Land Use Plan
for
Pleasanton Ridge Regional Park

July 17, 2012

East Bay Regional Park District

Planning/Stewardship/GIS Services Department
East Bay Regional Park District
2950 Peralta Oaks Court
Oakland, California 94605

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Adopted: July 17, 2012

Resolution No.: 2012 - 7 - 184

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Pleasanton Ridge Land Use Plan
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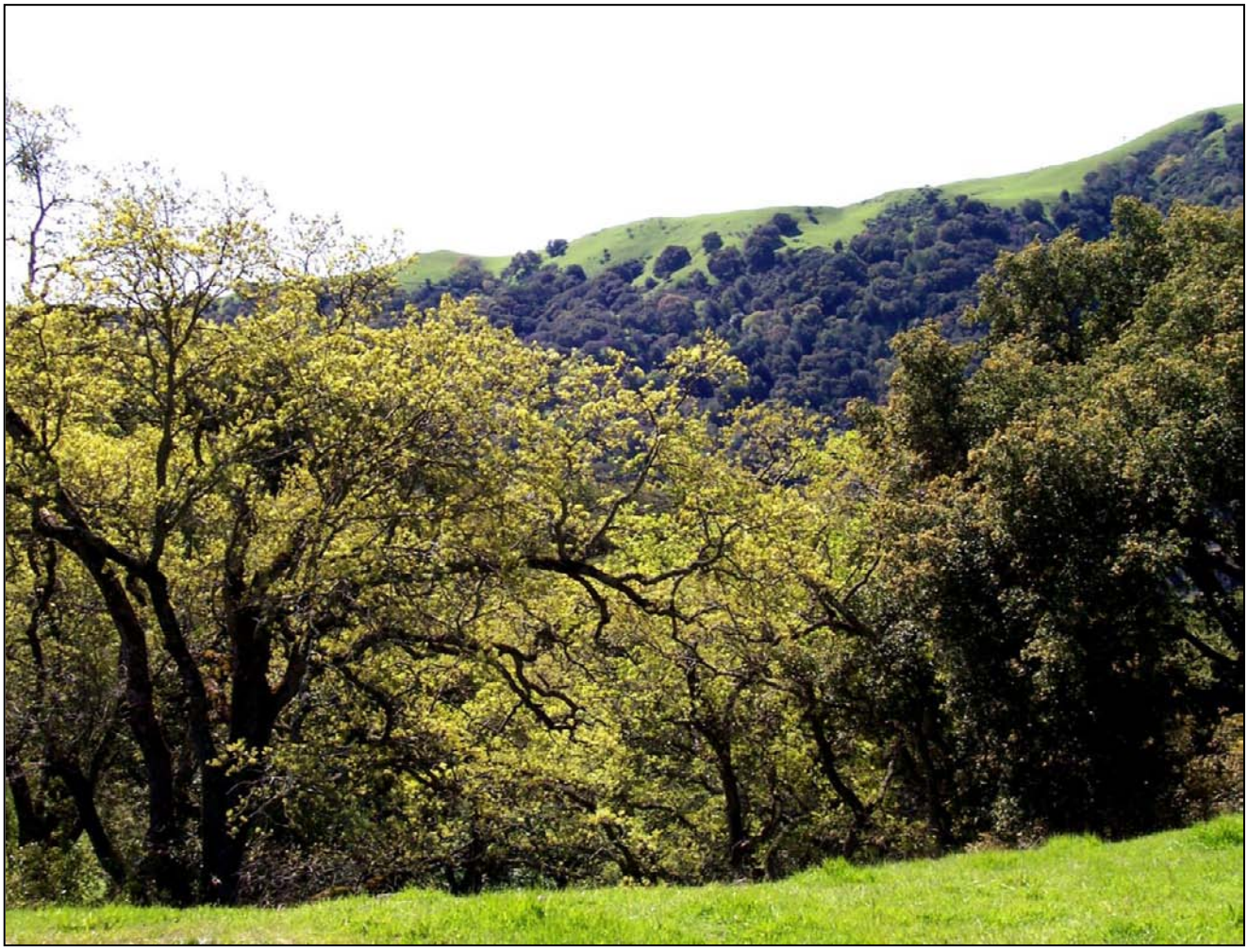


Chapter 1
Introduction

1.1 Overview

1.1.1 Chapter Summaries

The function of a Land Use Plan (LUP or "Plan") is to: evaluate park resources and facilities; document agreements and restrictions related to park use; provide recommendations for managing resources; and identify future recreation uses, programs and service facilities. In this case, the LUP addresses the resources, uses, facilities, agreements and restrictions for Pleasanton Ridge Regional Park. This document is divided into five chapters. The primary topics covered in each chapter are outlined below.

- **Chapter 1 – Introduction** gives an overview of the characteristics of Pleasanton Ridge Regional Park; sets forth parkwide goals; reviews the LUP"s consistency with other relevant District policies and ordinances; and describes the planning process involved in developing this plan.

- **Chapter 2 – Executive Summary** provides an overview of current challenges and planning issues facing the park and summarizes recommended actions described in more detail in *Chapter 4 - Land Use Plan*.

- **Chapter 3 – Existing Conditions** identifies the natural and cultural resources of the park and describes the methodologies and data sources used to create this resource baseline. This chapter also describes ongoing resource programs including the park"s integrated pest and range management programs. It relays the programs" roles in meeting resource

management goals and identifies infrastructure requirements associated with managing livestock in the park. This chapter identifies existing recreation facilities, along with current uses and interpretive programs. It also includes a discussion of the demographic trends that serve as a resource for understanding future recreation facility and program needs. This information sets the stage for the recommended actions in *Chapter 4 - Land Use Plan*.

- **Chapter 4 – Land Use Plan** presents a vision for the future of the park that balances a comprehensive resource management program with facility and program development directed at creating positive visitor experiences. It incorporates current facilities, services and programs identified in *Chapter 3 - Park Environment* and sets forth recommendations for the future encompassing parklands currently open to the public, as well as those lands in landbank status.

- **Chapter 5 – Report Preparation & References** identifies staff that contributed to the development of the LUP and provides a list of support materials used in the preparation of the Plan.

1.1.2 Setting

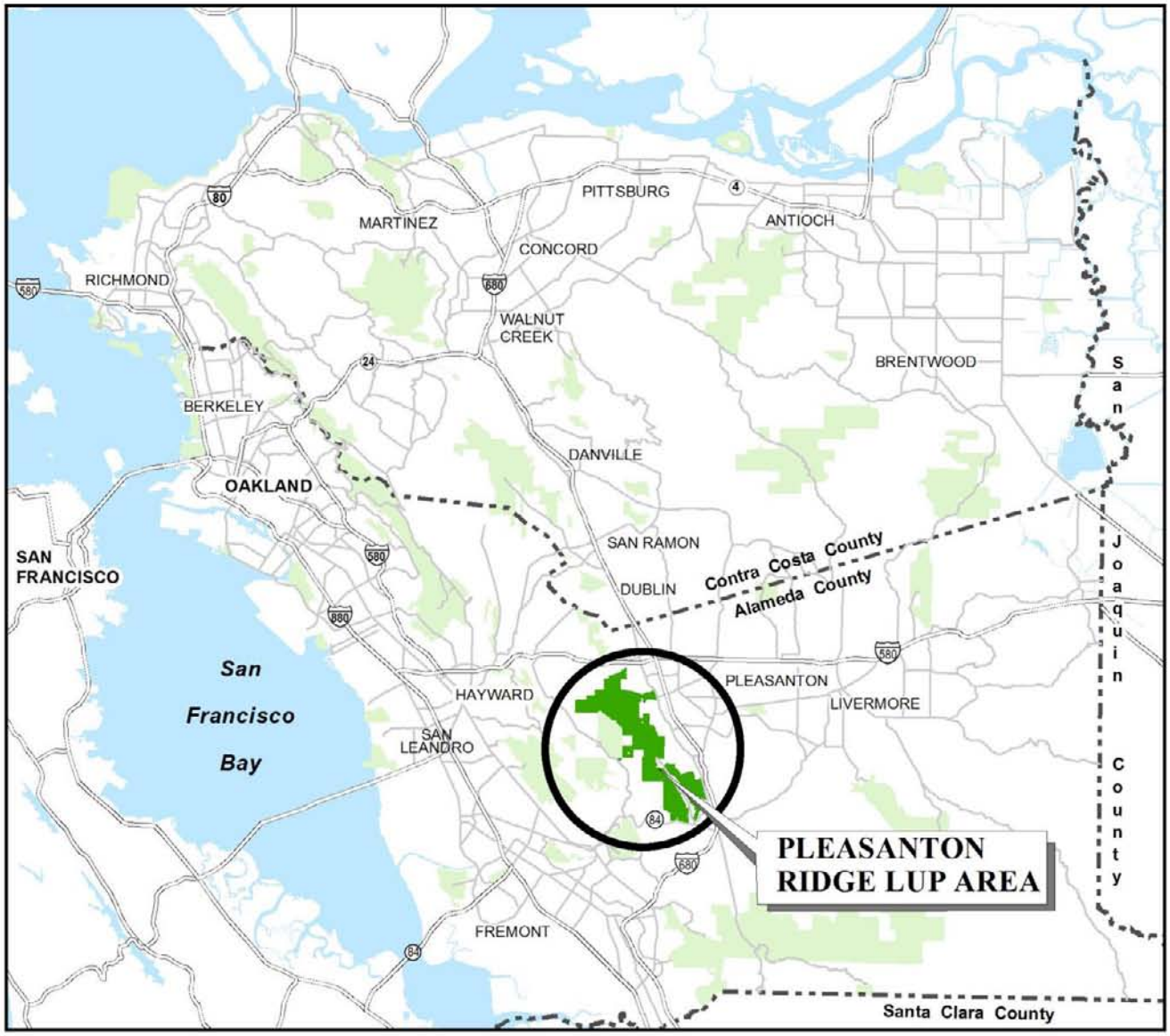
1.1.2.1 Study Area

Pleasanton Ridge Regional Park encompasses a 7,487-acre parkland area. The Land Use Plan Study Area is comprised of a 6,532-acre area contained within Pleasanton Ridge Regional Park and includes parklands currently open to the public, as well as those lands in landbank status (Refer to *Figure 3 - Parkland & Landbank Parcels)*. The study area consists of 108 assessor parcels and is situated within USGS Dublin and Niles 7.5 Quads within the following latitude/longitude limits: southern boundary, 37° 35‟ 39.398” N; northern boundary, 37° 41‟ 41.23” N; and eastern boundary, 121° 52‟ 43.181” W - 121° 59‟ 17.365” W. The remainder of the parkland area will be studied in the future.

1.1.2.2 Location

Pleasanton Ridge Regional Park is located north of the unincorporated township of Sunol, south of the City of Dublin, and west of the City of Pleasanton in predominantly undeveloped land within the jurisdictional boundaries of the cities of Pleasanton and Hayward, and the unincorporated areas of Alameda County (Refer to *Figure 1 - Location Map)*.

The park is situated within the Calaveras Ridge system that separates the San Francisco East Bay communities (including the City of Hayward) from the increasingly urbanized Tri-Valley San Ramon-Livermore-Amador Valley area, which includes the cities of Pleasanton and Dublin to the east and north respectively. It is one of a group of District parklands in the region and is located approximately midway between Las Trampas Regional Park and



East Bay Regional Park District

Planning/Stewardship/GIS Services
SEP. 12, 2011

Figure 1
LOCATION MAP
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Sunol-Ohlone Regional Wilderness. Vargas and Garin/Dry Creek Pioneer Regional Parks and Don Castro Regional Recreation Area lie to the west of the park. Shadow Cliffs Regional Recreation Area is located to the east near the cities of Pleasanton and Livermore. Dublin Hills Regional Park and the Hayward Area Recreation District (H.A.R.D.) Rodeo Grounds are located north of the Park (Refer to *Figure 2 - Vicinity Map).*

1.1.2.3 Site Characteristics

Pleasanton Ridge Regional Park is a distinct topographic unit trending northwest/southeast following the orientation of the East Bay Hills. The park encompasses three major ridges, Pleasanton Ridge, Main Ridge and Sunol Ridge. Pleasanton Ridge runs along the southeastern portion of the park. Sunol and Main Ridges extend down into upper Kilkare Canyon in the central portion of the park and Main Ridge extends into Devany Canyon at the northern park boundary. Within the interior of the park elevations exceed 2,100 feet.

The landscape of the park is characteristic of California's northern coast range and inland valleys with expansive grass-covered grazing lands, steep and rolling hills and valleys, and steep, tree-lined drainages that function as sub-regional corridors for wildlife movement. The pastoral character and topographic diversity of the park affords sweeping, panoramic ridge top views of the visually prominent peaks and ridgelines of the Diablo, Hamilton and the Las Trampas/ Pleasanton/Sunol mountain ranges, as well as the East Bay Plain, San Francisco Bay and San Francisco Peninsula. The park also offers intimate, sheltered remote spaces within deep-canyon drainages. The steep terrain of much of the park also contains potentially hazardous conditions such as landslides and earthquake fault zones.

1.1.2.4 Park Access

Major highways providing access to the park from the East Bay and the Central Valley are Interstate Highways 580 and 680. Foothill Road is the local exit off I-580. Local exits from I-680 include Bernal Avenue, Sunol/ Castlewood and Niles Canyon (Route 84). Dublin Canyon, Foothill and Palomares Roads are perimeter roads that parallel the north, east/south, and west boundaries of the park respectively (Refer to *Figure 1 - Location Map* and *Figure 2 - Vicinity Map)*.

Primary access to the park is provided from the Foothill Staging Area located on Foothill Road. A multi-purpose trail system accommodates hikers, equestrians, bicyclists, dog walkers and service vehicles.

The regional Calaveras Ridge Trail, which traverses the length of Pleasanton Ridge Regional Park, can be accessed from the Oak Tree [Thermalito] Trailhead (hike-bike access only) at the southernmost park boundary.

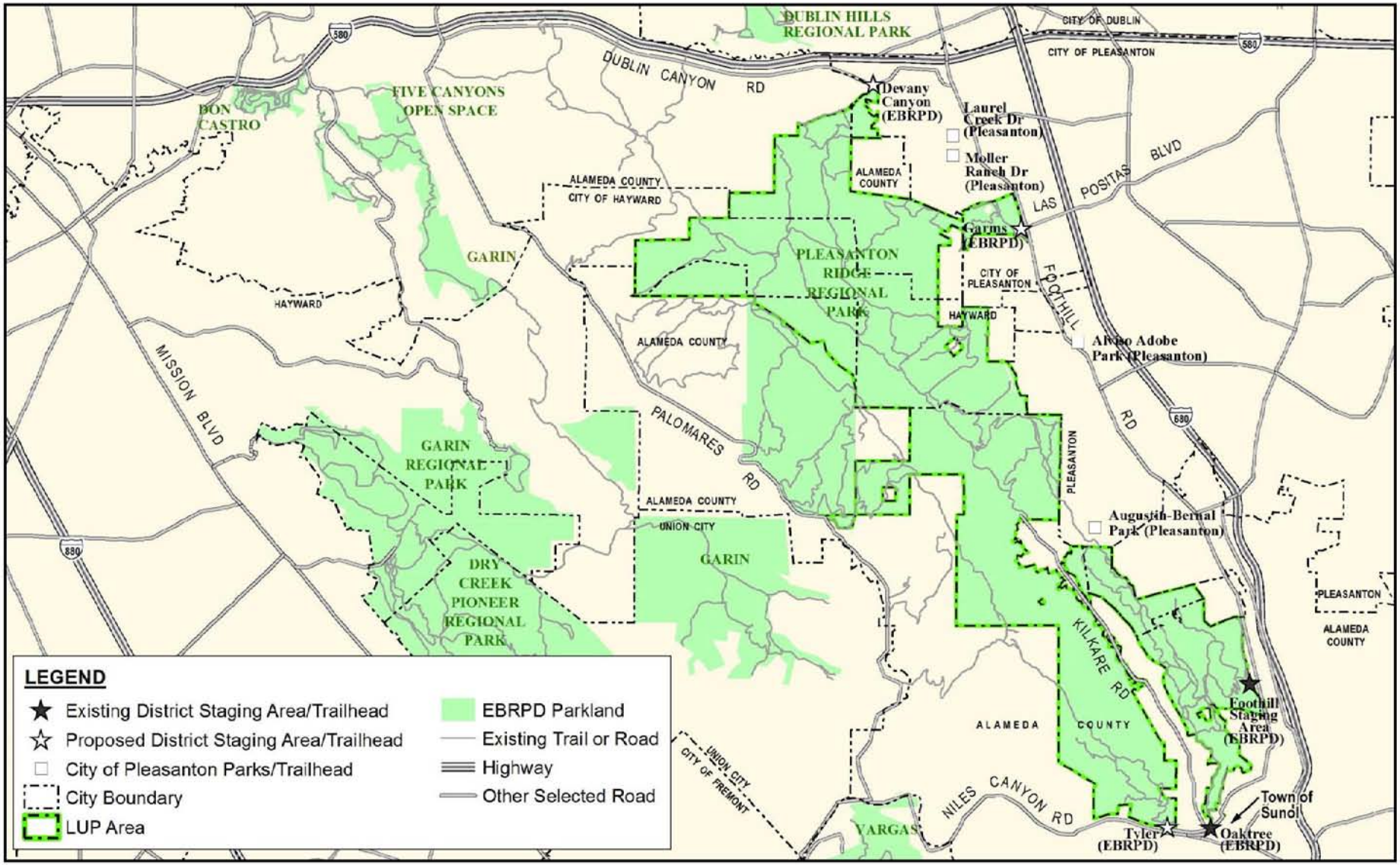


Figure 2
VICINITY MAP
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

1.2 Purpose & Goals

1.2.1 Purpose

The LUP is a long-term guide that provides a broad-brush vision for Pleasanton Ridge Regional Park taking into account the park‟s natural and cultural resources features and recreational and educational opportunities.

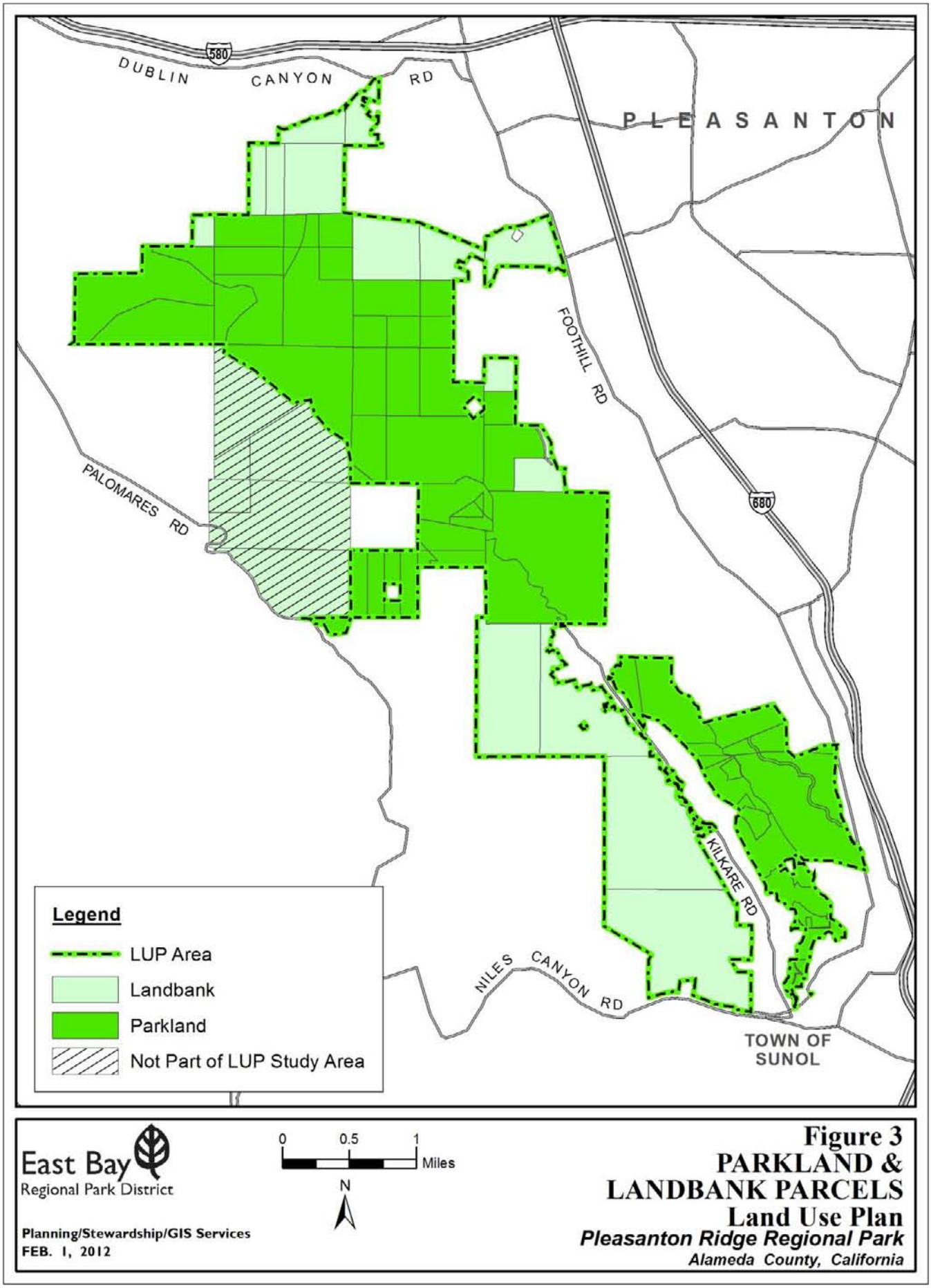
Specifically, the purpose of this plan is to integrate the 2,360 acres of land bank parcels into the 4,172 acres of parkland currently open to the public incorporating interim plans for the park previously adopted by the District Board of Directors (Refer to *Figure 3 - Parkland & Landbank Parcels* and *Section 1.4.2.1 - Prior Planning Studies* below).

1.2.2 Goals

Goals guiding the development programs for Pleasanton Ridge Regional Park are set forth below.

- Manage the park to benefit both overall biodiversity and critical habitat for federal, state, and California Natural Diversity Database (CNDDB) listed species, including nesting and foraging areas, in accordance with state and federal avoidance and minimization measures
- Manage the park to benefit the overall landscape character of the parklands and specific cultural resources in accordance with state guidelines
- Provide recreation facilities and programs that will result in:
    - A stacked loop trail system that provides a range of parkland experiences accommodating a broad range of skill levels and multi-use (hike, bike, equestrian, dog walking) connections to parkland destinations
    - A hike/equestrian-only sequence of trails to help disperse use at congested start points and provide a separated trail network to facilitate presentation of group interpretive and recreation programs
    - Interpretive and recreation programs oriented to the trail system that address visitor experiential expectations (*Refer to Section 3.2.1.1 - Demographics, Trends & Projections*)
    - Public access that facilitates visitor use of the park while minimizing impacts on adjacent neighbors
    - Management of parklands and facilities for park visitor safety balancing visitor enjoyment with natural and cultural resource protection.

A discussion of the programs for achieving these goals is provided in *Chapter 4 - Land Use Plan* along with tables and maps that identify *s*pecific implementation measures for individual park planning areas (Refer to *Figure 14 - Planning Areas Map Key & Natural & Recreation/Staging Unit Designations*).


DUBLIN CANYON RD
580
PLEASANTON
FOOTHILL RD
680
PALOMARES RD
KILKARE RD
NILES CANYON RD
TOWN OF SUNOL
Legend
LUP Area
Landbank
Parkland
Not Part of LUP Study Area
East Bay Regional Park District
0 0.5 1 Miles
N
Planning/Stewardship/GIS Services
FEB. 1, 2012
Figure 3
PARKLAND & LANDBANK PARCELS
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

1.3 Planning Process

1.3.1 Background

The vision for a regional park for the Pleasanton, Main and Sunol ridgelands was initiated when the visually prominent landscape now known as Pleasanton Ridge Regional Park was identified in the District‟s 1973 and 1980 Master Plans. The area was identified as a potential site for a regional park to protect the open space landscape characteristics these ridgelines afforded local communities and to provide a connection between areas that would be served by the north/south regional Calaveras Ridge Trail that would eventually connect Las Trampas Park Regional Park and the Sunol-Ohlone Regional Wilderness.

Active participation by the public, organizations, and local government agencies in the development of the park's concepts, goals, and proposals influenced the direction and content of the LUP.

Planning for Pleasanton Ridge Regional Park began in 1984 when the Planning Collaborative, Inc. and staff of the East Bay Regional Park District (EBRPD) provided technical resource and planning data to a citizens committee regarding an area of over twenty thousand acres known as "*The Ridgelands*" or the Pleasanton Ridge Area. The area studied was circumscribed by Interstate Highway 580 and Dublin Canyon Road to the north, Foothill Road to the east, Niles Canyon Road to the south and Palomares Road to the west. This work culminated with publication of the *Ridgelands Regional Park Feasibility Study* in March 1986. Subsequently, several interim planning documents were produced for Pleasanton Ridge Regional Park as new lands were acquired by the District extending the parkland boundaries generally north and westward.

1.3.2 Data Gathering, Mapping & Documentation

This updated and comprehensive planning effort was initiated in the fall of 2008 to provide a long-term and visionary plan for these parklands and is commensurate with the park‟s significance within the region. It has been prepared by a Park District staff team representing the many disciplines that work together to manage the park‟s diverse resources. The process of developing the LUP for Pleasanton Ridge Regional Park involved:

- Evaluation of the park‟s existing resources and facilities
- Documentation of legal agreements and restrictions related to use of the park
- Formulation of recommendations for: managing and conserving resources; identifying future recreation uses, programs and service facilities; and defining staffing roles and responsibilities.

1.3.3 Meetings & Public Queries

1.3.3.1 Meetings

Public involvement in the LUP process has included:

- A public scoping meeting (Public Meeting #1) to present the land use planning process and take input on the community‟s ideas for the plan, June 29, 2009
- A community trail use survey of Pleasanton Ridge Regional Park during the spring and summer of 2009
- Public presentation and review of the *draft Access & Trail System Concept Plan Map* at a series of meetings including:
  - The EBRPD Board Executive Committee, October 24, 2010
  - The East Bay Area Trails Council, January 19, 2011
  - The Park Advisory Committee, January 24, 2011
  - The Bicycle Trails Council of the East Bay, February 2, 2011
  - A public presentation and open house (Public Meeting #2), April 6, 2011
  - The City of Pleasanton joint Parks and Recreation Commission and Bike Pedestrian and Trails Committee, April 28, 2011
  - A neighborhood meeting in the Township of Sunol, November 2, 2011
- A series of public meetings to present the draft Pleasanton Ridge Regional Park Land Use Plan and CEQA document and receive public comments including:
  - The EBRPD Board Executive Committee, April 26, 2012
  - The Park Advisory Committee, May21, 2012
  - Public Meeting #3, June 12, 2012
  - An EBRPD Board presentation-adoption of the Pleasanton Ridge Regional Park Land Use Plan and CEQA document, July 17, 2012.

1.3.3.2 Distribution of Planning Process Documentation

Information regarding the LUP and the planning process, including meeting notices, was provided through a series of mailings, email distributions and web page links. Materials distributed included:

- Pleasanton Ridge Land Use Plan Newsletter No. 1 - Summary of the public scoping meeting presentation and public comments (Public Meeting #1)
- Pleasanton Ridge Land Use Plan Newsletter No. 2 - Summary of the community trail use survey
- Pleasanton Ridge Land Use Plan Newsletter No. 3 - Summary of the *draft Access & Trail System Concept Plan Map* components
- Pleasanton Ridge Land Use Plan Newsletter No. 4 - Summary of the public presentation and open house public comments (Public Meeting #2)
- Pleasanton Ridge Land Use Plan Newsletter No. 5 - Summary of the *draft Pleasanton Ridge Regional Park Land Use Plan,* notice of Land Use Plan and CEQA document availability, and public meeting announcement (Public Meeting #3).

1.4 Parkland Classification & Policy Consistency

1.4.1 Parkland Classification - Regional Park Designation

The landscape characteristics of Pleasanton Ridge Regional Park are comprised of open grazed rangelands and steep, heavily vegetated slopes that have been left in a relatively natural state. Existing and proposed recreation facilities and programs are oriented to trails, picnicking and back country camping. These parkland features and uses meet the District‟s 1997 Master Plan definition of a "*Regional Park*" based on the park size and recreational uses as excerpted from the 1997 Master Plan below.

> A *Regional Park* is defined as, *"…a spacious land area with outstanding natural features including rare species of flora and fauna… [and] sufficient land area to support many outdoor recreation opportunities*."

Regional Parks should encompass a parkland area constituting a minimum of 500 acres in size with a minimum of seventy percent of the area reserved as *Natural Units* for its scenic or natural values, while *Recreation/ Staging Units*, those areas designated for public access and recreation uses, should not exceed 30 percent of the park.

The LUP is consistent with these designations as the majority of the 6,532-acre study area is designated as *Natural Units* (6,068 acres or 93 percent of the study area) in keeping with the goals of managing the park to benefit overall biodiversity. *Recreation/ Staging Units* comprising 464 acres or seven percent of the total LUP study area contain the concentration of developed facilities.

1.4.2 Land Use Policy Consistency

1.4.2.1 Prior Planning Studies

This LUP considers parklands currently open to the public and those landbank parcels that will result in an expansion of existing public parkland. It takes into account prior resource documentation and land use decisions for parklands currently open to the public that have been adopted by the District Board of Directors. As such, it incorporates by reference: the *Ridgelands Regional Park Feasibility Study for Pleasanton Ridge (1986), the Pleasanton Ridge Regional Park Land Evaluation for Interim Use Resolution # 1990-02-49 (1990), Pleasanton Ridge Regional Park - Sinbad Canyon - Land Evaluation for Interim Use Resolution # 1995-03-49 (1995), the Pleasanton Ridge Bank Establishment and Management Plan (1998),* and *Pleasanton Ridge Regional Park Northern Area Interim Land Use Plan Resolution #2008-7-170 (2008).*

1.4.2.2 EBRPD Master Plan (1997)

The *EBRPD Master Plan (1997)* and updated *2007 EBRPD Master Plan Map* establish the District‟s mission and goals. The Master Plan provides policies and guidelines for achieving the highest standards of service in resource conservation, management, interpretation, public access, and recreation, while the Map provides an overview of existing and proposed District parkland and regional trails.

This LUP will result in an expansion of existing parkland that will be made available for public recreation and, as such, is consistent with the *EBRPD Master Plan (1997)* and *2007 Master Plan Parkland and Trails Map*. Specifically, the LUP proposes:

- Adding 31 miles of trails to create a viable, multi-use trail system that will consist of 63 miles of high quality, natural surface, narrow and service-road-width trails
- Doubling the number of hike-equestrian only trails
- Interpretive and recreation programs coordinated with the systemwide trails network
- Protection or avoidance of sensitive habitat/cultural sites by incorporating existing trails into a system, where appropriate, to minimize: resource habitat disturbance; soil displacement; and associated permitting requirements. Additionally, potentially adverse impacts to park resources will be further reduced by:
  - Closing ten miles of trails and narrowing of seven miles of service-road-width trails
  - Minimizing new trail construction where such trail development would traverse critical aquatic habitat, Alameda whipsnake habitat or raptor habitat
  - Reducing trail and road density further away from start areas (distant areas should feel remote) by closing and removing poor quality trails.
- Monitoring and managing the park to benefit both overall biodiversity and critical habitat for federal, state, and California Natural Diversity Database (CNDDB) listed species
- Locating, documenting and describing the park‟s pre-historic, historic features and cultural landscape attributes.

1.4.2.3 Wildland Management Policies & Guidelines (EBRPD 2001)

EBRPD‟s *Wildland Management Policies and Guidelines* call for wildland vegetation management practices that:

> *“…will conserve and enhance natural communities, promote the restoration of indigenous vegetation, preserve and protect populations of rare, threatened, endangered, and sensitive plant species and their habitats, and reduce fire hazard conditions*.”

Specific management objectives within the guidelines call for the use of grazing, burning, mechanical, biological, and chemical treatments as resource management tools to maintain and enhance plant and animal diversity, preserve the open space character of the landscape, and achieve vegetation management objectives for wildfire reduction.

The LUP is consistent with the *Wildland Management Policies and Guidelines* as it proposes to:

- Utilize a variety of vegetation management activities (e.g., livestock grazing, prescribed burns, integrated pest management programs, mechanical treatment and other methods), where applicable and feasible, to optimize habitat conditions for resident plant and animal species, while achieving vegetation management objectives for wildfire hazard reduction
- Initiate the restoration of disturbed lands concurrently with constructing new infrastructure (e.g., trails, back country camping areas) or modifying or eliminating existing infrastructure where it is exacerbating soil erosion.

1.4.3 Park Facility Naming

The LUP proposes changing the names of some features and facilities and giving names to previously unnamed and proposed sites, facilities and trails. To simplify reading, the proposed names are used throughout the report with occasional references to existing names, where applicable.

In keeping with Naming Policy [Resolution No. 2004-04-73 (4/20/04)] the new trails, features, areas and facilities in Pleasanton Ridge Regional Park are proposed to be named after natural features such as plant and animal life, geographic, topographic or paleontological features, or for cultural features such as archaeological and historic artifacts, historic persons, families or events. Existing historically related names are respected.

The new names are intended for the park brochure. A full listing of proposed name changes and new name proposals can be found in *Appendix A- Table of Proposed Name Changes & New Name Proposals*.

Chapter 2

Executive Summary

Chapter 2

Executive Summary

2.1 Overview of Land Use Plan Recommendations

The LUP recommendations for public use of Pleasanton Ridge Regional Park focus on "lower intensity" recreational uses and facilities limited to parkland access improvements, trails and ancillary facilities to complement trail activities.

Recreation facilities will include:

- Retention of the existing access points and the addition of two new staging areas and one hike/bike-in trailhead; the staging areas will serve as both gateway points into the larger, more wild and challenging terrain, and as destination points that will be developed as family-friendly places allowing for picnicking, children"s play, adult core fitness training, and trail experiences where people can safely gain hiking and riding skills
- A hike/equestrian-only sequence of trails that will initiate from the Foothill Staging Area and connect to the Thermalito and Oak Tree Trails and the Oak Tree Trailhead to help disperse use at congested start points and provide a separated trail network to facilitate presentation of certain types of group interpretive and recreation programs without disrupting other park visitors
- Development of a combined multi-use, narrow and service-road-width trail system within the interior of the park
- Development of new back country picnic, interpretive and camping opportunities that will augment the multi-use, narrow and service-road-width trail system
- Removal and restoration of sites with unsafe or environmentally unsustainable "bootlegged" trails
  (Refer to *Figure 4 - Access & Trail System Concept Plan Map* for site locations*)*.

Recreation facilities will be augmented by interpretive programs, habitat enhancement programs and management programs that will serve to enrich visitors‟ experiences and provide for visitor safety.

2.2 Parkland Challenges

Following is a summary of the issues and challenges that have played a part in shaping this LUP.

2.2.1 Resource Challenges

2.2.1.1 Topography & Soils

Steep slopes and erosive soils dominate the landscape of Pleasanton Regional Park. Gentle (0-5 percent) to moderate (15-25 percent) slopes are restricted to: the narrow corridors along the ridge tops, a few areas adjacent to Foothill Road and some areas along Sinbad Creek and Devany Canyon. The remainder of the park has steeper slopes (greater than 25 percent). Where erosive soils are found on moderately to extremely steep slopes they lend themselves to debris flows and soil creep, particularly in the spring when soil moisture is at its highest. Evidence of these conditions can be found throughout the park. Additionally, past land use practices, improper road drainage, and rodent activity have contributed to conditions that tend to exacerbate naturally occurring erosion.

In general, these extremely steep and unstable slopes limit recreation activities to the least intensive recreational land uses, as the park‟s hazardous geological conditions create problems for the construction and maintenance of parking lots, roads and trails, water and sewer lines and other park facilities that may be considered in the future.

Examples of extensive erosion requiring slope stabilization can be found along sections of Cook Canyon Trail, Cowing Trail, Sinbad Creek Trail, Bay Leaf Trail, Sunol Ridge Trail, Raptor View Trail and Valle Vista Trail. This erosion is adding sediment to the riparian corridors and accelerating the filling of ponds; water quality is thus diminished (Morrison, Ph.D., California State University, 1998).

2.2.1.2 Biological Resources

Pleasanton Ridge Regional Park forms part of the Alameda Creek Watershed providing habitat for a variety of wildlife species including critical breeding and foraging habitat for a number of federal and state listed species. These species include: Alameda whipsnake (*Masticophis lateraliss euryxanthus*), California red-legged frog (*Rana draytonii*), western pond turtle (*Clemmys marmorata*), the state and federally protected golden eagle (*Aquila chrysaetos*), and other raptors, along with habitat that historically sustained federally threatened steelhead (*Onchorhynchus mykiss*).

The listing of the Alameda whipsnake as "threatened" under the Endangered Species Act (ESA) in 1997 was followed in October 2000 with a designation of over 400,000 acres in Alameda, Contra Costa, San Joaquin and Santa Clara Counties as "critical habitat" for Alameda whipsnake by the United States Fish and Wildlife Service. As the entire park is located within the designated "critical habitat" area, these regulatory decisions mean that new infrastructure and park facilities will have to be carefully designed and sited in cooperation with resource regulatory agencies.

2.2.1.3 Cultural Resources

While site reconnaissance discoveries have been limited to a few isolated pre-historic artifacts, including several bedrock mortar sites, several stone implements, rock cairn and a midden site, the landscape of Pleasanton Ridge Regional Park includes characteristics generally considered to have high archaeological sensitivity (Refer to *Figure 7 - Cultural Sensitivity Map*). Thus, potential pre-historic cultural resource sensitivity will need to be considered as projects identified in the LUP are implemented.

The park also contains historical evidence of landscape alterations primarily from the American Farm Era (A.D. 1850 to 1970s) that have resulted in a number of changes to the landscape setting. These include structures on the former Nipper and Tyler properties and remnants from former family homesteading and ranching activities. As future uses are considered, the structural and historic integrity of these structures and remnants will need to be taken into account, and retention of these features balanced against public and staff safety.

2.2.2 Public Access & Recreation Challenges

2.2.2.1 Staging & Trailheads

Dublin Canyon, Foothill and Palomares Roads are perimeter roads that parallel the north, east/south and west boundaries of the park respectively. However, access from these roads into the park is limited to the few locations where the parklands and roads intersect. Access is further constrained by discontinuous or non-existent Class 2 Bikeways and sidewalks along the roadways and lack of transit facilities directly serving the park. Limited access from perimeter roads and the steep terrain also constrain opportunities to create regional trail connections from Pleasanton Ridge Regional Park to other District regional parks in the area.

2.2.2.2 Inclusive Trail Use

Universal Access

The park‟s steep, rugged terrain and distance between the existing access points create challenges in providing inclusive access to this unique outdoor

environment, especially for the disabled, young children and older adults.

EBRPD 1997 Master Plan & District Ordinance 38

The EBRPD 1997 Master Plan‟s trail related goals and Ordinance 38 (the governing regulations for District parklands) establish park uses. Trail related goals call for the District to expand its comprehensive trail system by providing more hiking and equestrian narrow trails and more multi-use paved and unpaved trails within and between regional parks. This LUP is consistent with these goals as the LUP proposes to add 31 miles of trails for public recreational use, expand the Calaveras Ridge Trail northward to Devany Canyon and provide links to Vargas and Garin Regional Parks.

The challenge is with regard to the inclusion of bike use into the trail system as both the EBRPD 1997 Master Plan and District Ordinance 38 call for restricted bicycle use on narrow hiking or horseback riding trails. The LUP is inconsistent with this use restriction as the Plan proposes to: "Create a viable*, multi-use trail system* for hikers, *bicyclists*, equestrians, and dog walkers comprised of *narrow* and service-road-width trails." However, acceptance of the proposed trail system as a whole (as shown on *Figure 4- Access & Trail System Concept Plan Map* and as delineated in *Chapter 4 - Land Use Plan, Figures 15- 22)* through adoption of the LUP avoids piecemeal consideration of trail use through the checklist process and allows for bikes (and other uses) as proposed in the plan when trails are opened to recreation use in the future.

2.2.2.3 Inter-Agency Coordination

A City of Pleasanton-District operating agreement allows for a critical connection between southern and northern areas of Pleasanton Ridge Regional Park through Augustin Bernal Community Park. Access to the Augustin Bernal Community Park Staging Area is generally limited to residents of the adjoining Golden Eagle subdivision and persons with a driver‟s license demonstrating City of Pleasanton residency. However, non-residents may obtain a "no-fee" pass for entrance by visiting the City recreation offices. Access from the southern to northern areas of Pleasanton Ridge Regional Park through Augustin Bernal Community Park via the Ridgeline Trail is unrestricted (Refer to *Section* 3.3.3.6 *Interjurisdictional Operating Agreements*).

Development of future hiking, biking or equestrian access from subdivisions along Foothill Road is contingent on approvals from the City of Pleasanton and local homeowners‟ associations. As access opportunities into Pleasanton Ridge Regional Park are limited, the District and City of Pleasanton will need to continue to work together to secure acquisitions/easements that can provide public recreation access from Foothill Road to the central/northern sections of Pleasanton Ridge Regional Park as opportunities arise.

2.2.3 Maintenance & Operations Challenges

2.2.3.1 Staffing

There are currently 4,172 acres of parkland open to the public. The LUP will open 2,360 acres of additional parkland and offer three new access points and 31 miles of new trails to the public, bringing the total acreage to 6,532 acres with five access points and 63 trail miles for park staff to manage. Current staffing oversight for Pleasanton Ridge Regional Park is provided by one Park Supervisor and three Park Ranger positions that are also responsible for managing Dublin Hills and Vargas Plateau Regional Parks and a portion of the Calaveras Ridge Regional Trail. As landbank parcels are opened to the public and the LUP recommendations are implemented, staffing needs will need to be considered concurrently. This includes staffing for interpretive and recreation programs; these services are currently provided by Sunol Wilderness staff. As staff resources are limited, the programs provided at Pleasanton Ridge will need to be balanced with the programs offered at other District parks and volunteer programs will continue to play important stewardship and visitor outreach roles (Refer to *Section 3.3.1.3 - Volunteer Trail Safety Patrol Program).*

2.2.3.2 Facilities

The staff office is currently located at the former Garms residence. This residence also serves as one of the park security residences and as a District staff meeting facility. There is no official service yard serving the park. Maintenance facilities are currently limited to the basement of the residence and two shipping container boxes that are located in the residence yard. The area that serves as a makeshift service yard has a high biological and cultural sensitivity that will restrict expansion of this site to meet future operations" needs. Future park operations facility requirements will need to be considered as landbank parcels are opened to the public and the LUP recommendations are implemented.

2.2.4 Permits, Agreements & Easements Challenges

Park management and operations are directed in part through a number of easements, licenses and memorandums of understanding (MOU) with tenants, private parties and public entities (Refer to *Section 3.3.3 - Access & Operating Agreements*). Balancing the needs of private parties who retain access rights into the park with visitor experiential expectations and safety will continue to represent a challenge for park staff who oversee daily park operations.

2.2.4.1 Private Access Easements in the Park

There are several private in-holdings and numerous private access easements located throughout the park. Two of the in-holdings contain large communication towers that visually appear to be part of the Pleasanton Ridge

Regional Park. There are also a number of private residences within and adjoining the park that have access rights (and in some cases water rights) via non-exclusive easements that must be honored.

2.2.4.2 Emergency Vehicle Maintenance Access (EVMA)

There are a number of emergency vehicle maintenance ingress/egress points (EVMAs) that cross private lands pursuant to easement agreements. Park staff use these EVMAs to facilitate patrol and management of the park. So as not to lose these important EVMA easements, the District must maintain contact with neighboring property owners so that they continue to be aware of these rights of access.

2.2.4.3 Pleasanton Ridge Conservation Easement

The Pleasanton Ridge Conservation Easement covers approximately 657 acres in a northern portion of the park. The *Bank Establishment and Management Plan* sets forth management guidelines for this area including some restrictions on how the park resources are to be managed and what types of public improvements and recreation uses may be allowed (Refer to *Section 3.3.3.4 - Conservation Easement)*.

2.3 Recommendations

2.3.1 Resource Recommendations

2.3.1.1 Biological Resources

LUP recommendations are directed at benefitting: 1) overall biodiversity for the Alameda Creek Watershed; and 2) critical breeding and foraging habitat for federal and state listed species in accordance with state and federal laws and guidelines, using an adaptive management approach that will take into account findings from future studies and ongoing field observations. Tools to promote biodiversity and protect listed species may include: grazing, prescribed burns, integrated pest management programs and site restoration work. The primary objectives of these programs are to maintain and improve habitat conditions for resident plants and wildlife and to manage the fuel load of flammable vegetation to reduce wildfire hazard.

To avoid proposing projects that would likely have a direct adverse impact on critical habitat resulting in a potential "take," the LUP analysis of existing conditions has included mapping assessments of "core habitat" conditions and taken an avoidance approach to developing new park structures and trails in these areas.

Maintenance strategies include best management practices to minimize adverse impacts to ponds, drainages and creeks within the Alameda Creek Watershed and to develop monitoring protocols that include biological surveys

of special status species prior to commencing maintenance and/or restoration actions to avoid direct adverse impacts.

Additionally, the Pleasanton Ridge Conservation Bank (PRCB) instrument potentially provides a valuable tool to facilitate implementation of projects proposed in the LUP. By utilizing available conservation bank credits to mitigate for project impacts, the District may make improvements to degraded resources and existing infrastructure, thereby enhancing habitat for endangered species and adding recreation trail opportunities.

2.3.1.2 Cultural Resources

LUP recommendations are focused on locating, documenting and describing the park‟s rich pre-historic, historic and cultural landscape attributes. As habitat and infrastructure improvements involving ground disturbance are implemented, pre-historic site surveys will be conducted in areas with a potential high archaeological sensitivity (Refer to *Figure 7- Cultural Sensitivity Map*).

Prior to making determinations of potential significant historic features from the American Farm Era, architectural surveys will be conducted to determine eligibility on the California Register.

Evaluations, documentation and interpretative elements will be coordinated by the District staff, professional archaeologists, historians and, as appropriate, Native American Most Likely Descendants.

2.3.1.3 Biological & Cultural Resource Monitoring

Initial identification and designation of the resources that are the most unique and significant requiring special protection or management are described under *Chapter 3-Parkland Environment*. The District will continue to conduct surveys to document and monitor natural and cultural resources to gain a greater understanding of the park‟s resources and its prior human inhabitants and current plant and wildlife populations. As the plan elements are implemented (e.g., trails, park facilities and resource enhancement/protection projects), pre-construction surveys will be conducted and, as appropriate, site monitors will be provided.

2.3.2 Recreation Recommendations

2.3.2.1 Recreation Facilities & Infrastructure

At full build out, park access, recreational facilities, and multi-use trail system improvements will include: approximately 58 acres (63 miles of trails); two back country camp areas (approximately four-acres); and 464 acres dedicated to staging and staff operations area facilities (e.g., parking, picnic and play/fitness areas, toilets, staff offices, service yard, and security residences).

In addition, full implementation of the LUP will also include removal and restoration of five acres (ten miles) of unsafe or environmentally unsustainable trails and narrowing of nine acres (seven miles) of service-road-width trails (Refer to *Figure 4- Access & Trail System Concept Plan Map, Table 3- Trail Mileage & Acreage, Tables 4 -11* and *Figures 15-22*).

Public use of Pleasanton Ridge Regional Park centers on trail uses.

2.3.2.2 Interpretive & Recreation Programs

Educational and interpretive programs will augment the multi-use, narrow and service-road-width trail system. Outreach opportunities will be directed at strengthening ties with park users, members of the community, volunteers, other agencies and organizations.

2.3.3 Maintenance & Operations Recommendations

2.3.3.1 Public Safety

Public safety of park visitors will continue to be provided by existing District park rangers, police officers and fire department staff. Additional staffing is tied to development of the new staging areas (per the District "*Pipeline*" list for 2015 and beyond).

District oversight will continue to be augmented by the Livermore-Pleasanton Fire District and the State of California Department of Forestry and Fire Protection (CALFIRE) Sunol Station. The additional presence of volunteer patrols, grazing tenants, park staff managing resources within the park and park security residents will also help to guide park visitors and protect parkland resources.

2.3.3.2 Maintenance & Operations Facilities

The residence that currently serves as a District staff office and park security residence (Garms) will be retained and used for those functions until the two new staging areas are constructed; one at the Foothill Road/ West Las Positas Boulevard intersection (Garms), and one at the southwest terminus of Foothill Road in Sunol (Tyler Ranch). When the service yard is relocated to Sunol, the staff offices will be relocated there as well. The building housing the security residence and staff office at Garms will be retained. Future use of the Garms staff office may include use as a District meeting facility. Four park residences, Poole, Garms, Nipper and Tyler Ranch, will provide security oversight at the park. (Refer to *Section 3.3.2.1 - Houses & Ancillary Structures)*.

2.3.3.3 Land Use Agreements

Park management and operations are directed, in part, through a number of easements, licenses and memorandums of understanding (MOU) with tenants, private parties and public entities. Existing emergency and maintenance vehicle access (EMVA) will be retained, as will utility easements and access easements to private parcels (inholdings).

The operations agreement between the District and the City of Pleasanton will continue to be important for the management of both City and District parklands, as the MOU allows for a greater staff presence, enhanced staff mobility, and a seamless recreational trail experience for park visitors when traveling between Augustin Bernal Community Park and Pleasanton Ridge Regional Park.

2.4 Implementation of the LUP

2.4.1 Authorization & Phasing

Upon adoption of the LUP by the East Bay Regional Park District Board of Directors, specific capital projects will be identified for funding through the District‟s annual budgeting process. Implementation will take place over time as the Park District‟s financial resources permit.

