific Plan until such time as it may be annexed to the City of Banning, which would involve a petition by the property owners to be part of such an annexation. The majority of the 21-acre area is designated as a 19.1-acre Residential Planning Area (PA 43B) in the Butterfield Specific Plan, the other approximate 1.9 acres is proposed as additional roadway right of way for Highland Springs Ave. and Brookside Avenue.



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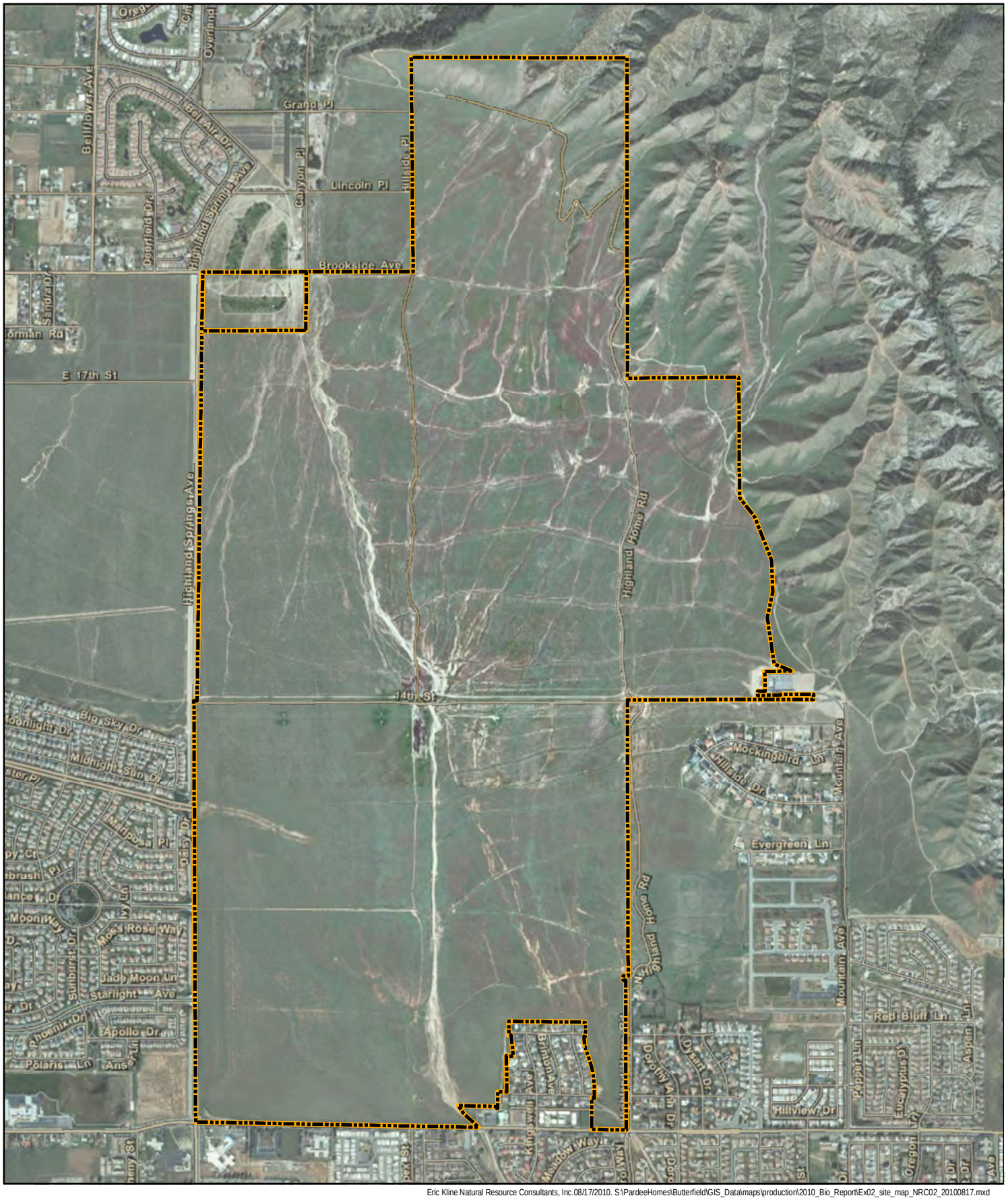
Site Boundary

0 1.5 3 6 Miles

1 inch = 3 miles 1:216,698

Exhibit 1: Location Map

Butterfield Site| Riverside County, California



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Site Boundary

0 0.1 0.2 0.4 Miles

1 inch = 0 miles

Exhibit 2: Site Map

Butterfield Site | Riverside County, California

The off-site improvements include installation of two drainage basins, improvements to an existing culvert/drainage, and extension of Brookside Avenue. The areas proposed for the two drainage basins and extension of Brookside Avenue occur just north of the Butterfield site boundary and support both native and non-native vegetation. The drainage improvements are proposed on the south side of West Wilson Street south of the site. The area is partially lined with concrete and contains some native scrub and ruderal vegetation.

The site supports cattle and has been historically used for agriculture. Site topography is predominately flat in the central and southern portions of the site with low rolling hills and steeper sloped hills in the northern portion of the site. Elevation ranges from approximately 3,400 feet above mean sea level (MSL) in the north to 2,560 feet above MSL in the south. Many berms and earthen-bottomed channels were created on site and cross primarily in an east-west direction. Three blue-line streams (including Smith Creek) occur on site and are depicted on the USGS topographic map for Beaumont, California (dated 1953 and photorevised in 1988). Smith Creek enters the site from the northwest and crosses the site to the south (Exhibit 2). Smith Creek and its tributaries are ephemeral drainages that do not support water flow except during and immediately following storm events. The northwest portion of the Project is part of the Highland Springs Village Golf course and consists of golf course landscaping and roughly graded areas.

4.0 REGULATORY SETTING

The Butterfield site is subject to the Western Riverside County Multiple MSHCP, as well as other state and federal environmental review requirements. The various regulatory mechanisms that this document is intended to address are discussed below.

4.1 WESTERN RIVERSIDE COUNTY MSHCP

The Western Riverside County MSHCP is an effort to conserve open space, nature preserves, and wildlife while streamlining regulatory review related to endangered species. The plan was designed to protect 146 species and conserve over 500,000 acres in Riverside County west of the San Jacinto Mountains. The MSHCP was approved by the County in June 2003 and received permitting approval by the USFWS in June 2004.

4.1.1 MSHCP PLANNING STRUCTURE

The MSHCP covers western Riverside County west of the San Jacinto Mountains. Areas covered by the MSHCP are divided into sixteen Area Plans. Portions of each Area Plan especially important to the MSHCP's conservation goals are divided into Subunits for which biological issues and considerations as well as target acreages have been specified. These Subunits, or Criteria Areas, are further divided into numbered cells (each equal to a quarter survey section or approximately 160 acres) with additional conservation goals. These goals include preservation of land for conservation (units include Cores and Noncontiguous Habitat Blocks) and wildlife movement (Constrained and Unconstrained Linkages). Additional Survey Areas are defined for several species of special status plants, amphibians, mammals, plants, and burrowing owls. These surveys are only required if a biologist makes a determination that potential habitat for the survey species is present on the site.

4.1.2 MSHCP CRITERIA AND SURVEY AREAS

The site is located within the Pass Area Plan but is outside all subunit or criteria cell areas (Exhibit 3). The site is located within the habitat assessment/survey areas for narrow endemic plant species (Survey Area 8) and the burrowing owl (*Athene cunicularia*) but is outside all other mammal and amphibian survey areas (Exhibit 4). For sites within a survey area, a habitat assessment must be completed for the species and surveys completed if habitat is observed on the site. For narrow endemic plant Survey Area 8, this assessment must be completed for the Yucaipa

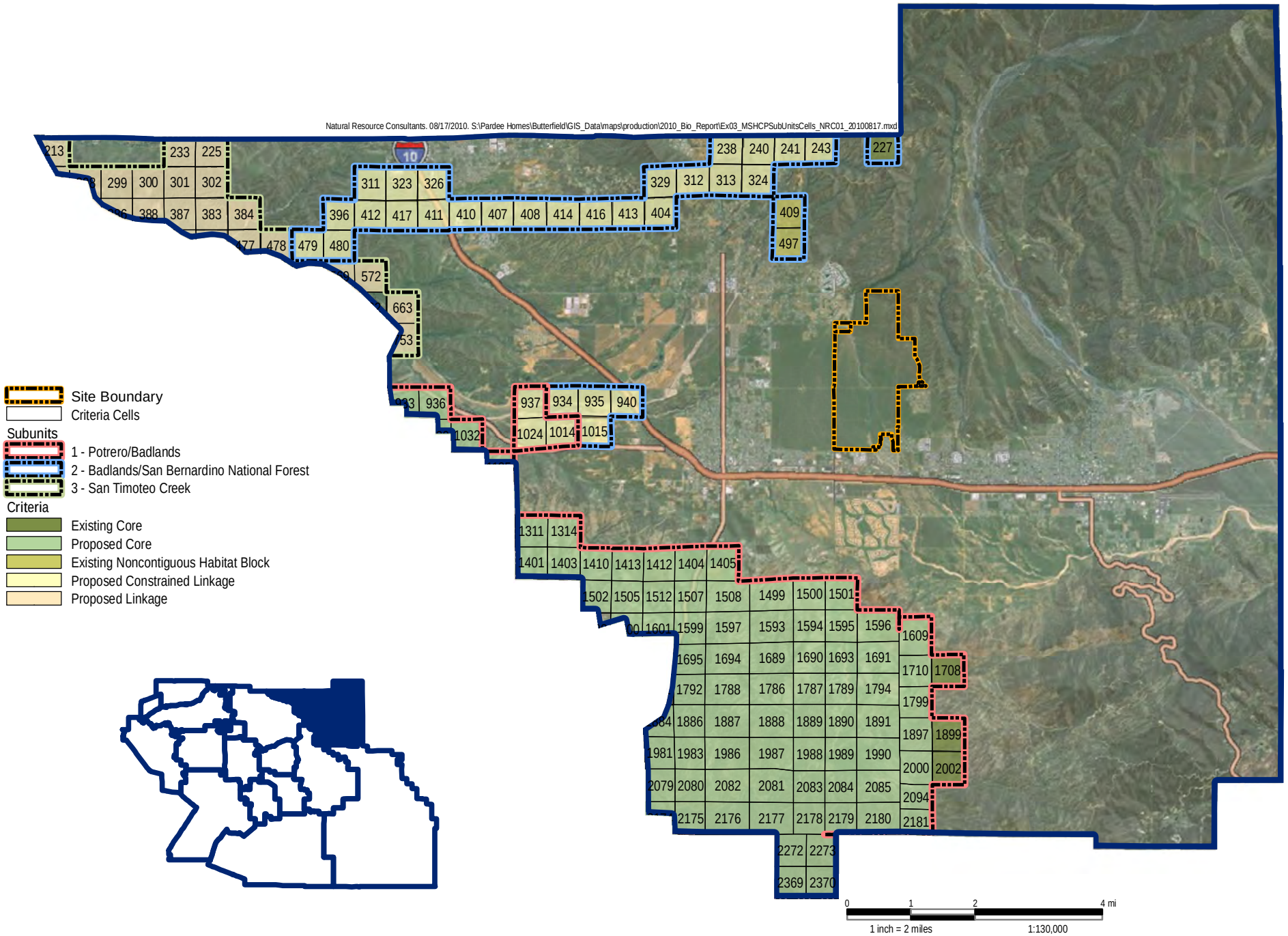


Exhibit 3: The Pass Area Plan Subunits and Cell Criteria

Butterfield Site | Riverside County, California

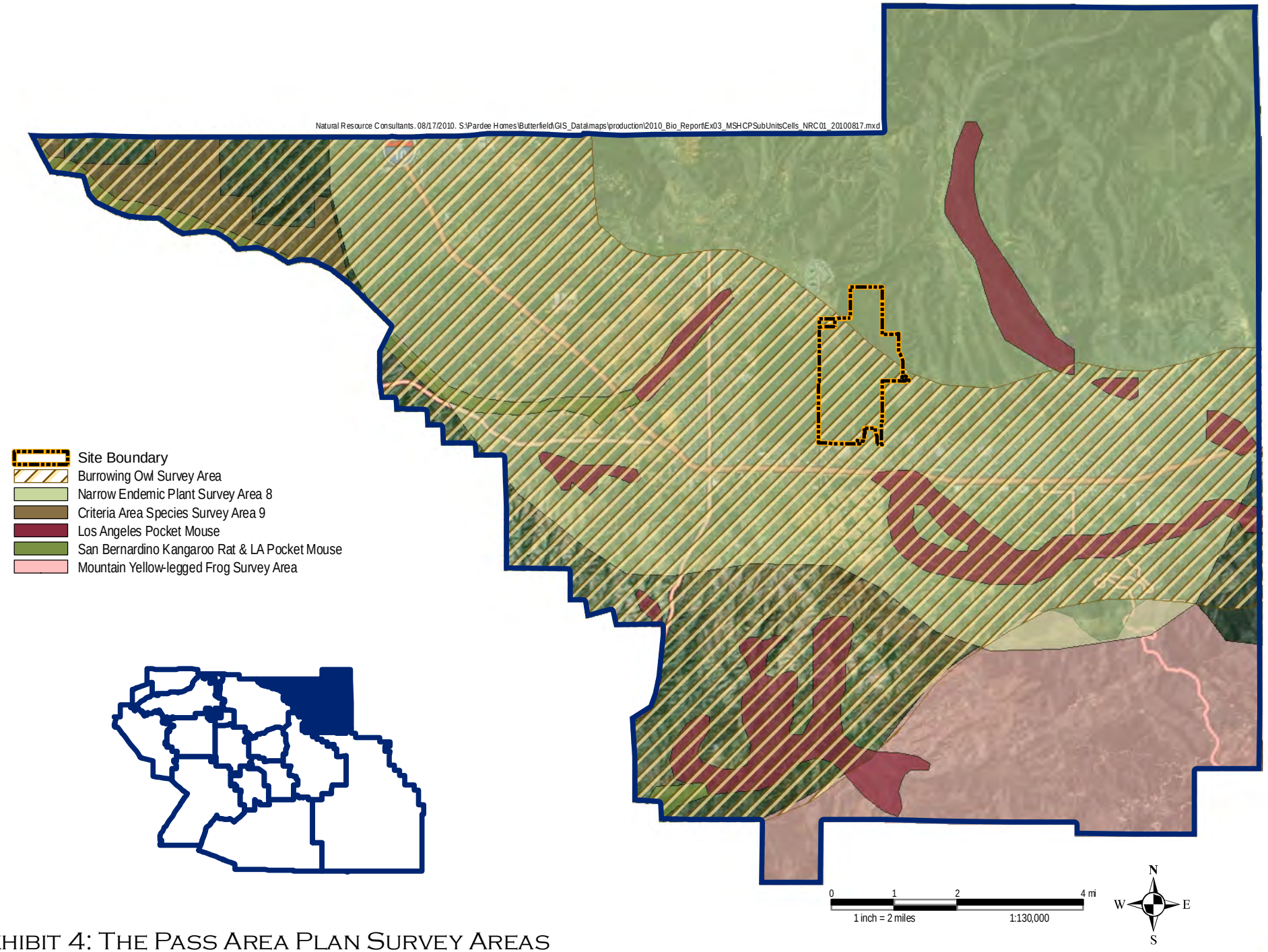


Exhibit 4: The Pass Area Plan Survey Areas

Butterfield Site | Riverside County, California

onion (*Allium marvinii*) and the many-stemmed dudleya (*Dudleya multicaulis*). The burrowing owl habitat assessment and survey are discussed below in Section 5.3 and the Yucaipa onion and the many-stemmed dudleya habitat assessment is discussed in Section 5.4.

4.1.3 MSHCP RIVERINE/RIPARIAN AND VERNAL POOL AREAS

Section 6.1.2 of the MSHCP specifies that impacts to the functions and values of riverine, riparian and vernal pool areas be avoided to the extent practicable. If these areas must be impacted, then mitigation must be provided and described in a Determination of Biologically Equivalent or Superior Preservation (DBESP). Glenn Lukos Associates (GLA) conducted a jurisdictional delineation for waters under the jurisdiction of the US Army Corps of Engineers (USACE) and the California Department of Fish and Game (CDFG) on the site in December 2005 and updated in August 2010 (GLA 2010). This information, along with associated biological data, will be provided in a DBESP under separate cover.

4.1.4 URBAN/WILDLANDS INTERFACE

Section 6.1.4 of the Western Riverside County MSHCP presents guidelines intended to address indirect effects associated with development in proximity to the MSHCP Conservation Area. Measures intended to reduce indirect effects are discussed in Section 9.2.

4.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT

In addition to regional plan compliance, the primary context of this document is to evaluate the proposed project as it pertains to the California Environmental Quality Act (CEQA). Appendix G of the CEQA Guidelines (as amended through September 2004) is used by public agencies in determining whether a project may have a significant impact on biological resources. Under Appendix G, a project may have a significant impact on biological resources if it would:

1. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by CDFG or USFWS.

2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, or regulations by the CDFG or USFWS.

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

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

5. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance (*e.g.*, oak trees or California walnut woodlands).

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

In addition, Section 15065(a) of the CEQA Guidelines establishes that a significant impact may occur if "[t]he project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish and

wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, [or] reduce the number or restrict the range of an endangered, rare or threatened species."

