

Resource Management Plan  
for  
**Potrero/Mason Property**  
**San Diego County**



June 2018



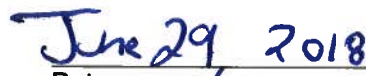
POTRERO MASON PROPERTY  
RESOURCE MANAGEMENT PLAN

June 29, 2018

Approved by:



Brian Albright, Director  
County of San Diego  
Department of Parks and Recreation



Date

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Appendix C	Potrero/Mason Property Vegetation Management Plan

## LIST OF ACRONYMS

AMSL	above mean sea level
ASMD	area-specific management directive
CAL FIRE	California Department of Forestry and Fire Protection
Cal-IPC	California Invasive Plant Council
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
DPR	County of San Diego Department of Parks and Recreation
FESA	Federal Endangered Species Act
MSCP	Multiple Species Conservation Program
MSCP SAP	Multiple Species Conservation Program Subarea Plan
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
PAMA	Pre-Approved Mitigation Area
RMP	resource management plan
SANDAG	San Diego Association of Governments
SDGE	San Diego Gas and Electric
SDMMP	San Diego Management and Monitoring Program
SRA	State Responsibility Area
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

## 1.0 Introduction

Potrero/Mason Property (Property) consists of approximately 480-acres<sup>1</sup> located within the unincorporated community of Potrero in South-Central San Diego County (Figure 1). The County acquired the Potrero County Park portion of the Property in 1963 and acquired the Mason Wildlife Preserve portion of the Property in 1986, 2005, 2008, and 2009 for inclusion in the Draft East County Plan preserve system.

### 1.1. Purpose of Resource Management Plan

This Resource Management Plan (RMP) has been prepared as a guidance document to manage and preserve the biological and cultural resources within the Property. The Draft East County Plan does not currently have a Framework Resource Management Plan or a finalized conserved species list, so this RMP will provide general monitoring and management guidelines for sensitive species on-site and management of on-site facilities.

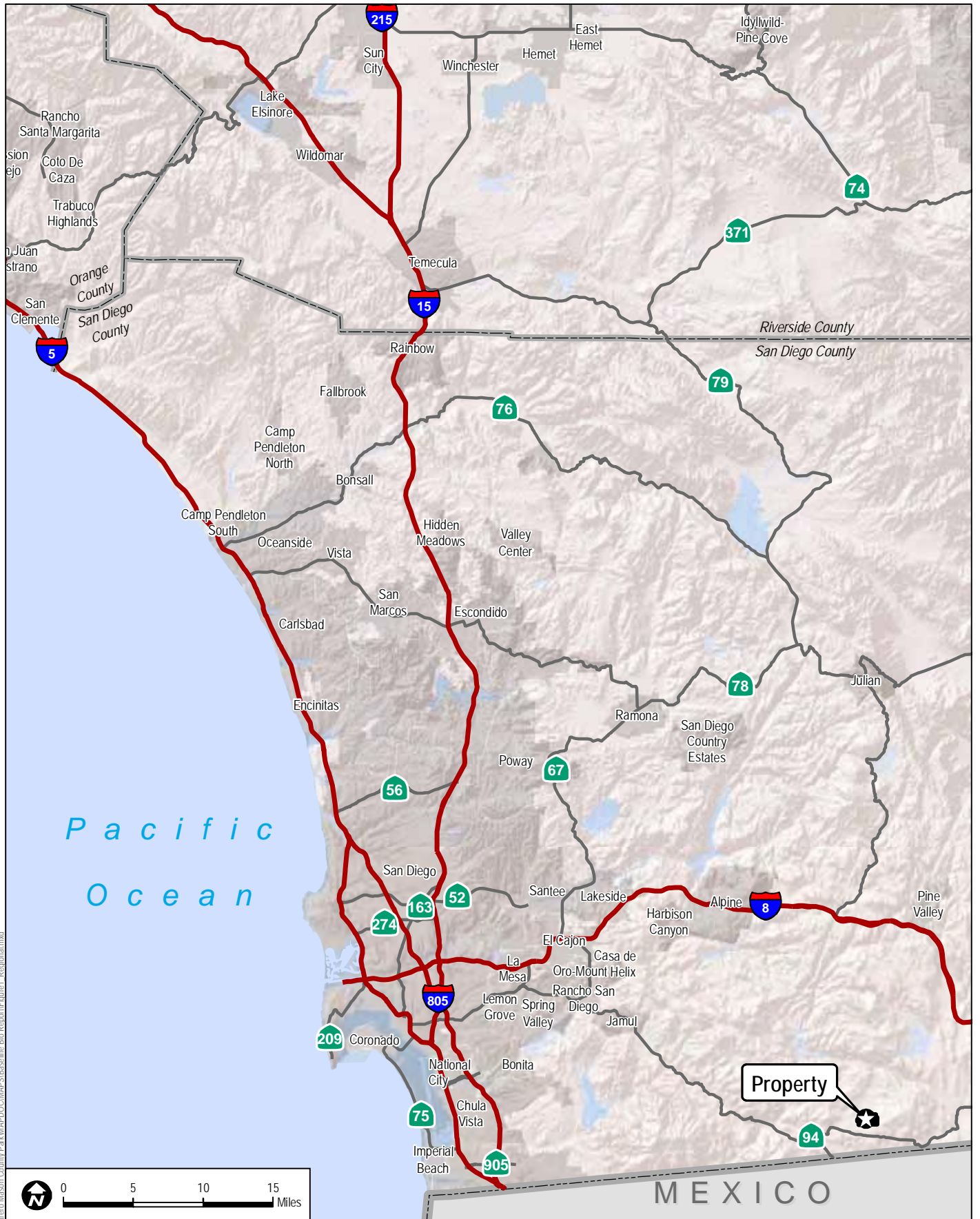
This RMP will:

- a) guide the management of vegetation communities/habitats, plant and animal species, cultural resources, and programs described herein to protect and, where appropriate, enhance biological and cultural values;
- b) serve as a guide for appropriate public uses of the property;
- c) provide a descriptive inventory of the vegetation communities/habitats, plant and animal species, and the archaeological and/or historical resources that occur on this property, and;
- d) establish the baseline conditions; and
- e) provide an overview of the operation and maintenance requirements to implement management goals.

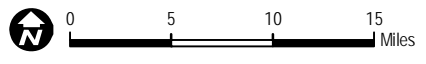
Chapter 5 of this RMP includes ASMD's for Potrero/Mason Property.

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<sup>1</sup> The assessor's parcel data reports the Property to be 506.04 acres; however, calculations generated from the SanGIS parcel database show the Property as 480 acres. Therefore, this report references the Property as 480 acres.



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**FIGURE 1**  
**Regional Map**

Potrero Mason Property - Baseline Biodiversity Survey

It is recognized that the County owned land is only a small portion of the MSCP preserve system. The County does ensure management of other lands that are dedicated as a conservation easement for discretionary project mitigation, through requiring land developers to prepare Resource Management Plans. The County will spearhead a larger coordinated effort to ensure that other conserved lands in the area that make up the MSCP Preserve are also being monitored and managed consistent with this RMP.

### ***1.1.1 MSCP Background***

The Draft East County Plan is a comprehensive habitat conservation planning program and one of three subregional habitat planning efforts in San Diego County which contribute to preservation of regional biodiversity through coordination with other habitat conservation planning efforts throughout southern California. The Draft East County Plan is being prepared as a Multiple Species Habitat Conservation Plan (HCP) pursuant to Section 10(a)(1)(B) of the Federal Endangered Species Act (FESA), the Natural Community Conservation Planning (NCCP) Program pursuant to the California NCCP Act of 1991 and the California Endangered Species Act (CESA). The Property is owned and operated by the County and is included within the Draft East County Plan preserve system.

The East County Study Area covers approximately 1.6 million acres in eastern San Diego County and is bounded on the west generally by the western boundary of the Cleveland National Forest, on the north by the Riverside County, and on the east predominantly by Imperial County, and the south by Mexico. Tribal lands are excluded from the Study Area.

### ***1.1.2 Framework Resource Management Plan***

Development of the Draft East County Plan is still in process and a Framework Resource Management Plan (FRMP) has not yet been developed. The FRMP is intended to provide general direction for all property management and biological management and monitoring within the East County Plan preserve system. The FRMP will also incorporate a requirement for the subsequent preparation and implementation of ASMDs to address management and monitoring issues at the site-specific level. Chapter 5 of this RMP includes general ASMDs for the Potrero/Mason Property. The ASMDs will be updated once the East County Plan is finalized.

## **1.2. Implementation**

### ***1.2.1 Management Approach***

A key concept of the MSCP is the use of “Adaptive Management Techniques” directed at the conservation and recovery of individual species. This term refers to modifying management actions when monitoring of the resources indicates that

changes are needed. It is particularly useful where there is uncertainty regarding the efficacy of certain management measures and/or the needs of target species. Adaptive management and an associated monitoring program are designed to inform land managers of the status and trends of covered species, natural communities, and landscapes in a manner that provides data to allow informed management actions and decisions.

It is anticipated that the recommended management actions provided in this RMP will be dynamic in nature. Applying adaptive management, the effectiveness and appropriateness of recommended management actions would be determined through review of management goal and objective achievement so that changes can be made to management directives and implementation measures as needed. Adaptive management techniques depend upon the specific issues impacting the resources. Therefore, the techniques herein may be subject to change or revisions when applied. Additionally, the monitoring protocols/requirements for East County Plan covered species and habitats will be revisited periodically by participants of the East County Plan and are subject to change based on adoption of updated protocols. It is anticipated that this RMP will be revised once every five years, as needed. The RMP may be revised on a shorter time scale if there is a change in circumstance, for example, finalization of the East County Plan or acquisition of additional Preserve land.

### **1.2.2 *Responsible Parties/Designation of Land Manager***

The County is responsible for management, biological monitoring, and meeting the conditions of MSCP coverage on County-owned lands conserved as part of the MSCP Preserve system within the County's jurisdiction, which includes County-owned land. The Preserve is operated, administered, and managed by the County Department of Parks and Recreation (DPR) and the DPR District Park Manager assigned to the Preserve is the land manager. DPR (District Park Manager and staff of the Resources Management Division) will also be responsible for the implementation and enforcement of the RMP.

The Property is located in the management region of one supervising park ranger one park ranger, and one park maintenance worker. The Park is patrolled daily and the Preserve is patrolled at a minimum weekly and as much as daily. The supervising park ranger lives on-site in the Park portion of the Property. It is expected that many of the implementation measures, especially the maintenance tasks, will be carried out by the rangers who are most familiar with the site and currently patrol the Preserve.

### **1.2.3 *Regulatory Context***

The County's park rangers manage County parks and enforce preserve rules and regulations pursuant to San Diego County Code of Regulatory Ordinances Title 4, Division 1, Chapter 1 County Parks and Recreation. In addition, per County Code of

Regulatory Ordinance Sec 41.111, 41.112, 41.113, all wildlife, plant, historical artifacts, and geologic features are protected and are not to be damaged or removed. Any person who violates any provision of these sections is guilty of a misdemeanor as provided in Sections 11.116, 11.117, and 11.118 of this Code, punishable by fines up to \$2,500 a day for each day the person violates these sections. The park rangers will contact law enforcement who will cite the offending individual. In addition, if an individual does not comply with signs within a facility and ignores park ranger instructions, the individual could potentially be charged with a misdemeanor by law enforcement.

#### **1.2.4 Limitations and Constraints**

The Property is located in the Draft East County Plan Area. Covered species have not yet been determined for the Plan, so monitoring goals and objectives have not yet been determined. As discussed in Section 5.2.1 general species monitoring will be performed. Implementation and timing of the RMP management directives will be based on funding. DPR will prioritize property needs for the fiscal year based on the priority of directives in the RMP.

## **2.0 Property Description**

### **2.1 Legal Description**

Specifically, the Property is located north of Potrero Park Drive, west of Harris Road, south of Potrero Valley Road, and east of Potrero Park Drive. The Property is mapped on the U.S. Geological Survey (USGS) 7.5-minute Potrero quadrangle: Township 18 South, Range 4 East, Sections 8, 9, 10, 15, 16, and 17 (Figure 2). The Assessor's Parcel Numbers for the Preserve are 653-111-03, 653-111-06, 653-120-06, 653-120-19, 653-120-20, 653-120-27, 653-120-28, and 654-030-02.

### **2.2 Geographical Setting**

The Property is located in the foothills of the Laguna Mountains of Southern California and is composed of sloping or hilly terrain (the majority of the Property has a slope gradient less than 20°) ranging in elevation from approximately 725 to 870 meters (2,380 to 2,853 feet) above mean sea level (AMSL).

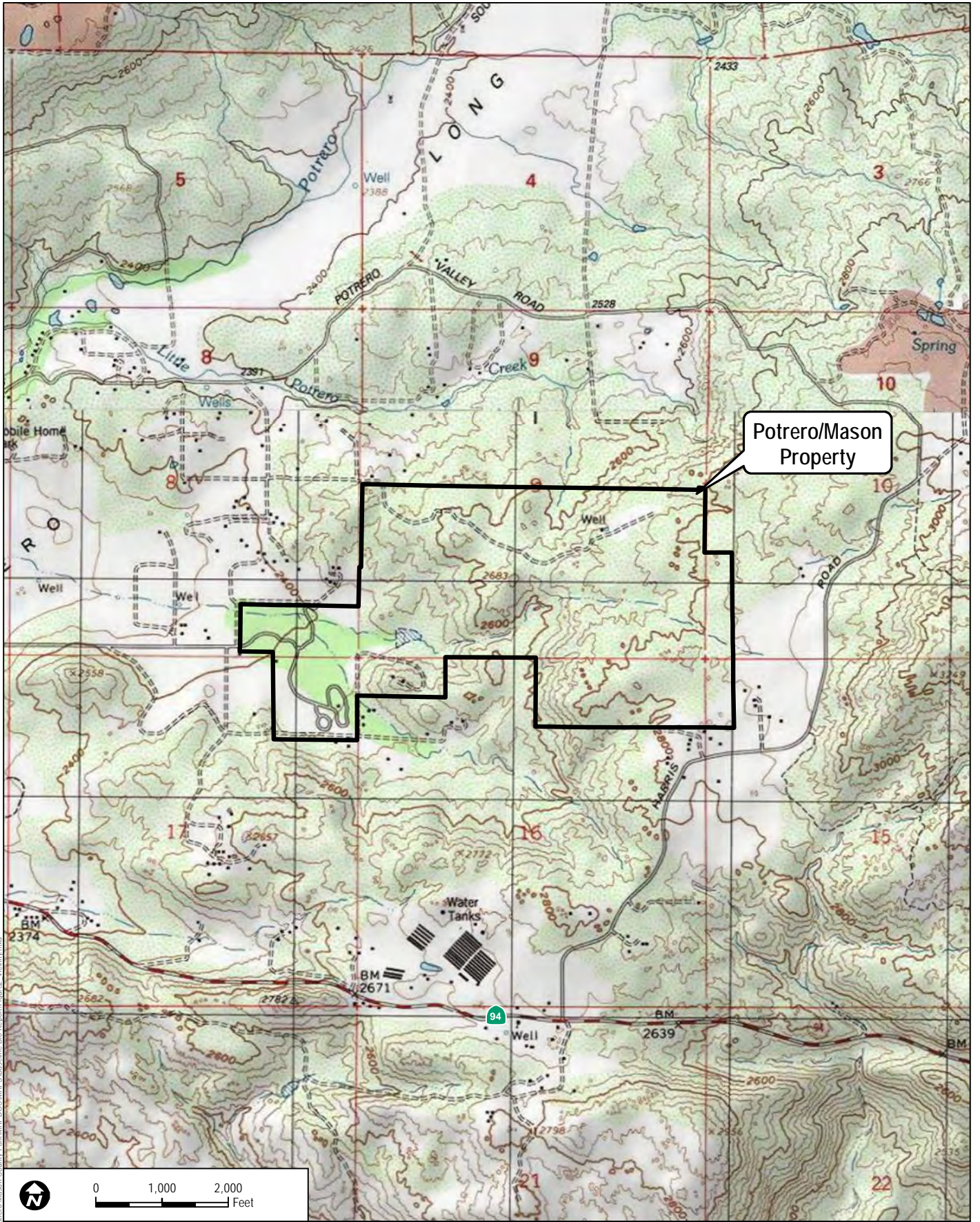
The topography of the Property is determined primarily by proximity to the Peninsular Range, which creates relatively hilly terrain. The Property is situated between Hauser Mountain to the east and Potrero Peak to the west and is characterized by two drainages that run east to west and converge near the western border.

#### **2.2.1 Site Access**

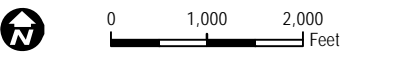
The Park portion of the Property is accessed from Potrero Park Drive. The Preserve portion of the Property is accessed through the Park or off of Harris Ranch Road.

### **2.2.2 MSCP Context**

The Property is located in the Draft East County Plan area. The Property contributes to a network of surrounding conserved lands including property owned by Back Country Land Trust and Cleveland National Forest to the north and Bureau of Land Management (BLM) Hauser Mountain Wilderness Study Area to the west (Figure 3).



Potrero/Mason Property



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SOURCE: USGS topo 7.5-Minute Series Quadrangle

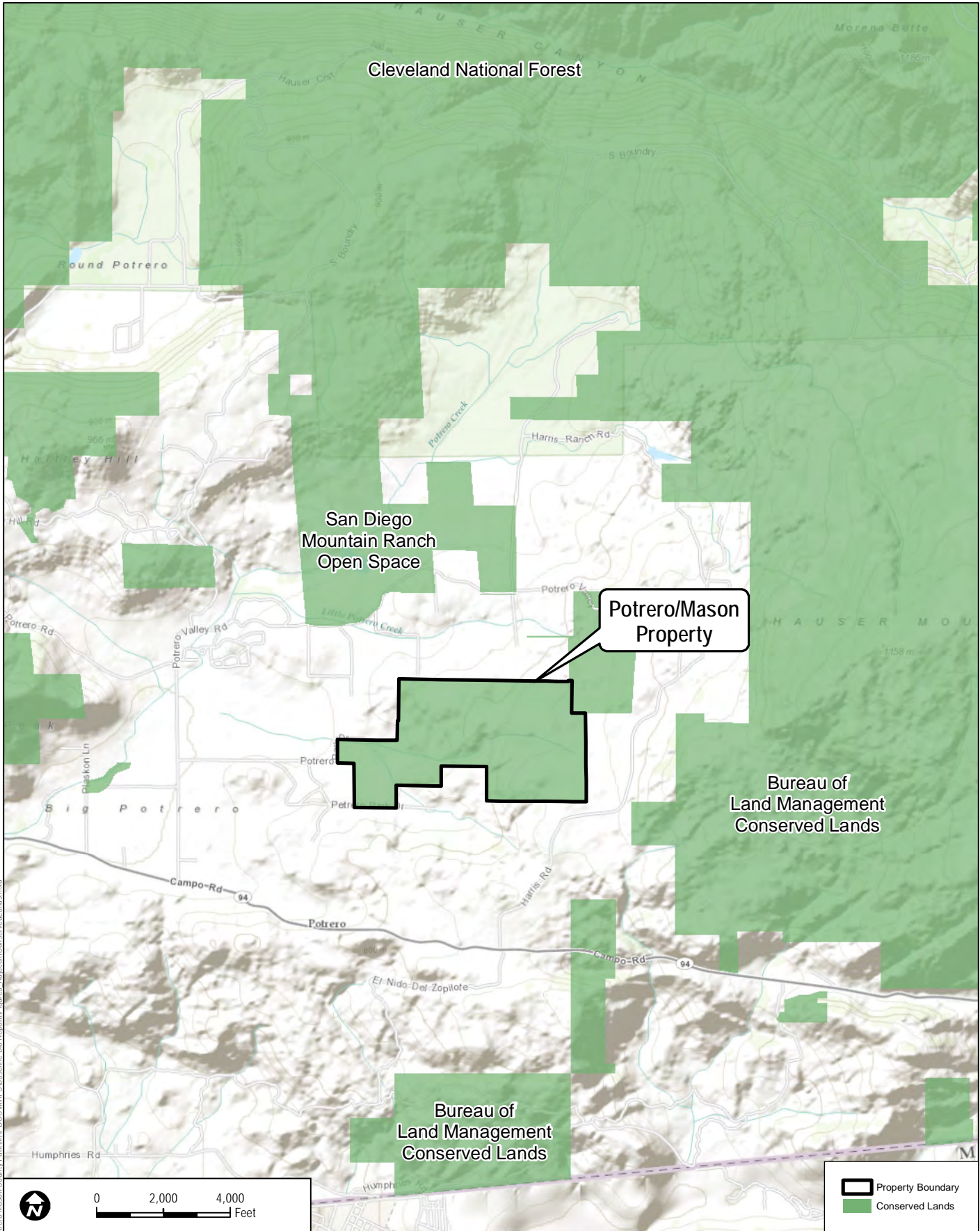
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Potrero Mason Property - Baseline Biodiversity Survey

**FIGURE 2**  
**Vicinity Map**

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**FIGURE 3**  
**Adjacent Conserved Lands**

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## **2.3 Physical and Climatic Conditions**

### **2.3.1 *Geology and Soils***

The Property contains six soil types belonging to five soil series: Cieneba rocky coarse sandy loam, Fallbrook sandy loam and rocky sandy loam, Greenfield sandy loam, Mottsville loamy coarse sand, and Tollhouse rocky coarse sandy loam (Figure 4) (USDA 2012). A brief description of each soil series and the associated soil type that occurs in the Property is provided as follows.

#### **Cieneba Series**

Cieneba rocky coarse sandy loam is the representative of the Cieneba series mapped within the south-central and northeastern regions of the Property. Cieneba soils are very shallow, excessively drained, and characterized by low to medium runoff and moderately rapid permeability. Cieneba soils are found in uplands with slopes varying from 9% to 85%. Typical vegetation found on this soil series is primarily chaparral. The Cieneba series occurs in the Coast Range of the Central and South-Central California foothills of the Sierra Nevada (NRCS 2012).

#### **Fallbrook Series**

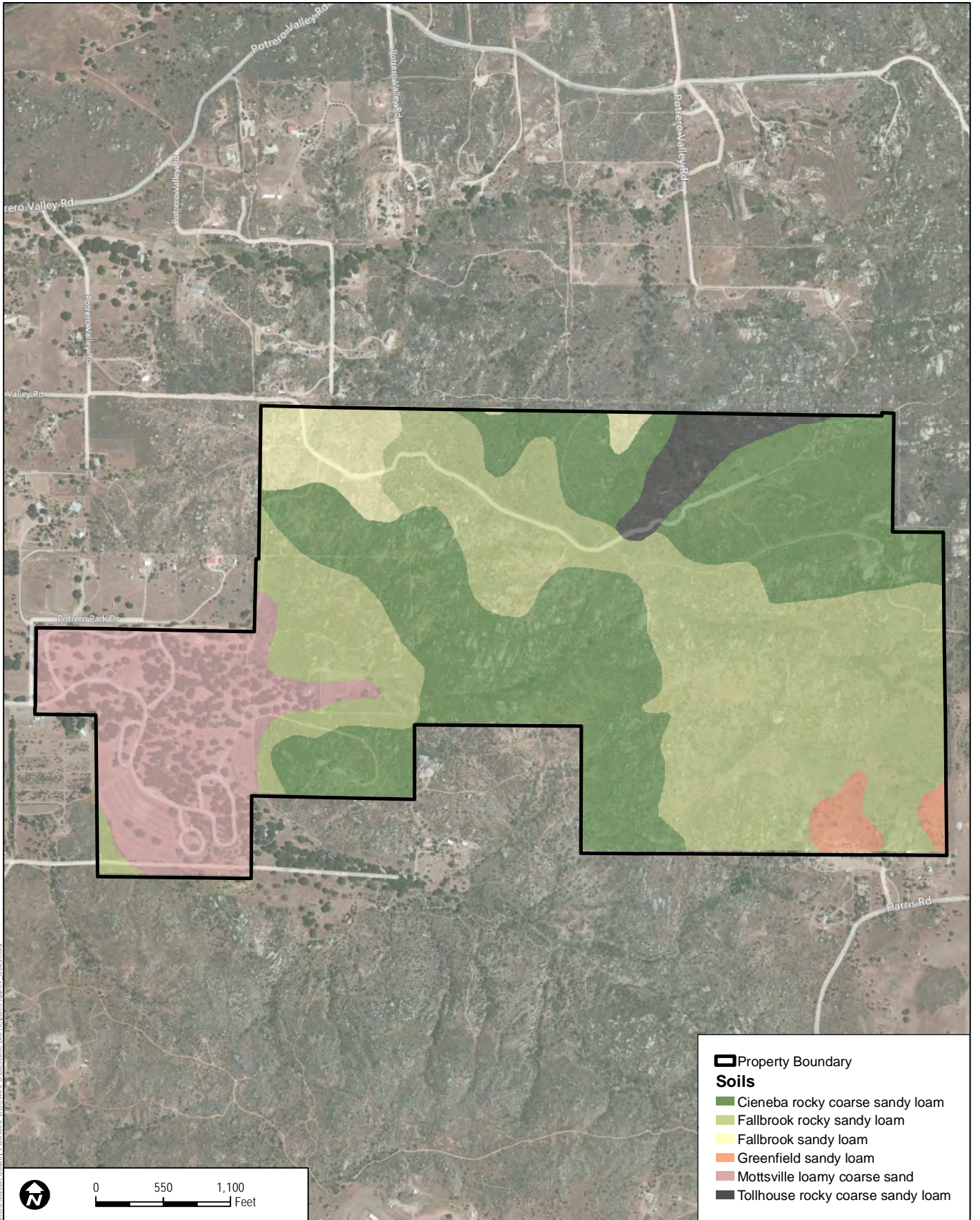
The Fallbrook series is represented by two soil types: Fallbrook sandy loam and Fallbrook rocky sandy loam. Fallbrook soils are deep, well-drained soils formed from granitic rocks. Fallbrook soils are found on rolling hills, and native vegetation typically consists of chaparral (NRCS 2012). However, agriculture, including the growth of irrigated avocados or citrus plants, and grazing are also common on Fallbrook soils (NRCS 2012). Within the Property, Fallbrook rocky sandy loam is found throughout much of the central and southeastern regions of the Property and in the west-central region. Fallbrook sandy loam is found in the northwest region of the Property.