Implementation of physical improvements identified in *Chapter 4 - Land Use Plan (*Refer to *Tables 4 - 11* and *Figures 15 - 22* and *Figure 23*) is contingent upon: adoption of the Land Use Plan; obtaining funding for the development of infrastructure improvements; and staff availability to manage new parkland areas.

Biological and cultural resource actions will be implemented using an adaptive management approach using ongoing research and will comply with environmental permitting requirements. This adaptive management approach, and the tools that will be used to implement the program, are described in *Chapter 4 - Land Use Plan, Section 4.2 - Biological Resources Management Programs*.

The exact location of the proposed recreation and operations/ maintenance infrastructure (e.g., trails, staging areas and staff facilities*)* identified in *Chapter 4 - Land Use Plan, Sections 4.4 - Recreation Facilities, 4.5 - The Trail System* and *4.7 - Operations & Maintenance* will be detailed during the implementation of specific projects to minimize effects on existing resources and to minimize one-time capital expenditures and ongoing management costs to the extent practicable (Also refer to *Tables 4 - 11* and *Figures 15 - 22* and *Figure 23*).

Interpretive and recreation programs will be developed in concert with other facility and program elements as described in *Chapter 4 -Land Use Plan,*

Section 4.6 - Recreation & Interpretive Programs using a variety of instruments.

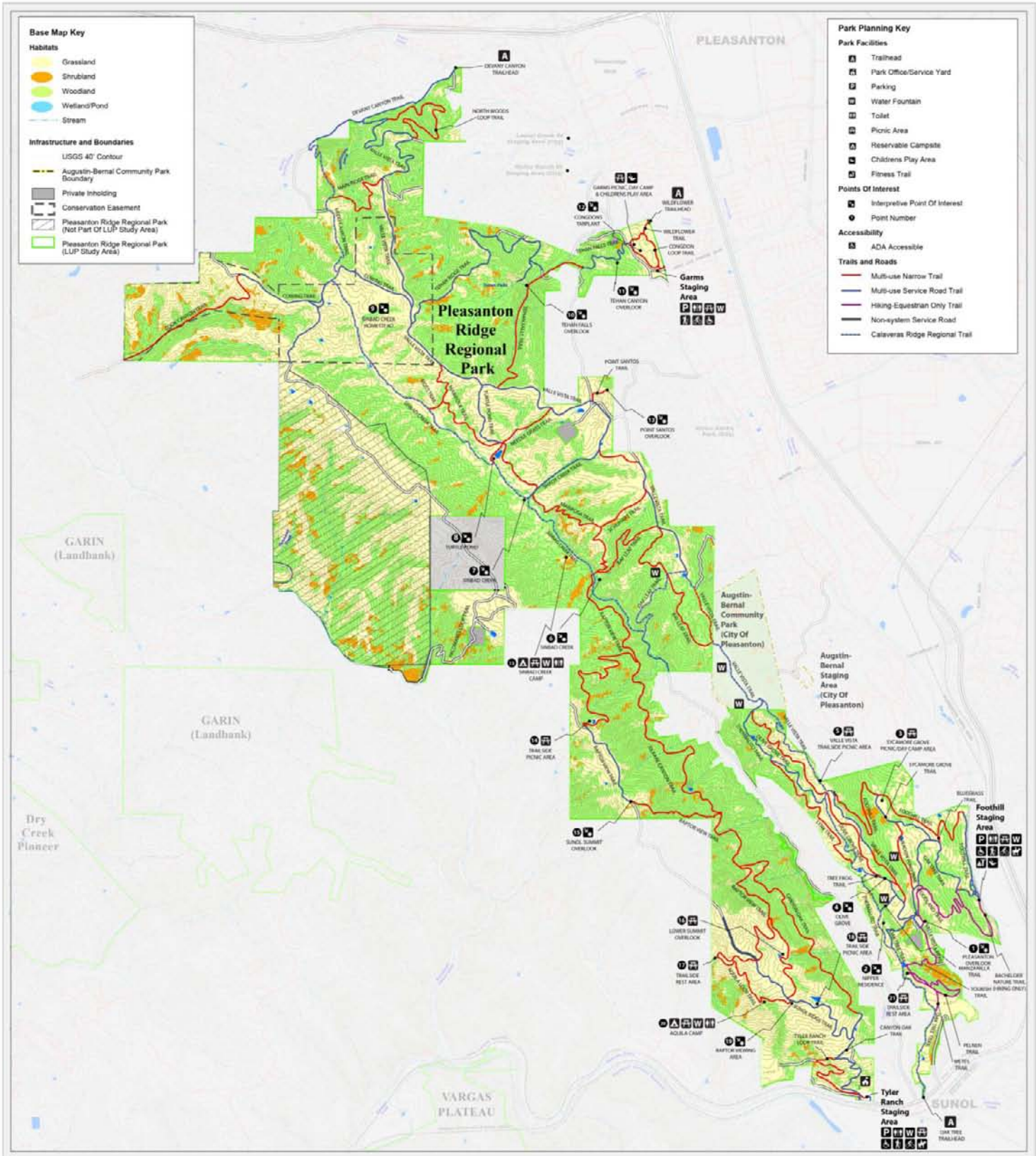
2.4.2 Permitting

Permits will not be required when the activity is currently covered under the District‟s Technical Assistance Letter for routine park maintenance (e.g., mowing, road grading to maintain existing trails). Permitting will be required to fully realize the projects identified in the LUP, as the entire parkland area is covered under the designation "critical habitat" for Alameda whipsnake by the United States Fish and Wildlife Service, and the park also contains habitat for a number of other special status species. Projects that may trigger the need for regulatory permits include those projects in areas of high habitat sensitivity that:

- Require the use of heavy equipment and/or soil disturbance (e.g., building new trails, campsites and staging area amenities); and
- Are not currently covered under the District‟s *U.S. Fish and Wildlife Service"s*(USFWS) biological opinion for the *U.S. Army Corps of Engineer"s Regional General Permit* for routine maintenance activities pertaining to park maintenance and operations, or the District‟s *Covered Exceptions-4D Listing,* which allows for grazing operations on District lands that contain constituent elements/core habitat for a listed species.

A programmatic permit, which would provide a generalized approach that would correlate to the level of detail provided in this LUP, would be the best means for considering as a whole, the proposed park restoration work, proposed recreation improvement projects (e.g., staging areas, play and fitness facilities, campgrounds, picnic areas, trails), and maintenance or enhancement projects not covered by either the District‟s *U.S. Army Corps of Engineer"s Regional General Permit* or the District‟s *Covered Exceptions-4D Listing*.

Additionally, the Pleasanton Ridge Conservation Bank (PRCB) potentially offers the opportunity to use bank credits to mitigate for parkland improvements requiring permits (Refer to *Section 3.3.3.4 - Conservation Easement*).



East Bay Regional Park District
Planning/Stewardship & GIS Services

0 0.5 1 Miles
0 2,000 4,000 Feet

FIGURE 4 - ACCESS & TRAIL SYSTEM CONCEPT PLAN

Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Chapter 3

Existing Conditions

Chapter 3 - Section 3.1

Park Setting

3.1.1 Parkland Creation

3.1.1.1 Parkland Vision

Wide-reaching plans for creating what are now parklands were initiated in the 1980s culminating in citizen interest in retaining the ridgelines as parklands/open space. The alternatives that were explored in the *Ridgelands Regional Park Feasibility Study* (1986) led to the beginnings of what is now Pleasanton Ridge Regional Park, owned and managed by the EBRPD, and Augustin Bernal Community Park, owned and managed by the City of Pleasanton. As the EBRPD commenced acquiring land in keeping with the proposals laid out in the *Ridgelands Study,* a number of Interim Land Use Plans were prepared by the District to guide use and management of these lands as they were incorporated into Pleasanton Ridge Regional Park (Refer to *Chapter I – Introduction, Section 1.4.2 - Land Use Policy Consistency* for a list of prior planning studies).

Today, Pleasanton Ridge Regional Park consists of 4,172 acres that are currently open to the public. This LUP will add 2,360 acres of parkland area that will be opened to the public, bringing the total acreage to 6,532 acres. New areas currently in landbank status within the LUP study area include: the northern portion extending into and including Devany Canyon (349 acres), the eastern area including Neu, Tehan-Swartz and Garms parcels (535 acres), and southwestern lands encompassing Sunol Ridge / Tyler Ranch (1,476 acres). The Owen‟s parcels (955 acres) will be retained in landbank status for future study.

3.1.1.2 Parkland Jurisdictions

The majority of the park is located within the unincorporated area of Alameda County, with a portion of the northern area in the City of Hayward and a small portion of the central area within the city limits of Pleasanton (Refer to *Figure 2 - Project Vicinity*).

The eastern boundary of the park is contiguous with the City of Pleasanton and most of the local access points into the park are located within the City of Pleasanton, including the Foothill Staging Area, Augustin Bernal Community Park, and Longview Drive (hike-bike access, no parking). Access within the unincorporated area of Alameda County is limited to the Oak Tree Trailhead (hike-bike access, no parking) in the Town of Sunol. There is no direct access from City of Hayward roads or neighborhoods (Also refer to *Section 3.2.2.5 - Other Local Staging Areas - Augustin Bernal Community Park*).

3.1.2 Park Environment

The following subsections describe: topography, geology and soils; climate and hydrological resources; biological resources (Refer to *Figure 5 - Parkland Resources)*; and land use and cultural resources (Refer to *Figure 7 – Historic & Pre-historic Cultural Sensitivity)*. The information was derived from site visits and field surveys conducted by the Planning/ Stewardship and Operations staff and consultants, and background information gained from resources listed in *Chapter 5 – Report Preparation & References.*

3.1.2.1 Topography, Geology & Soils

Topography

The park lies at the northern terminus of Sunol, Pleasanton, and Main Ridges, which are part of a chain of ridges. These ridges define the western boundaries of Livermore and Amador valleys between the City of Dublin to the north and the Town of Sunol to the south. Primary features include: Sunol, Pleasanton, and Main Ridges, Sinbad Creek Valley, and Cook, Devany, and Tehan Canyons. Sunol, Pleasanton and Main Ridges include undeveloped, steeply wooded ridges separated by short saddles that rise abruptly from the Amador and Livermore plains. The eastern slope of Sunol Ridge, and western slope Pleasanton Ridge, descend steeply down into Kilkare Canyon with a series of heavily wooded spur ridges, gullies, and seasonal and ephemeral creeks that drain into Sinbad Creek. At the northern end of the park, other heavily wooded spur ridges and gullies descend down to Palomares Road to the west, Devany Canyon to the north, and Foothill Road to the east.

Elevations in the park range from 400 feet along Foothill Road to 2,191 at the peak of Sunol Ridge. Sunol Ridge is the highest point in the East Bay Hills and one of only a few of peaks that exceed 2,000 feet in the Bay Area. The high

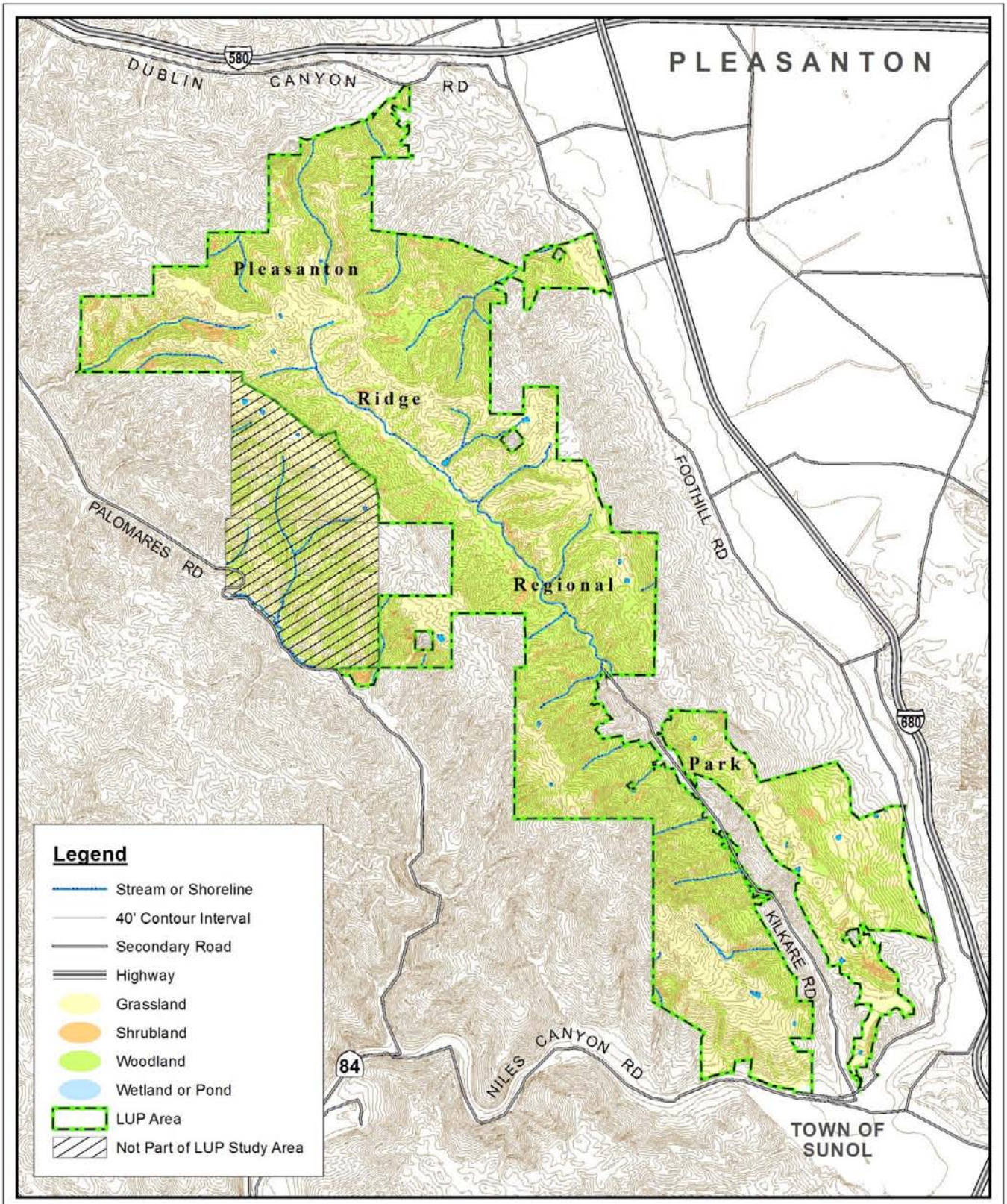


Figure 5
PARKLAND RESOURCES
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

point of Pleasanton Ridge is 1,629 feet. Slopes of 25 percent and greater constitute the majority of the ridgelands. Gentle (0-5 percent) to moderate (15 - 25 percent) slopes are restricted to the narrow corridors along the ridge tops, a few areas adjacent to Foothill Road, some areas along Sinbad Creek, and in the most northeastern area of the park in Devany Canyon. This precipitous terrain creates challenges in developing access into and through the park.

Geology

Most of the bedrock geology is Cretaceous Panoche Shale, sandstone and conglomerate. The sandstone and conglomerate units form ridges and knolls. Slopes and valleys are underlain by softer shale. Kilkare Canyon, a long deep box canyon, divides Pleasanton and Sunol Ridges.

Seismic & Landslide Hazards

Four major types of earth movement occur in the park: landslides, debris flows, soil creep, and horizontal and vertical earth displacement caused by faulting (*Ridgelands Study* 1986). Roughly 50 percent of the land area is classified as unstable and subject to erosion and faulting (*Feasibility Study*, 1986).

Landslides are movements of rock and overburden caused by sliding along a bedding plane. Within the study area, 50 percent of the land is underlain by or immediately adjacent to landslide deposits.

The *1986 Ridgelands Study* indicated faulting and ancient landslides throughout the Kilkare Canyon area. The potential for earthquake shaking here does not differ significantly from other places in the Bay Area. However, the potential for seismically-induced rock avalanches is moderately high because of the steep topography.

The Calaveras fault is the only known active fault within the Pleasanton Ridge area. Calaveras Fault runs northwest to southeast parallel to Pleasanton Ridge, presumably on the lower reaches of the east side. In most places, its precise location is not known because it has been obscured by extensive landslide deposits. Traces of the fault have been found at the top of Santos Ranch Road, and several additional faults occur in the northeastern area extending into Devany Canyon (*Hayward Hills Area Study* – Hayward Planning Department 1971).

Debris flow is the rapid flow of soil and unconsolidated bedrock in saturated conditions caused by heavy rainfall. Debris flows are common in these ridgeland areas, particularly on slopes 25 percent or greater in the spring when soil moisture is at its highest. Soil creep is similar to a debris flow, but occurs slowly and almost imperceptibly over time. Evidence of soil creep can be found throughout the park.

Soils

The site is located within the Coast Range Geomorphic Province, an area that consists of a series of northwest-trending mountains and valleys (Kleinfelder, 1995). Bedrock beneath the site consists of sandstone, silty shale, chert and conglomerate. These parent materials have weathered to form the near-surface soils that cover the site. Alluvial materials have collected in low-lying areas. Side wall slope erosion has deposited a layer of sandstone boulders from Sunol Ridge over the shale bedrock. Rocky sandy loam is a ridge top valley soil type found on Sunol Ridge. In the Sinbad Creek Valley the soil is similar to the sandy loam found along Sunol Ridge. The majority of the soils within the project area are agriculturally unsuitable, except for pasture and range, because of the steep slopes, rapid runoff and shallow depth of soil to bedrock (Refer to *Appendix E - Grazing Unit Management Plan [GUMP]*).

Past land use practices, improper road drainage and rodent activity have contributed to conditions that tend to exacerbate naturally occurring soil erosion. Erosion is minimized by maintaining a cover of live vegetation or vegetation residue on the ground at all times; herbaceous vegetation can serve as an effective tool for protecting the soil from raindrop impact where it covers and protects the majority of the soil surface. An extensive fibrous root system knits together and ultimately become soil organic matter, which helps minimize erosion by binding the soil and enhancing soil structure. Vegetation management strategies employed at the park to maintain vegetation and vegetation residue to inhibit soil surface erosion are discussed in *Section 3.1.2.7- Parkland Habitat Management Programs*.

3.1.2.2 Air & Sounds

Climate

Temperature & Precipitation

A Mediterranean climate is the overarching regional macro climate. This climate type is characterized by cool, wet winters and warm, dry summers. Mean annual precipitation is 22 inches along Pleasanton Ridge, increasing to 24 inches to the west of Sinbad Creek, and declining to about 16 inches at the foot of the eastern ridge (Rantz, 1971). Most of the precipitation occurs as rainfall (occasional snow occurs at the higher elevations) between November 1st and April 30th.

Wind

The maritime influence causes predominately westerly or northwesterly winds throughout most of the year. These “off shore” winds are relatively humid and tend to have a cooling influence. During late summer and fall this trend is often reversed due to major high pressure areas that develop in the Great Basin. These highs produce hot and dry easterly winds that desiccate vegetation and create periods of extreme fire hazard.

Air Quality

Air quality determinants are the locations of pollutant sources (such as urban or industrial areas) and the influence of topographic and climatic/ meteorological conditions. Wind direction, wind speed, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. Pleasanton Ridge Regional Park is located in the San Francisco Bay Area Air Basin, which currently exceeds the 24-hour and annual State Particulate Matter (PM)10 standards, as well as the State annual PM2.5 standard, which includes vehicle exhaust. Road dust and other dust producing activities are other major contributors to ambient PM10, but not to the PM2.5 fraction.

Production of PM2.5 and PM10 is limited within the park and is primarily associated with vehicle use for routine park management and patrol. Public vehicle use occurs only as a means of arrival and departure to the park staging areas, as well as limited use by private entities accessing in-holdings within the park. Public recreation use at the park consists of non-motorized activities such as hiking, bicycling, horseback riding, dog walking, and picnicking.

Potential Effects of Global Climate Change on the Park

Climate change refers to change in the Earth‟s weather patterns including the rise in the Earth‟s temperature due to an increase in heat-trapping or greenhouse gases in the atmosphere. Greenhouse gases include carbon dioxide, methane, nitrous oxide, and sulfur hexafluoride among others. Human activities are adding large amounts of greenhouse gases to the atmosphere. Combustion of fossil fuels for heat, electricity, and transportation is the main source of these gases.

Heat-trapping emissions in the world‟s atmosphere have greatly increased since industrialization, causing a rise in average temperatures world-wide and other climate changes. How great this climate change is in the future will depend on the actions taken to limit future releases of heat-trapping emissions, and new technologies developed to address the problem. At least some additional warming is inevitable in the next decade, even in the unlikely scenario that the most stringent measures to reduce heat-trapping gases are immediately put in place.

Some potential effects of climate change at Pleasanton Ridge Regional Park may include: 1) habitat loss and shifts as climate patterns change possibly causing some plant communities and animal habitat to become extinct, greatly fragmenting other habitat, and causing some habitats to shift; 2) increased fires that could cause wildlife losses, threaten public safety and structures, and contribute to poor air quality in the park; and 3) an increase in frequency and intensity of winter storms and resultant flooding and mudslides, which could extend the winter season, thereby shortening the duration of spring and fall season typically seen as the most pleasurable time for visiting the park.

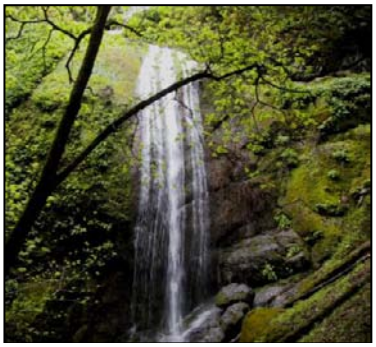
Predominant Sounds

The predominant sounds at the park are a mix of traffic noise and natural sounds. Vehicle traffic noise from Interstate Highways 580 and 680 is prevalent along the perimeter ridgelines, while aircraft are heard intermittently when flights cross over the parklands. Natural sounds dominant in the canyons where the ridgelines create a sound buffer from external sounds. These natural sounds include: wind in the trees, birds and other wildlife, cattle, and during the winter–spring months, flowing water from the seasonal creeks.

3.1.2.3 Hydrology & Water Resources

Watershed

The park is located within the East Bay‟s largest watershed, Alameda Creek, with intermittent drainages flowing into Sinbad, Palomares, Stonybrook, Devany and Arroyo de la Laguna Creeks and their tributaries. Sinbad Creek, the largest creek within the park, flows southeasterly through Kilkare Canyon into Arroyo de la Laguna, which ultimately flows into Alameda Creek. The entire Alameda Creek Watershed drains approximately 705 square miles of hills and valleys before discharging into the San Francisco Bay at Coyote Hills Regional Park in the City of Fremont.



The major surface water sources consist of seasonal creeks, springs and ponds that retain water only during winter and spring months.

Surface Water & Drainage Patterns

The major surface water sources consist of annual or ephemeral streams that flow only during winter and spring months, scattered low production springs, and small, constructed stock ponds. As was true throughout the San Francisco region, the water table was higher during prehistoric and early historic times, and it is probable that the ephemeral named drainages once flowed year-round. Long-term residents have reported that all of the major drainages in the park were year-round streams as recently as 30 years ago and supported large populations of trout and steelhead (Source: Alameda Creek Fisheries Restoration Workgroup [ACFRW], 2000).

There are twenty-seven springs or seasonal ponds shown on the USGS maps, primarily on or near the ridge tops. Many of these ponds and springs may have also been year-round sources of water at one time (*Ridgelands Study* 1986). This seems to indicate that there were abundant freshwater sources throughout the park during prehistoric and historic times, though this abundance seems to have diminished over the last century.

By the early 1900s the water supply was inadequate and unreliable for human and agricultural uses and was not considered sufficient to supply the number of cattle the herbaceous vegetation would otherwise support. According to an article in the Tri-Valley Herald (5-27-74) when the Nipper family, who dry land farmed the southern end of the parkland area, annexed their land to the Pleasanton Township County Water District, they did so on the understanding that they would be serviced with Hetch Hetchy water in order to meet their water needs.

Seasonal Drainages

Cook, Sinbad, Gold, Hedd and Tehan Creeks and one of the Palomares Creek tributaries have segments shown on the USGS Dublin Quad sheet as ephemeral streams with headwaters originating on Pleasanton and Main Ridges. In addition, there are seven unnamed ephemeral drainages originating from Sunol Ridge. Other creeks on the site have minor on-site tributaries, none of which is identified as an ephemeral blue line drainage on the Dublin or Niles USGS Quad. These seasonal creeks drain into Stonybrook and Palomares Creek to the west, Devany Creek to the north and Arroyo de La Laguna to the east. All of these drainages ultimately feed into Alameda Creek. While surface water is scarce, stream channels and localized water sources are integral to the ecology serving as critical habitat for a variety of riparian plant and animal species.

The upper (north) portions of Sinbad Creek provide potential habitat for foraging, movement, and dispersal of California red-legged frogs *(Rana draytonii)*. Sinbad Creek is one of the most disturbed creeks in the park, due in part to siltation from the Sinbad and Cowing service-road-width trails that run up and across the upper end of the Sinbad Creek Valley *(Bank Establishment and Management Plan, 1998)*. The other degraded drainage is located in the southeastern potion of Sunol Ridge and connects ponds prpnd 24, prpnd 25, and prpnd 26. In this area the hydrology has been altered, resulting in flow diversions outside the original channel and significant erosion. Refer to *Chapter 4 - Land Use Plan, Figures 18 & 22* for the locations of these drainages.

Ponds, Springs & Seeps

Groundwater springs tend to be located along the canyon walls where geologic conditions allow water to escape and provide some intermittent pooling along the length of some of the larger creeks (e.g., Sinbad Creek, the Palomares tributaries and Tehan Creek). Numerous stock ponds along Pleasanton and Main Ridge (fourteen) and along Sunol Ridge (seven) have been created on the ridges by earthen dams generally constructed across drainage swales or gullies where groundwater springs occur. The largest of these perennial ponds include: Turtle Pond (prpnd 1) located west of Sinbad Creek along Pleasanton Ridge, and three ponds along the southern tip of Sunol Ridge (prpnd 24, prpnd 25, and prpnd 26 (Refer to *Chapter 4 - Land Use Plan, Figure 22*). There are also some scattered low production springs, three constructed stock ponds in Sinbad Valley, and a number of ponds within the ephemeral drainages

developed specifically to create habitat for California red-legged frog as part of the conservation management plan established for the Pleasanton Ridge Conservation Easement/Conservation Bank. These ponds, as well as the springs, are important sources of water for wildlife in the area.

Groundwater

Due to the subsurface conditions and the size of the park, depth to groundwater is expected to vary from within a few feet of the surface to depths greater than 50 feet (*The Ridgelands Study,* 1986). Based upon the surface topography, the groundwater flow is assumed to flow southeast along Sinbad Creek to the north along Hedd Canyon, west along Cook Canyon, and east along Tehan Canyon (Kleinfelder, Inc., 1995).

3.1.2.4 Biological Resources Overview

Data Collection

Methodology

Natural landscape features, such as plant communities and wetland areas, have been mapped and identified on aerial photographs. Inventories of specific plant species have been undertaken on an annual basis to acquire a sense of the land and its relative biotic condition. These inventories were conducted by foot and/or vehicle throughout the property. This information has been compiled as *Figure 5- Parkland Resources.*

The plant inventory is by no means exhaustive, and is intended as an ongoing list to which additional species can be added over time. Refer to *Appendix C - Pleasanton Ridge Regional Park - Plant List* to review the ongoing plant inventory database that is maintained by the District staff.

Using the California Natural Diversity Database (CNDDB), a state maintained inventory of rare plants and animals, and the District maintained plant communities data base as the framework for analysis, wildlife populations in the area have also been evaluated in a similar fashion.

Plant & Wildlife Surveys

Areas Previously Surveyed. Wildlife and vegetation surveys were conducted and published in the *1985 Resource Analysis for the Ridgelands Study.* Field surveys were carried out by Neil Havilk, Walter Knight, Tom Lindenmeyer, Ken Burger and Dr. Sam McGinnis. Further vegetation and wildlife surveys were conducted by LSA Associates (September 1996) and Michael Morrison, Ph.D. (May 1998) in association with the establishment of the Pleasanton Ridge Conservation Easement/Pleasanton Ridge Conservation Bank.

District Plant Surveys. District vegetation field surveys were carried out in 1993 and 1994 by District stewardship staff. Additional surveys were

conducted in the Spring of 1995 along Sinbad Creek. Between 2007 and 2011 the District botanist conducted field vegetation surveys throughout Pleasanton Ridge Regional Park.

District Fish and Wildlife Surveys. District fish and wildlife biologists have conducted several wildlife surveys throughout Pleasanton Ridge Regional Park as follows: 1993 and 1994, June 1997, August 1998, September 1999, January and February 2002, February through May 2004, and December 2007 through July 2011.

3.1.2.5 Plant Communities & Associated Wildlife

The 6,532-acre study area contains three major plant communities. These communities consist of California annual grassland (with some native perennial grasses present), shrublands (with variable composition) and oak woodlands. Two other communities occur in much smaller areas: riparian-ephemeral canyon creeks, ponds, springs and seeps; and agriculture (Refer to *Figure 5- Parkland Resources Map*).

The grasslands cover about 2,458 acres generally occupying flatlands along the southern and southeastern park boundaries, the major ridges and some of the western facing slopes. The oak woodlands total about 3,846 acres and occur in the tributary drainages, on the associated side slopes, and occasionally on the ridgelands. Small shrubland areas comprise about 219 acres and are sparsely scattered among the more dominant grassland and oak woodland vegetation. Riparian and wetland plant communities are found along portions of creeks/ canyons in and around various ponds, and among springs and seeps and comprise approximately four acres. These communities are similar to the surrounding Hayward Hills and to the areas north and west of the Mount Hamilton Range. There are also areas of the park where the original vegetation has been modified as a result of agricultural and residential uses. Most notable are the remnant olive orchards located at the southern end of Pleasanton Ridge. These areas comprised approximately five acres of the park. Each of these habitat types supports a wide variety of native species that reside in the park on a seasonal, migratory, or year-round basis.

California Annual Grassland

The grassland is commonly referred to as the California Annual Grassland type as California‟s original perennial grasslands have been largely replaced by Mediterranean annual grasses that were introduced during the Rancho Period (A.D. 1822-1850*)*. This vegetation community occurs primarily on ridgelines and upper elevations of the drier, westerly facing slopes of Pleasanton, Main and Sunol Ridges.

Annual grasslands occur primarily on ridgelines and upper elevations of the drier westerly facing slopes.

Past and current grazing practices ranging from a light to an extensive regime have modified the characteristics of this plant community. At the head of Sinbad Creek, and in the southern portions of Pleasanton and Sunol Ridges where the land has been extensively grazed and portions cultivated since the early 1900s, non-native grasses form the dominant groundcover. Farther away from the former homestead sites a diverse mixture of native and non-native grasses can be found. The most common native perennial grass is purple needle grass *(Nassella pulchra)*. Interspersed among the native and non-native grasses are numerous varieties of both native and non-native wildflowers. Some of these wildflowers are relatively recent, non-native introductions, while others have been native to the region for millennia. (Refer to *Section 3.1.2.7 – Parkland Habitat Management Programs* for a more detailed description of range management practices and *Appendix C - Pleasanton Ridge Regional Park - Plant List 2012* for a list of grassland plants).

California Annual Grasslands provide nesting and foraging habitat for California ground squirrel (*Spermophilus beecheyi*), California horned lark (*Eremophila alpestris actia*), and loggerhead shrike (*Lanius ludovicianus*), as well as providing foraging areas for many species of bats, including the western Pipistrelle (*Pipistrellus hesperus*) and Pallid bat (*Antrozous pallidus*). The burrows created by the ground squirrels also provide underground retreat sites for amphibians, reptiles, small mammals and insects. In addition, ground squirrels are important prey in the diet of the golden eagle (*Aquila chrysaetos*) and other raptors.

Oak Woodlands

Oak woodlands are widespread on north and east facing slopes and in the drainages of Pleasanton, Main and Sunol Ridges.

Several oak woodland types exist in the park. Coast live oak (*Quercus agrifolia var. agrifolia*)/ California bay (*Umbelluraria californica*) woodlands are widespread, and are by far the most dominant woodland north of Main Ridge and on the eastern slopes of Sunol Ridge. This plant community is dominated by two evergreen trees: coast live oak and California bay. California bay tends to concentrate in the cooler and wetter drainages. Coast live oaks intermix with the outer edges of the California bay stands and spread out onto the drier slopes. Scattered California bay trees often occur mixed among these dry slopes with coast live oak stands. Several other oak species intermix with coast live oak or form relatively pure stands of their own. Black oak (*Quercus kellogii*) occurs singly or in small patches, especially on the east side of Pleasanton Ridge. Valley oak (*Quercus lobata*) tends to occur at the top or bottom edges of oak woodlands on the east-facing slopes, occasionally in pure stands, but most often intermixed with the edges of coast live oak or blue oak (*Quercus douglasii*) woodlands. Blue oaks likewise prefer the top or bottom edges of

the east-facing oak woodlands, but also form several relatively large and pure stands on the east side of Pleasanton Ridge. California buckeye (*Aesculus californica*) and big leaf maple (*Acer macrophyllum*) are two other trees occasionally found scattered among the blue, valley, and coast live oak trees, especially in moister areas.

Several common shrubs appear in the openings between and under the various oak woodland types. Drier areas are dominated by poison oak (*Toxicodenderon diversiloba*) and coyote brush (*Baccharis pilularis*), with occasional hillside gooseberry (*Ribes californicum*) and native California blackberry (*Rubus ursinus*). Other common shrubs found in oak woodland openings include two snowberry species (*Symphoricarpos albus var. laevigatus* and *Symphoricarpos mollis*), elderberry (*Sambucus mexicana*), and ocean spray (*Holodiscus discolor*). The herbaceous understory vegetation is typically sparse, especially under the dense bay woodlands. Native grasses may occur in small amounts and other shade-loving plants of woodland environments may also be present, especially in the more open valley oak and blue oak stands.

The woodland trees support nesting, roosting and foraging birds, including the ash-throated flycatcher (*Myiarchus cinerascens*), Bewick‟s wren (*Thryomanes bewickii*), Hutton‟s vireo (*Vireo huttoni*), black-headed grosbeak (*Pheucticus melanocephalus*), dark-eyed junco (*Junco hyemalis*), Western bluebird (*Sialia mexicana*), oak titmouse (*Baeolophus inornatus*), band-tailed pigeon (*Patagioenas fasciata*), orange-crowned warbler (*Vermivora celata*), and Anna‟s hummingbird (*Calypte anna*). Pallid bats (*Antrozous pallidus*) are closely associated with oaks, utilizing them for roosting sites especially in a grassland setting. These woodlands also provide habitat for amphibians and reptiles including yellow-eyed salamanders *(Ensatina eschscholtzii xanthoptica*), arboreal salamanders (*Aneides lugubris*), California slender salamanders (*Batrachoseps attenuates*), sharp-tailed snakes (*Contia tenuis*), Northern alligator lizards (*Elgaria coerulea*) and Skilton‟s skinks (*Plestiodon skiltonianus*).

Shrublands

Shrubland areas serve as a valuable habitat for the Alameda whipsnake (Masticophis lateralis).

This ecological zone consists of scrub vegetation growing in patches on the sides and crests of ridges and near the bottoms of ravines and creeks. Often referred to as coastal scrub, chaparral or brush, this plant community is dominated on exposed slopes by coyote brush (*Baccharis pilularis*), poison oak (*Toxicodendron diversilobum*), and elderberry (*Sambucus mexicana*). Other common shrubs found in these areas include California toyon (*Heteromeles arbutifolia*), bush monkey flower (*Mimulus aurantiacus*), California sagebrush (*Artemisia californica*), oceanspray (*Holodiscus discolor*), hillside gooseberry (*Ribes californicum*),

snowberries (*Symphoricarpos albus laevigatus, S. mollis*), and coffeeberry (*Rhamnus californica*). Lower profile plants, purple needle grass (*Nassella pulchra*), brome grasses (*Bromus ssp.*) and annual fescues (*Vulpia ssp*.) can be found among the shrubs. More shrubland plants are indigenous to California than grassland species.

The shrubland areas serve as a valuable habitat edge component for both woodland and grassland species. The combination of exposed rock, grass and brush covering east, southeast, south and southwest facing slopes creates a habitat mosaic that makes up the coastal scrub community. It provides a productive habitat for populations of western fence lizards (*Sceloporus occidentalis*) and Skilton‟s skinks (*Plestiodon skiltonianus*) that are major prey for the Alameda whipsnake (*Masticophis lateralis*), a state and federally threatened species. Sightings of this snake have been documented within the park in this habitat (Planning Area 4, Swaim, 1996; Planning Area 8, Biomass, under contract to Caltrans, 2012).

Riparian - Ephemeral Canyon Creeks, Ponds, Springs & Seeps

Riparian and wetland vegetation occurs in the wetlands and drainages as a result of winter rainfall runoff, high water tables, and/or the presence of springs and seeps. These hydrophilic plant communities are associated primarily with the creeks/canyons of Cook, Sinbad, Gold, Hedd, Devany and Tehan Canyon drainages and the ephemeral unnamed blue line creeks extending from Sunol Ridge into Kilkare Canyon.

California red-legged frogs *(Rana draytonii)* breed in the creeks and ponds.

Typically these canyon drainages contain running water until late spring or early summer, after which time the flow of water subsides and appears as pools at intervals along the stream course. Minor on-site tributaries transport water for only short periods during and after heavy storm events. Big leaf maple (*Acer macrophyllum*), willow species (*Salix ssp.*), Western sycamore (*Platanus racemosa*) and several other species representative of the surrounding plant community occur along these stream courses often intermixed with the various oak woodlands. Of particular note are the magnificent large sycamores growing near springs high on the otherwise dry eastern face of Pleasanton Ridge.

Wetland habitat is associated with many of the constructed stock-watering ponds including, but not limited to, ponds prpnd 17 and 18 in Sinbad Valley and pond prpnd 22 along Sunol Ridge and wet meadows associated with springs and seeps where geological features provide an outlet for water to reach the surface including, but not limited to, ponds prpnd 08, 09, 10 and 17) (Refer to *Figure 5 - Parkland Resources and Figures 15 - 22* and *Figure 23).*

Riparian and wetland areas are valuable wildlife habitat, providing important nesting, perching and feeding sites for many wildlife species, as well as critical habitat for aquatic insect and invertebrate organisms.

Native amphibian species that breed in the creeks and ponds include California red-legged frog *(Rana draytonii)*, California newt *(Taricha torosa),* and Pacific tree frog *(Pseudacris regilla)*. The western pond turtle *(Clemmys marmorata)* uses these drainages as corridors of movement between its foraging ponds and nesting burrow sites found along south-facing slopes.

The park‟s major drainage is Sinbad Creek, which serves as one of the tributaries to Alameda Creek. Steelhead *(Onchorhynchus mykiss)* have utilized this creek as recently as the 1950s -1960s (Source: Alameda Creek Fisheries Restoration Workgroup (ACFRW), 2000). Long-term residents have reported that this creek was a perennial stream as recently as 30 years ago and supported large populations of trout and steelhead. This is evidenced by photo documentation of catches by nearby residents (Source: ACFRW, 2000). Sinbad Creek currently exhibits only limited perennial habitat. Groundwater supplies and subsurface flows necessary to produce surface water pools essential to oversummering steelhead fry and parr are inadequate.

Following the 1997 Federal listing of the Central California Coast Evolutionary Significant Unit (ESU) of steelhead as threatened, a stakeholder technical advisory workgroup was formed. The ACFRW is pursing the reestablishment of steelhead into the Alameda Creek Watershed. Through a multi-year phased program, migrational barriers within the watershed are being removed or modified in order to facilitate the future run of steelhead into the system.

A variety of mammals including raccoons (*Procyon lotor*), black tail deer (*Odocoileus hemionus columbarius*), California ground squirrels (*Spermophilus beecheyi)*, great blue herons (*Ardea Herodias*), wild turkeys (*Meleagris gallopavo*) and several species of bats use the creeks as a source of drinking water and food. The willow and sycamore riparian zone also supports an array of insects, which in turn provide food for foraging and nesting neotropical songbirds, such as violet-green swallows (*Tachycineta thalassina*), Swainson‟s thrush (*Catharus ustulatus*), yellow (*Dendroica petechial*) and Wilson‟s (*Wilsonia pusilla*) warblers.

Agriculture

Five olive orchards containing several different varieties of olives were planted along Pleasanton Ridge over 120 years ago and are still producing fruit. Other fruit, nut and ornamental trees are scattered throughout the park. These trees are generally found at former homestead sites and around park residences and in the maintenance - office facilities yard (former Garms residence).

3.1.2.6 Special Status & Protected Species

Regulatory Protection

The LUP refers to candidate, sensitive, or special status species listed by the California Department of Fish and Game or U.S. Fish and Wildlife Service as special status or listed species. Plants considered significant State rare or endangered (1B - California Native Plant Society) are also referred to this way. These species have varying degrees of legal protection under both Federal and California Endangered Species Acts, and recognition under the California Environmental Quality Act (CEQA). Species of special concern are designated by the California Department of Fish and Game (CDFG).

Special Status & Notable Plant Species

Three species of special status plants are known to occur in Pleasanton Ridge Regional Park.

Bristly linanthus (*Linantus acicularis = Leptosiphon acicularis*), found on shallow, rocky soil, is a California Native Plant Society (CNPS) List 4.2 plant (Watch List, Fairly endangered in California), with an East Bay CNPS Rank of *A1. Bristly linanthus is mapped and monitored in two specific areas of the park. Six other populations have been found on the relatively bare soil of sites heavily grazed by cattle in the past, but have disappeared since cattle were removed from these areas.

Congdon‟s tarplant (*Hemizonia parryi ssp. congdonii = Centromadia parry subsp. congdonii*) is a California State CNPS List 1B.2 plant (fairly endangered in California), with an East Bay CNPS Rank of *A2. One, large Congdon‟s tarplant population has been identified in a cattle-grazed pasture near the staff office (former Garms residence) and is mapped and monitored.

Santa Clara red ribbons (*Clarkia concinna subsp. automixa*) is a California State CNPS List 4.3 plant (Watch list, not very endangered in California), with an East Bay CNPS Rank of *A1. Six, relatively small populations occur on ungrazed woodland road cuts and are currently mapped and monitored.

Four other plant species identified in the park are considered to be locally significant by the East Bay Chapter of the California Native Plant Society: Snapdragon (*Antirrinum vexillocalyculatum subsp. vexillocalyculatum*), California Aster (*Lessingia filaginifolia var. californica = Corethrogyne filaginifolia*), Phacelia (*Phacelia nemoralis subsp. nemoralis*), and Giant Chain Fern (*Woodwardi fimbriata*).

Special Status & Notable Wildlife Species

Based on a review of the California Natural Diversity Database (CNDDB) inventory of rare plants and animals, and surveys conducted during the months of December 2007 through June 2011 by EBRPD biologists, Pleasanton Ridge

Regional Park contains habitat that could support 17 special status wildlife species. Special status species, which are known to occur within the area include, but are not limited to, the California red-legged frog (*Rana draytonii)*, golden eagle (*Aquila chrysaetos)*, loggerhead shrike (*Lanius ludovicianus)*, western pond turtle (*Clemmys marmorata)* and Alameda whipsnake (*Masticophis lateralis euryxanthus)*. The Park District monitors these species and maps sightings. As necessary, sensitive habitat areas may be closed on a seasonal basis during breeding, migration or forging periods to provide greater wildlife protection.

Table 1: Special Status Fish & Wildlife Species Pleasanton Ridge Regional Park

Class	Common Name	Scientific Name	Federal Status[1]	State Status[1]	Occurrence[2]
Amphibians	Frog, California Red-legged	*Rana draytonii*	FT	SSC	O/B
Amphibians	Salamander, California Tiger	*Anbystoma californiense*	FT	ST	P[5]
Birds	Eagle, Golden	*Aquila chrysaetos*	BGPA	CFP	O/B
Birds	Falcon, American Peregrine	*Falco peregrinus anatum*	Delisted	CFP	P
Birds	Grasshopper Sparrow	*Ammodramus savannarum*		SSC	O/B
Birds	Harrier, Northern	*Circus cyaneus*		SSC[3]	O
Birds	Hawk, Swainson's	*Buteo swainsoni*		ST	O/R[4]
Birds	Kite, White-tailed	*Elanus leucurus*		CFP[3]	O
Birds	Owl, Burrowing	*Athene cunicularia*		SSC	P
Birds	Shrike, Loggerhead	*Lanius ludovicianus*		SSC[3]	O/B
Birds	Warbler, Yellow	*Dendroica petechia brewsteri*		SSC	P
Mammals	American Badger	*Taxidea taxus*		SSC	P
Mammals	Dusky-footed Wood Rat, San Francisco	*Neotoma fuscipes annectens*		SSC	O/B
Mammals	Bat, Townsend's big-eared	*Corynorhinus townsendii*		SSC	P
Mammals	Bat, Pallid	*Antrozous pallidus*		SSC	O
Reptiles	Turtle, Western Pond	*Emys marmorata*		SSC	O/B
Reptiles	Whipsnake, Alameda	*Masticophis lateralis euryxanthus*	FT	ST	K/B*

[1] Status definitions and governing agencies as follows:

U.S. Fish and Wildlife Service
FE Listed as endangered by the Federal Government
FT Listed as threatened by the Federal Government
FSC Federal Species of Concern
FC Federal Candidate

California Fish and Game Commission
SE Listed as endangered by the state of California
ST Listed as threatened by the state of California
SSC Species of Special Concern
CFP Fully Protected Species
CP Protected Species

2 Occurrence: O=observed during our surveys, K=known to occur, P=potential to occur, U=unlikely to occur, B=breeding confirmed, and R=rare species/migrant, * animal captured on ALC land 1996, Swain (CNDDB Record)

3 Rookeries or nesting only

4 Wintering

5 Historic Record

Source: East Bay Regional Park District 10-4-11

3.1.2.7 Parkland Habitat Management Programs

The District employs two major tools for managing parkland habitat to meet resource conservation and enhancement program goals. These are the *Integrated Pest Management Program* and the *Managed Livestock Grazing Program*, which are described below.

Integrated Pest Management Program

Noxious Invasive Weeds

Noxious invasive weeds deprive desirable vegetation of moisture, plant nutrients and sunlight, and cause decreased forage yields. Their roots interfere with the root development of associated plants. Some weeds are poisonous or otherwise injurious to humans, livestock, or livestock products. Undesirable weedy plants may be spread by animals or by human activities, such as road grading or supplemental feeding of hay contaminated with weed seeds.

While noxious invasive weeds are not predominant within the Park, there are some species found in scattered locations, most notably in disturbed areas. Noxious invasive weed species that have been identified in the park include purple star thistle (*Centaurea calcitrapa*) and yellow starthistle *(Centaurea solstitialis*) along disturbed roadside sites within Pleasanton and Main Ridge grassland areas, as well as in scattered locations in disturbed areas along Sunol Ridge. Other annual and biennial weeds include milk thistle (*Silybum marianum*), poison hemlock (*Conium maculatum*), bull thistle (*Cirsium vulgare*) and scattered stands of black mustard (*Brassica nigra*).

The District has created an integrated pest-management program for all the parks within its jurisdiction to address invasive weed species. This program includes monitoring and tracking through field surveys. As the District has an ongoing control program for noxious invasive weed species that has been in place at Pleasanton Ridge Regional Park since 1993, these plants are not anticipated to adversely affect recreational use or biological diversity in the park.

Invasive Feral Animals

Invasive feral animals found in the park include red fox (*Vulpes vulpes*), feral pigs (*Sus scrofa*) and bullfrogs *(Rana catesbeiana).*

Red fox, originally brought to California for farming and sport hunting, have gone feral entering the San Francisco Bay Area in 1985. These non-native predators have the potential to severely impact ground nesting birds and compete with the native grey fox *(Urocyon cinereoargenteus).*

Feral pigs, also brought into California for sport hunting, can have an adverse impact on ground dwelling vertebrates, as well as plants. The destructive rooting behavior of pigs can result in the introduction of noxious invasive weedy plants, contribute to erosion, especially in steep areas, and create an inhospitable environment for some native plant and animal species.
Some of the ponds within the park contain large-mouth bass (*Micropterus salmoides*), bluegill (*Lepomis macrochirus*) and exotic, invasive bullfrogs (*Rana catesbeiana*). These non-native aquatic species have had an adverse impact on native amphibians breeding in the ponds, especially the California red-legged frog (*Rana draytonii)*.

The olive fruit fly (*Bactrocera oleae*) burrows into the fruit of the olive trees rendering it useless as a commercial product. This fly is prevalent in the historic olive tree groves along Pleasanton Ridge. Since the District does not currently harvest, or plan to harvest the olives, the District does not have a control program for this insect.

Managed Livestock Grazing Program

Purpose & Function

Grazing is the primary management tool for fuel suppression and vegetation management in the grassland areas.

Managed livestock grazing (cattle and sheep) is an important vegetation management tool for the grassland areas of Pleasanton Ridge Regional Park, serving to enhance habitat conditions that favor grassland habitat values. Managed grazing prevents or reduces the conversion of grasslands to brush, thereby encouraging native grasses and wildflower abundance. Grazing also reduces the potential for catastrophic wildfires through ongoing fuel reduction. (Refer to *Appendix E - Grazing Unit Management Plan – [GUMP]* for a more detailed discussion of the District‟s grazing program at Pleasanton Ridge Regional Park).

Range Management Characteristics

Soil Composition

The soils of Pleasanton Ridge Regional Park have been identified based on information contained in the Alameda County Soil Survey (USDA, March 1966) and are described in *Section 3.1.2.1 - Topography, Geology & Soils*. While soils differ from place to place in slope, texture, depth, drainage, stoniness and other characteristics that affect their management, the soils found in the grasslands favored for grazing are typically composed of sandstone, silty shale, chert and conglomerate.