4.3 CALIFORNIA ENDANGERED SPECIES ACT

Sections 2081(b) and (c) of the California Endangered Species Act (CESA) allow the CDFG to issue an incidental take permit for a State listed threatened and endangered species only if specific criteria are met. These criteria are as follows:

1. The authorized take is incidental to an otherwise lawful activity;
2. The impacts of the authorized take are minimized and fully mitigated;
3. The measures required to minimize and fully mitigate the impacts of the authorized take:
    a. are roughly proportional in extent to the impact of the taking on the species,
    b. maintain the applicant's objectives to the greatest extent possible, and
    c. are capable of successful implementation;
4. Adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with and the effectiveness of the measures; and
5. Issuance of the permit will not jeopardize the continued existence of a State-listed species.

Measures to minimize the take of species covered by the permit (Covered Species) and to mitigate the impacts caused by the take will be set forth in one or more attachments to the permit. This attachment will generally be a mitigation plan prepared and submitted by the Permittee in coordination with CDFG staff. The mitigation plan should identify measures to avoid and minimize the take of State-listed species and to fully mitigate the impact of that take. The Butterfield site does not support any plant or wildlife species listed as State threatened or endangered.

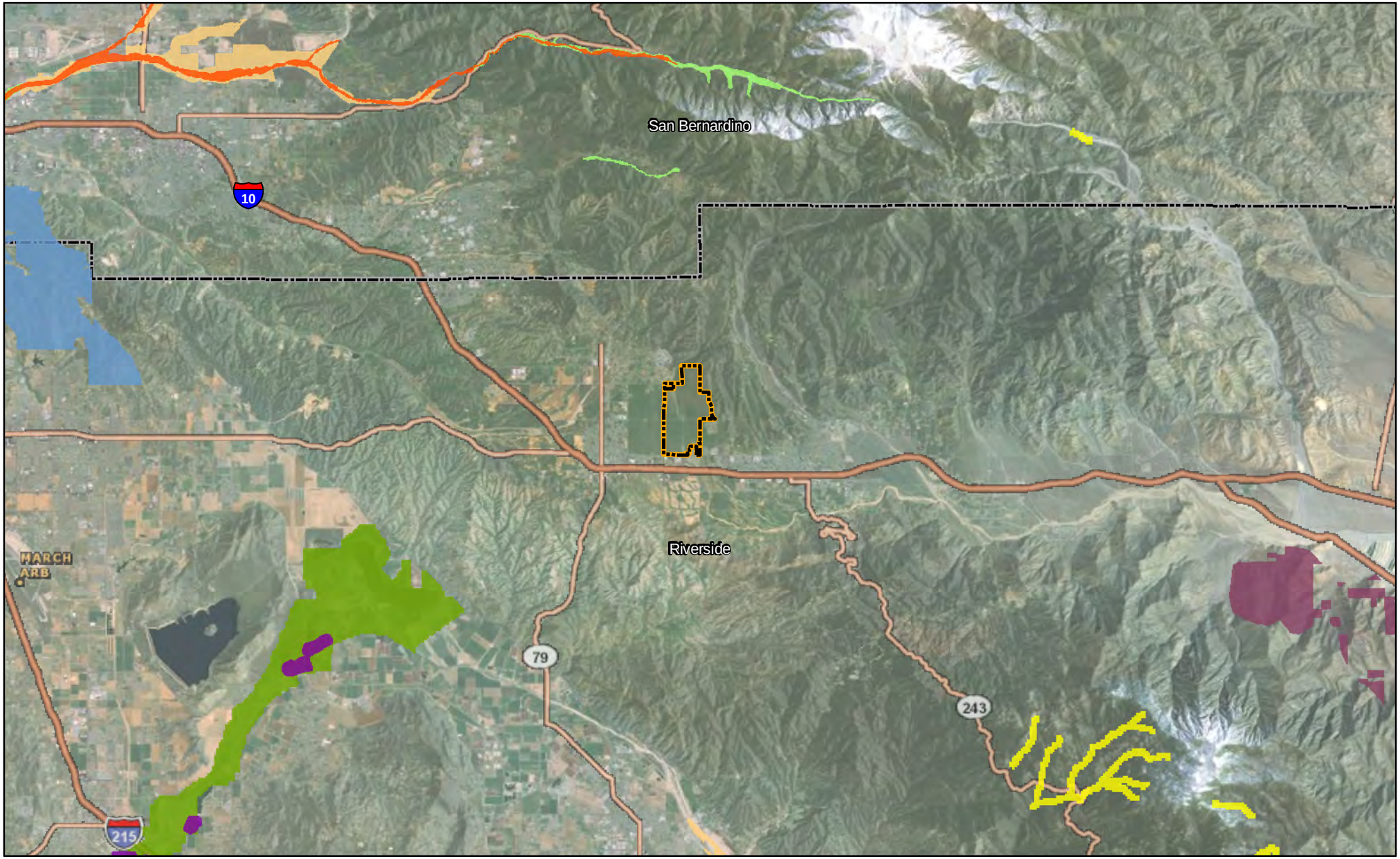
4.4 FEDERAL ENDANGERED SPECIES ACT

Take of a federally listed threatened or endangered species is prohibited under federal law without a special permit. Section 10(a)(1)(B) of the federal Endangered Species Act (ESA) allows for take of a threatened or endangered species incidental to development activities once a Habitat Conservation Plan (HCP) has been prepared to the satisfaction of the USFWS and a Section 10(a) incidental take permit has been issued to the applicant. This rule applies for projects which are covered by the Western Riverside County MSHCP. The site does not support any plant or wildlife species listed as federally threatened or endangered.

4.4.1 CRITICAL HABITAT

"Critical Habitat" is a term within the federal ESA designed to guide actions by federal agencies (as opposed to state, local, or other agency actions) and defined as "an area occupied by a species listed as threatened or endangered within which are found physical or geographical features essential to the conservation of the species, or an area not currently occupied by the species which is itself essential to the conservation of the species." Designated critical habitat boundaries for the southwestern willow flycatcher lie approximately 5.3 miles to the north of the site (USFWS 2005) (Exhibit 5). Other designated critical habitat boundaries that are present in the study area but more distant from the site include those for the California gnatcatcher (USFWS 2007), the San Bernardino kangaroo rat (USFWS 2008), the mountain yellow-legged frog (USFWS 2006), and the peninsular bighorn sheep (USFWS 2009a). Re-proposed critical habitat for the thread-leaved brodiaea (*Brodiaea filifolia*; USFWS 2009b), spreading navarretia (*Navarretia fossalis;* USFWS 2009c), and Santa Ana sucker (*Catostomus santaanae;* USFWS 2009d) are also located in the study area, but are also more distant from the site.

Under the MSHCP, the USFWS has agreed that, unless the USFWS finds that the MSHCP is not being implemented, lands within the boundaries of the MSHCP shall not be designated as Critical Habitat for Covered Species Adequately



Site Boundary
Thread-leaved Brodiaea (Re-proposed 2009)
Spreading Navarretia (Re-proposed 2009)
Santa Ana Sucker (Re-proposed 2009)
Mountain Yellow-legged Frog (Designated 2006)
California (Designated 2007)
Southwestern Willow Flycatcher (Designated 2005)
San Bernardino Kangaroo Rat (Designated 2008)
Peninsular Bighorn Sheep (Designated 2009)

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N
W E
S

0 1.5 3 6 Miles
1 inch = 4 miles

Exhibit 5: USFWS Critical Habitat

Butterfield Site | Riverside County, California

Conserved under the MSHCP. In addition, "if Critical Habitat is designated within the MSHCP boundaries, no subsequent evaluation of the Covered Species Adequately Conserved, nor any mitigation, compensation, conservation enhancement or other protective measures other than those set forth in the MSHCP shall be required" (MSHCP Section 6.9). As such, none of the Critical Habitat determinations represent a constraint to development on the site.

4.5 OTHER REGULATORY MECHANISMS

The Migratory Bird Treaty Act of 1918 (MBTA) is a federal law governing the taking, killing, possession, transportation, and importation of various birds, their eggs, parts and nests. The take of any number of a bird species listed as protected on any one of four treaty lists is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreational purposes and requiring harvest to be limited to levels that prevent over utilization. The MBTA also prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, certain bird species, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11).

5.0 FIELD STUDIES AND ANALYTICAL METHODS

NRC searched existing documentation pertaining to the biological resources potentially occurring on the site. In addition, NRC evaluated the Western Riverside County MSHCP (see Section 3.0 above) and environmental documents pertaining to other proposed development projects in the regional study area. Site surveys and various literature and database evaluations are described below.

5.1 GIS ANALYSIS OF SENSITIVE SPECIES DATA

NRC uses a variety of geographic information systems (GIS) and other relational databases as references for biological studies. Databases used in the course of NRC's evaluation of the Butterfield site are summarized below:

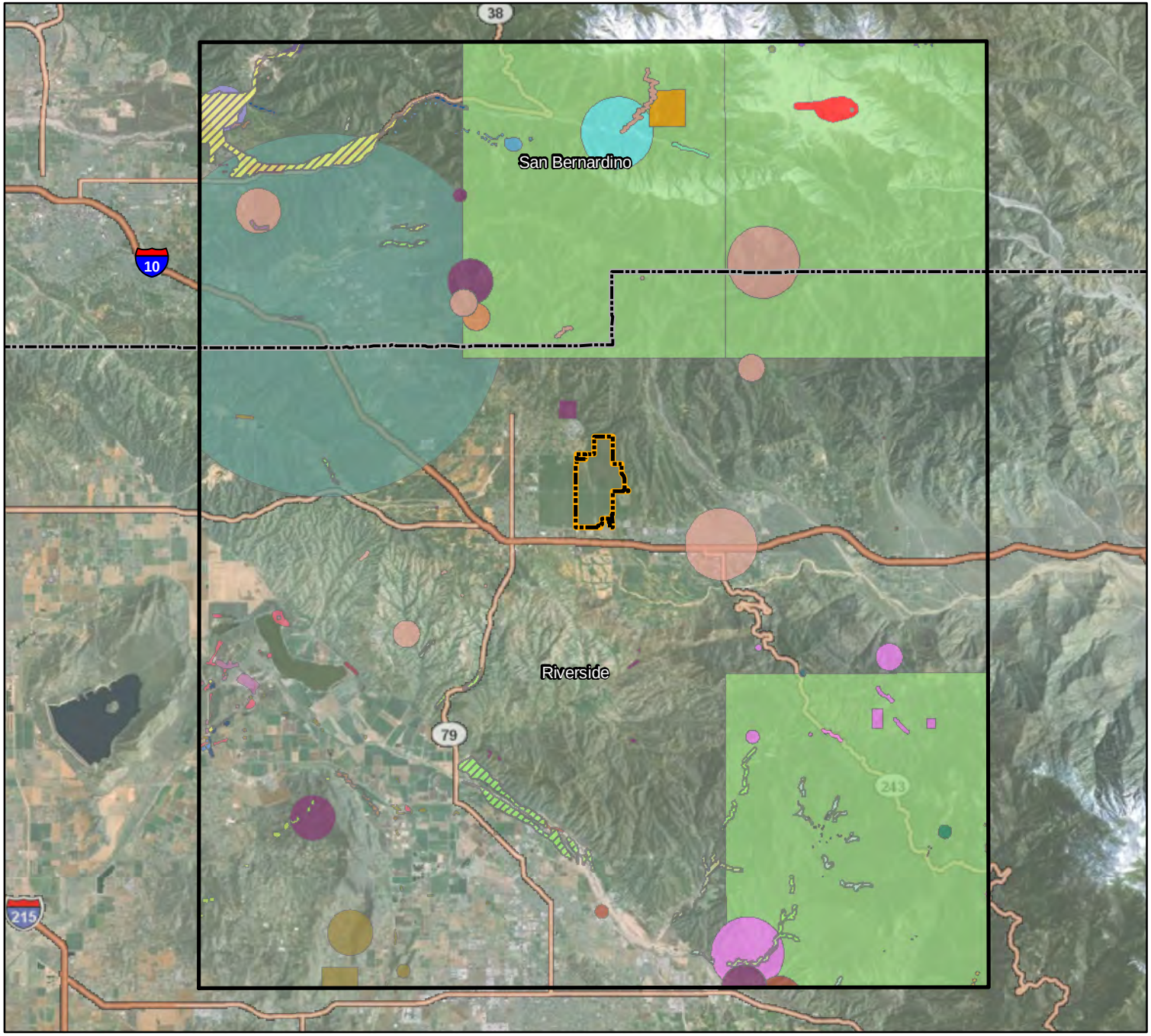
- California Natural Diversity Database (CNDDB, CDFG 2010) – the CNDDB is the primary reference in California for occurrence records of listed and non-listed sensitive species. The database includes GIS files to map occurrence records and the Rarefind database which provided details for these occurrences.

- California Wildlife Habitat Relationships Version 8.1 (CWHR, CDFG 2008) – CWHR provides life history data for terrestrial wildlife species and tools to analyze habitat suitability using GIS. Life history data from this database was used to write the species accounts provided in this document.

- California Native Plant Society Inventory of Rare and Endangered Plants (CNPS 2010) – Data from the CNPS database was utilized to prepare species accounts for sensitive plants discussed in Section 6.

Elements of the CNDDB, CWHR and CNPS databases have been incorporated into NRC's own database for production of project-specific reports, including species accounts and tables used in this document. These references are cited where appropriate. NRC also uses GIS files depicting designated and proposed critical habitat boundaries, which have been provided by the USFWS.

Data current as of June 2010 reveal that thirty-one species of special status plants, nine sensitive vegetation communities and thirty-six species of special status wildlife have been recorded by the CNDDB within the nine-quad regional study area since 1980 (Exhibits 6 & 7). One additional special status plant species and four additional special status wildlife species have been recorded in the area by the MSHCP or during biological surveys on the site. A complete evaluation of all sensitive plant and wildlife species potentially occurring on the site is provided in Section 7.0 of this report.



Site Boundary

- Alvin Meadow bedstraw
- California dandelion
- Coulter's goldfields
- Hall's monardella
- Jaeger's milk-vetch
- Laguna Mountains jewel-flower
- Mojave tarplant
- Moran's nosegay
- Parish's alumroot
- Parry's spineflower
- Payson's jewel-flower
- Plummer's mariposa-lily
- Robinson's pepper-grass
- San Bernardino Mountains owl's-clover
- San Bernardino aster
- San Bernardino gilia
- San Bernardino grass-of-Parnassus
- San Bernardino rock-cress
- San Jacinto Mountains bedstraw
- San Jacinto Valley crownscale
- Santa Ana River woollystar
- South Coast saltscale
- Yucaipa onion
- chaparral sand-verbena
- lemon lily
- mud nama
- slender-horned spineflower
- smooth tarplant
- southern alpine buckwheat
- thread-leaved brodiaea
- white-bracted spineflower

- Canyon Live Oak Ravine Forest
- Riversidian Alluvial Fan Sage Scrub
- Southern Coast Live Oak Riparian Forest
- Southern Cottonwood Willow Riparian Forest
- Southern Mixed Riparian Forest
- Southern Riparian Forest
- Southern Riparian Scrub
- Southern Sycamore Alder Riparian Woodland
- Southern Willow Scrub

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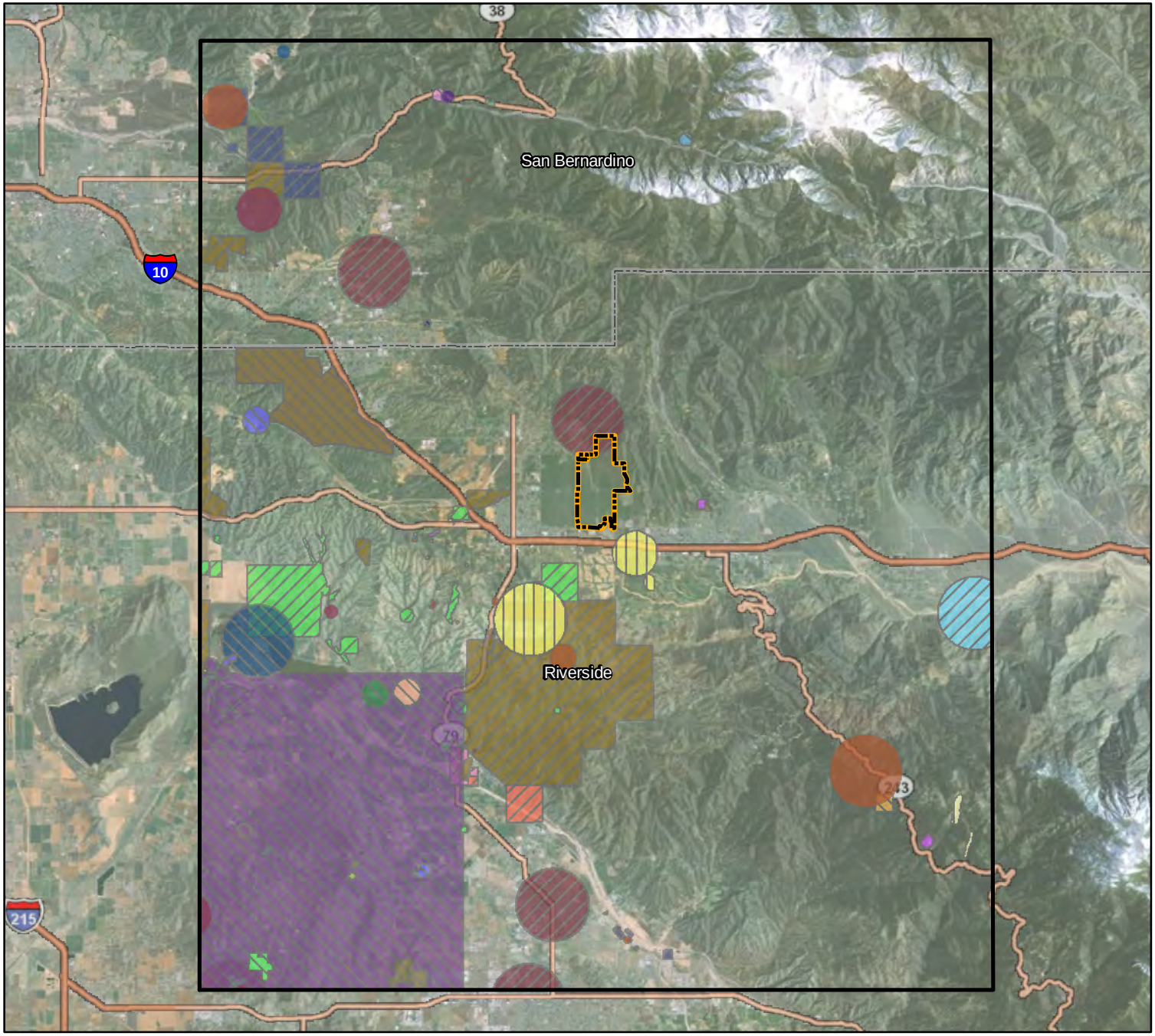
Exhibit 6: CNDDB Plants and Vegetation Communities
Butterfield Site | Riverside County, California

