

# RESOURCE INVENTORY AND CONSTRAINTS REPORT

## EAST-WEST RANCH



*Prepared by*  
RINCON CONSULTANTS, INC.  
1530 MONTEREY STREET, SUITE D  
SAN LUIS OBISPO, CA 93401



*For the*  
CAMBRIA COMMUNITY SERVICES DISTRICT

*March 2002*

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## 1.0 INTRODUCTION

Imagine California's central coast prior to the introduction of European settlers: rugged cliffs hiding coves and little beaches, framed by rolling hills covered in a blanket of rich grasses and native chaparral giving way to ancient oak woodlands. In places, deep, lush pine forests mixed with cypress and oak trees made up a landscape influenced by diverse hydrology. Today many of these environments are reduced to relics. But some remain—and one such area is the East-West Ranch in the community of Cambria on the north coast of San Luis Obispo County, California.

### 1.1 BRIEF SITE DESCRIPTION AND HISTORY

The East-West Ranch is a 414-acre property located in the community of Cambria. Highway 1 (California's Pacific Coast Highway) divides the property into two areas of unequal size. These areas are known as the East Ranch (59 acres east of the highway) and the West Ranch (355 acres west of the highway), respectively. Santa Rosa Creek, flowing west and north across the property, defines the northern boundary of East Ranch. After passing under the highway the creek forms the northeastern boundary of West Ranch (Singer & Associates, 1995).

***Cambria History.*** The history of Cambria, beginning with European settlement, has been well documented. Since the beginning of the 19<sup>th</sup> Century cattle ranching has been the principal activity in the area. Shortly after 1850 the harvesting of local forests began. For a short time, whaling and otter hunting were prominent activities, as was the mining of mercury. Coastal shipping was important until the coming of the railroad. Mercury mining continued sporadically for about a century, finally ending about 1960. When the old growth forest disappeared the quality of the timber declined, commercial logging slowed, and finally ended about 1950.

About 1870, after the collapse of the old rancho system, a large constituent of Swiss-Italian and Portuguese influences contributed to a thriving dairy cattle industry that introduced butter and cheese production to the area. Later, tourists began to come when the Pacific Coast Highway was built, and suburban residential development began shortly after the end of World War II. Cambria began to grow after the opening of Hearst Castle as a State Historic Park. Between 1950 and 1960 the population grew from about 1,500 to more than 4,500 people, rounding out to a current estimated population of 6,100. Today, the local economy is dominated by tourism and land speculation (Singer & Associates, 1995).

***The East-West Ranch.*** The East-West Ranch of Cambria, once owned and operated by the Fiscalini family, is made up of portions of three different geographic areas: the Pacific Ocean coastline, elevated marine terraces, and the Santa Rosa Creek floodplain. Within these areas are many distinct biological habitats (refer to Exhibit 2 of this report). Santa Rosa Creek supports a narrow riparian zone on both the East and



West Ranch. As Exhibit 2 indicates, Monterey Pine forests, Cypress and Coast Live Oak woodlands, open grasslands and coastal scrub dominate the area. It also includes extensive wetland habitat and an insurgence of non-native species. Overall, this area is a fine example the diverse central coast bioregion and is indicative of the complex web of natural resources found in the region.

At the present time the entire property is undeveloped and is used for the grazing of approximately 40 head of beef cattle. The East-West Ranch property was recently acquired by private donations and conservation agencies. The Cambria Community Services District (CCSD) holds the actual ownership title to the property. The periphery of both areas is completely fenced, although a coast bluff trail on the West Ranch supports some passive foot traffic.

Although the East-West Ranch is a fine example of the intricate interplay of natural resource communities, it has evolved substantially. Two centuries ago much of West Ranch was covered with pine/oak forest and coastal sage scrub, while East Ranch was probably a mosaic of marshland, native grassland, pine/oak forest and riparian areas. Alteration of the landscape began shortly after the arrival of Spanish colonists. At the end of the 18<sup>th</sup> Century herds of cattle, sheep and horses were introduced and California's native grasses were quickly replaced by introduced species. At the same time, settlers began removing the native scrub and chaparral vegetation, cutting the pine and oaks forests, and filling or draining marshes and estuaries.

Policies of fire suppression removed an important element of local ecology. Soon the open forests and grasslands that were cleared by low-intensity burns began to disappear, only to be replaced by dense stands of forests and chaparral choked by layers of litter and understory growth. For the most of the 19<sup>th</sup> and 20<sup>th</sup> Centuries, agriculture was the principal economic and political force in the region. Trees and cattle were both very important commodities and the landscape began to reflect these priorities (Singer & Associates, 1995).

While the East-West Ranch has changed because of historical human activity, it is the goal of the CCSD to protect this property from further encroachment and to provide the community with an opportunity to appreciate its natural splendor.

## **1.2 PURPOSE OF THIS REPORT**

The purpose of this report is to outline the existing conditions of Cambria's East-West Ranch. Of primary concern is a resource inventory that highlights biological and cultural resources on the Ranch. This report will not discuss design alternatives or any proposed management practices chosen to be implemented on-site. Instead, this document is a supplement to an overall management plan that will encompass ideas that reflect the best ways to preserve the East-West Ranch in accordance with community goals.



This document will briefly highlight the following existing conditions:

- Land Use
- Public Services and Infrastructure
- Biological Resources
- Cultural Resources
- Hazards

In addition to an overall resource inventory, this report also highlights the East Ranch (Section 7.0 of this document) in particular. Due to its separation from the varied constraints of the West Ranch, and the more ruderal nature of the site itself, the East Ranch presents an opportunity for the development of an active park for the community. Section 7.0 summarizes the analysis of East Ranch resources and helps to identify the opportunities associated with a more active park within its boundaries.














This information, in its entirety, will ultimately be used in the environmental documentation for the management plan and be used to help direct the contents of that plan. This report will also help identify opportunities and constraints associated with the potential use of the site.











# East-West Ranch

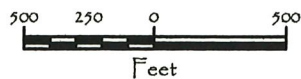
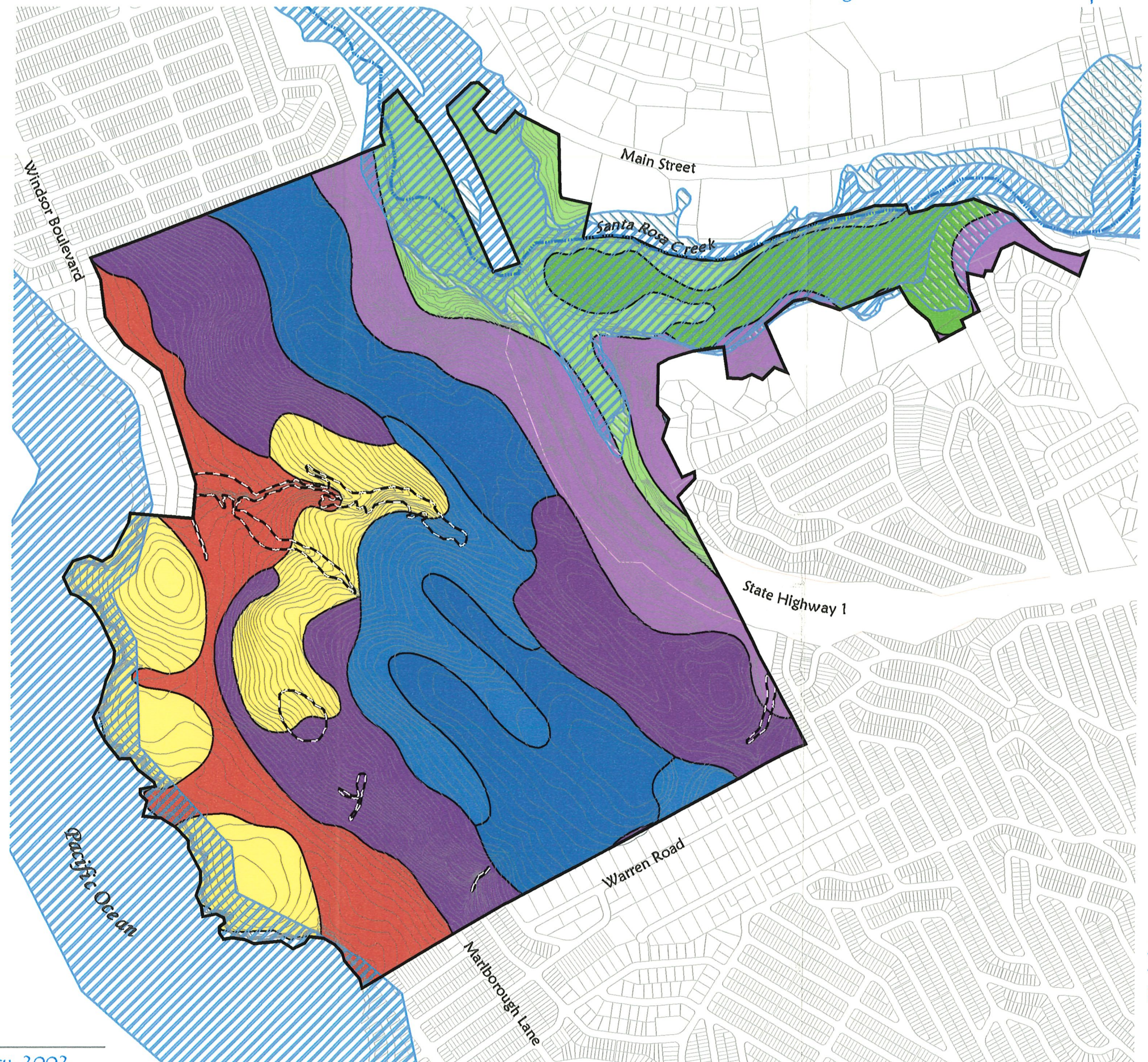
Cambria, California

## Legend

-  Property Boundary
-  Santa Rosa Creek
-  Known/Potential Gully Erosion
- Soil Unit Name**
-  Concepcion Loam, 2 to 5 percent Slopes
-  Briones-Pismo Loamy Sands, 9 to 30 Percent Slopes
-  Marimel Silty Clay Loam, Drained
-  Salinas Silty Clay Loam, 2 to 9 Percent Slopes
-  San Simeon Sandy Loam, 2 to 9 Percent Slopes
-  San Simeon Sandy Loam, 9 to 15 Percent Slopes
-  San Simeon Sandy Loam, 15 to 30 Percent Slopes
-  San Simeon Sandy Loam, 30 to 50 Percent Slopes
- FEMA Flood Zone**
-  FEMA 100-year Flood Boundary
-  FEMA 500-year Flood Boundary

Map Unit Symbol	Erosion Potential	Capability Class (Irrigated/non-Irrigated)	Prime Soils
	high for wind; moderate-high water	none/VI	no
	slight water but gullyng occurs	III/III	no
	slight water with poor drainage	I/III	yes*
	slight-moderate for water	II/III	yes*
	slight-moderate for water	IV/IV	no
	moderate for water	IV/IV	no
	high water with gullyng	none/VI	no
	high water with gullyng	none/VI	no














\*prime soils with irrigation

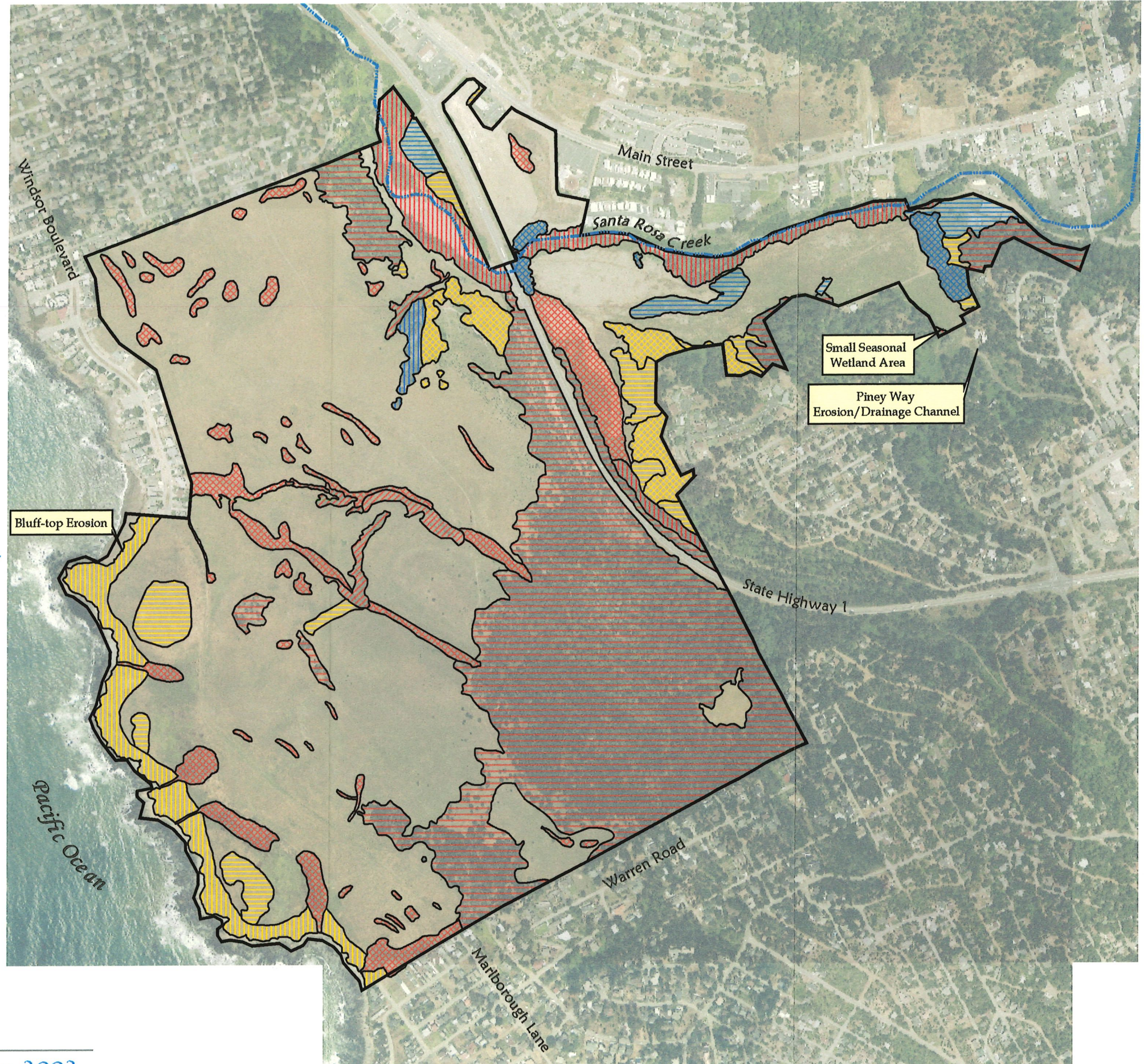
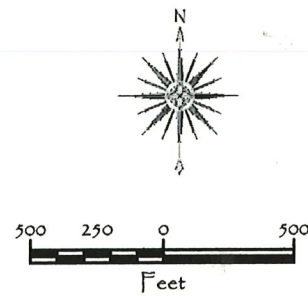


# East-West Ranch

Cambria California

## Legend

-  Property Boundary
-  Santa Rosa Creek
- Severe Constraints**
-  Riparian: A, B, C, D, E, F, G, I, J, L
-  Seasonal Wetland: A, B, C, D, L, N
-  Monterey Pine: I, J, K, L, N
-  Riparian Scrub: A, B, C, D, J, L
- Moderate Constraints**
-  Seabluff Scrub: H, J, N
-  Oak/Toyon: I, J, N
-  Coastal Scrub: H, J, N
-  Grassland: I, M, N
- Minor Constraints**
-  Monterey Cypress: I
-  Eucalyptus: A, I
-  Ruderal: J



- A. County of San Luis Obispo's 50-foot creek and 100-foot wetland setback (per Sections 23.07.172 and 23.07.174 of the County Land Use Ordinance; Coastal Development permit)
- B. Potential California Department of Fish and Game (CDFG) jurisdiction over activities affecting drainage channels and riparian vegetation (Section 1600 Streambed Alteration Agreement)
- C. Potential U.S. Army Corps of Engineers (Corps) jurisdiction over waters of the U.S. and wetlands (Corps Delineation and Section 404 permit)
- D. California red-legged frog habitat (United States Fish and Wildlife Service consultation)
- E. Southern steelhead and tidewater goby habitat (USFWS/National Marine Fisheries Service consultation)
- F. Potential southwestern pond turtle and two-striped garter snake habitat (County and CEQA review)
- G. Potential bank swallow habitat (County and CEQA review; USFWS consultation)
- H. Potential silvery legless lizard habitat (County and CEQA review)
- I. Potential nesting/roosting habitat for migratory bird species and "birds-of-prey" (County and CEQA review; USFWS consultation; DFG Code 3503 and 3503.5)
- J. Potential song bird nesting habitat (County and CEQA review; DFG Code 3503)
- K. Potential roosting habitat for Monarch butterfly (County and CEQA review)
- L. Rare vegetation community per the California Natural Diversity Database (County and CEQA review)
- M. Potential occurrences of native perennial grassland (County and CEQA review)
- N. Potential habitat for rare plant species (County and CEQA review)

note: Eucalyptus Habitat at intersection of Santa Rosa Creek and Highway 1 may be considered jurisdictional by the California Department of Fish and Game (Constraint B).