#### **Greenfield Series**

Greenfield sandy loam is found within the extreme southeastern corner of the Property. These soils are found on alluvial fans and terraces and are characterized as deep, well-drained soils formed from coarse alluvium derived primarily from granitic sources (NRCS 2012). Annual grasses, forbs, and scattered oaks are common vegetation types found on Greenfield soils. This series occurs throughout the interior and coastal valleys of Central and Southern California (NRCS 2012).

#### **Mottsville Series**

Mottsville loamy coarse sand is the representative soil type of the Mottsville series found within the Property. Similar to the Greenfield series, Mottsville soils are formed in alluvium derived from granitic rocks. Mottsville soils are very deep and excessively drained; they occur on alluvial fans, fan remnants, and fan aprons. Mottsville loamy



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0 550 1,100  
Feet

Property Boundary

**Soils**

- Cieneba rocky coarse sandy loam
- Fallbrook rocky sandy loam
- Fallbrook sandy loam
- Greenfield sandy loam
- Mottsville loamy coarse sand
- Tollhouse rocky coarse sandy loam

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SOURCE: Bing, USDA Soils 2010

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Potrero Mason Property - Baseline Biodiversity Survey

**FIGURE 4**  
**Soils Map**

coarse sand is mapped within the western region of the Property. Typical vegetation communities associated within this soil type are big sagebrush (*Artemisia tridentata*), antelope bitterbrush (*Purshia tridentata*), Anderson's peachbrush (*Prunus andersonii*), and needlegrass (*Stipa* spp.) (NRCS 2012).

### Tollhouse Series

Tollhouse rocky coarse sandy loam is a shallow, excessively drained soil formed in material weathered from granitic rocks and is found on very steep mountain slopes (NRCS 2012). Rock outcrops are common within this soil series. Tollhouse soils are found in the northeastern area of the Property. Native vegetation communities that are typically found within Tollhouse soils include manzanita (*Arctostaphylos* spp.), interior live oak (*Quercus wislizenii*), ceanothus (*Ceanothus* spp.), and buckeye (*Aesculus californica*) chaparrals.

### **2.3.2 Climate**

As with most of Southern California, the regional climate in the vicinity of the Property is influenced by the Pacific Ocean and is frequently under the influence of a seasonal, migratory, subtropical high-pressure cell known as the Pacific High (WRCC 2012a). Wet winters and dry summers with mild seasonal changes generally characterize the Southern California climate. This climate pattern is occasionally interrupted by extreme periods of hot weather, winter storms, or dry, easterly Santa Ana winds (WRCC 2012a). However, a continental desert regime prevails in the vicinity of the Property. Warmer summers, colder winters, greater daily and seasonal temperature ranges, and lower relative humidity are characteristic of continental, as opposed to maritime, locales. The location of the Property within the foothills of the Peninsular Range and just west of the Colorado Desert contributes to these climatic factors.

The average high temperature calculated from July 1948 to June 2012 for the surrounding Campo area is approximately 76.3° Fahrenheit (F), with higher temperatures in summer and early fall (June through September) reaching up to an average of 93.8°F (WRCC 2012b). The average low temperature is 40.79°F, and winter low temperatures are routinely around 30°F. The mean annual precipitation for the area is 14.83 inches, with the most rainfall concentrated in the months of January (3.04 inches), February (2.77 inches), and March (2.30 inches) (WRCC 2012b). Rainfall is much less during the summer months of May (0.32 inches), June (0.06 inches), and July (0.33 inches) (WRCC 2012b). Snow is periodically reported in Campo, with an annual average snowfall of 0.6 inches. In Campo, the 2011–2012 season (July through June) cataloged 15.84 inches of rain, while the 2010–2011 season cataloged 20.85 inches of rain (WRCC 2012b).

### 2.3.3 Hydrology

The Property is located within the Tijuana Watershed (Figure 5). Water within the Property generally drains and eventually flows into the Potrero Creek. This creek discharges into the Tijuana River and flows southwest from the Property to the Tijuana Estuary in Imperial Beach, California, (Project Clean Water 2012). The majority of the watershed is located within Mexico, with approximately 25% occurring in California (Project Clean Water 2012).

### 2.3.4 Fire History

Based on historical fire perimeter data from the California Department of Forestry and Fire Protection (CAL FIRE) (FRAP 2012)<sup>2</sup>, three fires have affected the Property (Figure 6). Table 1 presents the fire interval data for the Property. An unnamed fire occurred in 1942 and burned approximately 12% of the Property. The Bell Fire occurred in 2001 and burned only a small percentage of the Property in the southeast. The Harris Fire, which occurred in 2007, burned the entirety of the Property (CAL FIRE 2012).

**Table 1. Potrero/Mason Property Fire Intervals**

Fire Year*	Fire Name	Interval (years)	Acreage Burned	Percent of Property Burned**
1942	No Name	—	61.1	12%
2001	Bell	59	5.7	1%
2007	Harris	6	480	100%

\*FRAP 2012

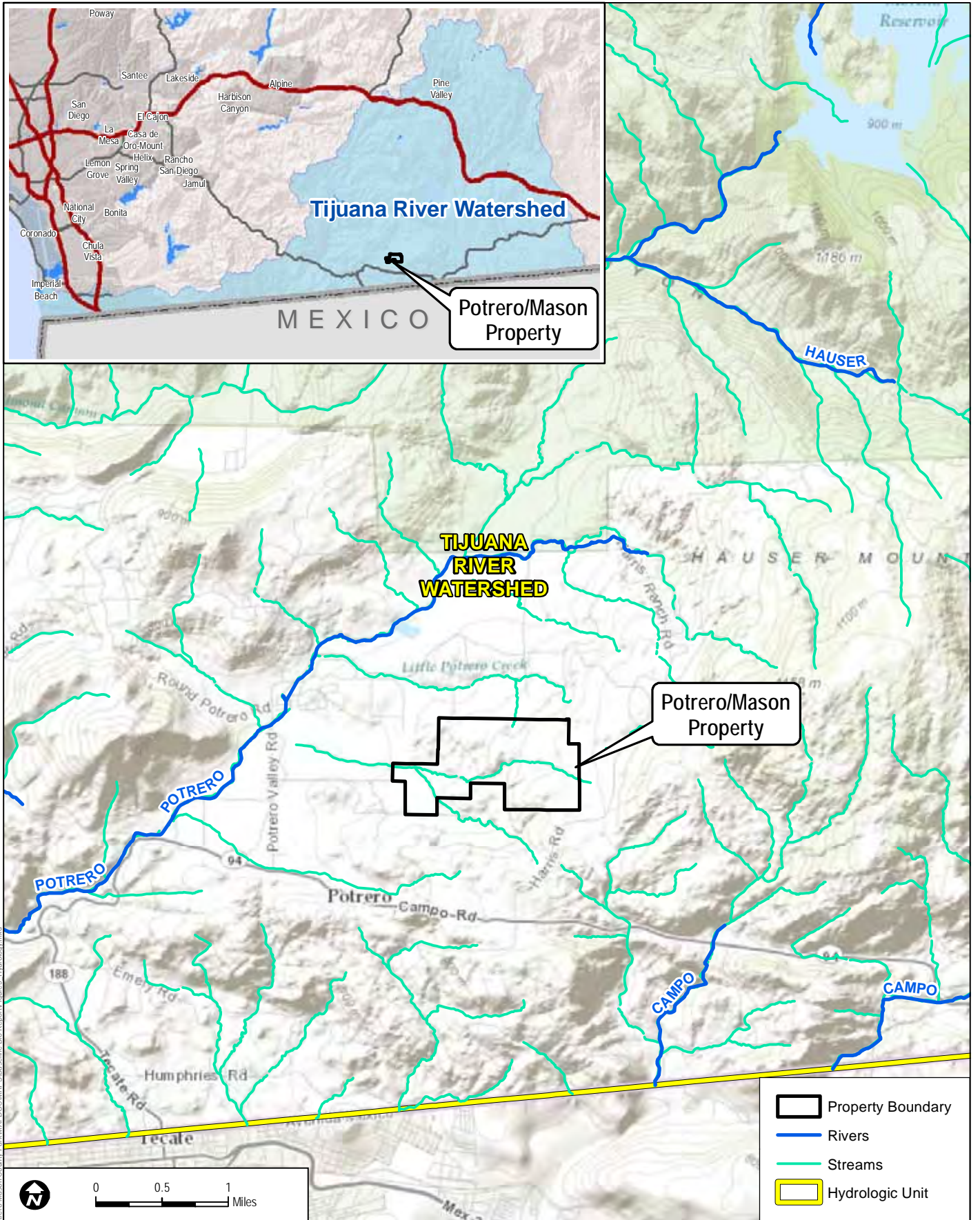
\*\*Based on the 480-acre total acreage of the Property

## 2.4 Land Use

### 2.4.1 On-Site Land Use

The Park portion of the Property contains group and individual camp facilities (primitive and developed), parking lots, playgrounds, ball fields, and group event facilities. A hiking trail (Nature Trail) is located east of the developed Park. The Preserve portion of the Property consists of native habitat and is currently not open to the public; however, there are dirt trails and ranch roads, existing and former fence lines, a drainage basin, and two former residential developments on-site.

<sup>2</sup> Based on polygon geographic information system (GIS) data from CAL FIRE's FRAP, which includes data from CAL FIRE, the U.S. Department of Agriculture (USDA) Forest Service Region 5, the Bureau of Land Management (BLM), the U.S. National Park Service (NPS), contract counties, and other agencies. The data set is a comprehensive fire perimeter GIS layer for public and private lands throughout the state and covers fires 10 acres and greater back to 1878.



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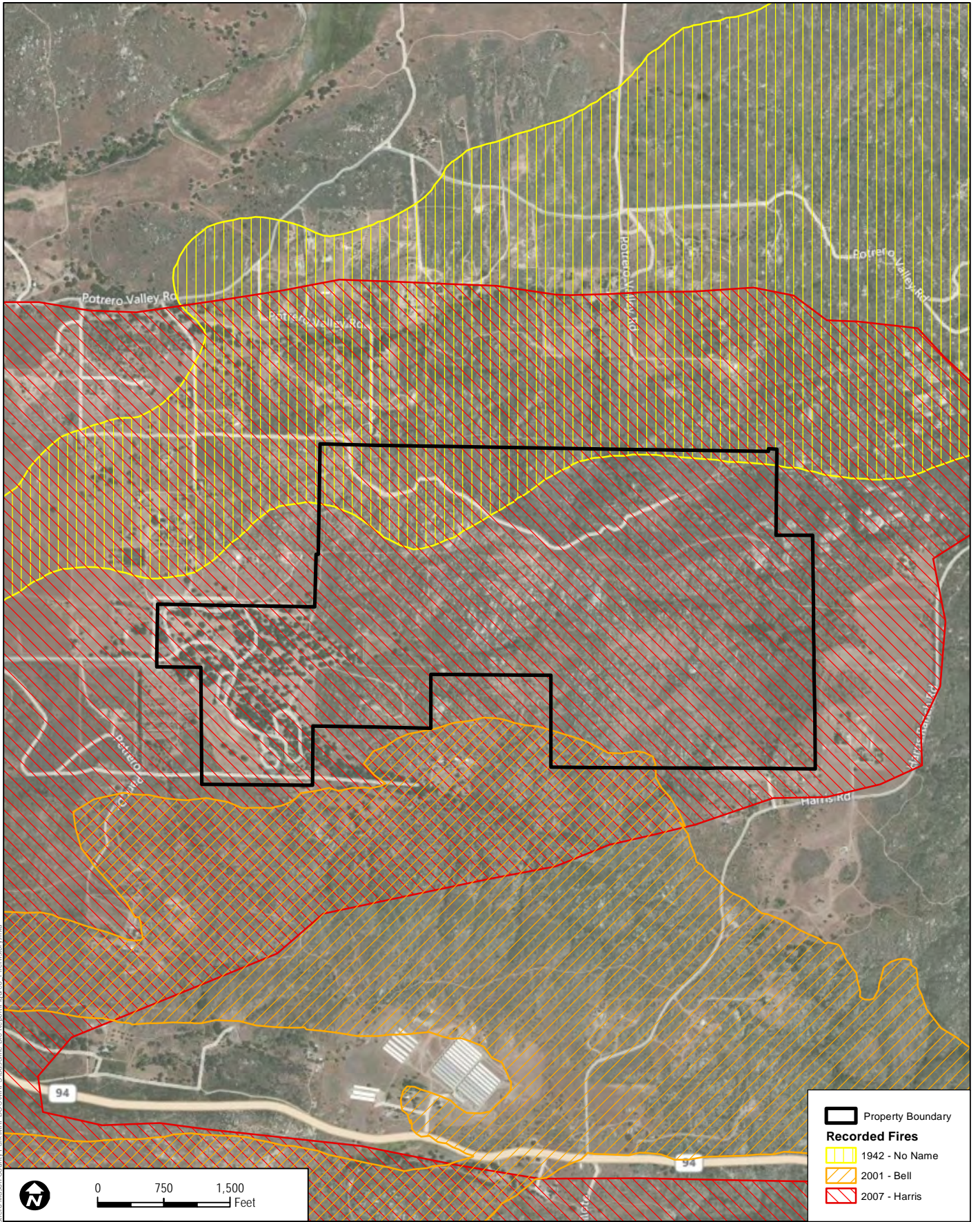
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SOURCE: USGS 2012, SanGIS 2012

Potrero Mason Property - Baseline Biodiversity Survey

**FIGURE 5**  
**Hydrology Map**

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Property Boundary  
**Recorded Fires**  
 1942 - No Name  
 2001 - Bell  
 2007 - Harris

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SOURCE: Bing, SanGIS 2012

Potrero Mason Property - Baseline Biodiversity Survey

**FIGURE 6**  
**Fire History**

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### **2.4.2 Adjacent Properties**

Spaced rural residential and vacant and undeveloped lands are located to the north and south of the Property. Spaced rural residential and field crops are located to the west and open space park or preserve, vacant and undeveloped lands, and field crops are located to the east. Privately owned open space lands are located directly to the north owned by Back Country Land Trust. Cleveland National Forest is located to the north and Bureau of Land Management (BLM) Hauser Mountain Wilderness Study Area is located to the west.

### **2.4.3 Easements or Rights**

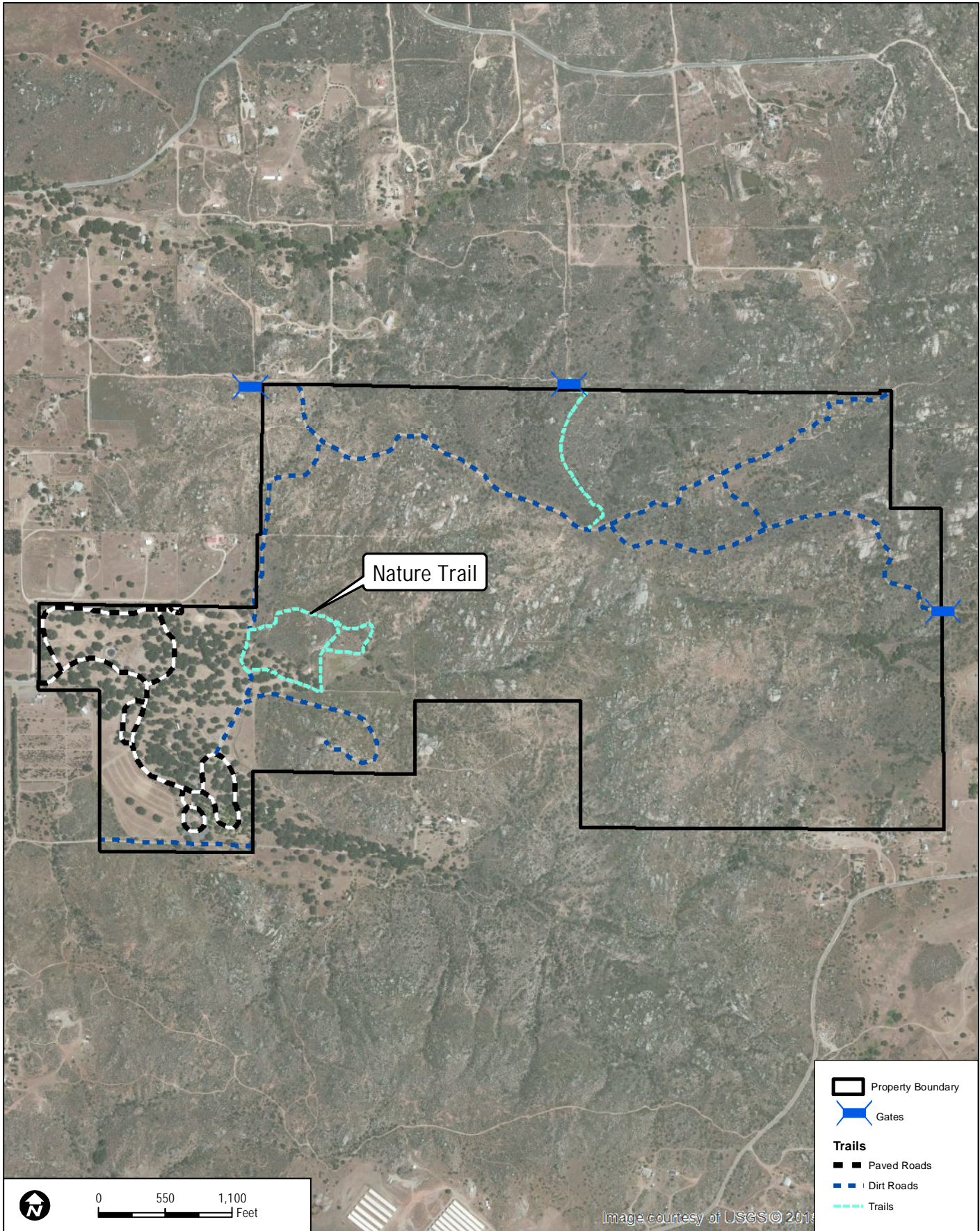
#### San Diego Gas & Electric

San Diego Gas & Electric (SDGE) retains an easement for five overhead distribution lines that traverse the Property from east to west through the northern portion of the Preserve; north from the east to west line; south from the east to west line through the Park; from the southwestern border of the Park to the southeastern border; and a short line from the southern border of the Park to the remnants of a house. SDGE conducts operation and maintenance activities for their facilities consistent with the SDGE Subregional Natural Community Conservation Plan (NCCP) (SDGE 1995). The SDGE NCCP was approved by the Wildlife Agencies and is compatible with this RMP.

### **2.5 Trails**

The Park portion of the Property is currently open for public access. There are campgrounds, picnic areas, and supporting facilities. Currently, one hiking trail (Nature Trail) exists east of the coast live oak woodland in the south-central area of the Property (Figure 7).

A trail system is proposed for the Preserve portion of the Property (Figure 8). The approximately 4-mile trail will be multi-use (hiking, biking, and equestrian) and will utilize the existing ranch roads and trails within the Preserve portion of the Property. Approximately 0.30 miles of the Nature Trail will be pedestrian only due to existing stairs. The existing ranch roads are 10-14 feet in width and are proposed to be narrowed to 8 feet. The existing and proposed trails are approximately 4 feet wide. The proposed trail system would create a connection from the Property, east to Harris Springs Road onto the Pacific Crest Trail, establishing a regional connection to Lake Morena County Park. A staging area is also proposed that would provide parking for vehicles and vehicles with horse trailers (Figure 9). This is a proposed trail system and full California Environmental Quality Act impact analysis and documentation will need to be performed.



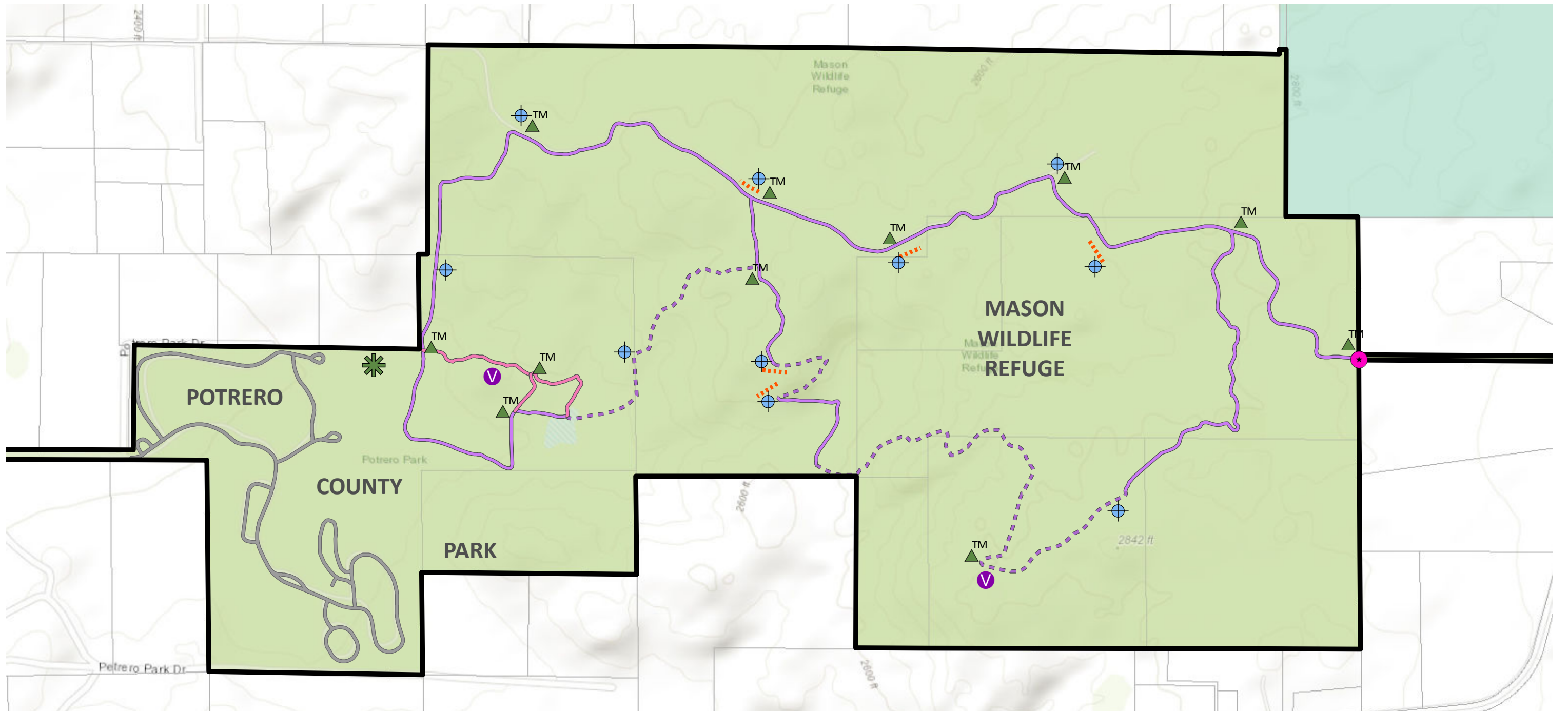
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SOURCE: Bing 2012

6680-10

Potrero Mason Property - Baseline Biodiversity Survey

**FIGURE 7**  
**Trails and Gates**



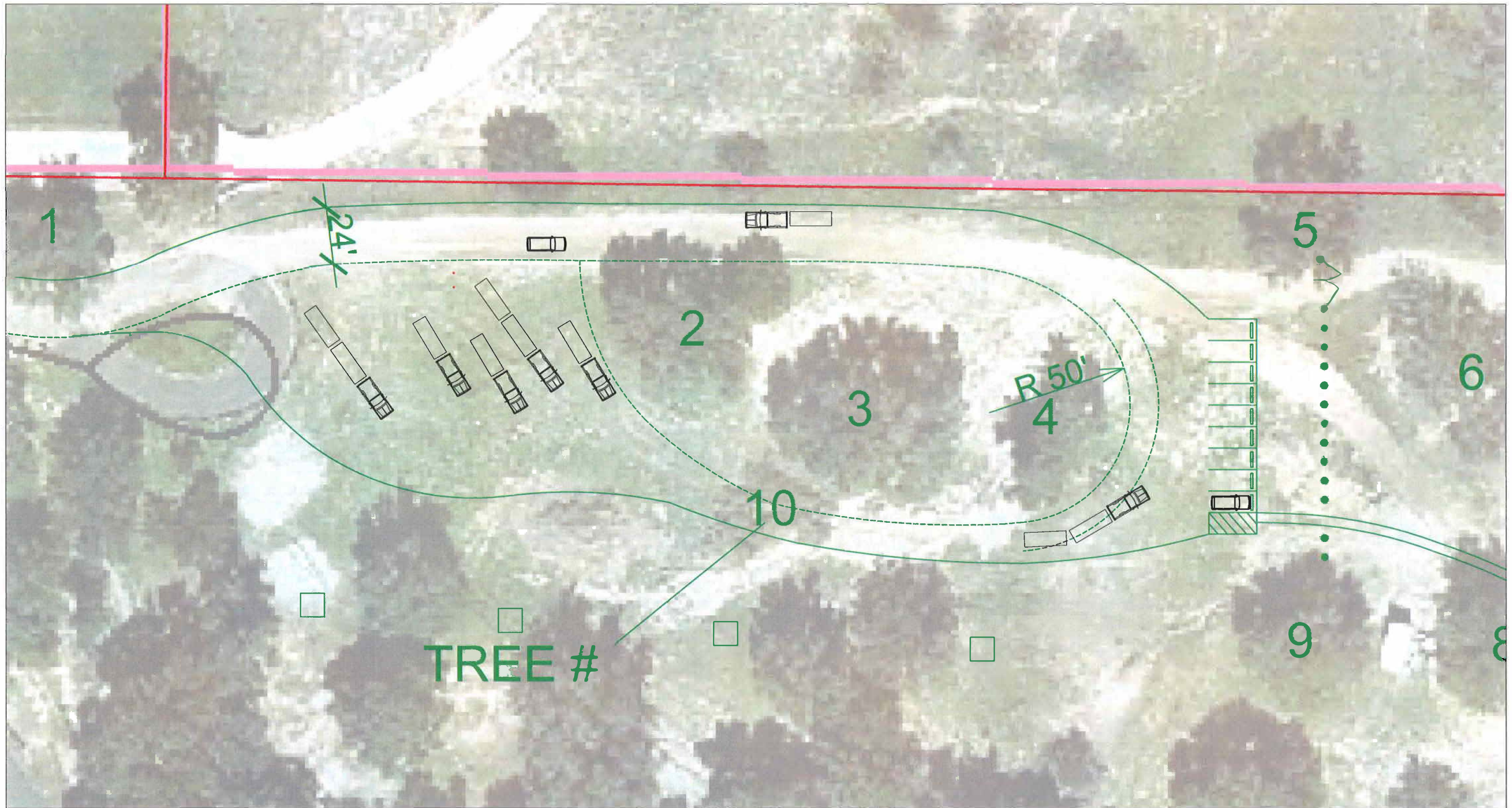
<ul style="list-style-type: none"> <li>★ Access Point (Trail Gate)</li> <li>Trail Closed Sign (Decommissioned Trails or Authorized Use Only)</li> <li>Ⓜ Vista Point</li> </ul>	<ul style="list-style-type: none"> <li>★ Parking/Equestrian Staging Area</li> <li>TM Trail Marker</li> <li>Temporary Fencing</li> </ul>	<b>Trail Network</b> <ul style="list-style-type: none"> <li>— Park Road</li> <li>— Hiking Trail (Pre-Existing)</li> <li>— Multi-use Trail (Pre-Existing)</li> <li>- - - Multi-use Trail (New Construction)</li> </ul>	<b>Ownership</b> <ul style="list-style-type: none"> <li>Potrero Mason Property (County of San Diego)</li> <li>Private Ownership</li> <li>Bureau of Land Management</li> </ul>
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Map data provided by Esri, HERE, DeLorme, Intermap, increment P Corp., CAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri (Singapore), Swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

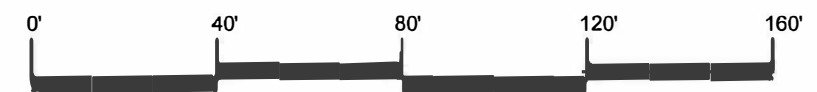
**Figure 8 - Proposed Trail System**



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**Figure 9**  
EQUESTRIAN STAGING AREA CONCEPT PLAN



SCALE: 1" = 40'-0"



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### **3.0 Biological Resources Description**

From spring through summer 2012 Dudek conducted baseline biological resources surveys of the Preserve. The results of these surveys can be found in the biological resources report entitled, *Baseline Biodiversity Survey Potrero Mason Property*, dated December 2012, and attached as Appendix B. The survey results were used in the preparation of this RMP.