0 2 4 8 Miles

1 inch = 4 miles

N W E S



Site Boundary

Amphibians
- Sierra Madre yellow-legged frog
- western spadefoot

Reptiles
- California mountain kingsnake (SB population)
- San Bernardino ringneck snake
- coast horned lizard
- coastal whiptail
- northern red-diamond rattlesnake
- orangethroat whiptail
- southern rubber boa
- two-striped garter snake

Birds
- Bell's sage sparrow
- California horned lark
- Cooper's hawk
- black swift
- burrowing owl
- coastal California gnatcatcher
- coastal cactus wren
- ferruginous hawk
- golden eagle
- loggerhead shrike
- purple martin
- southern California rufous-crowned sparrow
- southwestern willow flycatcher
- tricolored blackbird
- white-faced ibis
- white-tailed kite

Mammals
- American badger
- Dulzura pocket mouse
- Los Angeles pocket mouse
- San Bernardino kangaroo rat
- San Diego black-tailed jackrabbit
- San Diego desert woodrat
- Stephens' kangaroo rat
- northwestern San Diego pocket mouse
- pallid San Diego pocket mouse
- western yellow bat

Natural Resource Consultants, Inc. 07/23/2010. Pardee Homes\Butterfield\GIS_Data\maps\production\2010_Bio_Report\Ex07_CNDDB_Wildlife_NRC05_20100817.mxd

Exhibit 7: CNDDB Wildlife
Butterfield Site | Riverside County, California

0 1.5 3 6 Miles

1 inch = 4 miles

N W E S

5.2 GENERAL BIOLOGICAL SURVEYS

NRC conducted general biological surveys of the Butterfield site during May 2005 and September 2006 and this information was updated in March through August 2010 and included off-site improvement areas. The surveys were conducted on foot and covered all slope aspects, soil types, and drainages. The purpose of these surveys was to gather general information about the site's topography and natural resources, including the extent and location of vegetation communities and the presence of conditions sufficient to support any special status plant and wildlife species. All plant and wildlife species encountered were recorded in the field. A complete inventory of all plant and wildlife species observed on the site are included in Appendices A and B.

5.3 BURROWING OWL SURVEYS

The western burrowing owl is listed by the California Department of Fish and Game (CDFG) as a California Bird Species of Special Concern. Surveys to determine the presence/absence of burrowing owl on the site and on off-site improvement areas were conducted in 2005, 2007, 2008, and 2010. NRC biologists conducted focused surveys for burrowing owls using the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* protocols recommended by the MSHCP and based upon the California Department of Fish and Game (CDFG) and California Burrowing Owl Consortium recommendations. All rodent and squirrel burrows observed on the site were assessed for the suitability for use by burrowing owls and were inspected for evidence of use by the presence of burrowing owl indicative sign (white wash, pellets, scat, feathers and bone fragments). Linear transects were walked approximately 30 meters (100 feet) apart to provide 100 percent coverage of suitable habitat on the site and a 150 meter buffer around the site in accessible areas. All burrows observed on site were assessed for burrowing owl use and, if any evidence of use by burrowing owls was observed, the burrow was, for the purposes of this study, recorded as an "active burrow". In 2005 and 2008, no burrowing owls or indicative sign were detected on site. In 2007, two burrowing owls and six active owl burrows were observed during the survey near Smith Creek. In 2010, two burrowing owls and five active burrows were again observed on site in and around Smith Creek. No burrowing owls or sign was observed in or around the proposed off-site improvement areas.

5.4 SPECIAL STATUS PLANT SURVEYS

A habitat suitability assessment for MSHCP narrow endemic plants and other special status plants was conducted during the biological surveys performed in May 2005, September 2006, and June 2010. During these surveys no suitable habitat for Yucaipa onion and many-stemmed dudleya was found on or off-site. The site does not contain suitable clay soil substrates for either species (Exhibit 8) and the site is outside the elevation range of the many stemmed dudleya. No other special status plant species have been detected on the site during the field surveys.

5.5 CALIFORNIA GNATCATCHER SURVEYS

Habitat suitability for the California gnatcatcher (*Polioptila californica*) was assessed during the general biological surveys. Based on the small extent of chaparral vegetation and the size and condition of the disturbed coastal sage scrub vegetation no suitable habitat for this species occurs on or off-site. No protocol surveys for the California gnatcatcher are necessary to confirm absence of this species on the site.

5.6 LIMITATIONS OF BIOLOGICAL SURVEYS

NRC's biological surveys were designed to provide a thorough record of the extent and location of existing vegetation communities and an inventory of the plant and wildlife species that occur on site. There may be sensitive, but not federally or state-listed, amphibian, reptile, bird and mammal species that potentially occur on site (i.e., the site occurs within the documented species' range and the existing habitat components are similar to those where this

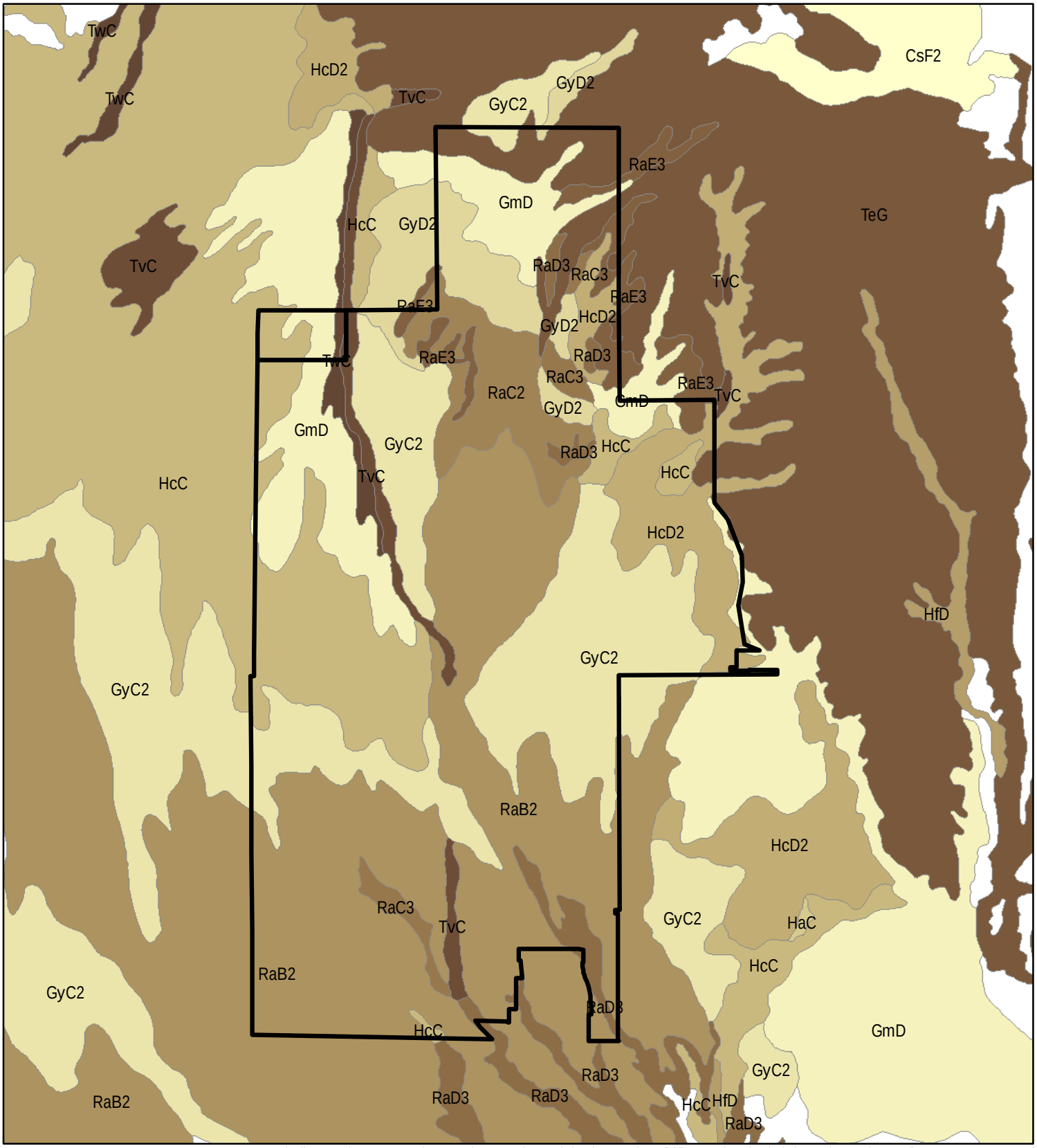


Exhibit 8: NRCS Soil Data

Butterfield Site | Riverside County, California

species has been detected elsewhere) but were not detected during the course of the NRC's biological studies. For some of these species, NRC has identified the presence of suitable and unoccupied habitat. The recognition of suitable habitat does not indicate presence or absence of the species.

6.0 GENERAL BIOLOGICAL RESOURCES

This section describes the existing vegetation communities occurring on the Butterfield site and on the offsite improvement areas based on the results of NRC's general and focused biological surveys.

6.1 VEGETATION COMMUNITIES

Seven vegetation communities occur on the Butterfield site and include: agriculture (1,220.2 acres), annual grasslands (50.8 acres), mixed chaparral (11.7 acres), disturbed coastal sage scrub (1.4 acres), southern willow scrub (<0.4 acre), sandy wash (27.9 acres), landscaping (5.1 acres), and disturbed/developed (225.9 acres) as listed in Table I and shown in Exhibit 9.

TABLE I. – ON SITE VEGETATION COMMUNITY SUMMARY

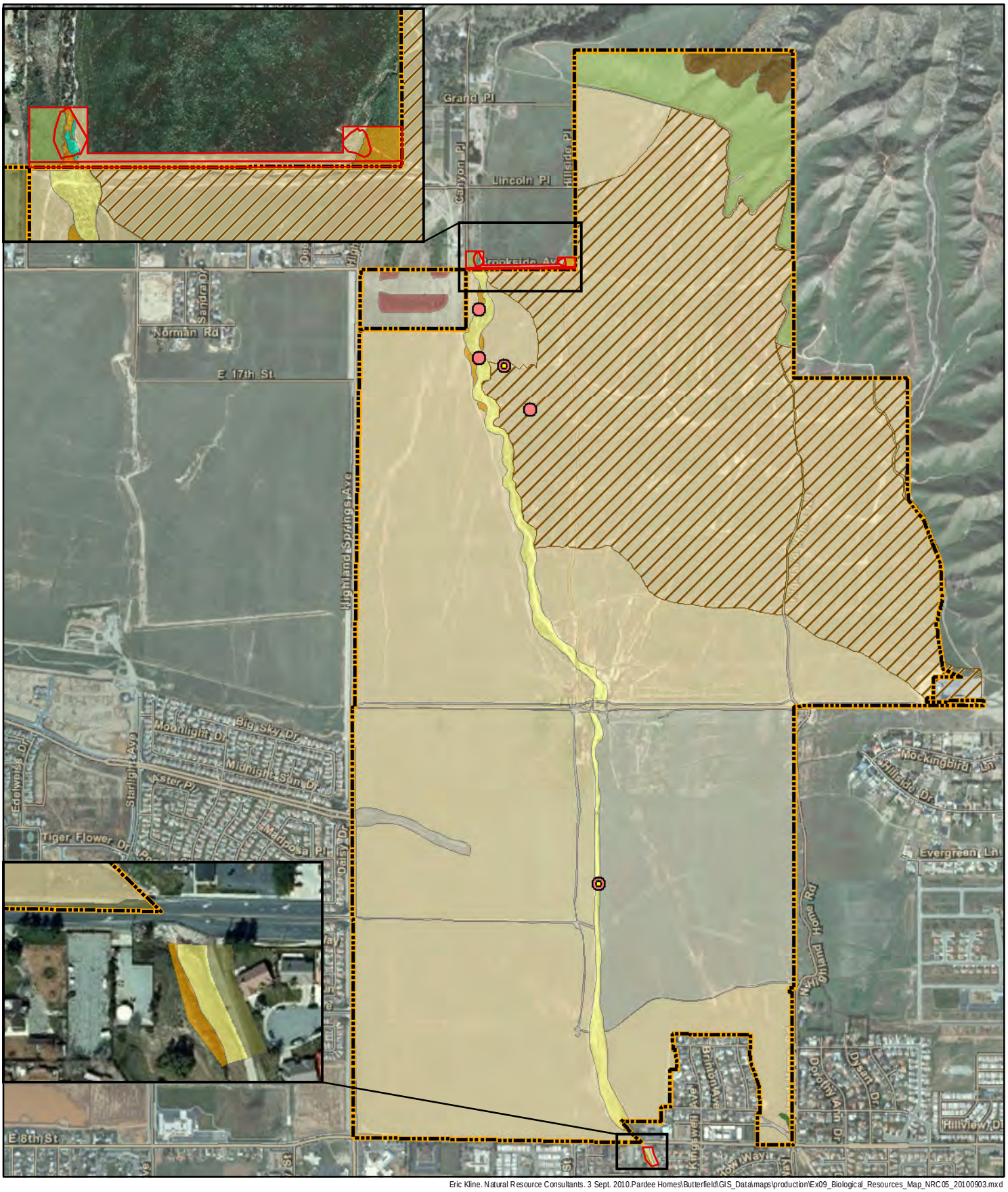
VEGETATION COMMUNITY	ACREAGE
Agriculture	1,220.2
Annual Grasslands	50.8
Mixed Chaparral	11.7
Disturbed Coastal Sage Scrub	1.4
Southern Willow Scrub	<0.4
Sandy Wash	27.9
Landscaping	5.1
Disturbed/Developed	225.9
TOTAL	**1,543.4**

6.1.1 AGRICULTURE

A large portion of the site, approximately 1,220.2 acres, is used for cattle grazing and is subject to the associated disturbance effects of soil compaction and waste deposition. Non-native grasses dominate these areas and include brome grasses (*Bromus diandrus, B. madritensis, B. hordeaceus*), Mediterranean barley (*Hordeum murinum*), goldentop (*Lamarckia aurea*), and oats (*Avena barbata, A. fatua*). Dense stands of non-native and taller growing winter vetch (*Vicia villosa*) and/or wild radish (*Raphanus sativus*) are distributed across large areas of the site, but primarily occur in the central and southern portions of the site. Other species occurring in localized areas include common sunflower (*Helianthus annuus)*, jimsonweed (*Datura stramonium*), tocalote (*Centaurea melitensis*), black mustard (*Brassica nigra*), common chickweed (*Stellaria media*), dove weed (*Eremocarpus setigerus*), calabazilla (*Cucurbita foetidissima*), and willow herb (*Epilobium brachycarpum*).

6.1.2 ANNUAL GRASSLANDS

Approximately 50.8 acres of the site supports annual grasslands that are not subject to cattle grazing. This vegetation community primarily occurs on the steeper slopes in the northern area of the site with the height and the density of the vegetation increasing and species diversity decreasing relative to that found on the open grazed areas to the south.