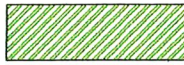




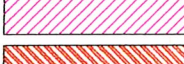



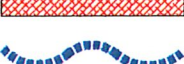



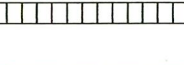






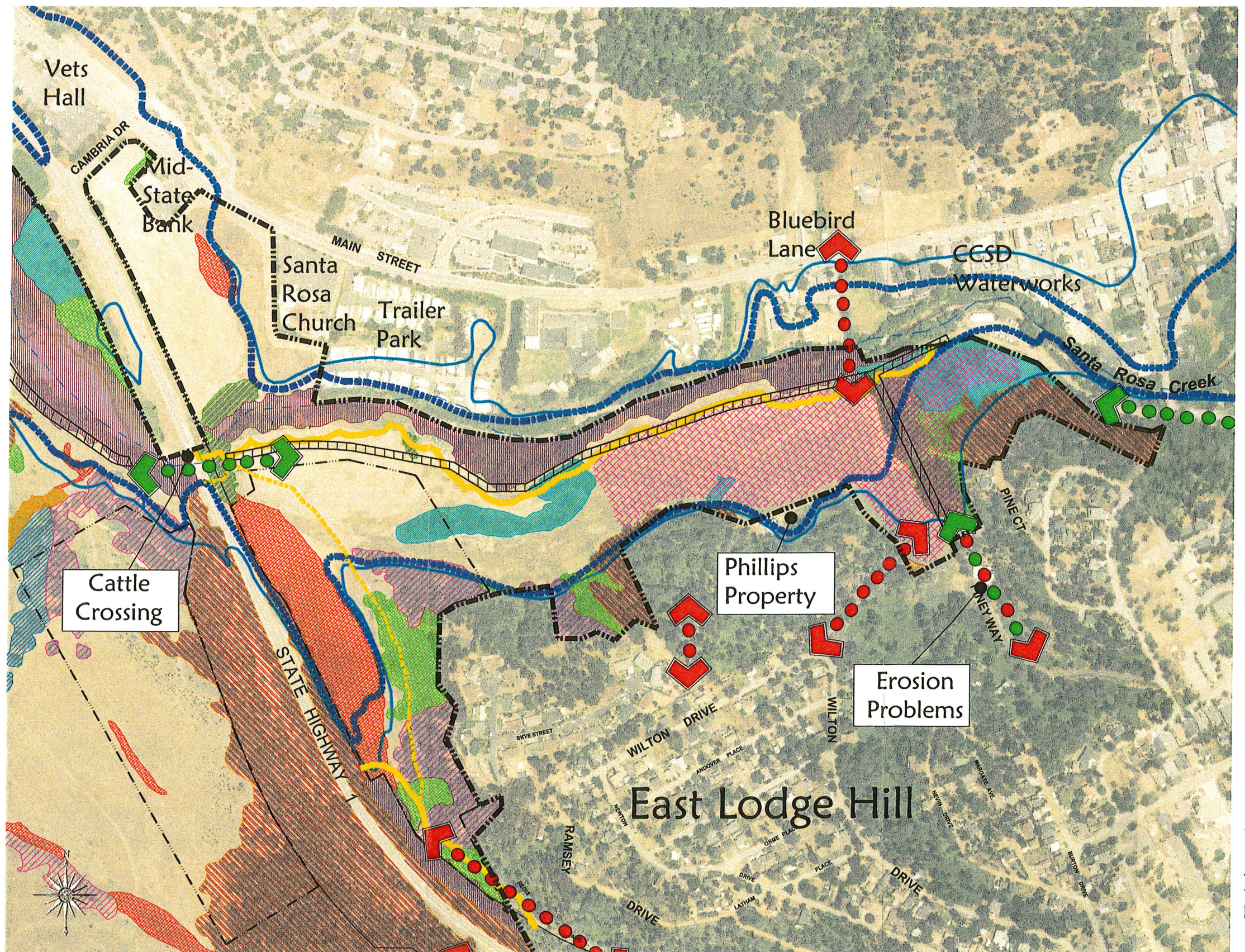
# East-West Ranch

Cambria, California

## Public Access and Resource Management Plan

### Legend

- Eucalyptus Minor Constraint 
- Ruderal Minor Constraint 
- Monterey Cypress Minor Constraint 
- Grassland Moderate Constraint 
- Coastal Scrub Moderate Constraint 
- Oak/ Toyon Moderate Constraint 
- Monterey Pine Severe Constraint 
- Riparian Scrub Severe Constraint 
- Riparian Severe Constraint 
- Seasonal Wetland Severe Constraint 
- FEMA 100-Year Flood Boundary 
- FEMA 500-Year Flood Boundary 
- 50 Foot Creek Setback Line 
- 100 Foot Wetland Setback Line 
- Utility Easements 
- Cal Trans Exemption Parcels 
- Neighborhood Connections 
- Emergency Vehicle Connections 



RRM DESIGN GROUP  
Quality Environments People Enjoy

East Ranch Constraints Analysis

Exhibit Three

Not to Scale

March, 2002





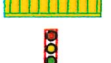





Exhibit Three

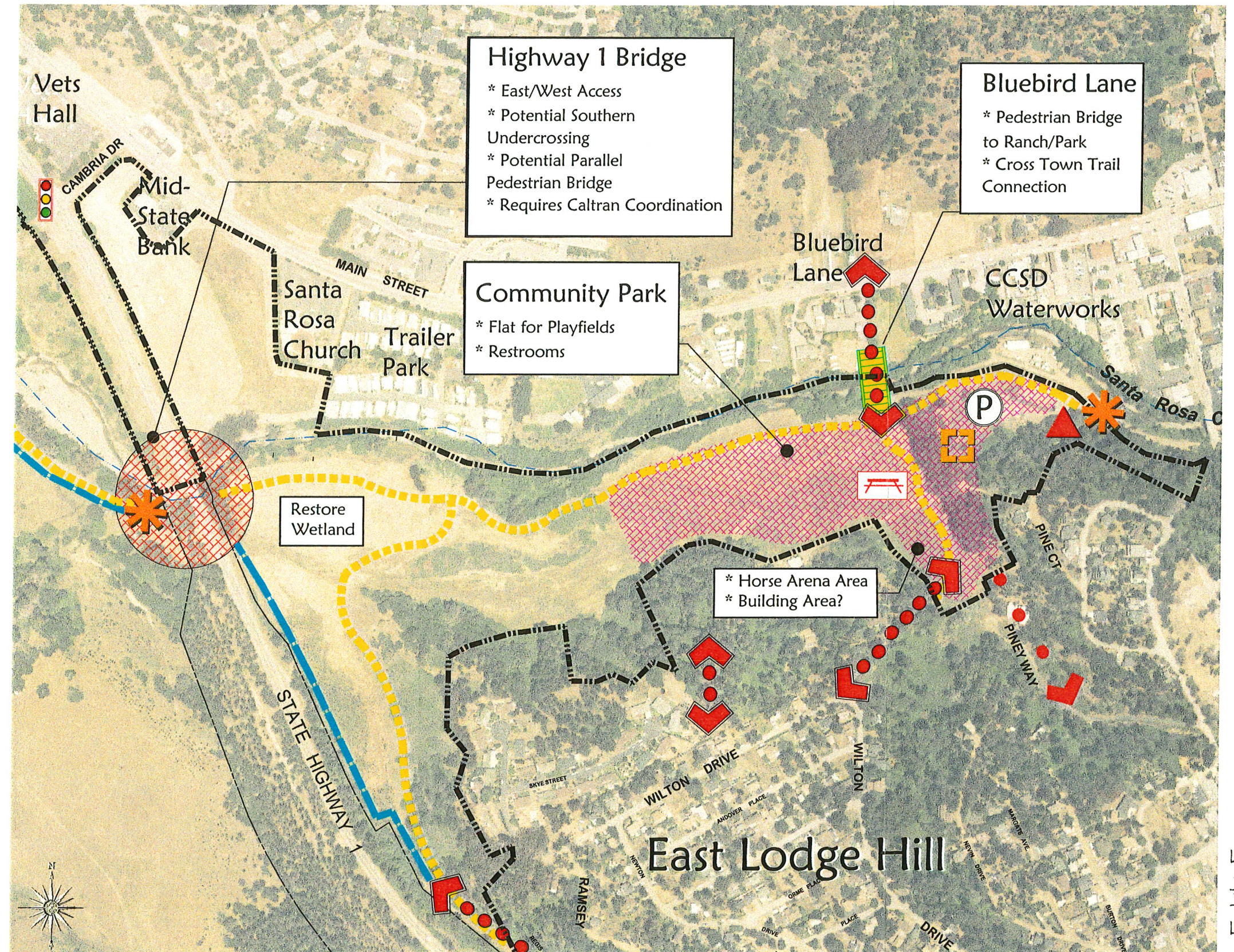
# East-West Ranch

Cambria, California

## Public Access and Resource Management Plan

### Legend

- Possible Entry Point 
  - New Community Park 
  - Potential Restroom Location 
  - Potential Signage 
  - New Pedestrian Bridge 
  - New Traffic Signal 
  - Highway Crossing Area 
  - Add Bench or Picnic Areas 
  - New Parking Area 
  - Potential New Fencing 
  - New Trail Connections 
- Note: Remove All Invasive Plant Species



RRM DESIGN GROUP  
Creating Communities People Enjoy

East Ranch Community Park Suitability

Not to Scale

Exhibit Four

March, 2002

Exhibit Four

## 2.0 LAND USE

The purpose of this section is to introduce the existing land uses within and surrounding the East-West Ranch. Although the Ranch is a relatively large piece of open space and agricultural land, it is an integral portion of the community of Cambria and is unique for that reason. The subject property is influenced by its surrounding land uses, adding to the distinct character of the site.

### 2.1 ON-SITE LAND USE

The East-West Ranch, as described in Section 1.0, continues to support historical agricultural uses. Although development proposals have been considered in the past, none were ever approved, and the site remains undeveloped except for agricultural uses. Cattle ranching is the predominant use for the property: about 40 head of beef and dairy cattle graze the East-West Ranch. The East-West Ranch also supports a diverse population of flora and fauna. The subject site is dominated by Monterey pine, seasonal wetlands, riparian zones, coastal and seabluff scrub, and grasslands (see Exhibit Two for a complete list of habitat types). Section 4.0 of this report describes the natural features of the site in greater detail.

### 2.2 NEIGHBORING LAND USES

*East Ranch:* The East Ranch is surrounded by residential and commercial land uses. On its northern boundary, the East Ranch is bordered by Santa Rosa Creek. The area north of the creek consists of residential and some commercial land uses. This neighborhood consists mainly of the portion of Main Street between Cambria Drive and Bridge Street. On its southern boundary, the East Ranch is adjacent to residential neighborhoods that include those around Burton Drive, Wilton Drive, Piney Way, and Paterson Place. The southwestern and southeastern portions of the East Ranch are also bordered by residential neighborhoods. One existing home on Pine Court is located immediately adjacent to southeastern boundary of the East Ranch. In addition, the Phillips residence is located on the southern boundary of the East Ranch, within a level area adjacent to the site. The eastern boundary of the East Ranch extends to Burton Drive.

*West Ranch:* The West Ranch is similar to the East in that it is also surrounded by residential land uses. On its northern boundary, the West Ranch is adjacent to the Park Hill residential neighborhood, which includes homes along Huntington Road and Windsor Boulevard. The West Ranch is generally bound on the west by the Pacific Ocean and partly by the southern extent of Windsor Boulevard. On the south, the West Ranch is once again bound by residential development in the Lodge Hill neighborhood. This neighborhood extends northward to Warren Road where it comes into contact with the southern boundary of the West Ranch. Highway 1 marks the eastern extent of the West Ranch, and effectively defines the boundary between the East and West Ranch.



## 3.0 INFRASTRUCTURE AND PUBLIC UTILITIES

The purpose of this section is to describe the public services and infrastructure that serve the East-West Ranch. This includes police and fire protection, circulation and access, wastewater facilities, water services and solid waste removal.

### 3.1 PUBLIC UTILITIES

*Water Supply:* Within the Urban Services line surrounding the urbanized area of Cambria, water is supplied by the CCSD from two well fields located on the San Simeon and Santa Rosa Creeks within and adjacent to the urban area. The Ranch area would be served primarily from wells that draw from Santa Rosa Creek, due to its proximity to the Ranch.

The district pumps potable water from the creek underflow from a total of five wells. These wells are located within 150 feet of the respective streambeds and are thus subject either to filtering or shut down when the streams are flowing because of possible bacterial contamination. Recent Appropriate Rights Permits issued by the State Water Resources Control Board (SWRCB) authorize the extraction of up to 1,230 acre-feet annually from both streams (East-West Ranch Master Development Plan 1996), including approximately 520 acre-feet per year (AFY) from Santa Rosa Creek, and 710 AFT from San Simeon Creek.

The critical season for local water supply is during the dry season when stream flow typically ceases, which usually lasts for approximately six months beginning around late May. During this period, extractions from the San Simeon Creek are limited to 372 acre-feet and 240 acre-feet from the Santa Rosa Creek. Such extraction from both water bodies will trigger a set of conditions imposed by the SWRCB that, in most years, further limits the quantity of water available to the CCSD. During normal years, a practical limit of total district pumping can be restricted to approximately 700 acre-feet from both creeks. The dry season demand is presently about 600 acre-feet. To provide sufficient water supply against unusually dry periods and to support continuing growth in the Cambria area, the CCSD has initiated the development of a seawater desalination system with a projected capacity of 1,200 acre-feet annually (East-West Ranch Master Development Plan 1996).

Currently, there are a limited number of watering stations fed by springs that provide water to the cattle that graze on the Ranch. Other than the water made available to the cattle, the site remains undeveloped and is not served by existing water facilities. However, water and sewer lines with their associated easements run parallel and next to Santa Rosa Creek, as well as across the property in a north/south direction from Piney Way to the other lines (refer to Exhibit Three). Although there are no existing pumping or transfer facilities on-site, the potential for a minimal amount of water extraction is available.



**Wastewater:** The Cambria Community Services District (CCSD) provides wastewater services to the East-West Ranch site. The CCSD-operated Wastewater Treatment facility located at 5500 Heath Lane in Cambria treats wastewater generated from the area. The facility has a total permitted capacity of 1.0 million gallons per day (GPD), with an additional 1.0 million GPD available for backup service. The existing facility was upgraded with the addition of two new aeration basins in 1995; prior to that time the facility had a total capacity of 1.0 million GPD. A twelve-inch sewer line currently extends on-site and serves existing uses. This sewer line is connected to an eight-inch main located along Main Street adjacent to the project site. As the site currently exists, there are no restroom facilities available on the Ranch and the site remains undeveloped (Douglas Wood & Associates, Inc. 1999). However, as was mentioned above, water and sewer lines along with their associated easements run near the Creek and across the property from Piney Way (refer to Exhibit Three).

**Solid Waste:** The Cambria Community Services District oversees solid waste disposal under a contract with Mission Country Disposal. Solid waste generated in Cambria is disposed of at the Cold Canyon Landfill, which is owned and operated by Mission Country Disposal. The landfill is located at 2268 Carpenter Canyon Road in San Luis Obispo. It is a Class III landfill, and does not accept hazardous waste. The total permitted capacity of the Cold Canyon Landfill is 5,256,171 cubic yards, with a remaining capacity of 3,319,816 cubic yards and a permitted peak throughput of 750 tons per day. However, the landfill averages acceptance of approximately 399 tons per day. Cold Canyon Landfill accepted approximately 170,650 tons of solid waste during the year 2000.

There are currently no formal waste receptacles on-site due to the lack of real public use of the Ranch, or any real organized access to the site other than the coast bluff trail on the West Ranch (Douglas Wood & Associates, Inc. 1999). Any existing waste receptacles on the Ranch are not formally maintained.

## 3.2 CIRCULATION

State Route 1 (Highway 1) divides the East and West Ranch. Highway 1 is a two-lane state highway that provides both regional and local access to the community of Cambria, part of the North Coast planning area of San Luis Obispo County. Traffic controls along this section of Highway 1 are generally limited to traffic signals at the Windsor Boulevard, Burton Drive and Main Street/ Ardath Drive intersections. In order to analyze existing traffic for the section of Highway 1 (the main arterial access to the East-West Ranch), volumes are calculated using a representative of peak summer non-holiday weekday P.M. peak hour traffic conditions. This period was chosen due to the influx of tourist/recreational visitors experienced during summer periods. Highway 1, at Santa Rosa Creek, has an existing peak hour traffic volume of 740 vehicles (Fugro West, Inc., 1996). This represents Level of Service (LOS) C, which is within acceptable County standards.

Peak traffic volumes occur during summer weekdays due to local and visitor serving demands. Highest traffic volumes are on Highway 1 at the southerly portion of the



planning area. Within Cambria, highest volumes are on Main Street. Average summer traffic volumes are higher than other seasons, with holiday weekends being the highest period (East-West Ranch Master Development Plan 1996).

Current access to the West Ranch is by way of the two adjacent neighborhoods, Park Hill to the north and West Lodge Hill to the south. From Park Hill, access to the West Ranch can be gained from Windsor Boulevard and Huntington Drive. Windsor Boulevard, Madison Way and Victoria Way stub out against the southern boundary of the West Ranch from the Lodge Hill neighborhood. Access can be made to the East Ranch, on the south side of Santa Rosa Creek, from Rodeo Grounds Drive (a dirt road) off of Burton Drive, near the CCSD corporation yard. On the north side of Santa Rosa Creek, access to the East Ranch can be made from Cambria Drive. In addition, several unofficial and undesignated access points are available from properties along Main Street. These are discussed in more detail in Section 7.0, *East Ranch Constraints Analysis*.

There is currently no direct roadway or trail access between the East and West Ranch. Currently, pedestrians must cross Highway 1 at unsignalized locations between the East and West Ranch. The nearest signalized crossing is at Windsor Boulevard, about ¼ mile north of the East-West Ranch. At this time, the Santa Rosa Creek corridor provides the only uninterrupted access between the two sides of the ranch. Informal access follows the creek under a highway bridge, but this corridor has not been improved to accommodate this function, and is hazardous because of the ongoing concerns posed by flood waters, steep slopes, and bank erosion.

San Luis Obispo County and Caltrans are currently proposing to install a traffic signal at the intersection of Highway 1/Cambria Drive. It is anticipated that this traffic signal will be in place by the year 2006. It should be noted that this signal, when combined with a possible improvement to the Highway 1 bridge over Santa Rosa Creek to allow pedestrians, would provide safe access between the East Ranch and a possible parking/staging area on the west side of Highway 12, opposite Cambria Drive.

*Access Options Between the East and West Ranch.* A basic constraint on the site is the difficulty in providing access between the East and West Ranch. At this time, there are only two alternatives: 1) follow San Rosa Creek under the Highway 1 bridge; or 2) cross Highway 1 at any number of unsignalized locations. Neither choice is safe.

The proposed signal at Cambria Drive would allow safe access across the highway at that location. However, it would not solve the basic problem of cross-ranch access, because this signal is north of Santa Rosa Creek. Topographically, nearly all of both the East and West Ranches are *south* of the creek.

Funding may become available to improve the Highway 1 bridge over Santa Rosa Creek. This improvement would allow a parallel pedestrian path, probably on the east side of the Highway. This improvement, combined with the new signal at Cambria Drive, would allow safe access between the East Ranch and the proposed parking/staging area west of Highway 1, opposite Cambria Drive.



However, these improvements would not directly facilitate access between the East and West Ranch. To do this would require one of three approaches:

- A pedestrian bridge over Santa Rosa Creek, from the proposed staging area near Cambria Drive;
- A pedestrian underpass adjacent to the south side of Santa Rosa Creek, under Highway 1; or
- A pedestrian bridge over Highway 1, somewhere south of Santa Rosa Creek

The potential advantages and disadvantages of each approach are shown in the table below:

**Table 1. East-West Ranch Connection/Access Options**

Crossing Approach	Advantages	Disadvantages
Pedestrian Bridge Over Creek	<ul style="list-style-type: none"> <li>• Provides connection from parking area to West Ranch</li> </ul>	<ul style="list-style-type: none"> <li>• Expensive and difficult bridge to build</li> <li>• Does not provide direct connection to East Ranch</li> </ul>
Pedestrian Underpass along Creek	<ul style="list-style-type: none"> <li>• Uses existing natural corridor</li> <li>• Provides most direct connection between East and West</li> <li>• Most logical connection</li> </ul>	<ul style="list-style-type: none"> <li>• Expensive to engineer</li> <li>• Subject to flood hazard, including closure during storms</li> <li>• Could require agency permitting because of biological issues</li> </ul>
Pedestrian Bridge Over Highway 1, s/o Creek	<ul style="list-style-type: none"> <li>• Provides safe connection between East and West</li> <li>• Location is flexible</li> </ul>	<ul style="list-style-type: none"> <li>• Expensive</li> <li>• Visually intrusive</li> <li>• Requires Caltrans cooperation</li> </ul>

### 3.3 PUBLIC SERVICES

**Police Protection:** Law enforcement services to the Cambria area are provided by the County of San Luis Obispo Sheriff's Department from their coastal Substation located in Los Osos at 2900 10<sup>th</sup> Street. This service area is estimated to encompass approximately 30,000 people, from Avila Beach to the south, the Monterey County line to the north, and Cuesta Grade to the East (excluding incorporated areas such as the cities of San Luis Obispo and Morro Bay). The servicing Los Osos station consists of: 22 sworn in officers; 1 lieutenant, 1 sergeant, 2 investigators, 2 legal clerks, a volunteer search and rescue team, and a Special Problems Unit that serves county wide. **The estimated response time for patrol cars to the East-West Ranch vicinity is 30 minutes, with emergency response times varying depending on availability and proximity.** The current ratio of deputies from the Los Osos Substation Sheriff's Department to number of citizens it serves is 1:1,140. The Sheriff's Office has identified the need for a ratio of one deputy per 750 people in order to provide an adequate level of service and response (Douglas Wood



& Associates, Inc. 1999). The East-West Ranch would be subject to existing Sheriff's Department police protection services without the need to extend the current patrol.

The California Highway Patrol (CHP) serves the North County from its office in Templeton, approximately 25 miles east of the Ranch. With respect to the Cambria area, the CHP primarily responds to traffic-related calls on Highway 1. The CHP has regular patrols along Highway 1 and can therefore provide service to the project site in approximately five minutes.