The surveys documented 15 plant alliances, associations, or semi-natural stands and 358 species within the Preserve. The surveys detected 249 plant species, 36 invertebrate species, 7 herptiles (one amphibian and 6 reptiles), 38 bird species, and 28 mammal species (fourteen bats, ten small mammals, and three medium mammals). Twenty-two special-status wildlife species were detected during baseline surveys.

#### **3.1 Vegetation Communities/Habitat**

The Preserve consists of 15 plant alliances or associations (Table 2; Figure 10). These vegetation community types are described below and organized as they are in the classification key by functional group (e.g., riparian forest and woodlands, upland forests and woodlands, evergreen shrublands, drought-deciduous shrublands, and upland herbaceous vegetation). The Vegetation Classification Manual (VCM) for Western San Diego County does not include unvegetated habitat (e.g. disturbed land and urban/developed); therefore, unvegetated habitat is described using the Oberbauer-modified Holland classification system (Oberbauer et al. 2008, Holland 1986).

Until the VCM was finalized in 2011, MSCP preserve lands were generally mapped using the Holland classification system. To ensure consistency with previous mapping efforts, the Property map data layer was cross-walked to the Holland system pursuant to the VCM (AECOM et al. 2011; Table 2). The vegetation types found on the Property following the Holland classification system is shown in Table 3 and Figure 11.

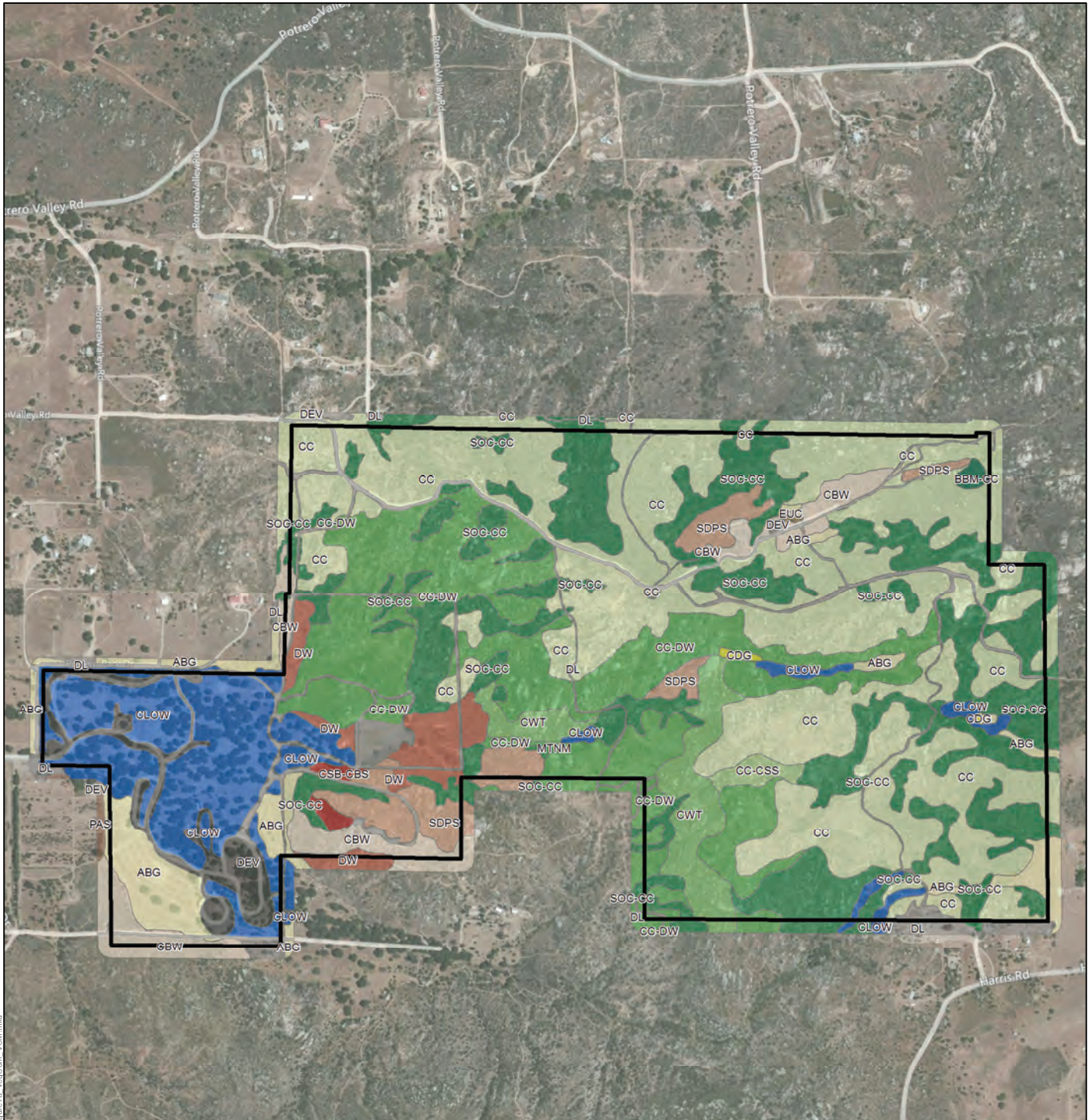
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**Table 2. Vegetation Communities/Land Cover Types within the Property - VCM**

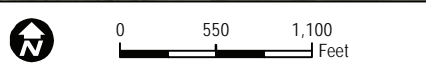
VCM Code	VCM Alliance/Association	VCM Common Name	Holland Code	Holland Classification	Acres on Site <sup>1</sup>
<b>Riparian Forests and Woodlands</b>					
3.6	<i>Quercus agrifolia</i> Alliance	Coast Live Oak Woodland Alliance	71160	Coast Live Oak Woodland	46.04
<i>Riparian Forests and Woodlands Total</i>					46.04
<b>Upland Forests and Woodlands</b>					
3.2	<i>Eucalyptus (globulus, camaldulensis)</i> Semi-Natural Stands	Eucalyptus Woodland Semi-Natural Stands	79100	Eucalyptus Woodland	0.17
<i>Upland Forests and Woodlands Total</i>					0.17
<b>Evergreen Shrublands</b>					
4.1	<i>Adenostoma fasciculatum</i> Alliance	Chamise Chaparral Alliance	37200	Chamise Chaparral	153.90
4.1.2	<i>Adenostoma fasciculatum</i> – ( <i>Eriogonum fasciculatum</i> <i>Artemisia californica</i> , <i>Salvia mellifera</i> ) Association	Chamise Chaparral–Coastal Sage Scrub Association	37G00	Coastal Sage–Chaparral Transition	2.40
4.1.5	<i>Adenostoma fasciculatum</i> – <i>Lotus scoparius</i> Association	Chamise Chaparral–Deerweed Association	37200	Chamise Chaparral	79.02
4.5.1	<i>Arctostaphylos glauca</i> – <i>Adenostoma fasciculatum</i> Association	Bigberry Manzanita–Chamise Chaparral Association	37130	Northern Mixed Chaparral	0.82
4.16.1	<i>Ceanothus leucodermis</i> Association	Chaparral Whitethorn Association	37120	Southern Mixed Chaparral	16.36
4.20.1	<i>Cercocarpus minutiflorus</i> Association	Mountain Mahogany Provisional Association	37120	Southern Mixed Chaparral	0.36
4.38	<i>Quercus berberidifolia</i> – <i>Adenostoma fasciculatum</i> Alliance	Scrub Oak Chaparral–Chamise Chaparral Alliance	37900	Scrub Oak Chaparral	94.30
<i>Evergreen Shrublands Total</i>					347.16

VCM Code	VCM Alliance/Association	VCM Common Name	Holland Code	Holland Classification	Acres on Site <sup>1</sup>
<b>Drought-Deciduous Shrublands</b>					
4.23.1	<i>Eriogonum fasciculatum</i> Association	California Buckwheat Association	32500	Diegan Coastal Sage Scrub	13.44
4.31	<i>Keckiella antirrhinoides</i> Alliance	Snapdragon Penstemon Scrub Alliance	37120	Southern Mixed Chaparral	15.52
4.32.1	<i>Lotus scoparius</i> Association	Deerweed Association	32000/37000	Coastal Scrub/Chaparral	9.65
4.7	<i>Artemisia californica</i> – <i>Eriogonum fasciculatum</i> Alliance	California Sagebrush–California Buckwheat Scrub Alliance	32500	Diegan Coastal Sage Scrub	1.70
<i>Drought-Deciduous Shrublands Total</i>					<b>40.31</b>
<b>Upland Herbaceous Vegetation</b>					
5.8	<i>Bromus (diandrus, hordaceus)</i> – <i>Brachypodium distachyon</i> Semi-Natural Stands	Annual Brome Grasslands Semi-Natural Stands	42200	Non-Native Grassland	15.84
5.22.1	<i>Muhlenbergia rigens</i> Association	California Deer Grass Association	42400	Foothill/Mountain Perennial Grassland	0.50
<i>Upland Herbaceous Vegetation Total</i>					<b>16.34</b>
<b>Unvegetated</b>					
N/A	N/A	N/A	11300	Disturbed Land	17.42
N/A	N/A	N/A	12000	Urban/Developed	12.62
<i>Unvegetated Total</i>					<b>30.04</b>
<b>Grand Total</b>					<b>480.06</b>

<sup>1</sup> Does not include 100-foot buffer acreage



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- |   |  |
|---|--|
| <p><b>Property Boundary</b></p> <p><b>Drought-Deciduous Shrublands</b></p> <ul style="list-style-type: none"> <li>4.23.1, CBW, California Buckwheat Association</li> <li>4.31, SDPS, Snapdragon Bush Penstemon Scrub Alliance</li> <li>4.32.1, DW, Deenweed Association</li> <li>4.7, CSB-CBS, California Sagebrush-California Buckwheat Scrub Alliance</li> </ul> <p><b>Evergreen Shrublands</b></p> <ul style="list-style-type: none"> <li>4.1, CC, Chamise Chaparral Alliance</li> <li>4.1.2, CC-CSS, Chamise Chaparral - Coastal Sage Scrub Association</li> <li>4.16.1, CWT, Chaparral White-thorn Association</li> <li>4.1.5, CC-DW, Chamise Chaparral - Deenweed Association</li> <li>4.20.1, MTNM, Mountain-mahogany Provisional Association</li> <li>4.38, SOG-CC, Scrub Oak - Chamise Chaparral Alliance</li> </ul> | <ul style="list-style-type: none"> <li>4.5.1, BBM-CC, Bigberry Manzanita - Chamise Chaparral Association</li> </ul> <p><b>Upland Herbaceous Vegetation</b></p> <ul style="list-style-type: none"> <li>5.8, ABG, Annual Brome Grasslands Semi-Natural Stands</li> <li>5.22.1, CDG, California Deer Grass Association</li> </ul> <p><b>Riparian Forests and Woodlands</b></p> <ul style="list-style-type: none"> <li>3.6, CLOW, Coast Live Oak Woodland Alliance</li> </ul> <p><b>Upland Forests and Woodlands</b></p> <ul style="list-style-type: none"> <li>3.2, EUC, Eucalyptus Woodland Semi-Natural Stands</li> </ul> <p><b>Unvegetated</b></p> <ul style="list-style-type: none"> <li>18310, PAS, Field/Pasture *</li> <li>11300, DL, Disturbed Lands</li> <li>12000, DEV Urban/Developed</li> </ul> |
|---|--|

\* Occurrence in buffer only



SOURCE: Bing 2012

## Vegetation Communities and Land Cover Types (VCM)

**FIGURE 10**

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Potrero Mason Property - Baseline Biodiversity Survey

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**Table 3 Vegetation Communities/Land Cover Types within the Property - Holland**

Vegetation Type	Acreage
Chamise Chaparral (37200)	232.92
Chaparral (37000)	3.06
Coastal Sage – Chaparral Transition (37G00)	2.40
Coast Live Oak Woodland (71160)	46.04
Coastal Scrub (32000)	6.59
Diegan Coastal Sage Scrub (32500)	15.14
Eucalyptus Woodland (79100)	0.17
Foothill/Mountain Perennial Grassland (42400)	0.50
Non-Native Grassland (42200)	15.84
Northern Mixed Chaparral (37130)	0.82
Scrub Oak Chaparral (37900)	94.30
Southern Mixed Chaparral (37120)	32.24
Urban/Developed (12000)	12.62
Disturbed Habitat (11300)	17.42
<b>Total</b>	<b>480.06</b>

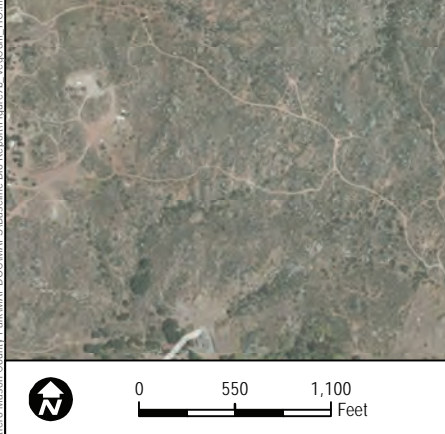
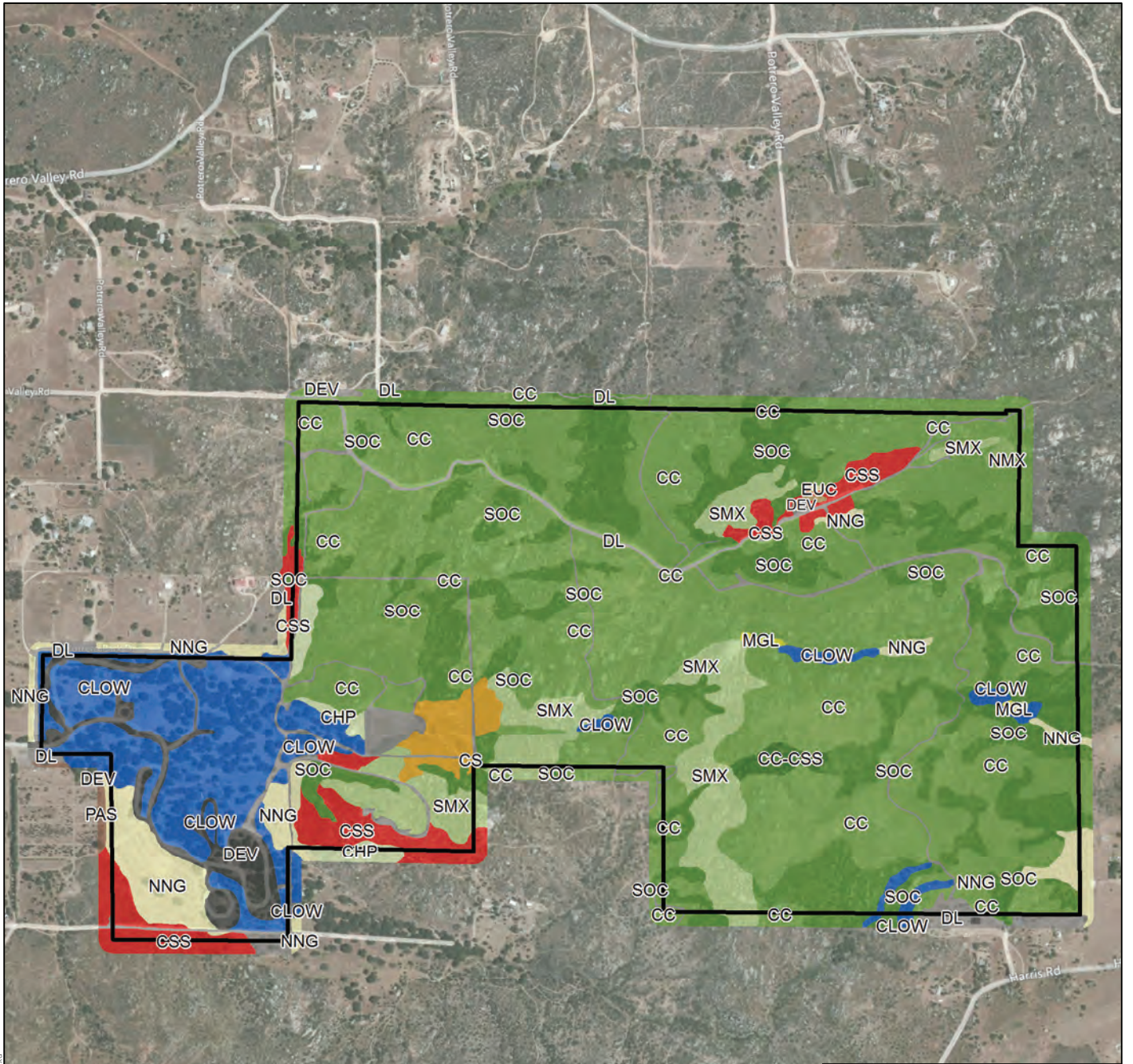
Coast Live Oak Woodland Alliance (3.6)

Coast live oak woodland is dominated by a single evergreen species: coast live oak (*Quercus agrifolia* var. *oxyadenia*). The canopy height reaches 10 to 25 meters (30 to 82 feet). The shrub layer is poorly developed, but may include toyon (*Heteromeles arbutifolia*), gooseberry (*Ribes* spp.), laurel sumac (*Malosma laurina*), or blue elderberry (*Sambucus nigra* ssp. *caerulea*) (AECOM et al. 2011). The herbaceous component is continuous, dominated by a variety of introduced species (AECOM et al. 2011).

There are 46.04 acres of coast live oak woodland mapped within the Property. This habitat community is mapped mainly throughout the southwestern portion of the Property, but also in four other smaller areas along drainages in the southeastern region.

Eucalyptus Woodland Semi-Natural Stands (3.2)

Although not recognized as a native plant community, Eucalyptus Woodland Semi-Natural Stands is a distinct “naturalized” vegetation type that is fairly widespread in Southern California and is considered a woodland habitat. It typically consists of monotypic stands of introduced Australian eucalyptus trees (*Eucalyptus* spp.) (AECOM et al. 2011). The understory is either depauperate or absent owing to shade and the possible allelopathic (toxic) properties of the eucalyptus leaf litter (AECOM et al. 2011). Although eucalyptus woodlands are of limited value to most native plants and animals, they frequently provide nesting and perching sites for several raptor species.



Vegetation Community	
[Black outline]	Property Boundary
[Orange]	32000, CS, Coastal Scrub
[Red]	32500, CSS, Diegan Coastal Sage Scrub
[Light Green]	37000, CHP, Chaparral
[Light Green]	37120, SMX, Southern Mixed Chaparral
[Light Green]	37130, NMX, Northern Mixed Chaparral
[Light Green]	37200, CC, Chamise Chaparral
[Light Green]	37900, SOC, Scrub Oak Chaparral
[Dark Green]	37G00, CC-CSS, Coastal Sage-Chaparral Transition
[Yellow]	42200, NNG, Non-Native Grassland
[Yellow]	42400, MGL, Foothill/Mountain Perennial Grassland
[Blue]	71160, CLOW, Coast Live Oak Woodland
[Brown]	79100, EUC, Eucalyptus Woodland
[Brown]	18310, PAS, Field/Pasture*
[Grey]	11300, DL, Disturbed Land
[Black]	12000, DEV, Urban/Developed

\* Occurrence in buffer only

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6680-10

SOURCE: Bing 2012

## Vegetation Communities and Land Cover Types (Holland)

**FIGURE 11**

Potrero Mason Property - Baseline Biodiversity Survey

Eucalyptus Woodland Semi-Natural Stands comprise 0.17 acres within the Property and is mapped in the northeastern portion of the Property.

#### Chamise Chaparral Alliance (4.1)

The chamise chaparral alliance is widespread throughout California and is dominated by chamise (*Adenostoma fasciculatum*) in the shrub canopy, along with other shrubs, such as manzanita (*Arctostaphylos* sp.), California yerba santa (*Eriodictyon californicum*), oaks (*Quercus* sp.), and sages (*Salvia* sp.) (AECOM et al. 2011). Other shrubs may occur as associates, co-dominants, or sub-dominants. Due to recent high intensity and frequent fires in San Diego County, much of this alliance is at risk of conversion to post-fire vegetation stands of laurel sumac or deerweed or to non-native grasslands (AECOM et al. 2011).

There are 153.9 acres of chamise chaparral alliance within the Property, and this alliance is the largest vegetation community found within the Property. This alliance is found primarily in the northern and eastern regions of the Property and is frequently surrounded by other associations within this alliance.

#### Chamise Chaparral–Coastal Sage Scrub Association (4.1.2)

The chamise chaparral–coastal sage scrub association is widespread throughout California and is dominated by chamise in the shrub canopy, along with other sclerophyllous, woody chaparral species and drought deciduous, malacophyllous sage scrub species (AECOM et al. 2011). Characteristic species include chamise, coastal sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (AECOM et al. 2011).

There are 2.4 acres of chamise chaparral–coastal sage scrub association within the southeastern area of the Property.

#### Chamise Chaparral–Deerweed Association (4.1.5)

The chamise chaparral–deerweed association is characterized by more open cover than other associations within this alliance and is composed of chamise and deerweed (*Acmispon glaber* ssp. *glaber*) (AECOM et al. 2011). It is a transitional association to other chaparral types that usually occurs due to fire or other disturbance. Other species found at low densities within this association include laurel sumac, California sagebrush, peak rush rose (*Helianthemum scoparium*), and caterpillar phacelia (*Phacelia cicutaria*) (AECOM et al. 2011).

The chamise chaparral–deerweed association is mapped as 79.02 acres within the Property, mostly in the west-central and central regions of the Property.

#### Bigberry Manzanita–Chamise Chaparral Association (4.5.1)

Bigberry manzanita–chamise chaparral association is comprised of a dense mix of shrubs, usually bigberry manzanita (*Arctostaphylos glauca*), scrub oak (*Quercus berberidifolia*), chamise, and ceanothus (*Ceanothus* sp.) (AECOM et al. 2011). In San Diego County, this community is found inland on dry, rocky, and steep slopes that are typically north facing (AECOM et al. 2011).

There is one polygon consisting of 0.82 acre of the bigberry manzanita–chamise chaparral association mapped in the northeastern corner of the Property.

#### California Sagebrush–California Buckwheat Scrub Alliance (4.7)

The California sagebrush–California buckwheat scrub alliance is characterized by codominance between California sagebrush and Eastern Mojave buckwheat (*Eriogonum fasciculatum*) in an open shrub canopy (AECOM et al. 2011). Other species commonly found are chamise, ceanothus, deerweed, and sages. There is an open herbaceous layer characterized by high species diversity. This association is frequently a transitional stage due to fire or other disturbance (AECOM et al. 2011).