Eric Kline. Natural Resource Consultants. 3 Sept. 2010.Pardee Homes\Butterfield\GIS_Data\maps\production\Ex09_Biological_Resources_Map_NRC05_20100903.mxd

- Site Boundary
- Off-site Improvements
- Burn Area (Sept 06)
- Agricultural
- Annual Grasslands
- Mixed Chaparral
- Disturbed/Developed
- Landscaping
- Southern Willow Scrub
- Mule Fat Scrub
- Sandy Wash
- Disturbed Coastal Sage Scrub
- Burrowing Owl Observation
- Active Burrowing Owl Burrow

N W E S

0 750 1,500 3,000 Feet

1 inch = 1,564 feet 1:18,768

Exhibit 9: Biological Resources Map

Butterfield Site | Riverside County, California

These annual grasslands are dominated by non-native grasses including brome grasses (*Bromus diandrus, B. madritensis, B. hordeaceus*), Mediterranean barley (*Hordeum murinum*), oats (*Avena* sp.), and short-podded mustard (*Hirschfeldia incana*).

6.1.3 MIXED CHAPARRAL

Approximately 11.7 acres in the northeastern corner of the site supports mixed chaparral (Holland 1986). Several subdominant species occur in this association including toyon (*Heteromeles arbutifolia*), mountain mahogany (*Cercocarpus betuloides*), chamise (*Adenostoma fasciculatum*), scrub oak (*Quercus berberidifolia.*), and laurel sumac (*Malosma laurina*). The chaparral community on the south-facing slopes is more xeric and open with California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*) increasing in dominance.

6.1.4 DISTURBED COASTAL SAGE SCRUB

Scattered patches of disturbed coastal sage scrub, totaling 1.4 acres, are found on a few terraces along Smith Creek. The predominant species in these areas is California buckwheat and California sagebrush with many areas standing open as annual grassland.

6.1.5 SOUTHERN WILLOW SCRUB

Southern willow scrub is found in a small area at the southern end of Smith Creek and in a narrow band of riparian habitat in a tributary in the southeast corner of the site. Southern willow scrub covers less than 0.4 acres of the site and consists of mule fat (*Baccharis salicifolia*), walnut (*Juglans hindsii.*), black willow (*Salix gooddingii*), and arroyo willow (*Salix lasiolepis*.) being the predominant species in this area.

6.1.6 SANDY WASH

Smith Creek is an ephemeral and braided drainage system that traverses the site from north to south. The creek is mostly not vegetated and supports an alluvial sandy cobble substrate. The sandy wash habitat is defined here as the main drainage of Smith Creek and adjacent areas of unvegetated sandy substrate. This area occupies approximately 27.9 acres on site. Portions of the sandy wash habitat are within the jurisdiction of the USACE and CDFG. Scrub vegetation along the edges and banks are categorized above under disturbed coastal sage scrub and southern willow scrub.

6.1.7 LANDSCAPING

The northwest portion of the Project consists of landscaped grounds from the adjacent golf course. These landscaped areas are composed primarily of non-native pine trees (*Pinus spp*.) and manicured grasses and cover approximately 5.1 acres.

6.1.8 DISTURBED/DEVELOPED

Disturbed and developed areas cover approximately 225.9 acres of the site and are those areas generally devoid of vegetation and provide virtually no habitat for wildlife species. Developed areas are those portions of the site that contain man-made structures. Disturbed areas are those portions of the site without vegetation, the cause of which is apparently man-made and includes unimproved roads and trails.

6.1.9 OFF-SITE VEGETATION COMMUNITIES

The proposed off-site improvement areas contain agriculture, annual grassland, disturbed coastal sage scrub, mule fat scrub, sandy wash, and disturbed/developed vegetation communities. Much of these areas are similar in species

composition and structure as those vegetation communities on site. The agriculture vegetation is currently grazed by cattle and contains several non-native grass species similar to those found on site. The scrub is dominated by California buckwheat and Palmer's goldenbush (*Ericameria palmeri*) with openings of non-native grasses. The mule fat scrub is found within the Smith Creek drainage and is dominated by mule fat.

6.2 PLANT AND WILDLIFE DIVERSITY

Frequent site disturbance associated with agricultural operations has resulted in low plant and wildlife diversity relative to nearby undisturbed land. In addition to disturbance from cattle grazing, the site has been subject to periodic fire disturbance. During the survey conducted in late September 2006 a large portion of the site (approximately 488 acres) had recently been burnt (Exhibit 9). This area has recovered back to its previous agriculture vegetation comprised of mostly non-native grasses.

6.3 WILDLIFE MOVEMENT

No evidence of wildlife corridors and habitat linkages were identified on site. Wildlife movement generally occurs in the San Gorgonio Foothills to the north and east of the site. Residential and commercial development west and south of the site prevents wildlife movement from those directions. Important wildlife movement corridors are either preserved or planned for preservation within the reserve system of the MSHCP. As such, a detailed analysis of wildlife movement patterns is not presented in this document.

6.4 JURISDICTIONAL WATERS, RIPARIAN/RIVERINE AND VERNAL POOLS

Glenn Lukos Associates (GLA) conducted an assessment in April and May 2005 (revised 2006) for areas under the jurisdiction of the USACE under Section 404 of the Clean Water Act (CWA), CDFG jurisdiction under Section 1600-1616 of the CDFG Code, and Regional Water Quality Control Board (Regional Board) jurisdiction pursuant to Section 401 of the CWA and Section 13260 of the California Water Code. GLA re-examined the site in June, July, and August 2010 to define the limits of Corps, CDFG, and Regional Board jurisdiction both on and off-site and to update the results of the original April/May 2005 jurisdictional delineation. Included in this updated analysis are the two off-site drainage features located just north of the northern site boundary and one drainage located just south of the site south of West Wilson Street. The site supports three blue-line drainages as depicted on the USGS topographic map and includes Smith Creek, its tributaries, and several other drainage features. USACE jurisdiction on site totals 9.67 acres, of which less than 0.01 acres consist of jurisdictional wetlands. USACE jurisdiction off-site totals 0.15 acre, none of which consists of jurisdictional wetlands. CDFG jurisdiction on site totals 11.53 acres, of which 0.35 acre consists of vegetated riparian habitat. These areas include the less than 0.4 acre of southern willow scrub mapped by NRC in 2010. CDFG jurisdiction off-site totals 0.23 acre, of which 0.08 acre consists of vegetated riparian habitat. Regional Board jurisdiction at the site totals 10.14 acres, of which less than 0.01 acres consist of jurisdictional wetlands. Regional Board jurisdiction off-site totals 0.15 acre, none of which consists of jurisdictional wetlands. The site also supports a total of 0.47 acres of isolated waters, none of which exhibit wetland characteristics. Permitting for impacts to these resources will be addressed by GLA and Pardee Homes through appropriate agencies.

Section 6.1.2 of the MSHCP specifies that impacts to the functions and values of riverine, riparian, and vernal pool areas be avoided to the extent practicable. If these areas must be impacted then mitigation must be provided and described in a DBESP. Riparian/riverine areas total approximately 11.53 acres on site and 0.23 acre off-site (the same area mapped by GLA as CDFG jurisdictional). These areas provide no value as habitat to species specified in Section 6.1.2 of the MSHCP. As such, riparian/riverine impacts are restricted to the functions of these drainages in terms of drainage and flow rates. These impacts will be mitigated through consultation with USACE and CDFG.

NRC also assessed the site for the potential presence of vernal pools, addressing topography, soils and indicative vernal pool plant species. NRC has determined that no vernal pools are present on the site and there is no suitable habitat for fairy shrimp. A soils map is provided in Exhibit 8.

7.0 SENSITIVE BIOLOGICAL RESOURCES

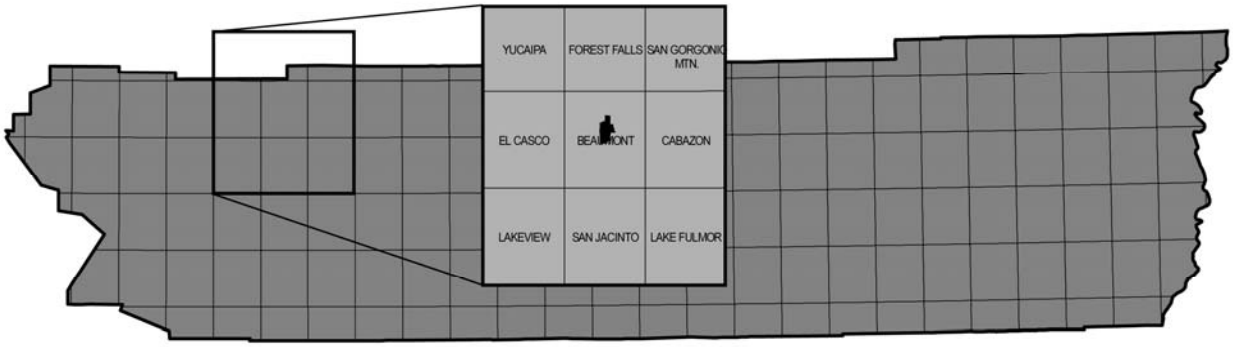
Sensitive biological resources include declining habitats as well as species that have been afforded special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, rare, or otherwise of concern. Watch lists of such resources are maintained by the CDFG, the USFWS, and special interest groups such as the California Native Plant Society (CNPS).

7.1 REGIONAL STUDY AREA

NRC's analysis of sensitive biological resources includes all records known to us of species that have occurred within the USGS 7.5' *Yucaipa, Forest Falls, San Gorgonio Mountain, El Casco, Beaumont, Cabazon, Lakeview, San Jacinto and Lake Fulmor* quadrangles. Our primary source for this information is the California Natural Diversity Database (CDFG 2010). Other sources will be cited when used.

REGIONAL STUDY AREA

The map below shows the regional study area from which species records were used for this analysis.



7.2 STATUS DESIGNATIONS

A **federally endangered species** is a species of invertebrate, plant, or wildlife formally listed by the USFWS under the federal ESA as facing extinction throughout all or a significant portion of its geographic range. A **federally threatened species** is one formally listed by the USFWS as likely to become endangered within the foreseeable future throughout all or a significant portion of its range. "Take" of a federally endangered or threatened animal species or its habitat is generally prohibited by federal law without a special permit. "Take" of a federally endangered or threatened plant species on private property is generally not prohibited under the federal Endangered Species Act unless a federal action is involved. The term "take", under the federal ESA, means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct." "Harm" is defined by the USFWS to encompass "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR § 17.3).

A **proposed threatened or endangered species** is a species officially proposed by the USFWS for addition to the federal threatened or endangered species lists.

The State of California considers an **endangered species** one whose prospects of survival and reproduction are in immediate jeopardy; a **threatened species** is one present in such small numbers throughout its range that it is considered likely to become an endangered species in the near future in the absence of special protection or management; and a **rare species** is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. The designation "rare species" applies only to California native plants. State threatened and endangered species include both plants and wildlife, but do not include invertebrates. State threatened and endangered animal species are legally protected against "take" as this term is defined in the California ESA (California Fish & Game Code Section 2050 *et seq*.). State threatened and endangered plant species are regulated largely under the Native Plant Preservation Act in conjunction with the California ESA.

Species of special concern is an informal designation used by the CDFG for some declining wildlife species that are not officially listed as endangered, threatened, or rare (CDFG 2009 and 2010b). This designation does not provide legal protection, but signifies that these species are recognized as vulnerable by CDFG.

Species that are **California fully protected** include those protected by special legislation for various reasons, such as the white-tailed kite (*Elanus leucurus*).

The CNPS is a statewide resource conservation organization that has developed an inventory of California's special status plant species (Tibor 2001). This inventory is a summary of information on the distribution, rarity, and endangerment of California's vascular plants. This rare plant inventory consists of four lists. CNPS presumes that **List 1A** plant species are extinct because they have not been seen in the wild for many years. CNPS considers **List 1B** plants as rare, threatened, or endangered throughout their range. **List 2** plant species are considered rare, threatened, or endangered in California, but more common elsewhere. Plant species on lists 1A, 1B, and 2 typically meet CDFG criteria for endangered, threatened, or rare listing. Plant species for which CNPS requires additional information in order to properly evaluate their status are included on **List 3**. **List 4** plant species are those of limited distribution in California whose susceptibility to threat is considered low at this time.

The following sections indicate the habitats and plant and wildlife species present or potentially present on the site that have been afforded special recognition.

7.3 SENSITIVE PLANT COMMUNITIES

Several plant communities or habitat types are considered sensitive by the CDFG's CNDDB because of their scarcity and because they potentially support state and/or federal listed endangered or threatened vascular plants and animals. Based on the CDFG's CNDDB records there are nine special status plant communities that occur within the 7.5-minute USGS *Yucaipa, Forest Falls, San Gorgonio Mountain, El Casco, Beaumont, Cabazon, Lakeview, San Jacinto and Lake Fulmor* quadrangles. These include canyon live oak riverine forest, Riversidian alluvial fan sage scrub, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern mixed riparian forest, southern riparian forest, southern riparian scrub, southern sycamore alder riparian woodland, and southern willow scrub. One special status plant community, southern willow scrub, is located on site and due to its limited size and vegetation density is unlikely to support any state or federal listed plants or wildlife.

7.4 SENSITIVE PLANTS

The following section discusses habitat suitability and results of surveys for all thirty-two sensitive plant species recorded in the regional study area since 1980. No sensitive plant species have been detected on site or within proposed off-site improvement areas. In general, the site provides marginally suitable habitat for special status plant species because of the disturbance caused by the active agricultural operations. Sensitive species associated with riverine, riparian and vernal pool habitats do not occur on site based on lack of suitable habitat. The information presented below is also summarized in Table II.

TABLE II. SPECIAL STATUS SPECIES AND COMMUNITY OCCURRENCES IN THE REGIONAL STUDY AREA

The following table lists nine special-status communities, 32 sensitive or special-status plant species and 40 sensitive or special-status wildlife species recorded within the USGS 7.5' *Yucaipa, Forest Falls, San Gorgonio Mountain, El Casco, Beaumont, Cabazon, Lakeview, San Jacinto and Lake Fulmor* quadrangles within the California Natural Diversity Database, MSHCP, or otherwise known to occur in the region. Status (FED, CAL) and basis code definitions are provided at the end of the table.

Scientific Name	Common Name	FED	CAL	MSHCP	CNPS	Habitat(s)	Status on the Site
			VEGETATION COMMUNITIES				
Canyon Live Oak Ravine Forest		—	—	—	—	—	Not present on the site.
Riversidian Alluvial Fan Sage Scrub		—	—	—	—	—	Not present on the site.
Southern Coast Live Oak Riparian Forest		—	—	—	—	—	Not present on the site.
Southern Cottonwood Willow Riparian Forest		—	—	—	—	—	Not present on the site.
Southern Mixed Riparian Forest		—	—	—	—	—	Not present on the site.
Southern Riparian Forest		—	—	—	—	—	Not present on the site.
Southern Riparian Scrub		—	—	—	—	—	Not present on the site.
Southern Sycamore Alder Riparian Woodland		—	—	—	—	—	Not present on the site.
Southern Willow Scrub		—	—	—	—	—	Present on the site.
			PLANTS				
Abronia villosa var. aurita	Chaparral sand-verbena	—	—	—	1B.1	Chaparral, coastal scrub, desert dunes/sandy. Elev. 80-1600m. Blooms Jan-Sep.	Not observed during 2005 and 2006 focused surveys. Limited suitable habitat present.
Allium marvinii	Yucaipa onion	—	—	Covered	1B.1	Chaparral (clay openings) Elev. 760-1065m. Blooms Apr-May.	Not observed during 2005 and 2006 focused surveys. Limited suitable habitat present.
Arabis breweri var. pecuniaria	San Bernardino rock cress	—	—	—	1B.2	Subalpine coniferous forest/ rocky. Elev. 2700-3200m. Blooms Mar-Aug.	Not observed during 2005-2010 surveys. No suitable habitat.
Astragalus pachypus var. jaegeri	Jaeger's milk-vetch	—	—	Covered	1B.1	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/sandy or rocky. Elev. 365-913m. Blooms Dec-Jun.	Not observed during 2005-2010 surveys. Suitable habitat present.

Scientific Name	Common Name	FED	CAL	MSHCP	CNPS	Habitat(s)	Status on the Site
Atriplex coronata var. notatior	San Jacinto Valley crownscale	E	—	Covered	1B.1	Playas, chenopod scrub, valley and foothill grassland, vernal pools. Elev. 139-500m. Blooms Apr-Aug.	Not observed during 2005-2010 surveys. Limited suitable habitat present.
Atriplex pacifica	south coast saltscale	—	—	—	1B.2	Coastal scrub, coastal bluff scrub, playas, coastal dunes. Elev. 0-140m. Blooms Mar-Oct	Not observed during 2005-2010 surveys. Limited suitable habitat present.
Brodiaea filifolia	thread-leaved brodiaea	T	E	Covered	1B.1	Cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools. Elev. 25-1219m .Bloom Mar-Jun.	Not observed during 2005-2010 surveys. Suitable habitat present.
Calochortus plummerae	Plummer's mariposa lily	—	—	Covered	1B.2	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest. Elev. 100-1700m. Blooms May-Jul.	Not observed during 2005-2010 surveys. Suitable habitat present.
Castilleja lasiorhyncha	San Bernardino Mountains owls-clover	—	—	—	1B.2	Chaparral, Meadows and seeps, Pebble plain, Riparian woodland, Upper montane coniferous forest/mesic. Elev. 1300-2390m. Blooms May-Aug.	Not observed during 2005-2010 surveys. No suitable habitat present. Elevation too low on site.
Caulanthus simulans	Payson's jewel-flower	—	—	Covered	4.2	Chaparral, coastal scrub/sandy granitic. Elev. 90-2200m. Blooms Mar-May.	Not observed during 2005-2010 surveys. Marginal habitat present.
Centromadia pungens ssp. laevis	smooth tarplant	—	—	Covered	1B.1	Valley and foothill grassland, chenopod scrub, meadows, playas, riparian woodland. Elev. 0-480m. Blooms Apr-Sep.	Not observed during 2005-2010 surveys. Suitable habitat present.
Chorizanthe parryi var. parryi	Parry's spineflower	—	—	Covered	1B.1	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/sandy or rocky, openings. Elev. 275-1220m. Blooms Apr-Jun.	Not observed during 2005-2010 surveys. Suitable habitat present.
Chorizanthe xanti var. leucotheca	white-bracted spineflower	—	—	—	1B.2	Mojavean desert scrub and Pinyon and juniper woodland. Elev. 300-1200m. Blooms Apr-Jun.	Not observed during 2005-2010 surveys. No suitable habitat.