**Fire Protection:** The Cambria Fire Department, a division of the Cambria Community Services District (CCSD), provides fire protection and emergency response services for the East Ranch and the California Department of Forestry (CDF) services the West Ranch. The Cambria Fire Department Station #1 responds to first alarm calls, and is located at 2850 Burton Drive in Cambria. This station is equipped with two Pumpers capable of discharging 1,200 gallons per minute, and a "quick attack" squad unit consisting of three engines, one of which is utilized as a water tank. Currently, there are three full-time firefighters and approximately thirteen paid on-call firefighters. During the summer months beginning in July, Station #1 is staffed on a 24-hour basis. The average response time for emergency calls to the East-West Ranch site is approximately two to two and a half minutes. This station responds to roughly 425 emergency calls annually.

The CDF station provides fire protection for the rural portions of the north coast area and contributes additional force automatically within the CCSD protection area. The CDF fire station is located on the eastern boundary of the CCSD Urban Services Area on Weymouth Drive. This site has direct access to Highway 1 and thus all of Cambria. Cambria Fire Department Station #1 is a member of the "automatic aid" agreement along with other CDF and San Luis Obispo County stations in the area. The "automatic aid" agreement benefits and enhances fire protection and emergency response services to the area by providing additional personnel and equipment during an emergency situation (Douglas Wood & Associates, Inc. 1999).

As with police protection, fire protection is provided to the site through existing services. The East-West Ranch is currently a part of the CCSD and CDF response contingency.

### 3.4 PARKS, RECREATION, AND OPEN SPACE

Many of the existing parks, recreation, and open space within the community of Cambria are located either directly adjacent to the East-West Ranch, or in close proximity. The Ranch itself is the largest track of open space in Cambria, offering a coastal bluff trail that begins at Windsor Boulevard (at the northwest corner of the West Ranch) and extends along the length of the West Ranch coast. Joggers, hikers, dog owners, tourists and locals alike frequent the coastal bluff trail. The areas discussed in this section can be referenced in the Parks, Recreation and Open Space Matrix in



Appendix D of this report. Along with the location and description of each area, the matrix highlights the relationship of each site to the East-West Ranch itself.

**Parks:** Cambria's Parks, Recreation, and Open Space Commission (PROS) is dedicated to the acquisition, development and maintenance of a comprehensive park system, recreational facilities, open space and trails in Cambria. Within the community of Cambria, park and open space opportunities consist primarily of shoreline trail segments, open beaches, and two small County parks. Public parklands within Cambria consist of County and California Department of Parks and Recreation (CDPR) owned and managed facilities. The County maintains Shamel and Lampton Parks. These parks provide primarily passive recreation although Shamel Park does provide children play equipment and a swimming pool. The CDPR administers San Simeon State Historic Park, which includes Leffingwell Landing, the bluffs along Moonstone Beach Drive, Santa Rosa Creek Access, and the bluffs along Nottingham Drive (refer to Appendix D). It is within existing public parks along Cambria's roadways that the few trails within the community are located. Private parkland within the Cambria includes Camp Yeager, the YMCA Camp, and Andy's Garden. Camp Yeager and the YMCA Camp provide facilities primarily for group camping, and at this time are not available as public park sites. Andy's Garden is a private park open to the public, which contains landscaping and benches (Cambria's Parks, Recreation & Open Space Master Plan 1994).

**Recreation:** Public outdoor facilities in Cambria are located in CDPR and County Parks. Since parklands are sparse, Cambria's outdoor recreation facilities are limited. County and State outdoor recreation facilities primarily consist of passive recreation (trail, picnic facilities, and benches for ocean viewing). The County operates school facilities, and the remaining facilities are privately operated (Cambria's Parks, Recreation and Open Space Master Plan, 1994). Several school facilities in Cambria feature playfields that can be used by the public during non-school hours.

**Open Space:** The primary purpose of public open space is the protection of an area's amenities such as its biological, cultural, and scenic resources. The protection provides community identity and quality by maintaining the physical features, which define a community, and by providing passive recreation opportunities on protected lands. Within Cambria, open space resources include portions of the following: the Santa Rosa Creek corridor, the beach areas (including tidal, shoreline and bluff areas; such as, the UCSB Rancho Marina), and hillside areas containing Monterey pine forests.

Open space resources in Cambria currently include California Department of Parks and Recreation (CDPR) and County beach and bluff areas and the lands administered under the County's transfer of development credit program. Along Cambria's coast roughly two miles of shoreline open space has been protected through County and State efforts. The lower portion of Santa Rosa Creek (approximately 25 acres) is protected within the Santa Rosa Creek Natural Preserve (the Santa Rosa Creek Natural Preserve is part of San Simeon State park; refer to Appendix D). As of 1993, the Land Conservancy has obtained roughly 4 acres, with the majority of lots protected in the Fern Canyon area (Cambria's Parks, Recreation & Open Space Master Plan 1994). Beach access is provided



at Harvey Street and Wedgewood Street, just south of the East Ranch, as well as from Lampton Cliffs County Park.



## 4.0 BIOLOGICAL RESOURCES

### 4.1 SITE DESCRIPTION AND INTRODUCTION

The East-West Ranch properties are composed of two irregularly shaped parcels comprising approximately 414 acres located in Cambria, California. The East Ranch occupies about 15% of the total area and the West Ranch consists of the remaining 85%. The purpose of this section is to introduce the diverse biological resources that can be found on the Ranch. Also, in order to better understand the conditions that influence development of facilities and management of the East West Ranch, a discussion is included of the biological constraints and regulatory issues that need to be considered when reviewing the biological resources of the Ranch.

*East Ranch:* As the smaller of the two parcels, the East Ranch lies immediately south of the Santa Rosa Creek and east of Highway 1, and consists largely of the stream channel, banks and flood plain of the creek. The southern boundary of the East Ranch is a steep forest and coastal scrub-covered hillside that extends from the creek floodplain (an elevation of approximately 33 to 43 feet) up to the 170-foot ridgeline. This hillside consists mainly of Monterey pine forest and coast live oak/toyon woodland with small patches of coastal scrub. The southwestern portion of the East Ranch, along Highway 1, contains a seasonal wetland, which supports hydrophytic (i.e.: water loving) vegetation. Most of the floodplain away from the riparian corridor of Santa Rosa Creek is covered by grassland until it transitions into the seasonal wetland and riparian areas near Highway 1 (refer to Exhibit 2 for a detailed map). Santa Rosa Creek is the major drainage feature on the East Ranch and a small portion of the West Ranch. The creek is confined to a natural channel approximately 100 feet wide, but much of the year it is confined to a low-flow channel that is roughly 15 feet wide.

*West Ranch:* This larger portion of the Ranch consists of steep to gently sloping hillsides immediately west of Highway 1. The steep hillsides give way to gentle, rolling terrain extending westward from the ridge top to the ocean bluff above the Pacific Ocean. The steeper portion of the West Ranch, as can be seen in Exhibit 2 of this report, is composed of dense mixed forest, including Monterey pines, with the southeast corner supporting the largest stand of this habitat type on the site. This forest extends over the ridgeline (an elevation of approximately 257 feet) and down the western slope to an elevation of about 235 feet. Smaller stands of Monterey pine forest exist in the southwestern portion of the West Ranch as well. Regeneration of the pine forest habitat was observed along the perimeters of the established stands. However, much of the gently rolling terrain and coastal terraces west of the ridgeline are covered by grassland that extends toward the seabluff. Small areas of riparian scrub and seasonal wetlands persist along the drainages that flow westward from the hillside. These drainages support various types of hydrophytic vegetation. Furthermore, plants characteristic of wetland habitats can be found throughout the grassland areas on the coastal terraces to the edge of the bluff.



## 4.2 METHODOLOGY

Prior to conducting the field survey, Rincon Consultants reviewed the Cambria U.S.G.S. 7.5-minute topographic map, site-specific topographic maps of the property provided by RRM Design Group, the Soil Survey for the Coastal Part of San Luis Obispo County (Soil Conservation Service, 1977), and consulted the California Natural Diversity Data Base (CNDDDB, 2001) for information on special-status species potentially occurring in the area. A list of special status species potentially occurring on the East-West Ranch is provided in Appendix C of this report.

Literature review that supplemented the CNDDDB review included: 1) biological and environmental documents that were prepared previously for projects in the vicinity (D.W. Alley 2001; Jones and Stokes, 2001; Coastal Resources Institute 1993 and 1997; Green, Michael L. 1997; and Erickson, Carol "Puck", Hochhauser Blatter, Liau; Gavin and Mitchell-Lacoss Land Solutions 1996;), and 2) local and regional field guides (M.A. Matthews 1997; D. Keil and M. McLeod 1986; R. Hoover 1970).

Members of Rincon Consultants' biology and planning staff met with members of RRM Design Group and the Cambria Community Services District (CCSD) to conduct a reconnaissance-level survey of the 414-acre East-West Ranch on November 26, 2001. The purpose of this survey, and others that followed, was to generally characterize the existing biological resources and to identify those habitats that could support special-status species or otherwise be of concern to the resource agencies. Additional surveys of the Ranch were conducted on December 11 and 16, 2001. No specific surveys for special-status plant or animal species were conducted during this reconnaissance. While in the field, habitats were mapped onto an aerial photograph and site-specific topographic map (approximate scale: 1 inch = 250 feet), and all plant and wildlife species observed were recorded.

## 4.3 RESULTS

Natural habitats in the vicinity include grassland (mostly non-native annual grassland), coastal scrub, chaparral, oak woodland, and riparian woodland. Cattle graze many of the non-native grasslands in the region. Other agricultural lands included cultivated row crops, orchards, and vineyards. In addition to the natural habitats and agricultural areas are areas of residential and commercial development.

Review of background information revealed fourteen special-status plant and twenty-six special-status wildlife species that could be found in the project area (see Appendix C). Some of these species are known to occur in a broad range of habitats while others are restricted to a specific type or combination of habitats. Also, sensitive habitat types such as seasonal wetlands, riparian woodland/scrub, and Monterey pine forest were identified. Each of these habitat types is described below and delineated on Exhibit 2 of this report.



### a. Habitat Types

Elements of nine habitat types typical of coastal central California and the Cambria area are represented on the East-West Ranch, including: 1) riparian woodland; 2) riparian scrub; 3) seasonal wetland; 4) Monterey pine forest; 5) oak/toyon woodland; 6) coastal scrub; 7) seabluff scrub; 8) grassland; and 9) ruderal/anthropogenic. Santa Rosa Creek traverses the property and there are several unnamed drainages within the Ranch that could likely be determined as "waters of the United States" under the jurisdiction of the U.S. Army Corps of Engineers. Furthermore, a number of areas on the East West Ranch are dominated by wetland plants and would likely fall under the regulation of the California Coastal Commission as Environmentally Sensitive Habitat Areas (ESHAs) as described in the California Coastal Act of 1976. Additionally, the Ranch



The photo above shows the transition from coastal scrub near the bluff above the Pacific Ocean, up to grassland and finally to the Monterey pine forest in the upper elevations of the West Ranch.

contains introduced eucalyptus groves and windbreaks, as well as a planted windbreak of Monterey cypress.

Classification of these habitat types is based generally on the previous work completed by the Coastal Resources Institute (1997 and 1993), Holland (1986), and Sawyer and Keeler-Wolf (1995). The Wildlife Habitat Relationship System (Mayer and Laudenslayer 1988) was also referenced to

more accurately describe

these habitat types, or vegetation communities. The following discussion focuses on the habitat types delineated on the map in Exhibit 2 and briefly describes the existing conditions associated with each of these areas.

#### **1. Riparian Woodland/Riparian Scrub**

The riparian woodland and riparian scrub habitat types within the study area correspond to the Central Coast Arroyo Willow Riparian Forest and the Central Coast Riparian Scrub vegetation communities described by Holland, and the arroyo willow series described by Sawyer and Keeler-Wolf. These habitat types form narrow to locally broad corridors of dense to open woodland vegetation surrounding the onsite drainages. Riparian woodland and riparian scrub habitat types were identified on the East-West Ranch along Santa Rosa Creek and along the unnamed drainages on the West Ranch.



According to the *East-West Ranch, Cambria Property Environmental Audit* prepared by the Coastal Resources Institute, the riparian community along Santa Rosa Creek from the Ranch to where it empties into the ocean is for the most part a well-developed, diverse corridor of forest vegetation. Arroyo willow (*Salix lasiolepis*), which grows as both a tree and a shrub, is the most abundant species and forms dense thickets in many places along the creek. Some of the smaller patches of riparian woodland within the Ranch consist almost entirely of this species. Black cottonwood (*Populus balsamifera* ssp. *trichocarpa*), sycamore (*Platanus racemosa*), white alder (*Alnus rhombifolia*), and blue gum eucalyptus (*Eucalyptus globulus*) are all common species observed in the riparian corridor associated with Santa Rosa Creek on the East-West Ranch. The riparian woodland understory along Santa Rosa Creek on both the East and West Ranches varies from being dense thickets of shrubs and vines to rather sparse depending on local conditions. Common understory species vary along the creek, but usually include native species such as California blackberry (*Rubus ursinus*), stinging nettles (*Urtica dioica* ssp. *holosericea*), and poison oak (*Toxicodendron diversilobum*); and non-native species such as German or cape ivy (*Senecio mikanioides*), and periwinkle (*Vinca major*). Santa Rosa Creek's riparian woodland traverses portions of the Ranch that have been heavily grazed or have been in agriculture. As a result, these areas show signs of disturbance (i.e.: steeply cut creek banks devoid of vegetation) and contain numerous non-native, invasive plants.



Riparian scrub habitat on the ranch was observed around the seeps and drainages on the West Ranch. Because of high winds coming off the Pacific Ocean this community is primarily stunted woody vegetation and conforms to the hillside. Most of the woody vegetation associated with this community would likely grow much larger if it occurred further away from the immediate coastline and was protected from the prevalent onshore winds. Common plant species observed in riparian scrub habitat type included: arroyo willow, California wax myrtle (*Myrica californica*), poison oak, California blackberry, spreading rush (*Juncus patens*), and several species of sedge (*Carex* spp. and *Scirpus* spp.).

Riparian communities provide habitat for a variety of songbirds including common yellowthroat (*Geothlypis trichas*), plain titmouse (*Baeolophus inornatus*), song sparrow (*Melospiza melodia*) and ruby-crowned kinglet (*Regulus calendula*), as well as amphibians and reptiles such as the Pacific chorus frog (*Pseudacris regilla*) [seen to the left] and western fence lizard (*Sceloporus occidentalis*). During our December and January site visits, we observed red-tailed hawks and numerous songbirds perched in this area.

## **2. Seasonal Wetland**

This habitat type is a combination of the Coastal and Valley Freshwater Marsh and Freshwater Swamp vegetation communities described by Holland. Wetlands occur in

nutrient-rich mineral soils that are saturated through part or all of the year. These communities are best developed in locations with slow-moving or stagnant shallow water. Small pockets of seasonal wetlands occur in the grassland areas scattered throughout both the East and West Ranch (please see Exhibit 2). Some of these are associated with small drainages that traverse the coastal terraces and drain into the ocean or into Santa Rosa Creek, others occur as springs or seeps where shallow ground water surfaces in the grasslands located on the coastal terraces. Most of these wetlands are, for the most part, disturbed from grazing. However, the presence of hydric soil conditions in areas that are now covered by grassland likely indicates that seasonal wetlands on the Ranch historically covered larger areas (Coastal Resources Institute, 1993).

Well-developed seasonal wetlands associated with the springs and drainages on the Ranch are dominated by a mixture of low-growing herbaceous species such as spreading rush, brown-headed rush (*Juncus phaeocephalus*), dwarf club rush (*Scirpus cernuus*), water cress (*Rorippa nasturtium-aquatica*), and grass poly (*Lythrum hyssopifolia*). Furthermore, seasonally-ponded areas within this habitat type provide habitat for aquatic invertebrates such as water striders and boatmen, and amphibians such as the Pacific chorus frog.

### 3. Monterey Pine Forest

This habitat type on the Ranch corresponds to the Closed-Cone Coniferous Forest described by Holland, and the Monterey Pine Series described by Sawyer and Keeler-Wolf. Historically, Monterey pine forest was once a widespread forest along the outer coasts of California and Baja California, and likely covered a larger portion of the Ranch than what occurs presently (Jones and Stokes, 2001). Today, there are several stands of



The Monterey pine forest with oak understory in the southeast corner of the West Ranch. 12/11/01

Monterey pines, plus scattered occurrences of isolated trees, that persist on the East-West Ranch. The largest stand of Monterey pine covers almost the entire southeastern corner of the West Ranch. A smaller stand occurs west of the large stand and grades into grassland further down-slope. Although the community composition of the Monterey Pine forest varies from place to place on the Ranch, all of the stands are composed of an overstory

dominated by the semi-closed cone Monterey pine (*Pinus radiata*). Other common tree and shrub species observed in this habitat included: coast live oak (*Quercus agrifolia*), toyon (*Heteromeles arbutifolia*), and the less common California bay-laurel (*Umbellularia californica*). The multi-layered understory varies from being relatively dense with shrubs

and herbaceous plants to some areas that are relatively devoid of plants and contain only pine needle litter or duff. Common understory species observed in the Monterey pine forest on the Ranch included: poison oak, California blackberry, sticky monkey flower (*Mimulus aurantiacus*), hedge nettle (*Stachys bullata*), and wood fern (*Dryopteris arguta*).

The Monterey pine forest is host to a wide variety of wildlife. Monterey pine forests provide cover and food sources for a number of mammals typical of the area such as black tailed deer (*Odocoileus hemionus*), gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*), Virginia opossum (*Didelphis virginianus*), North American raccoon (*Procyon lotor*), California mouse (*Peromyscus californicus*), and western gray squirrel (*Sciurus griseus*). Woody debris and duff in the pine forest understory also create foraging areas for small mammals, and microclimates suitable for amphibians and reptiles. Pine nuts are used as a food source by several animal species, including the gray squirrel. Furthermore, the Monterey pine forest provides ample canopy habitat for a host of birds and raptors, including chestnut-backed chickadee (*Parus rufescens*), northern flicker (*Colaptes auratus*),



Chestnut-backed Chickadee  
by Larry McQueen

Nuttall's woodpecker (*Picoides nuttallii*), steller's jay (*Cyanocitta stelleri*), great horned owl (*Bubo virginianus*), and the red-shouldered hawk (*Buteo linatus*). Additionally, Monterey pine forests on the project site provide seasonal congregation sites for the Monarch butterfly (*Danaus plexippus*).

#### 4. Oak/Toyon Woodland

This habitat type on the project site corresponds to the Coast Live Oak Woodland described by Holland (1986), and the Coast Live Oak Series described by Sawyer and Keeler-Wolf (1995). Most of the forested areas of the East-West Ranch have coast live oak as a major component of the canopy or understory, but are primarily associated with the Monterey pine forest habitat type (as seen in the picture below). Several locations on both the East and West Ranch were observed where coast live oak trees and large toyon shrubs occur as the dominant species. These specific areas were referred to as coast live oak woodland by the Coastal Resources Institute (1993), and as oak/toyon woodland in this document because of the large number of arborescent toyon shrubs that co-occur in these areas.

The oak/toyon woodland habitat type is composed of an overstory of mature coast live oak trees and toyon shrubs. This habitat supports a diverse understory including young toyon and coffeeberry (*Rhamnus californica*) shrubs. Where the canopy is closed there is generally a thick layer of leaf litter and a dense subcanopy of shade tolerant shrubs and herbs such as poison oak, honey suckle (*Lonicera hispidula*), hedge nettle and yerba buena (*Satureja douglasii*). The areas influenced by grazing exhibit a somewhat more open canopy and understory of grasses and weedy herbs (Coastal Resources Institute, 1993). Habitat types or vegetation communities dominated by coast live oak trees provide habitat for a number of wildlife species. Oaks provide nesting sites and cover for birds and many mammals. Woody debris and duff in the woodland understory create foraging areas for small mammals and microclimates suitable for amphibians and

reptiles. Acorns are a valuable food source for many animal species, including the California quail, western gray squirrel, and black-tailed deer. Four black-tailed deer were observed foraging in the oak/toyon woodland on the West Ranch. Other representative animal species of oak/toyon woodlands observed or expected to occur onsite include arboreal salamander (*Aneides lugubris*), southern alligator lizard (*Gerrhonotus multicarinatus*), common king snake (*Lampropeltis getulus*), scrub jay (*Aphelocoma corulescens*), plain titmouse (*Parus inornatus*), California towhee (*Pipilo crissalis*), dark-eyed junco (*Junco hyemalis*), North American raccoon, and Virginia opossum.