California sagebrush–California buckwheat scrub alliance occurs on 1.7 acres within the southwestern region of the Property.

#### Chaparral Whitethorn Association (4.16.1)

Chaparral whitethorn (*Ceanothus leucodermis*) is fairly common on dry, rocky slopes within chaparral (AECOM et al. 2011). This association has a continuous to intermittent shrub canopy, and the herbaceous layer is sparse in mature stands. In this association, chaparral whitethorn comprises at least 30% of the relative cover in the shrub canopy (AECOM et al. 2011). Subdominant shrubs include chamise, oaks, ceanothus, sages, and laurel sumac (AECOM et al. 2011).

This association is mapped on 16.36 acres within the Property near the southern boundary.

#### Mountain-Mahogany Provisional Association (4.20.1)

Mountain-mahogany provisional association is typically a drought- and fire-adapted dense community of woody shrubs (AECOM et al. 2011). This association is dominated by smooth mountain-mahogany (*Cercocarpus minutiflorus*); subdominant species include chamise, mission manzanita (*Xylococcus bicolor*), ceanothus, scrub oak, laurel sumac, and black sage (AECOM et al. 2011).

The mountain-mahogany provisional association occurs on 0.36 acre within the south-central area of the Property.

#### California Buckwheat Scrub Association (4.23.1)

The California buckwheat scrub association is characterized by California buckwheat dominant in an open shrub canopy with California sagebrush, chamise, ceanothus, deerweed, and sages (AECOM et al. 2011). This association may be an early successional stage to a different shrub community, or it may persist as a stable association. Non-native grasses and forbs are commonly found in this association (AECOM et al. 2011).

California buckwheat scrub occurs on 13.44 acres within the Property. This association occurs in patches along the southwestern border and in the northeastern corner of the Property.

#### Snapdragon Penstemon Scrub Alliance (4.31)

Snapdragon penstemon (*Keckiella antirrhinoides*) is considered a drought tolerant, deciduous shrub typically found in association with chaparral or sagebrush scrub (AECOM et al. 2011). There are 15.52 acres of snapdragon penstemon scrub alliance within the Property concentrated in the northeast and southwest region.

#### Deerweed Association (4.32.1)

The deerweed association is dominated by deerweed, and subdominant shrubs include California buckwheat, California sagebrush, Mendocino bush mallow (*Malacothamnus fasciculatus*), chamise, and ceanothus (AECOM et al. 2011). This association frequently occurs in areas after fires (AECOM et al. 2011). A total of 9.65 acres of deerweed association is mapped within the southwestern portion of the Property.

#### Scrub Oak Chaparral-Chamise Chaparral Alliance (4.38)

Scrub oak chaparral–chamise chaparral alliance is described as a dense, evergreen chaparral dominated by both scrub oak and chamise that occurs at various elevations (AECOM et al. 2011). Associated species include glandular manzanita (*Arctostaphylos glandulosa*), ceanothus, and toyon (AECOM et al. 2011). Scrub oak chaparral–chamise chaparral alliance is mapped on 94.30 acres throughout the Property, particularly in the eastern half of the Property.

#### Annual Brome Grasslands Semi-Natural Stands (5.8)

Annual brome grasslands semi-natural stands is characterized by a dense to sparse cover of annual grasses, particularly bromes (e.g., *Bromus diandrus*, *B. hordaceus*, and *B. madritensis*), which are dominant or co-dominant in the herbaceous layer. There may be trees or shrubs present, although they are sparse (AECOM et al. 2011). This vegetation community frequently results from changes in natural ecosystem processes, which can be caused by maintenance (e.g., mowing, scraping, disking, spraying), grazing, repetitive fire, agriculture, or other mechanical

disruption that has altered soils and removed native seed sources from areas formerly supporting native vegetation (AECOM et al. 2011). Annual brome grasslands typically occur adjacent to roads or other developed areas where there has been some historic disturbance (AECOM et al. 2011). This habitat may support special-status plant and animal species and provide valuable foraging habitat for raptors.

There are 15.84 acres of annual brome grasslands in the southeastern and southwestern corners of the Property. Throughout the Property, annual brome grassland is composed of wild oat (*Avena* spp.), bromes, and mustard (*Brassica* spp.).

#### California Deer Grass Association (5.22.1)

California deer grass association is found in all major valleys in the Palomar, Cuyamaca, and Laguna Mountains. This grassland community, dominated by deergrass (*Muhlenbergia rigens*) is described as an isolated grassland within chaparral, pine, or oak woodland and is largely associated with meadows (AECOM et al. 2011). Typical species associated with this community type are purple needlegrass (*Stipa* [= *Nassella*] *pulchra*), beardless wildrye (*Elymus* [= *Leymus*] *triticooides*), meadow barley (*Hordeum brachyantherum*), bentgrass (*Agrostis* sp.), Kentucky bluegrass (*Poa pratensis*), meadow thistle (*Cirsium scariosum* var. *congdonii* [= *tioganum*]), hairy brackenfern (*Pteridium aquilinum*) and Rocky Mountain iris (*Iris missouriensis*) (AECOM et al. 2011).

The California deer grass association community makes up 0.50 acre of the Property in the eastern central region of the Property and is surrounded by chaparral and coast live oak woodland.

#### Disturbed Land (Holland 11300)

Disturbed land is not described by the VCM, but is described by Oberbauer et al. (2008). Disturbed land refers to areas that are not developed, but lack native vegetation, and are generally the result of severe or repeated mechanical perturbation. Oberbauer et al. (2008) provides the following examples of disturbed land: areas that have been graded, repeatedly cleared for fuel management purposes, and/or experienced repeated use that prevents natural revegetation, such as dirt parking lots and well-established trails, recently graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, and old home sites. Vegetation, if present, is almost exclusively composed of non-native plant species, such as ornamentals or ruderal exotic forbs, such as thistles (*Centaurea* spp., *Carduus* spp., *Cynara* spp., *Sonchus* spp., *Salsola tragus*), horehound (*Marrubium vulgare*), London rocket (*Sisymbrium irio*), wild radish (*Raphanus raphanistrum*), hottentot fig (*Carpobrotus edulis*), chrysanthemum (*Chrysanthemum* spp.), and sweet fennel (*Foeniculum vulgare*). Although some grass species may be present in disturbed land, most annual grass species are more typical of non-native

grassland and do not dominate vegetative cover in disturbed land (Oberbauer et al. 2008).

There are 17.42 acres of disturbed land within the Property. Dirt trails and roads are mapped as disturbed land within the Property; most roads are concentrated within the southwestern and northeastern regions of the Property.

### Urban/Developed (Holland 12000)

Land designated as urban/developed is not addressed by the VCM; this description follows Oberbauer et al. (2008). Developed land is generally subject to significant human disturbance associated with development. This land cover type occupies 12.62 acres of the Property. The developed land is composed of paved roads and parking lots associated with the campground located in the southwestern corner of the Property. Two historic houses within the Property are also mapped as developed.

## **3.2 Plant Species**

### **3.2.1 *Plant Species Present***

A total of 249 plant species were documented within the Property during the 2012 baseline surveys. Appendix B provides a complete list of all plant species observed during the surveys.

### **3.2.2 *Rare, Threatened, or Endangered Plant Species Present***

The following section discusses special-status plant species observed within the Property. A special-status plant species is one listed by federal or state agencies as threatened or endangered; considered to be of special status by one or more special interest groups, such as the California Native Plant Society (e.g., California Rare Plant Rank [CRPR] List 1, 2, 3, and 4 Plant Species) or is included on the County's Sensitive Plant list (A, B, C, or D Listed Plants).

Special-status plant species observed within the Property (Figure 12) consist of Engelmann oak (*Quercus engelmannii*), Pride-of-California (*Lathyrus splendens*), rush-like bristleweed (*Xanthisma junceum*), sticky geraea (*Geraea viscida*), and Tecate tarplant (*Deinandra floribunda*).

#### Engelmann Oak (*Quercus engelmannii*)

##### *CRPR 4.2, County List D*

Engelmann oak is a perennial deciduous tree typically found in oak woodlands or southern mixed chaparral vegetation communities in areas of elevation from 50 to 1,300 meters (164 to 4,265 feet) (CNPS 2012, Reiser 1994). Large Engelmann oaks occur as

trees generally in open savannah grasslands; in the foothills, this oak will occur as a shrub within chaparral habitats (Reiser 1994).

Reiser (1994) states that Engelmann oaks in Southern California are relatively abundant and stable, although successful reproduction is compromised by cattle overgrazing and herbivory by small mammals or deer. Additionally, this species requires specific weather conditions for seedling establishment. Hybridization with other species of scrub oak (e.g., *Quercus dumosa*) is common.

Engelmann oak is mapped in the southwestern region of the Property, just north of the coast live oak woodland. A total of 11 individuals were mapped.

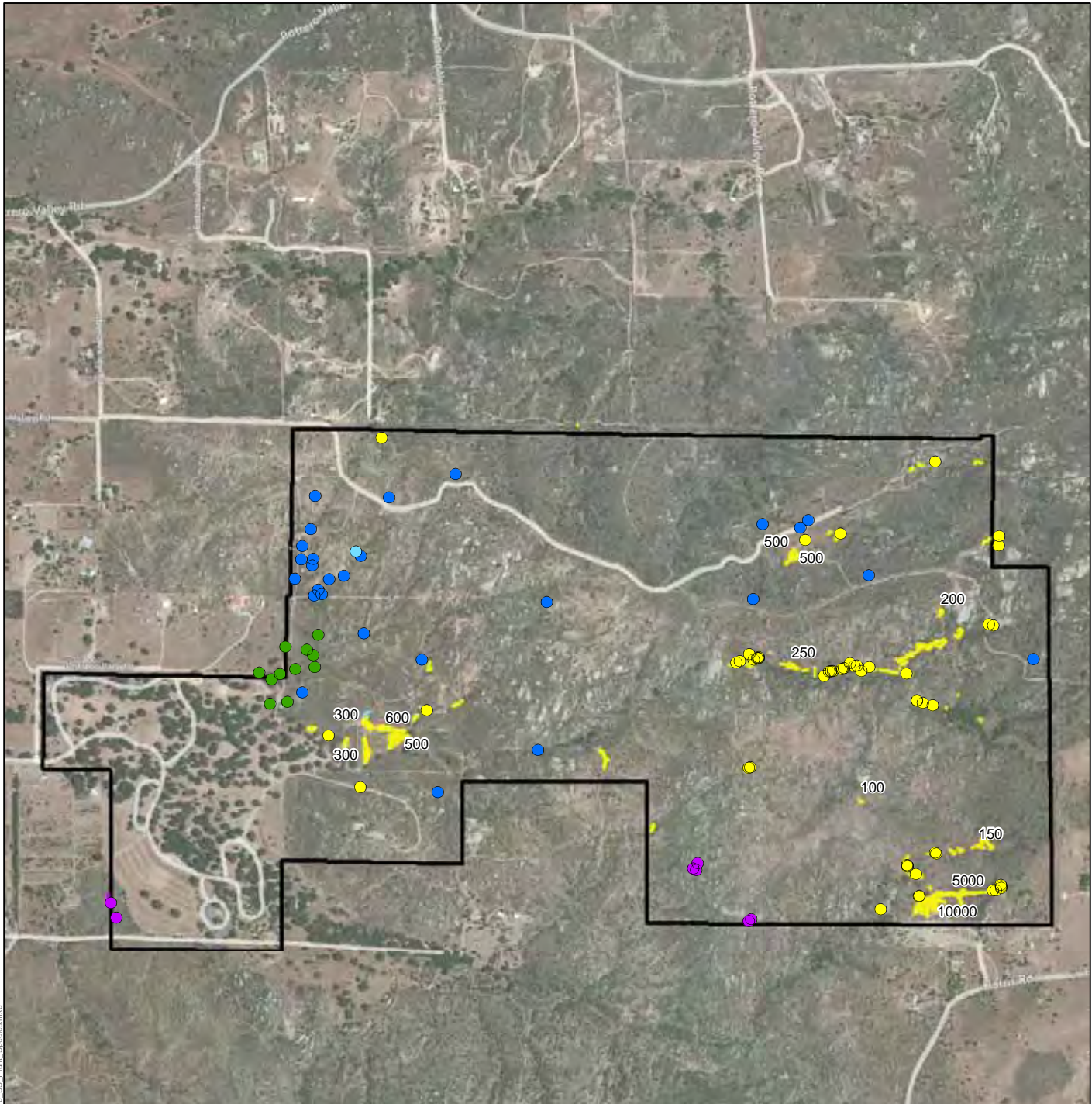
#### Pride-of-California (*Lathyrus splendens*)

##### *CRPR 4.3, County List D*

Pride-of-California is a perennial herb in the Fabaceae family that is found in San Diego and Baja California, Mexico (CNPS 2012). This species blooms from March to June, and occurs at elevations from 200 to 1,525 meters (656 to 5,000 feet) AMSL (CNPS 2012). It is found in xeric chaparral habitats and typically grows tendrils for support on chamise or black sage. Low growing vegetation with a moderately open canopy typifies the characteristics of chaparral habitats where pride-of-California occurs.

This species occurs generally in Southern San Diego County, and previous records are from Dulzura, McCain Valley, Campo, Barrett Junciton, Jacumba, Boulevard, and Potrero (Reiser 1994). This species is stable within its distribution, although Reiser (1994) notes that residential development may be a potential threat.

Within the Property, pride-of-California is mapped in scattered locales in chamise chaparral and scrub oak–chamise chaparral habitats, scattered throughout the northern region of the Property. A total of 45 individuals are present.



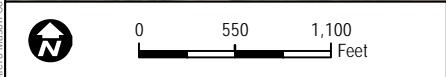
**Property Boundary**

**California Species of Special Concern Locations (# = population count)**

- Sticky Geræa
- Tecate tarplant
- Pride-of-California
- Engelmann Oak
- Rush-like Bristleweed

**California Species of Special Concern Area (# = population count)**

- Tecate tarplant
- Sticky Geræa
- Rush-like Bristleweed



SOURCE: Bing 2012

6680-10

Potrero Mason Property - Baseline Biodiversity Survey

**FIGURE 12**  
**Special-Status Plant Species**

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Rush-Like Bristleweed (*Xanthisma junceum*)

*CRPR 4.3, County List D*

Rush-like bristleweed is a perennial herb typically located in xeric chaparral or coastal scrub habitats in areas of elevation from 240 to 1,000 meters (790 to 3,280 feet) AMSL (CNPS 2012). It typically grows in exposed areas with a rocky substrate and that generally lack an herbivorous understory (Reiser 1994). Rush-like bristleweed is an inconspicuous subshrub that does not grow at high density in locales where it is known to occur. This species is native to San Diego County and Baja California (CNPS 2012).

Urbanization and habitat loss is threatening this species, especially as rural development expands in the foothill areas of San Diego County (Reiser 1994). Because rush-like bristleweed is an inconspicuous species, it is likely that undiscovered populations are located throughout its range and possibly even within the Property.

Within the Property, 55 individuals of this species are mapped within the southeastern region.

Sticky Geraea (*Geraea viscida*)

*CRPR 2.3, County List B*

Sticky geraea is a perennial herb in the Asteraceae family found at elevations from 450 to 1,700 meters (1,477 to 5,577 feet) AMSL (CNPS 2012). This species is found in high desert chaparral openings, especially in chamise chaparral and sandy xeric areas (Reiser 1994). Sticky geraea may require infrequent fires to induce seed germination (Reiser 1994).

Sticky geraea is known to appear from Smuggler's Cave east of Jacumba, Potrero, Campo, Dubber, Boulevard, and into the Sierra Juarez Mountains in Baja California (Reiser 1994). It is endemic to the San Diego and Imperial Counties, and Baja California (CNPS 2012). This species is presumed stable in its range in San Diego County, although development in rural areas may compromise the viability of this species.

A total of 33 individuals were found in the northwestern area of the Property.

Tecate Tarplant (*Deinandra floribunda*)

*CRPR 1B.2, County List A*

Tecate tarplant is an annual herb in the Asteraceae family found in San Diego County and Baja California, at elevations from 70 to 1,220 meters (230 to 4,000 feet) AMSL (CNPS 2012, Reiser 1994). This species is typically found in sandy washes in

the high desert and in areas where there is little vegetation cover and competition with other species (Reiser 1994). It grows on floodplains with sandy alluvium or gravelly loam soils (Reiser 1994).

This species is considered stable in San Diego County, and principal threats cited by Reiser (1994) include cattle grazing and degradation of habitat by cattle herds.

Approximately 22,335 individuals were mapped in the eastern region of the Property.

### **3.2.3 Rare, Threatened, or Endangered Plant Species not Observed but with High Potential to Occur**

Additional information on the species listed below can be found in the Baseline Biodiversity Survey (Appendix B).

#### Dunn's Mariposa Lily (*Calochortus dunnii*)

*CRPR 1B.2, County List A*

Dunn's mariposa lily is a bulbiferous herb in the Liliaceae family (CNPS 2012). This species is found in rocky openings in chaparral or grassland habitats (Reiser 1994) and typically on gabbroic or metavolcanic soils (CNPS 2012). It blooms from April to June and is found at elevations from 185 to 1,830 meters (607 to 6,000 feet) AMSL (CNPS 2012).

Dunn's mariposa lily has been recorded in the vicinity of the Property, including Descanso, and the Cuyamaca and Jamul Mountains (Reiser 1994). There is suitable chaparral habitat within the Property for this species to occur.

#### Laguna Mountains Jewel-flower (*Streptanthus bernardinus*)

*CRPR 4.3, County List D*

Laguna Mountains jewel-flower is a perennial herb in the Brassicaceae family that occurs at elevations from 670 to 2,500 meters (2,198 to 8,202 feet) AMSL (CNPS 2012). This species is found in chaparral or lower montane coniferous forest habitats and is frequently found in mesic areas (CNPS 2012, Reiser 1994). Laguna Mountains jewel-flower often appears on stony loam soils, and adjacent to conifers.

This species has a limited distribution. In San Diego County, it is known to grow near Cuyamaca Peak, North Peak, Middle Peak, and the Little and Big Laguna Lakes in the Laguna Mountains (Reiser 1994). Additional records for this species list it in the Riverside and San Bernardino Counties (Reiser 1994). This species of jewelflower is stable within its range but occurs in low numbers. Drought may also be impacting this species, since it requires more mesic conditions and greater rainfall than has occurred in recent years (Reiser 1994).

Laguna Mountains jewel-flower has potential to occur within the Property. There are suitable stony loam soils and chaparral habitat on site.

### 3.2.4 Non-native and/or Invasive Plant Species

A total of 47 non-native plant species were identified in the Preserve, 14 of those species were identified as target species in need of treatment and one of those species was ranked as high priority for removal. Table 4 lists the 14 target non-native invasive species that were mapped within the Preserve, along with their associated Cal-IPC Inventory Ranking and removal priority. Target non-native invasive species were selected based on their invasive potential, prevalence throughout the Property, and ability for management. These target non-native invasive plant species locations are shown on Figure 13. The species tamarisk, listed as high priority for removal is discussed below. The species listed as moderate and low priority for removal are discussed in the Vegetation Management Plan for Potrero/Mason Property (Dudek 2012).

**Table 4. Target Non-native Invasive Plant Species**

Common Name	Scientific Name	Cal-IPC Rating <sup>1</sup>	Removal Priority
Saltcedar	<i>Tamarix ramosissima</i>	High	High
Italian plumeless thistle	<i>Carduus pycnocephalus ssp. pycnocephalus</i>	Moderate	Moderate
Maltese star-thistle	<i>Centaurea melitensis</i>	Moderate	Moderate
Bull thistle	<i>Cirsium vulgare</i>	Moderate	Moderate
Gum tree	<i>Eucalyptus globulus; E. camaldulensis</i>	Limited	Moderate
Redstem stork's bill	<i>Erodium cicutarium</i>	Moderate	Low
Shortpod mustard	<i>Hirschfeldia incana</i>	Moderate	Low
London rocket	<i>Sisymbrium irio</i>	Moderate	Low
Smooth cat's ear	<i>Hypochaeris glabra</i>	Limited	Low
Horehound	<i>Marrubium vulgare</i>	Limited	Low
Olive	<i>Olea europaea</i>	Limited	Low
Curly dock	<i>Rumex crispus</i>	Limited	Low
Peruvian peppertree	<i>Schinus molle</i>	Limited	Low
Brazilian peppertree	<i>Schinus terebinthifolius</i>	Limited	Low

<sup>1</sup> **Source:** Cal-IPC California Invasive Plant Inventory Database, updated June 2012. Overall rating listed for southwest region, factoring impact, invasiveness, distribution, and documentation level.

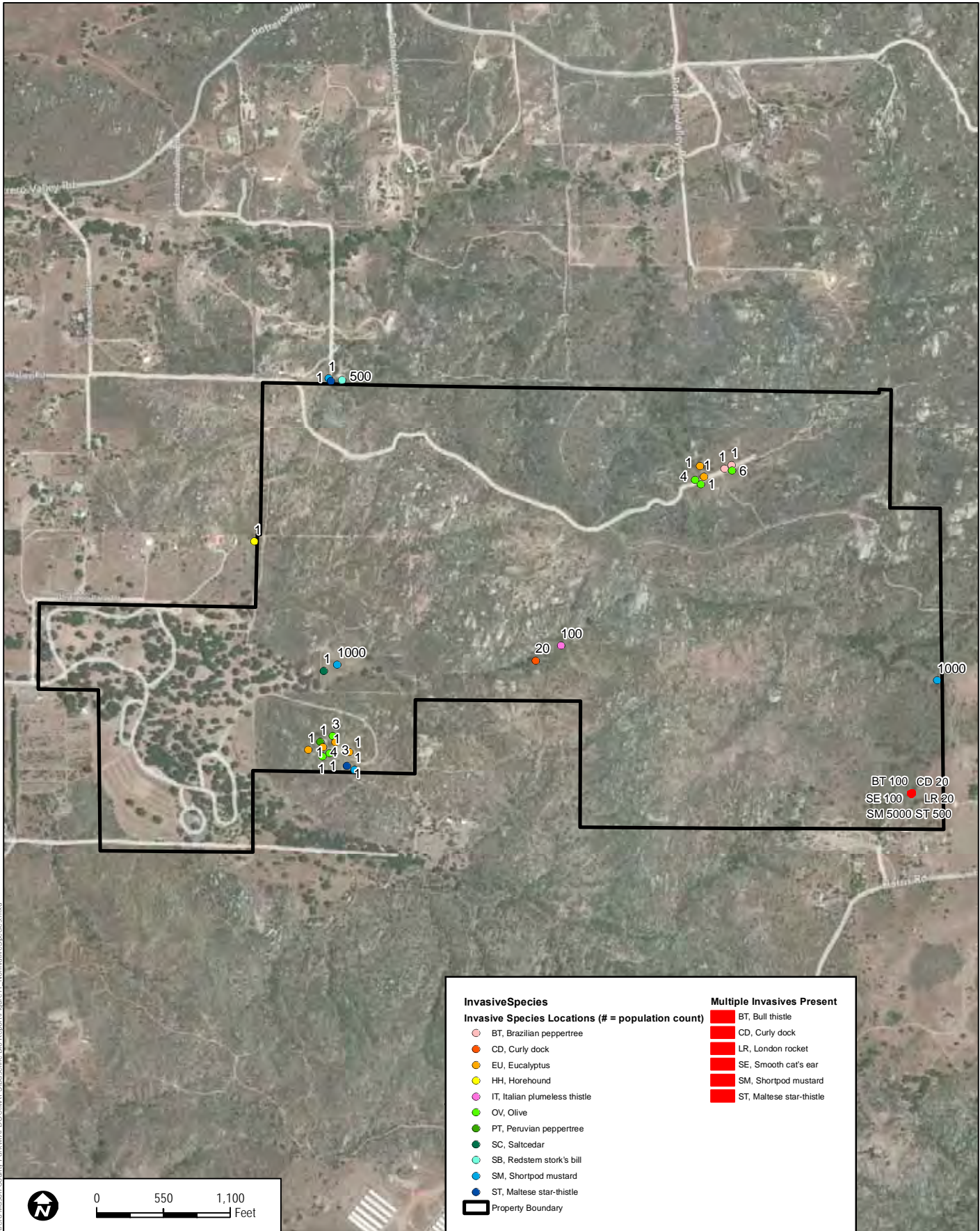
Inventory Categories

**High:** Species have severe ecological impacts, are conducive to moderate to high rates of dispersal/establishment, and most are widely spread.

**Moderate:** Species have substantial and apparent, but generally not severe, ecological impacts; are conducive to moderate to high rates of dispersal, though establishment is generally dependent on ecological disturbance; and distribution may range from limited to widespread.

**Limited:** Species are invasive, but their ecological impacts are minor on a statewide level, or there was not enough information to justify a higher score; have low to moderate rates of invasiveness; and are generally limited but may be locally persistent and problematic.

**None:** Species has not been listed by Cal-IPC.



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**DUDEK**

6680-10

SOURCE: Bing 2012

Potrero Mason Property - Baseline Biodiversity Survey

**FIGURE 13**  
**Invasive Non-native Plant Species Locations**

## Saltcedar

Saltcedar is a shrub or tree typically found along waterways, drainages, and riparian areas (Cal-IPC 2012). It is commonly associated with dramatic changes in geomorphology, groundwater availability, soil chemistry, fire frequency, plant community composition, and native wildlife diversity (Cal-IPC 2012). Saltcedar presents the greatest risk of reducing habitat quality within riparian areas and vegetated ephemeral drainages, which are limited in presence within the Property. The Cal-IPC inventory categorizes saltcedar as having an overall rating of High. One individual of this species was observed in the southwestern portion of the Property on the edge of a small reservoir.