History of Cultivation & Ranching

The current condition of the land is a reflection of its use over time. Ranching in the area probably began during the Rancho Period (A.D. 1822-1850*)* with settlement and dry land farming and livestock production (cattle and sheep) beginning during the American Farm Era (A.D. 1850 to 1970s). These activities grew to become the primary land uses for the ridgelands area until the District began to purchase the land that now encompasses Pleasanton Ridge Regional Park.

Past farming and cultivation practices have resulted in a number of changes to the landscape setting. These changes have included soil disturbance, introduction of new exotic species to the California native grassland and elimination of much of the existing native perennial grassland with all its associated plant, animal, and insect components (Burchum 1957). In the grasslands areas that are currently used for grazing, original perennial grasslands have been largely replaced by Mediterranean annual grasses.

Grassland Composition - Plant Diversity, Abundance & Function

The natural vegetation of Pleasanton, Main and Sunol Ridges is a mosaic of grassland, shrubland, oak woodland and riparian communities. The grassland community favored for grazing occurs primarily on ridgelines and upper elevations of the drier south and westerly facing slopes of Pleasanton, Main and Sunol Ridges. The effects of past and current grazing practices that range from intensive grazing to light to moderate grazing can be seen in the current grassland‟s composition, abundance and function.

In areas that have been previously cultivated, compacted or heavily grazed by livestock for long periods of time, the grassland is dominated by low statured introduced species including subterranean clover and filaree that can render the hillsides bare by late spring or early summer, especially in dry years.

Retention of a desired cover of live vegetation or vegetation residue (residual dry matter – RDM) is achieved through livestock distribution, control of animal numbers and length of the grazing season and/or rest and rotation periods. These practices are evaluated on an annual basis taking into account the annual rainfall, aspect (sun and wind exposure), existing vegetation and recent erosion patterns (Refer to *Appendix E - Grazing Unit Management Plan [GUMP]).*

Farmland Designations

The majority of the park is designated “other land” and “grazing land,” as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency. This is land that is not included in any other mapping category as the majority of the soils within the project area are agriculturally unsuitable except for pasture and range. In Pleasanton Ridge Regional Park this is due to the steep slopes, rapid runoff and shallow depth of soil to bedrock. None of the parkland is designated as prime farmland, unique farmland or farmland of statewide importance.

Fire & Grazing

Fire and grazing are the two most important ecological processes that govern the structure, function, evolution and composition of California‟s grassland, scrubland, and forested plant communities. Annual grassland and woodland grass vegetation, which dry out in late spring or early summer, and the remnant dried plant material accumulated on the ground or left standing during the hot summer and early fall months represent a potential wildfire hazard.

To minimize the risk of uncontrolled wildfires, livestock grazing is used as the primary vegetation management tool at the park. This requires optimal timing and distribution of livestock to achieve the level of grazing necessary to manage fire risk and accomplish resource management objectives described in *Chapter 4 - Land Use Plan, Section 4.2 - Biological Resource Management Programs.*

Livestock Management

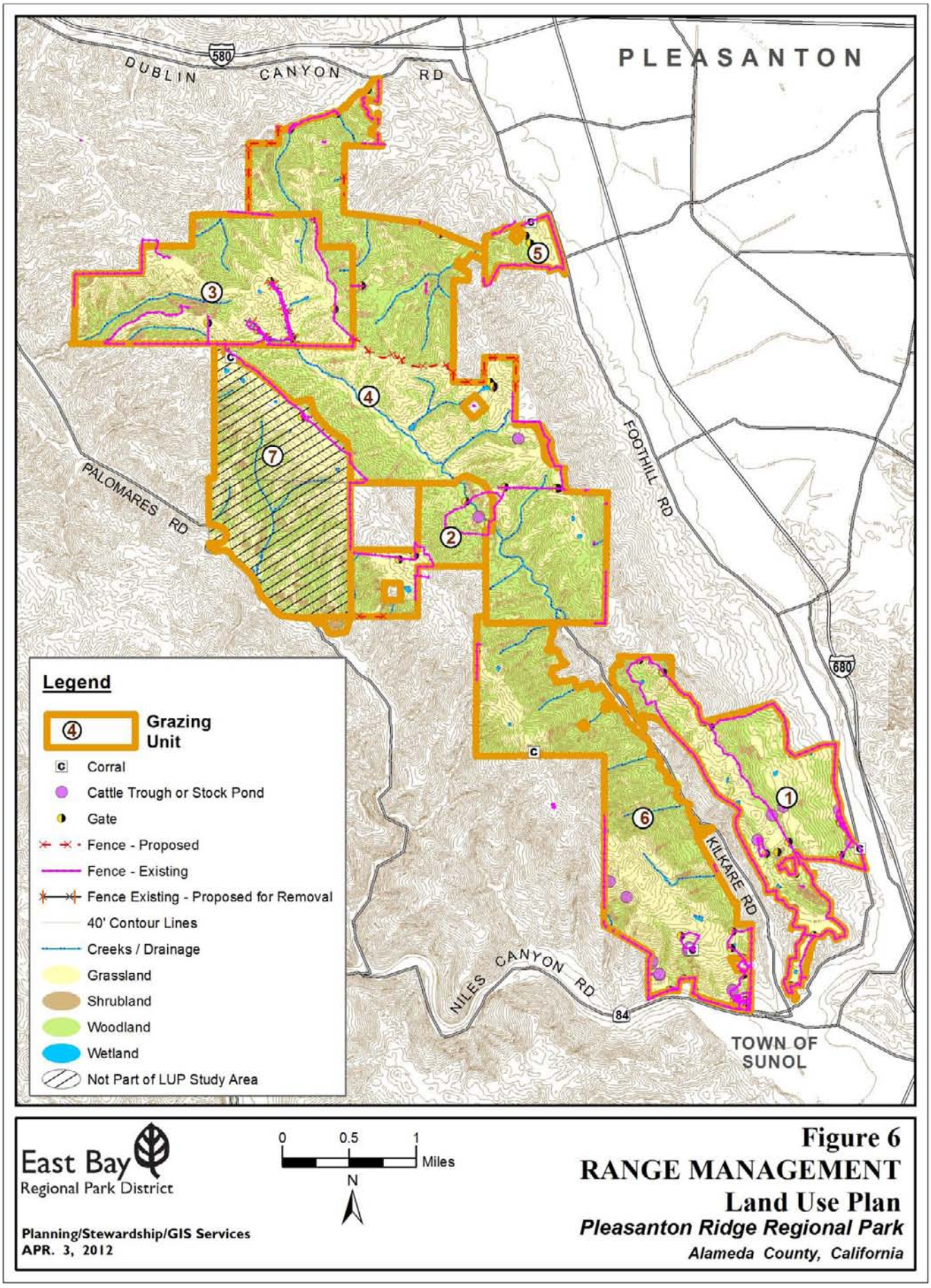
The intent of livestock grazing from a resource management perspective is to apply grazing pressure on the annual, non-native vegetation during the early part of the growing season when other desirable non-native and native plants are attempting to germinate, colonize gaps in the vegetative structure, and re-establish themselves among their neighbors in the plant composition. To accomplish this, a grazing plan considers:

- Number of livestock in individual grazing units
- Duration of grazing period
- Season of grazing activity in each grazing unit (Refer to *Figure 6 - Range Management* for the location of grazing units).

Livestock Type, Numbers, Duration, & Season of Grazing

Cattle and sheep are utilized in the Pleasanton Ridge Regional Park grazing programs. The livestock numbers and duration of grazing are balanced with the productivity of the grassland resource. Stocking levels are managed to ensure that an adequate amount of green or dried vegetation (depending on the season) remains on the ground at all times. The number of livestock and the period of time the animals are allowed to remain on the land throughout the growing season are commensurate with forage availability and other resource management considerations. The length of the season also varies depending on the site conditions, rainfall, and the number and type of livestock that are being used in each field. The grasslands are currently moderately grazed by livestock during the early spring to reduce the buildup of thatch, thereby encouraging species diversity of native and naturalized forbs. In the hot summer months when the forage is dry and livestock do not use the land as effectively, cattle are removed from much of the park.

Currently there are seven active grazing units in the park: Unit 1 - South Pleasanton Ridge; Unit 2 – North Sunol Ridge; Unit 3 - Western Pleasanton Ridge; Unit 4- Central Main Ridge; Unit 5 - Eastern Pleasanton Ridge (Garms); Unit 6 - Southern Sunol Ridge (Tyler Ranch); and Unit 7 - Northern Sunol Ridge (Owen), which is not part of the LUP study area. (Refer to *Chapter 4 - Land Use Plan, Section 4.2.5 - California Grassland Management Program* for a discussion of the role grazing plays in meeting habitat management program objectives. Refer to *Appendix E - Grazing Unit Management Plan (GUMP)* for specific information regarding each of the planning units).


DUBLIN CANYON RD
580
PLEASANTON
PALOMARES RD
FOOTHILL RD
680
KILKARE RD
NILES CANYON RD
84
TOWN OF SUNOL
Legend
Grazing Unit
Corral
Cattle Trough or Stock Pond
Gate
Fence - Proposed
Fence - Existing
Fence Existing - Proposed for Removal
40' Contour Lines
Creeks / Drainage
Grassland
Shrubland
Woodland
Wetland
Not Part of LUP Study Area
East Bay Regional Park District
Planning/Stewardship/GIS Services
APR. 3, 2012
0 0.5 1 Miles
N
Figure 6
RANGE MANAGEMENT
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Monitoring to Achieve Established Goals

The Park Staff clip and weigh standing Residual Dry Material (RDM) in the fall to monitor the performance of the grazing program and determine the success of established goals. Native plant species‟ composition and indicator species are identified by District Stewardship biologists during spring surveys. Using this baseline information, which can be translated into animal unit months (AUMs) and stocking rates, the livestock regime can be modified on an annual basis to correlate to the amount of vegetation available for livestock to consume. These decisions take into account the need to reduce fuel loads while leaving behind a percentage of ungrazed vegetation to protect the land from erosion, allow nutrient recycling back into the soil, and maintain acceptable visual standards.

Ranching Infrastructure

Infrastructure associated with long-term land uses in the area include roads, fences and gates, corrals, salt licks, water troughs and stock ponds. This infrastructure is used to confine livestock to suitable grazing areas, which are located primarily in grassland and woodland grass environments. Plant communities affording little or no forage for livestock are not grazed. Some of the infrastructure in place has been constructed by the District or grazing licensee (with District oversight). In other cases, where appropriate, the remnants of 19th and 20th century homesteading and ranching activities, including fences, ranch roads and stock ponds, have been incorporated into the current vegetation management infrastructure. Refer to *Section 3.1.2.9 - Cultural Resources* and *Appendix G - Cultural Features* for a discussion of the families who had farms and ranches in this area and a more detailed discussion of the historic remnants from earlier farming and ranching periods that remain today.

Service-road-width trails that serve as part of the recreational trail system and as emergency and patrol routes for day-to-day park operations also serve to monitor grazing activities and to move livestock on and off the parklands. Fences define the areas that are to be grazed and areas that are excluded from grazing. These determinations are made to balance the benefits to the native plant communities and associated wildlife (e.g., California red-legged frogs, golden eagles and other raptors) with recreational uses. Fences also serve to exclude livestock from sensitive areas when exclusion is needed to protect important resources such as wetlands, special-status plants and animals, and heritage landscapes as represented by the olive trees. Corrals enable livestock to be moved in and out of a given area, and provide a confined space to process the animals and provide veterinary care. (Refer to *Figure 6 - Range Management* for the locations of range improvement infrastructure including roads, fencing and water troughs. Refer to *Section 3.1.2.9 - Cultural Resources* and *Appendix G - Cultural Features* for a discussion of historical features and *Section 3.1.2.3 - Hydrology & Water Resources* and *Section 3.1.2.4 - Biological Resources* for a discussion of developed springs, and ponds and the plant and animal life they support).

Range Management Oversight

Grazing management prescriptions for the conservation of park resources are provided by the Planning/Stewardship Department and are implemented by Operations staff. The Wildland Vegetation Program Manager is responsible for developing and establishing the vegetation management plans and providing technical expertise in vegetation management issues.

Day-to-day grazing management activities at the park are the responsibility of the Park Supervisor. The Park Supervisor establishes constructive, everyday working relationships with the ranching lessees and coordinates with them over issues related to livestock grazing operations, including monitoring the number, distribution, and duration of livestock being grazed in each pasture unit. The Park Supervisor is also responsible for managing trail impacts (e.g., trail pocking, cattle trail creation, and the occasional aggressive animal) to keep the trails suitable for recreational use. The Park District‟s website identifies parks where livestock are grazing so a park user can consider this when deciding which park to visit.

Use Agreements & Easements

Grazing Licenses

The Park District licenses local ranchers (tenants) to provide livestock grazing services for each of the grazing units at Pleasanton Ridge. The ranchers authorized to use park land for grazing are responsible for their livestock and are required to maintain the range infrastructure and rangeland conditions to District standards.

Augustin-Bernal Community Park – City of Pleasanton Interface

There is no livestock grazing in Augustin Bernal Community Park, which is owned and operated by the City of Pleasanton. Augustin Bernal Community Park divides the northern (Grazing Unit 4) and southern sections (Grazing Unit 2) of Pleasanton Ridge Regional Park.

3.1.2.8 Ongoing Habitat Management Programs by Planning Area

“Ongoing habitat management programs” refer to those resource actions currently underway that will be continued into the future to meet established resource or public safety goals described in this chapter. For ease of reference these actions are separated by Planning Area as shown on *Figure 14 - Planning Areas Map Key & Natural & Recreation/Staging Unit Designations*. These planning areas generally relate to the park grazing units (Refer to *Figure 6 - Range Management*), as these units provide an identifiable way to divide the park into recognizable geographic areas and reflect the overarching tool for managing the vegetation communities to meet resource goals.

- **Planning Area 1** - Continue to manage Pond Prpnd08 for native amphibian and reptile species per guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program.*
- **Planning Area 1 -** Provide signage at the staging area to inform visitors regarding: 1) the grazing program and presence of livestock in the park; and 2) potential health hazards (e.g., ticks and yellowjackets) and measures to take to avoid encounters.
- **Planning Area 1 –** Continue to implement IPM controls including targeting purple starthistle (*Centaurea calcitrapa*) and yellow starthistle *(Centaurea solstitialis*) per guidelines provided in *Section* 4*.2.6 Pest Management Control Strategies* (approximately 2 acres).
- **Planning Areas 1 & 2**- Per the GUMP for Grazing Unit 1 and guidelines provided in *Section* 4*.2.5 California Grassland Habitat Management Program* continue to employ a seasonal rotation of juvenile steers to reduce spring biomass and encourage establishment of native and perennial grasses and wildflowers. Pasture livestock in Planning Unit 1 in December. Move livestock to Planning Unit 2 pastures during growing season (end of December-May). Retain livestock in Planning Unit 2 when soils are wet.
- **Planning Area 2** - Continue to manage ponds Prpnd01, Prpnd02, Prpnd03 Prpnd04 and Prpnd05 for native amphibian and reptile species, including breeding habitat for California red-legged frog per the guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program.*
- **Planning Area 2** - Continue to implement integrated pest management (IPM) controls for yellow starthistle *(Centaurea solstitialis*): 1) along the Thermaltio Trail near the 600-foot contour at junction with Valle Vista Trail; and 2) near the Valle Vista and Oak Tree Trails junction per guidelines provided in *Section* 4*.2.6 Pest Management Control Strategies* (approximately 10-20 acres).
- **Planning Area 3** - Continue to manage pond Prpnd011 for breeding habitat for California red-legged frog per guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program.*
- **Planning Area 3** - Per the GUMP for Grazing Unit 2 and guidelines provided in *Sections* 4*.2.5 California Grassland Habitat Management Program,* reinstate seasonal rotation of cow-calf (<12) pairs January - March to reduce spring biomass and encourage establishment of native and perennial grasses and wildflowers when road conditions providing access to this planning unit are improved.
- **Planning Area 4** - Per the GUMP for Grazing Unit 3 and guidelines provided in *Sections* 4*.2.5 California Grassland Habitat Management Program & 4.2.3 Mixed Sage Series Habitat Management Program*, continue to graze the area with a small number of heifers January - April to: 1) increase productivity of unit; and 2) increase residual dry matter (RDM) at end of grazing season to benefit Alameda whipsnake and native grassland species in accordance with the *1998 Bank Establishment & Management Plan.*
- **Planning Area 4** - Continue to implement IPM controls for yellow starthistle *(Centaurea solstitialis*) along the Valle Vista Trail north of the Cowing Trail junction per guidelines provided in *Section* 4*.2.6 Pest Management Control Strategies* (approximately 3 acres).

- **Planning Area 5** - Per guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program:*
  - Continue to manage ponds Prpnd 009, Prpnd 010, Prpnd 012, Prpnd 013, Prpnd 014 and Prpnd 015 to improve breeding habitat for California red-legged frog
  - Continue to manage pond Prpnd012 for western pond turtle
  - Continue to manage aquatic habitats along Sinbad Creek and tributary drainages to benefit California red-legged frog, western pond turtle to and other native aquatic fauna. Manage the Sinbad Creek riparian zone for over summering habitat for potential future steelhead and rainbow trout populations.
- **Planning Area 5** - Per the GUMP for Grazing Unit 4 and guidelines provided in *Sections* 4*.2.5 California Grassland Habitat Management Program* and *4.2.3 Mixed Sage Series Habitat Management Program*, continue to graze sheep seasonally from late March - early May to: 1) manage fuel loads; and 2) maintain shrub/grassland mosaic to benefit Alameda whipsnake and native grassland species - Restrict grazing in steep woodland canyons.
- **Planning Area 6** - Continue to manage aquatic habitats in Tehan Canyon seasonal drainages to benefit California red-legged frog and other native aquatic fauna.
- **Planning Area 6** - Per the GUMP for Grazing Unit 4 and guidelines provided in *Sections* 4*.2.5 California Grassland Habitat Management Program* and *4.2.3 Mixed Sage Series Habitat Management Program*, continue to graze sheep seasonally from March - May to manage fuel load and maintain shrub/grassland mosaic to benefit Alameda whipsnake and native grassland species - Restrict grazing in steep woodland canyons.
- **Planning Area 6** - Continue to implement IPM controls for yellow starthistle *(Centaurea solstitialis*) within Tehan Canyon in accordance with *Section 4.2.6 - Pest Management Control Strategies*.
- **Planning Area 7** - Continue to manage this planning area to benefit Congdon‟s tar plant (*Centromadia parryi ssp.)* in accordance with *Section 4.2.5 - California Grassland Habitat Management Program*.
- **Planning Area 7** - Per the GUMP for Grazing Unit 5 and guidelines provided in *Sections* 4*.2.5 California Grassland Habitat Management Program,* continue seasonal grazing utilizing approximately eight cow-calf pairs October-May to manage fuel load and to benefit Congdon‟s tar plant (*Centromadia parryi ssp.).*
- **Planning Area 8** – Per guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program:*
  - Continue to manage ponds Prpnd021 Prpnd022 and Prpnd023 for native amphibian and reptile species
  - Continue to manage ponds Prpnd024, Prpnd025, Prpnd026, Prpnd027 for California red-legged frog and western pond turtle
  - Continue to manage aquatic habitats in tributaries of Sinbad and Stonybrook Creeks to benefit California red-legged frog and other native aquatic fauna. Manage riparian zone for over summering habitat for potential future steelhead and rainbow trout populations.
- **Planning Area 8** - Continue to manage woodland area in southwestern section of planning unit to benefit raptor nesting and forging activities per

guidelines provided in *Section 4.2.4 - Woodland-Grassland Margin Habitat Management Program.*

- **Planning Area 8 -** Per the GUMP for Grazing Unit 6 and guidelines provided in *Sections* 4*.2.5 California Grassland Habitat Management Program* and *4.2.3 Mixed Sage Series Habitat Management Program*, continue interim "in-stiu" year-round cow-calf pair grazing program to manage fuel loads and maintain shrub/grassland mosaic to benefit Alameda whipsnake and native grassland species.

3.1.2.9 Cultural Resources

Overview

Cultural resources are places or objects that are important for scientific, historic or religious reasons to cultures, communities, groups or individuals. These resources include human-made artifacts, structures and sites possessing archaeological or historic significance such as a Native-American burial, architectural landmark or landscape feature.

The Nipper Family residence now serves as one of the park security residences. The Nipper family was one of the families that farmed the Parklands in the late 1800s.

This section discusses the area ethnography and parkland prehistory and history. It provides summaries of findings of cultural resource inventories of archeological sites and historic features located in Pleasanton Ridge Regional Park. Some, but not all, the sites and structures described in this section, have been recorded by the District. Recorded information is stored at the East Bay Regional Park District Headquarters.

Inventory Procedures - Research Methodologies

Research methodologies employed for the Pleasanton Ridge area have included: archival records searches and literature review, cultural sensitivity mapping, oral history interviews, and field surveys.

These methodologies were used to:

- Determine whether known cultural resources had been recorded within or adjacent to the project area
- Assess the likelihood of unrecorded cultural resources based on archaeological, ethnographic, and historical literature (Refer to *Figure 7 - Cultural Sensitivity Map*)
- Make recommendations regarding procedures for avoidance or mitigation of potentially adverse effects to significant cultural resources (Refer to *Chapter 4, Section 4.3 Cultural Resources Management Programs).*

Record Searches & Literature Review

Archival research of relevant records has included a review of cultural literature and interviews from a number of sources. These include:

- Existing District documents pertaining to historic resources including the *East Bay Regional Park District Cultural Resource Site Atlas*
- The Northwest Information Center (NWIC) of the California Historical Resources Information Systems (CHRIS)
- The Native American Heritage Commission (NAHC) Sacred Sites inventory
- The Office of Historic Preservation‟s (OHP) Historic Properties Directory (dated November 10, 2008)
- The National Register of Historic Places, California Register of Historical Resources, California Inventory of Historic Resources (March 1976)
- California Historical Landmarks, California Points of Historical Interest and list of locally significant historic structures
- Historical documents at the following libraries:
  - City of Pleasanton Library;
  - Livermore Heritage Guild Library
  - Oakland History Room at the Oakland Main Library
  - Bancroft Library and the Earth Sciences and Map Library at the University of California at Berkeley.

Inquiries were also made to the following organizations:

- Amador-Livermore Valley Historical Society Museum in Pleasanton
- Hayward Area Historical Society Museum in Hayward
- Museum of Local History in Fremont
- Old Mission San Jose Museum in Fremont (March 30, 2006).

This cultural resource data was reviewed to gain an understanding of existing pre-historic and historic information regarding the lands that make up Pleasanton Ridge Regional Park. (Refer to *Chapter 5 - Report Preparation & References, Section 5.4 –References* for a list of documents consulted).

The background ethnographic and prehistoric descriptions provided in the following sections have been excerpted from the *Final Archaeological Survey Report for the Tehan Falls/Swartz Property, Alameda County, California* (Garcia & Associates, April 2006) and *A Cultural Resource Study of Pleasanton Ridge and Garin / Dry Creek Pioneer Regional Parks, Alameda County, California (ARS 2011*).

Oral Histories

Several oral histories were conducted separately and as a part of specific cultural investigations. These included:

- Former District employee, Dan Reasor‟s interview with Carl Nipper, a former resident of Pleasanton Ridge (1986)
- An interview by Ward Hill, architectural historian, with Carl Nipper‟s son, Bill Nipper (March 1999)
- Cultural consultant, Ms. Freeman‟s interview with Chet Cook for the Conservation Management Plan (1995)

- Interviews by Susan Imboden, oral historian consultant, of various members of parkland homestead families from the American Farm Era (2008-2010).

Cultural Resource Sensitivity Mapping

The first District cultural analysis of the Pleasanton Ridge Regional Park area involved reconnaissance of 1,877 acres and was completed by Peter Banks, California Archaeological Consultants, and Miley Paul Holman as part of the *Ridgelands Study* (1986) for The Planning Collaborative, Inc. This analysis included the development of a map of archaeological sensitivity for the ridgeland areas that are now contained within Pleasanton Ridge Regional Park.

Cultural resource sensitivity maps enabled archaeologists to focus cultural field work.

In 2011 Archaeological Resource Service (ARS) developed a cultural resource sensitivity map of current parkland areas using a Geographic Information Systems (GIS) mapping tool. ArcGIS data layers pertinent to this study and maintained by the District that were used to develop the archaeological resource sensitivity layer included: site locations, soils, hydrology, topography and slope. Historic resources were incorporated into the proArcGIS data layers using ethnographic documents, historic maps, survey reports, and photographs.

The resulting map shows the cultural resource sensitivity based on proximity to known resources and similarity to places where archaeological sites are known to occur (Refer to *Figure 7 – Cultural Sensitivity Map*).

Criteria used to designate places of high archaeological sensitivity (places similar to where cultural sites are known to occur) during both the 1986 and 2011 analysis included:

- Sites with reported, recorded, or listed cultural resources
- Proximity to previously recorded sites
- Previous cultural resource studies and historic reports
- Areas in the vicinity of features that appear on historic maps (1857, 1878) and features greater than 45 years of age
- Physical characteristics including:
  - Topography
  - Soil types associated with known prehistoric bedrock mortars (BRMs), cupules and other rock features (e.g., suitable rock outcrops into which mortars or design motifs could be easily ground) near or along ridge tops
  - Fresh water availability (e.g., springs or seasonal ponds and stream channels, especially a confluence of a minor drainage with a major drainage such as Devany and Sinbad Creeks)
  - Vegetation - subsistence resource areas (e.g., oak groves, seed or bulb patches) near or along ridge tops.

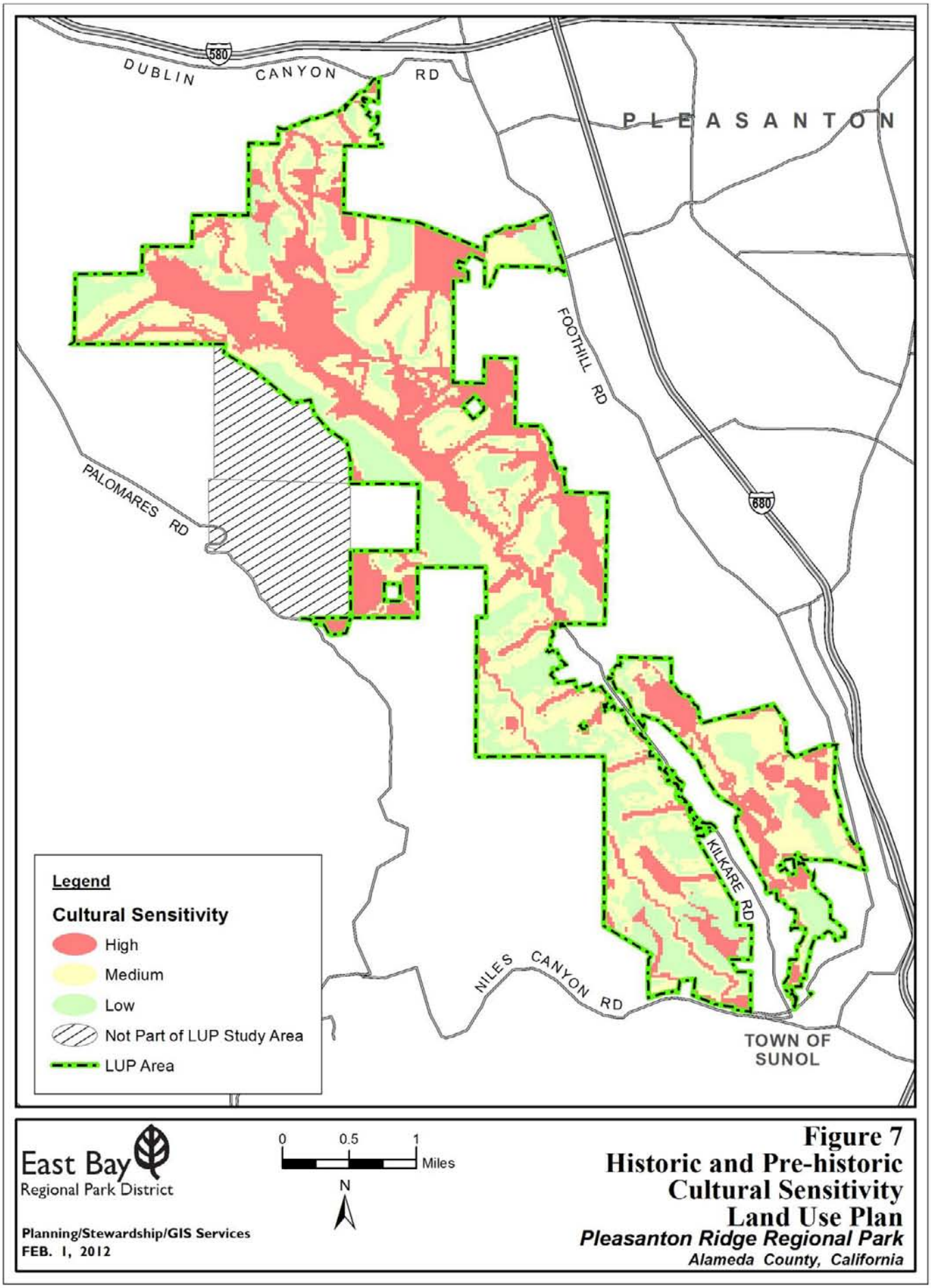


Figure 7
Historic and Pre-historic Cultural Sensitivity Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Field Surveys

Given the large size of the study area, the ruggedness of the terrain, and the density of the vegetation cover, the cultural resource sensitivity maps enabled the archaeologists to focus their field work in areas proposed for development with a high potential sensitivity for cultural resources. The field evaluation for archaeology consisted of examining exposed soils within the proposed improvement locations that had not been previously examined and that showed a potentially high level of sensitivity. As part of this field research structures greater than 45 years of age were examined to determine their potential as historic era resources.

Archaeological and historical resource field surveys that have been conducted using this approach as a framework have included:

- The Nipper property development area (Holman and Jackson, approximately 1973-1974)
- Parkland visit (District staff July 1994)
- Sinbad Creek up to 1240 contour (Love, Holman and Chavez prior to 1999)
- Palomares Canyon Road along with a section of the ridge (Clark, Holman and Wilberg prior to 1999)
- A section of Sunol Ridge and roads leading from the ridge to Palomares Canyon Road (Holman and Jackson prior to 1999)
- Nipper Ranch detailed field survey of the exterior and interior of the four Nipper Ranch buildings and related landscape features (Hill, April 1999)
- Tehan/Swartz property (Garcia & Associates, April 2006)
- Follow up mapping of archaeological sensitivity to the *Ridgelands Study* (1986) of proposed development sites (e.g., staging areas and campsites) described in this LUP (ARS, 2011).

Ethnography

The Pleasanton Ridge Regional Parklands are located within the ethnographic territory of the Ohlone, a tribe of the Costanoan group of Native Americans. The term Costanoan (or Coastanoan) is derived from the Spanish word *Costanos* or "coast people" and designates a linguistic family of eight languages. At the time of historic contact with the Spanish missionaries and explorers, the Costanoan occupied the area now defined by the southern edge of the Carquinez Strait to the north, San Francisco peninsula on the west, the Livermore Valley on the east, and the Sur and Salinas Rivers to the south. The Costanoan tribal groups that occupied the east shore of San Francisco Bay between Richmond and Mission San Jose (and probably Livermore Valley) numbered approximately 2,000 people in 1770, and spoke a language called Chochenyo (Levy 1978: 485). The Pelnan, a triblet of the Costanoan, may have controlled Sinbad Creek and Devany Canyon drainage system and resources of the Pleasanton and Main Ridge, these being more accessible from Amador Valley, while the Tuiban controlled the land west of Sunol Ridge and the valuable resources of Palomares and Stonybrook Creeks.

Prehistoric/Historic Periods

Prehistory

Archaeological information suggests a Native American occupation of the San Francisco Bay Area, which extended 4,500 years, and possibly longer, and consisted of mobile hunter-gathers. Over time their subsistence focused on locally obtainable resources, and their lives became increasingly more sedentary.

A three-part sequence of cultural development over time, using chronological periods defined by M. Moratto, is generally used in archaeological research to document local and regional cultural change in prehistoric central California, including the Fremont area (Garcia 2006). Moratto suggests an Early Horizon, although poorly studied, dating to ca. 4,500 to 3,500/3,000 years ago, a Middle Horizon dating to ca. 3,500 to 1,500 years ago, and a Late Horizon dating to ca. 1,500 to 250 years ago. Early Horizon traits included hunting, fishing, and use of milling stones to process plant foods, use of a throwing board and spear or *atlatl*, relative absence of midden at occupation sites, and burials with grave offerings. Middle Horizon sites are more common and are often characterized by deep stratified deposits that contain large quantities of ash, charcoal, fire-altered rocks, and fish, bird and mammal bones. Significant numbers of mortars and pestles signal a shift to plant foods from reliance on hunted animal foods. Middle Horizon burials are generally found in a fetal position with few artifacts, mostly utilitarian in nature. Increased violence is suggested by the number of burials with projectile points embedded in the bones or with other marks of violence. The Late Horizon emerged from the Middle Horizon. These sites are the most common and are noted for their greasy soils (midden) mixed with bone and fire-altered rocks. The use of the bow-and-arrow, fetal-position burials, deliberately damaged ("killed") grave offerings and occasional cremation of the dead are the best-known traits of this horizon (Garcia 2006).

Contact Period (A.D. 1542-1795)

Juan Sebastian Cabrillo, the first of the exploring Europeans to sail along the California coast, arrived in the Bay area in 1542. During the next 125 years, the Native Americans had only sporadic contact with European explorers.

Then on July 14, 1769, the Portola expedition, originating from what is now San Diego, initiated the first European land expedition of what is now California. The goal of this expedition was to find worthy locations for establishing Franciscan missions, and to find the Bay of Monterey, described by sailors a hundred years earlier. The Pueblo of San Jose was established in 1777 to assist with providing subsistence for the missions and soldiers. The eastern shores of San Francisco Bay were not fully explored until 24 years later when in 1795 Sergeant Pedro Amador visited the southern part of what is now Alameda County, using for the first time the name of Alameda to describe the area.

Mission Period (A.D. 1797-1834)

Mission San Jose was established by Friar Fermin Lasuen on June 11, 1797 in the San Jose District of what is now the City of Fremont (Refer to *Figure 8 - Mission San Jose 1797 & Ranchos 1834*). Mission San Jose was the fourteenth mission built in Alto California and it was constructed 20 years after Mission Santa Clara de Assis was founded. It was one of the seven Spanish missions that were founded in Ohlone territory between 1777 and 1797. Tens of thousands of acres of land were under the jurisdiction of the Mission San Jose and surrounded the mission site. This land was settled by Spanish priests and was used predominately to pasture cattle and sheep, and for agriculture.

The establishment of the Spanish mission of San Jose in 1797 disrupted Ohlone culture in Alameda County as many Ohlone living in this area were moved to the mission, converted to Catholicism, and worked as agricultural laborers, vaqueros, and artisans. Archaeological evidence verifies not only that the native population was rapidly decimated by missionization, but also that the culture itself disintegrated rapidly. Euro-American diseases and a declining birth rate accelerated the impact of the mission system.

The mission period lasted for approximately 30 years.

Mexican or Rancho Period (A.D. 1822-1850)

In 1821, Mexico declared independence from Spain, and in the following year, California became a Mexican territory. Following secularization of the missions, including the Mission San Jose, representatives of the Mexican government subdivided the mission lands into very large land grants or ranchos and distributed the land to various individuals. On these ranchos, cattle, horse, and sheep were raised and animal products such as wool, hides and tallow were processed.

The land grants in close proximity to what is now Pleasanton Ridge Regional Park included Rancho San Lorenzo (Castro), Rancho San Ramon (Amador), Rancho Santa Rita and Rancho Valle de San Jose. Generally the land grants surrounded, but did not include, much the area now contained within the park boundaries. Rather, the ridgeland area was "*sobrante*" or land outside any land grants that could be used as common open range by bordering landowners. Exceptions included the areas extending into the valley floor and some of the low lying hills; specifically the area now identified as the Garms Staging Area, which was part of Rancho Santa Rita and a portion of Pleasanton Ridge south of Augustin Bernal Community Park and north of the Valle Vista Trail, which was part of the Rancho Valle de San Jose (Refer to *Figure 8 - Mission San Jose 1797 & Ranchos 1834).*

Because of the secularization of the Missions by Mexico in 1834, most of the surviving aboriginal population was gradually released. As they had no traditional villages to return to, and were unable to resume their former hunter-gatherer lifestyle, many of the survivors settled on the Mexican ranchos where they took jobs as laborers, vaqueros, or servants.

During this period, extending from the 1830s and into the 1850s, Native Americans formed a significant part of the Alameda County population. As late as 1865, Indian rancheros (settlements) were seen in Alameda and Sunol Canyons. The official 1870 census listed 110 Indians living in Murray Township or Amador-Sunol and Livermore valleys.

In the Amador-Sunol Valley area located within the Rancho Valle de San Jose a post-mission Indian settlement known as a rancheria or reservation was established. This site is referred to in literature as the Verona, Alisal and the Pleasanton Rancheria. Alice Hall in her ethnography of the Livermore Valley Ohlone speculated that the settlement was "on the west side of the Livermore Valley, on the Arroyo de la Laguna, near what is now the Castlewood Country Club" (Holman 1986b). Robert Banks also placed the probable location in the vicinity of the Country Club. Rosemary Cambra and Ruth Orta of the Ohlone families Consultant Services, who are descendants of the Native American families who had lived in the Sunol-Pleasanton area, told Banks their grandparents were living in that area until 1911, at which time they and others of their group were forced to move. However, Holman‟s archaeological inventory has no recorded location for the settlement (Holman 1986b).

Beginning in 1848, the gold rush created a shortage of ranch workers who rushed off to seek their fortunes. This loss of a ranch workforce would later contribute to the disintegration of the Mexican land grants system and eventual division and sale of land grant property.

American Farm Era (A.D. 1850 to 1970s)

Following California‟s statehood in September 1850, the courts reviewed the Mexican land grants, which were either confirmed or denied to the original grantee. In most cases, land grants rapidly came into the hands of new owners, more often than not recent American arrivals.

After the Homestead Act was passed in 1861, settlers began arriving to file homestead claims on free government land; although often, squatters settled on private lands instead.

Around this time (circa. late 1850s), a small store and trading post were established in an area within in the Rancho Valle de San Jose. The small settlement was destroyed by an earthquake in 1868.

Within the area of the park there is no information regarding land use (e.g., ranching, ownership, or homestead settlements) in the literature prior to the 1860‟s. However, historical information from the 1860s includes documentation of several landowners within the current parkland boundaries beginning to subdivide their lands. These parcels were inhabited by various hunters, ranchers and farmers. By 1879, all the ridgelands proper had been surveyed and sold to farmers, stockmen, and wealthy land speculators. The major landowners were Charles McLaughlin, Thomas Bachelder, and William Perkins (Refer to *Appendix G - Cultural Features* for a description of the roles

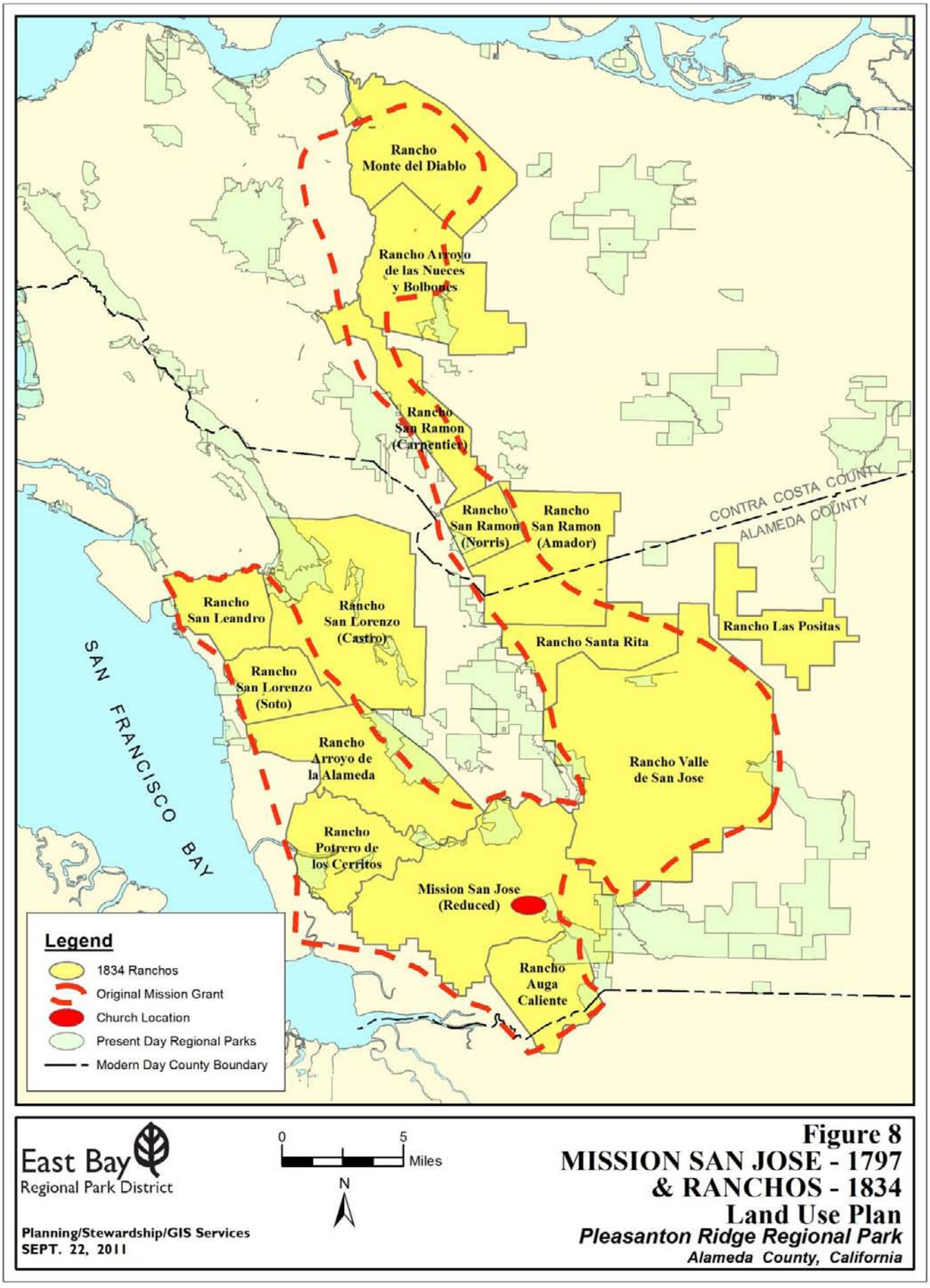

Rancho
Monte del Diablo
Rancho Arroyo
de las Nueces
y Bolbones
Rancho
San Ramon
(Carrentier)
Rancho
San Ramon
(Norris)
Rancho
San Ramon
(Amador)
CONTRA COSTA COUNTY
ALAMEDA COUNTY
Rancho
San Leandro
Rancho
San Lorenzo
(Castro)
Rancho Las Positas
Rancho Santa Rita
Rancho
San Lorenzo
(Soto)
Rancho
Arroyo de
la Alameda
Rancho Valle
de San Jose
SAN FRANCISCO BAY
Rancho
Potrero de
los Cerritos
Mission San Jose
(Reduced)
Rancho
Auga
Caliente
Legend
1834 Ranchos
Original Mission Grant
Church Location
Present Day Regional Parks
Modern Day County Boundary
East Bay
Regional Park District
Planning/Stewardship/GIS Services
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Figure 8
MISSION SAN JOSE - 1797
& RANCHOS - 1834
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

these landowners played in the development of what is now Pleasanton Ridge Regional Park).

From the early 1900s through the 1960s the ridgelands continued to support agricultural and ranching interests including the farms and ranches owned by: Thermal Fruit Company, Nipper family, the Cook family and the Tyler family. (Refer to *Appendix G - Cultural Features* for a description of these corporations and their use of the land that is now Pleasanton Ridge Regional Park).

1970s-Present

Several families continued to either live on the land or lease the land for farming and/or ranching through the 1970s including the Nipper family, and members of the Swezey, Swartz, Fisher, Roberts, Butler, and Lehnes families. In addition, speculators also continued to purchase land for its development potential. These included: the Rhodes Partnership and Shea Homes. Conservators also played a role in the landownership patterns of Pleasanton Ridge Regional Park. Land conservation efforts included the American Lands Conservancy purchase of approximately 657 acres in 1995, which they established as the Pleasanton Ridge Conservation Bank (PRCB)/ conservation easement and later sold to the District in 2002. Tyler Ranch was purchased and held by the Priem Foundation until the District could acquire funds to purchase the land as parklands. The District acquisition of the 1,476 -acre Tyler Ranch property occurred in two phases, 2007 and 2009. These land purchases are described in more detail in *Appendix G - Cultural Features*.

3.1.2.10 Cultural Features

Landscape Characteristics

The pastoral character and topographic diversity of the park provide the major surrounding urban centers both to the west and east of the park with a visual landscape setting characteristic of California's northern coast range and inland valley.

This landscape backdrop with expansive grass covered grazing lands, steep and rolling hills and valleys, and meandering tree-lined drainages with oak/bay woodlands was an important food source for the American Costanoan groups who formerly resided in the area. Plant foods included the fruit of coast live oak (*Quercus agrifolia*), valley oak (*Q. lobata*), California black oak (*Q. kelloggii*), tanbark oak (*Lithocarpus densiflora*), buckeye (*Aesculus californica*) California laurel (*Umbellularia californica*), and hazelnuts (*Corylus cornuta*). Seeds that were roasted before consumption included dock (*Rumex sp.*), tarweed (*Madia sp.*), chia (*Salvia columbariae*), and digger pine (*Pinus sabiniana*). Edible berries that were consumed included blackberries (*Rubus usrsinus*), elderberries (*Sambucus sp.*), strawberries (*Fragraria sp.*), manzanita berries (*Arctostaphylos sp.*), gooseberries (*Ribes sp.*), madrone berries (*Arbutus menziesii*), grapes (*Vitis californica*), and toyon berries (*Heteromeles arbutifolia*). Wild onions (*Allium spp.*), cattail roots (*Typha*

latifolia), amole (*Chlorogalum pomeridianum*), hog fennel (*Lomatium californicum*), and wild carrot (*Daucus pusillus*) are some of the roots that were eaten. These landscape features continued to be economically important for people residing in the region through Mission and Rancho periods.

Landscape Alterations

The barn at the base of Sunol Ridge serves as an acknowledgement of ranching activities during the American Farm Period.

The earliest historic map of Alameda County of the project area is the "*Official Map of Alameda County*" dated April 1857. The map shows the various townships within Alameda County including Murray Township, which lies to the east of the park. No cultural improvements are shown within the project area on the map of 1857. An adobe dwelling erected between 1844 and 1846 by Francisco Solano Alviso is visible on the map of 1857. This adobe, now known as the Alviso Adobe (California Historical Landmark No. 510 Francisco Solano Alviso Adobe) is located along Foothill Road near (but not within) the central area of Pleasanton Ridge. The adobe has been restored and is now the focal point of the City of Pleasanton Alviso Adobe Community Park. There is no direct connection between the adobe and Pleasanton Ridge Regional Park.

Evidence of historic landscape alterations that persist within Pleasanton Ridge Regional Park relate to homesteading and ranching activities from the American Farm Era. Roads include historic wagon roads never improved for automobile use, as well as some dirt roads developed as recently as the 1970s as part of a proposed subdivision. Most of these historic and modern roadways continue to be in service today forming a network of service-road-width trails that are used for recreation, rangeland management, and parkland operations.

With increasing development pressure in the region, the open space characteristics represented by the ridgelands have become highly valued as a visual resource by the surrounding communities. The aesthetic value people have come to place on this pastoral open space is demonstrated in the Alameda General Plan policies and the Alameda County community initiated legislation "*Save Agriculture and Open Space Lands Initiative*" (Measure D; effective date, December 22, 2000). The purpose of this initiative was to "preserve and enhance agriculture and agricultural lands, and to protect the natural qualities, the wildlife habitats, the watersheds and the beautiful open space of Alameda County."

Known archaeological artifacts, historic structures and other cultural features that tell the story of this culturally rich landscape are described in greater detail below.

Prehistoric Archeological Sites

Archaeological site records identify isolated bedrock mortars along Sinbad Creek and follow up archaeological reconnaissance trips focused along the creek have resulted in the identification of one aboriginal artifact not in association with any habitation site and several bedrock mortar sites (Source: *East Bay Regional Park District Cultural Resource Site Atlas* 2011). Bedrock mortars and stone implements have also been found on Sunol Ridge (personal communication Scott Crawford Nov 2009 and District staff 2012).

Further site reconnaissance discoveries have included: a rock wall and one rock cairn of unknown historical origin; a prehistoric artifact found north and down road from the water tank on a hill reaching to elevation 1629; a greenish blue chert scraper found in the graded road; and a rock cairn on the former Nipper property.

Searches of the ridge have failed to reveal any midden deposits, although one midden site has been identified in the low lying hills along the park perimeter. No remnants of any Native American (Costanoan/Ohlone Indian Tribe) village sites have been identified within the park.