## **5. Seabluff Scrub**

The seabluff scrub habitat type on the East-West Ranch corresponds to the Northern Coastal Bluff Scrub described by Holland. In areas with seabluffs or rocky headlands, the seabluff scrub habitat type is often well-developed just above the high tide level or at the margins of the erosion face of the bluff. Plants of this vegetation community sometimes cling to nearly vertical rock faces just above the surf. Seabluff scrub communities, like the one along the bluffs of the West Ranch, were historically more widespread along the California coastline, but are still common in the vicinity of the East-West Ranch. This habitat type was observed on the West Ranch as a very narrow band of vegetation along the bluff. Most of the plants that can be found in this community are low growing shrubs, herbs or succulents that have a high tolerance to concentrations of salt and wind. Species observed on the West Ranch included: dune and cliff buckwheats (*Eriogonum latifolium*, *E. parvifolium*), seaside daisy (*Erigeron glauca*), saw-toothed golden bush (*Hazardia squarrosa*), coyote thistle (*Eryngium armatum*), sea thrift (*Armeria maritima*), dudley (*Dudleya palmeri*), and California poppy (*Eschscholzia californica* var. *maritima*).

The seabluff scrub community occupies a narrow strip along the sea-bluff at the western boundary of the West Ranch, typically within the salt spray zone. This habitat type grades into the adjacent grasslands on top of the bluff. Seabluffs and their ecotones with the grasslands of the coastal terraces are the habitat of the rare compact cobwebby thistle (*Cirsium occidentale* var. *compactum*). This species occurs along the sea bluffs, next to the edge of the bluffs and back into the grassland for a few meters (Coastal Resources Institute, 1993). During the recent surveys of the property, the skeletal remains of this species were observed in the locations mapped by the Coastal Resources Institute. However, judging by the skeletal remains of compact cobwebby thistle individuals, it appears that the number of individuals in this occurrence is lower than what was observed during botanical surveys of the property in 1993 by the Coastal Resources Institute. Although the recent surveys were not conducted during the flowering period for this species, the decline in numbers may be the direct result of the fence erected to keep cattle from grazing to the edge of the sea bluff. Currently, locations of this species mapped by the Coastal Resources Institute are now dominated by a thick cover of non-native annual grasses.

In general, seabluff scrub communities provide habitat for wildlife species adapted to the harsh environmental factors characteristic of the meeting of land and sea. Species



such as Botta's pocket gopher (*Thomomys bottae*) and the California ground squirrel (*Spermophilus beecheyi*) burrow along the top of the bluff, and cliff swallows build nests along the cracks and crevices of the vertical bluff. Reptiles such as the western fence lizard may also occur along the edge of the bluff and throughout this vegetation community.

## 6. Coastal Scrub

The coastal scrub vegetation community within the study area is similar to the Central (Lucian) Coastal Scrub as described by Holland and the Yellow Bush Lupine and Coyote Brush Series as described by Sawyer and Keeler-Wolf. This community occurs along the hillside just below the neighborhoods of Wilton Drive in the western portion of the East Ranch and along the western boundary of the West Ranch, approximately 100-150 feet from the bluffs. The coastal scrub habitat areas within the Ranch contained common plant species such as: Coyote brush (*Baccharis pilularis* var. *pilularis*), California sagebrush (*Artemisia californica*), and common herbs like wild coast morning glory (*Calystegia macrostegia* ssp. *cyclostegia*) and hedge nettle. Near the seabuff on the West Ranch, a nearly pure stand of yellow bush lupines (*Lupinus arboreus*) was observed during the recent site visits. This area was included in the grassland habitat discussion by the Coastal Resources Institute (1993), but currently warrants separation because of the development of these woody shrubs.

Coastal scrub communities typically provide cover and nesting for a variety of animals. This community is limited in area on the Ranch and likely contains animals typical of the surrounding habitat types.

## 7. Eucalyptus

Several small groves and a large, well-developed windrow of introduced blue gum eucalyptus trees were observed on the Ranch. Specifically, the eucalyptus windrow, which consists of mature trees towering over adjacent riparian and Monterey pine trees, was observed along the fenceline separating the County's corporate yard and the pasture-land on the East Ranch. Additionally, a number of individual eucalyptus trees were observed intermixed with the riparian corridor associated with Santa Rosa Creek. These eucalyptus occurrences are typically pure stands of blue gum eucalyptus planted for wood lot, ornamental and/or other landscaping reasons (e.g., visual, wind, and/or noise barriers), or those germinated from seeds produced by introduced trees. Many trees associated with these occurrences are greater than 50 feet tall. Additionally, a few individual eucalyptus trees occur scattered in other locations of the project site.

Eucalyptus trees individually and in groves provide perching and nesting habitat for birds and in particular birds-of-prey such as owls, red-tailed hawks, and red-shouldered hawks in this region. Since understory vegetation is typically absent because of the large quantity of highly aromatic leaf and bark litter, eucalyptus groves do not support quality habitat for small mammals and reptiles.

### 8. Monterey Cypress

Monterey cypress (*Cupressus macrocarpa*) trees have been planted on the West Ranch along the drainage that occurs from near the ridgeline down to Santa Rosa Creek. This species is a California native, and in its natural range in the Monterey Bay area, is included as a List 1B species (considered rare throughout its range) by the California Native Plant Society. The Monterey cypress occurrence on the West Ranch does not constitute a natural stand, and subsequently has no special status. Because the trees are planted as a windrow, their influence except as a windbreak, is very localized. As with nearby eucalyptus trees, the Monterey cypress trees provide nesting and perching sites for raptors and other birds common to the area.

### 9. Grassland

This habitat type corresponds to the Non-Native Grassland with elements of the Coastal Terrace Prairie described by Holland. The grassland habitat type on the East-West Ranch is characterized by a mixture of native and introduced herbaceous plant species. Although native perennial grasses such as purple needle grass (*Nassella pulchra*) occur in this habitat type, past and current grazing of the site has compacted the soil in many areas that are now dominated by non-native grasses and herbs. Common introduced grass species observed on the property included slender wild oats (*Avena barbata*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), and perennial and Italian ryegrass (*Lolium perenne*, *L. multiflorum*), along with non-native herbs such as black mustard (*Brassica nigra*), prickly lettuce (*Lactuca serriola*), storksbill (*Erodium botrys*), and red-stemmed filaree (*Erodium cicutarium*). Native grasses and forbs observed during previous surveys of the Ranch included: California brome (*Bromus carinatus*), California oat grass (*Danthonia californica*), hairgrass (*Deschampsia elongata*), purple needle grass, purple owl's clover (*Castilleja exserta* ssp. *exserta*), California poppy, and tidy tips (*Layia platyglossa*). Grassland is common among the coastal habitats in central California and is currently the dominant plant cover on the East-West Ranch. The grassland habitat type occurs throughout the flat, level portions of the East Ranch, and dominates the coastal terraces from the forest margin to the edge of the seabluff on the West Ranch.

As discussed above, the grassland community found on the Ranch is highly influenced by the history of a heavy grazing regime and logging. The loss of Monterey pine forests that historically covered a large percentage of the Ranch has left room for the occupation of site by non-native grasses and forbs. Another consequence of the grazing and logging activities, is the inadequate ability to hold the soil in years with high rainfall (Coastal Resources Institute, 1993). As observed on-site, rapid erosion has occurred along the coastal terraces, resulting in the formation of steep walled gullies and ravines. Although the West Ranch contains elements of native grassland scattered throughout the coastal terraces, the flat portions of the East Ranch are dominated almost entirely by non-native grasses and forbs.



Grasslands also provide foraging habitat for small mammals which in turn serve as a prey base for a variety of animals, including snakes, raptors (“birds of prey”), and



Red-tailed Hawk

www.birdperch.com

coyotes (*Canis latrans*). Numerous invertebrate species (such as insects), many of which provide a food source for larger animals such as lizards, birds, and some small mammals can also be found within grassland community. Other animal species common to grasslands include ringneck snake (*Diadophis punctatus*), gopher snake (*Pituophis melanoleucus*), red-tailed hawk, American kestrel (*Falco sparverius*), and black-tailed deer. Moreover, gopher burrows, several

California ground squirrel burrows, and a foraging northern harrier (*Circus cyaneus*) were observed within grassland areas during surveys of the study area.

## 10. Ruderal/Anthropogenic

The ruderal/anthropogenic habitat type within the project site includes a variety of disturbed areas that have been affected by past human activities, including agriculture and ranching. This habitat type includes approximately three areas within the project site. Two areas of ruderal habitat were observed in the central and eastern portions of the East Ranch, and an additional area of ruderal habitat was observed on the west side of Highway One in between the road and Santa Rosa Creek. These areas support a mixture of ruderal (weedy) species and non-native annual grasses and forbs. Dominant species in these areas included ripgut brome, soft chess, slender wild oats, wild radish (*Raphanus sativa*), milk thistle (*Silybum marianum*), and telegraph weed (*Heterotheca grandiflora*). The area within the central portion of the East Ranch identified as this habitat type was composed of a dense thicket of French broom (*Genista monspessulana*). Because of the dense, nearly impenetrable nature of this area, it provides higher quality wildlife habitat than typical ruderal or anthropogenic habitat. Generally, ruderal/anthropogenic areas provide marginal habitat value for wildlife, however during recent site visits a number of birds and a bobcat were observed in areas of dense French broom, and a large number of California quail (*Callipepla californica*) were seen in the patch of milk thistle on the East Ranch.

### **b. Special-Status Species**

For the purpose of this report, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) under the federal Endangered Species Act (ESA); those considered “species of concern” by the USFWS; those listed or proposed for listing as rare, threatened, or endangered by the California Department of Fish and Game under the California Endangered Species Act (CESA); animals designated as “Species of Special Concern” by the DFG; and plants occurring on lists 1B, 2, and 4 of the CNPS’s *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2001).

Rincon Consultants biologists developed a target list of special-status plant and animal species that could potentially occur on the East-West Ranch based on our review of the CNDDDB, previous studies from the vicinity of the site, and other sources including our own knowledge of the area. Field reconnaissance to identify habitat types and an evaluation of the on-site soils helped refine the target list of species and focus our assessment of the actual or potential for occurrence of special-status species on the project site. Appendix C includes the special status species that potentially occur or are known to occur on the East-West Ranch, and lists the Federal, State, and CNPS status for each special status species.

These special-status species could potentially be impacted by increased human use of the Ranch, trail or other minor infrastructure construction activities, and implementation of the Cambria Monterey Pine Forest Management Plan (FMP) prepared by Jones and Stokes (Administrative Draft, 2001).

### **1. Special-Status Plants and Plant Communities of Special Concern**

The Coastal Resources Institute conducted several botanical surveys of the East West Ranch for the preparation of the *East West Ranch, Cambria Property Environmental Audit*, however, these botanical surveys were not conducted during the blooming periods of many of the rare plants that potentially occur on the property. The CNDDDB contains records of 14 special-status plants, and two plant communities of special concern that are known from relatively localized occurrences in the East West Ranch vicinity. The majority of these species have highly specialized habitat requirements that do not occur on the Ranch (i.e.: coastal dune, salt marsh, chaparral and serpentine outcrops). Ten of these species potentially occur on the Ranch. Five of which have been observed on the East West Ranch including San Luis Obispo County (or Cambria) morning glory (*Calystegia subcaulis* ssp. *episcopalis*), compact cobwebby thistle (*Cirsium occidentale* var. *compactum*), San Luis Obispo Indian paint brush (*Castilleja densiflora* ssp. *obispoensis*), Gairdner's yampah (*Perideridia gairdneri* ssp. *gairdneri*), and Monterey pine. Additionally, five special-status plant species are expected to occur or potentially occur on the Ranch because the site is within the known range of the species and appropriate habitat for the species was observed onsite. These special-status plants include: Hickman's onion (*Allium hickmanii*), San Luis Obispo sedge (*Carex obispoensis*), San Simeon baccharis (*Baccharis plummerae* ssp. *glabrata*), Michael's piperia (*Piperia michaelii*), and adobe sanicle (*Sanicula maritima*).

Two rare vegetation communities of special concern to the resource agencies that occur in the area include Monterey pine forest and Coastal and Valley Needlegrass Grassland. Monterey pine forest occurs on both the East and West Ranch, while elements of coastal and valley needlegrass grassland are confined to the West Ranch.



## 2. Special-Status Wildlife

Twenty-six special-status wildlife species were identified by the CNDDDB as occurring in the Cambria region. Approximately eight of these wildlife species have specific habitat requirements that do not occur on the East West Ranch, or like the southern sea otter, occur just offshore, and therefore, do not occur on the Ranch per se. Our literature review and field surveys of the Ranch, as well as focused special-status species surveys within Santa Rosa Creek identified eighteen of these species that occur or potentially occur on the East West Ranch. The following special-status wildlife species occur or potentially occur on the Ranch: Monarch butterfly (*Danaus plexippus*), silvery legless lizard (*Anniella pulchra pulchra*), California red-legged frog (*Rana aurora draytonii*), southwestern pond turtle (*Clemmys marmorata pallida*), two-striped garter snake (*Thamnophis hammondi*), tidewater goby (*Eucyclogobius newberryi*), south central California steelhead (*Onchorhynchus mykiss irideus*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), burrowing owl (*Athene cunicularia*), long-eared owl (*Asio otus*), loggerhead shrike (*Lanius ludovicianus*), California horned lark (*Eremophila alpestris actia*), bank swallow (*Riparia riparia*), yellow warbler (*Dendrioca petechia brewsteri*). Please see Appendix C for additional information.

## 4.4 CONSTRAINTS AND REGULATORY ISSUES

The East-West Ranch is dominated by grassland and Monterey pine forest habitat types. Other habitat types observed on the Ranch include oak/toyon woodland, coastal scrub, seabluff scrub, and seasonal wetland. Additionally, Santa Rosa Creek and several unnamed drainages with riparian vegetation occur on both the east and west sides of the Ranch. Exhibit 2 illustrates the distribution of these habitat types on the Ranch, and separates the habitat types based on the number of constraints associated with their development.

- **Severe constraints** include habitat types that are regulated by the resource agencies (e.g., California Coastal Commission, U.S. Army Corps of Engineers, California Department of Fish and Game), and provide habitat for state and/or federally-listed species.
- **Moderate constraints** include those native habitat types that provide or potentially provide appropriate habitat for rare plant species.
- **Minor Constraints** include the non-native habitat types on the Ranch that provide habitat for native wildlife species and potentially provide suitable nesting habitat for migratory birds.

Grassland habitats are not typically considered sensitive unless they contain a predominance of native perennial grasses or are known to support special-status species. Monterey pine forest is a vegetation community of special concern, and Monterey pines associated with native occurrences are considered rare by the California Native Plant Society. The dense riparian areas on the Ranch support a diversity of plant and animal species, and therefore, are valuable wildlife habitat. Furthermore, Monterey



pine forest, riparian woodland, riparian scrub, oak woodland and coastal scrub communities may provide habitat for rare plants and animals, and often contain specimen trees and/or shrubs that are of botanical interest. These woodland and scrub habitat types contribute to the overall diversity of the area by providing habitat for species not typically found in the adjacent grasslands.

Review of background information revealed a number of special-status plant and animal species that occur or could potentially occur on the East West Ranch (please refer to Appendix C). Some of these species are known to occur in a broad range of habitats while others are restricted to a specific type or combination of habitats. While we identified all special-status species that could occur on the site, we only mapped habitat areas known to generally meet the specific habitat requirements of some of the special-status species. We also identified habitat types of concern to state and federal resource agencies, including wetland, riparian, and Monterey pine forest. Because of the timing of the biological surveys of the East West Ranch, areas of native perennial grassland on the Ranch have not been adequately described or mapped. Each of the nine habitat types observed on the Ranch during recent surveys is delineated on the Biological Constraints map of the site.

The Biological Constraints map (Exhibit 2), shows the habitats associated with the site, including the riparian areas, creeks and drainages, seasonal wetlands, Monterey pine forest, grassland, and oak/toyon woodland. These habitat types may provide habitat for special-status species that would need to be considered prior to construction or implementation of management activities in these areas. The following discussion focuses on the habitat types delineated on the Biological Constraints map and briefly describes the potential constraints and opportunities associated with trail or minor infrastructure development, and general increased human use for each of these areas. Appendix B includes a regulatory constraints checklist highlighting all listed habitat types.

#### **a. Grassland**

As previously discussed, the East-West Ranch is mostly dominated by non-native annual grassland. However, small, localized areas of perennial grass species such as purple needlegrass and California oat grass occur throughout the grassland habitat identified on the West Ranch. Diversity of plant species in coastal grasslands or coastal prairies in California is among the highest in grasslands of North America (Stromberg, Kephart, Yadon, 2001). However, cover of exotic grasses and forbs as was observed on the East West Ranch, related to low levels of species richness. Therefore, accurately mapping areas dominated by native perennial grasses and native grassland plant species would be an important step in managing the coastal grassland areas on the West Ranch. Purple needlegrass grassland or coastal and valley needlegrass grassland was once the dominant grassland community throughout lowland California and has been nearly entirely replaced by the non-native annual grassland community. Because it has been so greatly reduced in extent, coastal and valley needlegrass grassland is considered an important natural community by the California Department of Fish and Game (CDFG). CDFG identifies coastal and valley needlegrass grassland as a special-status



biological community and tracks its status and distribution through the CNDDDB. Any loss of this habitat for development of infrastructure for the project might be considered significant pursuant to Section 15382 of CEQA Guidelines. Therefore, avoiding grassland areas with a predominance of native species would be an important goal when determining potential recreational trail locations.

We recommend avoidance or minimization of impacts to any areas identified as containing a predominance of native grassland species. If avoidance of native grassland areas is infeasible, mitigation through restoration and enhancement would likely compensate for unavoidable impacts. Typically, CDFG recommends onsite protection through the establishment of a conservation area, including a buffer, to be maintained and protected around native grassland occurrences. Because areas occupied by native grasses are not adequately identified onsite, we recommend conducting spring surveys to delineate the location and extent of on-site grasslands dominated by purple needlegrass, California oat grass and other native grassland plant species so these areas may be avoided and enhanced through restoration and management activities. Because grassland habitat on the East Ranch is dominated entirely by non-native grasses and forbs, seasonally-timed surveys to map the extent of native grassland should concentrate on the West Ranch.

Many opportunities exist for enhancing the existing grassland community on the Ranch. Establishing a long-term management program for the grassland community on the East-West Ranch, including restoration, non-native plant abatement, and erosion control, will be an important component in preservation of this vegetation community in perpetuity. Grazing has been present for so long on the Ranch that careful consideration must be given before livestock are removed from the coastal grassland. Where cattle have been removed along the bluff on the West Ranch after many years of grazing, extensive and rapid expansion has been observed of certain exotic plant species that were historically held in check by grazing pressure (Kevin Merk, personal observation). Small scale prescribed burns, mowing, and controlled grazing during the dry season should be included in management strategies to sustain and enhance the long-term viability of the coastal grassland on the East-West Ranch.

#### **b. Monterey Pine Forest**

The Monterey pine forest habitat type covers a significant portion of the East West Ranch. CDFG identifies native Monterey pine forest as a community of special concern, and any impacts to this habitat type resulting from trail or infrastructure construction might be interpreted as a significant impact under the CEQA review process. Also of concern regarding the Monterey pine forests on the East-West Ranch, and elsewhere in California, is pine pitch canker. A number of investigations on the biology of pitch canker have been completed to date, and many will continue to provide the knowledge and methods to manage this threat to Monterey pines. Implementation of the FMP prepared by Jones and Stokes (2001) will likely enhance this plant community and provide the long-term management concepts and techniques needed to combat this pathogen and sustain this vegetation community with the increase in human presence. An important component of managing the Monterey pine forest on the Ranch will be to



incorporate new information from outside research that becomes available in the literature. The FMP has been designed to be flexible and incorporate new information and support change in the management regime as the data becomes available. Additionally, the FMP provides adaptive management strategies and forest treatment prescriptions and techniques to combat this problem.