### **3.3 Wildlife Species**

#### **3.3.1 *Wildlife Species Present***

A total of 109 wildlife species were observed or detected within the Property during the 2012 baseline inventory surveys, including 1 amphibian, 6 reptiles, 36 birds, 27 mammals, and 36 invertebrates. A total of 22 special-status species were observed or detected. Appendix B provides a complete list of all wildlife species observed during the surveys.

#### Invertebrates

A complete list of invertebrate species identified on the Preserve below the level of family is included in the faunal list of the Baseline Biodiversity Survey Report (Appendix B). No special-status butterfly species or other invertebrate species were detected during the 2012 surveys and no special-status invertebrate species have high potential to occur at the Preserve.

#### *Butterflies*

Ten butterfly species were observed during the survey conducted on the Property, including Behr's metalmark (*Apodemia mormo virgulti*), perplexing hairstreak (*Callophrys perplexa*), California dogface (*Colias eurydice*), funereal duskywing (*Erynnis funeralis*), southern blue (*Glaucopsyche lygdamus australis*), swallowtail (*Papilio* sp.), white (*Pieris* sp.), cabbage white (*Pieris rapae*), blue (*Plebejus* sp.), and acmon blue (*Plebejus acmon*).

No Quino checkerspot or Hermes copper butterflies were observed in the Property. The host plant for Quino checkerspot, exserted Indian paintbrush (*Castilleja exserta*), was observed. The other larval host plant, dot-seed plantain (*Plantago erecta*), was not observed within the Property.

During vegetation mapping, it was determined that the Property supports suitable habitat for Hermes copper butterfly. The two host plants for the butterfly, spiny

redberry (*Rhamnus crocea*) and California buckwheat (*Eriogonum fasciculatum*), were identified in the Property. Spiny redberry is a larval host plant, and adults nectar almost exclusively on California buckwheat. Both species were scattered throughout the Property within the chamise chaparral alliance. Suitable habitat for Hermes copper includes a matrix of spiny redberry and California buckwheat that are concentrated within 10 feet of each other (County of San Diego 2010). The habitat structure within the Property does not include the necessary clusters of spiny redberry and buckwheat that typify Hermes copper habitat.

No Hermes copper butterflies were observed during the general butterfly survey, which occurred outside of this species' flight period (mid-May through early July) (County of San Diego 2010). However, biologists performing other surveys during the flight period for Hermes copper made records of butterfly species observed, but there were no observations of Hermes copper. There is moderate potential for this species to occur within the Property, because there are suitable habitat and host plants present, although not in the density needed.

### Amphibians

One amphibian species was observed incidentally during biological surveys within the Property. The western toad (*Anaxyrus boreas*) was observed along dirt roads within the oak woodland near the camping area of the Property. No focused amphibian surveys were conducted.

### Reptiles

Six reptile species were observed in the Property during herpetological and coverboard surveys and incidental sightings. Five species were observed during herpetological arrays: common side-blotched lizard (*Uta stansburiana*), coastal western whiptail (*Aspidoscelis tigris stejnegeri*), western fence lizard (*Sceloporus occidentalis*), glossy snake (*Arizona elegans*), and California striped racer (*Coluber lateralis*). Western fence lizard was the only species observed during coverboard surveys. Coast horned lizard (*Phrynosoma blainvillii* ssp. *coronatum*) was observed incidentally at multiple locations within the Property during other biological surveys. Coast horned lizard is a California Species of Special Concern (CSC). Coastal western whiptail is a County Group 2 species. Side-blotched lizard was the most common reptile species observed.

### Birds

Thirty-six bird species were observed in the Property during avian point count surveys, and two additional species were observed during other biological surveys. A total of 38 species were recorded (Appendix B). The most common species observed in terms of numbers of individuals recorded were spotted towhee (*Pipilo maculatus*), common raven (*Corvus corax*), California quail (*Callipepla californica*), and western scrub-jay (*Aphelocoma californica*). The following birds were observed during the nocturnal surveys: California quail, California thrasher (*Toxostoma redivivum*), spotted towhee,

western scrub jay, barn owl (*Tyto alba*), common poorwill (*Phalaenoptilus nuttallii*), and lesser nighthawk (*Chordeiles acutipennis*).

Eight special-status bird species were observed within the Property: Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), white-tailed kite (*Elanus leucurus*), loggerhead shrike (*Lanius ludovicianus*), turkey vulture (*Cathartes aura*), red-shouldered hawk (*Buteo lineatus*), prairie falcon (*Falco mexicanus*), western bluebird (*Sialia mexicana*), and barn owl. Rufous-crowned sparrow, western bluebird, white-tailed kite, turkey vulture, barn owl, and red-shouldered hawk were observed during avian point count surveys. Prairie falcon and loggerhead shrike were recorded as incidental observations during biological surveys.

During August surveys, a roost of approximately 15 to 20 white-tailed kites was recorded in the Property. It is presumed that most of these individuals were utilizing the Property on their migratory route southward. No nests were observed within the Property, although juveniles and/or nesting behaviors were exhibited by many species.

Avian diversity did not vary greatly among survey point locations, with approximately 20 avian species observed at each survey point over the course of the three surveys. Survey point BC-P-3 in the northwest corner of the Preserve had the greatest species diversity. Survey point BC-P-4 in the Park had the greatest abundance, with a total of 83 individuals observed over the course of the three surveys.

### Mammals

A complete list of mammal species observed within the Property during the 2012 surveys is included in the faunal list of the Biological Diversity Baseline Report (Appendix B).

#### *Small Mammals*

Ten small mammals, all rodents, were trapped on the Property during the small mammal surveys, including the special-status species northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), Dulzura pocket mouse (*Chaetodipus californicus femoralis*), and San Diego desert woodrat (*Neotoma lepida intermedia*). These three species are California Species of Concern. The most common species trapped was the Dulzura kangaroo rat.

#### *Medium and Large Mammals*

Two large mammal species were detected by the camera stations located on the Property, coyote (*Canis latrans*) and bobcat (*Lynx rufus*). One avian species, American crow (*Corvus brachyrhynchos*), was recorded at a camera station.

Domestic dog (*Canis lupus familiaris*) was also recorded. Brush rabbit (*Sylvilagus bachmani*) was observed while driving and hiking throughout the Property.

### *Bats*

Fourteen bat species were identified within the Property using the Anabat survey system, including pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), big brown bat (*Eptesicus fuscus*), western mastiff bat (*Eumops perotis californicus*), western red bat (*Lasiurus blossevillei*), hoary bat (*Lasiurus cinereus*), western yellow bat (*Lasiurus xanthinus*), California myotis (*Myotis californicus*), western small-footed myotis (*Myotis ciliolabrum*), long-legged myotis (*Myotis volans*), Yuma myotis (*Myotis yumanensis*), pocketed free-tailed bat (*Nyctinomops femorosaccus*), canyon bat (*Parastrellus hesperus*), and Brazilian free-tailed bat (*Tadarida basiliensis*). The following bat species are considered special-status species: pallid bat, Townsend's big-eared bat, western mastiff bat, western yellow bat, western red bat, western small-footed myotis, long-legged myotis, Yuma myotis, and pocketed free-tailed bat.

Western small-footed myotis was the most common species recorded. Other relatively common species were canyon bat, big brown bat, and Yuma myotis. Surveys during the month of August were characterized by increased minutes of detection when compared with detection minutes during September surveys, although species diversity was equal across survey periods. There were more minutes of detection recorded at the East survey location, when compared with the West survey location.

### **3.3.2 Rare, Threatened, or Endangered Wildlife Species Present**

This section discusses special-status wildlife species observed at the Property (Figure 14). A special-status wildlife species is one listed by federal or state agencies as threatened or endangered or is included on the County's Sensitive Animal List (Group 1 or 2 Species). Twenty-two special-status wildlife species were detected at the Property. Information on each of these species is provided below.

#### **3.3.2.1 Herpetofauna**

##### Coast Horned Lizard (*Phrynosoma blainvillii* ssp. *coronatum*)

##### *California Species of Special Concern, County Group 2*

The coast horned lizard occurs throughout most of California in locations west of the deserts and Cascade-Sierran highlands in elevations from sea level to around 2,438 meters (8,000 feet) AMSL (Stebbins 2003). Despite a wide-ranging distribution, the coast horned lizard seems to be restricted to localized populations because of its association with loose soils that have a high sand content (Jennings and Hayes 1994). The species is found in a wide variety of vegetation types with the requisite

loose sandy soils, including California sagebrush scrub, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest (Klauber 1939; Stebbins 1954). Up to 90% of the diet of the coast horned lizard consists of native harvester ants (Pianka and Parker 1975), and coast horned lizards do not appear to eat non-native Argentine ants (*Linepithema humile*) (Jennings and Hayes 1994).

Two coast horned lizards were recorded within the Property, one near the southern herpetological array and one on a road in the northeastern region of the Property. There is suitable chaparral habitat within the Property for this species.

#### Coastal Western Whiptail (*Aspidoscelis tigris stejnegeri*)

##### *County Group 2*

Coastal western whiptail occurs primarily in hot, dry, open areas with little vegetation, including chaparral, woodland, and riparian habitats (CaliforniaHerps 2012). The coastal western whiptail occurs in Coastal Southern California, ranging north into Ventura County and south into Baja California. Coastal western whiptails forage on small lizards and invertebrates, especially spiders, scorpions, centipedes, and termites and lay eggs from April to August (CaliforniaHerps 2012).

Coastal western whiptails were observed at both locations of the herpetological arrays and in the southwest and northeastern regions of the Property during all three survey periods.

### **3.3.2.2 Birds**

#### Barn Owl (*Tyto alba*)

##### *County Group 2*

The barn owl is common in open habitats, including grassland, chaparral, and riparian. The barn owl hunts from a perched position or on the wing for small mammals, such as mice, voles, gophers, and squirrels, as well as other small birds. Barn owls can occur throughout the state from sea level to 1,680 meters (5,500 feet) AMSL (Zeiner et al. 1990a).

Barn owls were recorded during all three passes of the avian bird count surveys. Most observations were during nighttime surveys and were located within the oak woodland habitat on-site.



Loggerhead Shrike (*Lanius ludovicianus*)

*California Species of Special Concern, County Group 1*

The loggerhead shrike is widespread throughout the United States, Mexico, and portions of Canada (Humple 2008). While shrikes are widespread at the lower elevations in California, the largest breeding populations are located in portions of the Central Valley, the Coast Ranges, and the southeastern deserts (Humple 2008).

Preferred habitats for the loggerhead shrike include open areas with scattered shrubs, trees, posts, fences, utility lines, or other structures that provide hunting perches with views of open ground, as well as nearby spiny vegetation or man-made structures (such as the top of chain-link fences or barbed wire) that provide a location to impale prey items for storage or manipulation (Humple 2008). Loggerhead shrikes prey mainly on arthropods (primarily grasshoppers, crickets, beetles, and caterpillars), but also take reptiles, amphibians, fish, small birds, and rodents (Humple 2008).

One loggerhead shrike was recorded within the northwestern region of the Property.

Prairie Falcon (*Falco mexicanus*)

*California Watch List, County Group 1*

Prairie falcons are found in grasslands, savannas, rangelands, agriculture, desert scrub, and alpine meadows throughout the southeastern deserts, through the Central Valley, and along inner Coast Ranges and Sierra Nevada (Zeiner et al. 1990a). Prairie falcons hunt small mammals and birds over open terrain by diving from perch or flight. Usually the species will nest in canyons, cliffs, or rocky outcrops (Zeiner et al. 1990a).

One prairie falcon was observed shortly before the commencement of the evening avian bird count survey in the eastern portion of the Property. The individual flew overhead around dusk.

Red-Shouldered Hawk (*Buteo lineatus*)

*County Group 1*

Red-shouldered hawk inhabits low-elevation (below 1,524 meters or 5,000 feet AMSL) riparian woodlands, particularly in areas with interspersed swamps and emergent wetlands. This species is a permanent resident of much of the United States east of the Mississippi and inhabits coastal areas of the West Coast (Dykstra et al. 2008). Red-shouldered hawks forage primarily along wet meadow, swamp, and emergent wetland edges for a variety of prey, including mammals, snakes, lizards, amphibians, small or young birds, and large insects. They nest in dense riparian habitats near permanent water (Zeiner et al. 1990a). Red-shouldered hawks

are diurnally active and yearlong residents. Breeding occurs from February through July (Zeiner et al. 1990a).

Populations of red-shouldered hawks have declined in the last two centuries, mostly due to the loss of mature, dense woodlands that are the preferred habitats of this species (Dykstra et al. 2008). However, populations in the west are also known to occupy suburban areas, particularly if there are suitable woodlands located nearby.

Red-shouldered hawks were recorded during all three survey passes of the avian bird count surveys. One individual was observed flying overhead and was observed to be utilizing the Property. Hawks were frequently observed near the coast live oak woodland habitat in the southwestern region of the Property.

Southern California Rufous-Crowned Sparrow (*Aimophila ruficeps canescens*)

*California Watch List, County Group 1*

Southern California rufous-crowned sparrows are found primarily in coastal sage scrub habitats in Southern California, although this species will also occupy sparse mixed chaparral or other coastal scrub habitats (Zeiner et al. 1990a). Steep and often rocky hillsides are preferred. Rufous-crowned sparrows forage on the ground for insects, spiders, seeds, and other vegetation. This species does very little migrating, although it may occasionally migrate upslope in other areas of its range. This species is threatened primarily by habitat loss and fragmentation. Brown-headed cowbird (*Molothrus ater*) parasitism has been recorded for this sparrow (Zeiner et al. 1990a).

One rufous-crowned sparrow was recorded within the oak woodland habitat within the Park.

Turkey Vulture (*Cathartes aura*)

*County Group 1*

Turkey vultures are found throughout Central America and the United States, and they are residents of much of Southern California (Kirk et al. 1998). This species typically inhabits farmland or other open areas suitable for scavenging carrion. Habitat for perching, roosting, or nesting is generally located nearby and is characterized by undisturbed forest with cliff ledges or rocky outcrops (Kirk et al. 1998). This species specializes in aerial soaring over roads, fields, and open forests in search of carrion, since it rarely eats live birds or mammals. Turkey vultures are common during the breeding season in most of California (Zeiner et al. 1990a).

Because this species feeds in pastureland or near roadsides, it is threatened by vehicular collisions, electrocution, shooting, or lead contamination from animals killed with lead bullets (Kirk et al. 1998).

Turkey vultures were observed flying over, utilizing the Property. It was noted that there were frequently large flocks of turkey vultures (approximately 15 individuals) soaring over the Property and within the vicinity.

Western Bluebird (*Sialia mexicana*)

*County Group 2*

Western bluebirds are small members of the thrush family and are found throughout much of Western United States, including California (excluding Mojave Desert regions) and much of the Southwest through Central Mexico (Guinan et al. 2008). This species is generally a wintering visitor in San Diego County, although it is a resident in some areas of Central San Diego. Open forests are preferred by this species, with large trees and snags for nesting and perching. Other habitats utilized by western bluebirds include open deciduous woodlands, wooded riparian areas, grasslands, and farmlands (Guinan et al. 2008).

During winter, bluebirds consume small berries or seeds, and insects are consumed during the breeding season (Guinan et al. 2008). Most individuals forage from a perch, and to a lesser extent, flycatch. Other forage techniques utilized include hovering, gleaning, or hopping (Guinan et al. 2008).

Logging and habitat destruction, including fire suppression activities, can all negatively affect this species. Bluebirds are a secondary cavity nester and are, therefore, reliant on habitats that support other cavity nesters, such as woodpeckers. Snags, large living trees, and other habitat characteristics are needed to support western bluebirds; habitat loss and fragmentation reduces the amount of suitable habitat available (Guinan et al. 2008).

Western bluebirds were observed within the oak woodland habitat within the Park.

White-Tailed Kite (*Elanus leucurus*)

*California Fully Protected, County Group 1*

White-tailed kite is a common to uncommon year-long resident in coastal and valley lowlands up to the western Sierra Nevada foothills and southeast deserts (Small 1994; County of Riverside 2008). The white-tailed kite is commonly associated with agricultural areas (Grinnell and Miller 1944), but it also inhabits low-elevation grasslands, savannah-like habitats, open sage scrub, meadows, wetlands, and oak woodlands, particularly in areas with a dense population of voles (Waian and Stendell 1970). Riparian areas adjacent to open space areas are typically used for nesting (County of Riverside 2008), where kites select dense, broad-leaved deciduous trees for nesting and roosting (Brown and Amadon 1968). They prey mostly on small mammals, with voles and other small rodents making up

approximately 95% of their diet, but they occasionally take birds, insects, reptiles, and amphibians. White-tailed kites hunt in the morning and late afternoon for voles and mice, usually near farmlands. Nests are made of piled sticks and twigs and placed near the tops of oak, willow, or other trees near marshes and foraging areas (Zeiner et al. 1990a). Peak breeding occurs from May to August, and females lay three to five eggs, incubating for approximately one month (Zeiner et al. 1990a).

White-tailed kites do not generally migrate, but are sometimes nomadic and dispersive outside of the breeding season. It is common to see large communal roosts of white-tailed kites (Unitt 2004).

One white-tailed kite was recorded during the second pass of avian bird count surveys within the oak woodland habitat. There were also incidental sightings of white-tailed kites during the general biological surveys. During late summer, a roost of approximately 15 to 20 individuals was observed to occupy a snag located in chaparral habitat along the western border of the Property.

### **3.3.2.3 Mammals - Small Mammals**

#### Dulzura Pocket Mouse (*Chaetodipus californicus femoralis*)

*California Species of Special Concern, County Group 2*

Dulzura pocket mouse inhabits coastal scrub, chamise-redshank, montane chaparral, sagebrush, grassland, valley foothill hardwood, valley foothill hardwood-conifer, and montane hardwood habitats from San Francisco Bay to Mexico (Zeiner et al. 1990b). Dulzura pocket mouse eats insects, the seeds of annual grasses and forbs, and leafy vegetation in brushy areas, while foraging mainly from the ground (Zeiner et al. 1990b). The Dulzura pocket mouse is nocturnal and reduces activity during cold winters (Zeiner et al. 1990b). Between April and June, usually four offspring are born in the burrows pocket mice dig in soft soil (Zeiner et al. 1990b).

A total of nine individual Dulzura pocket mice were captured during small mammal trapping in the Property.

#### Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*)

*California Species of Special Concern, County Group 2*

Northwestern San Diego pocket mouse occurs mainly in the arid coastal and desert border areas of San Diego County, as well as in parts of the Riverside and San Bernardino Counties, from sea level to 1,829 meters (6,000 feet) AMSL. It inhabits coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland habitats, usually in sandy herbaceous areas with rocks or coarse gravel (Zeiner et al. 1990b). Northwestern San Diego pocket mouse feeds mostly on the seeds of forbs, grasses,

and shrubs, but it also eats some insects. This species will carry seeds in cheek pouches and store them in and around the burrow (Zeiner et al. 1990b). The San Diego pocket mouse generally breeds from March to May and has an average of four young per litter (Zeiner et al. 1990b).

Fourteen individual northwestern San Diego pocket mice were captured during small mammal trapping on the Property.

#### San Diego Desert Woodrat (*Neotoma lepida intermedia*)

##### *California Species of Special Concern, County Group 2*

Desert woodrats are found in a variety of shrub and desert habitats and are primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth (Bleich 1973; Bleich and Schwartz 1975; Cameron and Rainey 1972; Thompson 1982). Desert woodrats are noted for their opportunistic and flexible behavior in using various materials, such as twigs and other debris (e.g., sticks, rocks, dung), to build elaborate dens or “middens,” which typically include several chambers for nesting and food, as well as several entrances.

Desert woodrats are primarily herbivorous, and their diet may include leaves, seeds, berries, parts of flowers, and yucca shoots (Cameron and Rainey 1972). This species is impacted by edge effects, primarily relating to increased predation from cats or other mesopredators.

Nine San Diego desert woodrats were recorded during 2012 small mammal trapping efforts.

#### **3.3.2.4 Bats**

##### Long-Legged Myotis (*Myotis volans*)

##### *County Group 2*

The long-legged myotis is found throughout California, including the coastal ranges, the Cascade and Sierra Nevada ranges to Southern California, the Great Basin, and the Mojave Desert area (Zeiner et al. 1990b). This species occupies woodland and forested habitats above 1,200 meters (4,000 feet) AMSL (Zeiner et al. 1990b). Long-legged myotis feeds on moths and other flying insects and forages over water, trees, cliffs, and in openings in forest habitats. Trees are important day roosts for this species, and like other bat species, it will night roost in rock crevices, buildings, mines, and caves (Zeiner et al. 1990b).

Within the Property, long-legged myotis was detected only at the East bat survey location during both August and September survey passes. It was more frequently detected during August.

Pallid Bat (*Antrozous pallidus*)

*California Species of Special Concern, County Group 2*

The pallid bat is locally common in arid deserts (especially the Sonoran life zone) and grasslands throughout the Western United States and occurs in shrublands, woodlands, and forests at elevations up to 2,440 meters (8,000 feet) (Hermanson and O'Shea 1983; Hall 1981). Although this species prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging, it has been observed far from such areas (Hermanson and O'Shea 1983).

Pallid bats forage for a variety of insects, including flightless arthropods picked up from the ground (e.g., scorpions and ground crickets), insects gleaned from vegetation (e.g., cicadas), insects taken in flight, and small vertebrates, such as horned lizards and pocket mice that are taken on the ground.

Pallid bat was detected at both the East and West survey locations during both the August and September survey passes.

Pocketed Free-Tailed Bat (*Nyctinomops femorosaccus*)

*California Species of Special Concern, County Group 2*

Pocketed free-tailed bat inhabits pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis. Pocketed free-tailed bats roost in rock crevices, caverns, or buildings, and they feed on flying insects, especially large moths, detected by echolocation (Zeiner et al. 1990b). Pocketed free-tailed bat occurs in the San Diego, Riverside, and Imperial counties and is more common in Mexico. Pocketed free-tailed bats bear a single litter with one young in June and July (Zeiner et al. 1990b).

Pocketed free-tailed bat was detected during both passes of passive bat surveys at both survey locations.

Townsend's Big-Eared Bat (*Corynorhinus townsendii*)

*California Species of Special Concern, County Group 2*

Townsend's big-eared bat occurs throughout California, but little is known about its range, and it is currently considered uncommon in California. This species is insectivorous and primarily consumes small moths, although beetles and soft-bodied insects are consumed as well (Zeiner et al. 1990b). Townsend's big-eared bat forages using echolocation and will glean insects from foliage. Mesic habitats and habitat edges are preferred. Roosting sites are typically man-made structures that house fewer than 100 individuals (Zeiner et al. 1990b).

Townsend's big-eared bat was recorded during both survey passes at both the East and West survey locations, although more minutes of detection were recorded at the East survey location.

Western Mastiff Bat (*Eumops perotis californicus*)

*California Species of Special Concern, County Group 2*

The western mastiff bat is found in the San Joaquin Valley and coastal ranges from Monterey County south through Southern California and from the coast eastward to the Colorado Desert. Preferred habitats include open, arid habitats, such as coniferous and deciduous woodlands, coastal scrub, grasslands, chaparral, and desert scrub (Zeiner et al. 1990b). The western mastiff bat is nocturnal and feeds on small low-flying insects while in flight (Zeiner et al. 1990b). Greater western mastiff bats are typically solitary roosters in rock crevices, in trees, on cliff faces, or in buildings (Zeiner et al. 1990b). Reproduction begins in spring, and one offspring is produced each year (Zeiner et al. 1990b).

Western mastiff bats were detected only during the August survey pass at the East bat survey location.

Western Red Bat (*Lasiurus blossevillii*)

*California Species of Special Concern, County Group 2*

Western red bat occurs in California from Shasta County to the Mexican border and west of the Sierra Nevada/Cascade crest and deserts. Roosting habitats include forests and woodlands from sea level up through mixed conifer forests (Zeiner 1990b). The species feeds over a wide variety of habitats, including grasslands, shrublands, open woodlands, open forests, and croplands. Western red bat is not found in desert areas. It roosts primarily in trees, and less often in shrubs, in edge habitats adjacent to streams, fields, or urban areas. Western red bat prefers edges or habitat mosaics that have trees for roosting and open areas for foraging.

Western red bat was detected only during the August survey pass at the West bat survey location.

Western Small-Footed Myotis (*Myotis ciliolabrum*)

*County Group 2*

Western small-footed myotis is found from Coastal California south of Contra Costa County to the Mexican border and occurs throughout the Central Valley, slopes of the Sierra Nevada, and deserts (Zeiner et al. 1990b). Arid habitats are generally preferred by this species, including brushy uplands near water sources. Western small-footed myotis has been observed drinking water soon after

emerging from roosting areas at dusk. Caves, buildings, mines, bridges, and other crevices are frequent roosting areas and may be occupied by individuals or a larger group (Zeiner et al. 1990b).

Western small-footed myotis was detected at both East and West survey locations during both survey passes.

#### Western Yellow Bat (*Lasiurus xanthinus*)

##### *California Species of Special Concern*

The western yellow bat occurs as a yearlong resident in California from the Los Angeles and San Bernardino Counties south to the Mexican border, primarily below elevations of 600 meters (2,000 feet) (Zeiner et al. 1990b). Habitats that this species occupies include valley foothill riparian, desert riparian, desert wash, and palm oasis (Zeiner et al. 1990b).

Western yellow bat was detected at both East and West survey locations during both survey passes.

#### Yuma Myotis (*Myotis yumanensis*)

##### *County Group 2*

Yuma myotis occurs throughout California but is uncommon in the Mojave and Colorado desert regions, except the mountain ranges bordering the Colorado River Valley. They can be found in many habitat types, but prefer open forests and woodlands with sources of water they can forage over (Zeiner et al. 1990b). Yuma myotis ranges from sea level to 3,353 meters (11,000 feet) AMSL, but is generally found below 2,438 meters (8,000 feet) (Zeiner et al. 1990b). Yuma myotis roosts in groups of several thousands in caves, buildings, and mines and under bridges (Zeiner et al. 1990b). Reproduction for Yuma myotis begins in the fall, and a single litter of one young is born sometime between May and June (Zeiner et al. 1990b).