Scientific Name	Common Name	FED	CAL	MSHCP	CNPS	Habitat(s)	Status on the Site
Deinandra mohavensis	Mojave tarplant	—	E	Covered	1B.3	Chaparral, coastal scrub, riparian scrub/mesic. Elev. 640-1600m. Blooms Jun-Oct.	Not observed during 2005-2010 surveys. Limited suitable habitat present.
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	E	E	Covered	1B.1	Chaparral, coastal scrub (alluvial fan). Elev. 91-610m. Blooms May-Sep.	Not observed during 2005-2010 surveys. Limited suitable habitat present.
Eriogonum kennedyi var. alpigenum	southern alpine buckwheat	—	—	—	1B.3	Alpine boulder and rock field, subalpine coniferous forest/granitic, gravelly. Elev. 2600-3500m. Blooms Jul-Sep.	Not observed during 2005-2010 surveys. No suitable habitat.
Galium angustifolium ssp. jacinticum	San Jacinto Mountains bedstraw	—	—	Covered	1B.3	Lower montane coniferous forest. Elev. 1350-2100m. Blooms Jun-Aug.	Not observed during 2005-2010 surveys. No suitable habitat.
Galium californicum ssp. primum	California bedstraw (Alvin meadow bedstraw)	—	—	Covered	1B.2	Chaparral, lower montane coniferous forest. Elev. 1350-1700m. Blooms May-Jul.	Not observed during 2005-2010 surveys. No suitable habitat.
Gilia leptantha ssp. leptatha	San Bernardino gilia	—	—	—	1B.3	Lower montane coniferous forest. Elev. 1500-2560m. Blooms Jun-Aug.	Not observed during 2005-2010 surveys. No suitable habitat.
Heuchera parishii	Parish's alumroot	—	—	—	1B.3	Alpine boulder and rock field, subalpine coniferous forest, lower and upper montane coniferous forest. Elev. 1500-3800m. Blooms Jun-Aug.	Not observed during 2005-2010 surveys. No suitable habitat.
Dodecahema leptoceras	slender-horned spineflower	E	E	Covered	1B.1	Chaparral, coastal scrub (alluvial fan sage scrub).Elev. 200-760m. Blooms Apr-Jun.	Not observed during 2005-2010 surveys. Suitable habitat present.
Dudleya multicaulis	many-stemmed dudleya	—	—	Covered	1B.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, often clay. Elev. 15-790m. Blooms Apr-Jul.	Not observed during 2005-2010 surveys. Limited suitable habitat present, lacking clay soils.
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	—	—	Covered	1B.1	Coastal salt marshes, playas, valley and foothill grassland, vernal pools. Elev. 1-1220m. Blooms Feb-Jun.	Not observed during 2005-2010 surveys. Suitable habitat present.

Scientific Name	Common Name	FED	CAL	MSHCP	CNPS	Habitat(s)	Status on the Site
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	—	—	—	1B.2	Chaparral, coastal scrub. Elev. 1-885m. Blooms Jan-Jul.	Not observed during 2005-2010 surveys. Limited suitable habitat present.
Lilium parryi	lemon lily	—	—	Covered	1B.2	Lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest/mesic. Elev. 1220-2745m. Blooms Jul-Aug.	Not observed during 2005-2010 surveys. Limited suitable habitat present. Elevation too low
Monardella macrantha ssp. hallii	Hall's monardella	—	—	Covered	1B.3	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. Elev. 730-2195m. Blooms Jun-Oct.	Not observed during 2005-2010 surveys. Suitable habitat present.
Nama stenocarpum	mud nama	—	—	Covered	2.2	Marshes and swamps (lake margins, riverbanks). Elev. 5-500m. Blooms Jan-Jul.	Not observed during 2005-2010 surveys. No suitable habitat.
Navarretia fossalis	spreading navarretia (Moran's navarretia or Moran's nosegay)	T	—	Covered	1B.1	Vernal pools, chenopod scrub, marshes and swamps, playas. Elev. 30-1300m. Blooms Apr-Jun.	Not observed during 2005-2010 surveys. No suitable habitat.
Parnassia cirrata var. cirrata	San Bernardino grass-of Parnassus	—	—	—	1B.3	Lower montane coniferous forest, meadows and seeps, upper montane coniferous forests. Elev. 1250-2440m. Blooms Aug-Sep.	Not observed during 2005-2010 surveys. No suitable habitat.
Streptanthus bernardinus	Laguna Mountains jewel-flower	—	—	—	4.3	Chaparral, lower montane coniferous forest. Elev. 670-2500m. Blooms May-Aug.	Not observed during 2005-2010 surveys. Limited suitable habitat.
Symphyotrichum defoliatum	San Bernardino aster	—	—	—	1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland(vernally mesic)/near ditches, streams, springs. Elev. 2-2040m. Blooms Jul-Nov.	Not observed during 2005-2010 surveys. Suitable habitat present.
Taraxacum californicum	California dandelion	E	—	—	1B.1	Meadows and seeps. Elev. 1620-2800m. Blooms May-Aug.	Not observed during 2005-2010 surveys. No suitable habitat.

Scientific Name	Common Name	FED	CAL	MSHCP	CNPS	Habitat(s)	Status on the Site
			AMPHIBIANS				
Rana muscosa	Sierra Madre yellow-legged frog	E	SSC	Covered	—	Restricted to streams in ponderosa pine, montane hardwood-conifer, and montane riparian habitats	Not observed during 2005-2010 surveys. No suitable habitat.
Spea hammondii	western spadefoot	—	SSC	Covered	—	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands.	Not observed during 2005-2010 surveys. No suitable habitat.
			REPTILES				
Aspidoscelis hyperythra beldingi	orange-throated whiptail	—	SSC	Covered	—	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats.	Not observed during 2005-2010 surveys. Marginal suitable habitat present.
Aspidoscelis tigris stejnegeri	coastal whiptail	—	—	Covered	—	Found in deserts & semiarid areas with sparse vegetation and open areas. Also found in woodland & riparian areas.	Not observed during 2005-2010 surveys. Suitable habitat present.
Charina umbratica	southern rubber boa	—	T	Covered	—	Rocky montane areas within coniferous forests, chaparral, and grasslands above 1540m.	Not observed during 2005-2010 surveys. No suitable habitat.
Crotalus ruber ruber	northern red-diamond rattlesnake	—	SSC	Covered	—	Chaparral, woodland, grassland, & desert areas from coastal San Diego county to the eastern slopes of the mountains.	Not observed during 2005-2010 surveys. Suitable habitat present.
Diadophis punctatus modestus	San Bernardino ringneck snake	—	SSC	—	—	Moist habitats including woodlands, forest, grassland, chaparral, farms and gardens	Not observed during 2005-2010 surveys. Marginal suitable habitat present.
Lampropeltis zonata (parvirubra)	California mountain kingsnake (SB population)	—	SSC	Covered	—	Variety of habitats including forests, chaparral, and wet meadows	Not observed during 2005-2010 surveys. Marginal suitable habitat present.
Phrynosoma coronatum (blainvillii population)	coast horned lizard	—	SSC	Covered	—	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate conditions	Not observed during 2005-2010 surveys. Marginal suitable habitat present.

Scientific Name	Common Name	FED	CAL	MSHCP	CNPS	Habitat(s)	Status on the Site
Thamnophis hammondii	two-striped garter snake	—	SSC	—	—	Perennial and intermittent streams having rocky beds and bordered by willow thickets or other dense vegetation.	Not observed during 2005-2010 surveys. Limited suitable habitat present.
				BIRDS			
Accipiter cooperii	Cooper's hawk	—	SSC	Covered	—	A variety of native and non-native woodlands, from the coast to the mountains. It nests primarily in moderately dense oak and riparian woodlands.	Not observed during 2005-2010 surveys. Marginal suitable habitat present.
Agellaius tricolor	tricolored blackbird	—	SSC	Covered	—	Mostly a resident in California. Breeds near fresh water, preferably emergent wetland with tall, dense cattails or tules, but also in thickets of willow.	Not observed during 2005-2010 surveys. No suitable habitat present.
Aimophila ruficeps canescens	So. Cal. rufous-crowned sparrow	—	SSC	Covered	—	Resident in southern California coastal sage scrub and sparse mixed chaparral.	Not observed during 2005-2010 surveys. Marginal suitable habitat present.
Amphispiza belli belli	Bell's sage sparrow	—	SSC	Covered	—	Resident in arid and semi-arid foothill slopes and ridges with low-growing shrub cover	Not observed during 2005-2010 surveys. Marginal suitable habitat present.
Aquila chrysaetos	golden eagle	—	FP	Covered	—	Usually nests in rugged, open habitats with canyons and escarpments. Wide ranging using a variety of habitats	Not observed during 2005-2010 surveys. No suitable nesting habitat present.
Athene cunicularia	burrowing owl	—	SSC	Covered	—	Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation.	Observed during 2007 and 2010 focused surveys. Suitable habitat present.
Buteo regalis	ferruginous hawk	—	SSC	Covered	—	Open grasslands, sagebrush flats, desert scrub, low foothills & fringes of pinyon-juniper habitats.	Not observed during 2005-2010 surveys. Marginal suitable habitat present.

Scientific Name	Common Name	FED	CAL	MSHCP	CNPS	Habitat(s)	Status on the Site
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	—	SSC	Covered	—	Clumps of prickly pear and cholla cactus within coastal sage scrub, on west- and south-facing slopes from the coast to the inner foothills.	Not observed during 2005-2010 surveys. No suitable habitat present.
Circus cyaneus	northern harrier	—	SSC	Covered	—	Coastal salt & fresh-water marsh, nests & forage in grasslands, from salt grass in desert sink to mountain cienagas.	Observed on the site in 2010. No observed nesting on site.
Cypseloides niger	black swift	—	SSC	Covered	—	Nests in crevices or caves on sea cliffs and behind or adjacent to waterfalls in deep canyons	Not observed during 2005-2010 surveys. No habitat for nesting.
Elanua leucurus	white-tailed kite	—	FP	Covered	—	Typically use riparian scrub, forest and woodland, and oak woodland and forest for breeding and use a wide variety of more open grassland/ag land and scrub lands for foraging.	Not observed during 2005-2010 surveys. Limited suitable nesting habitat present.
Empidonax traillii extimus	southwestern willow flycatcher	E	E	Covered	—	Riparian scrub and riparian woodland along river and stream courses, preferring dense thickets for nesting. These can include vegetation dominated by willows, tamarisk, and even coast live oak.	Not observed during 2005-2010 surveys. Limited to no suitable habitat present.
Eremophila alpestris actia	California horned lark	—	—	Covered	—	Coastal regions, chiefly from Sonoma co. to San Diego County also main part of San Joaquin Valley & east to foothills.	Observed on the site in 2010. No observed nesting on site.
Lanius ludovicianus	loggerhead shrike	—	SSC	Covered	—	Habitat requirements include open sparse vegetation for foraging and trees and shrubs for nesting.	Observed on the site in 2010. Limited nesting habitat present.
Phalacrocorax auritus	double-crested cormorant	—	—	Covered	—	Resident along California coast and inland lakes, in fresh, salt and estuarine waters.	Observed flying over the site in 2010, utilizes water at adjacent golf course. No observed nesting on site.

Scientific Name	Common Name	FED	CAL	MSHCP	CNPS	Habitat(s)	Status on the Site
Plegadis chihi	white-faced ibis	—	—	Covered	—	Migrant and wintering white-faced ibis may be found foraging in shallow lacustrine waters, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries.	Not observed during 2005-2010 surveys. Limited to no suitable habitat present.
Polioptila californica californica	coastal California gnatcatcher	T	SSC	Covered	—	Obligate, permanent resident of coastal sage scrub in southern California.	Not observed during 2005-2010 surveys. Marginal suitable habitat present.
Progne subis	purple martin	—	SSC	Covered	—	Uncommon to rare , local summer resident in wooded, low elevation habitats. Uses valley foothill and montane hardwood, riparian, coniferous habitats.	Not observed during 2005-2010 surveys. No suitable habitat present.
Vireo bellii pusillus	least Bell's vireo	E	E	Covered	—	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.	Not observed during 2005-2010 surveys. Marginal suitable habitat present.
				MAMMALS			
Canis latrans	coyote	—	—	Covered	—	Common to abundant, occurs in almost all brush, scrub, shrub, and herbaceous habitats.	Observed on the site in 2010.
Chaetodipus californicus femoralis	Dulzura pocket mouse	—	SSC	—	—	Habitats include hardwood, valley foothill hardwood-conifer, valley foothill hardwood, annual grassland, sagebrush, chamise-redshank, montane chaparral and coastal scrub	Not observed during 2005-2010 surveys. Marginal suitable habitat present.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	—	SSC	Covered	—	Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County.	Not observed during 2005-2010 surveys. Suitable habitat present.
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	—	SSC	—	—	chaparral communities but also found in open sandy areas in desert scrub, desert succulent scrub	Not observed during 2005-2010 surveys. No suitable habitat present.
Dipodomys merriami parvus	San Bernardino kangaroo rat	E	SSC	Covered	—	Occurs in various desert habitats	Not observed during 2005-2010 surveys. No suitable habitat present.

Scientific Name	Common Name	FED	CAL	MSHCP	CNPS	Habitat(s)	Status on the Site
Dipodomys stephensi	Stephens' kangaroo rat	E	T	Covered	—	Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover.	Not observed during 2005-2010 surveys. Marginal suitable habitat present.
Lasiurus xanthinus	western yellow bat	—	SSC	—	—	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats.	Not observed during 2005-2010 surveys. No suitable habitat present.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	—	SSC	Covered	—	Intermediate canopy stages of shrub habitats & open shrub / herbaceous & tree / herbaceous edges.	Observed on the site in 2010.
Neotoma lepida intermedia	San Diego desert woodrat	—	SSC	Covered	—	Coastal scrub of southern California from San Diego County to San Luis Obispo County.	Not observed during 2005-2010 surveys Marginal suitable habitat present.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	—	SSC	Covered	—	Lower elevation grasslands & coastal sage communities in and around the Los Angeles basin.	Not observed during 2005-2010 surveys. No suitable habitat present.
Taxidea taxus	American badger	—	SSC	—	—	Prefers open areas, including deserts	Not observed during 2005-2010 surveys. Marginal suitable habitat present.

FED

E: Species designated as Endangered under the Federal Endangered Species Act. Endangered = "any species in danger of extinction throughout all or a significant portion of its range."

T: Species designates as Threatened under the Federal Endangered Species Act. Threatened = "species likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range."

PE: Proposed for federal listing as Endangered.

PT: Proposed for federal listing as Threatened

CAL

E: Endangered = "a species is endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes."

T: Threatened = "a species that, although not currently threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this Act (California Endangered Species Act)."

SSC: Species of Special Concern.

FP: Fully protected by the State of California.

7.4.1 SENSITIVE PLANTS RECORDED IN THE REGIONAL STUDY AREA BUT NOT DETECTED ON THE SITE

The following sensitive plants have been observed in the regional study area and were identified as species for which limited, marginal, or suitable habitat are present, but were not observed during NRC's surveys. The information presented below is also summarized in Table II.

Chaparral Sand-verbena
Abronia villosa var. aurita

STATUS: CNPS List 1B.1
HABITAT: Annual herb found in chaparral, coastal scrub and desert dunes.
DISTRIBUTION: Orange, Riverside, San Bernardino and San Diego counties; Arizona and south to Baja California from 80 to 1600 meters.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms January to September.

Yucaipa Onion
Allium marvinii

STATUS: CNPS List 1B.1; MSHCP Covered Species
HABITAT: Annual herb found in chaparral (clay openings).
DISTRIBUTION: Riverside and San Bernardino counties from 760 to 1065 meters.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms April to May.

San Jacinto Valley Crownscale
Atriplex coronata var. notatior

STATUS: Federal Endangered; CNPS List 1B.1; MSHCP Covered Species
HABITAT: Annual herb found in playas, chenopod scrub, valley and foothill grassland and vernal pools.
DISTRIBUTION: Riverside and Kern counties from 139 to 500 meters.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms April to August.

South Coast Saltscale
Atriplex pacifica

STATUS: Federal Endangered; CNPS List 1B.2; MSHCP Covered Species
HABITAT: Annual herb found in playas, coastal dunes, coastal scrub and coastal bluff scrub.
DISTRIBUTION: Los Angeles, Santa Barbara, Ventura, Orange, Riverside, San Bernardino and San Diego counties from sea level to 140 meters.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms March to October.