A number of trails currently exist in the Monterey pine forest on the West Ranch. The trails appear to be the result of both wildlife and human use. Human presence will increase in the Monterey pine forest now that the Ranch is publicly owned. Increased human presence in the forest could potentially impact special-status species that occur or potentially occur in this area. Furthermore, increased human activities in the forest could potentially spread pine pitch canker. Creating a defined and well-maintained trail system through the pine forest with signage and rails to keep people and their animals (i.e.: dogs) from meandering through the forest would be an important step in maintaining the integrity of this habitat on the Ranch.

### **c. Riparian Corridors / Streams / Seasonal Wetlands**

Any impacts to Santa Rosa Creek, the unnamed drainages, and seasonal wetlands indicated on the Biological Constraints map of the site would be subject to scrutiny from the California Coastal Commission (CCC) pursuant to the California Coastal Act of 1976, and would likely require a Coastal Development Permit. The California Coastal Act defined Environmentally Sensitive Habitat Areas (ESHAs) that include rare or unique habitats including coastal streams, wetlands, habitat that supports special-status species, and plant communities such as the Monterey pine forest that occur in the coastal zone. The California Coastal Act's definitions of streams and wetlands are more conservative than the Clean Water Act's (CWA) definitions, and therefore, are more inclusive than the CWA criteria for identifying jurisdictional waters. As such, the California Coastal Act regulates habitats that are not regulated under the CWA. Moreover, Santa Rosa Creek, the unnamed drainages and seasonal wetlands on the Ranch may fall under the jurisdiction of the U.S. Army Corps of Engineers (Corps) as waters of the United States pursuant to Section 404 of the Clean Water Act (1972) and would require a permit for any potential impacts to these areas (Please see Appendix B for a regulatory constraints checklist).

Activities affecting drainage channels on the Ranch with a defined bed and bank or that contain native riparian vegetation and provide wildlife habitat would also be regulated by the California Department of Fish and Game (CDFG) under Section 1601-1603 of the Fish and Game Code. While some of the drainages indicated on the Biological Constraints map have a dense and diverse associated riparian habitat, others are nearly devoid of any woody vegetation. Removal of riparian habitat on the East West Ranch should be avoided during trail or infrastructure construction or maintenance activities, and a sufficient setback using County of San Luis Obispo standards should be incorporated in any construction designs. Santa Rosa Creek and the unnamed drainages with riparian vegetation provide valuable habitat for wildlife that use these communities for nesting, foraging, and as travel corridors. In addition, the riparian



communities on the Ranch help stabilize soils of the creek banks and maintain water quality through bio-filtration.

Riparian habitats are of special concern to the resource agencies due to the extensive loss of this habitat type in California. Consequently, any activity that would remove or otherwise alter riparian habitats is closely scrutinized by the resource agencies through the California Environmental Quality Act (CEQA) review process and then later through the CDFG, CCC, and Corps permitting processes. Even those streams with very little vegetation would likely be subject to this type of review because of the no-net-loss policy for riparian and wetland habitats maintained by the resource agencies. Impacts on riparian habitat would require a permit and onsite compensatory mitigation to replace any habitat lost resulting from construction activities. Additionally, Santa Rosa Creek contains known occurrences of several listed and special-status species including southern steelhead, tidewater goby, California red-legged frog, and southwestern pond turtle that would need to be evaluated during the permit process (see special status species discussion below for additional information).

#### **d. Special-Status Plants**

Ten special-status plant species are identified in Appendix C of this document that either occur or have the potential to occur on the East-West Ranch. These species include:

- San Luis Obispo County (or Cambria) morning glory;
- compact cobwebby thistle;
- Obispo Indian paintbrush
- Monterey pine;
- San Luis Obispo sedge;
- San Simeon Baccharis;
- Hickman's onion;
- adobe sanicle;
- Michael's piperia; and
- Gairdner's yampah.

While the trail development and forest management practices on the Ranch may not impact these species, thorough seasonally-timed botanical surveys have not been conducted for the site. In order to avoid impacts to special-status plants on the Ranch, we recommend conducting seasonally-timed focused surveys for the plant species identified in Appendix C as potentially occurring on site. Any rare plant occurrences observed on the Ranch should be accurately mapped onto site-specific topographic maps so these areas may be avoided. Furthermore, the number of plants in the occurrence should be quantified to provide data to be used in management activities.



### e. Special-Status Wildlife

Sixteen special-status animal species were identified that could potentially occur on the East-West Ranch. Special-status wildlife issues are primarily focused around aquatic, riparian, Monterey pine forest, and oak/toyon woodland communities. Our reconnaissance-level surveys did not assess Santa Rosa Creek or other on-site drainages for deep water pools occurring within the drainages. However, a number of surveys and reports that document special-status wildlife species in Santa Rosa Creek have been completed (D.W. Alley, 1991-2001; Coastal Resources Institute, 1993). As such, California red-legged frog, southern steelhead, tidewater goby, and southwestern pond turtle are known and expected to occur within portions of the Ranch in the Santa Rosa Creek vicinity.

Pursuant to the Federal Endangered Species Act (FESA), a permit from USFWS is required for "take" of a Federally listed species through either the Section 7 or Section 10 consultation process. "Take", defined by the FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Species "take" can be authorized under Section 7 of the FESA if a Federal agency is involved in the project (e.g., Corps Section 404 permitting for impacts to waters of the U.S. and/or Federal funding) and agrees to be the lead agency requesting Section 7 consultation. This consultation process takes 135 days from the official request, and includes a Biological Assessment of the predicted impacts of the project and the net effects on the species with measures to minimize and mitigate for such impacts. The result is a Biological Opinion rendered by USFWS that includes a specified allowable incidental take as well as terms and conditions to minimize and offset such take. Take may or may not be issued for the construction of a specific project.

The Section 10 process is used to authorize incidental take when no Federal agency is involved. This process typically takes several (at least 2) years and includes development of a Habitat Conservation Plan for protecting and enhancing the Federally listed species at a specific location in perpetuity. If no Federal nexus can be invoked through the Section 404 permitting process, the only option is to obtain a Section 10 permit for construction activities that would impact any of the federally-listed species. All work associated with creeks and drainages on the Ranch will likely require Corps involvement, and therefore, a Section 7 consultation from the USFWS and/or the National Marine Fisheries Service (NMFS).

- **California red-legged frog (*Rana aurora draytonii*).** On the project site, Santa Rosa Creek and the unnamed drainages provide habitat for the red-legged frog. Surveys have identified this species throughout Santa Rosa Creek and its tributaries. Where impacts to this species habitat are unavoidable, permits and compensatory mitigation would be required by the resource agencies.
- **Southwestern Pond Turtle (*Clemmys marmorata*).** This species is known to occur in the Santa Rosa Creek area. Potential habitat for this species exists in the portions of Santa Rosa Creek that occur within the Ranch property. However,



due to the lack of permanent water in this lower reach of the creek, this species may not be a permanent resident in the vicinity of the Ranch.

- **Southern Steelhead** (*Onchorhynchus mykiss*). Known spawning habitat for steelhead exists in Santa Rosa Creek further upstream of the project site. Ten years of studies by D.W. Alley (2001) determined that southern steelhead migrate up Santa Rosa Creek through the East-West Ranch to appropriate spawning habitat in the upper reaches of the creek. No spawning habitat was observed within the reach of Santa Rosa Creek within the East-West Ranch. Any impacts to Santa Rosa Creek or its associated riparian vegetation would require a permit or authorization from NMFS.
- **Tidewater Goby** (*Eucyclobius newberryi*). This species is known to occur in the lower reaches of Santa Rosa Creek and can be assumed to occur within the portions of the creek on the East-West Ranch. As with the species listed above, any impacts to Santa Rosa Creek or the associated riparian vegetation would require a permit or authorization from the USFWS.

Also of concern are potential impacts to nesting birds from construction related activities and the implementation of the FMP on the East West Ranch. Potential nesting sites for birds-of-prey and other migratory birds protected by the Migratory Bird Treaty Act exist in the Monterey pine forests, riparian and oak woodland areas, as well as the eucalyptus and Monterey cypress trees on the Ranch. In practice, abiding by the Migratory Bird Treaty Act usually means to avoid removal of trees with active nests until such time as the young have fledged and the nest is abandoned. Simply put, trail and infrastructure construction or implementation of the FMP should not cause the abandonment of an active nest on the Ranch.

## 4.5 CONCLUSION/RECOMMENDATIONS

The East-West Ranch contains known occurrences of special status plant species and plant communities. Furthermore, the Ranch supports or has the potential to support a variety of special-status plant and wildlife species that may be affected by increased human use of the Ranch. Trail and infrastructure development on the site, and implementation of the FMP also have the potential to adversely affect these rare species and plant communities. There are gaps in rare plant species occurrence and distribution data on the Ranch because thorough spring botanical surveys have not been conducted. In addition, there have been no studies to date documenting the distribution of native perennial grassland or areas of higher quality grassland habitat on the Ranch that should be protected and enhanced. Rare plant and animal occurrences should be evaluated prior to embarking on trail construction and restoration activities. Although it is unlikely that the FMP will adversely affect rare plant or animal species on the Ranch, appropriately-timed surveys following accepted protocol for special-status species should be conducted by qualified biologists to determine the presence or absence of each special-status species on the Ranch prior to or concurrent with the implementation of the FMP. Recommendations:



- Surveys for special-status species need to be conducted during the appropriate time period of each species and should follow protocols established by the USFWS, CDFG, and California Native Plant Society. Blooming periods for special-status plants potentially occurring on the project site are listed in Appendix C. Surveys should be conducted once a month for the length of the blooming period and are to cover all potential habitat areas for the species on the Ranch. If any rare plant species were found, documenting the exact location of the occurrence and size of the population would provide valuable baseline information. This information could be used to avoid special-status species occurrences during trail development and assist in enhancement opportunities and the long-term management of rare species and plant communities on the Ranch.
- For planning purposes it may not be necessary to conduct additional special-status wildlife surveys at this time, but to conduct surveys prior to any proposed construction activities to ensure that potential impacts to rare wildlife species are minimized to the fullest extent possible. As discussed above, four special-status wildlife species are known to occur on the Ranch, and those species should be considered in all planning processes.
- Previous surveys and preliminary field reconnaissance of the Ranch revealed several plant communities of special concern and Environmentally Sensitive Habitat Areas (ESHAs), which include seasonal wetlands, streams, riparian vegetation, areas dominated native grassland, and the Monterey Pine forest. We recommend avoiding impacts to these areas to the extent possible. However, if impacts are unavoidable, determining the nature and extent of areas subject to CCC, Corps, and CDFG jurisdiction within the portions of the Ranch proposed for trail or other infrastructure development will be an important component of the permitting process. Mapping or surveying those ESHAs onto a current, site-specific topographic base map of the site, and quantifying the area of impact would be necessary.
- Santa Rosa Creek and the several unnamed drainage channels on the East-West Ranch may also need further evaluation to assess the potential for adjacent wetlands. Using the information provided on the Biological Constraints map should assist in avoiding or minimizing impacts to the ESHAs and riparian habitat types. If the seasonal wetland areas cannot be avoided, we recommend early consultation with the CCC, Corps and CDFG, and that mitigation alternatives be developed and incorporated into the project design.
- Finally, we recommend avoiding the extent of tree canopy in the riparian, oak/toyon woodland, and the Monterey pine forest habitat areas during all construction related activities.



## 5.0 CULTURAL RESOURCES

The following section is adapted from a cultural resources survey prepared by C.A. Singer and Associates, Inc. dated February 8, 1995. The survey consisted of a surface reconnaissance of the East-West Ranch and identified 15 archaeological sites. All 15 sites are situated on the West Ranch property, west of Highway 1; no cultural resources were found on the East Ranch property. Twelve site localities consist of prehistoric remains; CA-SLO-367, -369, -460, -1006, -1007, -1650, -1651, -1652, -1653, -1654, -1655, -16556. Three others are historic sites: CA-SLO-1657H, -1658H, and -1659H. Prehistoric sites of several types are present including habitation middens, rock ovens, seep springs, bedrock mortars, and small work areas. Historic sites include houses, barns and sheds, a creamery, water works and other structures of the former Fiscalini Ranch; also a Chinese seaweed and abalone farm. All of the sites mentioned have suffered degradation in one form or another.

### 5.1 REGIONAL SETTING

The community of Cambria falls within the territory historically occupied by the Obispeño Chumash, northernmost of the Chumash speaking peoples of California. Generally speaking, the Chumash and their ancestors followed an annual cycle of fishing, fowling, hunting, and a highly complex and scheduled system designed around the care and harvest of native plants and animals. Populations consisting of several related families, or large extended kin groups, lived in permanent villages and town along the coast, and also in interior canyons and valleys. An extensive commerce has flourished since earlier times, centering first around luxury items, and later extending to consumer products and foods. With an abundant array of resources at hand, the



Chumash Indian grinding mortars, near the bluffs on the West Ranch.

Chumash were able to evolve beyond a survival-based culture and move into a large and complex monetized society. Today, approximately 3,000 Chumash people live in California and many are concerned about the preservation of their cultural heritage (C.A. Singer & Associates, 1995).

Archaeological investigations conducted in Cambria have demonstrated to anthropologists that the Chumash and their ancestors have occupied the central California coastal region for more than 9,000 years (C.A. Singer & Associates, 1995).

## 5.2 PREVIOUS SURVEYS OF THE EAST-WEST RANCH

Four archaeological surveys have been conducted on what is now the East-West Ranch, prior to the 1995 study done by C.A. Singer and Associates. Various but unspecified portions of the property were examined by Geneva Hamilton sometime prior to 1961, by Robert Hoover in 1974, by Robert Gibson in 1979, and by Charles Dills in 1981. Prior to the 1995 survey more than 50 prehistoric and historic archaeological sites were recorded in the Cambria area, including five sites on the East-West Ranch. Two ethnohistoric Chumash villages were recorded in the Cambria area, *Satahoyo* (or *Stajahuaya*) and *Zaha Saltanal*. Based on radiocarbon dates (mostly taken from shells found in habitation middens) it is assumed that these settlements were established about 9000 years ago (C.A. Singer & Associates, 1995).

As is mentioned above, the C.A. Singer and Associates cultural survey not only identified prehistoric archaeological sites, but historic sites as well. The East-West Ranch was owned and operated by the Fiscalini family from the first quarter of the 20<sup>th</sup> Century until it was purchased by the CCSD in a recent transaction. The Ranch contains remnants of the now dated ranching operation. Earlier in this report it was stated that the ranching industry was an important economic element to the community of Cambria. The historic sites on the East-West Ranch, together with the prehistoric deposit and habitation areas, provide an opportunity for a glimpse into Cambria's past.

## 5.3 DESCRIPTION OF ARCHAEOLOGICAL SITES

*Descriptions of the following 15 sites were taken from the Cultural Survey Report completed by C.A. Singer and Associates on February 8, 1995.*



Ancient Chumash Indian shell midden.

**CA-SLO-367:** This site is a prehistoric shell midden deposit located in a forested area in the southeastern corner of West Ranch (as seen below). This site is considered to be in good overall condition, although nearly nothing is known about it except that historic glass beads were reportedly found here. The undisturbed surface topography of the site suggests that intact

remains are still present. The site is isolated and cannot be seen from any roadway but is still visited by local walkers and joggers, making it vulnerable to looters.

**CA-SLO-369:** This site is also a prehistoric shell midden deposit located in the southern part of West Ranch on Lodge Hill. The site is large and has a dense shell deposit. Only about 20% of the site is located within the boundaries of the West Ranch, and as such it has suffered considerable damage from grading, sewer line and utility installations, and the construction of several homes. The portion of the site located within the Ranch remains relatively undamaged. Most of the surface artifacts have been removed by looters but remains a significant cultural resource.

**CA-SLO-460:** This site is a series of prehistoric midden deposits located in the southwestern part of West Ranch. The site is long and narrow and consists of a series of rock-lined cooking ovens and associated midden deposits. A part of the site has been identified as an historic, Chinese, seaweed farm; another part has a low outcrop with bedrock mortars and a small midden. Although ground squirrels, natural erosion, looters and pedestrians have damaged the site, it remains an important resource.

**CA-SLO-1006:** This is a prehistoric midden deposit located in the western part of West Ranch. It consists of one or more rock-lined ovens and a shell midden deposit and encompasses approximately 20,000 square meters. Like the other sites, it has suffered from indirect impacts that are expected to continue.

**CA-SLO-1007:** This site consists of two separate deposits prehistoric materials flanking a seep spring, and an isolated, large unfinished metate near the spring. The site is located near the center of West Ranch and has yet to be evaluated but remains in relatively good condition.

**CA-SLO-1650:** This prehistoric site seems to be a habitation deposit. It is located in the northeastern part of West Ranch and encompasses approximately 5,000 square meters. Although the site appears to have been impacted in the past from brush removal and looting, it was determined to be in fairly good condition.

**CA-SLO-1651:** This site is a highly disturbed and relatively small prehistoric site (possibly a habitation site) located in the northwestern part of West Ranch, covering approximately 900 square meters. It was suggested that given the existing surface topography, most of the archaeological deposits have been removed.

**CA-SLO-1652:** Located in the northeastern part of the West Ranch, this prehistoric deposit site encompasses nearly 1500 square meters. The site has been impacted by brush removal and looting and remains poorly defined.

**CA-SLO-1653:** Situated on an elevated terrace in the northeastern part of the West Ranch, this prehistoric deposit site was recorded to have an area of approximately 4000 square meters and is probably shallow. It too has been disturbed by brush removal activities and looting.



**CA-SLO-1654:** This site is poorly defined and consists of sparse prehistoric deposits located in the northeastern part of the West Ranch. The deposits cover around 1500 square meters.

**CA-SLO-1655:** This prehistoric deposit site is located in the east-central portion of the West Ranch. It is likely a habitation area and encompasses 3250 square meters. Like the other sites, brush removal and the pillaging of artifacts have impacted its integrity.

**CA-SLO-1656:** This is a relatively large prehistoric deposit and habitation site located in the south central part of the West Ranch and has an estimated area of 15,000 square meters. The deposit includes a shell midden and other habitation refuse and has been impacted by brush removal.

**CA-SLO-1657H:** This is a historic site located near the northern boundary of the West Ranch. It is a small site and consists of a cut pad on a slope above a seep spring. There are deposits of historic refuse and it is suggested that a small cabin once existed there, probably built in the 1930's.

**CA-SLO-1658H:** This is a historic site located in the central part of West Ranch. The site consists of the remains of a water control and storage system, parts of which were dated "1926". Pieces of the system include two cast concrete cisterns, a destroyed dam of concrete, brick and cobblestones, and two cast concrete water troughs. The system has long since been ruined.



Earth and stone building associated with the original Fiscalini ranch.

**CA-SLO-1659H:** This is a historic ranch complex of Joe Fiscalini and was constructed during the first quarter of the 20<sup>th</sup> Century and occupied until the 1960's. It includes the remains of at least seven buildings (as seen to the left), along with several cut pads and roadways, concrete and stone foundations, old cypress trees and historic refuse. It is located in the northeast corner of West Ranch, just south of Santa Rosa Creek.

## 5.4 CONCLUSIONS

The C.A. Singer Cultural Resource Survey represents a thorough surface reconnaissance of the East-West Ranch. A total of 15 archaeological sites were identified, 12 of which are prehistoric and three of which are historic. These represent a wide variety of site

shell middens, cooking relics, refuse deposits, and food processing areas. The importance of the East-West Ranch, and the surrounding area, predates European settlement and gives valuable insight into local Native American culture. The three historic sites provide insight into the early cattle industry that was a key component to the local economy.