Yuma myotis was detected during both passes of passive bat surveys at both survey locations.

### **3.3.3 Rare, Threatened or Endangered Wildlife with High Potential to Occur**

Seven special-status wildlife species have a high potential to occur within the Preserve as described below. Additional information on these species can be found in Appendix B.

### **3.3.3.1 Invertebrates**

#### Monarch Butterfly (*Danaus plexippus*)

##### *County Group 2*

Within the Property, there are large stands of coast live oak and some pines and eucalyptus. There is potentially suitable wintering habitat within the Property for this species.

### **3.3.3.2 Herpetofauna**

#### Northern Red Diamond Rattlesnake (*Crotalus ruber ruber*)

##### *California Species of Special Concern, County Group 2*

There is suitable chaparral habitat within the Property for this species.

### **3.3.3.3 Birds**

#### Cooper's Hawk (*Accipiter cooperii*)

##### *California Watch List, County Group 1*

There is suitable coast live oak woodland within the southwestern region of the Property for this species to nest and forage.

#### Golden Eagle (*Aquila chrysaetos*)

##### *California Fully Protected, Watch List, County Group 1*

Although there is no suitable nesting habitat for golden eagle located within the Property, this species has been recorded in the vicinity, and there are suitable cliffs or rocky outcrops for roosting or nesting habitat within the vicinity of the Property. There is suitable foraging habitat within the Property, and golden eagles could be expected to infrequently utilize this habitat.

### **3.3.3.4 Mammals**

#### Pallid San Diego Pocket Mouse (*Chaetodipus fallax pallidus*)

##### *California Species of Special Concern, County Group 2*

There are friable soils and suitable chaparral habitat on the Property for this species. Although this species was not recorded during small mammal trapping, there is potential that this species occurs elsewhere in the Property.

San Diego Black-Tailed Jackrabbit (*Lepus californicus bennettii*)

*California Species of Special Concern, County Group 2*

Within the Property, there is suitable habitat for San Diego black-tailed jackrabbit, including open chaparral habitat and arid climate.

Mule Deer (*Odocoileus hemionus*)

*County Group 2*

There is suitable chaparral habitat within the Property for mule deer. Open space within the vicinity of the Property also facilitates deer movement within the region.

Mountain Lion (Puma [=Felis] concolor)

*County Group 2*

The Property is located within a large expanse of open space habitat, which facilitates large wildlife movement, and suitable habitat for this species occurs throughout the Property.

**3.3.4 Non-native and/or Invasive Wildlife Species**

California ground squirrels (*Spermophilus [Otospermophilus] beecheyi*) were noted to dominate the rodent community within the Park portion of the Property. Although they are a native species, they are not native to this landscape and would not be as prevalent without additional resources (e.g., food) provided by park attendees. Ground squirrels may be outcompeting other native or special-status species that would be expected to be found in this area, such as San Diego desert woodrat or Northwestern San Diego pocket mouse.

**3.4 Overall Biological and Conservation Value**

The Property is located within the southern foothills of San Diego County and is within a network of conserved lands including property owned by Back Country Land Trust and Cleveland National Forest to the north and Bureau of Land Management property, Hauser Mountain Wilderness Study Area to the east. The Property allows for movement of wildlife through these conserved lands. In addition, the Property supports sensitive habitats including coast live oak woodland and native grassland.

**3.4.1 *Wildlife Linkages and Corridors***

The Property is located within a network of conserved habitats that most likely serve as an important center for wildlife in eastern San Diego County. The Property

is surrounded by land that is relatively undeveloped or is conserved. Cleveland National Forest is located north of the Property and serves as a wildlife corridor from eastern San Diego County to Orange County and beyond. Bureau of Land Management property, Hauser Mountain Wilderness Study Area, is located to the east of the Property and connects to the Cleveland National Forest property.

The general area functions to convey large, medium, and small mammals within and through the Property as evidenced through 2012 wildlife camera data, track and scat observations, and visual observations of bobcat and coyote.

## **4.0 CULTURAL RESOURCES**

Archaeological evidence reveals that San Diego County has a long cultural history beginning approximately 10,000 years ago. The following cultural background discusses the characteristics of each cultural period of prehistory and history. The information provided in Section 4.1 includes excerpts from the County of San Diego Guidelines for Determining Significance: Cultural Resources: Archaeological and Historic Resources (County 2007) and the Archaeological Survey Report for the Potrero/Mason Property (ASM 2012).

San Diego County is characterized by a rich and varied prehistoric and historic past. Cultural resources which reflect this history consist of: archaeological sites, historic structures, artifacts, rock art (i.e., pictographs and petroglyphs), photographs, traditional tribal cultural knowledge and oral traditions, oral histories, ethnographic accounts, sacred sites, traditional cultural properties, and public documents. This RMP discusses the known cultural resources within the Property and describes management recommendations for handling these sensitive resources.

In 2012, a Phase I archaeological survey and site inventory was completed for the Property in compliance with the County of San Diego Guidelines for Determining Significance; Cultural Resources: Archaeological and Historic Resources (County 2007) to assist in land use and resource protection planning. The results of this study can be found in the report entitled, "*Archaeological Survey Report for the Potrero/Mason Property, San Diego County, California*" (ASM 2012) attached as Appendix C. The report included a records search, literature reviews, archival research, historic map review, Native American consultation, field survey, and resource documentation. The information provided in the report was used in the preparation of this RMP.

### **4.1 Site History**

The body of current research of Native American (Pre-Contact) occupation in San Diego County recognizes the existence of at least two major cultural traditions, Early Period/Archaic and Late Period, based upon general economic trends and material culture. Within San Diego County, the Early Period/Archaic includes the period from 10,000 to 1,300 years ago, while the Late Period is from 1,300 years ago to historic (Spanish) contact. The Post-contact/Historic Period covers the time from Spanish contact to present.

#### **4.1.1 Pre-Contact**

The antiquity of human occupation in the New World has been the subject of considerable debate over the last few decades. The most widely accepted model currently is that humans first entered the western hemisphere between 13,000 and 10,000 B.C. The generally accepted archaeological record begins with the Clovis pattern, a widespread phenomenon in North America. Noted for its distinctive tool kit

characterized by fluted projectile points, Clovis occupation dates to the end of the Pleistocene, around 11,500 B.C. (Meltzer 1993). Although no substantial Clovis sites are documented in the region, occasional isolated fluted points have been recovered in southern California (e.g., Kline and Kline 2007; Rondeau et al. 2007).

### Early Period/Archaic

Within San Diego County, Early Period/Archaic archeological sites date from 10,000 to 1,300 years ago and include coastal and inland valley habitation sites, inland hunting and milling camps, and quarry sites. Though various culture traits developed or disappeared during the long span of 10,000 to 1,300 years ago, there is a clear pattern of cultural continuity during this period. The absence or near-absence of milling tools in during this time was often viewed as a major difference between the Early Period/Archaic and the lifeways which characterized the Late Period. Other distinctions between the two periods include: a high frequency of shaped manos; the presence of finely worked small domed scrapers; the presence of knives and points and discoidals and cogged stones; a predominance of deep basin metates over slab metates; a predominance of volcanic rock over quartzite as a source material for flaked lithics; an extreme scarcity of obsidian; and flexed burials.

### Late Period

A material culture pattern, similar to that of historic Native Americans, first becomes apparent in the archaeological record during the Late Period (circa 1,300 to historic contact). The economic pattern during this period appears to be one of more intensive and efficient exploitation of local resources. The prosperity of these highly refined economic patterns is well evidenced by the numerous Kumeyaay/Diegueño and Luiseño habitation sites scattered throughout San Diego County. This increase in Late Period site density probably reflects both better preservation of the more recent archaeological record and a gradual population increase within the region. This period was characterized by the appearance of small, pressure-flaked arrow points (Cottonwood triangular, Desert side-notched, and Dos Cabezas serrated forms) indicative of a bow-and-arrow technology, the appearance of ceramics, the establishment of permanent or semi-permanent seasonal village sites, the presence of obsidian from the Imperial Valley source Obsidian Butte, the replacement of flexed inhumations with cremations, extensive use of the mortar and pestle, and an emphasis on collecting and processing inland plant foods, especially acorns

#### **4.1.2 Post-Contact**

The history of San Diego County is commonly presented in terms of Spanish, Mexican, and American periods. Certain themes are common to all periods, such as the development of transportation, settlement, and agriculture.

### ***Spanish Period (1769-1821)***

The Spanish Period represents exploration, the establishment of the San Diego Presidio and missions at San Diego (1769) and San Luis Rey (1798), and *asistencias* (chapels) to the San Diego Mission at Santa Ysabel (1818) and to the San Luis Rey Mission at Pala (1816). Horses, cattle, agricultural foods and weed seeds, and a new architectural style and method of building construction were also introduced. Spanish influence continued after 1821 when California became a part of Mexico. For a period of time under Mexican rule, the missions continued to operate as in the past, and laws governing the distribution of land were also retained.

### ***Mexican Period (1821-1848)***

The Mexican Period includes the initial retention of Spanish laws and practices until shortly before secularization of the missions in 1834, a decade after the end of Spanish rule. Although several grants of land were made prior to 1834, vast tracts of land were dispersed through land grants offered after secularization. Cattle ranching prevailed over agricultural activities, and the development of the hide and tallow trade increased during the early part of this period. The Pueblo of San Diego was established and transportation routes were expanded. The Mexican Period ended in 1848 as a result of the Mexican-American War.

### ***American Period (1848 to Present)***

The American Period began when Mexico ceded California to the United States under the Treaty of Guadalupe Hidalgo. Terms of the treaty brought about the creation of the Lands Commission, in response to the Homestead Act of 1851 that was adopted as a means of validating and settling land ownership claims throughout the state. Few Mexican ranchos remained intact because of legal costs and the difficulty of producing sufficient evidence to prove title claims. Much of the land that once constituted rancho holdings became available for settlement by immigrants to California. The influx of people to California and the San Diego region resulted from several factors including the discovery of gold in the state, the conclusion of the Civil War, the availability of free land through passage of the Homestead Act, and later, the importance of San Diego County as an agricultural area supported by roads, irrigation systems, and connecting railways. The growth and decline of towns occurred in response to an increased population and the economic boom and bust cycle in the late 1800s.

Automobiles became increasingly popular as they became affordable, prompting San Diego County to grade roads to open up the backcountry (Etulain and Malone 1989:40; Kyvig 2004:27). Glenn H. Curtiss flew the first seaplane from North Island in 1911, initiating a growing interest in aviation technologies in San Diego that would later be heightened by Charles Lindbergh's historic flight on the Spirit of St. Louis from Rockwell Field in San Diego to St. Louis, Missouri in 1927. Balboa Park and the San Diego Zoo remained after the Panama-California Exposition in 1915, leaving

San Diegans with city-defining legacies. In 1917, the U.S. Army established Camp Kearney as part of the nationwide campaign for World War I (Engstrand 2005).

While ranching and farming had long been important livelihoods in San Diego County, agriculture increasingly became an important economy. Beekeeping, an agricultural specialty, had long been a part of San Diego's economy, first introduced to southern California in 1869. Sage honey became an important export industry, with shipments sent to eastern and foreign destinations from small or large apiaries located across the county, especially in the backcountry areas of Campo, Poway, Morena, Julian, Potrero, Ramona, Jamul, Flinn Valley, Rainbow Valley, Alpine, Wynola, Sycamore Canyon, and Lakeside (Heilbron 1936:232-234). Avocado and other subtropical fruits were primary crops in coastal San Diego areas and Escondido. Winter vegetables were primarily grown in the southern part of the county, from La Mesa to Flinn Springs and Chula Vista. San Diegans began raising chickens and chicken egg production increased significantly between 1908 and 1912, until demand could no longer be met by local supply. Large producers during the heyday of chicken production (1908-1935) were in Lemon Grove, La Mesa Heights, Spring Valley, Sunnyside, Chula Vista, El Cajon, Lakeside, Escondido, and Ramona (Heilbron 1936; LeMenager 1989:207).

Flourishing agricultural communities existed across the county, with federal and state water development projects, harbor improvements, and high levels of construction curbing some of the effects of the Great Depression. Construction projects for the Navy and Army helped sustain the area. Social changes such as the construction of San Diego State College (1931), the transition from coal-derived gas to natural gas, and the planning and hosting of the World's Fair (1935) also aided in sustaining the San Diego area (Engstrand 2005:147-155). A significant economic impact during the 1929 financial crisis was Reuben H. Fleet's decision to move Consolidated Aircraft from Buffalo, New York to San Diego, a more suitable climate for testing planes. The company brought 800 employees and \$9 million in orders (Consolidated Aircraft 2004; Engstrand 2005:151).

Infrastructure improvements to both roadways and railroads in San Diego County became necessary to accommodate new residents, again primarily near defense centers (Oceanside Daily Blade-Tribune, 25 February 1941:1, 20 August 1941:1). In 1956, President Eisenhower authorized an interstate highway system with the Federal-Aid Highway Act, an act that further interconnected multiple state routes for increased interstate traffic flow. According to Iris Engstrand (2005:165), "the automobile affected almost every major decision regarding the direction taken by San Diego planners during the post-World War II decades." A new trend of constructing retail stores outside the city center provided suburban enclaves as more houses filled in the outskirts of the city (Engstrand 2005:165-166).

## Potrero

In Spanish the word “potrero” means “a mountain meadow” or “a pasturing place.” The first homesteader, Captain Charles G. McAlmond, settled in Potrero while on his way to Pine Valley in 1868. McAlmond looked around at the rolling hills and small crowds of trees in the area and decided he didn’t need to go any further. McAlmond was a sea captain whose significant battle wounds forced his retirement. He settled in Potrero with his family and raised horses, cattle, and hogs (Davidson 1936; McCain 1955:39). The first post office in Potrero was established in 1876, and McAlmond was the second post master (National Archives and Records Administration 1950). In 1878, the first school district was established (McCain 1955:42). By 1886-1887, 15 individuals and families lived in Potrero, and most were farmers, stockmen, and beekeepers. Beekeeping provided a significant income for backcountry farmers and stockmen, providing them with greater financial security (McCain 1955:20; San Diego City and County Directory 1886-1887). Potrero has long had a connection with Tecate, Mexico, a place where Native Americans pastured their horses. Growth in the fertile valley and commercial trade with Mexico on account of gold mining was enough to support two stores in Potrero, established by Joseph and Damon Thing. Some ranching families, like the McCains, owned land throughout the Campo area, including Potrero Valley (McCain 1955:14-15). By 1899, Potrero had grown to 35 families and individuals, most of whom were farmers or ranchers, but a handful of homesteaders were beekeepers (Fisher et al. 1899).

By 1922, 55 individuals and families lived in Potrero. While many were ranchers, other industries had been developed. The town had become a port of entry and, as such, various services developed on both sides of the border to serve Mexicans and Americans. Other residents maintained the county road (present-day Highway 94), or worked as a customs agents, tradesmen, or beekeepers. A physician and school teacher also served the community (San Diego Directory Company 1922).

### **4.1.3 Historic Overview of the Potrero/Mason Property**

San Diego County’s backcountry Campo area stretched from west to east from Potrero to Campo (named Milquatay by the Kumeyaay) and on to Boulevard, and from the international border on the south to Mount Laguna on the north. The Campo area was difficult to traverse due its mountainous terrain, yet the Kumeyaay people forged seasonal trails that explorers and homesteaders later followed (Vezina 1989:1, 11). The Kumeyaay people largely inhabited the Campo area until the mid-1860s, when settlers began moving in and homesteaded land under the new federal land acts. Settlers sought land within the Campo area they could ranch or cultivate, and when they claimed that land they pushed Native Americans into other areas that eventually became reservations (Robinson 1948; Vezina 1989). Due to the terrain, many settlers in the Campo area were ranchers.

Cattle ranching was well entrenched in the economy of San Diego County by the mid-1850s. This is largely attributable to its vast acreage of uninhabited land that

was ideal for open range cattle grazing (Garcia 1975). Ranchers drove their cattle seasonally between the coast, mountains, and deserts on land they owned or leased, in order for the cattle to graze. San Diego County's cattle industry was well connected with Mexico and Arizona. Some cattle were pastured in Mexico and Arizona and then driven thru the Campo backcountry to San Diego or Temecula for slaughter or shipping. Vast rangelands meant ranches were typically the home base of major activities, such as branding and doctoring the cattle. By the mid-1860s, the cattle boom triggered by the Gold Rush had suffered devastating effects from depressed cattle prices, and the impact of droughts in the early 1860s meant southern California was no longer a dominant supplier of cattle to northern California. Raising sheep became more lucrative, prompting a conversion of some cattle ranches around the County. From the 1870s to 1880, sheep were the dominant livestock in the County, but that industry also suffered significant setbacks in the late nineteenth century due to drought and animal sickness. In the 1880s, the cattle industry was starting to make a resurgence that would be solidified in the early 1900s. Cattle ranching was a tough business, and many rancho owners were hard-pressed to maintain their large ranchos, but even smaller independent cattle operations were able to survive droughts and depressed prices in the late nineteenth century (Wade et al. 2009:i-ii, 17-23).

Campo was the first community that developed in the backcountry of San Diego, and it became the social and commercial hub. The area's first school district was established and a school house constructed in 1867. A general store and post office soon followed in the 1870s. People isolated by distance and difficult terrain came together at Campo for religious revivals, dances, and other social events. The community's accessible valley made it a place where it was easier for people to congregate for social events and business transactions. In addition, its close proximity to Mexico and its designation as a stage stop on the San Diego-Yuma route via Mexico and Mountain Springs made Campo a prime location as a commercial hub for ranchers (Hector 2005:13; McCain 1955:12, 86, 93; San Diego History Center 1912; Vezina 1989:12-14, 20-21, 26, 31, 33).

Campo became an early center of activity not only due to its accessible valley but also its proximity to two major transportation routes (Paulson 1875; Vezina 1989:56). By 1865, there were two major east-west wagon routes through Campo. One was a northern route (a county road) from San Diego to La Mesa, El Cajon, Alpine, Descanso, Pine Valley, Buckman Springs, north of Campo, and then through Mountain Springs. The second route was an alternative eastern route that extended from San Diego in a southeasterly direction to Tijuana and then easterly to Tecate, Campo, Jacumba, and continued beyond Mountain Springs (Miller and Ross 1937). By 1889, a third route extended from Campo through Potrero, Dulzura, and Jamul, with several divergent routes from there (Humphrey 1889). These often ill-maintained roads were essential thoroughfares, since construction of a railroad through the difficult backcountry terrain would not be attempted until the early twentieth century.

In the 1870s, many agricultural communities developed across San Diego County that successfully cultivated vegetables and fruits, raised sheep and cattle, and developed apiaries after John Stewart Harbison established San Diego County as a prime honey-producing County (Paulson 1875; McCain 1955:20). Valleys in the Campo area were largely secluded, with terrain most suitable for ranching, prompting most settlers in the area to raise cattle. They drove their herds seasonally to the mountains in the summer and the deserts in the winter. Both the Anza-Borrego Desert and the Imperial Valley were important feeding grounds (Cook and Fulmer 1980:272-273; Vezina 1989:56).

Local historian Meredith R. Vezina noted that in the Campo area, between 1875 and 1900, violence among ranch owners, Mexicans, and Native Americans was prevalent, largely due to the region's outlying location, the proximity of the border, the demand for cattle and horses, and a well-stocked Campo general store (McCain 1955; Vezina 1989:35-53). However, by the turn of the century, San Diego was growing again and construction of Morena Dam in 1895 had established a bustling area in Moreno Valley. Newly appointed border patrol agents and wire fencing along the border to control cattle seemed to have provided a calming effect on violence in the backcountry (Vezina 1989:53-57). San Diego's pursuit of a better connection with eastern markets and a road linking its port with the bountiful Imperial Valley meant important changes in the Campo area during the first few decades of the twentieth century.

Two major transportation improvements in the first three decades of the twentieth century affected the Campo area: Highway 80, and the San Diego and Arizona Railway (later called the San Diego and Arizona Eastern Railway) (Bryant 1974; McGrew 1922:180; Pourade 1965:133). However, neither of those transportation corridors directly serves Potrero, which remained a relatively small and dispersed community. By 1912, the main San Diego County road from San Diego to the eastern county line extended along the old southern wagon route from the city to Lemon Grove, then through Jamul, Dulzura, Portrero, Campo, and on to Jacumba and Mountain Springs (Humphrey 1889; San Diego History Center 1912). Faster-growing communities such as El Cajon, Lakeside, Alpine, and Descanso successfully lobbied for a highway that could stimulate their local economies; as a result, the northern portions of the early wagon trail were developed and commissioned as Highway 80 in 1926 (Humphrey 1889; Krintz et al. 2012; Lortie 2001:4). The southerly wagon route remained as the predecessor to State Route 94.

Completion of the "Impossible Railroad" through the Campo area also provided new commercial traffic to the backcountry. Construction of John D. Spreckels's San Diego and Arizona Railway began in 1908, but many years of trials and tribulation followed. Engineers and workers eventually conquered Carrizo Gorge and completed the line from San Diego to El Centro in November 1919. By that time, the railroad company acquired the San Diego & Southeastern Railway (SD&SE) Company (1917), which included the San Diego, Cuyamaca & Eastern Railway (merged with SD&SE in 1912) (Dodge 1956; Heilbron 1936:430). Once the railroad

was completed, Campo became a port of entry from Mexico (Vezina 1989:103-106, 111).

In the 1900s-1920s, federal agents began increasingly policing the border, with federal customs border patrol agents seeking illegal Chinese immigrants and contraband of precious metals and precious commodities, notably cattle. During Prohibition (1920-1933), alcohol was outlawed and transportation across international lines was under greater scrutiny as customs officers in Campo stopped motorists and railroad travelers suspected of bootlegging or carrying alcohol. Episodic altercations between settlers and Native Americans and between police and Native Americans continued as locals dealt with more border and passenger travelers as well as the close proximity of reservations to residents within the Campo area (Vezina 1989:109-111, 113). As an expansion of the Cottonwood watershed system, the City of San Diego also constructed Barrett Dam downstream of Morena Dam between 1921 and 1923.

At the start of the Great Depression, the greater San Diego backcountry area was the least populated township in the County with 1,157 inhabitants (U.S. Census Bureau 1930:131, 137). In 1938, much of the development paralleled Highway 80, and towns with sidings or stations on the San Diego and Arizona Eastern Railroad (SD&AE) were more populated, but still small (San Diego County 1938; United States Geological Survey 1939). In 1936, 47 individuals and families lived in Potrero (San Diego Directory Company 1936). On the brink of World War II, a new military facility, Camp Lockett, was constructed in Campo for the same reasons it had remained a vital hub for the backcountry: its proximity to Mexico, its status as a port of entry on the only remaining east-west railroad line in San Diego County (the SD&AE), and its location near important dams (Morena and Barrett). The facility would be home, for a time, to the 11th Cavalry Regiment from the Presidio in Monterey. In 1942, the 10th Cavalry Regiment (the Buffalo Soldiers) moved into Camp Lockett to replace the 11th Cavalry Regiment which had been converted into an armored unit. The influx of new federal employees in the area meant the transformation of a relatively small Campo with a dozen structures and a few hundred people in the greater Campo area. Pastures were quickly replaced by buildings, and thousands of troops made their way to the valley, most of whom were from Los Angeles. Camp Lockett reenergized the economy and expanded the employment possibilities. During the Depression, small cattle ranching operations were abandoned in response to costs and grazing restrictions. Some ranchers turned to new work in construction on the base or worked as linemen on the railroad. Services developed in response to the population influx that facilitated work in hotels and other businesses for men and women. Others continued to raise cattle, chickens and turkeys, and cultivate gardens, as the Depression was still very much present for many. Preparatory maneuvers meant that the military marched through the Campo area, affecting towns across the backcountry (Vezina 1989: 127-133, 135, 142, 145, 161). Mobilization and the busyness of an expanding military facility impacted Campo and the local economy, but for most in the Campo area ranching "continued to dominate" (Vezina 1989:162).

Cattle had again become the dominant livestock raised in San Diego County by 1910 as a result of the development of more wells and better disease control at the U.S./Mexican border and elsewhere. As in other western states, people who owned large tracts of land were the dominant forces of the twentieth century, but changes in accessibility to rangeland affected large and small scale ranching operations (Wade et al. 2009:23-24). Cleveland National Forest began issuing permits for farming and grazing cattle, horses, sheep, goats, and hogs as well as for apiaries (California Development Board 1918:53, 73-74). Increasingly, federal, state, or local authorities implemented range restrictions and regulated permits in an effort to protect land from chaparral burn-off and overgrazing. Government officials and ranchers were often at philosophical odds with each other, but many large outfits, such as the Campo Cattle Company, eventually recognized most of the range restrictions (Vezina 1989:124-125).

During the 1930s and 1940s, beef production in San Diego County was one of the most important agricultural industries, given the impacts of the Great Depression and World War II. Many smaller scale rural ranching operations on the reservations and the backcountry provided for families during the Great Depression, and the demand for meat during the war fueled ranching in the 1940s. However, changes were already underway to many ranching operations. For example, cattle drives largely ended in the mid-1930s when better roads and larger trucks meant ranchers could transport cattle to slaughter, although, even in the 1940s some cattle were shipped from Campo (Wade et al. 2009:24, 26). Following World War II, cattle ranching “declined dramatically, especially along the coast” (Wade et al. 2009:32). Much of that decline is attributable to the need to convert ranch land into housing developments in the postwar era. Despite that pressure, ranching in the backcountry has survived to the present day. Cattle ranching in San Diego County increasingly competed with, and was largely defeated by, the expansion of crop agriculture and urbanization from 1870 to 1970, though ranching enclaves persist in the backcountry and elsewhere (Wade et al. 2009:5, 32).