Historic Structures & Features

Structures and landscape features from the American Farm Era remaining in the park are associated with the Nipper, Bachelder, Perkins, Rupert, Cook, and Tyler families. Remnants from this period of homesteading and ranching include fences demarking former ranch sites, stock ponds, stock trails, water tanks and pipelines, fruit and olive orchards, and building remnants. Of these historic resources, the only concentrations of historic materials of any antiquity are found on: the former Nipper property including the remaining olive orchards; and the Tyler family residence and barn/tackroom complex. Other structures date at least from the middle of the twentieth century, and do not, as such, warrant any other consideration presently as cultural resources. Historic structures, along with the criteria for determining eligibility on the California Register, are described *Appendix G - Cultural Features* and *Appendix H - California Public Resources Code Section 5024.1 - California Register of Historic Resources Criteria.*

In addition, the Niles Canyon Transcontinental Railroad Historic District, a railway corridor extending from the town of Niles to the City of Pleasanton and transecting the communities of Fremont and Sunol (Identification #10000843) runs parallel to and south of, though not immediately adjacent to the Tyler Ranch Staging Area. This site was listed on the National Register of Historic Places on October 13, 2010. (Refer to *http://www.nps.gov/history/nr/listings/20101022.htm*).

3.1.2.11 Ongoing Cultural Management Programs

Ongoing cultural management programs refer to those resource actions currently underway that will be continued into the future to conform to

adopted District cultural resource protection policies. As these are general recommendations that are applicable parkwide they have not been separated by planning area.

- **Cultural Resource Actions** - If potentially significant cultural remains or human burials are encountered maintenance or construction work is to be stopped until a determination can be made as to their cultural significance.

- **Cultural Resource Actions** - Cultural resources not recorded on DPR 523 forms will continue to be recorded in the *East Bay Regional Park District Cultural Resource Site Atlas*.

- **Cultural Resource Actions** - If human remains (burials) are found, the County Coroner is to be contacted so that they (or a designated representative) can evaluate the discovered remains and contact pertinent Native American representatives.

Chapter 3 - Section 3.2

Recreation Use & Amenities

3.2.1 Recreation Use

3.2.1.1 Demographics, Trends & Projections

Regional & Local Demographics

Locally the City of Pleasanton (population 70,285), the City of Dublin (population 46,036), and the Town of Sunol (population 913) have the most direct access to Pleasanton Ridge Regional Park providing a local community base of 116,321 residents. The majority of this population is white (approximately 65 percent) and Asian (approximately 25 percent) between 18 and 64 years of age.

Regionally, a wide diversity of ethnicities, races, and ages are distributed throughout Alameda-Contra Costa Counties' population of 2,559,296 (Census Data 2010), with approximately 35 percent of the population speaking a language other than English at home (Refer to *Appendix I - Area Demographics & Trail User Survey Summary*).

Outdoor Recreation Trends

Eleven percent of Californians are older than 65 (2010 census), and by 2020 the senior population is expected to double due to the aging of the baby boomers. Baby boomers are anticipated to be interested in conservation and heritage programs, as well as volunteer activities where they can contribute their knowledge and time. They will have an appetite for adventure and high quality programs and an aversion to slowing down, but will have mobility enhancement issues as they age (California State Parks 2005).

At the other end of the spectrum, the most populous age groups are California‟s youngest citizens under 18 (26 percent - 2010 census) who are on average two full years younger than the U.S. average due to recent immigration. By 2020, it is projected that California‟s young adult group (ages 18-40) will still be the most populous in the state (California Department of Finance 2007), and will be more mobile, more dependent on technology, and more comfortable with change and cultural diversity than their predecessors (California State Parks 2005). According to a *2010 Outdoor Recreation Participation Report* favorite outdoor activities of youth ages 6 -17 and young adults 18-24 by number of outings are:

Trail activities rank very high as favored recreation uses.

Youth Ages 6 -17

- Running/Jogging/Trail Running
- Road Biking, Mountain Biking and BMX
- Skateboarding
- Scuba Diving
- Hunting (Rifle, Shotgun, Handgun, Bow)

Young Adults 18-24

- Running/Jogging/Trail Running
- Skateboarding
- Road Biking, Mountain Biking and BMX
- Hunting (Rifle, Shotgun, Handgun, Bow)
- Surfing

As technological advances continue, new forms of recreational pursuits will appear and existing activities, such as biking and geocaching (an activity using global positioning systems), will continue in popularity and expand as technology allows for the development of customized equipment to accommodate use in increasingly challenging terrain (California State Parks 2005).

East Bay Regional Park District Community Surveys

Over the last decade the EBRPD has conducted a number of surveys to assess community recreation preferences. These preferences are briefly summarized below.

- The *East Bay Regional Park District 2005 Community Survey* found that the park users ranked picnicking the highest among the reasons they would visit a regional park.
- The *East Bay Regional Park District 2007-2008 Community Survey* found the greatest amount of trail use was for dog walking, followed by hiking, jogging, biking, and horseback riding.
- The *East Bay Regional Park District 2010-2011 Community Survey* found that community members (96 percent) believed that the regional park system, consisting of recreational parks, picnic areas, wilderness areas, and trails, is a valuable public resource and makes the East Bay a more desirable place to reside with the most frequent activities relating to trail use (e.g., walking, hiking and biking) ranking highest.

Overall these surveys indicate that the East Bay Regional Park District constituents (Alameda and Contra Costa County adult residents):

- Highly value the regional park system
- Participate in a regular routine of exercise (84%) consisting of one or more of the following forms of exercise:
  - Walking (58%)
  - Hiking (24%)
  - Biking (23%)
  - Jogging/running (16%)
- Frequently travel up to five miles (65%) by personal vehicle to use regional parks/trails (41%) for these purposes.

2009 Pleasanton Ridge Regional Park Trail User Survey

On various spring and summer morning, afternoon and evening weekdays and weekends in 2009, the District sought public input from Pleasanton Ridge Regional Park visitors on how they use the park now and what facilities and programs they would like to see in the future. A statistical sampling of 433 responses was collected at Pleasanton Ridge Regional Park. Similar information was also gathered from 62 community members at the June 29, 2011 public scoping meeting held at Amador High School. The following summary outcomes reflect current park use and suggested changes that people would like to see incorporated into the LUP.

Current Uses

Current park users favor trail use and relaxing/escaping the pressures of everyday life including:

- Walking/hiking (81%)
- Mountain biking (40%)
- Walking dog(s) (30%)
- Running/jogging (21%)
- Picnicking (12%).

Other activities included bird watching, photography, picnicking, educating children, botanic study, horseback riding, and geocaching.

Visitation

The survey also took into account means of arrival, frequency and duration of park visitation as follows:

- Nearly all of the people visiting the park arrive by private motor vehicle (89%) or bicycle (6%) either by themselves (29%) or with 2-3 companions or family members (53%).
- A majority of visitors visit the park routinely with 30% using the park a couple times a week and 26% using the park weekly.
- Many visitors frequent the park on both weekdays and weekends (56%) generally in the morning hours (76%), although many also use the park in the afternoons (42%) and/or evenings (27%).
- Visitors typically visit the park for 1-4 hours (90%) on a year-round basis

- Park users report traveling on trails from 1-5 miles (51%) up to 5-10 miles (31%) with an additional 17% traveling more than 10 miles.

Additional Facilities Desired

High on the list of priorities for the future were:
- Variety of trail experiences including regional links to other parks and access to park features such as, Tehan Falls and summit viewpoints
- Narrow trails that permit mountain bikes and provide technical features to improve skill practice and reduce speeds of bicyclists
- Designation of some narrow trails for hikers and equestrians
- Back country camping
- Preservation of natural areas
- Interpretation of heritage sites.

Built features such as interpretive centers and playgrounds rated low as priorities.

These results suggest that if this LUP is to address current demands for outdoor recreation, the park should include picnic areas, back country camping sites, trails that can support multiple trail uses, and adequate parking facilities with safe access into the park.

3.2.1.2 Trail Use

Visitor Experiences

Trails offer visitors a range of experiences within the park. Exposed grasslands along the ridge offer panoramic views of the tri-valley area, while intimate, shaded trails provide entrée to remote, deep-canyon drainages and creeks.

Authorized Trail Uses

Hikers can utilize all of the approximately 30 miles of mapped narrow and multi-use service-road-width trails. There is approximately one mile of narrow trails designated for hiking and horseback riding only in the park. Bicycles are permitted on approximately one and one-half miles of posted multi-use narrow trails. Bicycles are permitted on the approximately 27 miles of multi-use service-road-width trails. The District dog policy allows dog use "off-leash under control" on the multi-use trails and on designated narrow hiking and equestrian trails. The policy permits up to three dogs without a commercial dog walking license and six dogs on the multi-use trails with a commercial license.

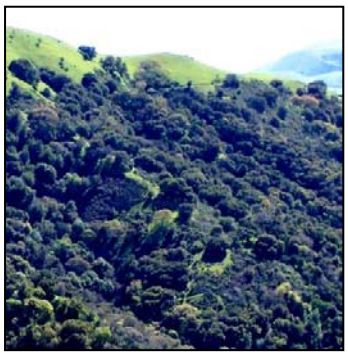
Ordinance 38, the District regulations governing park uses clearly defines "*dogs off leash under control*" and requires that dog walkers have a leash in their possession at all times. Currently Ordinance 38 permits bicycles on paved roads and bike trails, and unpaved roads and service roads over eight feet wide, unless otherwise posted. Bicycles are not permitted on narrow hiking or

horseback riding trails, except where specifically designated on trail signs and in park brochures.

Multi-use, service-road-width trails are also used for patrol, emergency response and for range management-related purposes. In limited cases, these service-road-width trails also provide access for individuals accessing private lands within the park boundaries (Refer to *Figure 10 – Easements).*

Universal Access

Wheelchair accessible facilities at the Foothill Staging Area include a paved parking space, portable toilet, and drinking fountain. There is one picnic table that can accommodate two wheelchairs located next to the disabled parking.



Providing access for a range of skill levels is one of the challenges presented by the steep terrain of the park.

The majority of the trail system in the park is comprised of multi-use, compacted earth, service-road-width trails that traverse steep terrain. Most of these trails were developed as access to former ranching and agriculture lands with little thought as to recreation suitability. These service-road-width trails frequently exceed ten percent for considerable distances including the Oak Tree Trail, which provides primary access from the Foothill Staging Area up into the interior of the park. As a result, while the compacted earthen trail surface and trail width of most trails would be suitable for a variety of mobility assisted devices, the steep, often unstable, and heavily vegetated hills can be taxing for many visitors. And realigning existing service-road-width trails, and creating new trails with gentle grades that can accommodate a wide range of skill levels and mobility considerations to better suit a wider range of visitors, will be challenging, and often not practicable, when weighed against potential adverse impacts to these environmentally sensitive parklands.

To provide broader accommodation on existing trails for visitors with mobility challenges the District has developed a policy allowing "other power-driven mobility devices" (OPDMD) (e.g., anything with a motor that can be driven, regardless of size or horsepower, if it is driven by a person who has a mobility related disability). This policy is separate from, and in addition to, provisions accommodating wheelchairs in parks, and is consistent with the Department of Justice (DOJ) revised rules to the Americans with Disabilities Act (March 15, 2011).

3.2.2 Park Amenities

3.2.2.1 Access via Regional & Local Roadways

Following is a description of external roads and transit options that provide access to the park, along with access points provided by the District and neighboring jurisdictions. (Also refer to *Figure 4 - Access & Trails System Concept Plan).*

Regional Access

Pleasanton Ridge Regional Park is served by a combination of interstate highways, local arterial and collector roads, and neighborhood streets. Major highways that provide access to the park from the East Bay and the Central Valley are Interstate Highways 580 and 680. Local exits from I-580 include Foothill Road. Local exits from I-680 include Bernal Avenue, Sunol/Castlewood and Niles Canyon (Route 84).

Local Roads

Dublin Canyon, Foothill and Palomares Roads are perimeter, two-lane, roads that parallel the north, east/south, and west boundaries of the park respectively. Foothill and Dublin Canyon Roads demark discontinuous sections of Class 2 Bikeways within the road right-of-way. There are no bikeways designated on Palomares Road. Sidewalks are also discontinuous or non-existent along most sections of these perimeter roads.

Kilkare Road is a narrow, two-lane, public road that serves the residents along Kilkare Road. It extends north for approximately four miles from Foothill Road through Kilkare Canyon. The road terminates at the Kilkare Woods Association"s parking area. There is no public access to the park from Kilkare Road, but an emergency vehicle maintenance access easement (EVMA) allows for Park staff to use this access point for maintenance and operations purposes.

Santos Ranch Road is a steep, private road serving a hilltop residential area. This road serves as an EVMA access point into the northern portion of Pleasanton Ridge for District staff and primary access to several private properties, but does not allow for public access.

Longview Drive is a residential street located approximately one mile north of Augustin Bernal Community Park. Limited secondary access, but no parking, is provided into Augustin Bernal Community Park from this street.

Several of the subdivisions located adjacent to the eastern edge of Pleasanton Ridge Regional Park (e.g., The Preserve, Moller Ranch, and Golden Eagle subdivisions,) have incorporated sidewalks into the roadway infrastructure. Some of these streets connect to potential walk/bike-in access points near the Park boundary, but do not currently provide access into the park.

3.2.2.2 Access via Public Transit

The Livermore Amador Valley Transit Authority (LAVTA) bus system, WHEELS, serves the communities of Pleasanton, Dublin and Livermore. Bus Line 10 provides the most direct access to the park with a stop at the intersection of Stoneridge and Foothill Roads located one mile north of the proposed Garms Staging Area. Bus service is at 15 minute intervals on weekdays, 20 minute intervals on Saturdays and 30 minute intervals on Sundays. The Line 10 bus connects to the eastern terminus of the Bay Area Rapid Transit (BART) commuter train system‟s Dublin/ Pleasanton-SFO/Millbrae line.

There are two BART stations located in proximity to the park: 1) the Pleasanton station located at the intersection of Owens and Willow Roads approximately six miles from the Foothill Staging Area and two miles from the proposed Garms Staging Area; and 2) the West Dublin/Pleasanton station located in the median of the I-580 corridor just west of the I-680 interchange between the Castro Valley and Dublin/Pleasanton stations.

Additionally, the Altamont Commuter Express rail service between Stockton and San Jose has four morning and four afternoon/evening trains Monday through Friday with stops near Pleasanton‟s downtown area at 4950 Pleasanton Avenue, which is approximately three and one-half miles from the Foothill Staging Area and three miles from the proposed Garms Staging Area.

Bicycles are allowed on all three public transportation systems.

3.2.2.3 Regional Trails & Parkland Connections

The Calaveras Ridge Regional Trail as depicted on the District‟s 2007 Master Plan Parkland and Trails Map (Refer to *Figure 9- Proposed and Regional Trails*) is proposed to traverse the length of the ridgeline of Pleasanton Ridge.

Within Pleasanton Ridge Regional Park, the Calaveras Ridge Regional Trail overlays the route of the Oak Tree [Thermalito], Valle Vista [Ridgeline], and Sinbad Creek Trails through the currently-open portions of the park.

The Calaveras Ridge Regional Trail will eventually connect Sunol-Ohlone Wilderness to Las Trampas Regional Wilderness and Briones Regional Park through Pleasanton Ridge, Dublin Hills and Bishop Ranch Regional Parks covering a distance of approximately 29 miles. Future connections to Hayward Area Recreation and Parks District (H.A.R.D.) Rodeo Grounds and EBRPD Dublin Hills Regional Park, located north of the Pleasanton Ridge Regional Park, and Sunol Regional Park to the south, are proposed via the Calaveras Regional Trail.

Other proposed regional trails include: the Garin to Pleasanton Ridge Regional Trail, which will provide a link between Pleasanton Ridge, and Garin Regional Parks; and the Vargas to Sunol Ridgeline Trail, which will provide a connection to Vargas Regional Park via a southwesterly connection along Niles Canyon. Regional trail connections are also proposed between

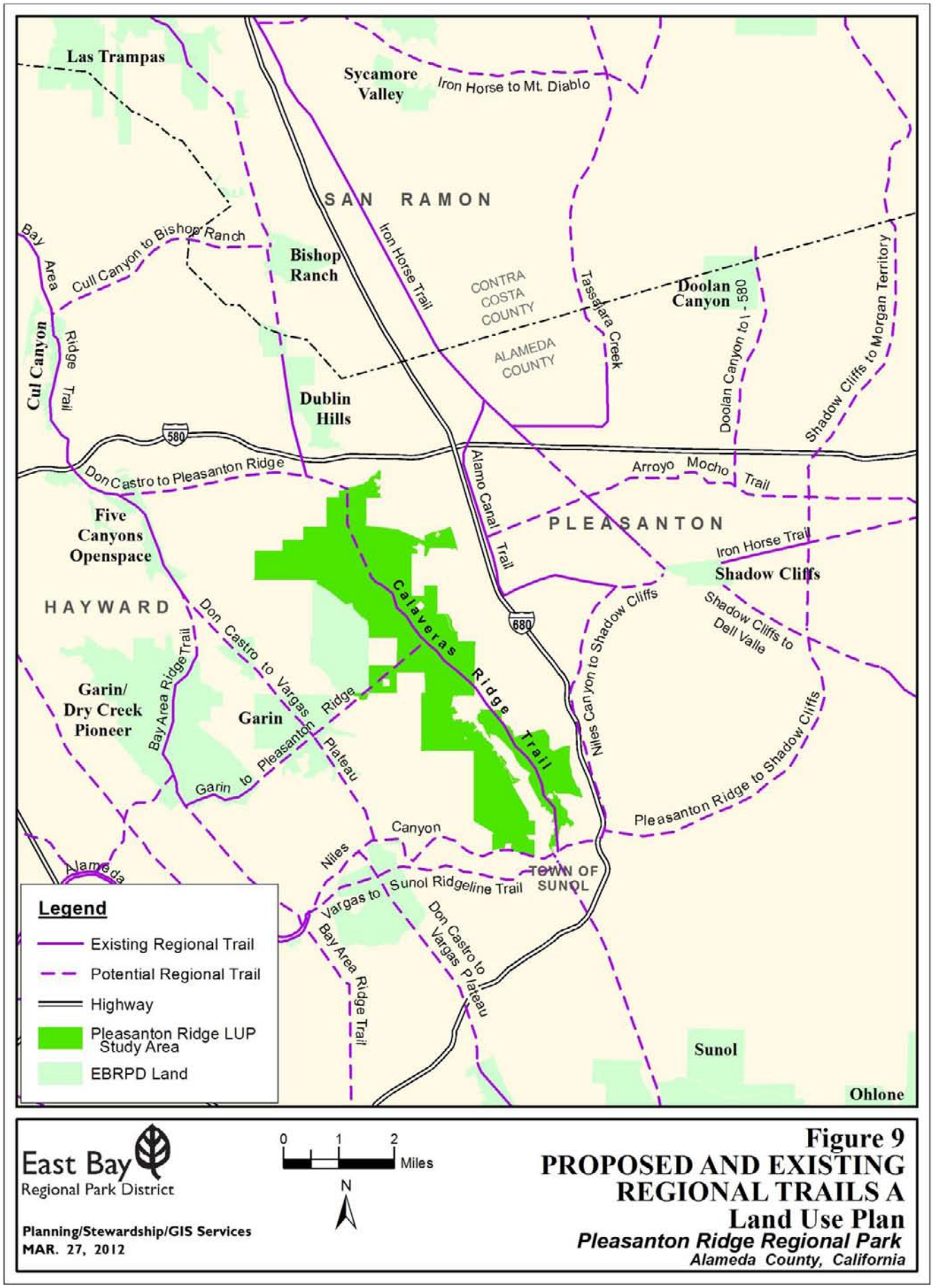


Figure 9
PROPOSED AND EXISTING REGIONAL TRAILS A Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Pleasanton Ridge Regional Park and Shadow Cliffs Regional Recreation Area (Refer to *Figure 9 - Proposed and Existing Regional Trails*).

3.2.2.4 District Staging Areas & Trailheads

Foothill Staging Area

The Foothill Staging Area is located along Foothill Road approximately one and one-half miles south of Castlewood Drive. It is open to the public between 8a.m.and 5p.m. November-March, 8a.m.to 7p.m. March-April and 8a.m.to 8p.m. April-October. The presence of exit spikes allows visitors to exit, but not enter the gated area after hours.

The Foothill Staging Area, which is located along Foothill Road, serves as the primary access to the park.

Facilities at this staging area include:

- Parking (50 vehicle spaces, six spaces that accommodate horse trailers, one handicapped space, overflow parking, and a few parking sites (approximately six) located outside the gate that can be used by visitors when the park entry gate is locked) allowing for a total of approximately 75 vehicles at full capacity
- Three 14-foot wide, powder-river vehicle gates and three self-closing, pass-through trail gates (one located at the north end of the equestrian lot, two located in the main lot)
- Two vault toilets, two drinking fountains, five garbage cans, one fire hydrant, and one bulletin board
- A family picnic area with three permanent tables and ten portable picnic tables (there are no barbecue grills or shade structures).

Oak Tree Trailhead

The Oak Tree [Thermaltio] Trailhead is located at the southern perimeter of Pleasanton Ridge along Foothill Road near the unincorporated Town of Sunol on a narrow swath of parkland that extends from the main body of the park to Foothill Road. This trailhead serves as the southern entry point for the Calaveras Ridge Trail though access is limited to hike/bike-in access only as there is no designated public parking. The closest parking is located in the community of Sunol‟s downtown area. This parking area is located adjacent to the community park and historic Niles Canyon Railway Station, approximately one-quarter mile from the trailhead. This park entry point also serves as the primary vehicle access for several private residences located along both sides of this paved, service-road-width trail.

3.2.2.5 Other Local Staging Areas - Augustin Bernal Community Park

Augustin Bernal Community Park is located on the western edge of the City of Pleasanton along the eastern border of Pleasanton Ridge Regional Park. This 237-acre park separates the southern and northern areas of Pleasanton Ridge Regional Park (Refer to *Figure 4-Access & Trail System Concept Plan Map*). A City-District operating agreement allows for a critical connection through Augustin Bernal Community Park seamlessly linking the two parks via the Valle Vista [Ridgeline] Trail.

Augustin Bernal Community Park provides a critical link between the northern and southern areas of Pleasanton Ridge Regional Park.

Access to Augustin Bernal Community Park is through a staffed gated entry located at the intersection of Foothill Road and Golden Eagle Way. Use of this staging area is limited to residents of the adjoining Golden Eagle subdivision and persons with a driver‟s license demonstrating City of Pleasanton residency. Additionally, non-residents can apply for a one week pass at the City of Pleasanton Department of Parks and Community Services, Monday through Friday, 8a.m. to 5p.m. One non-resident pass admits a vehicle, bicyclist or hiker. The City‟s *Activities Guide* further explains these procedures. The staging area contains parking, restrooms, park interpretive displays and the Golden Eagle Trailhead. The Golden Eagle Trail connects to the Valle Vista Trail in Pleasanton Ridge Regional Park. This staging area is located approximately two miles north of the Foothill Staging Area.

3.2.2.6 Recreation Trail System

Existing Service-Road Width Trails & Narrow Trails

The official trail network traverses much of the length of Pleasanton Ridge, generally running along the ridgeland spines south to north. The location of the service-road-width trails has been largely determined by prior ranching and agricultural needs. Routes leading to the crest of Pleasanton, Main and Sunol Ridges typically follow the less steep canyon bottoms or ridge spurs and intersect with one of the perimeter roads. The Valle Vista

Service-road-width trails accommodate hiking, horseback riding, biking and dogs.

[Ridgeline] Trail passes through Augustin Bernal Community Park. There is currently no public access to Sunol Ridge.

Connections from the Foothill Staging Area to the ridge are provided via the multi-use Oak Tree Trail (service-road-width) and Woodland Trail, a narrow hiking and equestrian trail. Once on the ridge, visitors have access to a network of service-road-width trails and narrow trails. All of the unpaved service roads in the park are designated multi-use trails and accommodate hiking, horseback riding, biking and dogs off-leash under voice control. There are approximately 30 miles of official, mapped narrow and service-road-width trails combined; 27 miles of service-road-width trails and three miles of narrow trails. There are also approximately eight miles of unofficial trails that have been created by users traveling off of the designated routes. Most of these unofficial trails are located in the lower (southeastern) portion of the park.

Service-Road-Width Trails

Existing service-road-width trails (greater than 8 feet wide) considered essential to public safety, maintenance, operations and vegetation management (including access to private inholdings, park residences, and/or utilities) include:

- Cowing Trail [Cowing Segment 45-52]
- Oak Leaf Trail [Sinbad Creek (Upland) Segment 22-23]
- Oak Tree Trail [Oak Tree Segment 1-5]
- Oak Tree Trail [Oak Tree Segment 5-8]
- Oak Tree Trail [Thermalito Trail Segment 7-8]
- Olive Grove Trail [Olive Grove Segment 9-11]
- Olive Grove Trail [Olive Grove Segment 11-14]
- Shady Creek Trail [Shady Creek Segment 29-33]
- Sinbad Creek Trail [Sinbad Creek Segment 47 - Kilkare entry]
- Sycamore Grove Trail [Sycamore Grove Segment 3-4]
- Thermalito Trail [Thermalito Segment 8-20]
- Turtle Pond Trail [Turtle Pond Segment 30-38]
- Valle Vista Trail [Ridgeline Segment 5-6]
- Valle Vista Trail [Ridgeline Segment 5-16]
- Valle Vista Trail [Ridgeline Segment 16-19]
- Valle Vista Trail [Ridgeline Segment 19-21]
- Valle Vista Trail [Ridgeline Segment 21A (21-22 west)]
- Valle Vista Trail [Ridgeline Segment 21B (21-22 east)]
- Valle Vista Trail [Ridgeline Segment 22-26]
- Valle Vista Trail [Unnamed Junction 33-34]
- Valle Vista Trail [North Ridge Segment 33-43]

Note: Trail Names and Segments shown in brackets relate to the 2011 park brochure.

Narrow Trails

Existing narrow, natural surface trails include:

- Woodland Trail [Woodland Segment 1, 2, 5] - hike, dog, equestrian use
- Bay Leaf Trail [Bay Leaf Segment 2, 27, 28] - hike, dog, bike, equestrian use

Note: Trail Segments relate to segments shown on the 2011 park brochure.

Fences & Gates

As the trails pass through different grazing units they intersect with a series of fences. These fences are used to contain cattle as part of the park grazing program. Where trails intersect fence lines, locked vehicle gates provide through access to service vehicles, while self-closing, pass-through gates are provided for trail users. Vehicle gates are typically locked open when livestock are not being grazed in the adjoining grazing units (Refer to *Figure 6 - Range Management and Figures 15-22 Planning Area Implementation Area Actions* for fence and gate locations).

3.2.2.7 Picnic/Rest Areas

There is one family picnic area (three permanent and ten portable picnic tables) located at the Foothill Staging Area. There are also a few benches and picnic tables distributed throughout the park at various viewpoints adjacent to trails.

3.2.2.8 Back Country Camping

The EBRPD Camping Task Force Study (2005, updated 2009) identifies potential back country pack-in camping opportunities throughout the District, including Pleasanton Ridge Park.

Opportunities for back-country camping are located near Sinbad Creek along the Sinbad Creek Trail.

Currently there is one pack-in camp area that consists of one informal camp site (approximately three acres) with two separate tent sites. It is located near the terminus of Kilkare Road along the Sinbad Creek Trail between the Bay Leaf and Oak Leaf trail junction. Infrastructure consists of level campsite pads that were originally graded for housing sites and a potable water line that extends to the base of the hill near where an access trail leads up to the camping area. Neither of the tent sites has toilet facilities, picnic tables, food lockers, or trash receptacles. This camping area is currently used exclusively by the District for its youth programs as part of a larger recreation program experience. (Refer to *Figure 4 - Access & Trail System Concept Plan Map* for location of the back country camp area).

3.2.3 Interpretive & Recreation Programs

Interpretive, education and recreation-oriented programs at Pleasanton Ridge Regional Park are currently provided by the Sunol Wilderness Interpretive Staff. Examples of programs that have been offered at the park have included:

- Senior Safari van tours for people over 55 years of age that follow the ridge from the north to the south
- Dinner hikes in the Olive Groves
- Augustin Bernal/Pleasanton Ridge springtime, all day hikes that start from the Augustin Bernal Community Park Staging Area, ascend to the top of Pleasanton Ridge and down into Sinbad Canyon
- "Women on Common Ground Hikes" for women who feel threatened to hike alone
- Tuesday twilight summer evening hikes that showcase various District parks, including Pleasanton Ridge
- Early morning bird walks that provide an opportunity to view golden eagles, hawks, bluebirds, woodpeckers, and other birds.

3.2.4 Ongoing Recreation Management Programs by Planning Area

Ongoing recreation management programs refer to those management actions directed at lands already open to the public for recreation purposes that will continue into the future. They include the maintenance of facilities and trails and provision of programs currently in place that address public safety and visitor experiential expectations as described earlier in this chapter. For ease of reference, these actions are identified by the *Planning Areas* shown on *Figure - 14 - Planning Area Map Key*.

- **Planning Area 1** - Continue to manage the Foothill Staging Area as a public gateway to the park (Refer to *Section 3.3.1 – Staffing & Responsibilities* for a description of routine tasks).
- **Planning Area 1** - Install IPM bait stations at the Foothill Staging Area where identified pest species present unacceptable safety, health, and economic problems, or cause functional damage (approx. 5 acres).
- **Planning Area 2** - Maintain existing trail side picnic-rest areas at view sites as shown on *Figure 16 -Planning Area 2 Implementation Program Actions* to augment trail system and recreation programs.
- **Planning Area 2 -** Continue to manage Oak Tree [Thermalito] Trailhead as a public entry to the park and access point for Calaveras Ridge Trail.

Chapter 3 - Section 3.3

Parkland Operations & Management

3.3.1 Staffing & Responsibilities

Staff from the District‟s Operations and Public Safety Departments provide for the safety and protection of park visitors and staff; the protection of natural resources and park facilities; and the protection of adjacent neighbors and their property.

3.3.1.1 District Park Staff

On-site staffing for Pleasanton Ridge Regional Park is provided by four positions: one Park Supervisor, two 12-month Park Ranger IIs and one 9-month Park Ranger II. The 9-month Park Ranger II position also has operation and maintenance responsibilities for Dublin Hills Regional Park, Vargas Plateau Regional Park, and a portion of the Calaveras Ridge Regional Trail north of Dublin Hills.

Parkland Management Responsibilities

Park staff serve as the primary presence in the park on a day-to-day basis. They are responsible for:

- Patrolling and maintaining 4,172 acres of parkland that is open to the public including:
  - The Foothill Staging Area and Oak Tree Trailhead (Refer to *Section 3.2.3.4 - District Staging Areas & Trailheads)*
  - Thirty miles of unpaved service-roads-width trails that are used for: park recreation activities; park maintenance activities including patrol,

emergency response; and managing grazing operations (Refer to *Section 3.2.3.6 - Recreation Trail System*)
    - Two miles of narrow trails and numerous unofficial narrow pathways (Refer to *Section 3.2.3.6 - Recreation Trail System*)
    - Signs, benches, and other park infrastructure, including fences and gates
- Managing parkland resources on 7,487 acres of parkland, including 3,315 acres in landbank status (2,360 acres of which are included in the LUP study area) (Refer to *Figure 3 - Parkland & Landbank Parcels)*
- Overseeing day to day activities associated with the parkland vegetation management programs *(*Refer to *Section 3.1.6 – Parkland Habitat Management Program*).

Basic operational and maintenance services generally consist of: opening and closing staging and trailhead gates at opening and closing; litter pick-up; restroom facility maintenance; tenant oversight; and visitor information and outreach services.

Routine service-road-width trail and narrow trail maintenance tasks are directed at keeping the system in a safe and operable condition, including minimizing soil erosion where sedimentation is threatening water quality of stream channels and adversely impacting aquatic habitat from road/trail-related erosion. Activities typically include: trail monitoring to identify substandard road and trail conditions; and repair through various means incorporating, as appropriate, grading and/or mowing the trail surface, replacement of existing culverts, installation of new drainage structures, trenching, backfilling and minor realignment as a result of erosion and/or slope instability. In addition, ancillary facilities along the trails are repaired or replaced as needed, including wooden benches, picnic tables, and drinking fountains. This work generally is performed by the District‟s Operations park staff and supplemented by the District‟s Maintenance and Skilled Trades staff.

As the primary interface with park visitors, park staff provide information about the park and park regulations, and ensure public safety through routine patrol and by acting as first responders for: public safety emergencies, and crime, vandalism, and fire incidents.

3.3.1.2 Public Safety

The District maintains a full-time staff of police officers, dispatch and a fire responders based out of its headquarters at Lake Chabot Regional Park in Castro Valley. The District Police Department operates a two-county radio communications network and a fleet of patrol vehicles, and protects public safety through crime prevention activities, patrols, emergency response, and criminal investigations. The

The District maintains a full-time staff of police officers.

District also maintains two helicopters at the Hayward Airport, staffed seven days a week, which are outfitted for law enforcement, medical, and fire response.

Initial response and reporting of incidents is generally provided by park rangers performing routine maintenance and safety patrols, though the public sometimes reports incidents directly to CALFIRE, or City of Pleasanton Police or Fire Departments. The presence of Park staff helps to provide a deterrent to vandalism, motorcycle and 4-wheel drive usage, poaching and hunting within the Park, and potential trespass onto adjoining private lands. An additional presence is provided through the grazing program with both the grazing tenant and District staff monitoring range management activities on a routine basis, and through the District Volunteer Trail Safety Patrol Program.

Incidents

District records from the Emergency Communications Center (Dispatch) show that between 2006 and 2010 there were 114 emergency incidents to which public safety personnel (police and fire) responded in Pleasanton Ridge Regional Park. Of these, 20 were medical-related incidents and 12 were fire-related responses. Compared with other District parks, this is a relatively high occurrence of fires and a moderate occurrence of medical responses. There were also several hazard materials incidents to which the District responded; but at a low rate of occurrence compared with other parks.

Public Safety Unit Response

District police officers regularly patrol Pleasanton Ridge Regional Park and other parklands in the immediate area. These officers are deployed from the District‟s Public Safety Headquarters in Castro Valley. In addition, the park is patrolled by helicopter as part of the District‟s routine park management program.

Fire Hazard & Fire Incident Response

Pleasanton Ridge Regional Park is classified by the State as a "*Very High Fire Hazard Severity Zone*," meaning that wildland fires in these zones can burn with very high intensity and cause significant impacts to natural resources and severe damage to infrastructure improvements, especially residences within and adjacent to the parklands.

The park is in a concurrent fire response jurisdiction so, if a fire should occur, resources are available from the District,

The park is in a concurrent fire response jurisdiction with local and state agencies.

as well as the Livermore-Pleasanton Fire District and the State of California Department of Forestry and Fire Protection (CALFIRE) Sunol Station. CALFIRE has jurisdictional and direct protection responsibility for wildland fires in the northern and southern thirds of the Park. The middle third is in a "*Local Responsibility Area for Fire Suppression,"* under the jurisdiction and direct protection responsibility of the Livermore-Pleasanton Fire District.

CALFIRE can respond to a report of fire in the Park from their Sunol Station within 15 minutes. The Livermore-Pleasanton Fire Department (LPFD) can also send resources, as available, within a similar travel time. These are likely to be the first ground resources on scene, followed by EBRPD fire engines. In addition, the District has two helicopters, both of which are capable of delivering water and firefighters for the initial attacks on wildland fires. CALFIRE also has air resources that would be deployed if available. Fires within Pleasanton Ridge Regional Park would be within roughly ten minutes flight time from the helicopter base at Hayward Airport.

3.3.1.3 District Volunteer Trail Safety Patrol Program

The Volunteer Trail Safety Patrol (VTSP) supports the Park staff. VTSP members educate park visitors about District resources, programs, facilities, and rules. They operate in an observe-and-report role, working to foster positive relationships among user groups. Volunteers also assist with other related services within the parks. Volunteer patrol members participate in this program in the areas of Pleasanton Ridge Regional Park that are currently open to the public.

3.3.2 Park Facilities & Utilities Infrastructure

3.3.2.1 Houses & Ancillary Structures

There are several houses located within the park that are managed by District staff, some of which include structures and landscape features from the American Farm Era (e.g., Nipper, and Tyler families). These houses are typically occupied by District staff that assume nighttime surveillance responsibilities for the park, report unauthorized activities to police, and secure gates.

The Park includes a number of residences that are used as security residences and as a staff office/ maintenance facility.

Park Security Residences

The Poole, Nipper and Garms houses currently serve as park residences, and in the case of Garms, as staff facilities. The Poole property is a modern, 2,000 square foot, all electric, park residence with a two-car detached garage. The

Nipper (circa 1900s) and Garms (circa 1940s) residences are considered historic structures as they were built over 45 years ago. However, the interiors and exteriors of the Nipper and Garms structures were extensively remodeled in the early 1980s diminishing their historic significance. The Nipper Barn, though degraded, retains some of its historic significance and should be evaluated by a building contractor or structural engineer who can provide specific solutions for upgrading its structural integrity (Refer to *Appendix G – Cultural Features* for a discussion of these structures and prior residents).

The Tyler Ranch complex includes a house that is vacant and a barn and tack room that were built in the 1940s [personal communication Scott Crawford Nov 2009] (Refer to *Appendix G - Cultural Features* for a discussion of these structures and prior residents).

The presence of the residents occupying these park structures provides an added measure of oversight and security at the park. (Refer to *Figure 4 - Access & Trail System Concept Plan Map* for the locations of these residences).

Operations Staff Facilities

The staff office is currently located at the former Garms residence. This house, also serves as one of the park residences, and as a District staff meeting facility. There is no official service yard dedicated to park operations. Maintenance facilities are currently limited to the basement of the Garms building and shipping container boxes that are located in the grassland area near the residence.

3.3.2.2 Utilities Infrastructure

Water

Park Water Systems

Water systems include wells, springs, storage tanks and distribution systems that provide potable and non-potable water in the park. This combination of water systems provides drinking water to the public and their animals, park residents, livestock water troughs, and water for fire suppression. The system includes one 5,000 gallon tank with booster pump, which meets fire marshal requirements, that is spring fed at Poole residence and various livestock water troughs, which are distributed throughout the park. There are also a number of drinking fountains serviced by the City municipal water line along the Val Vista Trail (Also refer to *Municipal Water Systems* below).

Sources of water for fire suppression include the various stock ponds and a number of fire hydrants including: three fire hydrants along Sinbad Creek Trail, one at the Foothill Staging Area, four along the ridge, and one near the former Garms property along Foothill Road.

Water system maintenance includes replacement of pumps, pressure tanks and chlorination-systems repair or replacement; well monitoring, and developed spring box repair or replacement. Water system development includes installation of water-system components (e.g., wells, storage tanks and distribution-system installation).

Municipal Water Systems

The City of Pleasanton owns the municipal water supply main lines that traverse Pleasanton Ridge Regional Park and Augustin-Bernal Community Park. Two water lines extend along Pleasanton Ridge from Bernal and Santos Ranch Roads to a water tank located along Pleasanton Ridge, but outside the Pleasanton Ridge Regional Park boundary. A third water line runs along Kilkare Road extending from the Town of Sunol into Pleasanton Ridge Regional Park along the Sinbad Creek Trail.

The potable water lines fed by City water service the Nipper and Garms residences, the Foothill Staging Area, several drinking fountains along the north-south spine route, several residences adjoining the southern parkland perimeter, and the back country camp area near the terminus of Kilkare Road along the Sinbad Creek Trail. The District also has an agreement with the City of Pleasanton to use City water for fire suppression, including use of fire hydrants located at the Foothill Staging Area and along the Valle Vista Trail.

The Tyler Ranch complex is serviced, in part, by municipal water from the San Francisco Public Utility Commission (SFPUC).

Groundwater/Spring Water Supply Sources

The Poole park security residence and the Tyler Ranch complex are supplied by groundwater (springs) located in proximity to the structures at these sites and are monitored for coliform bacteria on a quarterly basis by the EBRPD Water Management Department.

Waste Water & Sewage Systems

Each of the residences within the Pleasanton Ridge parklands is serviced by an individual septic system; none of which is connected to community sewer systems. The individual systems are about one half acre in size and consist of a septic tank, distribution boxes, and a leach or drain field where septic effluent is absorbed and cleansed by filtration through soil by way of a series of perforated plastic or clay pipes and a gravel bed. Requirements for each system were established based on the native soil percolation rates, groundwater levels, and the contours of the terrain at each site.

Where onsite disposal systems are infeasible, holding tanks are installed to store effluent, which is then removed via pumping by trucks. The vault toilets at the Foothill Staging Area, which are used in lieu of a septic system, are a type of holding tanks. Effluent from these systems is removed via pumping by

trucks on a regular schedule. These systems typically need to be repaired/ replaced every 15 to 20 years.

Solid Waste Collection & Disposal

The Pleasanton Ridge Regional Park residences, the park office and the Foothill Staging Area are serviced by the Pleasanton Garbage Service.

Gas & Electric Utilities & Communication Lines

Gas & Electric Utilities

Pacific Gas and Electric Company (PG&E) provides electric service to each of the park security residences, the park office and the former Tyler Ranch property through overhead lines.

Communication Infrastructure

AT&T provides the park security residences and the Tyler Ranch complex with telephone service through overhead lines. There are no communication towers on parklands, but there is one inholding on the ridge near the terminus of Santos Ranch Road on Pleasanton Ridge. There are also communication towers at the summit of Sunol Ridge on a private parcel located between the northern and southern areas of District parkland. The communication towers at both of these sites visually appear to be part of the Park.

3.3.3 Access & Operating Agreements

Park management and operations are directed in part through a number of easements, licenses, and memorandums of understanding (MOU) with tenants, private parties, and public entities as described below. Note that numbers in parenthesis correlate to numbers on *Figure 10 - Easements*, which identify the general locations of the various emergency vehicle maintenance access points, utility easements, access easements to private parcels, and emergency egress points.

3.3.3.1 Emergency Vehicle Maintenance Access (EVMA)

The Foothill Staging Area in the City of Pleasanton and Oak Tree [Thermalito] Trailhead in the unincorporated township of Sunol serve as the primary access points for emergency vehicles.

In addition to these primary parkland routes, there are a number of other vehicle ingress/egress access points into the park provided via existing service roads. These roads provide routine and emergency ingress for District staff and may provide emergency evacuation routes for park users.

Ingress/egress routes limited to access for emergency and maintenance vehicles (EVMAs) include:

- Hedd Canyon Trail connecting to Devany Canyon Road [through Vinson property] [1]
- Devany Canyon connection to "The Preserve" subdivision [Pagini] [2]
- Valle Vista Trail connection through "The Preserve" subdivision open space [3]
- Connection between the former Schuhart property (now parkland) and the proposed Tehan Falls Trail/Garms Staging Area via Fuller, Smathers, Finnegan and Del Arroz properties [4]
- Access to Garms Staging Area park security residence/park office via River Rock Hill Road [5]
- Santos Ranch Road connecting to the Valle Vista Trail/ (and Sinbad Valley) from Foothill Road [6]
- Valle Vista "bypass" [Tulare and Sadue] [7]
- Cook Canyon access off Palomares Road [Yunis] [8]
- Serenity Terrace Road (private) connection to Tehan Ridge Trail [9]
- Private drive off Foothill Road near southern boundary- EBRPD Conservation Easement [Butner property] [10]
- Kilkare Road connecting to Sinbad Creek Trail – District EVMA and secondary evacuation route for Kilkare Canyon residents (Refer to Emergency Egress below) [11]
- Access routes through former Owen property from Palomares Road into the northern part of the park [12].

3.3.3.2 Parkland Easements

There are a number of utility lines that run through the Park along with two inholdings containing communication towers and a number of private residential in-holdings. The utility and residential inholdings have access rights that enable these property owners to cross through Pleasanton Ridge Regional Park along designated easements as described below.

Utility Easements

Within the boundaries of the park there are several utility easements, including: a water tank that services an in-holding contained within the former Garms property, a water line and water meter that services private parties within and adjacent to the southern tip of the park; a Pleasanton Water District waterline that generally parallels the Valle Vista Trail; and several utility boxes located near the Sunol Ridge Trail between proposed picnic sites 16 and 17 (Refer to *Figure 4- Access & Trail System Concept Plan Map* for locations of picnic sites). As described above, there are also two private inholdings containing communication towers that require access through portions of the park.

Non-exclusive easements grant the utility providers access through the park within specific, designated right-of-ways for maintenance purposes. service-road-width trails that provide for joint utility vehicle access, service and emergency vehicle access and non-motorized recreation use include:

- Oak Tree Trail [13]

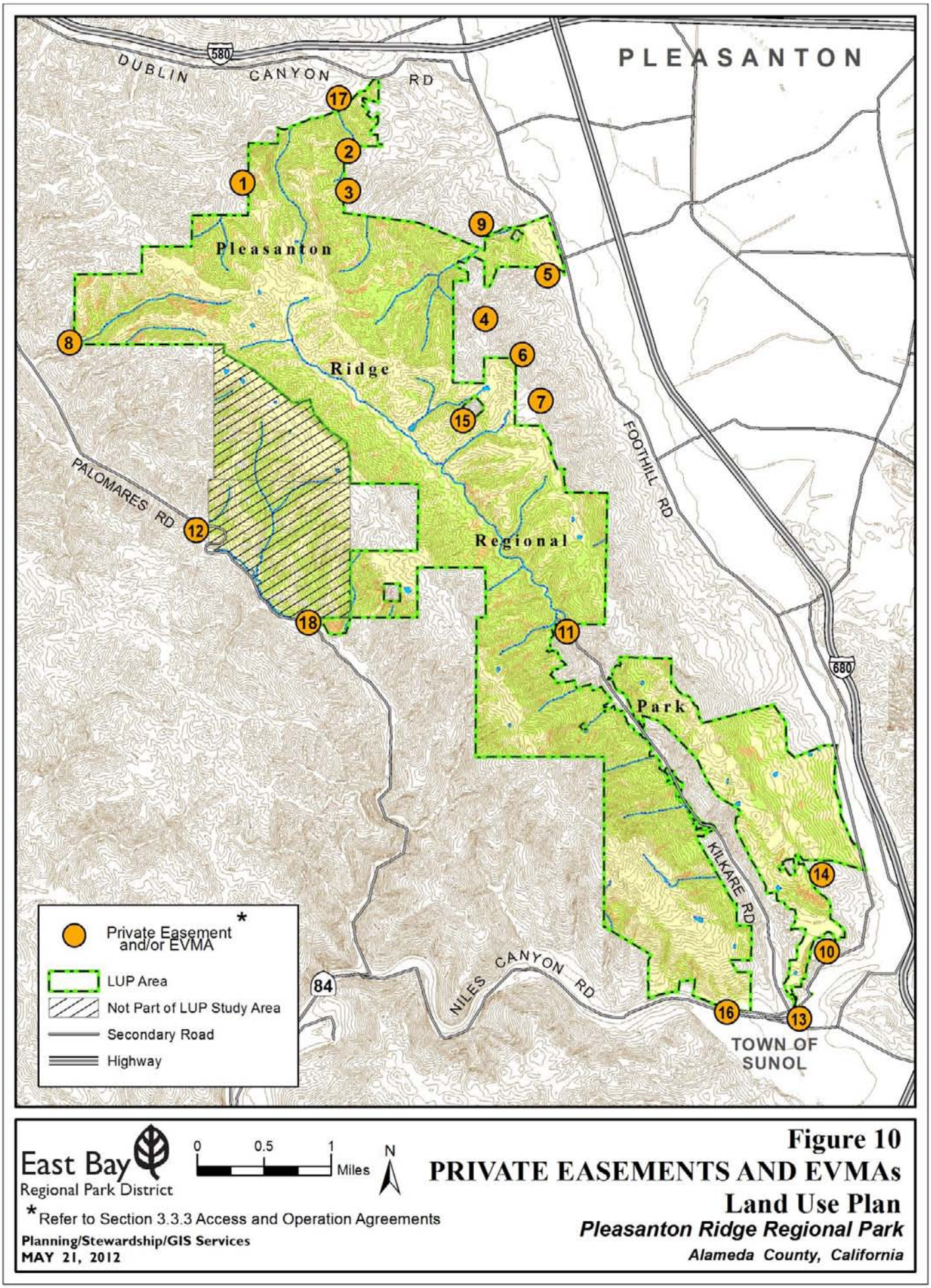


Figure 10
PRIVATE EASEMENTS AND EVMAs
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

- Valle Vista Trail [14], [15]
- A portion of the Tyler Ranch Loop Trail and Sunol Ridge Trail [16]

Access Easements to Private Parcels

Contained within or immediately adjacent to the boundaries of Pleasanton Ridge Regional Park are several private residential properties that require access through the Park. These include:

- Several properties along Devany Canyon Trail [17]
- Three properties in the northern area along Main Ridge [6]
- Two properties along the northwestern section of Sunol Ridge [18]
- One residence and water tank on the most easterly section of Pleasanton Ridge contained within the former Garms property [5]
- Several private residences bordering the Oak Tree Trail [13]
- One property near the southern park boundary near the junction of the Oak Tree and Valle Vista Trails [14]
- Two residences near the entrance to Sunol Ridge (former Tyler Ranch property) one directly southwest of the Tyler Ranch house complex and the other northeast of the ranch house [16].