All the sites identified above are confined to the West Ranch. Although cultural sites are likely to exist on the East Ranch, the heavily disturbed nature of the area did not yield any such evidence in the surface reconnaissance conducted by C.A. Singer and Associates. The moderate climate in association with the abundance of both forest and ocean resources makes this area an ideal spot for inhabitation. It seems that many of the archaeological sites are located in the northern/eastern portion of the West Ranch, and can be associated with the existing forested areas and the Santa Rosa Creek. However, there are important cultural sites throughout the entire West Ranch. Whether occupied for 9000 years (according to archaeologists), or since time immemorial (according to traditional beliefs), it is clear that the East-West Ranch is historically significant.



## 6.0 HAZARDS

This section describes existing natural hazards that could affect the East-West ranch site, including: Fire Hazard, Flood Hazard, and Geologic Hazards.

### 6.1 FIRE HAZARD

The most predominant cause of fire hazard issues within the East-West Ranch stem from problems with fuel loading. Fuel loading is described as the accumulation of dead and downed vegetative debris on the forest floor, creating a fuel base for fires. As plants die and as they shed dead limbs, leaves, or bark, they form a layer on the ground. This litter breaks down with time and supplies the ecosystem with nutrients, habitats for insects and small animals, retains moisture, and numerous other functions. Fire plays a large roll in the recycling process. Regular, low intensity burns help to make chemical nutrients available to be cycled through the system. A regular burn cycle also helps to ensure that stands of trees and shrubs are not overcrowded with dense vegetation that prohibits healthy growth and chokes important habitat for animals. As a result, many plants have evolved to survive and to even thrive under a regular fire regime.

The modern practice of fire suppression creates problems with the heavy accumulation of fuels that would otherwise have burned away with regular, low intensity fires. The East-West Ranch is almost surrounded by the residential community of Cambria, and as such, hasn't been allowed to properly burn in recent times. The California Department of Forestry/County of San Luis Obispo (CDF/SLO) Fire Department Fire Management Plan Target Hazard Map for the Cambria area identifies several fuel breaks and fuel reduction areas to reduce fire hazards in the community. The CDF/SLO Cambria Target Hazard Map identifies an area of the West Ranch adjacent to Plymouth Street and Huntington Road as a proposed fuel reduction area. In addition, the Target Hazard Map designates an area of the West Ranch adjacent to Warren Road and Trenton Avenue as a proposed fuel break.

According to conversations with Chief Bob Putney of the CCSF Fire Department (December, 2001), much of the forest litter within the Ranch has built up into a heavy fuel load putting it at risk of a more intense and damaging fire. His assessment of the current fire hazards for the East-West Ranch is primarily based on vegetation content. These ratings are based on current conditions. A change in management could modify the vegetation patterns, altering the risk to wildland fires. The ratings are as follows:

- Forested Areas = Very High Risk
- Scrub Habitats (less vegetation) = High Risk
- Grasslands = Moderate Risk

A major component of the high wildfire risk to the forested areas of the Ranch can be attributed to issues related to Pine Pitch Canker. As described in Section 4.4 of this report, this disease is a fungus that attacks branch tips of the Monterey pine and kills foliage. The

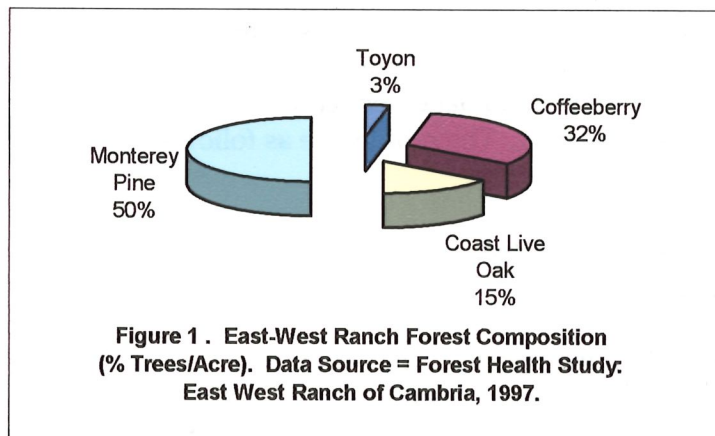


damaging effects of Pine Pitch Canker to the Monterey Pine forests located within the East-West Ranch can cause detrimental results of massive fuel loading on the forest floor. Downed dead woody fuels may be beneficial to nutrient recycling, but are hazardous when excessive amounts are accumulated. These accumulations can cause dangerous wildfires, wildlife habitat loss, and tie-up nutrients. In addition, these accumulations can be a hindrance to pine regeneration, breeding ground for disease and insects, and obstructions to fire fighters and equipment (Green 1997).



Much of the Monterey pine forest is dominated by dense stands of small trees (as seen to the left) resulting in a higher potential for a damaging fire. Understory vegetation such as toyon, coast live oak, blackberry, coffeeberry, grasses, and poison oak also have a high potential for fire hazard when growing in dense conditions. This is

especially the case where understory vegetation has the potential to accumulate and become readily ignitable fuels. Often these plants are green and of fire resistant species, but when hot, dry winds of the late summer and early fall begin when the climate is no longer a moist and cool aid in fire suppression; the result is a potential wildfire. Shrubs are the primary carrier of fire, transporting it both horizontally along the ground and vertically into treetops. Mature Monterey pines are known to spread fire once it ignites, throwing fire embers onto rooftops and creating a fire hazard to nearby residences. Figure 1 illustrates the composition of the forest (Green 1997).



A major concern to CDF and Cambria Fire Department is the proximity of the East-West Ranch forest to the residential areas to the south and east. The entire southern section of Cambria is located in close proximity to this and other forested properties. If a wildfire struck, the main evacuation route to Highway 1, Ardath Drive, would be used by most of the residents in this

portion of Cambria. Many senior citizens reside in this area, which is a great concern to the fire department, as these residents cannot quickly evacuate (Green 1997).

Several homes are located adjacent East-West Ranch's forests area, along Warren Road. Most of these structures are within thirty to one hundred feet from potentially dangerous fuels. While this distance meets California Public Resource Code 4219, it continues to remain unsafe due to the current and expected fuel loading (Green 1997).

## 6.2 FLOODING

In general, flooding is confined to the East Ranch with the exception of a small area adjacent to the Santa Rosa Creek, west of Highway 1 (See Exhibit 1). This flooding is due in part to the lack of drainage capacity beneath the Highway 1 bridge over Santa Rosa Creek, located immediately south of the East Ranch. It has been estimated that Santa Rosa Creek is capable of a flow rate of approximately 18,000 cubic feet per second (cfs) at the Highway 1 bridge during a 100-year storm event. The Highway 1 bridge was constructed



Highway 1 bridge over Santa Rosa Creek

in 1963 across the floodplain of Santa Rosa Creek, and was designed to pass a peak discharge of a 50-year storm (which is considerably less than a 100 year flood). The opening beneath the bridge (seen in the photo to the left) is not adequate to pass the peak flows of larger storms. Sediments on the floodplain are predominantly fine grained sands, which often indicates deposition from relatively slow moving waters (Douglas Wood & Associates, Inc. 1999).

A 1984 analysis prepared by the engineering firm of George S. Nolte, Inc., determined the maximum capacity of the Highway 1 bridge to be 13,000 cubic feet per second (cfs); the additional 5,000 cfs generated during a 100-year storm flows over the exiting berm which runs along the southern boundary of the East Ranch. These flows are diverted to the northwest across the East Ranch. This analysis also indicates that of the 5,000 cfs diverted across the East Ranch, 2,300 cfs flows across Highway 1 and back into the Santa Rosa Creek channel and 2,700 cfs flows over Cambria Drive (Douglas Wood & Associates, Inc 1999).

Two swales were constructed to help embankment overspill from Santa Rosa Creek along the noticeable bend just east of the Highway 1 bridge. The chances of embankment overspill are largest on the outside of the curve, where water piles up as it "banks" around the turn. At some point, attempts to construct an artificial levee parallel to the creek and

adjacent to Highway 1 were made, but the structure is poorly defined and breached at the eastern end (Coastal Resources Institute Faculty 1993).

A hydraulic study conducted by Westland Engineering in 1994, flooding can occur in areas downstream of the East Ranch site when no flooding or storm overflows are experienced. Santa Rosa Creek flood conditions result in the inundation of existing drainage culverts located downstream of Cambria Drive under Highway 1. During a 100-year storm, the width of Santa Rosa Creek downstream of the Highway 1 bridge is approximately 275 feet. Depth of flooding during a 100-year storm is expected to be approximately 18 feet within the channel. When Santa Rosa Creek reaches high levels, these drainage culverts are closed by flap gates, which prevent water from backing up into West Cambria. These closed flap gates then prevent local drainage runoff from exiting West Cambria thereby causing flooding conditions in this area (Douglas Wood & Associates, Inc 1999).

The north side of the East Ranch consists of a fairly flat flood plain surface with an elevation of approximately 34 feet, and the lower south side of the East Ranch, generally slopes from an elevation of 39 feet at the eastern end to 33 feet at the western end, adjacent to Highway 1. The general surface of the floodplain slopes downward towards the north, reaching an elevation of about 24 feet. Often, flood plains such as this one develop natural levees along the edges of the main channel, formed as floodwaters spreading from the channel decelerate and drop sediment. Waters on the backside of the levee tend to concentrate and form secondary tributary channels that parallel the main creek until breaking back across the levee system at some point downstream.

The upper south side of the East Ranch contains only flat floodplain surface. This portion of the East Ranch was apparently used as agricultural land at one time, and therefore it is possible that some features have been removed by land grading, but the surface appears to be natural. In addition, the floodplain was altered by the construction of Highway 1, which channelizes floodwaters into a culvert below the roadway. There is a very small, apparently natural levee along the side of the creek that is about 6 inches higher than the central portion of the plain, with a very slight swale lying in between the base of the hill and the south of the flood plain. Local residents have noticed poor drainage from the surface of the floodplain near the eastern fence line; probably resulting in waters from the north-sloping drainage swale that parallels the eastern fence line (Coastal Resources Institute Faculty 1993).

## 6.3 GEOLOGIC HAZARDS

### Mass Movement

There are no indicators of either significant rotational failures (slumps) or translational failures along preexisting weak planes in the rock (block glides). There is indication of soil creep below most of the springs, due to clay rich, water saturated clays being plastic when wet.



Several zones of wet and saturated ground have been identified at close to the 120 ft. and 170 ft. contours. These soils are mottled and impermeable at a depth of several feet, and it is unlikely that the soils will be able to carry high loads without showing lateral flow (East-West Ranch Master Development Plan 1996).

Gully erosion is a prime example of the effects of a history of heavy grazing, varied topography, hydrologic influences and erosive soils. As seen in Exhibit 1 of this report, areas of steep slope and highly erodable soils display signs of gully erosion and mass movement. As such, these areas present constraints to any future management plans. Two prominent erosion gullies that start at the top of the ridge in the West Ranch and flow



The West Ranch from the top of the ridge looking west (the end of Windsor Blvd.)

west towards the neighborhoods of southern Windsor Boulevard (one seen in the photo to the left) exhibit the tendency towards mass movement under the aforementioned conditions. The lack of a stabilizing layer of vegetation and the abundance of both storm water run off and groundwater provides conditions ripe for the gully erosion apparent on the West Ranch.

Another aspect of surface flow that presents constraints to the existing conditions of the West Ranch occurs along the edge of the bluffs. As the surf and tide erode the bluffs incrementally, they become subject to mass erosion. Undercutting of the cliffs presents a hazard to the existing bluffs and could result in dangerous conditions on or near its edge.

### **Surface Flow**

When water is flowing in Santa Rosa Creek, most of the springs and seeps show surface water from just a few feet to tens of feet before the water percolates back into the ground. There are two or more extensive flows (of less than 1 gpm) that occur on the seaward slopes. One is in the gully that runs from the Monterey Pine Forest through the center of the West Ranch to a culvert in the back of a house located at the end of Windsor Boulevard. The other is a gully along the southern property line from about the 170-160 ft. elevation (across from Victoria Way) to an elevation of about 90 feet (East-West Ranch Master Development Plan 1996).



### Hydrologic Hazards

Hydrologic hazards are confined in general to the seep zones mentioned above. However, intense storms can produce significant runoff in the gullies, and there is evidence that the culvert at the end of the large central gully has extended its capacity from past storms.

### Seismic Hazards

No active or potentially active faults are known to occur in the vicinity of the East-West Ranch. Major active faults in the region such as the San Andreas or others near San Simeon (possibly segments of the Hosgri fault zone, three miles to the west of the site) have the potential to generate strong ground shaking throughout the Cambria area. There is a complication on the surface of the Hosgri fault called the Harmony Stepmover which appears to function theoretically as a block against northward slips on the fault, and suggests that the larger quakes on the Hosgri would have epicenters to the south of Harmony, and not adjacent to the East-West Ranch. The level of shaking expected from these faults is approximately 0.3g. Very little is known about the seismic history of the area, and it is likely that many surface faults have not been identified, and extremely likely that subsurface "blind" faults occur that do not break through to the surface (Douglas Wood & Associates, Inc. 1999 and Coastal Resources Institute Faculty 1993).

## **6.4 SOILS CONSTRAINTS**

As seen in both the Hydrogeologic Constraints Map (Exhibit 1) and the Soils Matrix (Appendix A), there are a few different soils that present constraints to any possible plans for development or earth moving associated with public access and resource management. These constraints take the form of erosivity. Conception Loam and San Simeon Sandy Loam (with slopes between 9 and 50%) exhibit high erosion potential and are subject to mass movement. These soil types have high water content as well, adding to the effects of gully erosion and potential slippage. Most of the erosive soils occur on the West Ranch. However, the southern portion of the East Ranch consists of a thin strip of San Simeon Sandy Loam (30-50% slopes) along the wooded ridge. As mentioned above, these soils are highly erosive and subject to mass movement.

Although the aforementioned soils are not considered prime for agriculture, two of the soil types present on the East-West Ranch are. The Marimel Silty Clay Loam and Salinas Silty Clay Loam are both considered prime when irrigated (refer to Appendix A). These soils have historically supported cattle grazing and rangeland agriculture, as they are not particularly suited to row crops or the like.

### Hydric Soils

Most hydric soils on the East Ranch occur immediately east of and parallel to Highway 1. Soil moisture appears to be highest in the southwest corner of this area. Smaller areas of hydric soils occur in the southeast corner of the East Ranch where a moderately steep canyon drains onto the ranch.



The hydric soils on the West Ranch are mainly associated with springs and seeps. Hydric soils occur on the east-facing slope adjacent to Santa Rosa Creek. The surfaces of most soils on this slope are mottled. At the base of this slope, mottle increases with soil depth to about 15-20 inches. The southern part of this slope is disturbed by human activity and is severely eroded in spots, revealing mottled, clay subsoil and sandstone bedrock.

A small seep in the northwest corner of the West Ranch has hydric soils present. These soils are also apparent immediately adjacent to the two major drainage ways in the center of the West Ranch. Hydric soils are also present along the southwestern portion of the West Ranch (Coastal Resources Institute Faculty 1993).

### **Expansive Soils**

There are no significant indications of expansive soils on the East-West Ranch, based on the lack of contraction cracks in the soil (East-West Ranch Master Development Plan 1996).



## 7.0 EAST RANCH CONSTRAINTS ANALYSIS SUMMARY

This summary discusses the biological and manmade constraints on the East portion of the East-West Ranch. The eastern portion encompasses the MidState Bank property south of Cambria Drive, continues in a southerly direction adjacent to Highway 1, and then easterly along the Santa Rosa Creek corridor to Burton Drive. The purpose of this summary is to facilitate site selection for an active park facility on the East Ranch. Discussion has been included in each section to bring attention to potential issues, areas to avoid, or other considerations for park improvements and passive uses.

### 7.1 NEIGHBORING LAND USES

The East Ranch is surrounded by residential, commercial and municipal land uses (refer to Exhibit 4). On its northern boundary, the East Ranch is bordered by Santa Rosa Creek. The area north of the creek consists of residential and some commercial land uses. This neighborhood consists mainly of the portion of Main Street between Cambria Drive and Bridge Street. To the northeast, between Santa Rosa Creek and Rodeo Grounds Drive, the site is bordered by the CCSD Waterworks. On its southern boundary, the East Ranch is adjacent to residential neighborhoods that include those around Burton Drive, Wilton Drive, Piney Way, and Paterson Place. The southwestern and southeastern portions of the East Ranch are also bordered by residential neighborhoods. One existing home on Pine Court is located immediately adjacent to southeastern boundary of the East Ranch. Another residence, known as the Phillips Property (refer to Exhibit 3), is visible from the East Ranch. This residence can be seen near the eastern portion of the steep wooded slope that borders the southern half of the Ranch. The eastern boundary of the East Ranch extends to Burton Drive.

Currently, there are no sources of light and/or glare from the East Ranch. However, light sources are visible from within the East Ranch. Street lamps from Main Street, Highway 1, and adjacent residences and neighborhoods along both the northern and southern boundaries of the East Ranch contribute to light and glare visible on-site. These residences are within neighborhoods adjacent to Pine Court, Piney Way, Bluebird Lane, Wilton Drive and Skye Street.

### 7.2 INFRASTRUCTURE AND PUBLIC UTILITIES

This section describes infrastructure related to the East Ranch. This includes utilities such as sewer and water lines, vehicle and pedestrian access, public safety services, agency conditions, and recreation and open space needs.

**Water Service:** As was stated previously in Section 3.1, water is supplied to the Ranch by the CCSD from two well fields located on the San Simeon and Santa Rosa Creeks. The district pumps potable water from the creek underflow from a total of five wells. Currently, water lines and their associated easements can be found on the East Ranch



(refer to Exhibit 3). These run parallel and next to Santa Rosa Creek (on the southern side) and run across the site in a north/south direction from Piney Way, connecting to the other lines in that neighborhood. Recent Appropriate Rights Permits issued by the State Water Resources Control Board (SWRCB) authorize the extraction of up to 1,230 acre-feet annually from both streams. During the dry summer months beginning in May and usually lasting for a period of six months, extractions from the San Simeon Creek are limited to 372 acre-feet and 240 acre-feet from the Santa Rosa Creek. With an existing demand of approximately 600 acre-feet of water during the dry months, these wells provide a sufficient water supply for the community of Cambria. To provide sufficient water supply against unusually dry periods and to support continuing growth in the Cambria area, the CCSD has initiated the development of a seawater desalination system with a projected capacity of 1,200 acre-feet annually.

**Wastewater:** The Cambria Community Services District (CCSD) provides wastewater services to the East-West Ranch site. The CCSD-operated Wastewater Treatment facility located at 5500 Heath Lane in Cambria treats wastewater generated from the area. The facility has a total permitted capacity of 1.0 million gallons per day (GPD), with an additional 1.0 million GPD available for backup service. The existing facility was upgraded with the addition of two new aeration basins in 1995. Currently, sewer lines and their associated easements can be found on the East Ranch along with the aforementioned water lines and easements (refer to Exhibit 3). These run parallel and next to Santa Rosa Creek (on the southern side) and run across the site in a north/south direction from Piney Way, connecting to the other lines in that neighborhood and remain undeveloped.

**Access and Parking:** Primary access to the East Ranch is from Rodeo Grounds Drive (an unpaved road) off of Burton Drive, near the CCSD corporation yard. The road is currently owned by the CCSD and most of the road is outside the Ranch ownership. The County Sanitation District uses an area south of Rodeo Grounds Drive on the ranch as storage yard through an agreement with the CCSD.

Other possible access points to the East Ranch are as follows:

- *Blue Bird Lane:* As part of the Cross Town Trail design, by the County and PROS, there are future plans for a pedestrian bridge across the creek to the ranch at Bluebird Lane. This would provide pedestrian and bike access and is located just west of the CCSD water works.
- *MidState Bank meadow:* Intermittent access and parking is currently provided during special events in town. This provides limited pedestrian access to that portion of the East Ranch north of Santa Rosa Creek only.
- *Piney Way:* This is a County road that provides access to the CCSD utility easement on the ranch from the East Lodge Hill area. It is unpaved where it enters the ranch property.