### Early Land Ownership and Uses

The General Land Office surveys in 1857-1858 did not indicate any roads or historic structures within the Property boundaries (General Land Office 1859). However, a survey completed in 1891 shows a secondary road extended in a northwesterly direction from present-day Highway 94 to a house in the NW¼ of Section 10, Township 18 South, Range 4 East, and that road traversed the Property. Also, within the Property in the S½ of the SE¼ of Section 8, Township 18 South, Range 4 East, a house existed and a secondary road connected that homestead with the Big Potrero Valley (United States Geological Survey 1903). Portions of the Property were patented by homesteaders Rufus D. Alderson, Ruselles L. Viberg, and John Thomas English in the early 1890s. None of those early homesteaders were still in Potrero by 1899-1900, including John Thomas English who had passed away. The English property encompassed the present-day Potrero Regional Park and the

surrounding area, and the road to the English property was roughly Potrero Park Drive. Ruselles Viberg may have been a local producer of hard firewood which he sold in San Diego (Fisher et al. 1899; Reider 2004:27, 29; San Diego County 1891, 1896). By 1910, there were new homesteaders: C. J. Clauson, D. D. Stafford, T. A. Jennings, and H. E. McAlmond (Alexander 1910). However, only two were listed in the 1910 directory: Harry E. McAlmond, a stockman, and Thomas A. Jennings, a mason who later became a farmer (San Diego Directory Company 1910, 1936). Harry was the son of early homesteader Captain Charles G. McAlmond and worked in the area as a rancher until he passed away in 1946 (Reider 2004:5-6). Maxine Carter and her husband W. T. Carter were ranchers in the late 1930s (San Diego Directory Company 1936). A portion of the Property in Section 9, Township 18 South, Range 4 East was patented as part of a 428.17-acre property in 1939 by Maxine Carter under the Stock-raising Act of 1916 (Bureau of Land Management 2012).

A 1928 aerial does not show any structures on the Property, but it does show a secondary road that extends southeasterly from the northwestern corner of the Property toward the eastern portion of the Property where it aligns with an intermittent stream that extended in a southeasterly direction to the eastern border of the Property. The dried intermittent stream likely provided a passage for much of the year. As an alternate route, a portion of the road evidently extended northeasterly from the stream toward the northeastern corner of the Property (Tax Factor 1928) (Figure 11). It is most likely that the majority of the Property was used for grazing and ranching, though one oral history account indicated that there was a small gold mine near the John Thomas English property, now Potrero Regional Park (Reider 2004:27). However, no major mining operations were identified in 1902 or 1963 (Aubry 1902; Weber 1963).

By 1942, the only road and structure noted within the Property was an extension of present-day Potrero Park Drive into the NE $\frac{1}{4}$  of the NE $\frac{1}{4}$  of Section 17, Township 18 South, Range 4 East (United States Geological Survey 1944). As previously mentioned, this may have been the main road for the John Thomas English property and a structure existed at the end of that road. By 1960, a forked road from Potrero Park Drive provided another access route to a structure in the NE $\frac{1}{4}$  of the NE $\frac{1}{4}$  of Section 17, Township 18 South, Range 4 East. A secondary road that had existed on the Property since at least 1928 still extended through the Property and a well existed in the NW $\frac{1}{4}$  of the SE $\frac{1}{4}$  of Section 9, Section 17, Township 18 South, Range 4 East (United States Geological Survey 1960). During the 1960s, the San Diego County Department of Parks and Recreation began buying property that would become the 127-acre Potrero Regional Park. It was opened to the public in September 1972 and offered primitive hiking trails, picnic tables, barbecue pits, and overnight camping grounds under many large oak trees. In the 2007 Harris fire, an estimated 100 acres burned in the Park and a number of the natural oak trees were destroyed. Two new playground areas were added to the Park in 2009 (Daily Californian 1969; San Diego County Department of Parks and Recreation n.d; Vista Press 1972).

## 4.2 Native American Consultation

The Native American Heritage Commission (NAHC) was contacted on March 26, 2012, requesting a review of the Sacred Lands files for any recorded Traditional Cultural Properties or Native American heritage sites within the Property. A response letter from the NAHC was received on April 2, 2012 which indicated that the search did not indicate the presence of Native American sacred lands or cultural resources within the vicinity of the Property. The NAHC also provided a listing of all Native American tribal representatives who might have further knowledge of such sites within the Property. On April 2, 2012, the tribal representatives were contacted by letter to solicit further information.

On April 7, 2012, Carmen Lucas stated that the Property is located within a sensitive area and she recommended that a well-qualified Native American monitor be present during the survey. On April 17, 2012, Lisa Haws, the Environmental and Cultural Manager for the Sycuan Band of the Kumeyaay Nation, contacted the consultant by phone and email to discuss the project. She asked to receive further information regarding the project location and to be emailed directly concerning upcoming projects. On May 17, 2012, Daniel Tucker, Chairman of the Sycuan Band of the Kumeyaay Nation, responded, by mail, that the Sycuan Band requested a Kumeyaay cultural monitor be present during the study and any ground-disturbing activities, and that Sycuan be provided with a digital copy of the final report; which will be forwarded by the consultant. To date, no additional responses to these letters have been received. All documentation pertaining to the NAHC and tribal representatives is included in Confidential Appendix C.

Possible human remains were identified within the Property during the survey. The remains were positively identified as human by forensic anthropologist Rose Tyson on August 22, 2012. The County of San Diego Medical Examiner was informed of the human remains and their location on August 22, 2012 and contacted the NAHC. The NAHC designated the Kumeyaay Cultural Repatriation Committee (KCRC) as the most likely descendent (MLD). The MLD may make recommendations to the landowner for means of treating or moving, with appropriate dignity, the human remains as provided in Public Resources Code Section 5097.98. Clint Linton, as a representative of the KCRC requested a meeting with DPR regarding treatment of the human remains including the possible collection and repatriation of the remains. All correspondence relating to the human remains is included in Confidential Appendix C.

On September 27, 2012, DPR staff and the consultant met with Clint Linton representing the KCRC, to discuss the treatment of the human remains identified within CA-SDI-20,697. Clint Linton stated that the KCRC recommends that the land occupied by CA-SDI-20,697 be given to the Kumeyaay Digueño Land Conservancy (KDLC) due to the presence of human remains. Other suggestions included putting fencing around the site or other deterrents to public access, and prohibiting usage of the dirt road within the vicinity of the site. Clint Linton and the other KCRC members

recommended the human remains stay in place at the site, as they will not be disturbed. Clint Linton stated that he and the KCRC need to be consulted prior to any planning within and around the vicinity of site CA-SDI-20,697. The County continues to consult with Clint Linton and KCRC on an on-going basis.

Gabe Kitchen of Redtail Monitoring and Research participated as a Native American monitor throughout the field survey and identification of the human remains.

### **4.3 Cultural Resource Descriptions**

Sixteen (16) new cultural resources have been recorded within the Property, including a single family residence with an associated historic trash scatter and historic water tower; a historic trash scatter; a prehistoric habitation area; two prehistoric bedrock milling features; a prehistoric lithic scatter with associated bedrock milling feature; six prehistoric isolates; and four historic isolates.

#### **4.3.1 Prehistoric Archaeological Resources**

##### CA-SDI-20,697

The site is a late-period prehistoric habitation or food processing site, consisting of a large scatter of artifacts such as debitage, ceramics, ground stone, fire affected rock, flake tools, burned bone, and a Desert side-notched projectile point and also includes 19 bedrock milling features with 65 individual milling elements. In addition to the prehistoric component, a historic concrete gallinaceous guzzler dating to 1951 and a few pieces of historic glass were recorded at the site. Gallinaceous guzzlers were put in place by the California Department of Fish and Game (now called the California Department of Fish and Wildlife) to enhance wildlife habitats in arid environments.

On August 22, 2012, forensic anthropologist Rose Tyson visited the archaeological site to determine if the burned bone was human or animal. Rose Tyson positively identified four cremated human long bone fragments on the surface of the site. The San Diego County Medical Examiner was informed of the human remains and notified the NAHC. All correspondence regarding the human remains are included in Confidential Appendix C of the Archaeological Survey Report for Potrero/Mason Property San Diego County, California (ASM 2012).

##### CA-SDI-20,698

This site is a small food processing location, consisting of a single bedrock milling feature containing two milling slicks. Each of the slicks is partially exfoliated. No artifacts were identified on the surface.

##### CA-SDI-20,699

The site is a temporary camp and food processing location. The site consists of a lithic and ceramic scatter with bedrock milling features containing a total of 19 milling slicks, three conical mortars, and two basins. Most of the artifacts are clustered

around the milling features, and dense vegetation prohibited the identification of additional artifacts. A nature trail runs directly through the site and has introduced numerous disturbances, including milled wood used as stairs, park sign boards, burned fence posts, various metal fragments, and modern trash.

The prehistoric assemblage recorded on the surface of CA-SDI-20,699 includes 42 pieces of debitage and eight brownware sherds. The debitage consists of one volcanic secondary flake, 33 volcanic interior flakes, two pieces of volcanic shatter, three quartz interior flakes, and three quartzite interior flakes. The ceramic component consists of seven brownware body sherds and one brownware rim sherd. Additional materials present at the site include concrete fragments, milled wood used as stairs for the nature trail, clear glass fragments, approximately five ferrous metal fragments, two bottle caps, three fragments of saw-cut cow bone, a burned fence post, and a trail marker and sign board related to the regional park.

#### CA-SDI-20,700

The site consists of a single bedrock milling feature with a single milling slick. The slick is moderately exfoliated, and the edges of the bedrock are covered with soil and extend underground. No artifacts were identified on the surface of the site.

#### P-37-032665

The isolate consists of one interior volcanic flake and one secondary volcanic flake.

#### P-37-032666

The isolate consists of one interior volcanic flake.

#### P-37-032667

The isolate consists of one interior volcanic flake with visible platform preparation.

#### P-37-032670

The isolate consists of one interior volcanic flake and one volcanic piece of shatter located 5 meters apart.

#### P-37-032671

The isolate consists of a volcanic hammerstone fragment measuring 9 x 4 x 3 cm, and a granitic bifacial hand stone fragment measuring 12 x 6.5 x 3.5 cm.

#### P-37-032672

The isolate consists of a volcanic scraper fragment measuring 7.5 x 3.5 x 2 cm.

### **4.3.2 Historic Sites**

#### CA-SDI-20,696

The historic period site consists of a small historic refuse scatter consisting of five cans and 30 green and clear glass fragments. The site is possibly the remains of short-term camping in the Property, or a refuse scatter moved from an off-Property

source. The cans include three solder-top vent-hole cans (matchstick filler hole/hole-in-top), one sanitary can, and one sardine can. The glass artifacts consist of 25 clear glass fragments, one green bottle glass fragment, one clear bottle base, one clear crown cap bottle lip fragment, and two clear corrugated flat glass fragments. Production of vent-hole cans began in the early 1900s, and the cans were used primarily for evaporated milk through the 1930s. Sanitary cans were common by 1910 through the present, and crown cap bottle finishes are found from the early 1900s through the present (Rock 1987). No other artifacts contained diagnostic features.

#### CA-SDI-20,714

The site consists of a vernacular-style single-family residence, shed, water tower, associated landscape and irrigation, and a trash scatter. The residence is vernacular in style and is located to the north of the dirt utility pole access road. It is a single-story wood frame house with an addition and a shed. The residence has a rectangular plan, with a cinderblock-and-brick foundation, and a wooden frame. The walls are clad primarily with vertical boards. Sections of the walls have been replaced with vertical boards of different widths and horizontal boards. Doorways are found on the front and back of the house, on the east and west sides, respectively. The windows and doorways have wooden frames, but the doors have been replaced with modern wood doors and the windows have been replaced with aluminum sliding windows. The side gabled roof is covered with modern composition shingles and has open eaves. A concrete addition is located on the north end of the residence. The addition has a wooden frame, and the walls are clad with chicken wire and concrete; it has modern aluminum-framed windows. A shed roof extends over the addition. Including the addition, the residence measures approximately 55 ft. N/S x 35 ft. E/W. The plywood shed is located adjacent to the residence to the north. The plywood shed rests above ground on cinderblocks and measures approximately 12 x 8 ft. A galvanized metal water tower is located 190 ft. to the east. The water tower has an approximate diameter of 15 ft. and is approximately 12 ft. tall. Modern piping runs from the water tower to the house and surrounding landscaped vegetation. A well is shown on historic topographic maps in this location (Historicaerials.com n.d.). The surrounding landscaped vegetation includes eucalyptus, bottle brush, pine trees, grape vines, and fruit trees. Metal and burned wood fence posts and barbed wire surround the area. Historic and modern refuse, consisting of more than 50 glass, metal, and ceramic fragments, surrounds the residence.

The residence and water tower did not appear on the USGS Potrero 7.5' topographic map until 1982; however, they appear to be older than 20 years of age. A well and dirt road are present at this location on the historic topographic maps after 1960. A portion of Section 9, Township 18 South, Range 4 East was patented as part of a 428.17-acre property in 1939 by Maxine Carter under the Stock-raising Act of 1916. Maxine Carter and her husband W. T. Carter were ranchers in the late 1930s (San Diego Directory Company 1936). It is unknown if this residence was associated with the Carter family or how long the Carter family remained in the area.

A San Diego County Park Ranger stated that the house is referred to as the Brown Property.

P-37-032663

The isolate consists of a clear glass medicine bottle measuring 13 x 5 x 4 cm. The bottle has an oval shape with an external thread finish, a ring around the neck, and marked graduated sides with both oz. and cc. marks. The corner base on one side of the bottle is broken. The bottle is machine-made and dates between the early 1900s and the 1950s (Lindsay 2010).

P-37-032664

The isolate consists of an opaque green glass fragment and a brick fragment measuring 6 x 4 x 3 in. A solarized amethyst clear glass milk bottle lip fragment is located 35 m to the north east. The milk bottle lip fragment dates between 1905 and the early 1920s (Lindsey 2010).

P-37-032668

The isolate consists of a clear glass bottle base fragment with stippling on the bottom and a clear glass water jug fragment. The base fragment dates to the 1940s or later (Lindsey 2010).

P-37-032669

The isolate consists of an unopened sanitary can. The diameter of the can is 28/16 in., and it is 415/16 in. tall.

**4.4 Resource Significance**

Sixteen (16) cultural resources were identified in the Property (Table 5) including a historic trash scatter; habitation area, bedrock milling features; lithic and ceramic scatter; and single family residence with a water tower and trash scatter. None of the resources on the Property have been previously evaluated for significance. However, in the absence of significance testing and evaluation, these resources must be considered significant. Consequently, it is recommended that any of the sites that cannot be preserved through avoidance will be tested and evaluated for significance. Table 5 lists the resources on the Property and provides a preliminary assessment of their potential significance.

**Table 5. Potential Significance of Cultural Resources within the Property**

<b>Site Number</b>	<b>Era</b>	<b>Resource Description</b>	<b>Potential Significance</b>
<b>Sites</b>			
CA-SDI-20,696	Historic	Trash scatter	Not evaluated - must be treated as significant
CA-SDI-20,697	Prehistoric	Habitation area, human remains, lithic scatter, ceramic scatter, bedrock milling features	Not evaluated - must be treated as significant

CA-SDI-20,698	Prehistoric	Bedrock milling feature	Not evaluated - must be treated as significant
CA-SDI-20,699	Prehistoric	Lithic scatter, ceramic scatter, bedrock milling features	Not evaluated - must be treated as significant
CA-SDI-20,700	Prehistoric	Bedrock milling feature	Not evaluated - must be treated as significant
CA-SDI-20,714	Historic	Single family residence, water tower, refuse scatter	Not evaluated - must be treated as significant
<b>Isolates</b>			
P-37-032663	Historic	Medicine bottle fragment	Isolate - not considered significant
P-37-032664	Historic	Two glass fragments, brick fragment	Isolate - not considered significant
P-37-032665	Prehistoric	Volcanic interior flake, volcanic secondary flake	Isolate - not considered significant
P-37-032666	Prehistoric	Volcanic interior flake	Isolate - not considered significant
P-37-032667	Prehistoric	Volcanic interior flake	Isolate - not considered significant
P-37-032668	Historic	Two clear glass fragments	Isolate - not considered significant
P-37-032669	Historic	Sanitary can	Isolate - not considered significant
P-37-032670	Prehistoric	Volcanic interior flake, volcanic shatter	Isolate - not considered significant
P-37-032671	Prehistoric	Volcanic hammerstone fragment, bifacial granitic hand stone fragment	Isolate - not considered significant
P-37-032672	Prehistoric	Volcanic scrapper fragment	Isolate - not considered significant

## **5.0 RESOURCE MANAGEMENT**

### **5.1 Management Goals and Objectives**

#### **5.1.1 *Management Directives and Implementation Measures***

The management directives below have been designated as Priority 1 or Priority 2 per the approved MSCP SAP Framework Management Plan since the Draft East County Plan Framework Resource Management Plan has not been developed. This designation recognizes the fact that many of the directives cannot be immediately implemented, but instead will occur over the life of the MSCP. The ability to implement and the timing of many of the management directives will be directly related to the availability of funding in any fiscal year and on the priority. The priorities are, therefore, intended to assist in decisions on where and how to spend limited funds. Priority designations are as follows:

Priority 1: Directives that protect the resources in the Property and the MSCP Preserve, including management actions that are necessary to ensure that sensitive species are adequately protected.

Priority 2: Directives other than those required for sensitive species status and other long-term items that may be implemented during the life of the MSCP as funding becomes available.

This RMP includes management directives and implementation measures to meet MSCP goals and objectives under the following five elements: A) Biological Resources, B) Vegetation Management, C) Public Use, Trails, and Recreation, D) Operations and Facility Maintenance, and E) Cultural Resources.

### **5.2 Biological Resources Element (A)**

#### **5.2.1 *Biological Monitoring***

The current Draft East County Plan does not include species specific monitoring directives, so general species monitoring will be performed on the Property.

#### **Management Directive A.1 – Conduct habitat monitoring to ensure MSCP goals and DPR objectives are met (*Priority 1*)**

***Implementation Measure A.1.1:*** DPR will conduct habitat monitoring at eight to ten-year intervals to document the status of vegetation communities and relative cover of native plant species within the Property. The monitoring effort will identify any adverse changes in vegetation community distribution and habitat quality and indicate if modifications to current management actions are needed. More frequent monitoring may be required following a significant fire within the Property.

**Implementation Measure A.1.2:** DPR will conduct general wildlife and rare plant surveys after significant events including fire utilizing and refining baseline monitoring methods to assess trends, relative abundance, and distribution status. This information will be included in the monitoring report.

**Implementation Measure A.1.3:** DPR will conduct Property wide monitoring for invasive non-native plant species at eight to ten-year intervals to assess invasion or re-invasion by invasive non-native plants within the Property. Surveys will be focused on areas where invasive non-native plants have been detected in the past and in the vicinity of special-status species, but will also look for new occurrences in the Property. The surveys will document the location of invasive, non-native plants and quantify the numbers/acreages of individual species within the Property. This information will be included in the monitoring report.

**Implementation Measure A.1.4:** DPR will conduct corridor monitoring at eight to ten-year intervals along the major movement corridors in the Property including the drainages, to monitor corridor usage by target medium and large mammals. The scope of monitoring will be sufficient to determine if corridors are being utilized, but not to determine the extent of use (i.e., how many individuals of any given species use a corridor).

**Implementation Measure A.1.5:** DPR will prepare a biological monitoring report that summarizes the monitoring goals, objectives, methodology and results of the biological monitoring efforts described in implementation measures A.1.1 through A.1.4. The report will also address the effectiveness of current stewardship and management actions, identify the need for corrective actions, and include recommendations for adaptive management.

### **5.2.3 Non-Native Invasive Wildlife Species Control**

#### **Management Directive A.2 – Reduce, control, or where feasible eradicate invasive, non-native fauna known to be detrimental to native species and/or the local ecosystem (Priority 2)**

As discussed in Section 3.3.4, no invasive, non-native species were detected within the Property during the 2012 surveys. However, California ground squirrels were found to dominate the rodent community within the Park portion of the Property. The ground squirrels may be out-competing other native or special-status species that would be expected to be found in this area. Argentine ants and goldspotted oak borer (*Agrilus coxalis*) were not observed on the Property, but will be monitored as these invasive species can adversely impact plant and animal species.

**Implementation Measure A.2.1:** DPR will conduct Property wide surveys for the presence of invasive, non-native wildlife species of management concern, including Argentine ants and goldspotted oak borer at eight to ten-year intervals

in conjunction with habitat monitoring and general wildlife surveys (as described in implementation measures A.1.1 and A.1.2). During regular patrols of the Property surveys will also be performed. If any of these species are detected DPR will coordinate with regional control efforts.

**Implementation Measure A.2.2:** At the time the proposed staging area is constructed institute an equestrian education program regarding the potential negative impacts to native ecosystems from the accumulation of non-point source pollutants (e.g., increased potential for occurrence of cowbirds) in staging areas and on frequently used trails. This could be accomplished through implementation of a signage program and interaction between rangers and trail users. See also implementation measure B.2.2.

**Implementation Measure A.2.3:** Provide materials for clean up by equestrian users of the proposed staging area to keep it free of non-point source pollutants that may attract cowbirds or other invasive, non-native species. See also implementation measure B.2.3.

#### **5.2.4 Future Research**

The MSCP Preserve presents a rich array of research opportunities for the academic and professional communities, primarily in disciplines related to biology, ecology, and natural resources management, but also ranging to environmental design, sociology, and park use and administration. As little literature or previous research exists on the majority of species inhabiting the region, there are a multitude of unanswered questions posed by the development of a multiple species and habitat system. In addition, research on vegetation associations and habitats, natural regeneration, restoration, fragmentation, edge effects, genetics, viability, predation, wildlife movement, and much more would be useful to provide information on the health and dynamics of this open space system as well as how to improve conditions. Therefore, the County of San Diego encourages research within the MSCP Preserve in order to gain valuable information unavailable through other means.

#### **Management Directive A.3 – Allow for future research opportunities within the Property (Priority 2)**

**Implementation Measure A.3.1:** DPR will accept and review proposals for scientific research, monitoring, and habitat restoration and enhancement activities which are permitted within the MSCP Preserve. Proposed research activities will be subject to approval by DPR. All such activities must obtain any necessary permits and shall be consistent with this RMP. Additionally, any person conducting research of any kind within the Preserve shall obtain a Right-of-Entry Permit from DPR, which will outline the precautions to be taken to preserve and protect sensitive biological and cultural resources within the Property and require results of any research to be made available to DPR.

### **5.3 Vegetation Management Element (B)**

#### **5.3.1 *Habitat Restoration***

Habitat restoration is not typically required by the MSCP, but is encouraged if resources are available. As stated in the Vegetation Management Plan for the Property (Dudek 2013), no active habitat restoration is currently proposed within the Preserve portion of the Property. Passive restoration primarily in the form of invasive non-native plant species control is discussed under management directive B.1.

#### **5.3.2 *Invasive Non-Native Plant Species Removal and Control***

**Management Directive B.1 – Reduce, control, or where feasible eradicate invasive, non-native flora known to be detrimental to native species and/or the local ecosystem (*Priority 1*)**

As described in Section 3.2.4, 24 Cal-IPC rated invasive, non-native plant species were identified within the Preserve portion of the Property. One invasive non-native plant species, tamarisk has been identified as high priority for removal.

***Implementation Measure B.1.1:*** DPR will coordinate with licensed County herbicide applicators to treat the high priority species for removal (tamarisk) identified in the Vegetation Management Plan (Dudek 2013).

***Implementation Measure B.1.2:*** Park Rangers will routinely pull weeds or remove any invasive, non-native plants in early stages of growth observed during patrols along trails or access roads.

***Implementation Measure B.1.3:*** DPR will assess and pursue mitigation opportunities that implement invasive, non-native plant removal within the Property. Precedence will be given to those areas occupied by species identified as high priority, followed by moderate and then low priority species.

**Management Directive B.2 – Manage and minimize the expansion of invasive, non-native flora within the Preserve (*Priority 2*)**

***Implementation Measure B.2.1:*** DPR will identify and assess upstream sources of invasive, non-native plants on adjacent properties that have the potential to expand into the Property. DPR will coordinate with the adjacent land owners and managers of those properties and encourage them to treat and control the invasive, non-native plants on their property.

***Implementation Measure B.2.2:*** At the time the Preserve portion of the Property is open to the public DPR will institute an equestrian education program regarding the potential negative impacts to native ecosystems from the

accumulation of non-point source pollutants (e.g., spread of non-native seeds) in the proposed staging area and on frequently used trails. This could be accomplished through implementation of a signage program and interaction between rangers and trail users. Specific signage should state, “Don’t Plant a Pest! Feeding horses weed-free feed for at least 72 hours prior to Preserve entry helps preserve our natural environment”. See also implementation measure A.2.2.

**Implementation Measure B.2.3:** DPR will provide materials for clean up by equestrian users of the proposed staging area to keep it free of non-point source pollutants that may attract cowbirds or other invasive, non-native species. See also implementation measure A.2.3.

### **5.3.3 Fire Prevention, Control, and Management**

The Property is classified as a Very High Fire Hazard Severity Zone by California Department of Forestry and Fire Protection (FRAP 2012).

No official fuel modification zones are found on the Preserve. Habitable structures are found adjacent to the Property and will require fuel modification on the Property.