Access to these individual residential properties is provided through non-exclusive easements that grant the private landowners the right to travel through the park within specific, designated right-of-ways. Service-road-width trails that provide for joint private vehicle access, service and emergency vehicle access, and non-motorized recreation use include:

- Devany Canyon Road [17]
- Valle Vista Trail [13], [15]
- Garms Service Access via River Rock Hill Road [5]
- Tehan Ridge Trail via Serenity Terrace and Tehan Canyon Road [9]
- Finnegan/Del Arroz access from Santos Ranch Road through the former Schuart property (now parkland) [4]
- Oak Tree [Thermalito] Trail [13]
- A portion of the Tyler Ranch Loop connecting to Foothill Road [16]
- A service-road-width paralleling the southern boundary of the former Tyler property [16]
- Palomares Trail connecting Planning Area 3 to Palomares Road [18]

Emergency Egress

All or a portion of the Kilkare Community may be evacuated to protect residents from the impacts of an actual or potential emergency with the Alameda County Sheriff having the primary responsibility for conducting the evaluations. Per the *Kilkare Community Evacuation and Other Protective Acton Plan (2009),* the primary evacuation route will be south on Kilkare Road with a secondary route into the park. The connection into the park would be at the locked gate at the terminus of Kilkare Canyon Road. This is a District EVMA and secondary evacuation route for Kilkare Canyon residents. It follows Sinbad Creek Trail connecting to Santos Ranch Road via Turtle Pond and Valle Vista Trails. This route is located along service width trails that require four-wheel drive and may be extremely unsafe during fire conditions

and completely impassible during flood events. This route should only be used when egress is coordinated, and escort provided by, emergency personnel. [11]

3.3.3.3 License Agreements

Purpose

The District manages livestock grazing in the park through the issuance of grazing licenses with local ranchers for each of the seven grazing units. The focus of the grazing program is directed at managing habitat conditions and reducing fuel loads to reduce fire hazards in grassland areas. Grazing licenses incorporate conditions relating to the timing, type, and number of livestock to:

- Encourage and enhance growth of native grass and wildflower plant communities
- Minimize wildfire potential and brush encroachment
- Control and manage invasive weedy vegetation
- Enhance wildlife habitat
- Protect and enhance riparian and wetland habitat values
- Control and minimize erosion
- Maintain open landscapes and viewsheds.

Revenue, based on fair market value rental fees charged for the privilege of grazing on parkland, is used in part, to fund the Park District‟s infrastructure improvement program (Refer to *Figure 6 - Range Management* for types and locations of rangeland infrastructure; e.g., fences, gates, water troughs).

EBRPD/Licensee Responsibilities

Authorized ranching tenants are responsible for the health, well-being, management, and containment of livestock in the park, and for maintaining fences, gates, water developments, and corrals.

The Park Supervisor, with support from the Wildland Vegetation Program Manager, monitors forage levels to assure that an adequate amount of green or dried vegetation remains on the ground during the grazing season to meet resource objectives.

The Park Supervisor, Unit Manager, and Wildland Vegetation Program Manager meet annually with the rancher licensees to review District expectations regarding grazing and habitat goals, and to share information about the parkland resources.

Visitor safety is addressed through a provision in the license that requires the grazing tenants to remove identified problem livestock and undertake remedies (e.g., relocating water troughs, trail/road maintenance and enhancement, seasonal rotation, etc.) to minimize potentially threatening visitor-livestock interactions.

3.3.3.4 Pleasanton Ridge Conservation Easement

In 1995 the American Land Conservancy (ALC) purchased 11 parcels (APNs 085A-3275-002-03, 04; 085A-3300-002-03; 941-2400-001-03, -04, -07, -08, -10) now contained within the northern area of the park from Palomares Ranch Estates. In partnership with Wildlands, Inc. and Shea Homes, ALC established the Pleasanton Ridge Conservation Easement on the property to protect it from subdivision for housing development and to preserve important natural resources. This land area contains the headwaters to seven stream systems identified on the USGS Dublin Quad and provides high value habitat for both California red-legged frog (*Rana draytonii*) and Alameda whipsnake (*Masticophis lateralis*).

The Pleasanton Ridge Conservation Bank (PRCB) was established in 1999 upon recordation of a perpetual conservation easement, which sets forth a number of management strategies for protecting and restoring natural resources within its boundaries with the intent of protecting and expanding populations of special-status species.

When the District subsequently purchased the land, it assumed the obligations of the conservation easement and of the Pleasanton Ridge Conservation Agreement. This agreement was originally established between American Land Conservancy, Wildlands, Inc., the California Department of Fish and Game, and the U.S. Fish and Wildlife Service for the permanent protection of California red-legged frog and Alameda whipsnake. The conditions of purchase obligating the District specifically state that:

> *"[The] Grantee shall not intentionally cause a material impairment of the habitat value of the Conservation Bank, materially reduce the value of the Reserved Credits, or cause the termination of the Conservation Agreement."*

The concept for establishing a conservation bank is to set aside land with significant natural resource values required for the continuance of special status species to be managed in perpetuity to protect those natural values. In turn "credits" are awarded for the special habitat values that the property possesses. These credits can then be sold on the open market to developers who are required to mitigate by preserving off-site lands with similar habitat values, in this case for core populations of California red-legged frog and Alameda whipsnake. In the case of the PRCB, guidelines for establishing these credits are detailed in the *Biological Inventory of the Proposed Pleasanton Ridge Conservation Bank, Alameda County, California* (1996, revised 1997). Potentially, the District could use these credits when required to mitigate for parkland improvements requiring permits from regulatory resource agencies.

Key components of the conservation easement agreement, and the PRCB, as set forth in the *Pleasanton Ridge Conservation Bank Establishment and Management Plan* (1998) are intended to enhance and preserve the biological and physical characteristics of the site through the implementation of

conservation measures directed at improving and protecting: watershed integrity; water quality; native vegetative cover and diversity; native species diversity and richness; quality of foraging, refugial, breeding, and dispersal habitat; and connectivity with adjacent habitats. Specific activities may include:

- Seasonal grazing rotated through the property creating a regime of high intensity/ low duration grazing to benefit the vegetation
- Fencing any remaining open areas along the site perimeter and some fencing along streams to limit cattle within riparian drainages
- Repairing erosion in Cook and Sinbad Creeks along with road repair and trail stabilization
- Replanting degraded stream corridors with native plants collected on site and propagated to complete restoration actions described in the *Bank Establishment and Management Plan* (1998)
- Enhancing existing ponds (and creating new ponds) by desilting and revegetating the edges and rebuilding dams and spillways
- Developing and implementing a prescribed burn program
- Controlling bull frogs
- Controlling predators such as red fox and feral pigs
- Monitoring and maintaining check dams
- Initiating school and educational programs to highlight habitat and rare species management.

Resources contained within this area are managed in accordance with the *Management Plan (1998)* described above. Recreation is limited to trail use in accordance with the Management Plan provisions, which state that the purpose of the roads that traverse the easement area is to provide access to the site to:

- Monitor and manage habitat enhancement and restoration activities
- Guide the movement of the public on and through the site
- Make the site available to local schools on a limited basis for group visits for conservation education school visits
- Make the site available for university level study and research opportunities (as approved by the U.S. Fish and Wildlife Service and California Department of Fish and Game).

Management actions relating to the management of critical habitat for California red-legged frog and Alameda whipsnake may be modified in the future to reflect current scientific practices for these species through coordination with California Department of Fish and Game and U.S. Fish and Wildlife Service.

To receive additional conservation credits for the restoration activities (and create an endowment to fund ongoing management), the restoration work would need to be documented in an annual *Accounting and Management Report* prepared and submitted by the District. This report would then be submitted to the U.S. Fish and Wildlife Service and the California Department of Fish and Game. The contents of the report would likely include:

- A description of the status of biological resources on the property
- An accounting of any conservation credit funds received
- Results of any biological monitoring or studies conducted on the property

- A description of management actions taken on the property
- A description of any problems encountered in managing the property
- A description of management actions that the District will undertake in accordance with the *Bank Establishment and Management Plan* in coming year.

Bank Credits

The management strategies established to protect and restore natural resources within the Pleasanton Ridge Conservation Bank (PRCB) place constraints on the types of uses that can occur within the Pleasanton Ridge Conservation Easement area. However, the bank instrument also potentially provides a valuable tool for facilitating District projects. By utilizing available conservation bank credits to mitigate for project impacts (Refer to *Table 2 – Conservation Bank Credits* below), the District may make improvements to degraded resources and existing infrastructure, thereby enhancing habitat for endangered species and adding recreational trail opportunities.

The District is in the process of reevaluating the currently inactive PRCB to determine what it would take to activate the "crediting" process to facilitate the implementation of habitat and recreation recommendations within the conservation easement area of the park. Project applications could be applied to: California red- legged frog pond/stream enhancement; Alameda Whipsnake habitat protection and enhancement, Cook Canyon Trail modifications and associated habitat enhancement, and trail stabilization projects to reduce erosion. The PRCB could also serve to mitigate for the impacts associated with full build out of the projects identified in the LUP, and potentially other parks within the PRCB service area.

Table 2 – Conservation Bank Credits [1, 2, 3]

Type of Credits	Number of Available Credits	Number of Additional Future Credits	Total
Alameda Whipsnake Only (AWS)	**9.06**	**None identified at this time**	**9.06**
California Red-legged Frog Only (CRLF)	**771.165**	**130.845**	**902.01**
Dual Species (AWS & CRLF)	**112.13 (AWS) 167.859 (CRLF)**	**None for AWS 24.481 for CRLF**	**112.13 (AWS) 196.34 (CRLF)**
Total Maximum AWS (AWS only & all dual species credits used for AWS)	**121.19**	**None identified at this time**	**121.19**
Total Maximum CRLF (CRLF only & all dual species credits used for CRLF)	**939.023**	**159.326**	**1,098.35**

1 Bank credit numbers were derived by the wildlife agencies (USWS, CDFG) from a complex formula, which reflect various factors, such as the site"s size and the condition and diversity of the habitat.

2 With the bank in place, the District has an opportunity to sell credits to create an endowment fund to fund the property"s ongoing management with the District being responsible for maintaining a database tracking credits conveyed. In addition, $500 conservation credit is to be deposited into an endowment fund held by CDFG. After the fifth year of operation of the conservation bank these funds may be withdrawn by the bank"s manager for maintenance operations.

3 One bank credit equals one acre.

Source: *Pleasanton Ridge Conservation Bank Establishment and Management Plan* (1998)

3.3.3.5 Concessions

Currently there are no concession operations in the park.

3.3.3.6 Interjurisdictional Operating Agreements

Both the City of Pleasanton and the District own properties on Pleasanton Ridge for the purpose of managing parklands for public use. The parklands of both agencies form a unified open space, which benefit from sharing certain services necessary for safe park operations.

An operations agreement between the District and the City of Pleasanton ensures standard procedures for maintenance, patrol, and mutual aid response to create a seamless recreational trail experience through Pleasanton Ridge Regional Park and Augustin Bernal Community Park. As part of this agreement, both agencies review public information prior to dissemination to make certain that park use, trail names, and regulatory signs are compatible.

3.3.4 Ongoing Operations Programs & Agreements by Planning Area

Ongoing operations refer to those maintenance tasks and agreements that are currently in place and will continue in the future. These include the management of parkland resources, trails, vehicle access points, and facilities contained within Pleasanton Ridge Regional Park; those open to the public and those currently in landbank status (Refer to *Figure 3 - Parkland & Landbank Parcels)*. For ease of reference these actions are separated by Planning Area, as shown on *Figure 14* - Planning Area Map Key.

- **Planning Area 2** - Continue to maintain the Nipper House as a park security residence and have the Nipper barn evaluated by a building contractor or structural engineer who can provide specific solutions for upgrading structural integrity of the structure.
- **Planning Area 2, 5** - Uphold Augustin Bernal MOU with City of Pleasanton for: 1) recreation access; and 2) mutual response for patrol and emergency response per *Section 3.3.3.6 Interjurisdictional Operating Agreements.*
- **Planning Area 2, 3, 5, 6, & 8** - Continue to retain access easements to private inholdings per *Figure 10 - Easements* [Contingent on parcels continuing to be held in fee by private parties].
- **Planning Area 3 -** Retain Emergency Vehicle Maintenance Access (EVMA) from Palomares Road into the park.
- **Planning Area 4 -** Retain existing service-road-width trails for operations and public recreation in accordance with *1998 Bank Establishment & Management Plan* as described in *Section 3.3.3.4 Conservation Easement.*
- **Planning Area 5 -** Retain non-system service road access (EVMA) from Kilkare Road, Santos Rancho Road and Valle Vista Trail "bypass."

- **Planning Area 6 -** Retain the following non-system service road (EVMA) access points: Serenity Terrace Road (private) to Tehan Ridge Trail; Valle Vista Trail through "The Preserve" subdivision open space; Devany Canyon Trail to "The Preserve" subdivision [Pagini]; and to Devany Canyon Rd via Hedd Trail [Vinson].
- **Planning Area 6 -** Maintain house (Poole) located off Devany Canyon Road as a park security residence.
- **Planning Area 6, 7 -** Continue to recognize access easements along a service-road-width trail (greater than 8 feet) and access and water rights to a private inholding per *Figure 10 - Easements* [Contingent on parcel continuing to be held in fee by private parties].
- **Planning Area 7 -** Maintain the apartment (Garms) located above staff office as a park security residence.

Chapter 4

Land Use Plan

Chapter 4 - Section 4.1

Program Overview

4.1.1 Introduction

The LUP is necessary to incorporate additional lands currently in landbank status and provide for: 1) the documentation, conservation, and enhancement of the parkland‟s natural and cultural resources; and 2) the development of public trails and recreation and service facilities. To this end, this chapter describes the park‟s significance and future potential.

4.1.1.1 Designation of Parkland Planning Units

The LUP establishes planning units to describe variations in parkland characteristics. These planning units are described in more detail below.

Natural Units

The majority of the LUP study area (6,068 acres or 93 percent) is designated as *Natural Units* in keeping with the goals of managing the park to benefit overall biodiversity. This is consistent with the 1997 District Master Plan, which defines regional parkland as an area a minimum of 500 acres in size with a minimum of seventy percent of the area reserved for its scenic or natural values.

Natural Units are comprised primarily of natural open space with recreation facility development limited to “lower intensity” recreational uses and facilities, primarily trails that serve individuals and small groups engaged in nature-oriented recreation. The primary planning and management objectives of a *Natural Unit* are to preserve natural resource biodiversity and enhance native habitats. This will be accomplished by maintaining open space and

essential linkages between significant natural features within cohesive areas and implementing the resource management techniques outlined in the LUP for specific sites within the planning areas delineated on *Figures 15 – 22* and *Figure 23*.

Recreation/Staging Units

The purpose of Recreation/Staging Units is to provide for appropriate public access and uses. According to 1997 Master Plan, up to thirty percent of a regional park may be developed for more intensive recreational purposes to accommodate gatherings of larger numbers of people and facilities to support recreation activities. These active public use areas generally include constructed facilities that require auto access, utilities, and relatively flat terrain.

At Pleasanton Ridge Regional Park, these active use areas are limited due to the rugged terrain, limited opportunities for access, and visitor experiential expectations determined through the public process including, but not limited to, an on-site trail use survey conducted in 2009 (Refer to *Section 3.2.2.1 - Demographics, Trends & Projections)*. As a result, the LUP designates a total of 464 acres (or seven percent of the total LUP study area) as *Recreation/ Staging Units* as shown on *Figure 14 - Planning Areas Map Key & Natural & Recreation/Staging Unit Designations.* These areas include:

- The existing Foothill Staging Area (409 acres) [Refer to *Figure 11*]
- The future staging area at Garms (46 acres) [Refer to *Figure 12*]
- The future staging area at Tyler Ranch (5 acres) [Refer to *Figure 13*]
- Two back country camping areas; one located off the Sinbad Creek Trail approximately one and one and one-half miles north of Kilkare Road [Refer to *Figure 19*], and one located along the Aquila Loop Trail approximately two miles from the Tyler Ranch Trailhead (4 acres) [Refer to *Figure 22*].

4.1.1.2 Plan Recommendations

Plan recommendations are set forth as two specific types of actions that will be initiated as a result of this LUP:

- New resource management programs and parkland operations activities and agreements
- One-time capital expenditures directed at creating safe and positive visitor experiences, and a safe and efficient environment for park staff functions.

These actions are summarized in *Tables 4 - 11 - Implementation Program Actions under Recommended Facility & Trail System Development & Interpretive & Recreation Programs.*

Resource management programs and parkland operations activities and agreements currently in place that will continue into the future are considered as part of the baseline conditions. These include: routine maintenance and operations tasks, resource management programs, and recreation uses and programs. These are described in *Chapter 3-Existing Conditions* in the following sections: *3.1.2.8 -Ongoing Habitat Management Programs by*

Planning Area, *3.1.2.11- Ongoing Cultural Management Programs*, *3.2.4 - Ongoing Recreation Management Programs by Planning Area*; and *3.3.4 - Ongoing Operations & Management Programs & Agreements by Planning Area*. These actions are also summarized in *Tables 4 - 11 - Implementation Program Actions* under *Ongoing Maintenance & Resource Programs*.

Ongoing Programs

Resource Management Programs

This LUP presents the park environment at a set moment in time, while actual conditions are continually evolving as a result of a natural forces (Refer to *Section 3.1.2.2 - Potential Effects of Global Climate Change)* and use patterns (Refer to *Section 3.2.1.1 - Demographics, Trends & Projections*). To capture evolving circumstances, and incorporate gains in scientific knowledge regarding the natural and cultural resources at Pleasanton Ridge Regional Park, an adaptive management plan is recommended for managing parkland resources.

This approach takes into account existing knowledge and programs and incorporates a range of tools that may be employed over time to address each of the habitat types and cultural periods (e.g., pre-historic, historic). Through ongoing monitoring and documentation of the physical environment, and continued research, District staff will best be able to conserve the landscape characteristics of Pleasanton Ridge Regional Park and meet visitors‟ experiential expectations (Refer to *Section 4.2.7.1 Adaptive Management Approach - Monitoring & Reporting Methodology* and *Section 4.3.5 - Cultural Resources Monitoring*).

Taking an adaptive management approach, and documenting the results through successive monitoring periods, the District will be able to tailor future programs to achieve desired outcomes in conformance with the environmental regulatory agencies. Through the PRCB, the District also has the potential to receive additional conservation credits for the restoration activities and create an endowment to fund ongoing management (Refer to *Section 3.3.3.4 - Conservation Easement*).

Parkland Operations

Maintenance and operations actions are directed at providing for visitor safety, creating a safe work environment for staff, and protecting/enhancing cultural and natural resources. Recommendations take into account existing knowledge and practices at the park as described in *Section 3.3 - Parkland Operations & Management*.

Interpretive & Recreation Programs

Interpretive and recreation programs, exhibits and brochures will be developed in concert with other facility and program elements. Recommendations will

take into account past and ongoing programs (Refer to *Section 3.2.3 - Interpretive & Recreation Programs*) and expand upon those programs.

Implementation of some interpretive and recreation components will be contingent on building the infrastructure (e.g., trails, picnic sites, back country campsites and staging areas) to accommodate the program recommendations.

Capital Projects

Capital projects refer to one time expenditures that fund the development of physical features in the park. These will include: staging areas; trails and ancillary trail facilities, including picnic and back country campsites, trail signs, interpretive exhibits, and expanded service facilities. The exact location of the proposed recreation and operations/maintenance facilities identified in this plan will be detailed during the implementation of specific projects to minimize effects on existing resources and to minimize long term operational expenses.

Implementation of these projects will be phased, contingent upon obtaining funding for the development of facility improvements, securing permits, and in some cases, augmenting staffing levels. Future actions that are not tied to regulatory oversight could be accomplished within the general fund budget typically within one to ten years subsequent to adoption of the plan.

Unfunded capital habitat enhancement and recreation projects will likely require regulatory permits and/or supplemental funding (e.g., from outside grant sources). These projects will be implemented to enhance natural resources, identify, document, and protect cultural resources, and provide for enriched visitor experiences as permits and funding are secured.

In some cases, there may be potential actions that would add value to the park, but would be dependent on future interest by private landowners to provide easement agreements and/or offers for parkland acquisitions. These actions typically relate to opportunities to create new entry points into the park or connections to areas of the park that are currently isolated.

Parkwide Actions

Parkwide actions refer to those actions that apply to the park as a whole. These actions include development of park brochures and volunteer support, as described below. Preferably permitting would also be undertaken as a parkwide action.

- **Access and Trail System Actions -** Update the trail brochure identifying all sanctioned hiking, mountain biking trails, and official access points to Pleasanton Ridge Regional Park. [Potential Timing - *Years 1- 5* and then *Ongoing* as future trails and access points are developed].
- **Access and Trail System Actions -** Install educational, wayfinding, and Universal Trail Assessment Process (UTAP) signage as described in *Section 4.5.1.3 – Trail Use* at the staging areas, trailheads, and trail junctions to inform park visitors of parkland conditions and destinations

[Potential Timing - *Years 1- 5* and then *Ongoing* as future trails and access points are developed].

- **Interpretation and Recreation Actions -** Prepare an information guide informing park visitors of the wildlife and plant communities represented in Pleasanton Ridge Regional Park and measures that are being taken to preserve wildlife habitat and cultural resources. Suitable mediums for the dissemination of this information could include exhibits at staging area entrances and the District webpage - Pleasanton Ridge Park link. [Potential Timing - *Years 1- 5* and then *Ongoing* as future trails and access points are developed].
- **Cultural Resource Actions** – Continue to record newly discovered cultural resources in the District‟s Cultural Site Atlas database. Record the most significant resources on DPR 523 forms and send to the State for inclusion in the California Historical Resources Information System (CHRIS) for a primary number and/or trinomial as staff resources become available.[Potential Timing - *Years 1- 5* and then *Ongoing* as new resources are identified].
- **Cultural Resource Actions** – Contact the Native American Heritage Commission (NAHC) to request a Sacred Lands Inventory for Native American resources that are known to be present within Pleasanton Ridge Regional Park. [Potential Timing - *Years 1- 5*].
- **Maintenance and Operations Actions -** Support increased volunteer trail building and patrol/monitoring at the park in accordance with programs described in this LUP. [Potential Timing - *Years 1- 10* and then *Ongoing* as future trails and access points are developed].
- **Parkwide Programmatic Permit –** Secure a programmatic biological opinion for the protection of listed species from the U.S. Fish and Wildlife Service, correlating to the level of detail provided in this LUP considering as a whole resource preservation/restoration work, along with the proposed recreation improvement projects (e.g., staging areas, back country campsites, picnic areas, trails), and maintenance and enhancement projects not covered by either the District‟s *Regional General Permit* or the District‟s *Covered Exceptions-4D Listing*.

Planning Area Tables & Maps

For ease of reference, the park has been divided into a number of *Planning Areas*, which are delineated on *Figure 14 - Planning Area Map Key & Natural & Recreation/Staging Area Designations.* Within each of these planning areas specific actions are described in *Sections 4.2*- 4.7 of this LUP, summarized in *Tables 4 - 11 - Planning Action Tables* and illustrated on *Figures 15 – 22* and *Figure 23*. These planning areas generally relate to the park grazing units (Refer to *Figure 6 - Range Management*) as these grazing units provide an identifiable way to divide the park into recognizable geographic areas. They also reflect the overarching tool for managing the vegetation communities to meet resource goals.

However, in some instances, planning area designations deviate from the grazing units where recommendations relating to recreation (e.g., staging area development) and/or change in land use status (e.g., land previously opened to

the public opening versus opening land currently in land bank status) have land use and development implications. Programs that relate to specific geographic, cultural or resource features or specific capital projects are identified under the planning area map in which they occur.

Chapter 4 - Section 4.2

Biological Resources Management Programs

4.2.1 Program Overview

4.2.1.1 Program Focus

The biological resource management programs have been developed to benefit overall biodiversity of the Alameda Creek Watershed with a focus on critical breeding and foraging habitat for federal and state listed species. Management tools include grazing, prescribed burns, integrated pest management programs, and site restoration work. The primary objectives of these programs are to: 1) maintain and improve habitat conditions for resident plants and wildlife to promote biodiversity and protect listed species; and 2) manage the fuel load of flammable vegetation to lessen wildfire hazard.

To achieve these objectives an adaptive management approach is recommended that employs a "toolbox" of conservation measures specifically created for each of the primary habitat management areas; Aquatic, Mixed Sage Series, Woodland-Grassland Margin, and California Grassland. This approach will be applied to various habitat restoration projects currently underway and new projects identified in this LUP with practices continually evolving as new information and new technologies are developed (Refer to *Tables - 4 - 11* and *Figures - 15 – 22* for locations and descriptions of specific programs).

4.2.1.2 Listed Species - Core Habitat

The California annual grasslands, assorted shrublands, and assorted oak woodlands that dominant the landscape provide habitat for a variety of species including Alameda whipsnake (*Masticophis lateraliss euryxanthus*) and golden eagle (*Aquila chrysaetos*), while riparian and wetland plant communities found along portions of creeks/canyons in and around various ponds, and among springs and seeps provide breeding habitat for a variety of aquatic species including California red-legged frog (*Rana draytonii*).

There are sixteen ephemeral creeks contributing to the Alameda Creek Watershed that originate at the park. (Refer to *Figure 4 - Park Resources Map*). Sinbad Creek is a seasonal, intermittent creek that runs through Kilkare Canyon dividing Pleasanton and Sunol Ridge, which historically provided habitat for federally threatened steelhead (*Onchorhynchus mykiss*).

A few of the twenty-seven freshwater ponds support western pond turtle, (*Clemmys marmorata*) and the upper reaches of Sinbad and Cook Canyon Creeks and ponds prpnd 22, prpnd24, prpnd 26 and prpnd 27 along Sunol Ridge support California red-legged frog (Sources: Norton, 1996; Bobzien and DiDonato, 2007; Caltrans District 4 2008; D Riensche 2011). There is also the potential for some of the reaches of the Sinbad Creek to support California steelhead in the future (Alameda Watershed Project 2011). (Also refer to *Section 3.1.2.5 Plant Communities & Associated Wildlife – Riparian – Ephemeral Canyon Creeks, Ponds, Springs and Seeps*).

4.2.2 Aquatic Habitat Management Program

4.2.2.1 Habitat Conditions

Ponds, creeks, and seasonal wetland areas will be managed to benefit the federally threatened California red-legged frog (*Rana draytonii*) and the western pond turtle (*Emys marmorata*), a California species of special concern, and other native amphibians and fish.

Ponds, creeks and seasonal wetland areas will be managed to benefit California red-legged frogs, western pond turtles and other native amphibians.

Indicators of optimal habitat conditions for the California red-legged frog consist of a wide range of aquatic habitats, including streams, ponds, and flood plains for breeding, and other nearby habitats (e.g., woodlands, grasslands, coastal scrub) taking into account known movements of the California red-legged frog.

Indicators of optimal habitat conditions for western pond turtle include: permanent slow-moving water with both deep and shallow areas, hiding and

basking sites, nearby undisturbed nesting habitat (e.g., grasslands), and travel corridors.

4.2.2.2 Methods

The following procedures are possible measures that may be used to enhance habitat for California red-legged frog and western pond turtle, as well as potential future steelhead, and rainbow trout populations.

- Manage Sinbad Creek to minimize erosion and sedimentation and to preserve and enhance instream habitat for native aquatic fauna, including oversummering habitat for potential future steelhead and rainbow trout populations (e.g., retention or creation of groundwater supplies and subsurface flows necessary to produce surface water pools essential to over summering steelhead fry and parr).
- Carefully evaluate activities (e.g., construction and maintenance - trail grading) that have the potential to result in siltation or significant increase in runoff that would adversely impact the aquatic resources of Arroyo de la Laguna, Sinbad Creek, and Palomares tributaries.
- Where appropriate, fence off sensitive riparian habitat from concentrated cattle access to preserve and enhance native vegetation, fisheries, amphibians, wildlife, bank stability, and water quality.
- Where appropriate, plant riparian vegetation along the banks of ponds, Sinbad Creek and seasonal drainages to stabilize banks and minimize siltation entering these water sources.
- Implement pond enhancements, including: dam repairs and dredging, as required, to maintain water-holding capacity; stabilizing berms and spillways; and re-contouring ponds to provide both deep and shallow water habitats necessary for amphibian life cycles. Where restoration work may necessitate removing cattle from ponds that serve as a water source, provide an alternative water minimizing potential impacts to aquatic and upland habitat.
- Capture and remove bullfrogs and non-native predatory fish to maintain breeding habitat for California red-legged frogs (*Rana draytonii*).
- Initiate stream habitat restoration projects for Sinbad Creek/Sinbad Creek Trail, Cook Canyon/ Cook Canyon Trail, and an unnamed Sunol drainage extending between ponds prpnd27, prpnd25 and prpnd24 to improve habitat conditions for California red-legged frog (*Rana draytonii*), western pond turtle (*Emys marmorata*) and other native amphibians, as well as future steelhead rainbow trout (*Oncorhynchus mykiss*) populations.
  Restoration projects may incorporate: bioengineering for bank stabilization (e.g., installing willow bundles), channel realignment to increase sinuosity, restoring historic gradients, and grading and planting to restore floodplain habitat. These restoration projects will typically be implemented between August 1 through October 31 to avoid or minimize impacts on listed species, including California red-legged frog (*Rana draytonii*) and western pond turtle (*Emys marmorata*).
- Manage grazing of the pond margins to maintain vegetation.
  The focus of this work will be on wetland habitats surrounding the existing ponds, as studies conducted by District Stewardship staff have

shown a positive correlation between managed pond vegetation and amphibian populations (Bobzien and DiDonato, 2007). Vegetation management to benefit aquatic habitat may extend one-half mile beyond the creeks adjoining the ponds. This half mile area is based on studies of movements of the California red-legged frog with radio telemetry that found that frogs can be found up to a 1.2 mile linear distance from wetland habitat (Galen Rathbun and Norman Scott-USGS Biological Resources Division, Piedras Blancas Field Station).

- Avoid construction of new trails, where practicable, within a 100-foot buffer of aquatic habitats with permanent bodies of water and riparian or emergent vegetation known to support California red-legged frogs (*Rana draytonii*).

4.2.3 Mixed Sage Series Habitat Management Program

4.2.3.1 Habitat Conditions

Grassland and shrubland habitat will be managed to benefit the state and federally threatened Alameda whipsnake (*Masticophis lateraliss euryxanthus*) and other native reptiles. Indicators of optimal habitat conditions will be those that include mixed sage series on south-southwest xeric slopes within approximately 550 feet of water interspersed with rocky outcrops with deep crevices supporting Alameda whipsnake‟s prey items (e.g., Western fence lizard-*Sceloporus occidentalis*), Skilton‟s skink (*Plestiodon skiltonianus*). California sagebrush (*Artemisia californica*) serves as an indicator species of this habitat type (Refer to *Appendix B - Habitat Assessment Maps*).

4.2.3.2 Methods

The following procedures are possible measures that may be used to enhance habitat for Alameda whipsnake and other native reptiles.

Mosaic areas of grassland and shrubland habitat will be managed to benefit the state and federally threatened Alameda whipsnake and other native reptiles.

- Moderate grazing selectively utilizing cattle, sheep and goats, as appropriate and feasible, to maintain a mosaic of habitat characteristics conducive to Alameda whipsnake and other native reptiles; goat grazing should be carefully monitored to avoid over-reduction of brush habitat
- Use prescribed fire, integrated pest management programs, and other methods (e.g., hand pruning, planting, mowing), where applicable, to maintain optimal vegetation density
- Minimize new trail construction where such trail development would traverse critical Alameda whipsnake habitat and raptor habitat and where trail system recommendations include closures and restoration and

narrowing of existing trails and/or new trail construction, conduct these activities under the guidance of a District biologist with expertise in Alameda whipsnake habitat.

4.2.4 Woodland-Grassland Margin Habitat Management Program

4.2.4.1 Habitat Conditions

The woodland-grassland margin will be managed to benefit raptor species.

The woodland-grassland margin will be managed to benefit raptor species, including the state and federally protected golden eagle (*Aquila chrysaetos*) and other raptors. Indicators of optimal habitat conditions will be those that include wide open grassland spaces with abundant prey populations (e.g., California ground squirrel - *Spermophilas beecheyi*) for foraging raptors with adjacent dense canopied evergreen and deciduous forests or riparian zones that can support annual nest establishment, reuse and expansion.

4.2.4.2 Methods

The following procedures are possible measures that may be used to enhance habitat for the golden eagle (*Aquila chrysaetos*) and other raptors.

- Protect raptor nesting and forging areas by avoiding construction of new trails in areas above the tree line of woodland areas known to support nesting habitat for raptors over multi-year periods.
- Avoid pruning trees in areas known to support raptors during nesting periods typically February to August.
- Conduct seasonal closures and restrict human activity around raptor nests, as needed, to avoid disturbance of raptor nesting activities.

4.2.5 California Grassland Habitat Management Program

4.2.5.1 Habitat Conditions

Grassland communities will be managed to benefit species diversity, wildlife richness, and habitat quality.

Existing grassland communities will be maintained and improved by protecting and promoting growth of native grassland species with the goal of improving species diversity, wildlife richness, and habitat quality. Vegetation management grazing regimes will be

directed toward: control of invasive weed species, reduction of highly flammable fuel load to reduce wildfire hazard, and management of visual quality for desired landscape characteristics.

4.2.5.2 Methods

The following procedures are possible measures that may be used to enhance grassland habitat.

- Employ livestock grazing (cattle or sheep) during the early part of the growing season as a tool to enhance and restore the health, diversity, and productivity of native grassland plant communities. Soil surveys data prepared by the USDA Natural Resource Conservation Service (NRCS) can be used as an aid in determining livestock numbers for specific grazing units within the park during favorable (wet) and unfavorable (drought) rainfall years (Refer to *Figure 6 - Range Management* and *Appendix E - Grazing Unit Management Plan [GUMP]).*
- Monitor grazing use by estimating the general species composition of the grassland within each grazed area with a goal of retaining a minimum of 1,000-1,200 pounds of residual dry matter (RDM) per acre or approximately six to eight inches of standing vegetation at the end of the growing season.
- Augment the grazing program with prescribed burns, where appropriate, and mechanical treatments (timed mowing), where applicable and feasible, to conserve and enhance important resource values such as soil, vegetation, wildlife, and water to ensure that natural parkland ecosystems are maintained in a healthy and productive condition.
- Implement grassland management recommendations developed through the EBRPD- University of California Berkeley ten-year Grassland Monitoring Program (Refer to *Appendix F - Summary of Grassland Monitoring Project Findings*).

4.2.6 Pest Management Control Strategies

4.2.6.1 Overview

The District‟s Integrated Pest Management (IPM) Program includes a process for assessing and determining strategies necessary to achieve control in situations where identified pest species present unacceptable safety, health, and economic problems, or cause functional damage. Treatment strategies for pests include management of human behavior, habitat modification, physical barriers, plant selection, biological control, and chemical control. The District has identified three main types of pests: agricultural pests (e.g., certain noxious weeds), public health and structural hazard pests (e.g., rats), and recreational and resource management pests (e.g., algae blooms, poison-oak, ticks, yellowjackets) (East Bay Regional Park District *Pest Management Policies and Practices Manual (1987).*

The IPM program for Pleasanton Ridge Regional Park will include a range of control measures to promote environmentally safe, cost effective, and sustainable pest management practices that will ensure public and employee protection and benefit native plant communities. These measures will include monitoring and tracking pests through surveys and employee observations with practices continually evolving as new information and new technologies are developed (N. Brownfield 2008).

4.2.6.2 Noxious Weed Controls

Invasive, non-native, noxious weeds have the potential to adversely impact native habitats by overtaking native plant species, including listed species, derailing restoration efforts and in some cases affecting visitor experiences and perceptions of the parkland. In some cases, even native species such as poison oak *(Toxicodendron diversilobum)* may adversely affect visitor experiences, and in some cases, cause harm to the public. In these situations the District may modify habitat overrun by these species through biological, mechanical and chemical controls, and/or prescribed burns, and through plant selection as a component of restoration projects.

The following procedures are possible measures that may be used to monitor and manage invasive, non-native, noxious weeds and native plants that may cause potential harm to the public (e.g., poison oak, hazardous trees).

- Apply revegetation treatments (e.g., mulch, seeding), prescribed fire, herbicide applications, mechanical tools, or combinations thereof, as determined through the IPM program, to reduce the invasion of exotic species such as purple starthistle (*Centaurea calcitrapa)* and yellow starthistle (*Centaurea solstitialis*) in areas where exotic species may exploit disturbed soils and dominate the grassland habitat, or where native species (e.g., poison oak) may encroach onto trails, picnic areas, or campsites causing potential harm to the public.
- Use mechanical means to remove overhanging limbs, or diseased, or fallen trees where trees represent a hazard to park visitors or structures.

4.2.6.3 Non-Native Wildlife Controls

Non-native wildlife have the potential to adversely impact native species including listed species, derail restoration efforts, impair park infrastructure, and cause disturbance, and in some cases, cause harm to the public. Where non-native wildlife is impending upon restoration efforts, park infrastructure, or public safety a variety of tools may be employed to manage non-native wildlife. Tools will be selected by carefully considering the effects these management actions could have on beneficial species and desired recreation experiences.

The following procedures are possible measures that may be used to monitor and manage non-native wildlife and non-native fish.

- Monitor and manage non-native wildlife (e.g., red fox, wild pigs, bullfrogs, and non-native fish species) to reduce impacts to native species .

Management tools may include restoration of existing ponds to eliminate bullfrog populations, trapping and removal of pigs and red foxes, and installation of temporary exclusion hog fencing around restoration sites to prevent to prevent intrusive rooting and damage.

- Coordinate with Animal Control Officials to minimize the drop off potential of nuisance wildlife (e.g., feral dogs and cats, skunks, raccoons).

4.2.7 Planning Area Actions - Habitat Management

4.2.7.1 Overview

Initial identification and designation of the resources that are the most unique, or that require special protection or management, are described under *Chapter 3 - Existing Conditions*. This section describes specific actions for each of the Planning Areas (Refer to *Figures 15 - 22* and *Figure 23).* Ongoing programs, as well as programs that will be initiated in the future through the implementation of this LUP are identified in *Section 4.1.1.2*.

Adaptive Management Approach

The programs that are described below will employ adaptive management approaches and continue to evolve as the District"s understanding of habitat suitability and succession evolves with continued research. Continued research will include periodic biological surveys to document and monitor natural resources within District parks. This management approach will help to guide the development of the proposed trail routes, park facilities, and resource enhancement/protection projects. Techniques for monitoring resources that may be undertaken as part of this adaptive management approach are described below.

Resource Monitoring

The following monitoring techniques may be employed, as staff resources allow, to continue to enhance knowledge and protection of biological resources.

- Conduct periodic surveys to continue to identify and monitor population stability of locally designated special status and other species in order to expand the comprehensive lists of species developed and described in *Chapter 3 - Existing Conditions*, *Section - 3.1.5 Biological Resources* and contained in *Appendices C -Pleasanton Ridge Regional Park - Plant List,* and *D - Pleasanton Ridge Regional Park - Wildlife Resource Checklist.* This ongoing reporting will benefit biologists in their efforts to manage the park for overall biodiversity.
- Perform goal-based research on individual species, species assemblages and/or habitats to address issues of biodiversity, global climate change, and to inform adaptive management recommendations.
- Conduct pre-construction surveys to identify special status plant and wildlife species at specific project sites prior to project construction to

assist in scheduling work so as to minimize impacts; then provide, when appropriate, on-site monitors during construction.

- Monitor and manage ground squirrel populations to provide a balance wherein abundant prey populations (e.g., California ground squirrel [*Spermophilas beecheyi*]) for foraging raptors and other species is retained in grassland areas while minimizing damage within developed park sites such as picnic areas, parking lots, and earthen dams.

  Managed control will consider the timing of control, type of product, and methodology based on the presence and associated habitat of non-target wildlife species that could be impacted by control activities. Pest management products will not be employed in particularly sensitive areas (e.g., designated conservation zones for nesting and foraging of golden eagle, prairie falcon, red-tailed hawks, and other raptor species) where the diet of wildlife is dependent on the presence of ground squirrels and other vertebrate species, as even a limited use of pesticides directed at these species during the active season of nesting and rearing (Spring through Fall) has the potential for secondary poisonings to both young and adult raptors.
- Establish photo-points within the first year restoration programs are initiated to provide a „baseline" for resource conditions using a system of coordinates, bearings, and the date to identify the location, direction, and time of each photograph. Provide follow-up photo recordation on subsequent years to give an accurate record of the status of the resource during comparable times of the year.

  Establishing such points will build a pictorial record of the status of the resources and document plant succession and any deterioration in the trail system (e.g., increases in trail width and/or braiding, erosion problems, and/or the establishment of associated habitat) over time. The goal of this program is to create a system that will enable District staff to make informed decisions about the success of restoration efforts and various programs, and prioritize actions to further enhance the resources and/or correct trail conditions if necessary.
- Monitor grazing activities to ensure that management objectives are being met. Accomplish this by employing a variety of methods that may include conducting visual estimates of standing crop biomass, and establishing and monitoring permanent transects to determine species composition and forage production within the unit. A goal of the program will be to establish and/or maintain native bunchgrasses and forbs, measured as a percent cover by the transect surveys.

4.2.7.2 Habitat Management - Program Recommendations

Habitat management program recommendations refer to specific capital projects for individual Planning Areas identified on *Figure 14,* and detailed on *Figures 15- 22* and *Figure 23,* that will be initiated in the future to meet the objectives set forth in this LUP. Ongoing programs and practices that will continue into the future are listed in *Section 3.1.2.8 - Ongoing Habitat Management Programs by Planning Area* and *Tables 4 - 11.* It is anticipated that these programs and practices will continue to evolve as new information is gained through the adaptive management process and future scientific studies.

- **Planning Area 3** - Survey / fence northern boundary [Warrington property] to establish grazing unit field boundary [Contingent on Future Funding].
- **Planning Area 4 -** This area is contained within a designated Conservation Easement Area. Recommended actions include initiating restorative activities for:
  - California red-legged frog, including modifying fencing to accommodate managed grazing to preserve and enhance native vegetation, fisheries, amphibians, wildlife, bank stability, and water quality for ponds Prpnd18, Prpnd19, Prpnd20 and Prpnd23 per guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program* [Contingent on modifications to 1998 Conservation Easement Agreement].
  - Sinbad and Cook Canyon Creeks and unnamed drainages to benefit California red-legged frog and other native amphibian and reptile species per guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program*. Actions may include modifying fencing to accommodate managed grazing to preserve and enhance native vegetation, fisheries, amphibians, wildlife, bank stability, and water quality along Sinbad Creek near the historic homestead site and tributaries extending up to pond prpnd020 [Contingent on modifications to 1998 Conservation Easement Agreement].
  - Improving habitat conditions in Cook Canyon using adaptive management techniques described in *Section 4.2 - Biological Resources Management Programs*. Actions may include modifying fencing to accommodate managed grazing and stabilizing bank erosion along stream channel to preserve and enhance native vegetation, fisheries, amphibians, wildlife, bank stability, and water quality [Contingent on modifications to 1998 Conservation Easement Agreement].
- **Planning Area 5** - Continue to manage Sinbad Creek from Pond Prpnd017 south to park boundary and tributary drainages in accordance with *Section 4.2 - Biological Resources Management*, and adhere to best management practices for pre-construction and monitoring activities described in *Section 4.2.7.1 - Adaptive Management Approach - Monitoring & Reporting Methodology* [Ongoing as trail system additions are implemented].
- **Planning Area 5** - Survey and fence open land along eastern boundary to provide greater flexibility in grazing grasslands in this unit. Once the area is fenced, install water troughs for livestock [Year 1-5].
- **Planning Area 6** - Continue to manage aquatic habitat associated with the Tehan Canyon seasonal drainages accordance with *Section 4.2 - Biological Resources Management*; and adhere to best management practices described in *Section 4.2.7.1 - Adaptive Management Approach - Monitoring & Reporting Methodology,* including conducting biology surveys for Bristly Linanthus (*Linanthus acicularis*) when developing the specific alignment for Tehan Falls Trail and protecting botanic resources where found [Contingent on future funding and permits].
- **Planning Area 6** Survey and fence open land along north and western boundary to provide greater flexibility in grazing grasslands. Once the area is fenced, install water troughs for livestock [Year 1-5].

- **Planning Area 7** - When the Garms Staging Area is developed, incorporate controls to keep cattle out of the staging and picnic area as illustrated on *Figure 12 - Garms Staging Area* [Contingent on development of staging area].
- **Planning Area 7** - Implement IPM bait stations at the Garms Staging Area around staging and picnic areas where identified pest species present unacceptable safety, health, and economic problems, or cause functional damage per *Section 4.2.6 - Pest Management Control Strategies* (approximately 5 acres) [Contingent on development of staging area]
- **Planning Area 8 –** Restore degraded drainage located in the southeastern potion of Sunol Ridge that connects ponds prpnd 24, prpnd 25, and prpnd 26 in accordance with guidelines provided in *Section 4.2.2- Aquatic Habitat Management Program* [Contingent on future funding and permits].
- **Planning Area 8 -** Manage the woodland area in southwestern section of Sunol Ridge in accordance with *Section 4.2.4 - Woodland-Grassland Margin Habitat Management Program* to benefit raptor nesting and forging activities, including avoiding construction of new trails in areas above the tree line of woodland areas known to support nesting habitat for raptors over multi-year periods [Ongoing as trail system additions are implemented].
- **Planning Area 8 -** Manage mixed sage series areas in the southern sections of Sunol Ridge that exhibit a high level of mosaic habitat types suitable for Alameda whipsnake (e.g., edge zones of chaparral, grassland and woodland in rocky terrain) in accordance with *Section 4.2.3 - Mixed Sage Series Habitat Management Program* [Ongoing as trail system additions are implemented].
- **Planning Area 8 -** Per the GUMP for Grazing Unit 6, evaluate options for installing internal pasture fencing system to create a more efficient livestock rotation plan for managing fuel loads and maintaining shrub/grassland mosaic to benefit Alameda whipsnake, raptor forging activities, and native grassland species [Year 1-5].
- **Planning Area 8 -** When the Tyler Staging Area is developed, incorporate controls to keep cattle out of the staging and picnic area [Contingent on staging area development].
- **Planning Area 8** - Implement IPM bait stations at Tyler Staging /Picnic Area and service yard where identified pest species present unacceptable safety, health, and economic problems, or may cause functional damage (approximately 5 acres) [Contingent on development of staging /service facility area].

Chapter 4 - Section 4.3

Cultural Resources Management Programs

4.3.1 Program Overview

4.3.1.1 Program Focus

Pre-historic remnants, structures, and historic objects serve as visual reminders of the park‟s heritage. In keeping with District policies directed toward the protection and preservation of the cultural and natural history of parklands, objects found, and potential places learned of through research in the future, will be managed through: focused surveys prior to construction activities; and documentation and/or restoration, relocation, burial, and/or interpretation.

Park activities (e.g., maintenance, interpretation, and biological resource management) will be conducted in accordance with best management practices for avoiding impacts to cultural resources. Programs to locate, document, and describe the park‟s pre-historic, historic, and cultural landscape will be coordinated among District staff with professional assistance from archaeologists, historians, and Native Americans, as appropriate, as habitat, infrastructure and facility improvements involving ground disturbance are implemented. Interpretation of the prehistoric and historic evolution of parkland will be incorporated into the development of the trail system to enrich the visitors‟ recreation-education experiences through a variety of means, including, but not limited to, hiking and riding interpretive programs.

4.3.2 Cultural Resource Management Programs

Resource management programs will be directed toward the protection of known prehistoric objects found in the park. Known cultural resources include a few isolated Native American bedrock mortar sites and various stone implements, and a midden site. The park also contains historical evidence of landscape alterations primarily from the American Farm Era (A.D. 1850 to 1970s) including structures on the former Nipper and Tyler properties, and remnants from a number of individual family homesteading and ranching activities. Some, but not all of these sites have been recorded.

Landscape alterations typically originated from settlements that occurred during the American Farm Era (A.D. 1850 to 1970s).

Proposed development sites that have been rated as having a high cultural sensitivity (Refer to *Figure 7 – Cultural Sensitivity Map*) include:

- Portions of the former Garms property, though not in the vicinity of the proposed staging area (ARS 2011)
- Tyler Ranch Staging Area, also known as Foothill Farms, as it contains a number of structures dating back to the 1940s and maybe earlier (ARS 2011)
- The Foothill Staging Area in the location of an artifact scatter, which indicates a potential sub-surface historic deposit (ARS 2011)
- Tehan Canyon, which contains interrelated features that reflect late nineteenth century and later rural settlements and roads that appear to be associated with the tenure of W. Perkins and the former Hidden Valley Ranch (Texier et al. 2006).
- The Aquila Campsite, which is located within oak woodland – grassland margin near a perennial spring.

No cultural resources were observed at the Sinbad Creek campsite and no further evaluations are recommended for this development area (ARS 2011).

Other sites rated as having a high cultural sensitivity include:

- The homestead site along Sinbad Creek within Planning Area 4
- Areas with springs or seasonal ponds and stream channels, especially a confluence of a minor drainage with a major drainage (e.g., Devany and Sinbad Creeks)
- Areas with rock features (e.g., suitable rock outcrops into which mortars or design motifs could be easily pounded to round indentations
- Vegetation - Oak groves, seed or bulb patches near or along ridge tops that could have been used as a subsistence resource.

4.3.2.1 Methods

The following procedures are possible measures that have been used, and may continue to be used to identify, recognize, and protect the unique and irreplaceable cultural landscape that defines Pleasanton Ridge Regional Park.

- [Continue] to record oral histories to document past land use of parklands and incorporate these histories into the interpretive programs as families offer to contribute.
- If resource sensitivity is high, (Refer to *Figure 7 - Cultural Sensitivity Map*) adhere to the following protocols:
  - Conduct pedestrian surveys of proposed project development sites for those areas not previously surveyed to determine potential impacts on cultural resources.
  - Consult with an archaeologist if any earth-disturbing activities are proposed near a known resource. The archaeologist should determine potential effects from the proposed activity and make further recommendations, which may include data recovery and/or archaeological monitoring.
  - Record and plot any resources identified.
  - Determine eligibility for listing structures/sites on the California Register of Historical Resources (Pub. Res. Code Section 5024.1).
  - Develop interpretive materials and programs highlighting the park"s cultural heritage.
- Conduct an archaeological evaluation of Sinbad Creek and other drainages in the vicinity of proposed trail creek crossings to ensure that archaeological resources will not be disturbed by trail or stream ford construction.
- Reuse and interpret American Farm Era roads, fences, stock ponds, and building remnants, as practicable.
- Retain and protect heritage trees to the extent practicable.
- Practice avoidance elsewhere in the park where no development will occur, especially underneath the tree canopies, as any potential resources should be effectively hidden from public view, and thus possible vandalism.