- *Pedestrian Connections.* There are some informal trails from the Lodge Hill neighborhood that access the ranch. There are entries from Skye Street and Wilton. Currently the only direct access from the East Ranch to the West Ranch is via the creek channel under the Highway 1 bridge. There are no improved connections in place over the highway for pedestrian or bicycles.

To accommodate a park, the CCSD would need to grant park access along Rodeo Grounds Road, which would need to be improved to a two lane paved road. Although the existing storage area is currently in use, the yard may better serve as a parking lot for the park and trail users. This will require re-negotiations between CCSD and the County.

Private property adjacent to the East Ranch provides unique constraints to future trail linkages with the Ranch. Existing roads in these neighborhoods are narrow and difficult to park on. Access is hindered by private homes along the perimeter, as well as steep vegetated slopes all along the southern boundary of the East Ranch (refer to Section 4.0, *Biological Resources*).

Piney Way provides an opportunity for pedestrian, bike and emergency vehicle access to the Ranch. Piney Way currently exhibits a need for drainage and erosion control work if it is to be used as an access point to the East Ranch. If it were to be used as an alternative access to the park it will need to be widened, improved, and graded to extend into the Ranch.

In order to facilitate pedestrian movement in the community, the San Luis Obispo Council of Governments (SLOCOG) may consider allocating funds toward a pedestrian bridge that parallels the Highway 1 bridge. Such a bridge could be used as part of an improved access connection between the East and West Ranch and the town of Cambria. Coordination with SLOCOG is necessary.

As was mentioned in Section 3.2, *Circulation*, the Caltrans and County flood control plans for Cambria include a new traffic signal for the Cambria Drive/Highway 1 intersection. This will provide a safe pedestrian crossing at that location. In combination with a possible pedestrian bridge over Santa Rosa Creek at Highway 1, this signal could allow safe pedestrian access from a possible parking area west of Highway 1 at Cambria Drive to the East Ranch. However, it would not resolve the need to provide a connection to the West Ranch.

*Public Services:* As was mentioned in Section 3.3, law enforcement services to the East Ranch area are provided by the County of San Luis Obispo Sheriff's Department from its coastal Substation located in Los Osos at 2900 10<sup>th</sup> Street. This service area is estimated to encompass approximately 30,000 people, from Avila Beach to the south, the Monterey County line to the north, and Cuesta Grade to the East (excluding incorporated areas such as the cities of San Luis Obispo and Morro Bay). Response times to the Ranch are similar to the Cambria community as a whole.

The Cambria Fire Department, a division of the Cambria Community Services District (CCSD), provides fire protection and emergency response services for the East Ranch.



The Cambria Fire Department Station #1 responds to first alarm calls, and is located at 2850 Burton Drive in Cambria. This station is equipped with two Pumpers capable of discharging 1,200 gallons per minute, and a "quick attack" squad unit consisting of three engines, one of which is utilized as a water tank. Currently, there are three full-time firefighters and approximately thirteen paid on-call firefighters. During the summer months beginning in July, Station #1 is staffed on a 24-hour basis.

**Recreation and Open Space:** Many of the existing parks, recreation, and open space within the community of Cambria are located either directly adjacent to the East-West Ranch, or in close proximity. The Ranch itself is the largest track of open space in Cambria.

- a. **Trails:** There are no organized trails on the East Ranch. Of the informal trails that can currently be found on the East Ranch, most have either been created by cattle or exist as social trails worn by local neighborhood hikers.
- b. **Park Location:** Parks with recreation facilities are sparse in Cambria (refer to the Parks, Recreation, and Open Space Matrix in Appendix D). The School District facilities are over-burdened by recreational use of their playing fields. The County of San Luis Obispo and the Parks, Recreation and Open Space Commission of Cambria have targeted the East Ranch as a potential Community Park site.

### 7.3 BIOLOGICAL RESOURCES

**Habitat Types:** The East Ranch is composed of 8 habitat types, including; 1) riparian woodland; 2) riparian scrub; 3) seasonal wetland; 4) Monterey Pine forest; 5) oak/toyon woodland; 6) coastal scrub, 7) grassland; and 8) ruderal/anthropogenic. The East Ranch also contains introduced eucalyptus groves and windbreaks. Please refer to Section 4.0, *Biological Resources*, for a detailed discussion of the various plant and animals associated with these habitat types. The habitat types have been ranked by level of severity as a constraint per the previous report. The following discussion summarizes the severe, moderate or minor constraints on the East Ranch as opposed to discussing each habitat type individually. These habitats and rankings are represented in Exhibit 3, titled *East Ranch Constraints*. Also, refer to Appendix B of this document for an outline of the different habitats and the regulatory constraints that they are subject to.

**I. Severe Constraints:** The most significant and sensitive habitat types on the East Ranch are the riparian woodlands and seasonal wetlands associated with the Santa Rosa Creek corridor and the Fern Canyon tributary area that is located along Highway 1 into Santa Rosa Creek. Red legged frog, steelhead trout, and southwestern pond turtles are known to occur in Santa Rosa Creek. Furthermore, the riparian woodland and scrub habitat types associated with Santa Rosa Creek provide nesting and roosting habitat for numerous bird species, including legally protected migratory birds.

Seasonal wetland habitat is located adjacent to Highway 1 within the Fern Canyon drainage area. This habitat type is characterized by plants that are adapted to soils that



are either periodically or permanently inundated by water. These wetland areas are currently disturbed by grazing operations.

Monterey Pine forests are found on the north facing slopes of East Lodge Hill on steep (above 30%) slopes, and at Rodeo Grounds Drive. The forest is valuable as a unique plant community limited to four naturally occurring locations in the world, one of which is the Cambria Monterey pine forest. This plant community is considered important in many ways, including nesting/roosting habitat for birds and, on occasion, the Monarch butterfly.

**II. Moderate Constraints:** The Oak and Toyon woodland habitat type is important for nesting and roosting habitat for various species of birds, as well as potential habitat for the San Luis Obispo County morning glory. This plant community is found adjacent to the Monterey pine forest on the upper slopes near the Highway 1 corridor and the East Lodge Hill area. Coastal scrub is also found on these slopes and provides cover and nesting habitat a variety of wildlife species. The grassland habitat type occurs in the flat area of the East Ranch, and has been subject to grazing for many years. As a result, this habitat type is dominated by nonnative grasses and forbs, and has been subject to grazing. It is apparent that the grassland habitat type of the East Ranch is a disturbed habitat and best suited (compared to the oak/toyon woodland and coastal scrub habitat types) for the development of an active park.

**III. Minor Constraints:** This includes the ruderal areas, and eucalyptus groves and windbreaks not associated with the riparian woodland of Santa Rosa Creek. Ruderal refers to areas largely disturbed by human activities that are characterized by a predominance of non-native plants. Ruderal areas are found near Rodeo Drive just south of the CCSD yard and centrally in the lowlands south of the creek. French broom, milk thistle, and non-native grasses are the dominant plants in these areas. Typically, ruderal areas provide marginal habitat for wildlife. However, the area within the central portion of the East Ranch identified as this habitat type was composed of a dense thicket of French broom. Because of the dense, nearly impenetrable nature of this area, it provides higher quality wildlife habitat than typical ruderal or anthropogenic habitat. The eucalyptus stands that are found in windrows and groves, apart from the riparian woodland, provide perching and nesting habitat for a variety of bird species, especially birds of prey.

## 7.4 CULTURAL RESOURCES

All the sites identified in Section 5.0, *Cultural Resources*, are confined to the West Ranch. Although cultural sites could exist on the East Ranch, the heavily disturbed nature of the area did not yield any such evidence in the surface reconnaissance conducted by C.A. Singer and Associates. Although the moderate climate in association with the abundance of both forest, creek and ocean resources makes this area a possible location for previous human inhabitation, neither the field observations nor a records search yielded any evidence of cultural resources.



## 7.5 HAZARDS

This section describes existing natural hazards that could affect the East Ranch site, including: fire, flooding from Santa Rosa Creek, and soil conditions.

**Fire Hazards:** As described in Section 6.0, *Hazards*, the most predominant cause of fire hazard issues within the East Ranch stem from problems with fuel loading. Fuel loading is described as the accumulation of dead and downed vegetative debris on the forest floor, creating a fuel base for fires. The modern practice of fire suppression creates problems with the heavy accumulation of fuels that would otherwise have burned away with regular, low intensity fires.

According to conversations with Chief Bob Putney of the CCSD Fire Department (December, 2001), much of the forest litter within the Ranch has built up into a heavy fuel load putting it at risk of a more intense and damaging fire. His assessment of the current fire hazards for the East Ranch (along with the entire subject property) is primarily based on vegetation content (refer to Exhibit 2 for an outline of on-site vegetation). These ratings are based on current conditions. A change in management could modify the vegetation patterns, altering the risk to wildland fires. Parts of the East Ranch grasslands are at a higher risk due to the dense areas of thistle. The ratings are as follows:

- **Very High Risk:** Forested areas along the steep ridge that runs along the southern boundary of the East Ranch, and along the Highway 1 corridor.
- **High Risk:** Scrub habitats found in the southwestern section of the East Ranch (as well as small pockets found in the eastern portion of the East Ranch).
- **Moderate Risk:** Grasslands found through the middle of the East Ranch, along the length of the site.

A major concern to CDF and Cambria Fire Department is the proximity of the East Ranch forest to the residential areas that surround the site. The entire southern section of Cambria is located in close proximity to this and other forested properties.

**Flooding:** The majority of the East ranch is within the 100-year and 500-year flood plain (refer to Exhibits 1 and 3). This is due to a combination of factors; levees, the constriction that occurs at the Highway 1 bridge, and to drainage culverts with flap gates that close in 100-year storm events. As the creek\* rises in a storm event it floods the south side first and then spills over to the meadow near MidState Bank in the northern part of the East

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\* As was previously discussed in Section 6.2, *Flooding*, the Highway 1 bridge was constructed in 1963 across the floodplain of Santa Rosa Creek, and was designed to pass a peak discharge of a 50-year storm (which is considerably less than a 100 year flood). The opening beneath the bridge is not adequate to pass the peak flows of larger storms. Sediments on the floodplain are predominantly fine-grained sands, which often indicates deposition from relatively slow moving waters. A 1984 analysis prepared by the engineering firm of George S. Nolte, Inc., determined the maximum capacity of the Highway 1 bridge to be 13,000 cubic feet per second (cfs); the additional 5,000 cfs generated during a 100-year storm flows over the exiting berm which runs along the southern boundary of the East Ranch. These flows are diverted to the northwest across the East Ranch.



Ranch. This area is the subject of the County flood control program currently being designed to relieve flooding of the West village to the north of the Ranch. Funded in part by the Federal Emergency Management Agency (FEMA) and the County of San Luis Obispo, this program includes; an overflow bypass consisting of a detention and drainage channel paralleling Santa Rosa Creek and Highway 1; a pressurized storm drain system along the neighborhoods of Sheffield Drive, as well as Hillcrest and Sunberry, collecting water from those neighborhoods and delivering it to Santa Rosa Creek; and a pump station that pumps storm water from the low spots in the West Village of Cambria to Santa Rosa Creek (taken from telephone conversations with the County Public Works Department in February, 2002).

**Hydric Soils:** In the flat areas or flood plain the soils are a silty clay loam that is characterized by poor drainage and slight to moderate erosion potential. In the slopes above the floodplain the soils are a sandy loam and have high gully forming potential (refer to Appendix A for a soils description of the site).

**Erosion:** Piney Way is located in a steep small canyon-like drainage area at the southeast corner of the Ranch. Run-off is cutting away at the road and forming a gully. When it reaches the Ranch it sheet flows into the meadow, which is currently used as a horse pasture.

Due in part by the disturbance caused by cattle, the banks of the Santa Rosa Creek are being eroded where the creek meets the Highway 1 bridge.

## 7.6 PARK SUITABILITY DISCUSSION

It is apparent that a suitable area to locate the development of an active park and its associated facilities, from a constraints perspective, would be the eastern half of the Ranch in the lowlands area. The issue regarding the provision of an adequate water supply to serve the park needs should be resolved with the CCSD. In order to minimize turf area, and thus water consumption and maintenance, consideration should be given to combining active playfields and employing various water conservation and sustainable design principles (refer to Exhibit 4).

As was previously noted, access to the park will require road and parking lot improvements. If it is deemed necessary, Piney Way can serve as an alternative emergency access road to the park and ranch but may require extensive improvements including erosion control. Public services for police and fire appear adequate to serve the East Ranch and proposed park. On-site trails can be installed along the existing utility easements and provide linkages to the Lodge Hill neighborhood where practical, with minimal disturbance to the forest and oak woodlands. The remaining area within the East Ranch, and outside the improved park, should be protected as open space with some restoration to grassland and wetland habitat required. In addition, trail access should be provided for educational and interpretive purposes.

The park amenities should be situated to avoid wetlands to the west and minimize disturbance to the Santa Rosa Creek riparian corridor to the north. Setbacks should be



honored to help protect the riparian areas and wetlands. Forest Management Plan recommendations and practices should be followed for the Pine forest on site (and adjacent). Flooding hazards should be considered when designing the park facilities. Buildings should be located out of the floodplain or on elevated pads or foundations.

Further guidance for Park development will be derived from the East West Ranch Initial Study being prepared for CEQA purposes or if necessary a subsequent Environmental Impact Report.



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## 8.2 LIST OF PREPARERS

This Report was prepared by Rincon Consultants, Inc. under contract to RRM Design Group. Persons involved in data gathering analysis, project management, and quality control included:

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*Appendix A*

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# SOIL DESCRIPTIONS FOR THE EAST-WEST RANCH

Soils of the western lowland half of the West Ranch

	Briones-Pismo loamy sands 9% - 30%	Conception loam 2% - 5%	San Simeon sandy loam 15% - 30%
<b>Normally Occurring</b>	moderately steep slopes; foothills and mountains	very deep, moderately well drained, gently sloping on marine terraces	moderately deep, well drained, and on steep foothills
<b>Common Vegetation</b>	annual grasses, forbs, hardwoods, or brush	annual and perennial grasses, CA brome, CA fescue. Undesirable plants include horehound, CA sagebrush, and mustard	annual and perennial grasses and forbs, Monterey pine, live oak, CA coffeeberry, poison oak. Undesirable include chamise and coyotebush
<b>Elevation</b>	300 ft. to 2,000 ft.	10 ft. to 800 ft.	20 ft. to 500 ft.
<b>Complex</b>	40% Briones loamy sand 30% Pismo loamy sand 30% Arnold loamy sand	Cropley clay, Los Osos loam, Tierra loam, and San Simeon sandy loam	Conception loam and Los Osos loam
<b>Permeability</b>	Very slow	Very slow	Very slow
<b>Available Water Capacity</b>	Low	moderate or high	very low or low
<b>Surface Runoff</b>	medium to rapid	slow	rapid
<b>Water/ Wind erosion</b>	moderate - high/ high	slight	high/ high
<b>Shrink-Swell Potential</b>	No	Yes	Yes
<b>Agricultural Suitability</b>	Poor (rangeland)	Poor (rangeland); small grains and Hay	Poor (rangeland)
<b>Characteristics</b>	Very droughty, highly erodible, with gully erosion being a hazard during wet years.	Prone to water logging and excessive runoff. Permanent plant cover should be maintained.	In Cambria, this soil is used for urban development and recreation
<b>Capability Units</b>	Vle, nonirrigated	Ille-3, irrigated and nonirrigated	Vle, nonirrigated

Soils of the eastern upland half of the West Ranch

**San Simeon sandy loam**

**San Simeon sandy loam**

**San Simeon sandy loam**

	2% - 9%	9% - 15%	15% - 30%
<b>Slope</b>			
<b>Normally Occurring</b>	Very deep, well drained, gently to moderately sloping often on alluvial fans and plains	moderately deep, well drained, strongly sloping soil on foothills and marine terraces	moderately deep, well drained, and on steep foothills
<b>Common Vegetation</b>	annual and perennial grasses and forbs, Monterey pine, live oak, CA coffeeberry,poison oak. Undesirable include chamise and coyotebush	annual and perennial grasses and forbs, Monterey pine, live oak, CA coffeeberry,poison oak. Undesirable include chamise and coyotebush	annual and perennial grasses and forbs, Monterey pine, live oak, CA coffeeberry,poison oak. Undesirable include chamise and coyotebush
<b>Elevation</b>	20 ft. to 500 ft.	20 ft. to 500 ft.	20 ft. to 500 ft.
<b>Complex</b>	Conception loam and Los Osos loam	Conception loam and Los Osos loam	Conception loam and Los Osos loam
<b>Permeability</b>	Very slow	Very slow	Very slow
<b>Available Water Capacity</b>	very low or low	very low or low	very low or low
<b>Surface Runoff</b>	slow or medium	medium	rapid
<b>Water/ Wind erosion</b>	slight to moderate/	moderate	high/ high
<b>Effective Rooting Depth</b>	20 to 40 inches	20 to 40 inches	20 to 40 inches
<b>Shrink-Swell Potential</b>	Yes	Yes	Yes
<b>Agricultural Suitability</b>	Poor (rangeland or dry farming)	Poor (rangeland)	Poor (rangeland)
<b>Characteristics</b>	This soil supports some excellent stands of Monterey pine	In Cambria, this soil is used for urban development and recreation	In Cambria, this soil is used for urban development and recreation
<b>Capability Units</b>	IVe-3, irrigated and nonirrigated	VIe-3, irrigated and nonirrigated	VIe, nonirrigated

Soils of the eastern upland half of the West Ranch

San Simeon sandy loam                      Salinas silty clay loam

<b>Slope</b>	30% - 50%	2% - 9%
<b>Normally Occurring</b>	moderately deep, well drained, and on steep foothills	very deep, well drained, gently to moderately sloping on alluvial fans and plains
<b>Common Vegetation</b>	annual and perennial grasses and forbs, Monterey pine, live oak, CA coffeeberry, poison oak. Undesirable plants include chamise and coyotebush	annual and perennial grasses and forbs, live oak, monkeyflower, blue elderberry, CA peony, burclover, legumes. Undesirable plants include coyotebush, black sage, cheeseweed, milkthistle, and mustard
<b>Elevation</b>	20 ft. to 500 ft.	5 ft. to 400 ft.
<b>Complex</b>	Conception loam and Los Osos loam	Cropley clay and Marimel silty clay loam, with some Salinas soil
<b>Permeability</b>	Very slow	moderately slow
<b>Available Water Capacity</b>	very low or low	high or very high
<b>Surface Runoff</b>	rapid	slow or medium
<b>Water/ Wind erosion</b>	high/	slight to moderate/
<b>Effective Rooting Depth</b>	20 to 40 inches	60 inches or more
<b>Shrink-Swell Potential</b>	Yes	
<b>Agricultural Suitability</b>	poor	good (rangeland small grains and hay)
<b>Characteristics</b>	This soil supports some excellent stands of Monterey pine. Subject to gully erosion	Subject to compaction, well suited to irrigated pasture and dry-farmed oat hay, barley, and beans
<b>Capability Units</b>	V1e, nonirrigated	11le-1, nonirrigated