Jaeger's Milk-vetch
Astragalus pachypus var. *jaegeri*

STATUS: CNPS List 1B.1; MSHCP Covered Species
HABITAT: Shrub found in native grassland, coastal scrub, chaparral, and cismontane woodland on sandy or rocky soils.
DISTRIBUTION: Inland valleys and western edge of desert in W. Riverside and N. San Diego counties (vicinity of Warner Springs) between 1,200 and 3,000 ft (365−915 m).
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.

OPTIMAL SURVEY PERIOD: Year-round; blooms December to June.

Thread-leaved Brodiaea
Brodiaea filifolia

STATUS: Federal Threatened; State Endangered; CNPS List 1B.1; MSHCP Covered Species
HABITAT: Bulbiferous herb found in openings in chaparral, cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools.
DISTRIBUTION: California endemic found in Los Angeles, Orange, Riverside, San Bernardino and San Diego counties between 80 and 2,800 ft (25-860 m).
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms March to June.

Plummer's Mariposa Lily
Calochortus plummerae

STATUS: CNPS List 1B.2; MSHCP Covered Species
HABITAT: Bulbiferous herb found in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley/foothill grasslands.
DISTRIBUTION: Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties from 100 to 1700 meters.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms May to July.

Payson's jewel-flower
Caulanthus simulans

STATUS: CNPS List 4.2; MSHCP Covered Species
HABITAT: Annual herb found in chaparral and sandy or granitic areas within coastal scrub.
DISTRIBUTION: Riverside and San Diego Counties from 90 to 2200 meters in elevation.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms Mar to May.

Smooth Tarplant
Centromadia pungens ssp. laevis

STATUS: CNPS List 1B.1; MSHCP Covered Species
HABITAT: Annual herb found in chenopod scrub, meadows, playas, riparian woodland, and valley/foothill grasslands.
DISTRIBUTION: Riverside, San Bernardino, and San Diego counties from sea level to 480 meters.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms April to September.

Parry's Spineflower
Chorizanthe parryi var. *parryi*

STATUS: CNPS List 1B.1; MSHCP Covered Species
HABITAT: Annual herb found in chaparral and sandy or rocky openings within coastal scrub.
DISTRIBUTION: Los Angeles, Riverside and San Bernardino Counties from 40 to 1705 meters in elevation.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms April to June

Mojave Tarplant
Deinandra mohavensis

STATUS: California Endangered; CNPS List 1B.3; MSHCP Covered Species

HABITAT: Annual herb found in mesic chaparral and riparian scrub.
DISTRIBUTION: Western portion of deserts in Kern, Riverside, and San Diego counties between 2,790 and 5,250 ft (850−1,600 m).
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms July to October.

Sleder-horned Spineflower
Dodecahema leptoceras

STATUS: Federal and State Endangered, CNPS List 1B.1; MSHCP Covered Species
HABITAT: Annual herb found in chaparral and coastal scrub (alluvial fan sage scrub).
DISTRIBUTION: Los Angeles, Riverside, and San Bernardino counties, from 200 to 760 meters in elevation.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms April to June.

Many-stemmed Dudleya
Dudleya multicaulis

STATUS: CNPS List 1B.2; MSHCP Covered Species
HABITAT: Perennial herb found in chaparral, coastal scrub, and valley/foothill grasslands often with clay soils.
DISTRIBUTION: Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties from 15 to 790 meters.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms April to July.

Santa Ana River Woollystar
Eriastrum densifolium ssp. *sanctorum*

STATUS: Federal Endangered; California Endangered; CNPS List 1B.1; MSHCP Covered Species
HABITAT: Perennial herb found in alluvial fan scrub on sandy to gravelly soils.
DISTRIBUTION: Santa Ana River in SW. San Bernardino and extreme NW Riverside counties between 490 and 2,000 ft (150−610 m) elevation.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms June to September.

Coulter's Goldfields
Lasthenia glabrata ssp. *coulteri*

STATUS: CNPS List 1B.1; MSHCP Covered Species
HABITAT: Annual herb found in coastal salt marshes, swamps, playas, and vernal pools.
DISTRIBUTION: San Luis Obispo County to San Diego County, inland to w. Riverside County, from sea level to 4,000 ft (1,220 m). Extirpated from Kern, Los Angeles, and San Bernardino counties.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms February to June.

Robinson's Peppergrass
Lepidium virginicum var. *robinsonii*

STATUS: CNPS List 1B.2
HABITAT: Annual herb found in chaparral and coastal scrub.
DISTRIBUTION: Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino and San Diego counties, Santa Cruz Island and Baja California from 1 to 885 m elevation.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms January to July.

Hall's Monardella
Monardella macrantha ssp. *hallii*

STATUS: CNPS List 1B.3; MSHCP Covered Species
HABITAT: Perennial herb found in native grassland, chaparral, cismontane woodland, broad-leaved upland forest, and lower montane coniferous forest.
DISTRIBUTION: SW San Bernardino, W. Riverside, Orange, and San Diego counties from 2,400 to 7,200 ft (730−2,195 m).
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms June to August.

Laguna Mountains Jewel Flower
Streptanthus bernardinus

STATUS: CNPS List 4.3
HABITAT: Perennial herb found in chaparral and lower montane coniferous forest.
DISTRIBUTION: San Bernardino, Riverside, and San Diego counties from 670 to 2500 meters.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Blooms May to August.

San Bernardino Aster
Symphyotrichum defoliatum

STATUS: CNPS List 1B.2; MSHCP Covered Species
HABITAT: Perennial herb found in vernally mesic grasslands, meadows, marshes, coastal scrub, cismontane woodland, lower montane coniferous forest.
DISTRIBUTION: Known from the San Gabriel and San Bernardino mountains, and from the Peninsular Ranges, southern California 0 to 6700 ft (2 −2,040 m).
OCCURRENCE ON AND OFF-SITE: Does not occur on the site. Not detected during site surveys. Site is below the elevation limit for the species.
OPTIMAL SURVEY PERIOD: May to August.

7.4.2 SENSITIVE PLANTS RECORDED IN THE REGIONAL STUDY AREA BUT NOT PRESENT ON THE SITE DUE TO LACK OF SUITABLE HABITAT

Sensitive plant species that have been recorded in the regional study area but are not expected to occur on the Butterfield site based on the lack of suitable habitat are listed in Table II.

7.5 SENSITIVE WILDLIFE SPECIES

The following section discusses habitat suitability and results of surveys for all sensitive wildlife species recorded in the regional study area. One sensitive species has been detected on site. The information presented below is also summarized in Table II.

7.5.1 SENSITIVE WILDLIFE RECORDED ON SITE

The following species have been observed on site during NRC's surveys. The information presented below is also summarized in Table II.

Burrowing Owl
Athene cunicularia

STATUS: Federal Bird of Conservation Concern; California Species of Special Concern, 1st Priority; MSHCP Covered Species
HABITAT: Inhabits relatively flat and open areas such as grasslands, coastal dunes and agricultural areas; requires the presence of rodent burrows for nesting and roosting activities.
DISTRIBUTION: An uncommon to scarce local resident in southern California; more widespread in winter.
OCCURRENCE ON AND OFF-SITE: Two burrowing owls and six burrows with indicative sign were observed on site in 2007. In March 2010, two burrowing owls and five burrows with indicative sign were observed on site. These birds were observed on only one occasion and are likely wintering birds that do not breed on site.
OPTIMAL SURVEY PERIOD: Year-round, but March to August for breeding.

Northern Harrier
Circus cyaneus

STATUS: California Species of Special Concern, 2nd priority; MSHCP Covered Species (breeding).
HABITAT: Grasslands, fresh- and brackish-water marshes.
DISTRIBUTION: Throughout most of the United States and all of California below the mountains; however, breeding records in Southern California are sparse.
OCCURRENCE ON AND OFF-SITE: Observed on site in 2010.
OPTIMAL SURVEY PERIOD: For breeding, May to August; in winter, September to April.

California Horned Lark
Eremophila alpestris actia

STATUS: MSHCP Covered Species
HABITAT: Requires open fields and grasslands for breeding.
DISTRIBUTION: A year-round resident of coastal region from Sonoma County south to Baja California (Grinnell and Miller 1942).
OCCURRENCE ON AND OFF-SITE: Observed on site in 2010.
OPTIMAL SURVEY PERIOD: Year round

Loggerhead shrike
Lanius ludovicianus

STATUS: California Species of Special Concern; MSHCP Covered Species
HABITAT: Generally occupies open habitats with scattered large shrubs, trees, or fence lines.
DISTRIBUTION: An uncommon, though widespread, resident throughout southern California.
OCCURRENCE ON AND OFF-SITE: Observed on site in 2010.
OPTIMAL SURVEY PERIOD: April to August.

Double-crested Cormorant
Phalacrocorax auritus

STATUS: MSHCP Covered Species
HABITAT: Requires permanent water sources for feeding and undisturbed nest sites beside water for breeding.
DISTRIBUTION: A year-round resident of coastal region and on inland lakes, fresh and salt water.
OCCURRENCE ON AND OFF-SITE: Observed flying over the site in 2010, likely using the water areas at the nearby golf course. Does not use the site for foraging or breeding.
OPTIMAL SURVEY PERIOD: Year round

Coyote
Canis latrans

STATUS: MSHCP Covered Species
HABITAT: Occupies a wide variety of habitats including woodlands, grasslands, sagebrush, chaparral, and coastal scrub.
DISTRIBUTION: Found throughout California.
OCCURRENCE ON AND OFF-SITE: Observed in the northern portion of the site.
OPTIMAL SURVEY PERIOD: Year-round.

San Diego Black-tailed Jackrabbit
Lepus californicus bennettii

STATUS: Former Federal Special Concern Species and California Species of Special Concern; MSHCP Covered Species
HABITAT: Prefers open areas, typically occurring in alluvial sage scrub and open sage scrub.
DISTRIBUTION: Occurs in coastal southern California from approximately Santa Barbara County south into Baja California.
OCCURRENCE ON AND OFF-SITE: Observed on site in 2010.
OPTIMAL SURVEY PERIOD: Year-round.

7.5.2 SENSITIVE WILDLIFE RECORDED IN THE REGIONAL STUDY AREA BUT NOT DETECTED ON THE SITE

The following species have been recorded in the regional study area but were not observed on site during NRC's surveys. These were identified as species for which limited, marginal, or suitable habitat is present. The information presented below is also summarized in Table II.

Orange-throated Whiptail
Aspidoscelis hyperythra beldingi

STATUS: California Species of Special Concern, 2nd Priority. MSHCP Covered Species
HABITAT: Low elevation coastal scrub, chaparral and hardwood habitats.
DISTRIBUTION: North of Baja California found in western San Diego County, Orange County, western Riverside County, and extreme southwest San Bernardino County.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: March to August.

Coastal Whiptail
Aspidoscelis tigris stejnegeri

STATUS: Tracked by the CNDDB; MSHCP Covered Species
HABITAT: Arid and semi-arid scrub to open woodland, where vegetation is relatively sparse.
DISTRIBUTION: Los Angeles, Orange, and San Diego counties south to central Baja California.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: April to August.

Northern Red-diamond Rattlesnake
Crotalus ruber ruber

STATUS: California Species of Special Concern; MSHCP Covered Species
HABITAT: Desert scrub, coastal sage scrub, chaparral, and woodland; occasionally in grasslands and perimeter of cultivated fields.
DISTRIBUTION: Below 4,000 ft (1,200 m), occasionally higher, from extreme s. San Bernardino and w. Riverside County south through Orange and San Diego County to Baja California.

OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: March to October.

San Bernardino Ringneck Snake
Diadophis punctatus modestus

STATUS: California Species of Special Concern
HABITAT: Moist habitats including woodlands, forest, grassland, chaparral, farms and gardens.
DISTRIBUTION: Northern San Diego County north through Ventura County from sea level to 2,150 meters in elevation.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Year-round; may hibernate during colder months.

California Mountain Kingsnake (San Bernardino population)
Lampropeltis zonata (*parvirubra*)

STATUS: California Species of Special Concern, 3rd Priority; MSHCP Covered Species
HABITAT: Variety of habitats including forests, chaparral, and wet meadows.
DISTRIBUTION: San Gabriel, San Bernardino, and San Jacinto mtns. from near sea level to 8000 feet.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: March to October.

Coast Horned Lizard
Phrynosoma coronatum (*blainvillii* population)

STATUS: California Species of Special Concern, 2nd Priority.
HABITAT: Generally occurs in sage scrub and chaparral, but can also be found in coniferous forest and broadleaf woodland. It is usually found in sandy areas, especially where harvester ants (*Pogonomyrmex* spp.) are found.
DISTRIBUTION: Southern Santa Barbara and Kern Counties southward through southwest San Bernardino and western Riverside Counties, into Baja California, Mexico, at locations approximately between 10 and 2130 meters in elevation.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: March to June.

Two-striped garter snake
Thamnophis hammondii

STATUS: California Species of Special Concern, 1st Priority.
HABITAT: Perennial and intermittent streams having rocky beds and bordered by willow thickets or other dense vegetation. May also inhabit shallow rivers and stock ponds bordered by thick riparian vegetation.
DISTRIBUTION: Coastal slope from Monterey County to N. Baja California from near sea level to 4,500 ft (1,370 m) elevation.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: March to October.

Cooper's Hawk
Accipiter cooperii

STATUS: California Species of Special Concern; MSHCP Covered Species
HABITAT: Dense stands of live oak, riparian deciduous or other forest habitats near water.
DISTRIBUTION: Breeds in southern Sierra Nevada foothills, New York Mountains, Owens Valley and other local areas in southern California from 0 to 9,000 feet.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Year-round; but March to August for breeding.

Southern California Rufous-crowned Sparrow
Aimophila ruficeps canescens

STATUS: California Species of Special Concern; MSHCP Covered Species
HABITAT: Most foothill slopes and ridges with low-growing shrub cover, typically in coastal sage scrub and non-arborescent types of chaparral. Inhabits rocky slopes, often intermixed with grassy areas.
DISTRIBUTION: Year-round resident west of the deserts from Ventura County south into Baja California.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Year-round, but March to May for breeding

Bell's Sage Sparrow
Amphispiza belli belli

STATUS: California Species of Special Concern; MSHCP Covered Species
HABITAT: Arid and semi-arid foothill slopes and ridges with low-growing shrub cover, typically in non-arborescent types of chaparral and secondarily in coastal sage scrub.
DISTRIBUTION: Year-round resident found west of the mountains from Trinity County south to northwest Baja California.
OCCURRENCE ON AND OFF-SITE: Does not occur; marginally suitable habitat present. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Year-round, but March to May for breeding.

Ferruginous Hawk
Buteo regalis

STATUS: California Species of Special Concern; MSHCP Covered Species
HABITAT: Open, flat and rolling terrain in grassland or shrub-steppe regions, avoid high elevations, forests and canyons.
DISTRIBUTION: Uncommon winter resident at lower elevations in open grassland and agricultural habitats in the Modoc Plateau area, Central Valley and Coast Ranges. More common winter resident in southwestern California.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Year-round, but February to April for breeding.

Black Swift
Cypseloides niger

STATUS: California Species of Special Concern, 3rd Priority; MSHCP Covered Species
HABITAT: Nests in crevices or caves on sea cliffs and behind or adjacent to waterfalls in deep canyons.
DISTRIBUTION: Rare and locally distributed where proper habitat occurs throughout California.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: May to September.

White-tailed Kite
Elanus leucurus

STATUS: California Fully Protected; MSHCP Covered Species
HABITAT: Requires open habitats such as grasslands, croplands and marshes; nests primarily in riparian areas with sycamores, oaks, willows and cottonwoods, and hunts in adjacent open spaces.
DISTRIBUTION: Uncommon to locally fairly common resident along the coastal slope of California. There has been an apparent geographic range expansion to the north and east in recent decades. Population sizes locally continue to fluctuate however, perhaps in large part in synchrony with fluctuating cricetine rodent populations. The instability in population sizes indicates that the kites may continue to be affected by human-induced environmental changes in ways that are not fully understood.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Year-round, but February to May for breeding.

Southwestern Willow Flycatcher
Empidonax traillii extimus

STATUS: Federal Endangered (*E. t. extimus* only); California Endangered (all subspecies that breed in the state); MSHCP Covered Species
HABITAT: Dense riparian vegetation approximately 4–7 meters (m) (13–23 feet) tall, often with a high percentage of canopy cover. Historically nested primarily in willows, with a scattered overstory of cottonwood.
DISTRIBUTION: Southwestern US from coastal California east to western Texas.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.No suitable nesting or breeding habitat.
OPTIMAL SURVEY PERIOD: April to July

White-faced Ibis
Plegadis chihi

STATUS: MSHCP Covered Species
HABITAT: Wetlands, wet meadows, pastures and croplands.
DISTRIBUTION: In southern California, found very locally from Riverside County south to the Mexican border and west to the coast. Common around the Salton Sea.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Year round.