4.3.3 Cultural Resources Monitoring

4.3.3.1 Methods

Archaeological monitoring should take place during grading and other earth-disturbing activities in areas of high cultural sensitivity (Refer to *Figure 7- Cultural Sensitivity Map*), including, but not limited to, where an archaeological site has been reported. Monitors should be available to directly watch the excavation process. The frequency and duration of monitoring will be based on the relative sensitivity of the exposed soils and active work areas. It should include inspection of any rock outcroppings that are discovered during trail lay-out to determine whether they contain evidence of art or use as grinding stones or quarry sources.

Whenever the monitoring archaeologist suspects that potentially significant cultural remains or human burials have been encountered, the piece of equipment that encounters the suspected deposit should be stopped, and the excavation inspected by the monitoring archaeologist. If the suspected remains prove to be non-significant or non-cultural in origin, work can recommence immediately. If the suspected remains prove to be significant, work should be halted in that location until an evaluation, followed by a treatment plan for curation, can be provided by the monitoring archaeologist. If human remains (burials) are found, the County Coroner must be contacted so that they (or a designated representative) can evaluate the discovered remains and implement proper contacts with pertinent Native American representatives.

4.3.4 Planning Area Actions - Cultural Resource Management Recommendations

Cultural resource management program recommendations refer to actions (programs and capital projects) for specific Planning Areas identified on *Figure 14,* and detailed on *Figures 15- 22 and Figure 23,* that will be initiated in the future to meet the objectives set forth in this LUP. References to cultural sensitivity ranking in the actions listed below are illustrated in *Figure 7 - Cultural Sensitivity Map* and discussed in *Section 3.1.2.9 - Cultural Resources*.

- **Planning Area 1 -** Archaeological monitoring in this area is not warranted at this time. However, if a potentially significant historic deposit is unearthed during ground disturbing activities, construction work should cease and protocols identified in *Section 4.3 Cultural Resources Management Programs* should be followed [Concurrent with new trail development].
- **Planning Area 2 -** Enlist an historical horticulturist to provide the District with more background on the date, condition, and potential significance of the olive trees [Contingent on obtaining funding].
- **Planning Area 2 –** Retain remaining historic attributes found at the Nipper residence described in *Appendix G - Cultural Features* and incorporate them into future interpretive programs and exhibits trees [Contingent on obtaining funding].
- **Planning Area 4 –** Manage the homestead site in the Sinbad Creek Valley as an historic resource and incorporate this feature into future interpretive programs and exhibits [Contingent on obtaining funding].
- **Planning Area 5 -** Manage Sinbad Creek Corridor in accordance with the following practices as this is an area of high archaeological sensitivity:
  - Conduct further archaeological surveys for additional bedrock mortar sites along Sinbad Creek
  - Record previously unrecorded sites on DPR 523 forms
  - Avoid future earth-disturbing activities at identified locations [Ongoing and as future development occurs].
- **Planning Area 6 -** Prior to constructing trails identified in the western portion of Tehan Canyon, which is ranked as an area of high archaeological sensitivity:
  - Consult with an archaeologist
  - Provide archaeological monitoring during grading activities

- If artifacts, or other indications of archaeological or historical resources are observed, then an evaluation, followed by a treatment plan, should be undertaken [Concurrent with future trail development].

- **Planning Area 7 -** Prior to constructing the staging area, group picnic area, trails and other amenities identified in Planning Area 7, which are ranked as areas of high archaeological sensitivity:
  - Consult with an archaeologist prior to any future excavation to replace or repair existing utilities in this planning area
  - Provide archaeological monitoring oversight during initial grading of the parking area and during any additional ground-disturbing activities
  - If artifacts, or other indications of Native American resources, are observed then an evaluation, followed by a treatment plan, should be undertaken [Concurrent with future development].

- **Planning Area 8 -** Manage the Tyler Ranch Complex as an historic resource, and prior to constructing the staging area, service yard and park security residence:
  - Enlist an architectural historian to evaluate the barn structures (circa 1940s) when the Tyler Staging Area is developed for: 1) structural integrity, historic value, and potential for adaptive reuse or recommendation to demolish to protect visitor and employee safety; and 2) likely historic archaeological deposits associated with historic occupation to determine significance; if historically significant then adhere to protocols identified in *Section 4.3 - Cultural Resources Management Programs* [Contingent on staging area development]
  - Provide archaeological monitoring oversight during grading and during other earth-disturbing activities associated with the development of staging area; focus monitoring on potentially significant historic artifacts and subsurface deposits
  - If a potentially significant historic deposit is unearthed during construction, then work should cease and an evaluation, followed by a treatment plan, should be undertaken [Contingent on staging area development].

- **Planning Area 8 -** Prior to constructing the camping area, trails and other amenities, and performing pond and drainage restoration work, identified in Planning Area 8 as areas of high archaeological sensitivity:
  - Provide archaeological monitoring oversight any ground-disturbing activities
  - If artifacts, or other indications of Native American resources, are observed then an evaluation, followed by a treatment plan, should be undertaken [Concurrent with future development].

Chapter 4 - Section 4.4

Recreation Facilities

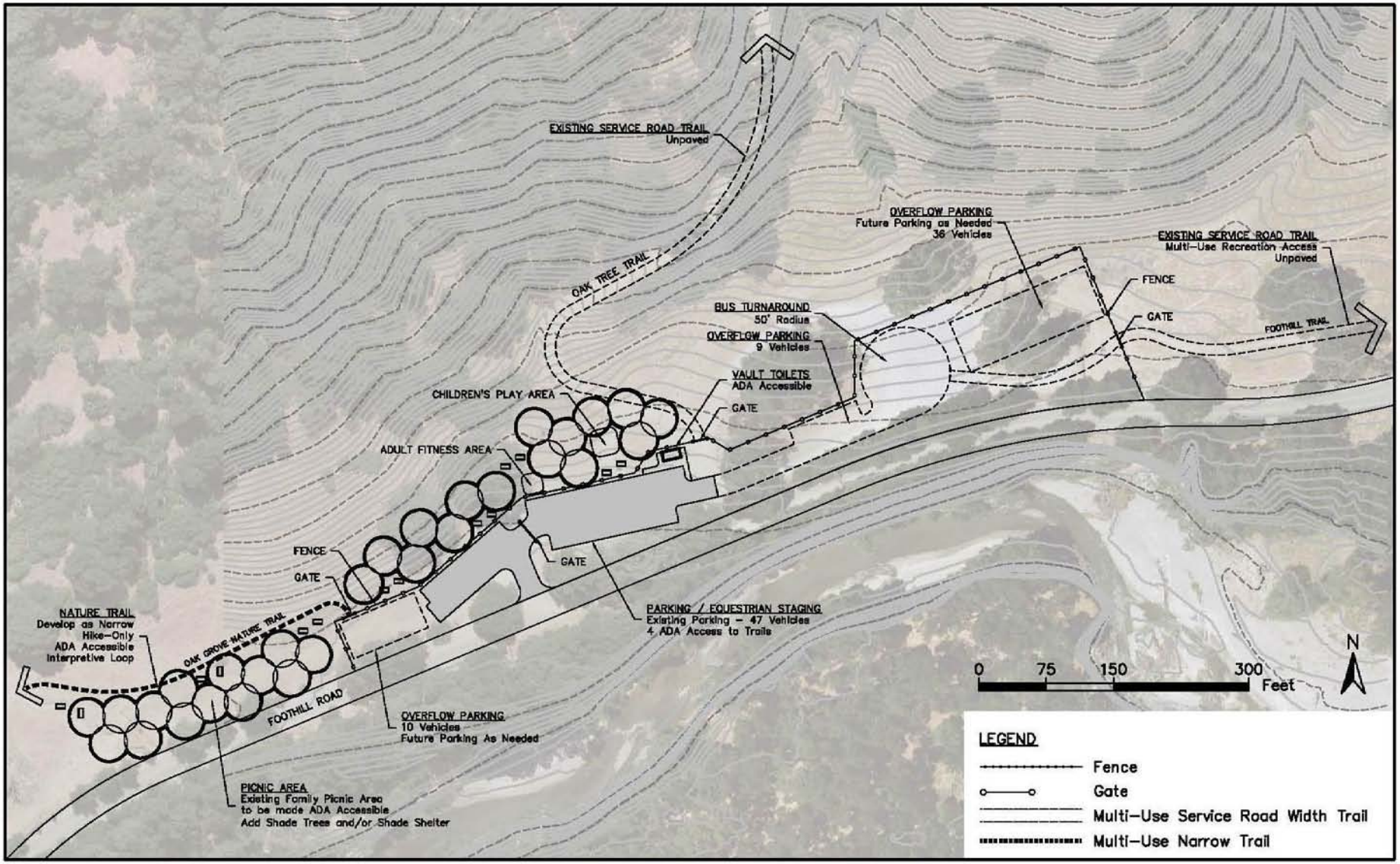
4.4.1 Staging Areas & Trailheads

4.4.1.1 Existing Staging Areas & Trailheads

The existing access points at the Foothill Staging Area (Refer to *Figure 11 - Foothill Staging Area* for staging area features) and the Oak Tree Trailhead will generally be retained in their current configurations (Refer to *Figure 4 - Access & Trail System Concept Plan Map* for staging area and trailhead locations*)*.

Additions proposed for the Foothill Staging Area include:

- Access to natural surface, multi-use trails, and a hike-only nature trail
- Access to a group picnic/day camp site located along the Sycamore Trail
- Expansion of the existing family picnic area to accommodate approximate 25 people and installation of shade trees or shade structure
- A "natural" children's play area (similar to the one at Tilden Regional Park) has been designated for the Foothill Staging Area, along with adult core fitness apparatus, to complement the other amenities at this staging area, including a hike-only nature trail and a series of short, multi-use loop trails (Refer to *Appendix L - Play and Fitness Apparatus Prototypes*)
- An option for expanding the current parking capacity from 57 vehicles to approximately 100 vehicles to accommodate group programs and special events (this represents an increase of approximately 20-25 spaces to the existing parking capacity taking into account current overflow and after hours parking capacity)
- Provisions for a bus turn around and school bus parking
- Removal of a diseased oak tree that has become a hazard in the designated overflow parking area.



East Bay Regional Park District

Initial Study
Planning/Design and Construction
October 06, 2011

Figure 11
FOOTHILL STAGING AREA
CONCEPT PLAN
Pleasanton Ridge Regional Park
Alameda County, California

Improvements for the Oak Tree [Thermalito] Trailhead located at the southern perimeter of Pleasanton Ridge off Foothill Road in Sunol will be limited to development and installation of park entry identification signage, including a wayside panel with a map of the park showing the route of Calaveras Ridge Regional Trail route through the park and information regarding hours and allowable uses. In addition, as opportunities arise, the District will coordinate with Alameda County to consider options for connecting to downtown Sunol and the Tyler Ranch Staging Area (Refer to *Section 4.4.1.3 Transit, Biking & Walking Access* for suggested improvements).

Refer to *Section 4.5 - The Trail System, Planning Area 1 - Table 4,* and *Map 15* for a description of the trails that connect to Foothill Staging Area, and *Planning Area 2 - Table 4* and *Map 16* for a description of the trails that connect to Oak Tree Trailhead.

4.4.1.2 Proposed Staging Areas & Trailheads

Two new staging areas; one at the Foothill Road/ West Las Positas Boulevard intersection (Garms), and a second at the southwest terminus of Foothill Road (Tyler Ranch) are proposed (Refer to *Figure 4 - Access & Trail System Concept Plan Map* for staging area and trailhead locations*).*

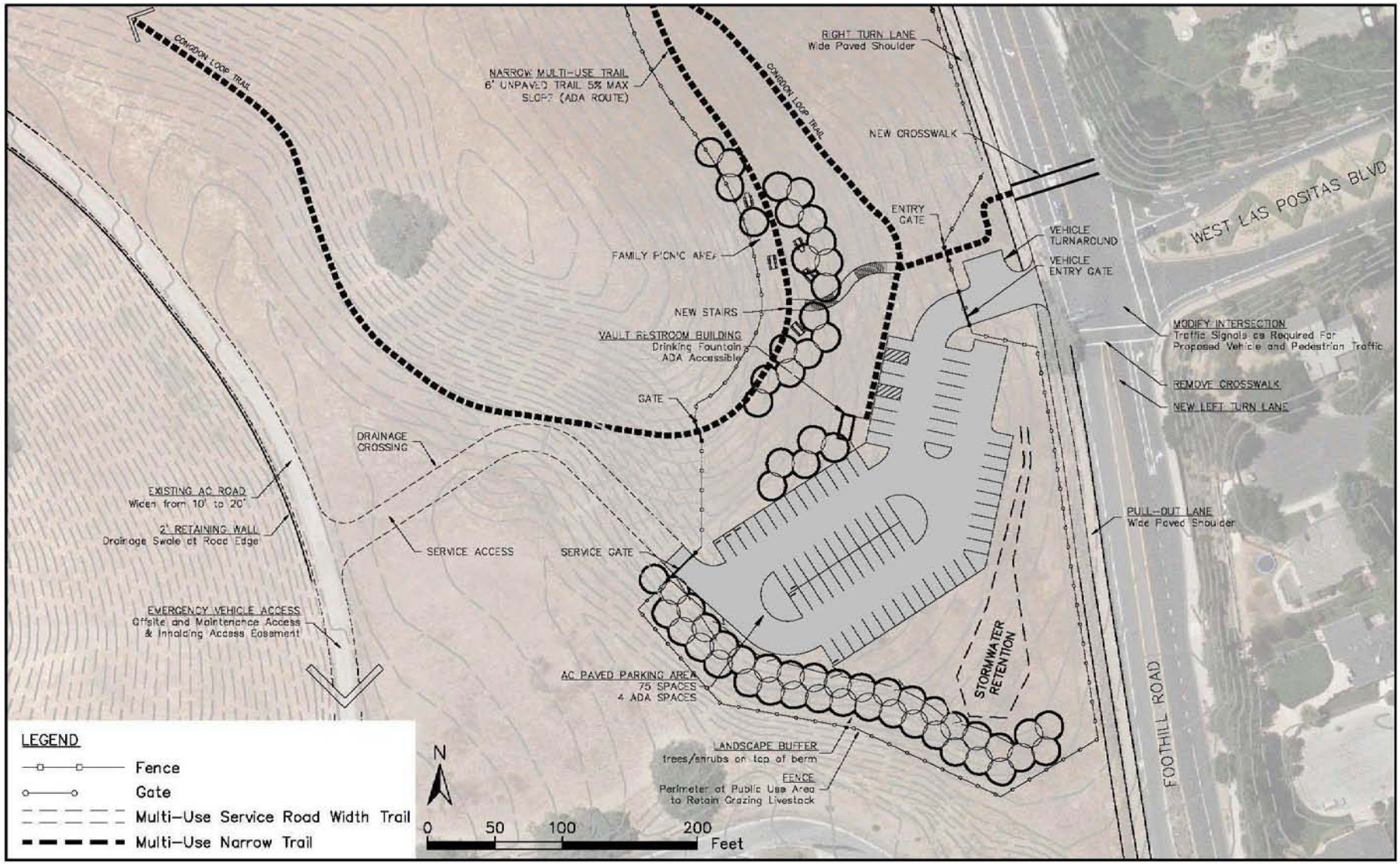
Garms Staging Area

The Garms Staging Area at West Las Positas Boulevard (approximately four acres) is proposed to include:

- Ingress and egress from Foothill Road with a modified signalized intersection at West Las Positas Boulevard, including headwalls, left turn lanes and signal modifications
- Walk-in access from northern boundary of the staging area that will align with the existing crosswalk at Highland Oaks Drive to provide a connection to local neighborhoods; improvements may include: a self-closing, pass through gate; signage at the trailhead, and warning lights and signs at the crossing
- Gated entry at West La Positas Boulevard and gated service access at west end of parking area
- Parking for approximately 75 parking spaces including four ADA compliant spaces
- A family picnic site near the parking lot with two double vault toilets
- A nature loop trail (ADA compliant) confined to the "Garms" parcel
- Access from the staging area to Tehan Falls Trail, a narrow, natural surface, multi-use trail with connections to Tehan Falls and Main Ridge.

Refer to *Figure 12 - Garms Staging Area* for staging area features.

The half-mile access road to the private inholding and park residence will be retained from River Rock Hill Road (per an existing easement agreement). Proposed improvements to the service access road may include: an improved crossing over an existing drainage to connect the new parking area with the



East Bay Regional Park District
Initial Study
Planning/Design and Construction
October 06, 2011

Figure 12
GARMS STAGING AREA
CONCEPT PLAN
Pleasanton Ridge Regional Park
Alameda County, California

existing service road access; and widening and paving of the existing access road, if future uses for the Garms residence dictate a need.

As the Garms Staging Area is constrained by steep terrain, the play area at this park gateway is proposed along the Congdon‟s Loop Trail at the northwest corner of the Garms parcel near the proposed site of the Garms Picnic / Day Camp area and will be developed in coordination with the day camp (Refer to *Appendix L - Play and Fitness Apparatus Prototypes*).

The residential structure that currently serves as a District staff office and park security residence will be retained. The existing staff office will be retained for District staff and may be used as a meeting facility. The park security residence function will also be retained.

The existing park maintenance area at the Garms Staging Area will be removed when the new facilities at the Tyler Ranch Staging Area are completed and the park staff office functions have been relocated.

Tyler Ranch Staging Area

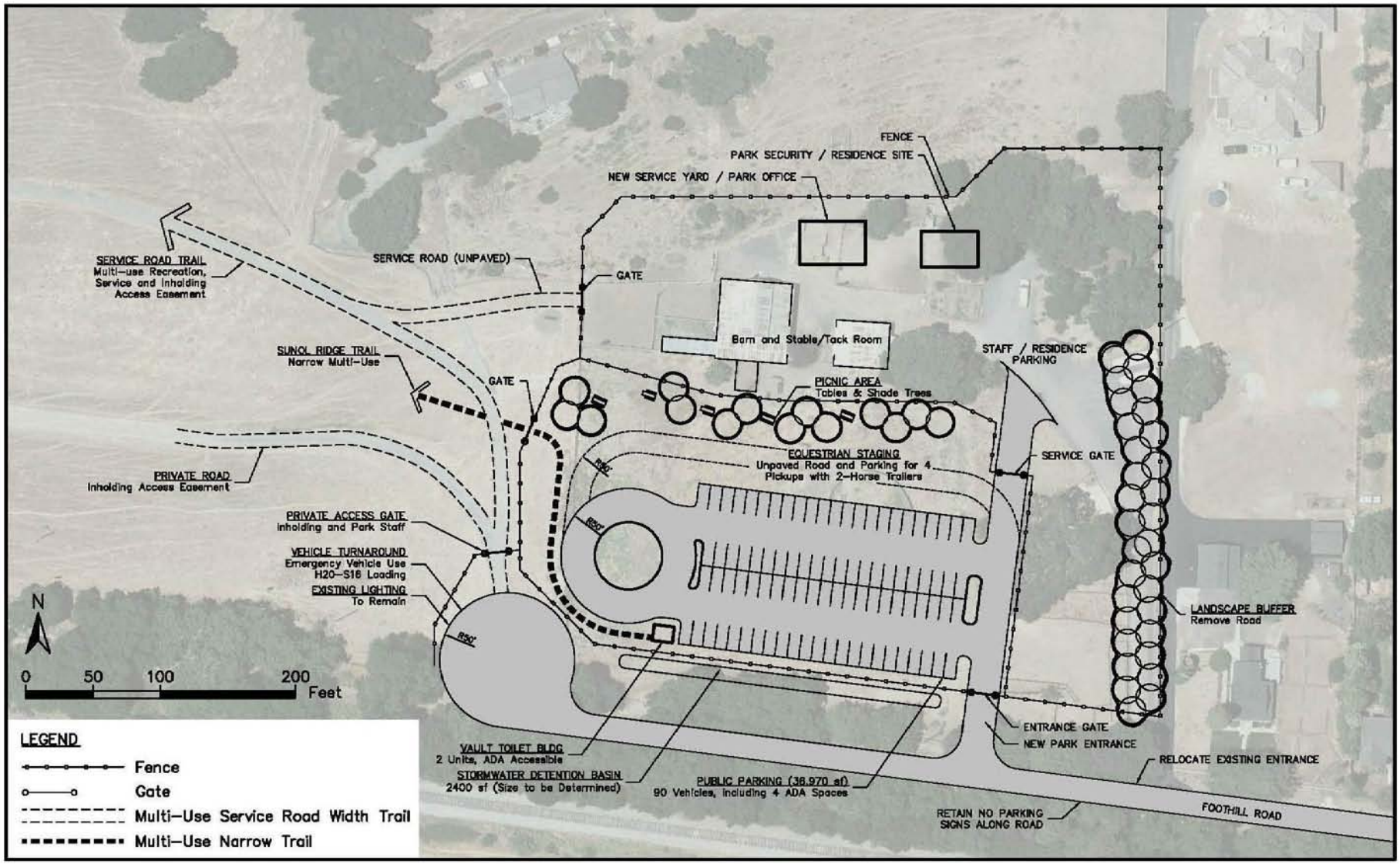
The Tyler Ranch Staging Area (approximately four acres) is located at the southwest terminus of Foothill Road in the Town of Sunol. The site includes: a pasture area that fronts Foothill Road, a vacant residence, a residential home site, a barn, a workshop, a storage shed, a chicken coop, a spring, and series of corrals. The Tyler Ranch buildings and features appear to have been constructed in the early 20th century (1900-1940s), but construction could have occurred earlier [personal communication Scott Crawford Nov 2009 and ARS 2011].

This site, which is proposed for the Tyler Ranch Staging Area will include*:*

- Up to 90 parking spaces, including two ADA compliant spaces, and pull through parking for up to four pick-ups/two-horse trailers
- A family picnic site near the parking lot with two double vault toilets
- Access to Sunol Ridge Trail, a narrow, natural surface, multi-use trail and partially paved service-road-width trail that will connect to Sunol Ridge
- Landscape screening separating park uses from adjacent residences
- Relocation of the gated park entry
- Gated service yard access to service yard and park security residence.
- Retention of the gated entry with keyed 24-hour access for the private inholding residents separate from public park entry
- Vehicle turn-around at the western terminus of Foothill Road with paving to handle H20-S16 loading and a turning radius that can accommodate emergency vehicles and cattle hauling equipment.

Refer to *Figure 13 – Tyler Ranch Staging Area* for staging area features.

No children‟s play area is proposed for the Tyler Ranch Staging Area as the staging area at Tyler Ranch is hot (exposed, south-facing), noisy (freeway and train traffic) and is physically constrained by existing site conditions, including a “high” cultural sensitivity due to the presence of historic resources. In



East Bay Regional Park District

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July 2012

Figure 13
TYLER RANCH STAGING AREA
CONCEPT PLAN
Pleasanton Ridge Regional Park
Alameda County, California

addition, this staging area serves as the gateway for the park‟s most challenging trails.

Existing no parking signs and night lighting along Foothill Road will be retained. In addition, as opportunities arise, the District will coordinate with Alameda County to consider options for connecting to downtown Sunol and the Tyler Ranch Staging Area (Refer to *Section 4.4.1.3 Transit, Biking & Walking Access* for suggested improvements).

A District staff office and service facility with equipment storage, work areas, and staff parking will also be incorporated into this staging area, and provisions will made for one park residence. When these facilities are constructed, a water service connection should be provided connecting to the San Francisco Public Utility Commission (SFPUC) municipal water service line.

The cultural resource sensitivity map for the Tyler Ranch Staging Area identified this area as having a "high" sensitivity due to the presence of existing structures dating back to the 1940s or earlier (Refer to *Appendix G-Cultural Features* for a description of the buildings). Thus, when the staging area is developed these structures should be evaluated for structural integrity, historic value and potential for adaptive reuse or recommendation to demolish to protect visitor and employee safety, as appropriate (Refer to *Section 4.3.2 - Cultural Resource Management Programs* for recommendations on addressing historic resources**).**

Devany Canyon Trailhead

One new trailhead is proposed along the northern boundary of the park at the eastern terminus of Devany Canyon Road. This trailhead will provide access for persons entering the park on foot or bike. Initially, it will not include any vehicle staging facilities and District improvements on-site will be limited to installation of a self-closing pass-through gate and development and installation of park entry identification signage, including a wayside panel with a map of the park showing the park trails and information regarding hours and allowable uses.

The section of Dublin Canyon Road that intersects with Devany Canyon Road is within the City of Pleasanton‟s jurisdiction and under its management. While there are currently no parking restrictions along this section of road, the District will coordinate with the City of Pleasanton to determine whether any roadway signage and/or restrictions will be required prior to opening this trailhead to the public.

Should opportunities arise to acquire additional lands in this area, staging facilities should be considered that would accommodate at a minimum 25 parking spaces, including two ADA compliant spaces, and pull through parking for four pick-ups/two-horse trailers.

4.4.1.3 Other Local Staging Areas

Limited secondary access for local Pleasanton residents will continue to be provided from the City of Pleasanton Augustin Bernal Community Park Staging Area through a gated entry located at the intersection of Foothill Drive and Golden Eagle Way and from Longview Drive. In the future, staging options may be considered in the vicinity of Alviso Adobe Community Park. Walk-in access from adjacent neighborhoods may also be considered in the future. Of special interest would be those properties with developed trail networks that could directly link homeowner association open space areas with Pleasanton Ridge Regional Park such as *Moller Ranch* and *The Preserve*.

4.4.1.4 Transit, Biking & Walking Access

In addition, to working with the City of Pleasanton to complete the proposed intersection improvements at West Las Positas Boulevard, the District should also work with the City to encourage the development of bike lanes and sidewalks along Foothill and Dublin Canyon Roads to provide safe, non-motorized (e.g., transit, biking, and walking) access into the park.

Coordination with Pleasanton and the County will be needed to connect the park to local neighborhoods.

Under consideration should also be a transit bus service extension along Foothill Road from the intersection of Stoneridge and Foothill Roads to the Garms Staging Area from the downtown Pleasanton and West Dublin/Pleasanton BART stations. Walk/bike-in access should also be encouraged with designated crossings at the northern (Highland Oaks Drive) and southern points (West Las Positas Boulevard) of the Garms Staging Area (Refer to *Planning Area 7 – Figure 21*).

The District should also coordinate with Alameda County to provide connections between the Oak Tree Trailhead, Tyler Ranch Staging Area and downtown Sunol. Near term improvements that may be considered when the Tyler Ranch Staging Area is developed include:

- At the intersection of Foothill Road and Kilkare Canyon Road:
  - A four-way stop
  - Park identity and park hour signs
  - Retention of "*Dead End Road Ahead*" signs
  - Pedestrian/bike signs at the existing at-grade railroad crossing connecting Foothill Road to downtown Sunol
- Along Foothill Road:
  - Pruning vegetation along right-of-way to improve visibility along the road
  - Mirrors on curbs
  - Speed limit signs - 25mph

- "*Share the Road*" bicycle signage and "*Warning - Pedestrians Present*" signage.

Long-term, the District and Alameda County should explore the potential for providing a formal connection between the Oak Tree Trailhead, Tyler Ranch Staging Area and downtown Sunol through the provision of a parallel pathway along Foothill Road and signage at the existing at-grade railroad crossing on Kilkare Road. These linkages will also be important for the southern route of the Calaveras Ridge Trail that will eventually extend from Pleasanton Ridge Regional Park to Sunol Wilderness (Refer to *Figure 9 - Existing & Proposed Regional Trails*).

4.4.1.5 Picnicking & Camping

Picnic/Rest Areas & Group Day Camps

Family picnic areas are proposed in association with each of the new staging areas; the Garms Staging Area located at West Las Positas Boulevard along Foothill Road, and the Tyler Ranch Staging Area located at the southwest terminus of Foothill Road in Sunol. Expansion of the existing family picnic area at the Foothill Staging Area is also recommended. In addition, several individual picnic tables and/or benches are proposed to be placed along the trails at key view and/or destination points (Refer to *Figure 4 - Access & Trail System Concept Plan Map*).

Two reservable group / day camp sites are also proposed; one along the Sycamore Grove Trail near the Foothill Staging Area (Refer to *Figure 15-Planning Area 1 Implementation Program Actions*); and one near the Garms Staging Area along the Congdon Loop Trail (Refer to *Figure 21-Planning Area 7 Implementation Program Actions*). Development at these sites would be limited to picnic tables, storage cabinets, trash receptacles and a vault toilet. No group picnic areas are proposed, due to the limited access to flat terrain within walking distance of any of the staging areas.

Back Country Pack-in Camping

The EBRPD Camping Task Force Study (2005, updated 2009) identifies potential back country pack-in camping opportunities throughout the District, including Pleasanton Ridge Park. In keeping with this study, the LUP identifies two campsites in the LUP Study Area (Refer to *Figure 4 - Access & Trail System Concept Plan Map* for location of the back country camp areas). These sites would be consistent with the camping guidelines established in the study as they would:

Opportunities for back-country camping are located near Sinbad Creek along the Sinbad Creek Trail and the Aquila Loop Trail.

- Be located away from private neighboring properties
- Be able to serve between 5 and 25 people
- Offer a potable water
- Provide space for tent pads, picnic tables, toilet, and storage cabinet
- Be serviceable from multi-use trails.

Sinbad Creek Camp

Sinbad Creek Camp is located along the Sinbad Creek Trail between the Oak Leaf Trail and the Bay Leaf Trail in a wooded area approximately one and one-half miles north of the Kilkare Road park boundary (Refer to *Figure 19 - Planning Area 5 Implementation Program Actions*). There are two camping pads and one proposed day use picnic site at this location.

The day use picnic site is proposed for a terrace above Sinbad Creek on the west side. It is less than one acre in size. The site is heavily vegetated with oak, pine, bay and cedar trees, poison oak, and a variety of native and non-native grasses.

A former house, known as the Schneider residence, was removed from the proposed picnic site in the 1990s via a controlled burn. It is now marked by a level graded area with remnant landscaping features, including rock lined paths and a fire pit.

Two separate campsites are situated uphill about 500 feet to the south of the former Schneider place within an approximately one-acre area that has been graded to create level pads in the past. The campsites are surrounded by a variety of oak trees and there is a large oak near the center of the two sites.

This camping area, which is currently used on a limited basis for District programs, will be improved to accommodate use by reservation for hikers, bicyclists and equestrians. Proposed improvements will include picnic tables, toilet(s), food/supply storage cabinets, bike racks, horse ties, water troughs, and trash receptacles. The existing potable water line will be extended from the picnic area to the camping area. Cooking will be limited to camp stoves; no campfires will be allowed.

To minimize potential siltation and/or significant increases in runoff that could degrade water quality and adversely impact aquatic resources, back-country recreation activities should be located a minimum of 100 feet back from the top of the bank of Sinbad Creek.

Aquila Camp

In addition to the existing site along Sinbad Creek, one additional backcountry pack-in camping site is recommended. The *Aquila Camp* would be located along Sunol Ridge off the Aquila Loop Trail in a grove of oak trees approximately six miles from the *Sinbad Creek Camp* and approximately 9.5 miles from a potential site on the Owen landbank parcels. A knoll at the entry

to this sheltered campsite offers panoramic views to the south and west of Sunol Ridge extending to, and beyond, Mission Peak and the San Francisco Bay respectively (Refer to *Figure 22- Planning Area 8 Implementation Program Actions*).

Similar to the *Sinbad Creek Camp*, and in keeping with the 2005 camping guidelines, this site will provide two to three level pads for tents, and include picnic tables, toilet(s), food/supply storage cabinets, bike racks, horse ties, water troughs and trash receptacles. Potable water will be piped in from a nearby spring and monitored for water quality by the EBRPD Water Management Department consistent with District protocols for monitoring spring water sources. Cooking will be limited to camp stoves; no campfires will be allowed.

4.4.1.6 Planning Unit Actions - Recreation Facilities Recommendations

Recreation facilities recommendations refer to future specific actions for the Planning Areas identified on *Figure 14,* and detailed on *Figures 15- 22* and *Figure 23,* that will be initiated in the future to meet the objectives set forth in this LUP.

- **Planning Area 1 -** Make improvements to Foothill Staging Area as described in Section *4.4.1.2 Proposed Staging Areas & Trailheads* and illustrated in *Figure 11 - Foothill Staging Area* [Contingent on future needs and funding].
- **Planning Area 1** - Develop a day camp /picnic site near the junction of Foothill Trail and Sycamore Grove Trail as described in *Section 4.4.1.5 Picnicking & Camping* [Contingent on future funding].
- **Planning Area 5 -** Improve the Sinbad Creek back country campsite as described in *Section 4.4.1.5 Picnicking & Camping* to augment trail system and recreation programs and open for public use by reservation [Contingent on Future Funding].
- **Planning Area 6** – Develop Devany Canyon Traihead as a walk/bike-in access including: 1) installing a self-closing, pass-through gate and educational and wayfinding signage; and 2) coordinating with the City of Pleasanton to determine roadway signage and/or restrictions.
- **Planning Area 7 -** Develop staging area improvements described in *Section 4.4.1.2 Proposed Staging Areas & Trailheads,* and illustrated on *Figure 12 - Garms Staging Area,* concurrently with trail system additions described for Planning Areas 6 and 7 [Contingent on securing permits and funding for construction of new staging areas and additional staffing].
- **Planning Area 7 -** Improve the existing service access to the staff office and private inholding, as needs warrant [Contingent on securing permits and funding].
- **Planning Area 8 -** Develop staging area improvements described in *Section 4.4.1.2 Proposed Staging Areas & Trailhead,* and illustrated on *Figure 13 – Tyler Ranch Staging Area,* including: maintenance facilities and a park security residence [Contingent on securing permits and funding for construction and additional staffing].

- **Planning Area 8 -** Develop five trailside picnic-rest areas at identified view sites as shown on *Figure 22 - Planning Area 8 Implementation Program Actions* to augment trail system [Contingent on completing trails].
- **Planning Area 8** - Develop the Aquila back country campsite as described in *Section 4.4.1.5 Picnicking & Camping* to augment trail system and recreation programs [Contingent on Future Funding].

Chapter 4 - Section 4.5

The Trail System

4.5.1 The Trail System

The planning process to identify feasible routes for the proposed trails involved a lengthy evaluation of site opportunities and constraints and included resource suitability mapping and field investigations. The resulting standards, assumptions, values, and development guidelines presented in this plan were discussed amongst District staff and then presented to the public at a series of meetings (Refer to *Section 1.3.3 - Meetings & Public Queries).*

While the proposed alignments have been inspected on-foot in the field, final alignments may vary to respond to specific field conditions and mitigation requirements at the time of final design. As part of the LUP‟s intent is to protect park resources, assessments of the existing trails were conducted to identify areas of improvement and/or realignment in addition to defining routes for new trails. The majority of the existing system is integrated into this plan, but in some areas, the trails are rerouted to better protect park resources, and/or improve circulation and reduce visitor confusion.

4.5.1.1 The Access & Trail System Concept Plan Map

The *Access & Trail System Concept Plan Map* (Refer to *Figure 4*) will provide access to 6,532 acres of parkland, 2,360 acres of which are currently in landbank status. The plan map delineates 31 miles of narrow, multi-use trails (less than four feet wide) and 32 miles multi-use, service-road-width trails (greater than eight feet wide). The resulting trail system will total 63 miles at full build out and will include three District staging areas and two trailheads offering visitors access to a variety of natural and cultural features that experienced as a whole tell the story of this park. (Refer to *Section 4. 4.1 - Staging Areas & Trailheads* for a description of park access points).

This trail system will be implemented through retention and modifications to the existing park hiking, mountain biking, equestrian trail infrastructure, along with construction of new trails and staging areas, taking into consideration the values, standards, and development guidelines described in this section.

Trail system additions and modifications are described for each of the planning areas in *Tables 4 -11*, while *Figures 15 - 22* and *Figure 23* illustrate existing trails, proposed trails, trail reroutes and trail modifications, along with proposed trail closures/restoration work.

Table 3 - Trail Mileage & Acreage provides a comparison of trail mileage data for both the existing system and the proposed system at full build-out, including:

- Trail mileage for the existing narrow and service-road-width trail system
- Overall acreage of the existing and proposed trails systems based on the width and distance of each system
- The number of miles of narrow and service-road-width trail reroutes and trail closures/restoration work required to complete the proposed system.

Recreation, Environmental & Operation Values

The trail system has been conceived by balancing environmental conservation with recreation opportunities and operational needs, taking into account the values described below.

- **Recreational Values -** Considers total numbers of constituents likely to be served, not small group or single user benefit values
- **Environmental Values -** Considers wildlife and plant species impacts (e.g., trampling, disturbance to aquatic habitats, and wildlife breeding and foraging activities) in determining trail alignments and their future use
- **Operation Values** - Weighs the labor, materials, and environmental impacts associated with constructing and maintaining new, well-designed trails, against the long term maintenance costs (e.g., environmental effects, staff time) of retaining existing "bootleg" and poorly designed, inappropriate official trails over the long term.

Trail Types - Standards & Assumptions

The trail system will include two natural surface trail categories; narrow trails (less than four feet wide) and service-road-width trails (greater than eight feet wide). This distinction allows for some variability in the trail width of these two trail types depending on methods of construction (e.g., manual, machine built) and the specific physical conditions (e.g., trees, rock outcropping, slope) of the trail alignment. Trails are designated as hiking-only, hiking/equestrian-only, or multiple-use. Multiple-use trails, which make up the majority of the system, are those that offer access to hikers, equestrians, mountain bicyclists, and dog walkers (with dogs on or off leash, under voice control) along the same trail.

Table 3 – Trail Mileage & Acreage

	EXISTING TRAIL SYSTEM			SIGN & OPEN	MODIFY	CLOSE	NEW CONSTRUCTION	NARROW	CONCEPTUAL TRAIL SYSTEM		
	TOTAL	Sanctioned (Narrow & Service Roads)	Unsanctioned Narrow	TOTAL (Existing Trails Requiring Only Signage to Open)	TOTAL (Narrow & Service Roads to be Modified: Maintain, Repair, Realign)	TOTAL (Narrow Trails & Service Roads)	TOTAL (New Narrow Trail)	TOTAL (Service Roads to be Narrowed)	TOTAL	Narrow <4' wide	Service Road >8' wide
Trail Length (x) Miles	38	29	9	12	5	10	17	7	63	31	32
Trail Length (x) Feet	202,646	154,070	48,576	62,515	27,456		90,552		332,746	162,941	169,805
Average Trail Width	7.6	12	3	8	9		4		7.5	4	11
Trail Footprint (x) Square Feet	2,005,783	1,848,845	156,938	492,307	235,337	233,904	362,208	436,656	2,510,182	651,763	1,858,419
Trail Footprint (x) Acres	46	42	4	11	5	5	8	10	58	15	43

Development Guidelines for New Trail Alignments

The *Access & Trails Concept Plan Map* (Refer to *Figure 4*) identifies a network of multi-use trails for hiking, horseback riding, biking, and dog walking combining narrow and service-road-width trails. This trail system will provide access to 2,360 acres of additional open space expanding the parklands that will be open to the public, from 4,172 acres to 6,532 acres. Access to the system will be from the staging and trailheads described in *Section 4.1.1.1 – Staging Areas & Trailheads*.

The trail system will be designed to accommodate a variety of uses including hiking, horseback riding, biking, and dog walking.

This multi-use trail system will:

- Incorporate existing trails into the system where appropriate to minimize: resource habitat disturbance, soil displacement, and permitting requirements associated with new construction
- Take into account adjacent properties and easement agreements, user experiences and resource protection when determining new trail alignments, and may include, where appropriate, additional screening, signing, and/or fencing adjacent to private properties
- Provide clearly signed intersections/ connections
- Incorporate destination points that create a sense of arrival/place
- Provide a trail hierarchy with several loop options within three miles of the trailhead/staging areas that offer a variety of experiences.

It will offer loops of various lengths allowing for one hour to all day or overnight trips with trail density lessening with distance from staging areas in consideration that "*roadless*" and even "*trailess"* areas are considered to have high park value. The system will also provide a hierarchy of experiences including: east and west facing slopes, grasslands that highlight wildflowers, and woodland areas that offer variations in shade - sun and wind - shelter exposure. Park features and destinations that the trail system highlights include:

- Key views and interpretive opportunities
- The highest points on the ridges
- Canyons and water features
- Interesting topography
- Back country campsites
- Picnic/rest area sites

4.5.1.2 Trail Construction & Trail Modification

The *Access & Trail System Concept Plan Map* (Refer to *Figure - 4*) proposes a 63-mile trail system at full build-out. As shown on *Figures 15 - 22* and *Figure 23*, this trail system will be achieved by:

- Retaining 19 miles of existing, signed, service-road-width and narrow trails

- Opening 12 miles of existing, unsigned, narrow and service-road-width trails
- Brushing and clearing, repairing and realigning 5 miles of narrow and service-road-width trails as required to retain existing trail infrastructure
- Narrowing 7 miles of service-road-width trails
- Constructing 17 miles of new, narrow, natural surface trails (less than 4 feet wide)
- Closing 10 miles of existing, poorly designed, narrow and service-road-width trails and restoring the areas of former trail alignments

Specific individual trail improvements are identified below. Note that references to Planning Area numbers refers to the Planning Areas designated on *Figure 14 - Planning Area Map Key & Natural & Recreation/Staging Unit Designations* and illustrated more fully on *Figures - 15 – 22* and *Figure 23*.

Opening Existing Unsigned Trail Routes

There are several existing trails within the system that are either not signed or need resigning for system clarity. Most of these trails are located in landbanked areas of the park not currently open to the public. Existing, unsigned trails that require identification signage include:

- Hedd Canyon Trail [Planning Area 4]
- Meadow Pond Trail [Planning Area 1]
- Oak Leaf Trail [Planning Area 5]
- Raptor View Trail [Northern areas of Planning Area 8]
- Schuhart Trail [Planning Area 5]
- Tehan Falls Trail (Eastern $^{1}/_{5}$) [Planning Area 6]
- Tehan Ridge Trail [Eastern area of Planning Area 4 and Planning Area 6]
- Tree Frog Trail (Renaming of Oak Tree Trail between Thermalito/Oak Tree trail junction and Valle Vista Trail [Planning Area 2]
- Valle Vista Trail between Schuhart Trail and Shady Creek Trail [Planning Area 5]

Brushing & Clearing & Repair to Retain Existing Trail Infrastructure

In some cases, recommended trail alignments include existing trail or road infrastructure that has not been maintained. These trails are recommended for incorporation into the trail system where these alignments would reduce the need for new trail construction to complete gaps. Reestablishing these routes may require: vegetation removal, correction of surface drainage flow, grade reductions, and re-routing sections in areas where there have been landslides or failures that have eliminated sections of trail. Certain trails may require the installation of drainage crossings such as a culvert, ford, bridge or similar structure. Brushing and clearing and/or repair to retain existing trail infrastructure is recommended for these routes:

- Pelnen Trail (northern ½) - hike-equestrian only [Planning Area 2]
- Tehan Falls Trail (portions of) [Unnamed - Planning Area 6]
- Raptor View Trail - Sunol Summit Overlook south to near Pond 27 Unnamed - Planning Area 8]

- Wetes Trail - hike-equestrian only [Planning Area 2]

Realignments of Service-Road-Width Trails

New alignments are recommended for existing unsustainable routes. These new trail alignments will provide safer, environmentally superior alignments to destinations that meet operational needs, while enhancing recreation and resource values. Realignments of service-road-width trails to provide safer, environmentally superior alignments (e.g., less steep and erosive) are recommended for these routes:

- Sunol Ridge Trail - Service-road-width trail segment runs along the length of Sunol Ridge and provides access to sites key to cattle operations (e.g., water supply sources) [Unnamed - Planning Area 8]
- Valle Vista Trail [North Ridge Trail between junctions 33 and 37 [Planning Area 5]
- Valle Vista [realignment of unnamed segment extending from Main Ridge to Devany Canyon - Planning Area 6]
- Valle Vista Trail [North Ridge Trail Segment 45-46 (Ridgeline to Devany Canyon) - Planning Area 6]

Note: Segment numbers, where applicable, relate to 2011 Park brochure map numbers (Refer to *Appendix J*).

Narrowing of Service-Road-Width Trails

In response to public interest for more narrow natural surface trails, the LUP proposes narrowing service-road-width trails to a narrow trail width (less than 4 feet wide) where emergency and maintenance access can be provided from other trails. These trail width modifications include narrowing:

- Aquila Loop Trail (eastern ½) - this trail will require realignment in some sections [Unnamed - Planning Area 8]
- Bay Leaf Trail [Bay Leaf Trail between Valle Vista Trail and Sinbad Creek Trail - Planning Area 5]
- Cook Canyon Trail [Cook Canyon Trail Segment 50-51 - ridgeline to park boundary - Planning Area 4]
- Mariposa Trail between Valle Vista Trail and Moss Trail [Mariposa Trail - Planning Area 5]
- Needlegrass Trail [Loop Trail between junctions 35 and 36]
- Valle Vista Trail [Ridgeline Trail between junctions 10 and 14 where: trail segment parallels Olive Grove Trail – Planning Area 2]
- Valle Vista Trail [Ridgeline Trail between junctions 18 and boundary with Augustin Bernal Community Park [Planning Area 2]
- Valle Vista Trail [North Ridge Trail between junctions 33 and 37 [Planning Area 5]
- Youkish Trail (northeastern ½) - hike-equestrian only [Ridgeline Trial between junctions 5 and 6] [Planning Area 2]

Note: Segment numbers, where applicable, relate to 2011 Park brochure map numbers (Refer to *Appendix J*).

Realignments of Narrow Trails

Development of the trail system includes modifications to some existing narrow natural surface trails (<4 feet), including trail refinement and trail realignments involving the following trails:

- Eliminate a redundant section of Woodland Trail where it parallels Oak Tree Trail [Planning Area 1]
- Realign and incorporate unmapped trail segments into a narrow trail alignment along the Olive Grove Trail in the vicinity of the historic Olive grove [Planning Area 2].

Construction of Narrow Trails

Development of the trail system includes new trail construction of 17 miles of narrow, natural, surface trails (<4 feet) including the following trails:

- Aquila Loop Trail (northern ½) [Unnamed - Planning Area 8]
- Bachelder Trail [Planning Area 1] - Interpretive, hike-only
- Bay Leaf Trail [Planning Areas 5]
- Canyon Oak Trail [Planning Area 8]
- Congdon Loop Trail [Planning Area 7
- Foothill Trail [Planning Area 1]
- Kilkare Canyon Trail [Planning Areas 5 & 8]
- Lynx View Trail [Planning Area 1]
- Main Ridge Trail [Planning Area 6]
- Mariposa Trail - Moss to Shady Creek [Planning Area 5] North Woods Loop Trail (portions of) [Unnamed - Planning Area 6]
- Pelnen Trail (southern ½) - hike-equestrian only [Planning Area 2]
- Raptor View Trail [Planning Area 5 and northern portions Planning Area 8]
- Sunol Ridge Trail [Planning Area 8]
- Tehan Falls Trail (portions of) [Planning Areas 5 and 6]
- Wildflower Trail [Planning Area 7]

Proposed Drainages Crossings

Although many of the drainages in the park only convey water during storm events or because of a nearby spring or seep, they generally fall under the jurisdiction of the California Department of Fish and Game (CDFG) and the Regional Water Quality Control Board. CDFG would require notification and a Streambed Alteration Agreement under Section 1600 of the CDFG code and the Water Board would require Section 401 Certification under the federal Clean Water Act and Waste Discharge Requirements under the State of California‟s Porter-Cologne Water Quality Control Act should trail construction require crossing a perennial creek or seasonal drainage. However, if a crossing, such as a bridge, can be installed without disturbing the creek bed, channel or bank, or removing riparian vegetation, no notification will be necessary. It is estimated that the LUP would require construction of approximately ten drainage crossings to complete the proposed trail system.

It is possible there would be need for other small drainage crossings not identified at this time due to the scale of this LUP. It is anticipated that these would be primarily minor reinforcements across seasonal drainages to prevent trails from washing out.

Trail Closures/Site Restorations

Ten miles of existing trails are proposed to be closed. These are trails that have been deemed to be unsafe (e.g., overly steep, poor sightlines), redundant (e.g., multiple parallel routes to same destinations/connections) or environmentally unsustainable, and/or „unsanctioned" trails (e.g., highly erosive trail routes or routes with high potential to disturb wildlife movement in critical habitat areas). Closed trail routes will be decommissioned and the former alignments restored. These trails are identified as *„Eliminated Trail & Restored Site"* on the *Planning Area Maps* (Refer to *Figures 15 – 22* and *Figure 23).* These decommissioned routes would be replaced with new sections of trail identified as *„Proposed Multi-use Trail",* which will be constructed to provide a similar access/experience to that which is currently provided by the unsafe, redundant and/or unsanctioned" trail(s).

Unsustainable trail routes will be decommissioned and the former alignments restored.

Trail closures will occur in phases concurrent with new trail construction in the same area such that connections between trails and/or to destinations will be retained and disturbances to the land will be minimized. New trails and modifications to existing trails will be completed in accordance with the trail implementation guidelines for each planning area described under *Section 4.5.2 - Planning Area Actions - Trail System* and *Figures 15 – 22* and *Figure 23)* using the Best Management Practices (BMPs) described below. Where relocation is not practicable, efforts will be made to: monitor highly erosive sites and stabilize erosion, and/or employ seasonal closure restrictions to protect water quality of creeks in the wet season and sensitive habitat during key nesting and foraging periods.