Soils of the western half of the East Ranch

Salinas silty clay loam      San Simeon sandy loam      San Simeon sandy loam

	2% - 9%	9% - 15%	30% - 50%
<b>Slope</b>			
<b>Normally Occurring</b>	very deep, well drained, gently to moderately sloping on alluvial fans and plains	moderately deep, well drained, strongly sloping soil on foothills and marine terraces	moderately deep, well drained, and on steep foothills
<b>Common Vegetation</b>	annual and perennial grasses and forbs, live oak, monkeyflower, blue elderberry, CA peony, burclover, legumes. Undesirable plants include coyotebush, black sage, cheeseweed, milkthistle, and mustard	annual and perennial grasses and forbs, Monterey pine, live oak, CA coffeeberry, poison oak. Undesirable include chamise and coyotebush	annual and perennial grasses and forbs, Monterey pine, live oak, CA coffeeberry, poison oak. Undesirable plants include chamise and coyotebush
<b>Elevation</b>	5 ft. to 400 ft.	20 ft. to 500 ft.	20 ft. to 500 ft.
<b>Complex</b>	Cropley clay and Marimel silty clay loam, with some Salinas soil	Conception loam and Los Osos loam	Conception loam and Los Osos loam
<b>Permeability</b>	moderately slow	Very slow	Very slow
<b>Available Water Capacity</b>	high or very high	very low or low	very low or low
<b>Surface Runoff</b>	slow or medium	medium	rapid
<b>Water/ Wind erosion</b>	slight to moderate/	moderate	high/
<b>Effective Rooting Depth</b>	60 inches or more	20 to 40 inches	20 to 40 inches
<b>Shrink-Swell Potential</b>		Yes	Yes
<b>Agricultural Suitability</b>	Good (rangeland small grains and hay)	Poor (rangeland)	Poor (rangeland)
<b>Characteristics</b>	Subject to compaction, well suited to irrigated pasture and dryfarmed oat hay, barley, and beans	In Cambria, this soil is used for urban development and recreation	This soil supports some excellent stands of Monterey pine. Subject to gully erosion
<b>Capability Units</b>	Ille-1, nonirrigated	Vle-3, irrigated and nonirrigated	Vle, nonirrigated

Soils of the eastern half of the East Ranch

**San Simeon sandy loam**      **Marimel silty clay loam, drained**

<b>Slope</b>	30% - 50%	nearly level
<b>Normally Occurring</b>	moderately deep, well drained, and on steep foothills	very deep, well drained on alluvial fans in narrow valleys
<b>Common Vegetation</b>	annual and perennial grasses and forbs, Monterey pine, live oak, CA coffeeberry, poison oak. Undesirable plants include chamise and coyotebush	annual grasses and forbs
<b>Elevation</b>	20 ft. to 500 ft.	0 to 400 ft.
<b>Complex</b>	Conception loam and Los Osos loam	Camarillo loam, drained; Cropley clay; Mocho and Salinas soils
<b>Permeability</b>	Very slow	moderately slow
<b>Available Water Capacity</b>	very low or low	high or very high
<b>Surface Runoff</b>	rapid	slow
<b>Water/ Wind erosion</b>	high/	slight/
<b>Effective Rooting Depth</b>	20 to 40 inches	60 inches or more
<b>Shrink-Swell Potential</b>	Yes	
<b>Agricultural Suitability</b>	Poor (rangeland)	Good (few limitations)
<b>Characteristics</b>	This soil supports some excellent stands of Monterey pine. Subject to gully erosion.	Good agriculture land for growing several cole crops and walnuts. Poor soil to use for levees, dikes or embankments.
<b>Capability Units</b>	V1e, nonirrigated	IIIc-1, nonirrigated

*Appendix B*

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# Regulatory Constraints Matrix for the Habitats of the East West Ranch

Regulatory Action	Riparian	Seasonal Wetland	Monterey Pine	Riparian Scrub	Oak/Toyon Woodland	Seabluff Scrub	Coastal Scrub	Eucalyptus	Monterey Cypress	Grassland	Ruderal
A. County of San Luis Obispo's 50-foot creek and 100-foot wetland setback (per Sections 23.07.172 and 23.07.174 of the County Land Use Ordinance; Coastal Development permit)	▲	▲		▲				▲			
B. Potential California Department of Fish and Game (CDFG) jurisdiction over activities affecting drainage channels and riparian vegetation (Section 1600 Streambed Alteration Agreement)	▲	▲		▲							
C. Potential U.S. Army Corps of Engineers (Corps) jurisdiction over waters of the U.S. and wetlands (Corps Delineation and Section 404 permit)	▲	▲		▲							
D. California red-legged frog habitat (United States Fish and Wildlife Service consultation)	▲	▲		▲							
E. Southern steelhead and tidewater goby habitat (USFWS/National Marine Fisheries Service consultation)	▲	▲		▲							
F. Potential southwestern pond turtle and two-striped garter snake habitat (County and CEQA review)	▲										
G. Potential bank swallow habitat (County and CEQA review; USFWS consultation)	▲										
H. Potential silvery legless lizard habitat (County and CEQA review)						▲					
I. Potential nesting/roosting habitat for migratory bird species and "birds-of-prey" (County and CEQA review; USFWS consultation)	▲		▲		▲			▲	▲		
J. Potential song bird nesting habitat (County and CEQA review)	▲		▲	▲	▲	▲					▲
K. Potential roosting habitat for Monarch butterfly (County and CEQA review)			▲								
L. Rare vegetation community per the California Natural Diversity Database (County and CEQA review)	▲	▲	▲	▲							
M. Potential occurrences of native perennial grassland (County and CEQA review)										▲	
N. Potential habitat for rare plant species (County and CEQA review)		▲	▲		▲	▲	▲			▲	▲

*Appendix C*

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# SPECIAL STATUS SPECIES OF THE EAST-WEST RANCH

Species	Status* Fed/CA/CNPS	Habitat Requirements	On-Site Potential
Monarch butterfly <i>Danaus plexippus</i>	CNDDDB G5S3 (wintering sites)	Roosts located in wind protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby	Winter roost habitat located within Monterey pine forest in west ranch.
<b>Invertebrates</b>			
Silvery legless lizard <i>Anniella pulchra pulchra</i>	FSC/CSC/--	Coastal dune and coastal scrub habitat types, fossorial species requires loose friable soils covered by leaf litter	Coastal bluff and scrub habitats within the project site. Presence is unlikely due to the heavy soils within project, but cannot rule out at this time.
<b>Amphibians/Reptiles</b>			
California red-legged frog <i>Rana aurora draytonii</i>	FT/CSC/--	Permanent sources of deep water with emergent or riparian vegetation	Known to occur within aquatic/riparian areas associated with Santa Rosa Creek. Potential breeding habitat for this species is located within riparian and wetland habitats onsite; uplands onsite may provide dispersal habitat. USFWS protocol surveys have not been conducted for this species.
Southwestern pond turtle <i>Clemmys marmorata pallida</i>	FSC/CSC/--	Permanent or nearly permanent water bodies in many habitats	Known to occur within Santa Rosa Creek. Potential nesting habitat exists within uplands onsite adjacent to Santa Rosa Creek. Assumed present within reach of Santa Rosa Creek that traverses the site. Aquatic habitat quality is somewhat reduced due to seasonal nature of Santa Rosa Creek.
Two-striped garter snake <i>Thamnophis hammondi</i>	--/CSC/--	Highly aquatic, in or near permanent fresh water	Potential habitat located within Santa Rosa Creek. Aquatic habitat quality is somewhat reduced due to seasonal nature of Santa Rosa Creek.
<b>Fish</b>			
Tidewater Goby <i>Eucyclogobius newberryi</i>	FE/CSC/--	Shallow coastal lagoons and lower stream reaches; still but not stagnant water	Known to occur within Santa Rosa Creek. Likely present within reach of Santa Rosa Creek that traverses the site when flow and salinity is suitable.
South Central CA steelhead <i>Onchorhynchus mykiss irideus</i>	FT/CSC/--	Fresh water, fast flowing, highly oxygenated, clear, cool stream where riffles tend to predominate pools	Known to occupy aquatic habitat within Santa Rosa Creek. No spawning habitat present within the Ranch. However, individuals move through the project area to appropriate upstream spawning habitat and during downstream migration to the ocean (D.W. Alley, 2001).
<b>Birds</b>			
California brown pelican (nesting colony) <i>Pelecanus occidentalis californicus</i>	FE/SE, FP/--	Estuarine, marine subtidal, and marine pelagic waters along the California coast; resident	Potential roosting habitat exists within rocky intertidal habitat along the west ranch. Breeding habitat does not exist on the project site
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	FT/CSC/--	Sand spits, dune backed beaches, beaches at creek and river mouths, and salt pans at lagoons and estuaries are the preferred habitats for nesting; resident	Suitable breeding habitat is lacking on the project site. Groups may forage along shore at suitable tides.
California least tern (nesting colony) <i>Sterna antillarum brownii</i>	FE/SE, FP/--	Sand spits, dune backed beaches, beaches at creek and river mouths, and lagoons and estuaries are the preferred habitats for nesting; breeding migrant	Suitable nesting habitat is lacking on the project site

Species	Status* Fed/CA/CNPS	Habitat Requirements	On-Site Potential
American peregrine falcon <i>Falco peregrinus anatum</i>	Delisted/SE, FP/--	Open country near cliffs along the coast; nests on high cliff ledges; feeds by catching birds on the wing; resident	Wide ranging species with suitable foraging habitat "above" the project site. No suitable nesting habitat located onsite
Prairie falcon (nesting) <i>Falco mexicanus</i>	--/CSC/--	Catches prey in air and in open ground in grasslands. Nest in cliffs overlooking large areas; resident, breeding migrant	Potential foraging habitat exists onsite.
Northern harrier <i>Circus cyaneus</i>	--/CSC/--	Forages and nests in grasslands and marshes; winter migrant/summer breeding.	Potentially could occur onsite; two individuals observed foraging over the grassland habitat on the West Ranch during Rincon surveys.
White-tailed kite (nesting) <i>Elanus leucurus</i>	--/FP/--	Open country, grasslands and marshes; nests in trees; resident.	Potential nesting habitat within grassland and scrub habitats onsite. Foraging habitat exists within grassland and scrub habitats onsite. Potential nesting habitat exists onsite in riparian, oaks, pines and eucalyptus.
Cooper's hawk <i>Accipiter cooperii</i>	--/CSC/--	Woodlands throughout California; winter/breeding migrant	Suitable nesting habitat in Monterey pine, oak and riparian woodlands within project site
Sharp-shinned hawk (nesting) <i>Accipiter striatus</i>	--/CSC/--	Forages and nests in open woodlands and wood margins, riparian forests; winter/breeding migrant	Suitable nesting habitat occurs onsite within Monterey pine forest and riparian habitat.
Burrowing owl <i>Athene cucularia</i>	FSC/CSC/--	Grasslands, nests in burrows; resident	Suitable habitat present in grassland habitat containing ground squirrel burrows.
Long-eared owl (nesting) <i>Asio otus</i>	--/CSC/--	Dense forests; resident	Potential nesting on the project site within the Monterey Pine forest on the West Ranch. This species is uncommon to the area and is unlikely to occur within the Ranch.
Loggerhead shrike <i>Lanius ludovicianus</i>	FSC/CSC/--	Coastal Sage Scrub, grasslands; resident.	Potentially could occur onsite.
California horned lark <i>Eremophila alpestris actia</i>	--/CSC/--	Sparse Coastal Sage Scrub, grasslands; resident.	Potentially could occur onsite.
Bank Swallow <i>Riparia riparia</i>	--/ST/--	Open areas near water with cutaway banks; breeding migrant	Known to occur in Santa Rosa Creek approx. 2.5 miles upstream of site. Potential habitat exists within banks of Santa Rosa Creek onsite
Yellow warbler <i>Dendroica petechia brewsteri</i>	--/CSC/--	Riparian plants, prefers willows, cottonwoods, aspens, sycamores and alders for resting and foraging; resident, winter/breeding migrant	Known to occur within Santa Rosa Creek. Suitable nesting habitat exists within Santa Rosa Creek onsite
<b>Mammals</b>			
Southern sea otter <i>Enhydra lutris nereis</i>	FT/FP/--	Near shore kelp forests, occasional visitor to the rocky intertidal zone.	Observed offshore of the West Ranch, and may forage along the rocky intertidal zone.
Pallid bat <i>Antrozous pallidus</i>	--/CSC/--	Roosts in rock crevices, caves, mine shafts, under bridges, in buildings and tree hollows.	Potential habitat located onsite within forest habitats and under the State Highway 1 bridge.
<b>Plants</b>			
Monterey pine <i>Pinus radiata</i>	SC/--/1B	Closed-cone coniferous forest, cis-montane woodland. Only three native stands occur in Central California. Introduced in many areas.	Native Monterey pine forest occurs throughout the project site. The largest occurrence was observed on the West Ranch.
San Luis Obispo County (or Cambria) morning glory <i>Calysetegia subcaerulea</i> ssp. <i>episcopalis</i>	--/1B	Grassland, chaparral, scrub and cismontane woodlands in open areas. Perennial herb blooms April - May.	Suitable habitat onsite includes grassland, scrub and woodland habitats. Two occurrences have been identified in the coastal grassland on the West Ranch. Updated surveys should be conducted to accurately map the distribution of this species on the project site.

Species	Status* Fed/CA/CNPS	Habitat Requirements	On-Site Potential
Compact cobwebby thistle <i>Cirsium occidentale</i> var. <i>compactum</i>	SC/-/1B	Cismontane woodland, chaparral and coastal scrub communities in Monterey and San Luis Obispo counties. Perennial herb blooms May-July.	This species was observed on the West Ranch in the seabluiff scrub habitat type. Updated surveys should be conducted to accurately map this species current distribution on the project site.
Hickman's onion <i>Allium hickmanii</i>	-/-/1B	Closed-cone coniferous forest, maritime chaparral, coastal prairie, coastal scrub, and grassland habitats. Perennial bulb blooms April - May.	Potential habitat for this species was observed in swales and vernal moist areas within the Monterey pine forest and grassland habitat types throughout the project site. Seasonally-timed focused surveys required to determine this species presence/absence from the project site.
Gairdner's yampah <i>Perideridia gairdneri</i> ssp. <i>gairdneri</i>	-/-/4	Broad-leaved and coniferous forests, chaparral, and grassland habitats. Perennial herb blooms June - October	This species was observed in the Monterey pine forest on the West Ranch during floristic surveys conducted in 1997 by the Coastal Resources Institute.
Michael's piperia <i>Piperia michaeli</i>	-/-/4	Coastal bluff scrub, closed-cone coniferous forest, and chaparral (maritime). Perennial herb blooms May - August.	Potential habitat present in the Monterey pine forest. Seasonally-timed focused surveys required to determine this species presence/absence from the project site.
San Luis Obispo sedge <i>Carex obispoensis</i>	-/-/1B	Closed-cone coniferous forest, chaparral coastal prairie, coastal scrub, valley and foothill grassland, often on serpentine. Perennial herb blooms April - June.	Potential habitat present throughout the Ranch. Unlikely to occur, however, seasonally-timed focused surveys required to determine this species presence/absence from the project site.
San Simeon Baccharis <i>Baccharis plummerae</i> ssp. <i>glabrata</i>	-/-/1B	Coastal scrub. Shrub blooms in June	Potential habitat present onsite. Previous botanical surveys did not identify this species on site, however, it could potentially occur onsite. Seasonally-timed focused surveys required to determine this species presence/absence from the project site.
Adobe sanicle <i>Sanicula maritima</i>	-/SR/1B	Chaparral, coastal prairie, meadows and seeps, valley and foothill grassland/clay, serpentine. Perennial herb blooms February - May.	Potential habitat present for this species observed throughout the coastal grassland, coastal scrub, and seasonal wetland areas on the West Ranch. Seasonally-timed focused surveys required to determine this species presence/absence from the project site.
Obispo Indian paintbrush <i>Castilleja densiflora</i> ssp. <i>obispoensis</i>	-/-/1B	Valley and foothill grassland; elevation ranges from 10 - 400 meters. Annual herb blooms April	Potential habitat present onsite. Observed on site during follow-up botanical surveys by Dr. David Keil. Seasonally-timed focused surveys required to determine current locations of occurrences and their distribution on the Ranch.

\* Source: California Department of Fish and Game, Special Animals, January 2001; DFG Special Vascular Plants, Bryophytes, and Lichens List, January 2001; CNDDDB Rarefind 10-mile search radius, December 2001; Karen Clarke, Audubon Society, Bird observation list for lower reach of Santa Rosa Creek (4/16/94 to 11/9/01).  
CSC = California Species of Special Concern; FSC = Federal Species of Concern; SE = State Endangered; ST = State Threatened; FE = Federally Endangered; FT = Federally Threatened; FP = DFG Fully Protected; SR = State Rare; CNPS List 4 = limited distribution; CNPS List 3 = review list; CNPS List 2 = rare or endangered in California; CNPS List 1B = rare or endangered in California and elsewhere; G5S3 = This translates to a state rank of a California restricted range and rare for wintering sites;  
- - = no status.

*Appendix D*

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Jurisdiction	Name & Type of Facility	Location	Parcel Size	Events/Recreation	Facilities	Relation to the East-West Ranch
Cambria Community Services District (CCSD)	Veterans Memorial Building, Center	Corner of Main Street and Cambria Drive in West Village	1.27 acres	Events include art shows, exercise classes, health clinics, weekly farmer's market, music, dances, and staged events	Three meeting rooms, kitchen, stage, American Legion Club House, restrooms, and parking	Northwest corner of the East Ranch. Direct access to the Ranch.
	San Simeon Creek, open space	Near the community of San Simeon, along portions of San Simeon Creek	105 acres	Open space area and CCSD facilities	Waste water and potable water facilities	Approximately 3 miles north of the Ranch on Highway 1. No direct access.
San Luis Obispo County	Shamel Park, park	In the Park Hill Neighborhood, at the west end of Windsor Blvd. near Santa Rosa Creek	6 acres	Swimming, play area, barbecue area, picnic facilities, a play field, and beach/nature walks	Heated pool, walkways, tables, benches, restrooms, and parking	Less than 0.5 miles from the West Ranch. Direct access to the Ranch from Windsor.
	Lampton Park, park	Southwest corner of Lampton Street and Windsor Blvd.	2 acres	Passive recreation, including picnicking, walking, sunning, nature walks, and scenic vistas	Stairway to tidepools, walkways, tables, benches, parking and bike racks	Approximately 0.5 miles south of West Ranch, along the coastal bluffs. Windsor Blvd. affords direct access.
	Cambria Library, library	900 Main Street, in the West Village area	0.17 acres	Cambria's public library, including Story Time for young children two days a week	Library building, parking, and bicycle racks	Access to the Ranch via Main Street.
	Sherwood Drive, beach access	Accesses to the beach are provided along Sherwood Dr. at the ends of Wedgewood and Harvey	Not Applicable	Beach access	Beach access	Immediately south of the West Ranch, along the coast. Affords direct access to the site.
California Department of Parks and Recreation (CDPR)	Pinedorado Grounds & Light-House Lens, Festival Grounds	990 Main Street, in the West Village area	0.87 acres	Five day festival during labor day weekend	False front buildings and historical lighthouse lens display (Piedra Blancas Lighthouse Lens).	Accessible along Main Street, otherwise there is no direct access to the site.
	Joslyn Adult Recreation Center, adult recreation center	950 Main Street, in the West Village area	0.51 acres	A variety of recreation through club participation, like dancing, lawn bowls, garden clubs, cards, meetings, and computer classes	Lawn bowls, meeting rooms, kitchen facilities, restrooms and parking	Accessible along Main Street, otherwise there is no direct access to the site.
	Leffingwell Landing, park	North end of Moonstone Beach Drive, near Highway 1		Trails, picnicking, barbecues, and benches	Trails, picnic tables, barbecues, restrooms, boat ramp, parking	Located north of Santa Rosa creek, extending 1.5 miles north. Accessible via Windsor to Moonstone Dr.
	Moonstone Beach Drive, trails	Along Moonstone Beach Drive and the ocean frontage		Pedestrian trails along the ocean frontage	Pedestrian trails and benches	Accessible from the West Ranch along Moonstone Dr.
	Santa Rosa Creek, open area	South end of Moonstone Beach Drive	30 acres	Beach access and scenic appreciation	Benches, beach access, solar electric restrooms and parking	Directly North of West Ranch. Accessible along Windsor Blvd.
	Nottingham Bluffs, open area	Two locations: Western end of Plymouth, and the western end of Dorset and Leighton streets	3 acres	Trails and scenic appreciation	Trails, benches and beach access	Located along the bluffs, extending north from the coast along the West Ranch.
	Santa Rosa Natural Preserve, open space	Portions of Santa Rosa Creek west of Highway 1	25 acres	Protected open space	No recreation facilities	Portions of Santa Rosa Creek, directly accessible north of West Ranch.



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