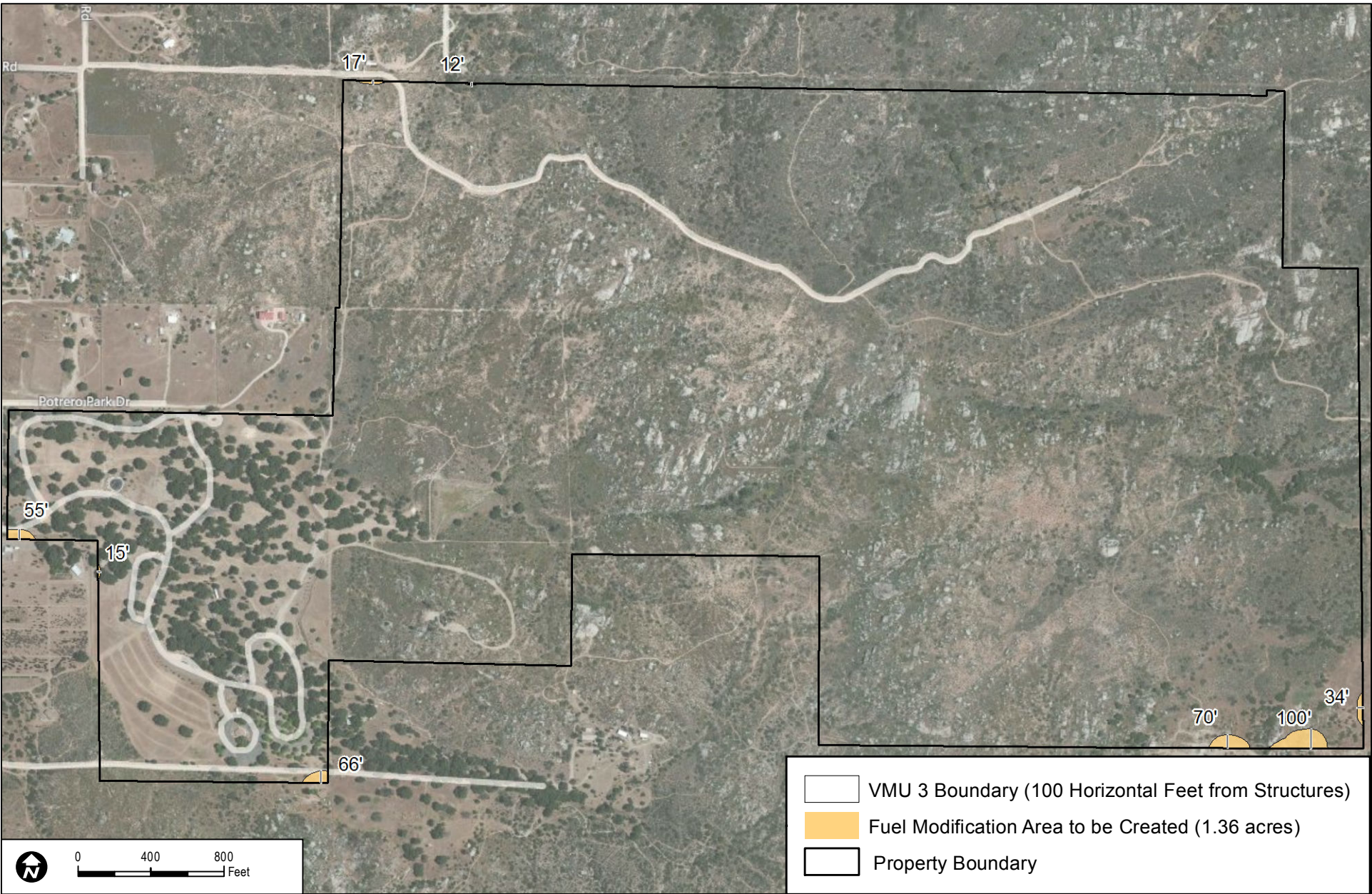
In the event of a wildfire, the main access into the Park portion of the Property is Potrero Park Drive which is a two-lane, asphalt paved road. Road access in the eastern portion of the Property is limited only to an unimproved, unmaintained dirt road that extends southward and east from the end of Potrero Valley Road. The Preserve portion of the Property can also be accessed by a dirt road that begins at the east end of the Park campground and connects with a dirt road extending from Potrero Valley Road.




#### **Management Directive B.3 – Provide for necessary fire management activities that are sensitive to natural and cultural resources protection (Priority 1)**

**Implementation Measure B.3.1:** As shown in Figure 15, DPR staff will create fuel modification zones on the Property adjacent to the existing habitable structures that are within 100 feet of the Property boundary. Management of the fuel modification zones will adhere to CalFire requirements.

**Implementation Measure B.3.2:** The existing dirt trails within the Property acting as access roads will be maintained as needed to keep the roads fuel free. In addition, DPR will continue to coordinate with CAL FIRE to determine what improvements need to be made to make fire response feasible throughout the Property.

Path: Z:\Projects\66800\6680-10 - Potrero Mason County Park\MAP\DC\MAPS\Vegetation Management Plan\Figure10 - FuelModArea2.mxd



-  VMU 3 Boundary (100 Horizontal Feet from Structures)
-  Fuel Modification Area to be Created (1.36 acres)
-  Property Boundary

**DUDEK**

6680-10

SOURCE: Bing, SanGIS 2012

Potrero Mason Property - Vegetation Management Plan

**FIGURE 15**  
**Focused Fuel Modification Areas (VMU 3)**

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**Implementation Measure B.3.3:** DPR will continue to coordinate with CAL FIRE to ensure that the fire response and implementation measures outlined in this RMP and in the VMP (Dudek 2013) are up-to-date and adequate for effective fire response within the Property. As part of this effort, DPR will review fire history maps at least once every 10 years to determine if Property lands are within natural fire return intervals and for estimation of fuel age class.

#### **5.4 Public Use, Trails, and Recreation Element (C)**

**\*\*THE PRESERVE PORTION OF THE PROPERTY IS NOT CURRENTLY OPEN TO THE PUBLIC\*\***

##### **5.4.1 Public Access**

The Park portion of the Property is currently open to the public for camping and approximately 1.0 mile of trails referred to as the “Nature Trail” for hiking (Figure 7).

The Preserve portion of the Property is currently not open to the public. A formal trail system for the Preserve is currently being considered by DPR.

#### **Management Directive C.1 – Limit types of public uses to those that are appropriate for the Preserve portion of the Property (Priority 1)**

**Implementation Measure C.1.1:** DPR rangers will patrol and monitor the Preserve portion of the Property for any unauthorized public access. Park rangers will document any illegal access, and inform any unauthorized persons observed on site that the Preserve is not currently open to the public and request that they leave the property. In addition, they will enforce the following prohibited uses and restrictions within the Preserve. Park rangers may call the sheriff for legal enforcement, as appropriate.

- a. Off-road or cross-country vehicle and public off-highway recreational vehicle activity are considered incompatible uses in the MSCP preserve, and are therefore prohibited in the Preserve, except for law enforcement, Preserve management, and/or emergency purposes.
- b. Hunting or discharge of firearms is an incompatible use in the MSCP preserve, and is therefore prohibited in the Preserve, except for law enforcement, and/or emergency purposes.
- c. Poaching or collecting plant or animal species, archaeological or historical artifacts or fossils from the Preserve is generally prohibited; however, the County may authorize collecting upon approval for scientific research, revegetation or restoration purposes, or species recovery programs. In addition, impacts to historic features are prohibited except upon approval by the County.
- d. Fishing, swimming, and wading in rivers, streams, or creeks

- e. Camping (including homeless and itinerant worker camps)
- f. Feeding wildlife
- g. Domestic animals, except horses and leashed dogs
- h. Smoking
- i. Campfires/Open Flames
- j. Off-trail biking, equestrian use, or hiking
- k. Littering/Dumping

**Implementation Measure C.1.2:** Park Rangers will ensure that prohibited uses are clearly specified on posted signage.

**Management Directive C.2 – Manage access in sensitive biological and cultural resource areas within the Property (Priority 1)**

**Implementation Measure C.2.1:** DPR has identified and mapped sensitive vegetation communities, special-status plant and wildlife species (including narrow endemics and County-listed species), and cultural sites in the Property so that these areas can be avoided and/or monitored. Updated information on sensitive resources in relation to access points (i.e., existing access roads and trails) will be obtained in conjunction with routine monitoring activities (see implementation measures A.1.1, A.1.2, and C.5.1).

**Management Directive C.3 – Analyze any future proposed public access such that recreational use of the Preserve portion of the Property is consistent with the protection and enhancement of biological and cultural resources (Priority 2)**

The Preserve portion of the Property is currently not open to the public. A Public Access Plan has been developed for the Preserve and includes recommendations for preferred trail alignments and features compatible with the protection and enhancement of on-site biological and cultural resources. A preferred trail alignment is currently being considered by DPR.

**Implementation Measure C.3.1:** DPR will ensure that any proposed trail system will undergo environmental review in accordance with CEQA prior to public use of the Preserve.

**5.4.2 Fencing and Gates**

Currently, perimeter, multi-strand wire fencing is present along the Property's northern, eastern, and southern boundaries, as well as along a length of the northwestern perimeter. Vehicle access gates are located at the northwest corner and at the eastern access point from Harris Ranch Road (Figure 7). Trail gates are

located at the northwestern gate, at the eastern access point from Harris Ranch Road, and along the northern perimeter.

**Management Directive C.4 – Install and maintain fences and gates within the Preserve (Priority 1)**

**Implementation Measure C.4.1:** Points of unauthorized access and sensitive species impacts will continue to be identified in conjunction with habitat, plant and wildlife, and access road monitoring activities (as described in implementation measures A.1.1, A.1.2, and C.6.1). DPR will ensure that any installation of fences or gates will be designed and located so they do not impede wildlife movement or impact cultural resources.

**Implementation Measure C.4.2:** Park ranger staff will regularly inspect and maintain gates in the northern and eastern portions of the Property. Gates will be repaired or replaced as necessary.

**5.4.3 Trail and Access Road Maintenance**

The Park portion of the Property is currently open to the public for camping and provides a “Nature Trail” for hiking. The Preserve portion of the Property is not currently open to the public.

**Management Directive C.5 – Properly maintain Nature Trail within the Park and the east-west dirt trail on the Preserve for user safety and to protect biological and cultural resources (Priority 1)**

**Implementation Measure C.5.1:** Park ranger staff will monitor the Nature Trail for degradation and off-trail access and use, and provide necessary repair/maintenance per the Community Trails Master Plan (County 2009b).

**Implementation Measure C.5.2:** If temporary closure of portions of the Nature Trail is deemed necessary for maintenance or remediation, temporary closure actions will be accompanied by educational support, and public notification through signs and public meeting announcements. An implementation schedule will be written by DPR Operations staff when maintenance or remediation is deemed necessary.

The section of trail will be posted with signage that indicates temporary closure and the primary reason for the temporary closure (e.g., erosion issues, and sensitive biological resource impacts). Finally, signs will provide contact information for anyone wishing to provide input on trail use or gain additional information regarding temporary closure of trails.

Once posted, the section of trail in need of maintenance will be blocked with A-frame barricades and/or caution tape. Enforcement of the temporary closure of a

trail would require increased ranger patrols of these areas and investigations to determine if the barriers are effective.

**Implementation Measure C.5.3:** DPR will restore degraded habitats and reduce detrimental edge effects through maintenance and stabilization of trails and strategic revegetation. Measures to counter the effects of trail erosion may include the use of stone or wood cross-joints, edge plantings of native grasses, and mulching of the trail per the Community Trails Master Plan (County of San Diego 2005) and approved Best Management Practices (BMPs).

**Implementation Measure C.5.4:** If unauthorized trail formation is observed by DPR ranger staff, those specific areas will be posted with clear signage reminding the public to remain on authorized trails. Also see management directive C.6.

**Implementation Measure C.5.5:** Park ranger staff will monitor the existing east-west dirt access road in the northern portion of the Preserve currently used for management purposes for degradation and off-trail access and use. Park ranger staff will provide necessary repair/maintenance as needed.

#### **5.4.4 Signage**

No signage is currently posted on the Preserve portion of the Property.

**Management Directive C.6 – Develop, install, and maintain appropriate signage to effectively communicate important information to Property visitors (Priority 1)**

**Implementation Measure C.6.1:** DPR staff will install 3 foot X 4 foot signs stating “Mason Wildlife Preserve, County of San Diego Department of Parks and Recreation, No Public Access” at the following locations, along the access road just north of the Nature Trail trailhead; northwest corner at location of current gate; northern boundary at location of current gate; access road to the Clark property; and gate at Harris Ranch road entrance. Smaller versions of the signs (11 inches X 17 inches) will be posted along the boundary of the Preserve on the fence at regular intervals. The posted signs will be regularly inspected and maintained in good condition by park ranger staff. Signs shall be kept free from vandalism and will be repaired or replaced as necessary.

### **5.5 Operations and Facility Maintenance Element (D)**

#### **5.5.1 Litter/Trash and Materials Storage**

**Management Directive D.1 – Maintain a safe and healthy environment for Park and Preserve users (Priority 1)**

**Implementation Measure D.1.1:** Trash receptacles are located throughout the Park and are designed to be secure from intrusion by wildlife species. Park staff will regularly empty trash receptacles on a daily basis.

**Implementation Measure D.1.2:** DPR prohibits the permanent storage of hazardous and toxic materials within the Park or Preserve. Any temporary storage must be in accordance with applicable regulations, and otherwise designed to minimize any potential impacts.

**Management Directive D.2 – Enforce regulations regarding littering/dumping (Priority 1)**

**Implementation Measure D.2.1:** Park rangers will enforce regulations regarding littering/dumping (County Code of Regulatory Ordinance Section 41.116). Penalties for littering and dumping will be imposed by law enforcement officers sufficient to prevent recurrence and reimburse costs to remove and dispose of debris, restore the area if needed, and pay for additional DPR staff time. Areas where dumping recurs will be evaluated for potential barrier placement. Additional monitoring and enforcement will be provided as needed.

**5.5.2 Hydrological Management**

As stated in Section 2.3.3, water within the Property generally drains and eventually flows into Potrero Creek. This creek discharges into the Tijuana River and flows southwest from the Property to the Tijuana Estuary in Imperial Beach.

**Management Directive D.3 – Retain the drainages on-site in their natural condition (Priority 1)**

**Implementation Measure D.3.1:** DPR will conduct visual assessments of the conditions of the drainages in conjunction with habitat monitoring (see implementation measure A.1.1) to determine if invasive non-native plants are recurring.

**5.5.3 Emergency, Safety and Police Services**

**Management Directive D.4 – Cooperate with public health and safety personnel to achieve their goals while helping to reduce or eliminate impacts to biological and cultural resources within the Property (Priority 1)**

**Implementation Measure D.4.1:** DPR will allow law enforcement officials and all medical, rescue and other emergency agencies to access the Property as necessary to enforce the law and carry out operations necessary to protect the health, safety, and welfare of the public. DPR will coordinate with the applicable agencies to inform field personnel of the locations of particularly sensitive

biological and significant cultural resources and how to minimize damage to these resources.

#### **5.5.4 Adjacency Management Issues**

As described in Section 2.4.2, currently spaced rural residential, vacant and undeveloped lands, field crops, and open space park or preserve surround the Property. The establishment of the MSCP preserve system does not include regulatory authority on properties adjacent to the Property; however, the County will require adjacent property owners to follow guidelines when planning and implementing uses and activities that can be regulated.

#### **Management Directive D.5 – Coordinate with adjacent open space land managers (Priority 1)**

**Implementation Measure D.5.1:** DPR will coordinate with the Bureau of Land Management (in association with their contiguous open spaces) on an annual basis, or more regularly as needed, to ensure contiguous preserved land is managed consistently and in accordance with the MSCP. Coordination will include discussion of conservation goals; threats; methodology for management, monitoring, restoration, and reintroduction; results of management tasks and scientific research; and potential future projects.

#### **Management Directive D.6 - Enforce Property boundaries (Priority 1)**

**Implementation Measure D.6.1:** DPR staff will enforce, prevent, and remove illegal intrusions into the Property (e.g., parking areas, orchards, decks) on an annual basis, in addition to a complaint basis.

#### **Management Directive D.7 – Educate residents of surrounding areas regarding adjacency issues (Priority 2)**

**Implementation Measure D.7.1:** DPR will post this RMP on the DPR website ([www.sdparks.org](http://www.sdparks.org)) to heighten the environmental awareness of adjacent residents, and inform residents of appropriate landscaping, construction or disturbance within the Property boundaries, pet intrusion, fire management, and other adjacency issues. See also implementation measure B.2.1.

### **5.6 Cultural Resources Element (E)**

The goal of this cultural resources section of the RMP is long-term protection and preservation of recorded and undiscovered cultural resources, public interpretation and educational opportunities, and consultation with local Native American tribes regarding the significance of cultural resources as well as usage of the Property for their traditional gathering and ceremonial practices.

The management directives below have been designated as Priority 1 or Priority 2 recognizing the fact that many of the directives cannot be immediately implemented, but instead will occur over the life of the MSCP. The ability to implement and the timing of many of the management directives will be directly related to the availability of funding in any fiscal year and on the priority.

**Management Directive E.1 – Identify, record, and assess the significance of any new cultural resources discovered within the Property (*Priority 1*)**

Ground surface visibility during the survey was 25 percent or less on the ridge tops and 10 percent or less on the slopes and within the drainages, due to the presence of thick vegetation. Therefore, it is likely that undiscovered significant cultural resources exist in areas of the Property that were not accessible during the cultural resource survey.

***Implementation Measure E.1.1:*** DPR staff will conduct site-specific cultural resources surveys at 5 meter intervals to determine the presence/absence of cultural resources within the Area of Potential Effect for all future development projects and ground disturbing activities proposed in the Property including, but not limited to, new multi-use trails, staging/parking areas, vegetation thinning or removal as a result of wildfire or planned clearing, grubbing or other related activities associated with invasive plant removal, and habitat restoration and fire management efforts. Surveys will be conducted in accordance with CEQA (when applicable) and County of San Diego Cultural Resources guidelines (County 2007), and will include a Kumeyaay Native American monitor. Any new resources identified will be evaluated for significance, in consultation with local Native American tribes, or significance will be assumed if testing is not conducted. See also implementation measure E.2.1.

***Implementation Measure E.1.2:*** In the event that human remains are discovered during archaeological surveys or testing, DPR staff will immediately stop all work and notify the County Coroner. If the Coroner determines the remains are Native American, the Most Likely Descendant, as identified by the NAHC, will be contacted in order to determine proper treatment and disposition of the remains. Per County guidelines, any time human remains are encountered, the site is considered significant (County 2007). See also implementation measure E.2.1.

**Management Directive E.2 – Preserve and protect significant cultural resources to ensure that sites are available for appropriate uses by present and future generations (*Priority 1*)**

Potential impacts to cultural resources within the Property are most likely to result from fire suppression and maintenance activities (e.g., vegetation removal), and future development and public use. In order to protect these resources, it is

necessary that impacts be prevented, reduced, eliminated, or adverse effects mitigated.

***Implementation Measure E.2.1:*** DPR staff will design all future development projects within the Property to avoid adverse impacts to any cultural resources to the maximum extent feasible. Potential project impacts (direct, indirect and cumulative) to cultural resources will be assessed, in consultation with local Native American tribes, in order to determine appropriate design conditions and/or mitigation measures. It is recommended that any trails and other park facilities planned for future construction not be located in the vicinity of cultural resources as avoidance and preservation of all cultural resources is strongly recommended. No ground disturbing activities will be allowed on or in any cultural resource site within the Property until the impacts have been assessed, and consultation with the local Native American tribes has occurred. Should avoidance be feasible, a management or preservation plan may be developed in consultation with local Native American tribes to ensure that the cultural resource(s) is protected from future disturbance.

If avoidance is not feasible, appropriate mitigation measures will be established in consultation with local Native American tribes. Preservation in place is the preferred form of mitigation. Removal or disturbance of cultural resources will not occur prior to completion of an approved mitigation program, such as data recovery and a grading monitoring program consisting of a qualified archaeologist and Kumeyaay Native American monitor. Any cultural materials collected from the Property will be curated at a County-approved curation facility. No removal or modification of cultural resources will occur without consultation with local Native American tribes and written approval by the Director of Parks and Recreation. All ground disturbing activities will be monitored by a qualified archaeologist and Kumeyaay Native American monitor. See also implementation measure E.1.2.

***Implementation Measure E.2.2:*** DPR staff will avoid all recorded, sensitive cultural resources with an appropriate buffer known as the exclusion zone. The exclusion zone parameters will be determined on a site-specific basis in consultation with local Native American tribes, when conducting management and maintenance activities within the Property including, but not limited to, fuel management and habitat restoration activities. This exclusion zone shall be created around the cultural resources through the use of temporary fencing which will be placed around the site boundaries and completely surround the resource, including artifacts, archaeological features, and historic features. The exclusion zone is intended to prevent any accidental impacts to cultural resources during construction of park facilities and trails or during park maintenance activities by prohibiting access to the resources. If access to cultural resources is necessary, manual methods will be used to the maximum extent possible, and any ground disturbance will be monitored by a qualified archaeologist and Kumeyaay Native American monitor.

**Implementation Measure E.2.3:** Park Rangers will enforce the protection of recorded, sensitive cultural resource sites from vandalism and other forms of human impact in accordance with County of San Diego ordinances (Title 4; Public Property, Division 1; Parks and Beaches, Article 2, Section 41.113), and applicable state and federal laws. If a person(s) is suspected of vandalism to cultural resources, Park Rangers will notify the appropriate law enforcement authorities. If vandalism and damage continue or increase, DPR will coordinate with the appropriate authorities and local Native American tribal representatives to develop additional measures to protect cultural resources, as needed.

**Implementation Measure E.2.4:** DPR will note the condition and status of known cultural resources within the Property as part of on-going monitoring efforts conducted on a five-year basis (or on a more frequent basis as determined by DPR). If damage is noted, DPR will notify and consult with local Native American tribal representatives to assess the damage and develop appropriate remedial measures, if needed. Monitoring of the sites in the Property will follow County of San Diego Guidelines for Determining Significance: Cultural Resources (County 2007) and all site location information will be kept strictly confidential and will be available only to qualified cultural resource staff and land managers. Site locations will not be shown on maps or divulged to the public.

### **Management Directive E.3 – Promote cultural resources interpretation and educational programs (Priority 2)**

**Implementation Measure E.3.1:** DPR will develop off-site, and when possible, on-site interpretive programs for Native American heritage, local and regional history, and prehistory appropriate to the Property in coordination with Kumeyaay tribal representatives. These may include lectures, walks, kiosks, signs, historic brochures and displays, but will not include excavations, collecting of artifacts, or disclosure of confidential archaeological site locations. Drawing the public's attention to any eligible sites containing substantial subsurface and/or surface deposits of artifacts would not be recommended, as this may encourage site looting and impacts to site integrity. Offsite interpretation would be the preferred means to provide public education while protecting any possible sites within the Property. It is recommended that any interpretive signage or educational media, such as kiosks, be placed along trails or other park facilities, such as the ranger station, and discuss prehistoric and historical land use within the Property or the surrounding area as a whole, rather than individual resources. The Ranger Station within the Park is currently displaying several prehistoric artifacts; however, there is minimal educational and interpretative signage of the prehistoric, ethnographic and historic resources within the Property. Additional signage should be developed that focuses on Kumeyaay land use

within the vicinity of the Property, including plant and animal food sources within the surrounding area, hunting and gathering techniques, and non-food resource uses, such as clothing, housing, basketry and pottery making, and lithic technology, as well as seasonal land use.

Signage discussing local Native Americans from the nearby Campo Indian Reservation, located to the east of the Property, could also add to the prehistoric interpretation of the Property. DPR shall include the local tribes in the development of the interpretative information. Public education and interpretation of historical resources would utilize the historic context in order to discuss the history and land use of the region surrounding the Property, especially the use of the land for ranching. Another area of public interpretation would be transportation within San Diego County's backcountry, from the use of prehistoric trails to the development of the San Diego and Arizona Railway and Highway 94. Another area of public education and interpretation is the discussion of fire, fire prevention, and the manipulation of the environment by prehistoric populations. Fire prevention tips and warnings could be combined with a discussion of prehistoric and historic prevention and management of fire in San Diego County, as well as a history of the 2007 Harris Fire and past fires in the vicinity.

**Management Directive E.4 – Honor Native American Heritage and promote Native American ceremonies, gathering, and cultural practices (*Priority 2*)**

***Implementation Measure E.4.1:*** DPR will continue to coordinate and consult with Kumeyaay tribal representatives who may have knowledge of the area in order to keep them informed of activities associated with the Property. Consultation is required pursuant to Section 65352.3 of the Government Code (Senate Bill 18 (SB-18) [2004]) for any project that involves a General Plan Amendment, Specific Plan, or Specific Plan Amendment. Additionally, the County consults with Native American groups outside of the requirements of SB-18 in accordance with County of San Diego Guidelines for Determining Significance: Cultural Resources (County 2007). Specifically, the County requires a Native American monitor for surface and subsurface investigations (survey, significance testing, and data recovery) and grading in areas with potential presence of cultural resources, and conducts consultations for projects that have a positive finding for the presence of cultural resources. See E.1.1, E.2.1 & E.2.2.

DPR will also consult with Kumeyaay representatives and encourage their participation in development of interpretive programs, and the protection and preservation of cultural resources including, but not limited to, development of long-term management or preservation plans (See E.1.1, E.2.1, E.2.3 & E.2.4). Consultation will be conducted frequently, and in a way that is mutually respectful of each party's sovereignty, in order to identify appropriate management of pre-contact and ethnographic cultural resources.

Consultation shall also recognize the tribe's potential needs for confidentiality with respect to places that have traditional tribal cultural significance. All consultation will be coordinated through the DPR staff archaeologist and County of San Diego Tribal Liaison.

***Implementation Measure E.4.2:*** DPR will open the Property to traditional uses by the Campo Indian Tribe, Sycuan, Lipay or other Kumeyaay tribes which may have traditionally used the Property area. All activities by Native Americans in the Property shall be conducted under a Hold Harmless Agreement or a Right-of-Entry permit specifically designed for the Property.

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