Best Management Practices (BMPs)

Trail development, realignment and/or repair, along with site restoration work, involves ground disturbing activities that typically include: grading and/or mowing the trail surface, replacement of existing culverts, installation of new drainage structures, trenching, backfilling, and minor realignment as a result of erosion and/or slope instability. In addition, ancillary facilities along the trails are repaired or replaced, as needed, including: wooden benches, picnic tables, and drinking fountains.

To minimize adverse impacts to the parkland environment the best management practices described in *Appendix K - Trail Construction & Trail*

Modification Best Management Practices (BMPs) should be employed during trail construction, modification and/or restoration activities.

Actively Managing the Trail System

To successfully manage the development of the trail system, and restoration of eliminated and narrowed trail alignments, active management will be crucial and will best be accomplished through partnerships with park staff and park volunteers (Refer to *Section 3.3.1 – Staffing & Responsibilities*), along with an active program of outreach to the community through a variety of means as described in *Section 4.6 - Recreation & Interpretive Programs*).

4.5.1.3 Trail Signage

An expanded signage program is important to clarify name and use changes to the existing trail system and to highlight new routes. The trail system will include: wayfinding, interpretive and regulatory signage to encourage responsible trail use, and identify regional trail routes. Signage will also provide trail users with information regarding property rights in order to minimize public/private use conflicts and trespassing. Where the parkland boundaries abut private lands, including the various private in-holding boundaries, notices should be posted stating "*Private Property - No Trespassing,*" and at the entrance to River Rock Road signage should be added indicating that this is a "*Private Road - Not a Public Park Entry*." In areas where an old trail is being relocated or abandoned, the former trail area under restoration will be posted "*Not a Trail, Habitat Restoration Taking Place."*

In addition to trail signs, information will be disseminated through: the District Web site; park brochures distributed at the park; District events; and through outreach with clubs, shops, and schools.

4.5.1.4 Trail Use

District‟s Trail Use Policy

Because the trails in this plan have been evaluated for their suitability for multiple use, the LUP recommends acceptance of the proposed multi-use trail system as a whole (as shown on *Figure 4- Access & Trail System Concept Plan Map* and delineated in *Figures 15 – 22* and *Figure 23),* including the narrow, natural surface trails that make up a portion of the overall network of trails proposed for the park.

Universal Access

To encourage inclusive access to this unique outdoor environment for everyone, especially the disabled, young children, and older adults, each of the staging areas provides Americans with Disabilities Act (ADA) compliant parking, toilet, and picnic facilities. To help offset the challenging access to

the steep, rugged terrain leading to ridge tops, ADA compliant loop trails approximating one mile in length have been identified on the *Access & Trail System Concept Plan Map* (Refer to *Figure- 4*) near the Foothill and Garms Staging Areas.

In addition, park usage accommodations will conform to the District policy on use of *Other Power-Driven Mobility Devices (OPDMD) - 2011*.

Through design, signage and accommodation the trail system strives for inclusive access to this unique outdoor environment.

Trails will be rated according to the Universal Trail Assessment Process (UTAP) and the State Park Accessibility Standards when evaluating trail difficulty and presence of obstacles (e.g., boulders, low overhanging limbs).

Trail signage throughout the park will include information on trail difficulty and use, including ratings that will categorize trails according to level of obstacles/challenges (not user skill level) in keeping with current District practices, including: grades, clearances, and trail surface conditions that will help guide visitors" decisions regarding use of more challenging trails within the interior of the park.

4.5.2 Planning Area Actions - Trail System Recommendations

Trail system recommendations refer to future specific actions for Planning Areas identified on *Figure 14 - Planning Areas Map Key & Natural & Recreation/Staging Unit Designations,* and detailed on *Figures 15 - 22* and *Figure 23,* that will be initiated in the future to meet the objectives set forth in this LUP. These actions described below.

- **Planning Area 1 -** Decommission and rehabilitate redundant section of Woodland Trail where it parallels Oak Tree Trail identified as „*Eliminated Trail & Restored Site*" and concurrently construct short spur connecting Woodland Trail to Youkish Trail identified as „*Hiking-EquestrianTrail"* as described in *Section 4.5.1.2 Trail Construction & Trail Modification* [Contingent on future funding].
- **Planning Area 1 -** Construct Bachelder Nature Trail identified as „*Proposed Hiking Only Trail"* connecting to Foothill Staging Area and Woodland Trail as described in *Section 4.5.1.2 Trail Construction & Trail Modification* [Contingent on future funding and permitting].
- **Planning Area 1, 2, 6,7 & 8 -** Develop and install educational, wayfinding and Universal Trail Assessment Process (UTAP) signage at trailheads and staging areas [Year 1- 5 and ongoing as new access points are developed]

- **Planning Area 1 - 8 -** Sign trails in accordance with trail naming plan provided in *Appendix A* and as shown on *Figures 15- 22* and *Figure 23* [Year 1-5 and Ongoing concurrent with new trail development].
- **Planning Area 2 -** Reconfigure Trail Junction 5 [convergence of Oak Tree, Olive Grove and Valle Vista Trails to improve trail identity for park users [Year 1-5].
- **Planning Area 2 -** Modify the Valle Vista Trail where trail segment parallels Olive Grove Trail between Foothill Trail junction and boundary with Augustin Bernal Park identified as *„Existing Service Road Trail (Modified)"* to narrow trail width per *Section 4.5.1.2 Trail Construction & Trail Modification* [Contingent on future funding].
- **Planning Area 2 -** Concurrently construct Lynx and Olive Grove Trail segments identified as *„Proposed Multi-use Narrow Trail"* when decommissioning overlapping trail sections identified as *„Eliminated Trail & Restored Site"* per *Section 4.5.1.2 Trail Construction & Trail Modification* [Contingent on future funding].
- **Planning Area 2 -** In accordance with *Section 4.5.1.2 - Trail Construction & Trail Modification* and as shown on *Figure 16*:
  - Sign southern ½ of Narrow Youkish Trail for hike-equestrian use [Contingent on future funding].
  - Narrow Youkish Trail (northeastern ½) as *„Existing Multi-use Service Road Trail (Modified)"* and sign for hike-equestrian use [Contingent on future funding].
  - Clear and brush Wetes Trail identified as *„Proposed Hike-Equestrian Narrow Trail"* and add picnic table to this rest area [Contingent on future funding]
  - Concurrently clear and brush and construct Pelnan Trail identified as *„Proposed Hike-Equestrian Narrow Trail"* [Contingent on Future Funding and Permitting].
  - Construct short spur connecting Youkish Trail to Woodland Trail identified as *„Proposed Hike-Equestrian Narrow Trail"* [Contingent on future funding].
- **Planning Area 2, 4, 5 & 6 -** Develop and install uniform wayfinding trail identification signs where trail segments form a part of the Calaveras Ridge Trail [Year 1- 5].
- **Planning Area 3** - No public access or trail routes are proposed for this isolated area. Should future acquisitions provide opportunities for public connections to the trail network identified in the *Access & Trails Concept Plan Map* (Refer to *Figure 4- Access & Trail System Concept Plan Map*) these options should be explored [Contingent on future opportunities].
- **Planning Area 4** - Repair erosion along Cowing and Sinbad Creek Trails identified as *„Existing Service Road Trail (Modified)"* to improve water quality of these streams that ultimately feed into Alameda Creek in accordance with *1998 Bank Establishment & Management Plan* recommendations and *Section 4.5.1.2 Trail Construction & Trail Modification* [Contingent on modifications to 1998 Conservation Easement Agreement].
- **Planning Area 4** - Repair erosion along Cook Canyon Trail identified as *„Existing Service Road Trail (Modified)"* in accordance with *1998 Bank Establishment & Management Plan* recommendations and *Section 4.5.1.2*

Trail Construction & Trail Modification [Contingent on modifications to 1998 Conservation Easement Agreement].

- **Planning Area 5** - In accordance with *Section 4.5.1.2 - Trail Construction & Trail Modification* and as shown on *Figure 19*:
  - Narrow Mariposa Trail between Valle Vista Trail and Turtle Pond Trail identified as „*Existing Multi-use Service Road Trail (Modified)*" [Contingent on future funding]
  - Concurrently construct narrow trail sections of Valle Vista and Bay Leaf Trails identified as „*Proposed Multi-use Narrow Trail"* when decommissioning overlapping trail sections identified as „*Eliminated Trail & Restored Site*" [Contingent on future funding]
  - Concurrently narrow Bay Leaf Trail and repair erosion between Valle Vista and Sinbad Creek Trails identified as „*Existing Multi-use Service Road Trail (Modified)*" when decommissioning trail sections identified as „*Eliminated Trail and Restored Site"* located between Oak Leaf and Bay Leaf Trails [Contingent on future funding].
- **Planning Area 5** - Construct Raptor View Trail and segments of Mariposa Trail identified as „*Proposed Multi-use Narrow Trail"* per *Section 4.5.1.2 Trail Construction & Trail Modification* [Contingent on future funding and permits].
- **Planning Area 6 -** Concurrently clear and brush and construct North Woods Trail identified as „*Proposed Multi-use Narrow Trail"* when decommissioning overlapping trail sections identified as „*Eliminated Trail & Restored Site*" [Contingent on future funding].
- **Planning Area 6 -** Concurrently construct segment of Valle Vista Trail identified as „*Proposed Multi-use Service Road Trail"* when decommissioning overlapping trail sections identified as „*Eliminated Trail & Restored Site*" [Contingent on future funding].
- **Planning Area 6 -** Install a self-closing, pass-through gate and sign a walk-bike in access at Dublin Canyon Road to provide access Devany Canyon Trail [Year 1-5].
- **Planning Area 6 –** Clear, brush, and repair existing segments and construct new segments of Tehan Falls Trail and construct Main Ridge Trail identified as „*Proposed Multi-use Narrow Trail"* [Contingent on future funding and permits].
- **Planning Area 6** - Construct segment of Hedd Canyon Trail connecting to Devany Canyon Trail identified as „*Proposed Multi-use Narrow Trail"* per Vinson property easement agreement [Contingent on opening Devany Canyon Trail for recreation use and on future funding and permits].
- **Planning Area 6** - Explore options for linking Calaveras Ridge Trail route to Dublin Hills Regional Park as identified in the 2007 District *Parklands & Trails Map* [Contingent on future opportunities].
- **Planning Area 7** - When developing the specific alignment for Congon Loop Trail and non-system service road improvements – align trail and road to minimize impacts to Congdon's tar plant (*Centromadia parryi ssp.).*
- **Planning Area 7** - Construct Congon Loop Trail identified as „*Proposed Multi-use Narrow Trail"* as an Americans with Disabilities (ADA) compliant interpretive loop with access points to: 1) local neighborhoods via Wildflower Trail and a crossing of Foothill Road at north end of

planning area; 2) family picnic and staging area at southern end of planning area; and 3) Tehan Falls Trail near park security residence [Contingent on future funding and permits]

- **Planning Area 7** - Concurrently with Congon Loop Trail, construct Wildflower Trail identified as „*Proposed Multi-use Narrow Trail*" [Contingent on future funding and permits].
- **Planning Area 8** - Concurrently construct Aquila Trail segments identified as „*Proposed Multi-use Narrow Trail*" and „*Existing Multi-use Service Road (Modified)*" when decommissioning overlapping trail sections identified as „*Eliminated Trail & Restored Site*" [Contingent on future funding and permits].
- **Planning Area 8** - In accordance with *Section 4.5.1.2 - Trail Construction & Trail Modification* and as shown on *Figure 19*:
  - Construct segments of Sunol Ridge Trail, Raptor View Trail, and Kilkare Canyon Trail identified as „*Multi-use Narrow Trail*" [Contingent on future funding and permits]
  - Construct Oak Canyon Trail identified as „*Multi-use Narrow Trail*" [Contingent on future funding and permits]
  - Should opportunities arise to develop a superior trail alignment along the Raptor View Trail concurrently develop trail section(s) and eliminate Raptor View Trail between Kilkare Canyon and Canyon Oak and/or between Kilkare Canyon and summit of Sunol Ridge [Contingent on future opportunities, funding and permits].

Chapter 4 - Section 4.6

Recreation & Interpretive Programs

4.6.1 Overview

The recreation and interpretive programs will be developed to complement the park trail system. The trail system will include interpretive points that will highlight natural and cultural features throughout the trail system, as well as the shorter loops trails (1-1$^{1}/_{4}$ miles in length) that will be connected to the staging areas. The shorter loops will be designed to accommodate youth groups and those with mobility constraints, as well as groups gathered together on the trail as interpretive features are discussed. Information will be conveyed through some combination of guided tours, installation of kiosks/ interpretive panels, brochures, and website connections. Sites suited to interpretation within the overall trail system delineated on the *Access and Trail System Plan Map* (Refer to *Figure - 4*) are identified along narrow trails, as well as service-road-width trails.

Proposed recreation programs incorporate opportunities near staging areas, as well as those directed to longer hike, bike, and equestrian loops that extend miles into the interior of the park. Parking for school buses and overflow parking to accommodate group programs and special events will be provided at the Foothill and Tyler Ranch Staging Areas. Additionally, the back country camping facilities will support individual backpacking and group camp programs.

Interpretive and recreation program concepts for the park are described in more detail below.

4.6.2 Interpretive Concepts

The interpretive program will look at opportunities to enhance the visitor experience including:

The interpretive program will look at opportunities to enhance visitor experiences.

- Using vista points to interpret human impact on the landscape over time utilizing views of the whole tri-valley area to illustrate cultural features
- Interpretive points along the trails that describe:
  - Natural features, such as panoramic summit views, canyons, and water features (e.g., Tehan Canyon Falls, Turtle Pond)
  - Cultural features (e.g., the historic olive orchard located between the Valle Vista and Olive Grove Trails, the Nipper residence, Tyler barn) taking into consideration, which resources should be interpreted versus ones that should not be publicized to protect the artifacts
- Taking advantage of drinking water locations along ridgeline that create natural stopping points as locations for incorporating interpretive features
- Considering different types of interpretative exhibits on east versus western ridges, where the conditions vary. For example:
  - Locate "developed/urban" interpretive features on the outer, eastern ridge of Pleasanton Ridge and southern areas near Foothill Road where urban influences are most noticeable (e.g., noise)
  - Locate natural, contemplative (calm/quiet) interpretive features within the park interior, canyons, and more westerly ridges where noise is minimized
  - Provide shade structures to encourage and benefit summer use, especially at the day camps and in the picnicking areas associated with the staging areas
- Using new technologies to supplement:
  - Interpretive and wayfinding opportunities
  - Language translation
  - Recreation and interpretive experiences

  Examples may include new phone applications that allow for QR ("Quick Response") codes, two-dimensional bar codes that enable park visitors to quickly scan the codes with their smart phone‟s camera, which will then launch to a web site showing District information (e.g., plant identification displays, links to videos and/or audio trail tours in several languages).

4.6.2.1 Recreation Programs - Outreach & Education

Recreation benefits can be realized from a variety of in-park programs. Similar to the interpretive programs, in-park recreation programs will utilize the trail system for much of its focus. Sample program themes may include

conservation and safety programs and hike, bike or equestrian oriented activities as listed below.

Programs designed to provide educational information that benefit park resources and visitor safety and recreational experience may include:

- Nest boxes installation and monitoring
- Star gazing programs
- Wildflower events
- Programs on endangered species
- Programs explaining the "Leave no trace behind" philosophy
- Information regarding fire risks, hazards, responsibilities, and actions to minimize fire occurrences and losses
- Information describing the benefits of livestock grazing, including the maintenance of healthy grassland, the reduction of dense vegetation (fuel) to reduce wildfire hazards, the control of invasive brush and weeds, and the enhancement of plant diversity, as well as informational signs informing visitors when they are entering a cattle grazing area
- Information regarding health hazards associated with ticks and yellowjackets, and measures to take to avoid encounters.

Group led family, youth and/or adult hike, bike or equestrian programs may include, but not be limited to, themes oriented to:

- "Water Falls" of the East Bay Hills
- Alameda Creek to Sinbad Creek (through Niles Canyon-Sunol)
- Improving health through exercise
- Engaging youth in nature.

4.6.2.2 Community Involvement

Successful implementation of the plan will require community involvement to protect park resources and to achieve the full recreation potential of the park. Therefore, educational and interpretive programs and outreach opportunities are identified to strengthen ties with park users, members of the community, volunteers, other agencies and organizations.

Community Supported Stewardship

Recreation programs directed at actively managing and maintaining the trail system can build ownership toward the park by the public and provide stewardship benefits. Community supported stewardship and education may be achieved through ongoing volunteer programs such as the Ivan Dickson Volunteer program with some special units formed specifically for volunteer patrol, and others directed at promoting community involvement. Volunteer activities may include restoring alignments of decommissioned trails and managing the recognized trail system at the park. Volunteer outreach education may include, but not be limited to, programs focused on:

- Etiquette and intermodal awareness
- Beginner youth hike, bike, and equestrian activities
- Intermediate / advanced hike, bike, and equestrian activities
- Girl group bike rides

- Bike maintenance camp
- Hike, bike, and equestrian cross-country endurance training.

Outreach - Beyond the Park"s Boundaries

Reaching out beyond the Park"s boundaries is another important component of the proposed recreation and interpretive program. Community outreach and partnering programs to encourage volunteers, stewardship and business/corporate partnerships with the District may include:

- Reaching out to local high schools (e.g., opportunities for cross country training, environmental education could be offered at the park)
- Taking education and interpretive programs to the organizations that support park visitor recreation equipment needs/activities (e.g., clubs, bike shops, stables, community meetings)
- Offering demonstration days at the park (e.g., bring dealers and manufacturers to the park to demonstrate and train users on new equipment)
- Offering mobile bike repair station(s) at the park staging area(s)
- Promoting community involvement to restore closed trails and manage the recognized trail system
- Promoting shared use activities (e.g., equestrian-bike events such as "*Stomp & Romp*") so users can learn the opportunities and challenges associated with each type of trail use
- Partnering with other public entities to formulate connections between the park and other regional features such as:
  - Water Temple
  - Alviso Adobe
  - Alisal Native American community - post mission period
  - Augustin Race Track.

- Partnering with farming organizations to promote continuation of the American dry land farming heritage of the park. Associated interpretive cultural program themes may be tied to:
  - The Nipper residence
  - The olive orchards
  - The Sinbad Valley homestead
  - Cultivation and bottling/canning programs.

In keeping with overall District objectives, interpretive and recreation programs will take into account special visitor considerations to accommodate a range of mobility/skill levels and age interest differences.

4.6.2.3 Planning Area Actions - Recreation & Interpretive Program Recommendations

Recreation and interpretive program recommendations refer to specific actions for each of the Planning Areas identified on *Figure 14 - Planning Area Map Key & Natural/Recreation/Staging Area Designations* and detailed on *Figures 15 – 22* and *Figure 23.* These actions will be initiated in the future to meet the objectives set forth in this LUP. Ongoing programs that may continue into the

future are presented in *Section 3.2.3 - Interpretive & Recreation Programs*, while future *Parkwide Actions* are presented in *Section 4.1.1.2* Specific future actions tied to individual Planning Areas are described below.

- **Planning Area 1** - Develop an interpretive outdoor education program for the Bachelder Nature Trail [an interpretive hike-only loop] [Contingent on development of hike-only trail loop].
- **Planning Area 1, 2, 4, 5, 6, 7, & 8** – Provide interpretive signage at identified trailside rest stops and overlooks [Ongoing and as sites are developed].
- **Planning Area 1, 2, 6, 7, & 8 -** Provide signage at staging areas and trailheads to inform visitors about: 1) the grazing program and the presence of livestock in the park; and 2) health hazards associated with ticks and yellowjackets and measures to take to avoid encounters [Ongoing and as new access points are developed].
- **Planning Area 2 -** Develop interpretive programs as described in *Section 4.6.2 Interpretive Concepts* for:
  - The historic olive grove located between the Olive Grove and Valle Vista Trails
  - The Nipper House along Oak Tree Trail [Year 1-5].
- **Planning Area 3 -** No interpretive or recreation programs are proposed for this isolated area. Should trails be developed in this area in the future interpretive or recreation program options should be explored [Contingent on future opportunities].
- **Planning Area 4** - Develop interpretive programs highlighting:
  - The Conservation Easement
  - Alameda Creek Watershed and headwaters of drainages that ultimately connect to Alameda Creek
  - Per *Section 4.3 Cultural Resources Management Programs,* interpret the former American Farm Era homestead site including ancillary features (e.g., adjacent roads, fences, and stock ponds) [Year 5-10].
- **Planning Area 5 -** Develop an interpretive program for Sinbad Creek describing its cultural and biological importance [Year 1-5].
- **Planning Area 5** –Develop interpretive signage and install bench at Point Santos Overlook [Year 1-5].
- **Planning Area 6** - Develop an interpretive program for Tehan Falls [Contingent on new trail development].
- **Planning Area 7** - Develop an interpretive outdoor education program for the Congdon Loop Trail featuring Congdon‟s tarplant [Contingent on staging area development].

Chapter 4 - Section 4.7

Operations & Maintenance

4.7.1 Staffing

4.7.1.1 Staff Presence - Park Patrol & Emergency Response

The primary operations and management objectives are to: provide park visitors with safe and pleasant recreation experiences and oversee preservation and enhancement of natural habitat and protection/conservation of cultural resources.

Staffing Levels & Functions

Current staffing for Pleasanton Ridge Regional Park will initially be maintained including: one Park Supervisor, two 12-month, Park Ranger IIs and one 9-month, Park Ranger II. The 9-month Park Ranger II position also has operation and maintenance responsibilities for Dublin Hills Regional Park, Vargas Plateau Regional Park, and a portion of the Calaveras Ridge Regional Trail north of Dublin Hills.

Projected Staffing

At full build out the LUP will add 2,360 acres of land bank parcels to the 4,172 acres of parkland currently open to the public and will add 31 miles of trails to patrol and maintain, along with approximately 55 acres of developed area to maintain. To fully realize these improvements additional staff will be required to manage the park. Additional staffing is called for on the District‟s projected

staffing needs list or "*Pipeline list for 2015 and beyond*" and is tied to development of the new staging areas.

4.7.1.2 Public Safety

Park visitors‟ safety is one of the primary functions of the District‟s park rangers, police officers, and fire department staff. District staff oversight is augmented by the Livermore-Pleasanton Fire District and the State of California Department of Forestry and Fire Protection (CALFIRE) Sunol Station. The additional presence of volunteer patrols, grazing tenants, park staff managing resources within the park, and park security residents also helps to guide and protect park visitors and parkland resources. These service functions are described in greater detail below (Also refer to *Section 3.3.1.2 Public Safety)*.

Public Safety Response

District police officers will continue to supplement park ranger and volunteer patrols at Pleasanton Ridge Regional Park and other parklands in the immediate area via District vehicle and helicopter as part of the District‟s routine park management program.

Fire Hazard & Public Safety

As stated in *Chapter 3 - Existing Conditions*, *Section 3.3.1.2 Public Safety* Pleasanton Ridge Regional Park is classified by the State as a "Very High Fire Hazard Severity Zone," meaning that wildland fires in these zones can burn with very high intensity and cause significant impacts to natural resources and severe damage to infrastructure improvements, especially residences within and adjacent to the parklands. In response, the following public safety fire response and protection measures are recommended to minimize risk to public safety in addition to measures described elsewhere in this document:

- Conduct hazard mitigation and annual defensible space clearances around existing and any future structures on park property, in compliance with State Public Resources Code (PRC) 4291
- Support the local fire protection jurisdiction in their enforcement of defensible space requirements for nearby private structures, in compliance with State PRC 4291
- Implement fuels modification projects to mitigate hazards to nearby exposures, following best management practices and procedures outlined in the District‟s *Wildfire Hazard Reduction and Resource Management Plan* (2010)
- If livestock grazing is removed from any portions or all of the property in the future, determine mitigating fuels management needs and strategies, as well as the effect on natural resources (e.g., potential increase in non-native weedy species, changes to native plant diversity, and impacts on listed species [e.g., California red-legged frog (*Rana draytonii*), Alameda whipsnake (*Masticophis lateraliss euryxanthus*), golden eagle (*Aquila chrysaetos*)]

- Consider further development of existing water sources associated with grazing water improvements to augment water sources for fire suppression
- Integrate wildland/urban interface fire considerations in land management planning, as well as development project plans
- Ensure an adequate level of fire and visitor safety protection capability is provided commensurate with the increasing land base and wildland-urban interface requiring protection.

Concurrent Fire Response

The park is in a concurrent fire response jurisdiction so, if a fire should occur, resources will be available from the District, as well as the Livermore-Pleasanton Fire District and CALFIRE Sunol Station as described in *Chapter 3 - Existing Conditions, Section 3.3.1.2 - Public Safety*. The District will continue to work to strengthen mutual aid relationships with Alameda County and neighboring fire departments and protection districts, as well as with CALFIRE to ensure adequate emergency response times.

4.7.2 Support Facilities

Park facility recommendations for additional staff facilities are intended to be provided as an upgrade to rectify current deficiencies and address additional staffing and operational needs associated with the acquisition of new parklands and new development (e.g., staging areas, trails, and picnic/campsites) described in this LUP.

4.7.2.1 Staff Office & Service Yard Relocation

The residential structure that currently serves as a District staff office and park security residence will be retained and used for those functions until the two new staging areas; the Garms Staging Area at the Foothill Road/ West Las Positas Boulevard intersection, and the Tyler Ranch Staging Area at the southwest terminus of Foothill Road in Sunol, are constructed. When the service yard is relocated, the staff offices will be relocated there as well. The building housing the security residence and staff office (former Garms residence) will be retained. Future use of the staff office may include use as a District meeting facility.

Security Residences

The three existing park residences will continue to provide security oversight of the park. These include: a residence located in the most northerly portion of the study area within Devany Canyon (Poole); the Nipper house, an historic residence, located near the junction of the Thermalito and Oak Tree Trails; and a residence on the second floor above the staff office located at the proposed Garms Staging Area.

Security oversight of the park will also be provided at the Tyler Ranch Staging Area, from either an existing or a new structure, as deemed appropriate, when the new staging/maintenance facility is developed.

Parkland Access

Where there are special provisions relating to access to the park and use of the parkland trails, the District will continue to work cooperatively with local property owners and local entities to maintain emergency vehicle ingress and egress to and through the park, as well as provide evacuation routes for park visitors (refer to *Section 3.3.3 - Access & Operating Agreements* and *Figure 10 - Easements*).

4.7.3 Planning Area Actions – Maintenance & Operations Recommendations

Maintenance and operations services and facilities development recommendations refer to future specific actions for each of the Planning Areas identified on *Figure 14 - Planning Areas Map Key & Natural & Recreation/Staging Unit Designations* and detailed on *Figures 15- 22* and *Figure 23* that will be initiated in the future to meet the objectives set forth in this LUP. Ongoing tasks, programs, and agreements that will continue into the future are presented in *Section 3.3.4 - Ongoing Operations & Maintenance Programs & Agreements by Planning Area*. Future actions are described below.

- **Planning Area 5** - Work with the City of Pleasanton to explore options to connect the Valle Vista Trail to the City of Pleasanton Alviso Adobe Park [Dependent on future acquisition opportunities].
- **Planning Area 5, 6** - Construct EVMA access between Valle Vista and Tehan Falls Trails [Contingent on future funding and permits].
- **Planning Area 6** - Explore options with City of Pleasanton to connect to adjacent city neighborhood open space trails [Contingent on future opportunities].
- **Planning Area 6 –** Coordinate with City of Pleasanton to determine roadway signage and/or restrictions along Dublin Canyon Road per Section 4.4.1.2 Proposed Staging & Trailheads [Concurrent with trailhead opening]
- **Planning Area 7** - Work with City of Pleasanton to complete roadway improvements along Foothill Road at Las Positas Boulevard and at Highland Oaks Drive [Concurrent with Garms Staging Area development].
- **Planning Area 7, 8** - Retain the security residence and staff meeting room at the Garms residence when the maintenance functions and staff offices are relocated to Tyler Ranch Staging Area (Refer to *Figure* 12) [Contingent on securing permits and funding for construction of new staging areas and additional staffing].
- **Planning Area 8** - Explore options with Alameda County to complete roadway improvements along Foothill Road between Oak Tree Trailhead & Tyler Ranch Staging Area and at Kilkare Canyon Road per *Section 4.4.1.4 - Transit, Biking & Walking Access* [Concurrent with Tyler Ranch Staging Area development and as future opportunities arise].

Chapter 4 - Section 4.8

Planning Area Tables & Maps

4.8.1 Overview

Following are the *Planning Area Tables* and *Maps*. These maps and tables describe and illustrate the trail and access recommendations shown on *Figure 4- Access & Trail System Concept Plan Map* and described in this Chapter.

Ongoing and future resource, recreation, and operations recommendations described in *Chapter 4 – Land Use Plan* are summarized in these *Planning Area Tables* and *Maps* as *Ongoing Maintenance & Resource Programs* and *Recommended Facility & Trail System Development & Interpretive & Recreation Programs*, respectively.

For ease of reference these tables and maps show the park divided into a number of Planning Areas as shown on the *Planning Units Map Key & Natural & Recreation/Staging Unit Designations* (Refer to *Figure 14).* Specific actions are summarized in the *Planning Action Tables (Refer to Tables 4 – 11)* and illustrated on *Figures 15 -22*. In addition to the individual planning unit figures, *Figure 23* is presented as a larger map encompassing the entire study area is provided at the end of this document (Also refer to *Section 4.1.1.2 - Action Plan Recommendations* for a discussion of how these planning areas are configured to relate to *Figure 6 - Range Management)*.

4.8.2 Land Use Plan Provisions Summarized & Illustrated in the Planning Area Maps & Tables

As summarized in these tables and maps, full implementation of the LUP will result in 52 acres of new developed area and 31 miles of new trails to benefit

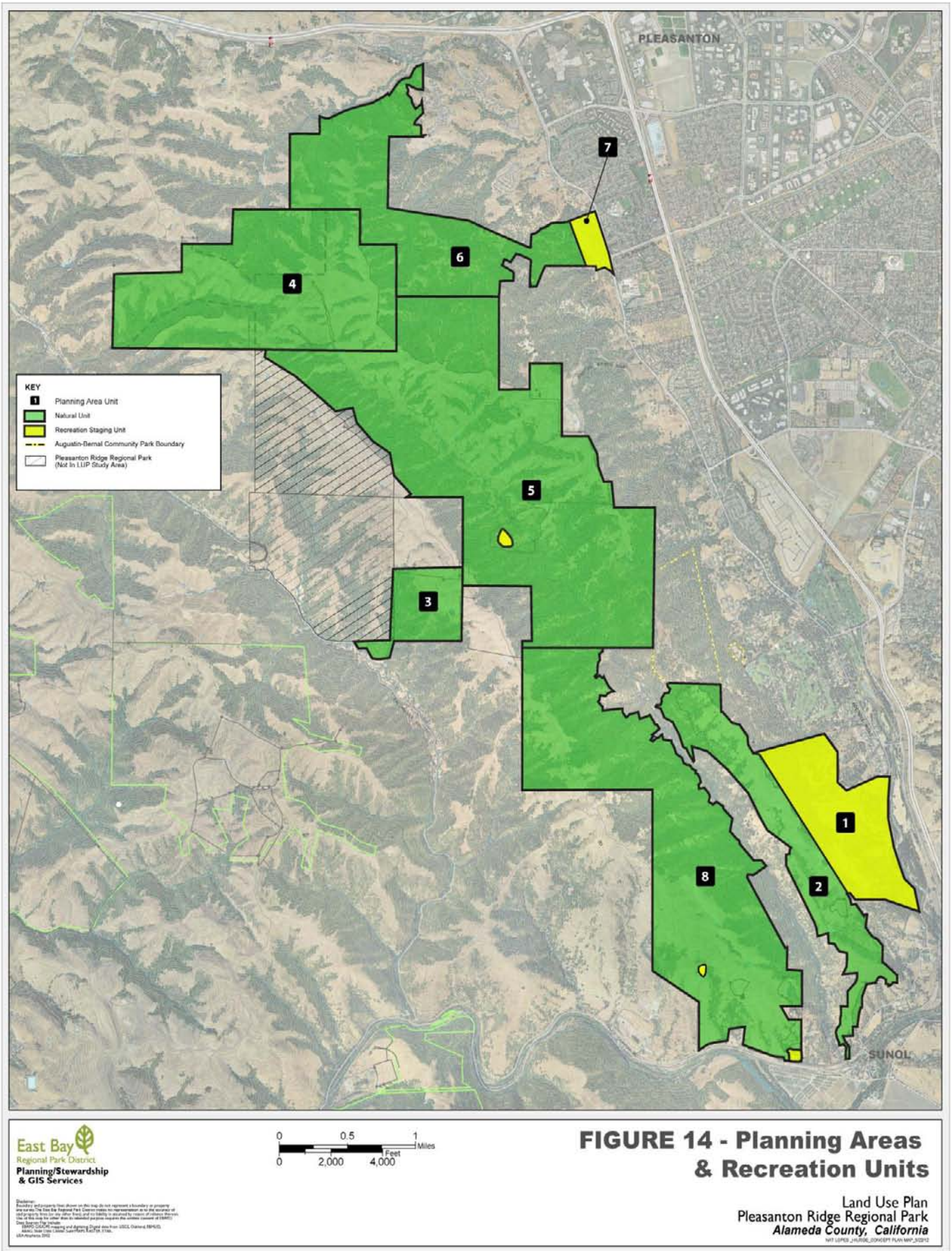
park visitors and improve parkland operations. This will bring the total developed area to 408 acres and the total miles in the overall trail system to 63 miles (58 acres). These actions are consistent with District Master Plan policies and guidelines for achieving the highest standards of service in public access, recreation, and interpretation. To further enhance the recreation experience, and the District"s conservation efforts, and to compensate for habitat loss and potential cultural resource disturbance associated with the proposed infrastructure improvements the LUP also recommends:

- An expansion the resource conservation programs currently in place employing an adaptive management approach that incorporates ongoing research, habitat protection and enhancement and monitoring of:
  - Aquatic habitat to benefit the federally threatened California red-legged frog (*Rana draytonii*) and the western pond turtle (*Emys marmorata*), a California species of special concern, and other native amphibians
  - Grassland and shrubland habitat to benefit the state and federally threatened Alameda whipsnake (*Masticophis lateraliss euryxanthus*) and other native reptiles
  - Woodland-grassland margin habitat to benefit raptor species, including the state and federally protected golden eagle (*Aquila chrysaetos*) and other raptors
  - California grassland habitat to improve species diversity, wildlife richness and habitat quality

  (Refer to *Section 4.2 - Biological Resource Management Programs* for more detail)
- Cultural resource monitoring and preservation protocols for proposed development sites that have been rated as having a high cultural sensitivity (Refer to *Section 4.3 - Cultural Resource Management Programs*)
- Elimination, narrowing and restoration of 10 miles (5 acres) of existing trails concurrently with new trail development (Refer to *Section 4.5.1.2 - Trail Construction & Trail Modification*, *Tables 4 -11* and *Figures 15-22).*

Tables & Figures

Implementation Program Actions


PLEASANTON
SUNOL
KEY
Planning Area Unit
Natural Unit
Recreation Staging Unit
Augustin-Bernal Community Park Boundary
Pleasanton Ridge Regional Park
(Not In LUP Study Area)
1
2
3
4
5
6
7
8
East Bay
Regional Park District
Planning/Stewardship
& GIS Services
0
0.5
1
Miles
0
2,000
4,000
Feet
FIGURE 14 - Planning Areas
& Recreation Units
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Base Map Legend

Habitats

- Wetland/Pond
- Stream
- Pond Number

Infrastructure and Boundaries

- USGS 40' Contour
- Augustin-Bernal Community Park Boundary
- Private Inholding
- Conservation Easement
- Pleasanton Ridge Regional Park (Not in LUP Study Area)
- Gate
- Fence
- Local Road
- Major Road
- Freeway/Highway
- USGS 40' Contours

Park Facilities

- Trailhead
- Park Office/Service Yard
- Parking
- Water Fountain
- Toilet
- Horse Water
- Picnic Area
- Reservable Campsite
- Childrens Play Area
- Fitness Trail

Points Of Interest

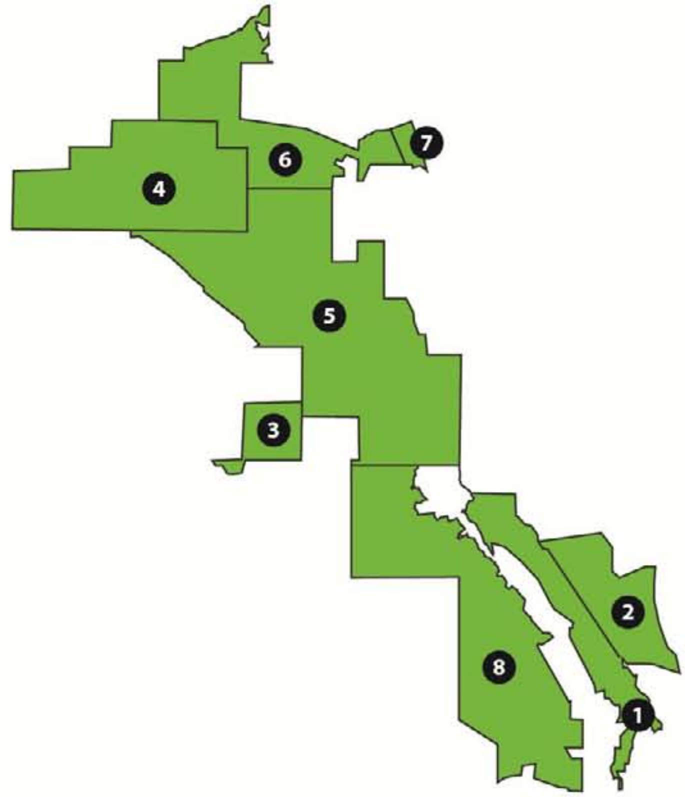
- Interpretive Point Of Interest
- Interpretive Point
- Planning Area
- Pond

Accessibility

- ADA Accessible
- Hiking
- Biking
- Equestrian

Trails and Roads

- Existing Multi-use Narrow Trail
- Proposed Multi-use Narrow Trail
- Existing Multi-use Service Road Trail
- Proposed Multi-use Service Road Trail
- Existing Multi-Use Service Road Trail (Modified)
- Existing Hiking-Equestrian Trail
- Proposed Hiking-Equestrian Trail
- Eliminated Trail And Restored Site
- Non-System Service Road (EVMA Access)



Planning Area Key

East Bay Regional Park District
Planning/Stewardship & GIS Services
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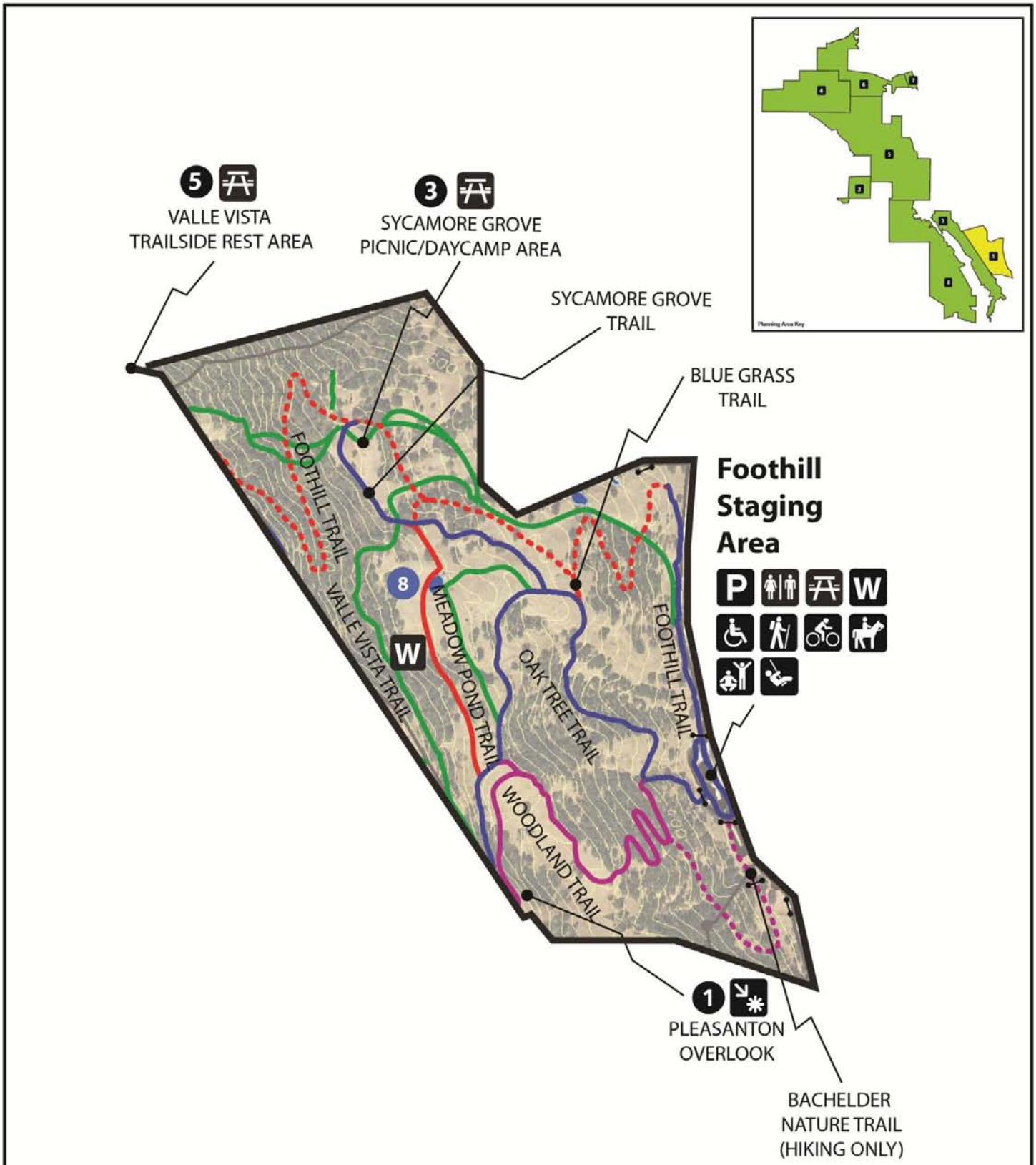
Land Use Plan Legend and Key

Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Table 4 - Planning Area 1 Actions

Planning Area Designations: Recreation/Staging Unit (409 acres)		
	Action	**Ongoing Maintenance & Resource Programs**
Resource Management	**Habitat Enhancement**	**Ongoing Habitat Management Programs** Continue to manage Pond Prpnd08 for native amphibian and reptile species per guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program*
	Vegetation Management	**Ongoing Habitat Management Programs** Per the GUMP for Grazing Unit 1 and guidelines provided in *Section 4.2.5 California Grassland Habitat Management Program* continue to employ seasonal rotation of juvenile steers to reduce spring biomass and encourage establishment of native and perennial grasses and wildflowers. Pasture in Planning Unit 1 in December. Move to Planning Unit 2 pastures during growing season (end of December-May. Retain livestock in Planning Unit 2 when soils are wet
	Interpretation Outreach & Education	**Ongoing Habitat Management Programs** Provide signage at the staging area to: 1) inform visitors regarding the grazing program and presence of livestock in the park; and 2) provide signage at staging area to inform visitors of potential health hazards (e.g., ticks and yellowjackets) and measures to take to avoid encounters
Staging & Picnic Areas	**Facilities**	**Maintenance of Existing Infrastructure** Continue to manage the Foothill Staging Area as a public gateway to the park (Refer to *Section 3.3.1 – Staffing & Responsibilities* for a description of routine tasks)
	IPM Controls	**Maintenance of Existing Infrastructure** Install IPM bait stations at the Foothill Staging Area where identified pest species present unacceptable safety, health, and economic problems, or cause functional damage (approx. 5 acres) **Ongoing Habitat Management Programs** Continue to implement IPM controls including targeting purple starthistle (*Centaurea calcitrapa*) and yellow starthistle *(Centaurea solstitialis*) per guidelines provided in *Section 4.2.6 Pest Management Control Strategies* (approximately 2 acres)

Recommended Facility & Trail System Development & Interpretive & Recreation Programs		
Resource Mgmt.	**Cultural Resource Management**	Archaeological monitoring in this area is not warranted at this time. However, if a potentially significant historic deposit is unearthed during ground disturbing activities, construction work should cease and protocols identified in *Section 4.3 Cultural Resources Management Programs* should be followed [Concurrent with new trail development]
Facilities	**Staging**	Make improvements to Foothill Staging Area as described in Section *4.4.1.* Existing Staging Areas & Trailheads and illustrated in *Figure 11 - Foothill Staging Area* [Contingent on future needs and funding]
	Picnic	Develop a day camp /picnic site near the junction of Foothill Trail and Sycamore Grove Trail as described in *Section 4.4.1.5 Picnicking & Camping* [Contingent on future funding]
Trail/Road System	**Realignments & Site Restoration**	Decommission and rehabilitate redundant section of Woodland Trail where it parallels Oak Tree Trail identified as *„Eliminated Trail & Restored Site*" and concurrently construct short spur connecting Woodland Trail to Youkish Trail identified as *„Hiking-Equestrian Trail'* as described in *Section 4.5.1.2 Trail Construction & Trail Modification* [Contingent on future funding]
	New Trail Construction	Construct Bachelder Nature Trail identified as *„Proposed Hiking Only Trail'* connecting to Foothill Staging Area and Woodland Trail as described in *Section 4.5.1.2 Trail Construction & Trail Modification* [Contingent on future funding and permitting]
	Signs	Sign trails in accordance with trail naming plan provided in *Appendix A* & as shown on *Figure 15- Planning Area 1 Implementation Program Actions* [Year 1-5 & Ongoing concurrent with new trail development] Develop and install educational, wayfinding and Universal Trail Assessment Process (UTAP) signage at Foothill Staging Area [Year 1- 5 and ongoing as new access points are developed]
	Interpretation & Recreation	Develop an interpretive outdoor education program for the Bachelder Nature Trail [an interpretive hike-only loop] [Contingent on development of hike-only trail loop] Provide interpretive signage at identified trailside rest stops and overlooks including the Pleasanton Overlook [Ongoing and as sites are developed]. Provide signage at staging areas and trailheads to inform visitors about: 1) the grazing program and the presence of livestock in the park; and 2) health hazards associated with ticks and yellowjackets and measures to take to avoid encounters [Ongoing and as new access points are developed]



East Bay Regional Park District
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FIGURE 15
Planning Area 1 Implementation Program Actions
Land Use Plan
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Table 5 - Planning Area 2 Actions

Planning Area Designations: Natural Unit (492 acres)		
	Action	**Ongoing Maintenance & Resource Programs**
Resource Management	**Habitat Enhancement**	**Ongoing Habitat Management Programs** Continue to manage ponds Prpnd01, Prpnd02, Prpnd03 Prpnd04 and Prpnd05 for native amphibian and reptile species including breeding habitat for California red-legged frog per the guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program*
	Vegetation Management	**Ongoing Habitat Management Programs** Per the GUMP for Grazing Unit 1 and guidelines provided in *Section 4.2.5 California Grassland Habitat Management Program c*ontinue to employ seasonal rotation of juvenile steers to reduce spring biomass and encourage establishment of native and perennial grasses and wildflowers. Pasture in Planning Unit 1 in December. Move to Planning Unit 2 pastures during growing season (end of December-May. Retain livestock in Planning Unit 2 when soils are wet. Continue to implement integrated pest management (IPM) controls for yellow starthistle *(Centaurea solstitialis*): 1) along the Thermaltio Trail near the 600-foot contour at junction with Valle Vista Trail; and 2) near the Valle Vista & Oak Tree Trails junction per guidelines provided in *Section 4.2.6 Pest Management Control Strategies* (approximately 10-20 acres)
Trail/Road System	**Picnic- Rest Areas**	**Maintenance of Existing Infrastructure** Maintain existing trailside picnic-rest areas at view sites as shown on *Figure 16 -Planning Area 2 Implementation Program Actions* to augment trail system and recreation programs
	Operations & Agreements	**Maintenance of Existing Infrastructure** Continue to manage Oak Tree [Thermalito] Trailhead as a public entry to the park and access point for Calaveras Ridge Trail Uphold Augustin Bernal MOU with City of Pleasanton for: 1) recreation access; and 2) mutual response for patrol and emergency response per *Section 3.3.3.6 Interjurisdictional Operating Agreements* Continue to maintain the Nipper House as a park security residence and have the Nipper barn evaluated by a building contractor or structural engineer regarding upgrading structural integrity of the structure Continue to retain access easements to private inholding per *Figure 10 - Easements* [Contingent on parcels continuing to be held in fee by private parties]