California Gnatcatcher
Polioptila californica

STATUS: Federal Threatened; California Species of Special Concern; MSHCP Covered Species
HABITAT: Principally, the various associations of coastal sage scrub (Venturan, Riversidian, Diegan, Maritime, etc.), but also nests in chamise chaparral, especially where it occurs in association with sage scrub. Occasionally utilizes other habitats outside the breeding season.
DISTRIBUTION: Southeastern Ventura County (locally), Los Angeles County (locally, primarily in the southern portion), extreme southwestern San Bernardino County, western Riverside County, Orange County, and San Diego County west of the mountains. Also found throughout much of Baja California.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Year-round, but mid-March through June for breeding.

Least Bell's vireo
Vireo bellii pusillus

STATUS: Federal Endangered; California Endangered; MSHCP Covered Species
HABITAT: Inhabits low, dense riparian growth along water or along dry parts of intermittent streams. Typically associated with willow, cottonwood, baccharis, wild blackberry, or mesquite in desert localities.
DISTRIBUTION: Formerly a common and widespread summer resident below about 600 m (2000 ft) in western Sierra Nevada, throughout Sacramento and San Joaquin valleys, and in the coastal valleys and foothills from Santa Clara Co. south. Also was common in coastal southern California from Santa Barbara Co. south, below about 1200 m (4000 ft) east of the Sierra Nevada, in Owens and Benton valleys, along Mojave River and other streams at western edge of southeastern deserts, and along entire length of Colorado River.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: March through September for breeding.

Dulzura Pocket Mouse
Chaetodipus californicus femoralis

STATUS: California Species of Special Concern

HABITAT: Occupies a wide variety of habitats including montane hardwood, valley foothill hardwood-conifer, valley foothill hardwood, annual grassland, sagebrush, chamise-redshank, montane chaparral and coastal scrub.
DISTRIBUTION: Restricted to California, ranging from San Francisco Bay south to the border of Baja California, and eastward to the edge of the Central Valley.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Year-round; not as active during cold weather.

Northwestern San Diego Pocket Mouse
Chaetodipus fallax fallax

STATUS: California Species of Special Concern; MSHCP Covered Species
HABITAT: Primarily in coastal sage scrub, sage scrub/grassland habitats and chaparral communities.
DISTRIBUTION: Occurs mainly in arid coastal and desert border areas in San Diego, Riverside and southwest of Palm Springs in San Bernardino counties.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Year-round; not as active during cold weather.

Pallid San Diego Pocket Mouse
Chaetodipus fallax pallidus

STATUS: California Species of Special Concern.
HABITAT: Primarily in chaparral communities but also found in open sandy areas in desert scrub, desert succulent scrub
DISTRIBUTION: Found on the margins of the Mojave Desert, California, and on the slopes of the San Bernardino Mountains and the edge of the Colorado Desert, ranging south to the Mexican boundary
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Year-round; not as active during cold weather.

Stephens' Kangaroo Rat
Dipodomys stephensi

STATUS: Federal Endangered; California Threatened; MSHCP Covered Species
HABITAT: Utilizes a variety of habitats including coastal scrub, chaparral, sagebrush, annual grasslands, and lowland and montane hardwood forests.
DISTRIBUTION: Western Riverside and San Diego counties.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys. Notes pertaining to the CNDDB record (dated 1989) of this species occurring on site state that the observed specimen may have been misidentified as the locality is NE of the species accepted range.
OPTIMAL SURVEY PERIOD: Year-round; active at night.

San Diego Desert Woodrat
Neotoma lepida intermedia

STATUS: California Species of Special Concern; MSHCP Covered Species
HABITAT: Found in a variety of arid and semi-arid habitats from sea level to 8,500 ft in elevation.
DISTRIBUTION: Occurs along the coast from northwest Baja California to San Luis Obispo County.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Year-round.

Los Angeles Pocket Mouse
Perognathus longimembris brevinasus

STATUS: California Species of Special Concern; MSHCP Covered Species
HABITAT: Desert riparian, desert scrub, coastal scrub and sagebrush habitat.
DISTRIBUTION: Various subspecies occur throughout southern California.

OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: May to September at night.

American Badger
Taxidea taxus

STATUS: No state or federal status. Tracked by the CNDDB.
HABITAT: Prefers open areas, including deserts.
DISTRIBUTION: Most common in the Great Basin and the Sacramento Valley.
OCCURRENCE ON AND OFF-SITE: Does not occur. Not detected during site surveys.
OPTIMAL SURVEY PERIOD: Year-round.

7.5.3 SENSITIVE WILDLIFE RECORDED IN THE REGIONAL STUDY AREA BUT NOT PRESENT ON THE SITE DUE TO LACK OF SUITABLE HABITAT

Sensitive wildlife species that have been recorded in the regional study area but are not expected to occur on the Butterfield site based on the lack of suitable habitat are listed in Table II.

8.0 ANTICIPATED PROJECT IMPACTS

Based on the above site evaluation, it has been determined that the proposed project may adversely affect biological resources present on or near the site. These potential impacts, and their significance, are discussed in the following sections.

8.1 THRESHOLDS OF SIGNIFICANCE

Appendix G of CEQA Guidelines (as amended through September 2004) is used by public agencies in determining whether a project may have a significant impact on biological resources. A project may have a significant impact on biological resources if it falls under any of the categories in Appendix G as noted above in Section 4.2 of this report.

For the purposes of this assessment, the project was evaluated on the basis of the above criteria in determining whether or not it will cause one or more significant impacts. An evaluation of whether an impact on biological resources would be significant must consider the resource and how that resource fits into a regional or ecological context.

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

8.2 ANTICIPATED DIRECT IMPACTS RESULTING FROM SITE DEVELOPMENT

Pardee Homes proposes to develop 96.6 percent of the site for residential purposes. Pardee also proposes to develop two off-site drainage basins and extend Brookside Avenue just north of the site and improve one existing culvert/drainage just south of the site. No special status plant species would be directly affected by project development. Burrowing owl, double-crested cormorant, northern harrier, California horned lark, loggerhead shrike, coyote, and San Diego black-tailed jackrabbit have been observed on or flying over the site and may be directly affected by development of the project. Based on the site's previous agricultural uses, impacts to biological

resources are limited. These limited impacts are evaluated below in the context of the checklist questions provided in Appendix G of CEQA pertaining to biological resources.

8.2.1 DIRECT IMPACTS ON VEGETATION COMMUNITIES

Project development on site would result in permanent impacts to 1,212.2 acres of agricultural lands, 5.1 acres of landscaping, 225.3 acres of disturbed ground, 27.9 acres of sandy wash, 19.1 acres of annual grasslands, 1.4 acres of disturbed coastal sage scrub and less than 0.4 acre of southern willow scrub for a total of 1,491.4 acres on site (Exhibit 10). It is also likely that of these 1,491.4 acres of permanent impacts, as much as 9.2 acres may be temporary impacts along Smith Creek. These temporary impacts may include impacts to disturbed coastal sage scrub, sandy wash, and agriculture vegetation communities and would in turn reduce the amount of permanent impacts to these communities. The project would also include permanent impacts to 0.6 acre of agricultural, 0.2 acre of disturbed ground, 0.2 acre of sandy wash, 0.1 acre of annual grasslands, 0.4 acre of disturbed coastal sage scrub, and 0.1 acre of mule fat scrub for off-site improvement areas. A total of 1,492.9 acres will be permanently removed by the project both on and off-site. Temporary impacts off-site would result in disturbance to 0.8 acre of agriculture, 0.4 acre of annual grasslands, and 0.4 acre of disturbed coastal sage scrub for a total of 1.6 acres. The removal of agricultural, landscaping, and disturbed/developed areas are not significant impacts and do not require mitigation. The surrounding region provides similar areas of disturbed coastal sage scrub and annual grassland and the removal of these communities are not a significant impact and do not require mitigation. Loss of the southern willow scrub and mule fat scrub vegetation resources and sandy wash would be offset through the permit acquisition process and DBESP process with the appropriate regulatory agencies.

TABLE III: VEGETATION COMMUNITY PERMANENT IMPACT SUMMARY

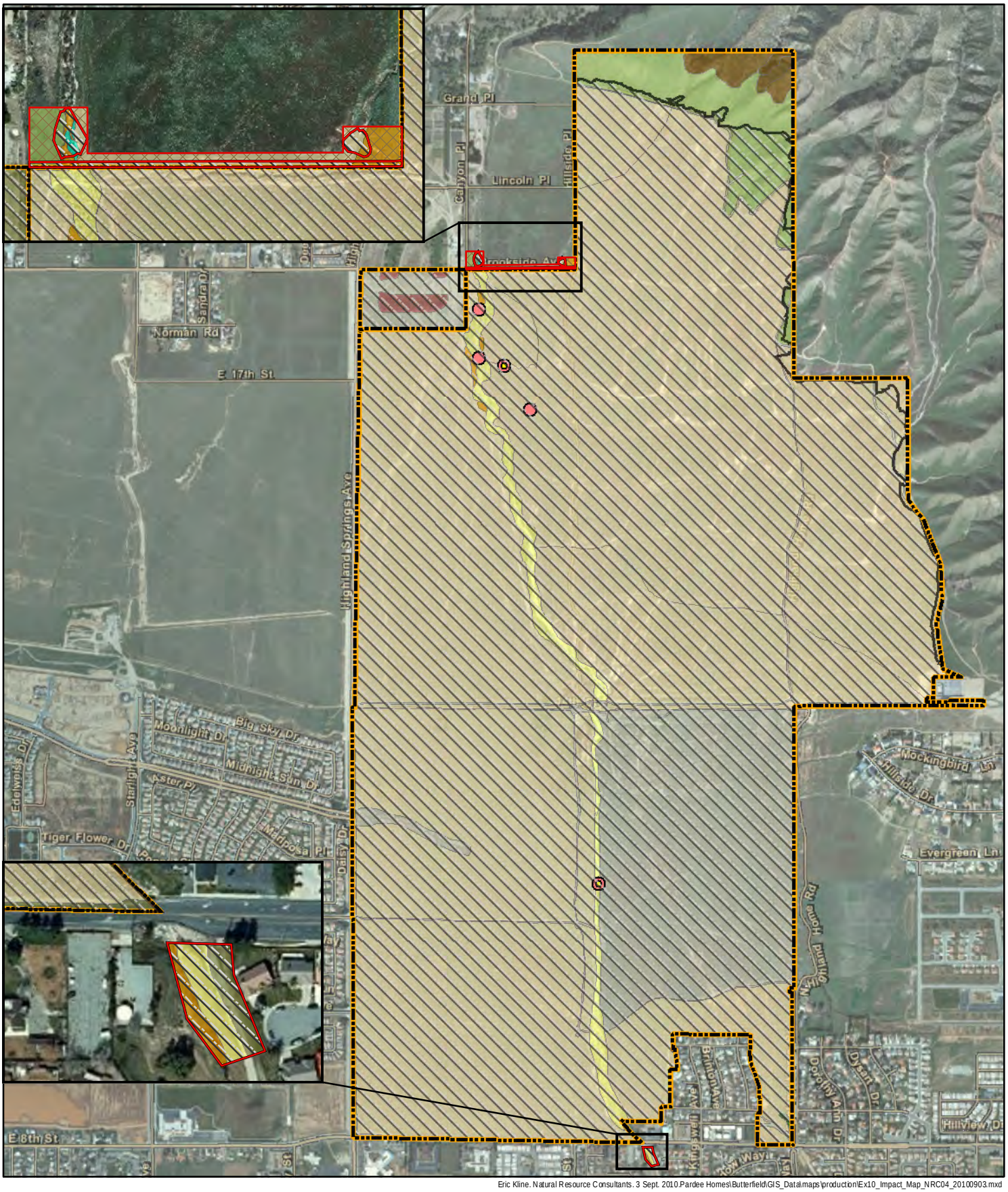
VEGETATION COMMUNITY	IMPACT ACREAGE ON SITE	IMPACT ACREAGE OFF-SITE	TOTAL IMPACT ACREAGE	PRESERVED ACREAGE ON SITE
Agriculture	1,212.2	0.6	**1,212.8**	8.0
Annual Grasslands	19.1	0.1	**19.2**	31.7
Mixed Chaparral	0.0	0.0	**0.0**	11.7
Disturbed Coastal Sage Scrub	1.4	0.4	**1.8**	0.0
Southern Willow Scrub/Mule Fat Scrub	<0.4	<0.1	**0.4**	0.0
Sandy Wash	27.9	0.2	**28.1**	0.0
Disturbed Ground	225.3	0.2	**225.5**	0.6
Landscaping	5.1	0.0	**5.1**	0.0
TOTAL	**1,491.4**	**1.6**	**1,492.9***	**52.0**

* Numbers may not add up correctly due to rounding.

8.2.2 DIRECT IMPACTS ON JURISDICTIONAL AREAS, RIPARIAN/RIVERINE AND VERNAL POOLS

Implementation of the proposed project may result in disturbances to drainages under the jurisdiction of the USACE, CDFG, and/or Regional Board. Consequently, the proposed project may also impact the functions of riparian/riverine features as identified under the MSHCP as follows:

- Potential permanent impacts to USACE jurisdiction on site total 1.02 acres, of which 0.01 acres are jurisdictional wetlands. Potential permanent impacts to USACE jurisdiction off-site total 0.15 acre, none of



Eric Kline. Natural Resource Consultants. 3 Sept. 2010.Pardee Homes\Butterfield\GIS_Data\maps\production\Ex10_Impact_Map_NRC04_20100903.mxd

- Site Boundary
- Off-site Improvements
- Permanent Impact Limits
- Temporary Impact Limits
- Agricultural
- Annual Grasslands
- Mixed Chaparral
- Disturbed/Developed
- Landscaping
- Southern Willow Scrub
- Mule Fat Scrub
- Sandy Wash
- Disturbed Coastal Sage Scrub
- Burrowing Owl Observation
- Active Burrowing Owl Burrow

N W E S

0 750 1,500 3,000 Feet

1 inch = 1,564 feet 1:18,768

Exhibit 10: Impact Area Map

Butterfield Site | Riverside County, California

which consists jurisdictional wetlands. Total potential permanent impacts to USACE jurisdiction on and off-site total 1.17 acres, of which 0.01 acre consist of jurisdictional wetlands.

- Potential temporary impacts to USACE jurisdiction on site total 8.65 acres, none of which consist of jurisdictional wetlands.
- Potential permanent impacts to isolated waters on site total 0.40 acre, none of which consist of wetlands.
- Potential permanent impacts to Regional Board jurisdiction totals 1.42 acres, of which 0.01 acres are jurisdictional wetlands. Potential permanent impacts to Regional Board jurisdiction off-site totals 0.15 acre, none of which consists jurisdictional wetlands. Total potential permanent impacts to Regional Board jurisdiction on and off-site total 1.57 acres, of which 0.01 acre consist of jurisdictional wetlands.
- Potential temporary impacts to Regional. Board jurisdiction on site totals 8.65 acres, none of which consist of jurisdictional wetlands.
- Potential permanent impacts to CDFG jurisdiction on site total 2.24 acres, of which 0.33 acre consists of vegetated riparian habitat. Potential permanent impacts to CDFG jurisdiction off-site total 0.23 acre, of which 0.08 acre consists of vegetated riparian habitat. Total potential permanent impacts to CDFG jurisdiction on and off-site total 2.47 acres, of which 0.41 acre consist of vegetated riparian habitat.
- Potential temporary impacts to CDFG jurisdiction total 9.22 acres, of which 0.02 acre consists of vegetated riparian habitat.

These jurisdictional impacts are discussed in detail in a report prepared by Glenn Lukos Associates (GLA, August 2010). Impacts to jurisdictional areas and associated southern willow scrub, mule fat scrub, and sandy wash habitat will be mitigated through permitting actions with the appropriate agencies, including a DBESP under the MSHCP for riparian/riverine areas (see Section 4.1.3). There is no riparian habitat on the site that is suitable for any of the species discussed in Section 6.1.2 of the MSHCP. Based on a review of soils and supplemented by site surveys no vernal pools, vernal pool plant indicator species, and no suitable habitat for fairy shrimp occur on the site.

8.2.3 DIRECT IMPACTS ON PLANTS AND WILDLIFE

8.2.3.1 Direct Impacts on Special Status, Threatened or Endangered Plant and Wildlife Species

Two burrowing owls were detected on the Butterfield site in both 2007 and 2010. No more than two burrowing owls have been observed on site at any given time. Development of the proposed project would result in the removal of burrowing owl habitat. Prior to mitigation the anticipated impact on burrowing owls is potentially significant.

Six other sensitive species: double-crested cormorant, northern harrier, California horned lark, loggerhead shrike, coyote, and San Diego black-tailed jackrabbit have been observed on or flying over the site. Development of the proposed project may result in impact to their habitat. These impacts are not expected to greatly reduce the populations of the species in the wild and therefore are not considered significant. Impacts to nesting birds, including northern harrier, California horned lark, and loggerhead shrike are discussed below. There is no nesting habitat for the double-crested cormorant on site.

The proposed project would not result in any direct or indirect impacts to any state or federally listed plant or wildlife species.

8.2.3.2 Direct Impacts on Nesting Birds

The Butterfield site is likely to provide nesting habitat for native bird species. Disturbance to native bird species during the nesting season (approximately mid-February to mid-August) would be a violation of the Migratory Bird Treaty Act of 1918. Nests and eggs of these species are also protected under Fish and Game Code Section 3503. If the site is left undisturbed, there is a potential for some ground nesting species to return. Under these circumstances

there is some potential for grading impacts to nesting birds. Prior to mitigation the anticipated impact on nesting birds is potentially significant.

8.2.3.3 Direct Impacts on Wildlife Movement

Development of the Butterfield site would not have a substantial impact on regional wildlife movement. Existing residential development blocks any wildlife movement from the south and west. Wildlife movement generally occurs in the San Gorgonio Foothills to the north and east. Effects on wildlife movement would be a less than significant impact of the proposed Butterfield project.

8.2.4 DIRECT IMPACTS ON RESOURCES PROTECTED BY LOCAL ORDINANCES

CEQA Appendix G specifies that reports address impacts of a proposed development on resources protected by local ordinances and Natural Community Conservation Plans such as the MSHCP. The site is within the MSHCP survey area for burrowing owl. During NRC's surveys, the site was determined to have suitable habitat for burrowing owl. Surveys for this species in 2007 and 2010 found two individuals on site. A clearance survey for this species will be performed within 30 days prior to grading. Impacts to this species would be significant and would require mitigation as discussed in Section 9.1 below.

There are no other biological resources on the site protected by local ordinances that are not addressed elsewhere in this report. Constraints imposed by the MSHCP are discussed in Section 4.0 and provide no additional CEQA-related impacts.

8.3 INDIRECT IMPACTS

CEQA Section 15064 (d) (2) states that an indirect impact is any "physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment." Examples include impacts due to population growth in an area after habitation of a development such as air pollution, toxins (i.e., herbicide and pesticide run-off from lawns), and invasive species such as non-native plants and animals. Guidelines for avoidance of indirect impacts are also discussed in MSHCP Section 6.1.4 (Urban/Wildlands Interface) for projects near the MSHCP Conservation Area. For the proposed development on the site, unavoidable indirect impacts to nearby natural open space may include intrusion by humans and their pets, feral animals, and exotic plants, as well as potential adverse effects due to changes in drainage patterns, lighting and noise levels. These indirect effects, the mitigation for which is discussed below in Section 9.2, would be less than significant after mitigation.

8.4 CUMULATIVE IMPACTS

Cumulative impacts on the environment due existing, approved and planned development have been fully assessed and mitigated on a regional scale by the MSHCP. NRC is unaware of any foreseeable cumulative impacts that would result from development of the site and the surrounding area that are not addressed by the MSHCP.

9.0 PROPOSED MITIGATION MEASURES

All "significant" impacts associated with the project are reduced to a level that is less than significant by one or more project-specific mitigation measures. Impacts are determined to be mitigated to a level that is less than significant when: 1) mitigation measures result in avoidance to substantial portions of occupied habitat for special status species and/or sensitive habitat, 2) mitigation measures result in the preservation of habitats supporting local and regionally common and special status species or habitats, or mitigation measures result in the replacement of affected resources through in-kind restoration and revegetation.

9.1 MITIGATION MEASURES FOR DIRECT IMPACTS RESULTING FROM SITE DEVELOPMENT

Mitigation for direct impacts to sensitive vegetation communities and sensitive wildlife species are discussed below. Direct impacts are those related to the direct removal and grading of lands.

9.1.1 MITIGATION FOR IMPACTS TO VEGETATION COMMUNITIES

Project development both on and off-site would result in the permanent loss of approximately 1,212.8 acres of agricultural, 225.5 acres of disturbed ground, 28.1 acres of sandy wash, 19.2 acres of annual grasslands, 5.1 acres of landscaping, and 1.8 acres of disturbed coastal sage scrub. Temporary impacts off-site would result in disturbance to 0.8 acre of agriculture, 0.4 acre of annual grasslands, and 0.4 acre of disturbed coastal sage scrub. These impacts are covered under the MSHCP regional conservation planning goals. These impacts are not significant, however, and require no mitigation.

Mitigation for permanent impacts on and off-site to 0.41 acre of southern willow scrub and mule fat scrub (CDFG vegetated riparian habitat) and temporary impacts to 0.02 acre of southern willow scrub will be addressed by Glenn Lukos Associates through permitting with regulatory agencies (e.g., CDFG and USACE) and will be further discussed in a DBESP (see Section 4.1.3 and 6.4). A portion of the sandy wash vegetation community that is delineated as jurisdictional will also be mitigated through the DBESP process. Mitigation for other vegetation communities adversely affected by the proposed project are not significant and do not require mitigation.

9.1.2 MITIGATION MEASURES FOR IMPACTS TO WILDLIFE

The proposed project may result in direct impacts to burrowing owl and nesting birds. Mitigation measures to reduce impacts to these resources to a less than significant level are described below.

9.1.2.1 Burrowing Owl Mitigation Measure

A preconstruction clearance survey for burrowing owl will be performed within 30 days prior to ground disturbance in potentially suitable habitat within the site. The preconstruction survey will include a 300-foot buffer if between February 1 and August 31 (nesting season) and a 100-foot buffer if outside of this window. If owls are found within the survey area during the nesting season, construction activities will not occur within 300 feet of the occupied burrows until nesting is completed. A qualified biologist must confirm that the nesting effort has been completed prior to the removal of the work buffer restriction. If owls are found within the disturbance footprint outside of the February 1 through August 31 window, passive relocation (e.g. use of one way doors and collapse of burrows) will occur.

9.1.2.2 Nesting Birds Mitigation Measure

Mitigation for birds covered under the MBTA will include removal of natural vegetation outside of the breeding season as defined in the MSHCP (approximately mid-February through mid-August). If grading is to take place during the nesting season, a biologist will conduct a nesting bird survey immediately prior to site disturbance. Should any active nests be located, these resources will be relocated (if possible) or avoided until the young fledge.

9.1.3 MITIGATION FOR IMPACTS TO RESOURCES PROTECTED BY LOCAL ORDINANCES

The site lies within the MSHCP survey area for burrowing owl and burrowing owls were found to be present on site. To comply with the MSHCP impacts to burrowing owls will follow mitigation outlined above in Section 9.1.2.

The site also contains riparian/riverine areas that will be impacted by the proposed project. Mitigation will be addressed in a DBESP under the MSHCP for riparian/riverine areas.

9.2 MITIGATION FOR INDIRECT IMPACTS

The proposed project has been planned to avoid all significant indirect impacts associated with drainage, toxics, lighting, noise, barriers, invasive species and brush management. The following mitigation measures and best management practices will be implemented in compliance with MSHCP Urban/Wildlands Interface policies, thus reducing all indirect impacts to a level that is less than significant.

- Construction areas will be watered regularly to control dust and minimize impacts to adjacent vegetation and wildlife habitat.
- Sediment and erosion control measures will be implemented until such time soils are determined to be successfully stabilized.
- Short-term stream diversions will be accomplished by use of gravel bags or other methods that will result in minimal in-stream impacts. Short-term diversions will consider effects on wildlife.
- Silt fencing or other sediment trapping materials will be installed at the downstream end of construction activities to minimize the transport of sediments off-site.
- Equipment storage, fueling and staging areas will be sited on non-sensitive upland habitat types with minimal risk of direct discharge into riparian areas or other sensitive habitat types.
- The limits of disturbance, including the upstream, downstream and lateral extents, will be clearly defined and marked in the field. Monitoring personnel will review the limits of disturbance prior to initiation of construction activities.
- During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by Covered Species that are outside of the project footprint will be avoided.
- Exotic, weedy plant species removed during construction will be properly handled to prevent sprouting or regrowth.
- When work is conducted during the fire season (as identified by the Riverside County Fire Department) adjacent to coastal sage scrub or chaparral vegetation, appropriate fire-fighting equipment (e.g., extinguishers, shovels, water tankers) shall be available on the site during all phases of project construction to help minimize the chance of human-caused wildfires. Shields, protective mats, and/or other fire preventative methods shall be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventative actions, and responses to fires shall advise contractors regarding fire risk from all construction-related activities.
- All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances shall occur only in designated areas within the proposed grading limits of the project site. These designated areas shall be clearly marked and located in such a manner as to contain run-off.

- Waste, dirt, rubble, or trash shall not be deposited in a conservation area or on native habitat.

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APPENDIX A.
BUTTERFIELD FLORAL COMPENDIUM

SCIENTIFIC NAME	COMMON NAME
ANGIOSPERMS: DICOTYLEDONS	
ANACARDIACEAE - SUMAC OR CASHEW FAMILY	
Malosma laurina	laurel sumac
Rhus ovata	sugar bush
ASCLEPIADACAEAE - MILKWEED FAMILY	
Asclepias californica	California milkweed
ASTERACEAE - SUNFLOWER FAMILY	
Ambrosia psilostachya	western ragweed
Artemisia douglasiana	mugwort
Baccharis salicifolia	mulefat
Centaurea melitensis	tocalote*
Chrysothamnus nauseosus	rubber rabbit brush
Conyza canadensis	horseweed
Ericameria palmeri	Palmer's goldenbush
Lasthenia californica	goldfields
Lessingia filaginifolia	California aster
BORAGINACEAE - BORAGE FAMILY	
Amsinckia sp.	fiddleneck
Eriodictyon trichocalyx	hairy yerba santa
Plagiobothrys nothofulvus	popcorn flower
BRASSICACEAE - MUSTARD FAMILY	
Brassica geniculata	short-pod mustard*
Brassica nigra	black mustard*
Raphanus sativus	wild radish*
Sisymbrium irio	london rocket*
CACTACEAE - CACTUS FAMILY	
Opuntia sp.	prickly-pear cactus
CARYOPHYLLACEAE - PINK FAMILY	
Stellaria media	common chickweed*
CAPRIFOLIACEAE - HONEYSUCKLE FAMILY	
Sambucus mexicana	Mexican elderberry
CHENOPODIACEAE - GOOSEFOOT FAMILY	
*Salsola tragus**	*Salsola tragus**
CUCURBITACEAE - GOURD FAMILY	
Cucurbita feotidissima	calabazilla
Cucurbita palmata	coyote melon

CYPERACEAE - SEDGE FAMILY	
Cyperus sp	sedge
EUPHORBIACEAE - SPURGE FAMILY	
Eremocarpus setigerus	dove weed
FABACEAE - LEGUME FAMILY	
Lotus scoparius	deerweed
Lupinus bicolor	miniature lupine
Melilotus sp.	sweetclover
Vicia villosa	winter vetch*
FAGACEAE - OAK FAMILY	
Quercus agrifolia	coast live oak
Quercus berberidifolia	scrub oak
GERANIACEAE - GERANIUM FAMILY	
Erodium cicutarium	redstemmed filaree*
HYDROPHYLLACEAE - WATERLEAF FAMILY	
Eriodictyon californicum	smooth yerba santa
Phacelia imbricate	imbricate phacelia
JUGLANDACEAE – WALNUT FAMILY	
Juglans cf. hindsii	northern California black walnut
LAMIACEAE - MINT FAMILY	
Marrubium vulgare	horehound*
Salvia apiana	white sage
Salvia columbariae	chia
Salvia mellifera	black sage
Trichostema lanceolatum	vinegar weed
ONAGRACEAE - EVENING PRIMROSE FAMILY	
Camissonia bistorta	Southern sun cups
Clarkia purpurea	winecup
Epilobium brachycarpum	willowherb
PAPAVERACEAE - POPPY FAMILY	
Eschscholzia californica	California poppy
POLYGONACEAE - BUCKWHEAT FAMILY	
Eriogonum elongatum	longstem buckwheat
Eriogonum fasciculatum	California buckwheat
Eriogonum gracile	slender buckwheat
Polygonum sp.	smartweed
Rumex crispus	curly dock*
RHAMNACEAE - BUCKTHORN FAMILY	
Ceanothus crassifolius	hoary leaf ceanothus
Rhamnus californica	California coffeeberry
ROSACEAE - ROSE FAMILY	

Adenostoma fasciculatum	chamise
Heteromeles arbutifolia	toyon
Prunus ilicifolia	holly-leafed cherry
SALICACEAE - WILLOW FAMILY	
Salix gooddingii.	Gooding's black willow
Salix lasiolepis	arroyo willow
SCROPHULARIACEAE - FIGWORT FAMILY	
Castilleja exserta	owl's clover
SIMAROUBACEAE – QUASSIA OR SIMAROUBA FAMILY	
Ailanthus altissima	tree-of-heaven
SOLANACEAE - NIGHTSHADE FAMILY	
Datura stramonium	jimsonweed*
Nicotiana glauca	Tree tobacco*
Solanum xanti	Purple nightshade
TYPHACEAE - CATTAIL FAMILY	
Typha domingensis	cattail
ANGIOSPERMS: MONOCOTYLEDONS	
LILIACEAE - LILY FAMILY	
Agave sp.	agave
Calochortus splendens	splendid Mariposa lily
Dichelostemma capitatum	blue dicks
POACEAE	GRASS FAMILY
Avena sp.	wild oat*
Bromus diandrus	ripgut grass*
Bromus hordeaceus	brome*
Bromus madritensis	foxtail chess*
Hordeum murinum	Mediterranean barley*
Lamarckia aurea	goldentop*
Nassella pulchra	purple needlegrass
Piptatherum miliaceum	smilo grass*

Non-native species are indicated with an asterisk (*).

APPENDIX B
BUTTERFIELD FAUNAL COMPENDIUM

SCIENTIFIC NAME	COMMON NAME
INVERTEBRATES	
LEPIDOPTERA – BUTTERFLIES & MOTHS	
Apodemia virgulti	Behr's metalmark
Pieris rapae	cabbage white
Pontia protodice	checkered white
Vanessa cardui	painted lady
REPTILES	
COLUBRIDAE - COLUBRIDS	
Masticophis lateralis	California whip snake or striped racer
Pituophis melanoleucus	gopher snake
IGUANIDAE - IGUANID LIZARDS	
Sceloporus occidentalis	western fence lizard
PHRYNOSOMATIDAE – ZEBRA-TAILED, EARLESS, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, AND HORNED LIZARDS	
Uta stansburiana	side-blotched lizard
BIRDS	
PHALACROCORACIDAE – CORMORANTS	
Phalacrocorax auritus	double-crested cormorant
ANATIDAE – SWANS, GEESE, AND DUCKS	
Anas platyrhynchos	mallard
CATHARTIDAE – NEW WORLD VULTURES	
Cathartes aurra	turkey vulture
ACCIPITRIDAE - HAWKS	
Circus cyaneus	northern harrier
Buteo jamaicensis	red-tailed hawk
FALCONIDAE - FALCONS	
Falco sparverius	American kestrel
CHARADRIIDAE - PLOVERS	
Charadrius vociferus	killdeer
COLUMBIDAE - PIGEONS & DOVES	
Columba livia	rock dove
Zenaida macroura	mourning dove
TYTONIDAE – BARN OWLS	
Tyto alba	barn owl
STRIGIDAE - OWLS	
Athene cunicularia	burrowing owl
TROCHILIDAE - HUMMINGBIRDS	
Calypte anna	Anna's hummingbird
TYRANNIDAE - TYRANT FLYCATCHERS	
Myiarchus tyrannulus	brown-crested flycatcher
Sayornis nigricans	black phoebe
Sayornis saya	Say's phoebe

Tyrannus verticalis	western kingbird
LANIIDAE - SHRIKES	
Lanius ludovicianus	loggerhead shrike
CORVIDAE - JAYS & CROWS	
Aphelocoma californica	western scrub-jay
Corvus brachyrhynchos	American crow
Corvus corax	common raven
ALAUDIDAE	
Eremophila alpestris actia	horned lark
HIRUNDINIDAE - SWALLOWS	
Hirundo rustica	barn swallow
Petrochelidon pyrrhonota	cliff swallow
Stelgidopteryx serripennis	northern rough-winged swallow
MIMIDAE - THRASHERS	
Mimus polyglottos	northern mockingbird
STURNIDAE - STARLINGS	
Sturnus vulgaris	European starling
PTIOGONATIDAE – SILKY FLYCATCHERS	
Phainopepla nitens	phainopepla
PARULIDAE - WOOD WARBLERS	
Geothlypis trichas	common yellowthroat
EMBERIZIDAE - TOWHEES & AMERICAN SPARROWS	
Pipilo crissalis	California towhee
Pipilo maculatus	spotted towhee
Ammodramus savannarum	grasshopper sparrow
Chondestes grammacus	lark sparrow
Melospiza melodia	song sparrow
ICTERIDAE – BLACKBIRDS, ORIOLES, & ALLIES	
Agelaius phoeniceus	red-winged blackbird
Euphagus cyanocephalus	Brewer's blackbird
Icterus bullockii	Bullock's oriole
Quiscalus mexicanus	great-tailed grackle
Sturnella neglecta	western meadowlark
FRINGILLIDAE - FINCHES	
Carpodacus mexicanus	house finch
Carduelis psaltria	lesser goldfinch
Carduelis lawrencei	Lawrence's goldfinch
PASSERIDAE – OLD WORLD WARBLERS	
Passer domesticus	house sparrow

MAMMALS

CRICETIDAE – NEW WORLD RATS, MICE, & RELATIVES	
Neotoma spp.	woodrat
GEOMYIDAE - POCKET GOPHERS	
Thomomys bottae	Botta's pocket gopher
SCIURIDAE - SQUIRRELS	
Spermophilus beecheyi	California ground squirrel
LEPORIDAE - HARES & RABBITS	
Lepus californicus	black-tailed jackrabbit

Sylvilagus audubonii	Audubon's cottontail
CANIDAE – WOLVES & FOXES	
Canis latrans	coyote