Recommended Recreation Facility & Trail System Development & Interpretive & Recreation Programs		
Resource Mgmt.	**Cultural Resource Management**	Enlist an historical horticulturist to provide the District with more background on the date, condition and potential significance of the olive trees [Contingent on obtaining funding] Retain remaining historic attributes found at the Nipper residence described in *Appendix G – Cultural Features* and incorporate into future interpretive programs and exhibits
Trail/Road System	**Realignments & Site Restoration**	Reconfigure Trail Junction 5 [convergence of Oak Tree, Olive Grove and Valle Vista Trails to improve trail identity for park users [Year 1-5] Modify the Valle Vista Trail where trail segment parallels Olive Grove Trail between Foothill Trail junction and boundary with Augustin Bernal Park and between Olive Grove Trail and Oak Tree Trail junction identified as *„Existing Service Road Trail (Modified)*" to narrow trail width per *Section 4.5.1.2 Trail Construction & Trail Modification* [Contingent on future funding] Narrow Youkish Trail (northeastern ½) as *„Existing Multi-use Service Road Trail (Modified)*" and sign for hike-equestrian use [Contingent on future funding] Clear and brush Wetes Trail identified as *„Proposed Hike-Equestrian Narrow Trail'* and add picnic table to this rest area [Contingent on Future Funding] Concurrently construct Lynx and Olive Grove Trail segments identified as *„Proposed Multi-use Narrow Trail'* when decommissioning overlapping trail sections identified as *„Eliminated Trail & Restored Site*" per *Section 4.5.1.2 Trail Construction & Trail Modification* [Contingent on future funding and permitting]
	Trail System Additions	Concurrently clear and brush and construct Pelnen Trail identified as *„Proposed Hike-Equestrian Narrow Trail'* [Contingent on Future Funding and Permitting]
	Signs	Sign trails in accordance with trail naming plan provided in *Appendix A* & as shown on *Figure 16- Planning Area 2 Implementation Program Actions* [Year 1-5 & Ongoing concurrent with new trail development] Sign southern ½ of Narrow Youkish Trail for hike-equestrian use [Contingent on future funding] Develop and install educational, wayfinding signs for Valle Vista Trail and Oak Tree Trails where they form a part of Calaveras Ridge Trail and Universal Trail Assessment Process (UTAP) signage at Oak Tree Trailhead [Year 1- 5 and ongoing as new access points are developed]
	Interpretation & Recreation	Develop interpretive programs as described in *Section 4.6.2 Interpretive Concepts* for: 1) The historic olive grove located between the Olive Grove and Valle Vista Trails; and 2) The Nipper House along Oak Tree Trail [Year 1-5] Provide interpretive signage at identified trailside rest stops and overlooks [Ongoing and as sites are developed]. Provide signage at staging areas and trailheads to inform visitors about: 1) the grazing program and the presence of livestock in the park; and 2) health hazards associated with ticks and yellowjackets and measures to take to avoid encounters [Ongoing and as new access points are developed]

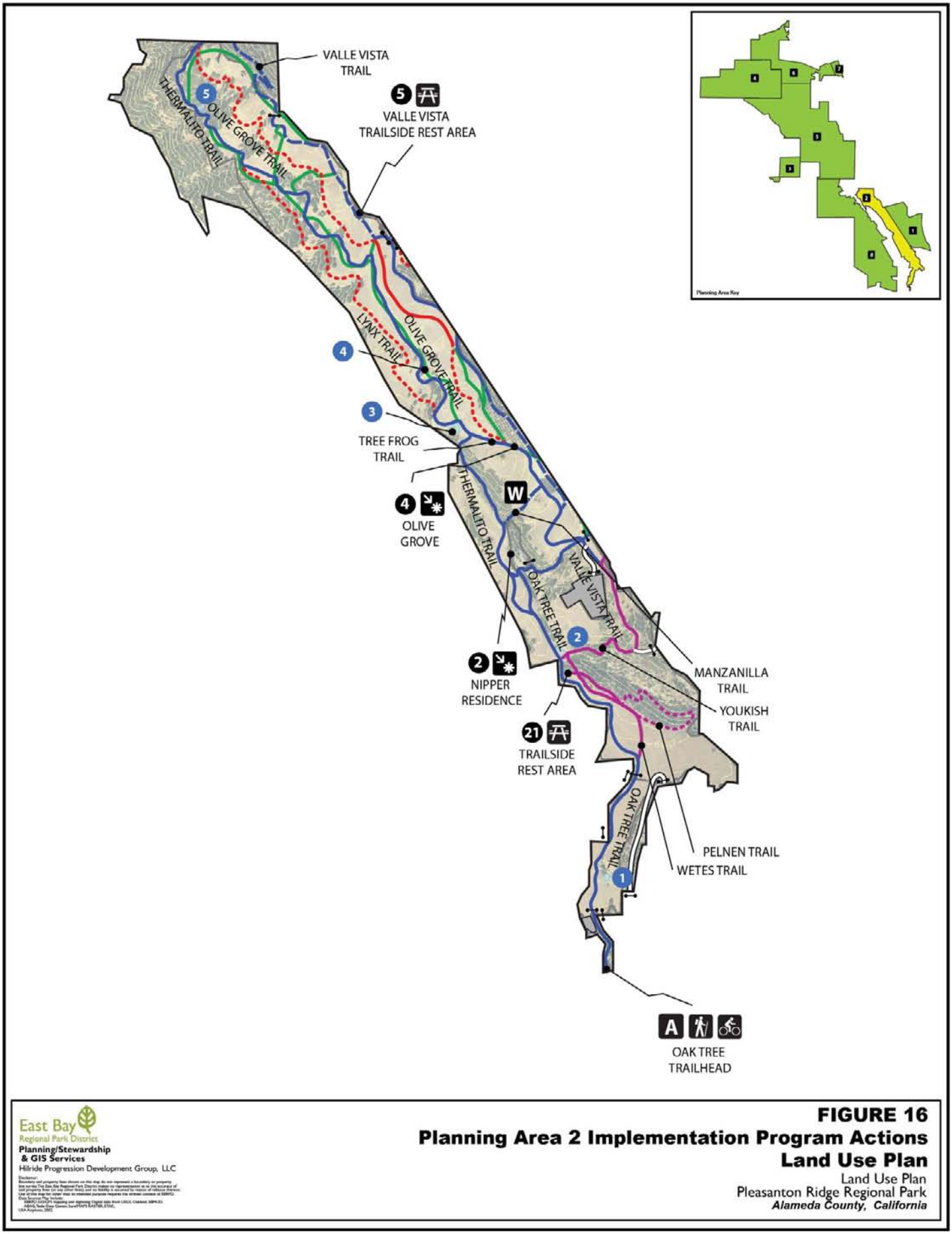

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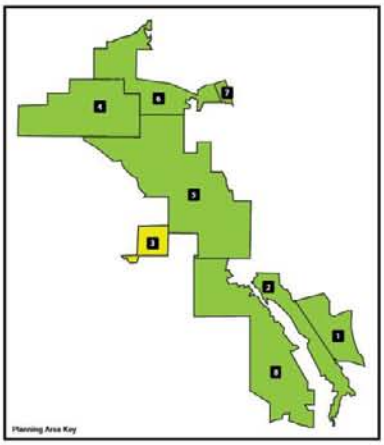
FIGURE 16
Planning Area 2 Implementation Program Actions
Land Use Plan
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Table 6 - Planning Area 3 Actions

Planning Area Designations: Natural Unit (181 acres)		
	Action	**Ongoing Maintenance & Resource Programs**
Resource Management	**Habitat Enhancement**	**Ongoing Resource Management Programs** Continue to manage pond Prpnd011 for breeding habitat for California red-legged frog per guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program*
	Vegetation Management	**Ongoing Resource Management Programs** Per the GUMP for Grazing Unit 2 and guidelines provided in *Sections 4.2.5 California Grassland Habitat Management Program,* reinstate seasonal rotation of cow-calf (<12) pairs January - March to reduce spring biomass and encourage establishment of native and perennial grasses and wildflowers when road conditions providing access to this planning unit are improved
Trail/Road System	**Operations & Agreements**	**Maintenance of Existing Infrastructure** Retain Emergency Vehicle Maintenance Access (EVMA) from Palomares Road into the park Continue to retain access easements to private inholding per *Figure 10 - Easements* [Contingent on parcels continuing to be held in fee by private parties]

Recommended Recreation Facility & Trail System Development & Interpretive & Recreation Programs		
Resource Mgmnt	**Livestock Management**	Survey / fence northern boundary [Warrington property] to establish grazing unit field boundary [Contingent on Future Funding]
Trail/Road System	**Trail System Additions**	No public access or trail routes are proposed for this isolated area. Should future acquisitions provide opportunities for public connections to the trail network identified in the *Access & Trails Concept Plan Map* (Refer to *Figure 4 - Access & Trail System Concept Plan Map*) these options should be explored [Contingent on future opportunities]
	Interpretation & Recreation	No interpretive or recreation programs are proposed for this isolated area. Should trails be developed in this area in the future interpretive or recreation program options should be explored [Contingent on future opportunities]



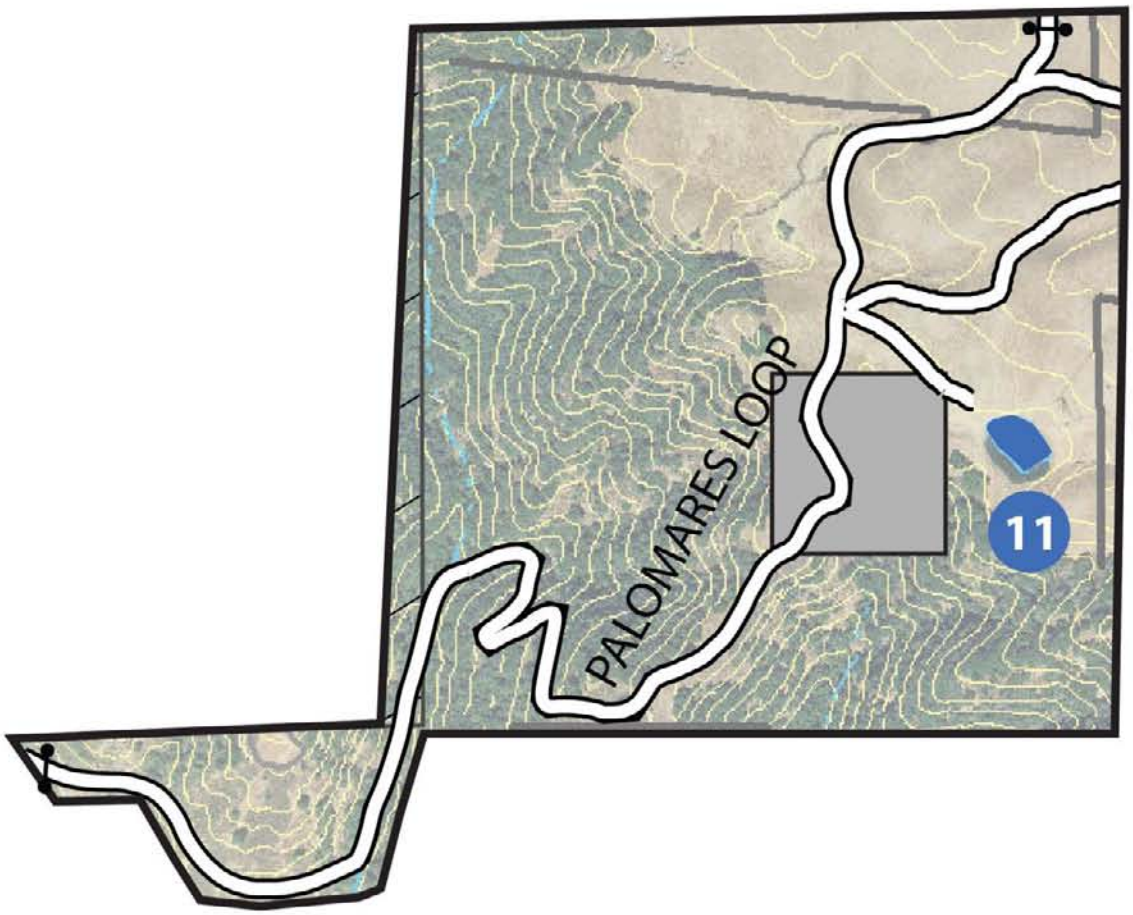


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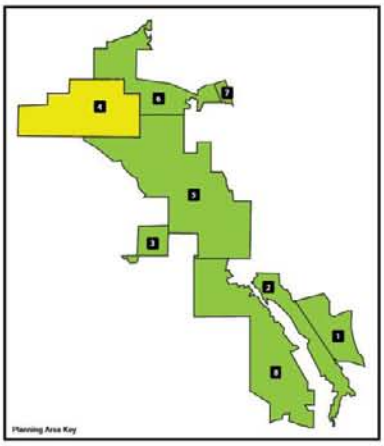
FIGURE 17
Planning Area 3 Implementation Program Actions
Land Use Plan
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Table 7 - Planning Area 4 Actions

Planning Area Designations: Natural Area (1,053 acres)		
	Action	**Ongoing Maintenance & Resource Programs**
Resource Management	**Vegetation Management**	**Ongoing Resource Management Programs** Per the GUMP for Grazing Unit 3 and guidelines provided in *Sections* 4*.2.5 California Grassland Habitat Management Program & 4.2.3 Mixed Sage Series Habitat Management Program*, continue to graze area with a small number of heifers January - April to: 1) increase productivity of unit; and 2) increase residual dry matter (RDM) at end of grazing season to benefit Alameda whipsnake and native grassland species in accordance with the *1998 Bank Establishment & Management Plan* Continue to implement IPM controls for yellow starthistle *(Centaurea solstitialis*) along the Valle Vista Trail north of the Cowing Trail junction per guidelines provided in *Section* 4*.2.6 Pest Management Control Strategies* (approximately 3 acres)
Trail/Road System	**Operations & Agreements**	**Maintenance of Existing Infrastructure** Retain existing service-road width trails for operations and public recreation in accordance with *1998 Bank Establishment & Management Plan* as described in *Section 3.3.3.4 Conservation Easement*

Recommended Recreation Facility & Trail System Development & Interpretive & Recreation Programs		
Resource Management	**Habitat Enhancement**	This area is contained within a designated Conservation Easement Area. Recommended actions include initiating restorative activities for: ° California red-legged frog including modifying fencing to accommodate managed grazing to preserve and enhance native vegetation, fisheries, amphibians, wildlife, bank stability, and water quality for ponds Prpnd18, Prpnd19, Prpnd20 and Prpnd23 per guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program* [Contingent on modifications to 1998 Conservation Easement Agreement] ° Sinbad and Cook Canyon Creeks and unnamed drainages to benefit California red-legged frog and other native amphibian and reptile species per guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program*. Actions may include modifying fencing to accommodate managed grazing to preserve and enhance native vegetation, fisheries, amphibians, wildlife, bank stability, and water quality along Sinbad Creek near the historic homestead site and tributaries extending up to pond prpnd020 [Contingent on modifications to 1998 Conservation Easement Agreement] ° Improving habitat conditions in Cook Canyon using adaptive management techniques described in *Section 4.2 - Biological Resources Management Programs*. Actions may include modifying fencing to accommodate managed grazing and stabilizing bank erosion along stream channel to preserve and enhance native vegetation, fisheries, amphibians, wildlife, bank stability, and water quality [Contingent on modifications to 1998 Conservation Easement Agreement]
	Cultural Resource Management	Manage the homestead site in the Sinbad Creek Valley as an historic resource and incorporate into future interpretive programs and exhibits [Contingent on obtaining funding]
Trail/Road System	**Realignments & Site Restoration**	Repair erosion along Cowing and Sinbad Creek Trails identified as „*Existing Service Road Trail (Modified)*" to improve water quality of these streams that ultimately feed into Alameda Creek in accordance with *1998 Bank Establishment & Management Plan* recommendations and *Section 4.5.1.2 Trail Construction & Trail Modification* [Contingent on modifications to 1998 Conservation Easement Agreement] Repair erosion along Cook Canyon Trail identified as „*Existing Service Road Trail (Modified)*" in accordance with *1998 Bank Establishment & Management Plan* recommendations and *Section 4.5.1.2 Trail Construction & Trail Modification* [Contingent on modifications to 1998 Conservation Easement Agreement]
	Signs	Sign trails in accordance with trail naming plan provided in *Appendix A* & as shown on *Figure 18- Planning Area 4 Implementation Program Actions* [Year 1-5 & Ongoing concurrent with new trail development] Develop & install uniform wayfinding trail identification signs for the Sinbad Creek and Hedd Canyon Trails where they form a part of the Calaveras Ridge Trail [Year 1-5]
	Interpretation & Recreation	Develop interpretive programs highlighting: The Conservation Easement, Alameda Creek Watershed and headwaters of drainages that ultimately connect to Alameda Creek per *Section 4.3 Cultural Resources Management Programs,* interpret the former American Farm Era homestead site including ancillary features (e.g., adjacent roads, fences, and stock ponds) [Year 5-10]



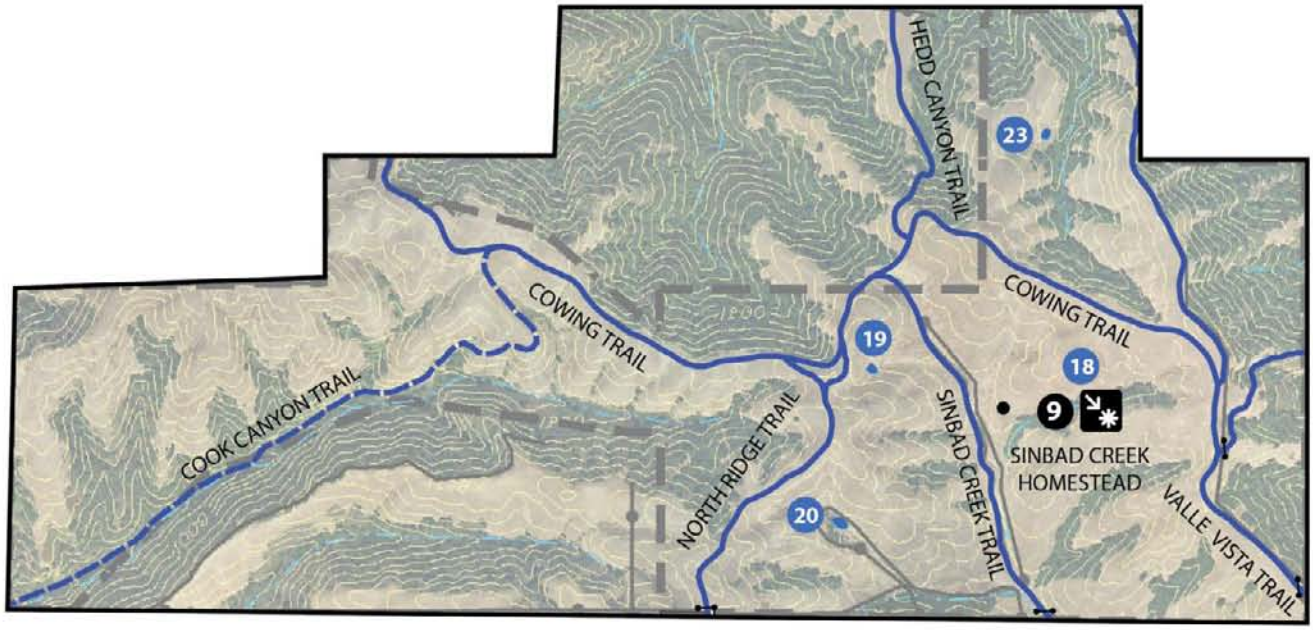


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FIGURE 18
Planning Area 4 Implementation Program Actions
Land Use Plan
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Table 8 - Planning Area 5 Actions

	Action	Ongoing Maintenance & Resource Programs
Planning Area Designations: Natural Unit (2,061 acres)		
Resource Management	**Habitat Enhancement**	**Ongoing Resource Management Programs** Per guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program:* ° Continue to manage ponds Prpnd 009, Prpnd 010, Prpnd 012, Prpnd 013, Prpnd 014 and Prpnd 015 to improve breeding habitat for California red-legged frog ° Continue to manage pond Prpnd012 for western pond turtle ° Continue to manage aquatic habitats along Sinbad Creek and tributary drainages to benefit California red-legged frog, western pond turtle to and other native aquatic fauna – Manage riparian zone for oversummering habitat for potential future steelhead and rainbow trout populations
Resource Management	**Vegetation Management**	**Ongoing Resource Management Programs** Per the GUMP for Grazing Unit 4 and guidelines provided in *Sections 4.2.5 California Grassland Habitat Management Program* and *4.2.3 Mixed Sage Series Habitat Management Program*, continue to graze sheep seasonally from late March - early May to: 1) manage fuel loads; and 2) maintain shrub/grassland mosaic to benefit Alameda whipsnake and native grassland species - Restrict grazing in steep woodland canyons
Trail/Road System	**Operations & Agreements**	**Maintenance of Existing Infrastructure** Retain non-system service road access (EVMA) from Kilkare Road, Santos Rancho Road and Valle Vista "bypass" Uphold Augustin Bernal MOU with City of Pleasanton for: 1) recreation access; and 2) mutual response for patrol and emergency response per *Section 3.3.3.6 Interjurisdictional Operating Agreements* Continue to retain access easements to private inholding per *Figure 10 - Easements* [Contingent on parcels continuing to be held in fee by private parties]

		Recommended Recreation Facility & Trail System Development & Interpretive & Recreation Programs
Resource Management	**Habitat Enhancement**	Continue to manage Sinbad Creek from Pond Prpnd017 south to park boundary and tributary drainages in accordance with *Section 4.2 - Biological Resources Management*; and adhere to best management practices for pre-construction and monitoring activities described in *Section 4.2.7.1 - Adaptive Management Approach - Monitoring & Reporting Methodology* [Ongoing as trail system additions are implemented]
Resource Management	**Livestock Mgmt.**	Survey and fence open land along eastern boundary to provide greater flexibility in grazing grasslands in this unit - Once area is fenced install water troughs for livestock [Year 1-5]
Resource Management	**Cultural Resource Management**	Manage Sinbad Creek Corridor in accordance with the following practices as this is an area of high archaeological sensitivity: ° Conduct further archaeological surveys for additional bedrock mortar sites along Sinbad Creek ° Record previously unrecorded sites on DPR 523 forms ° Avoid future earth-disturbing activities at identified locations
Trail/Road System	**Realignments & Site Restoration**	In accordance with *Section 4.5.1.2 - Trail Construction & Trail Modification* and as shown on *Figure 19*: ° Narrow Mariposa & Moss Trails between Valle Vista Trail and Sinbad Creek Trail & Valle Vista Trail between Oak Leaf and Bay Leaf Trails identified as „*Existing Multi-use Service Road Trail (Modified)*" [Contingent on future funding] ° Concurrently construct narrow trail sections of Valle Vista and Bay Leaf Trails identified as „*Proposed Multi-use Narrow Trail'* when decommissioning overlapping trail sections identified as „*Eliminated Trail & Restored Site*" [Contingent on Future Funding] ° Concurrently narrow Bay Leaf Trail and repair erosion between Valle Vista and Sinbad Creek Trails identified as „*Existing Multi-use Service Road Trail (Modified)*" when decommissioning trail sections identified as „*Eliminated Trail and Restored Site'* located between Oak Leaf and Bay Leaf Trails [Contingent on future funding]
Trail/Road System	**Trail System Additions**	Construct Raptor View Trail and segments of Mariposa Trail identified as „*Proposed Multi-use Narrow Trail'* per *Section 4.5.1.2 Trail Construction & Trail Modification* [Contingent on future funding and permits]
Trail/Road System	**Camping**	Improve the back country campsite as described in *Section 4.4.1.5 Picnicking & Camping Figure 19 - Planning Area 5 Implementation Program Actions* to augment trail system and recreation programs and open for public use by reservation [Contingent on Future Funding]
Trail/Road System	**Signs**	Sign trails in accordance with trail naming plan provided in *Appendix A* & as shown on *Figure 19- Planning Area 6 Implementation Program Actions* [Year 1-5 & Ongoing concurrent with new trail development] Develop & install uniform wayfinding signs for the Sinbad Creek, Oak Leaf and Valle Vista Trails where they form a part of the Calaveras Ridge Trail [Year 1-5]
Trail/Road System	**Operations & Agreements**	Work with the City of Pleasanton to explore options to connect the Valle Vista Trail to the City of Pleasanton Alviso Adobe Park [Dependent on future acquisition opportunities] Construct EVMA access between Valle Vista and Tehan Falls Trails [Contingent on future funding and permits]
Trail/Road System	**Interpretation & Recreation**	Develop an interpretive program and signage for Sinbad Creek describing its cultural and biological importance [Year 1-5] Provide interpretive signage at identified trailside rest stops and overlooks including Point Santos Overlook (along with bench) [Ongoing and as sites are developed]. Provide signage at staging areas and trailheads to inform visitors about: 1) the grazing program and the presence of livestock in the park; and 2) health hazards associated with ticks and yellowjackets and measures to take to avoid encounters [Ongoing and as new access points are developed]

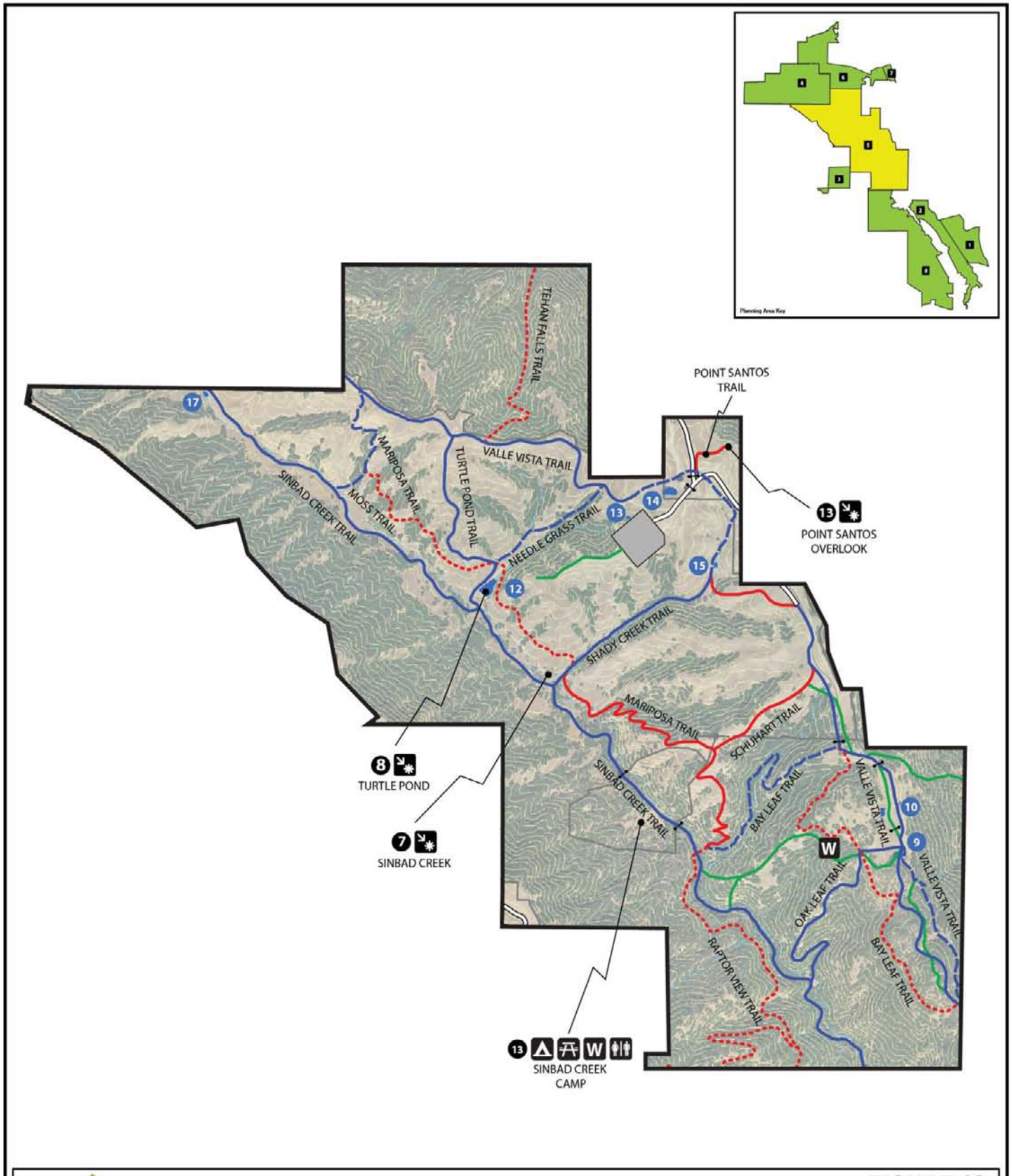

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FIGURE 19
Planning Area 5 Implementation Program Actions
Land Use Plan
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Table 9 - Planning Area 6 Actions

Planning Area Designations: Natural Unit (755 acres)		
	Action	**Ongoing Maintenance & Resource Programs**
esource Management	**Habitat Enhancement**	**Ongoing Resource Management Programs** Continue to manage aquatic habitats in Tehan Canyon seasonal drainages to benefit California red-legged frog and other native aquatic fauna
	Vegetation Management	**Ongoing Resource Management Programs** Per the GUMP for Grazing Unit 4 continue to graze sheep seasonally from March - May to manage fuel load and maintain shrub/grassland mosaic to benefit Alameda whipsnake and native grassland species - Restrict grazing in steep woodland canyons Continue to implement IPM controls for yellow starthistle *(Centaurea solstitialis*) within Tehan Canyon in accordance with *Section 4.2.6 - Pest Management Control Strategies*
Trail/Road System	**Operations & Agreements**	**Maintenance of Existing Infrastructure** Retain the following non-system service road (EVMA) access points: Serenity Terrace Road (private) to Tehan Ridge Trail; Valle Vista Trail through "The Preserve" subdivision open space; Devany Canyon Trail to "The Preserve" subdivision [Pagini]; and to Devany Canyon Rd via Hedd Trail [Vinson] Maintain house (Poole) located off Devany Canyon Road as a park security residence Continue to recognize access easements along a service-road-width trail (>8") and access and water rights to a private inholding per *Figure 10 - Easements* [Contingent on parcel continuing to be held in fee by private parties]

Recommended Recreation Facility & Trail System Development & Interpretive & Recreation Programs		
Resource Management	**Habitat Enhancement**	Continue to manage aquatic habitat associated with the Tehan Canyon seasonal drainages accordance with *Section 4.2 - Biological Resources Management*; and adhere to best management practices described in *Section 4.2.7.1 - Adaptive Management Approach - Monitoring & Reporting Methodology* including conducting biology surveys for Bristly Linanthus (*Linanthus acicularis*) when developing specific alignment for Tehan Falls Trail and protect botanic resources where found [Contingent on future funding and permits]
	Livestock Management	Survey and fence open land along north and western boundary to provide greater flexibility in grazing grasslands - Once area is fenced install water troughs for livestock [Year 1-5]
	Cultural Resource Management	Prior to constructing trails identified in the western portion of Tehan Canyon, which is ranked as an area of high archaeological sensitivity: 1) Consult with an archaeologist and 2) Provide archaeological monitoring during grading activities - If artifacts, or other indications of archaeological or historical resources are observed then an evaluation, followed by a treatment plan, should be undertaken
Trail/Road System	**Realignments & Site Restoration**	Concurrently clear and brush and construct North Woods Trail identified as *„Proposed Multi-use Narrow Trail'* when decommissioning overlapping trail sections identified as *„Eliminated Trail & Restored Site*" [Contingent on future funding] Concurrently construct segment of Valle Vista Trail identified as *„Proposed Multi-use Service Road Trail'* when decommissioning overlapping trail sections identified as *„Eliminated Trail & Restored Site*" [Contingent on future funding]
	Trailheads	Develop Devany Canyon Trailhead as a walk-bike in access including: 1) installing: a self-closing, pass-through gate and signage; and 2) coordinating with the City of Pleasanton to determine roadway signage and/or restrictions [Year 1-5]
	Trail System Additions	Clear, brush and repair existing segments and construct new segments of Tehan Falls Trail and construct Main Ridge Trail identified as *„Proposed Multi-use Narrow Trail'* [Contingent on future funding and permits] Construct segment of Hedd Canyon Trail connecting to Devany Canyon Trail identified as *„Proposed Multi-use Narrow Trail'* per Vinson property easement agreement [Contingent on opening Devany Canyon Trail for recreation use and on future funding and permits] Explore options for linking Calaveras Ridge Trail route to Dublin Hills Regional Park as identified in the 2007 District *Parklands & Trails Map* [Contingent on future opportunities]
	Signage	Sign trails in accordance with trail naming plan provided in *Appendix A* & as shown on *Figure 20- Planning Area 6 Implementation Program Actions* [Year 1-5 & Ongoing concurrent with new trail development] Develop and install educational, wayfinding trail identification signs for Hedd Trail where it forms a part of the Calaveras Ridge Trail [Year 1-5] and Universal Trail Assessment Process (UTAP) signage at Devany Canyon Trailhead [Year 1- 5 and ongoing as new access points are developed]
	Operations' Agreements	Coordinate with the City of Pleasanton to determine roadway signage &/or restrictions along Dublin Canyon Road per *Section 4.4.1.2 Proposed Staging Areas & Trailheads* [Concurrent with trailhead opening] Explore options with City of Pleasanton to connect to adjacent city neighborhood open space trails [Contingent on future opportunities] Construct EVMA access between Valle Vista and Tehan Falls Trails [Contingent on future funding and permits]
	Interpretation & Recreation	Provide interpretive signage at identified trailside rest stops and overlooks including Tehan Falls Overlook [Contingent on new trail development] Provide signage at trailhead to inform visitors about: 1) the grazing program and the presence of livestock in the park; and 2) health hazards associated with ticks and yellowjackets and measures to take to avoid encounters [Ongoing and as new access points are developed]

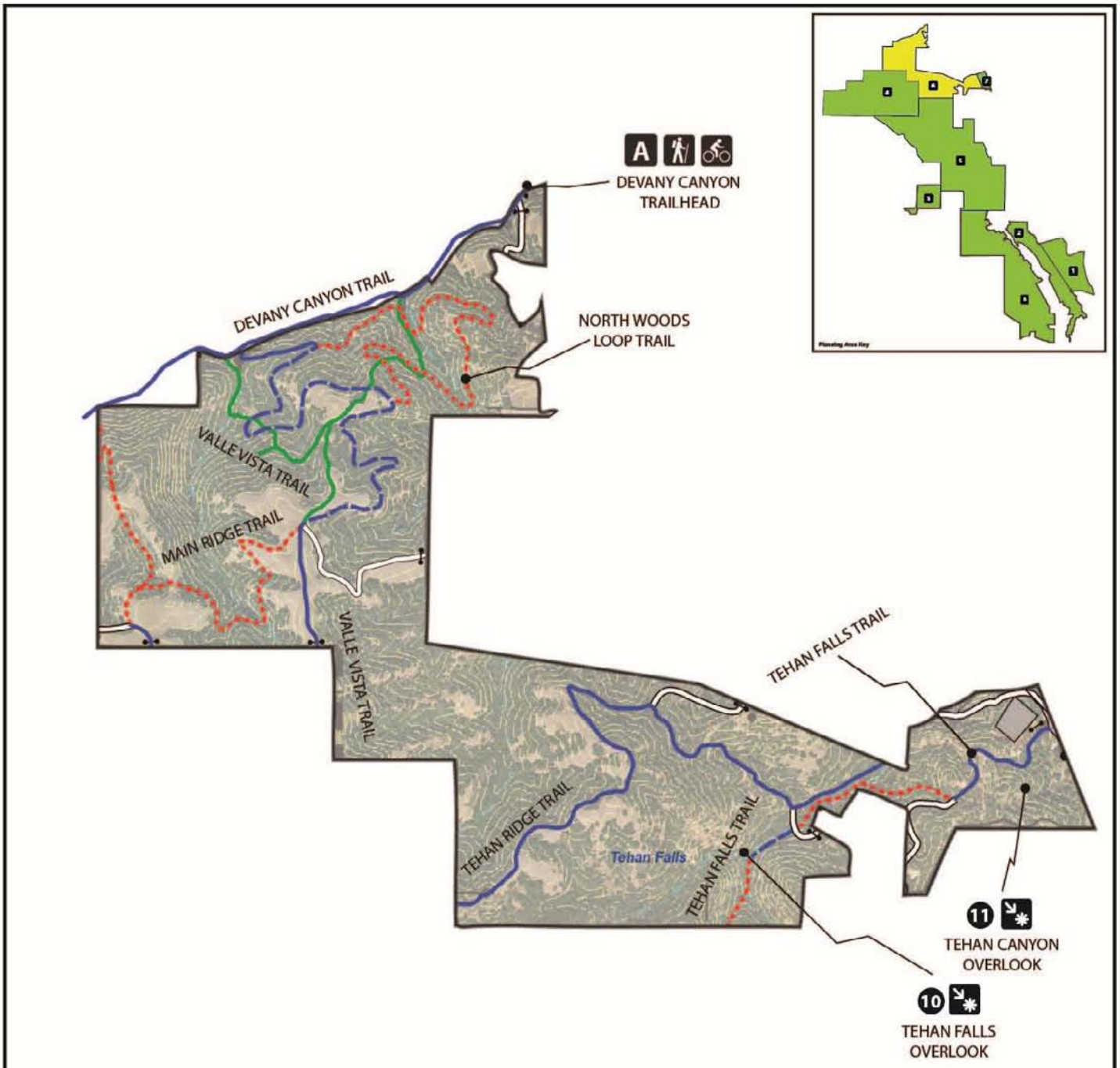

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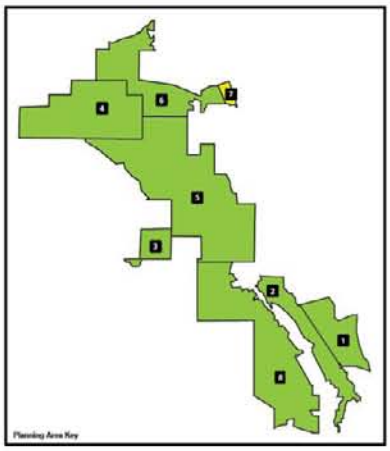
FIGURE 20
Planning Area 6 Implementation Program Actions
Land Use Plan
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Table 10 - Planning Area 7 Actions

Planning Area Designations: Recreation/Staging Unit (46 acres)		
	Action	**Ongoing Maintenance & Resource Programs**
Resource Mgmt.	**Vegetation Management**	**Ongoing Resource Management Programs** Per the GUMP for Grazing Unit 5 continue seasonal grazing utilizing approximately eight cow-calf pairs October-May to manage fuel load and to benefit Congdon"s tar plant (*Centromadia parryi ssp.)* Continue to manage this planning area to benefit Congdon"s tar plant (*Centromadia parryi ssp.)* in accordance with *Section 4.2.5 - California Grassland Habitat Management Program* [Ongoing]
Trail/Road System	**Operations & Agreements**	**Maintenance of Existing Infrastructure** Maintain the apartment (Garms) located above staff office as a park security residence Continue to recognize access easements along a service-road-width trail (>8") and access and water rights to a private inholding per *Figure 10 - Easements* [Contingent on parcel continuing to be held in fee by private parties]

Recommended Recreation Facility & Trail System Development & Interpretive & Recreation Programs		
	Livestock Management	When the Garms Staging Area is developed, incorporate controls to keep cattle out of the staging and picnic area as illustrated on *Figure 12 - Garms Staging Area* [Contingent on development of staging area]
	Pest Management Controls	Implement IPM bait stations at the Garms Staging Area around staging and picnic areas where identified pest species present unacceptable safety, health, and economic problems, or cause functional damage per *Section 4.2.6 - Pest Management Control Strategies* (approximately 5 acres) [Contingent on development of staging area]
	Cultural Resource Management	Prior to constructing the staging area, group picnic area, trails and other amenities identified in Planning Area 7, which are ranked as areas of high archaeological sensitivity: ° Consult with an archaeologist prior to any future excavation to replace or repair existing utilities in this planning area ° Provide archaeological monitoring oversight during initial grading of the parking area and during any additional ground-disturbing activities If artifacts, or other indications of a Native American resource, are observed then an evaluation, followed by a treatment plan, should be undertaken.
Facilities & Operations	**Facilities**	Develop staging area improvements described in *Section 4.4.1.2 Proposed Staging Areas & Trailheads* and illustrated on *Figure 12 - Garms Staging Area* concurrently with trail system additions described for Planning Areas 6 and 7 [Contingent on securing permits and funding for construction of new staging areas and additional staffing] Improve the existing service access to the staff office and private inholding as needs warrant [Contingent on securing permits and funding]
	Operations	Retain the security residence and staff meeting room at the Garms residence when the maintenance functions and staff offices are relocated to Tyler Ranch Staging Area (Refer to *Figure* 12) [Contingent on securing permits and funding for construction of new staging areas and additional staffing]
Trail/Road System	**Trail System Additions**	When developing specific alignment for Congon Loop Trail and non-system service road improvements – align trail and road to minimize impacts to Congdon"s tar plant (*Centromadia parryi ssp.)* [Contingent on trail development] Construct Congon Loop Trail identified as *„Proposed Multi-use Narrow Trail'* as an Americans with Disabilities (ADA) compliant interpretive loop with access points to: 1) local neighborhoods via Wildflower Trail and a crossing of Foothill Road at north end of planning area; 2) family picnic and staging area at southern end of planning area; Garms picnic, day camp and Children"s play area; and 4) Tehan Falls Trail near park security residence [Contingent on future funding and permits] Concurrently with Congon Loop Trail construct Wildflower Trail identified as *„Proposed Multi-use Narrow Trail'* [Contingent on future funding and permits]
	Signs	Sign trails in accordance with trail naming plan provided in *Appendix A* & as shown on *Figure 21- Planning Area 7 Implementation Program Actions* [Year 1-5 & Ongoing concurrent with new trail development] Develop and install educational, wayfinding and Universal Trail Assessment Process (UTAP) signage at Wildflower Trailhead and Garms Staging Area [Contingent on development of staging area and trailhead]
	Operations' Agreements	Work with City of Pleasanton to complete roadway improvements along Foothill Road at Las Positas Boulevard and at Highland Oaks Drive [Concurrent with Garms Staging Area development]
	Interpretation & Recreation	Provide signage at staging areas and trailheads to inform visitors about: 1) the grazing program and the presence of livestock in the park; and 2) health hazards associated with ticks and yellowjackets and measures to take to avoid encounters [Ongoing and as new access points are developed] Provide interpretive signage at identified trailside rest stops and overlooks including the Congdon Loop Trail featuring Congdon"s tarplant [Contingent on staging area development]



GARMS PICNIC, DAY CAMP
& CHILDRENS PLAY AREA

12
CONGDONS
TARPLANT

A
WILDFLOWER
TRAILHEAD

WILDFLOWER
TRAIL

SECURITY RESIDENCE/
PARK OFFICE

CONGDON
LOOP TRAIL

Garms Staging Area

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FIGURE 21
Planning Area 7 Implementation Program Actions
Land Use Plan
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Table 11 - Planning Area 8 Actions

Planning Area Designations: Natural Unit (2,183 acres); Recreation/Staging Unit (5 acres)		
	Action	**Ongoing Maintenance & Resource Programs**
Resource Management	**Habitat Enhancement**	**Ongoing Resource Management Programs** Per guidelines provided in *Section 4.2.2 Aquatic Habitat Management Program:* ° Continue to manage ponds Prpnd021 Prpnd022 and Prpnd023 for native amphibian and reptile species ° Continue to manage ponds Prpnd024, Prpnd025, Prpnd026, Prpnd027 for California red-legged frog and western pond turtle ° Continue to manage aquatic habitats in tributaries of Sinbad and Stonybrook Creeks to benefit California red-legged frog and other native aquatic fauna – Manage riparian zone for oversummering ° Continue to manage woodland area in southwestern section of planning unit to benefit raptor nesting and forging activities per guidelines provided in *Section 4.2.4 - Woodland-Grassland Margin Habitat Management Program*
	Vegetation Management	**Ongoing Resource Management Programs** Per the GUMP for Grazing Unit 6 continue interim "in-stiu" year-round cow-calf pair grazing program to manage fuel loads and maintain shrub/grassland mosaic to benefit Alameda whipsnake and native grassland species
Trail/Road System	**Operations & Agreements**	**Maintenance of Existing Infrastructure** Continue to retain access easements to private inholding per *Figure 10 - Easements* [Contingent on parcels continuing to be held in fee by private parties]

Recommended Recreation Facility & Trail System Development & Interpretive & Recreation Programs		
Resource Management	**Habitat Enhancement**	Restore degraded drainage located in the southeastern potion of Sunol Ridge that connects ponds prpnd 24, prpnd 25, and prpnd 26 in accordance with guidelines provided in *Section 4.2.2- Aquatic Habitat Management Program* [Contingent on future funding and permits] Manage woodland area in southwestern section of Sunol Ridge in accordance with *Section 4.2.4 - Woodland-Grassland Margin Habitat Management Program* to benefit raptor nesting and forging activities including avoiding construction of new trails in areas above the tree line of woodland areas known to support nesting habitat for raptors over multi-year periods [Ongoing as trail system additions are implemented] Manage mixed sage series areas in the southern sections of Sunol Ridge that exhibit a high level of mosaic habitat types suitable for Alameda whipsnake (e.g., edge zones of chaparral, grassland and woodland in rocky terrain) in accordance with *Section 4.2.3 - Mixed Sage Series Habitat Management Program* [Ongoing as trail system additions are implemented]
	Livestock Management	Per the GUMP for Grazing Unit 6, evaluate internal pasture fencing options for creating a more efficient livestock rotation plan for managing fuel loads and maintaining shrub/grassland mosaic to benefit Alameda whipsnake, raptor forging activities and native grassland species [Year 1-5] When the Tyler Staging Area is developed, incorporate controls to keep cattle out of the staging and picnic area [Contingent on staging area development].
	Pest Management Controls	Implement IPM bait stations at Tyler Staging /Picnic Area & Service Yard where identified pest species present unacceptable safety, health, and economic problems, or cause functional damage (approximately 5 acres) [Contingent on development of staging /service facility area]
	Cultural Resources	Manage the Tyler Ranch Complex as an historic resource and prior to constructing the staging area, service yard and park security residence: ° Enlist an architectural historian to evaluate the barn structures (circa 1940s) when the Tyler Staging Area is developed for: 1) structural integrity, historic value and potential for adaptive reuse or recommendation to demolish to protect visitor and employee safety; and 2) likely historic archaeological deposits associated with historic occupation to determine significance; if historically significant then adhere to protocols identified in *Section 4.3 - Cultural Resources Management Programs* [Contingent on staging area development] ° Provide archaeological monitoring oversight during grading and during other earth-disturbing activities associated with the development of staging area; focus monitoring on potentially significant historic artifacts and subsurface deposits ° If a potentially significant historic deposit is unearthed during construction then work should cease and an evaluation, followed by a treatment plan, should be undertaken [Contingent on staging area development] Prior to constructing the camping area, trails and other amenities, and performing pond and drainage restoration work, identified in Planning Area 8 as areas of high archaeological sensitivity: provide archaeological monitoring oversight during any ground-disturbing activities - If artifacts, or other indications of Native American resources, are observed then an evaluation, followed by a treatment plan, should be undertaken [Concurrent with future development].
Facilities & Operations	**Staging & Staff Facilities**	Develop staging area improvements described in *Section 4.4.1.2 Proposed Staging Areas & Trailheads* and illustrated on *Figure 13 – Tyler Ranch Staging Area* including: maintenance facilities and a park security residence [Contingent on securing permits and funding for construction and additional staffing]
	Operations	Upon completion of facility development relocate maintenance functions & staff offices to Tyler Ranch Staging Area (described in *Section 4.4.1.2 Proposed Staging Areas & Trailheads* & illustrated on *Figure 13 – Tyler Ranch Staging Area* [Contingent on securing permits & funding for construction & additional staffing]

Table 11 - Planning Area 8 Actions (continued)

Planning Area Designations: Natural Unit 2,183 acres); Recreation/Staging Unit 5 acres)		
Recommended Recreation Facility & Trail System Development & Interpretive & Recreation Programs		
Trail/Road System	**Realignments & Site Restoration**	Concurrently construct Aquila Trail segments identified as *„Proposed Multi-use Narrow Trail'* and *„Existing Multi-use Service Road (Modified)*" when decommissioning overlapping trail sections identified as *„Eliminated Trail & Restored Site*" [Contingent on Future Funding] Concurrently realign and decommission and restore segments of Raptor View Trail between Kilkare Canyon and Canyon Oak Trails identified as *„Existing Multi-use Service Road (Modified)* when a less steep and more stable route can be identified [Contingent on Future Funding]
	Trail System Additions	In accordance with *Section 4.5.1.2 - Trail Construction & Trail Modification* and as shown on *Figure 19*: ° Construct segments of Sunol Ridge Trail, Raptor View Trail, and Kilkare Canyon Trail identified as *„Multi-use Narrow Trail'* [Contingent on future funding and permits] ° Construct Oak Canyon Trail identified as *„Multi-use Narrow Trail'* [Contingent on future funding and permits] ° Should opportunities arise to develop a superior trail alignment along the Raptor View Trail concurrently develop trail section(s) and eliminate Raptor View Trail between Kilkare Canyon and Canyon Oak and/or between Kilkare Canyon and summit of Sunol Ridge [Contingent on future opportunities, funding and permits].
	Camping & Rest Areas	Develop the Aquila back country campsite as described in *Section 4.4.1.5 Picnicking & Camping and* illustrated on *Figure 22 - Planning Area 8 Implementation Program Actions* to augment trail system and recreation programs [Contingent on Future Funding] Develop five trailside picnic-rest areas at identified view sites as shown on *Figure 22 - Planning Area 8 Implementation Program Actions* to augment trail system [Contingent on completing trails]
	Signs	Sign trails in accordance with trail naming plan provided in *Appendix A* & as shown on *Figure 22- Planning Area 8 Implementation Program Actions* [Year 1-5 & Ongoing concurrent with new trail development] Develop and install educational, wayfinding and Universal Trail Assessment Process (UTAP) signage at Tyler Ranch Staging Area [Year 1- 5 and ongoing as new access points are developed]
	Operations' Agreements	Explore options with Alameda County to complete roadway improvements along Foothill Road between Oak Tree Trailhead & Tyler Ranch Staging Area and at Kilkare Canyon Road per *Section 4.4.1.4 - Transit, Biking & Walking Access* [Concurrent with Tyler Ranch Staging Area development and as future opportunities arise]
	Interpretation & Recreation	Provide interpretive signage at identified trailside rest stops and overlooks identified on *Figure 22* [Contingent on new trail development] Provide signage at staging areas and trailheads to inform visitors about: 1) the grazing program and the presence of livestock in the park; and 2) health hazards associated with ticks and yellowjackets and measures to take to avoid encounters [Ongoing and as new access points are developed]

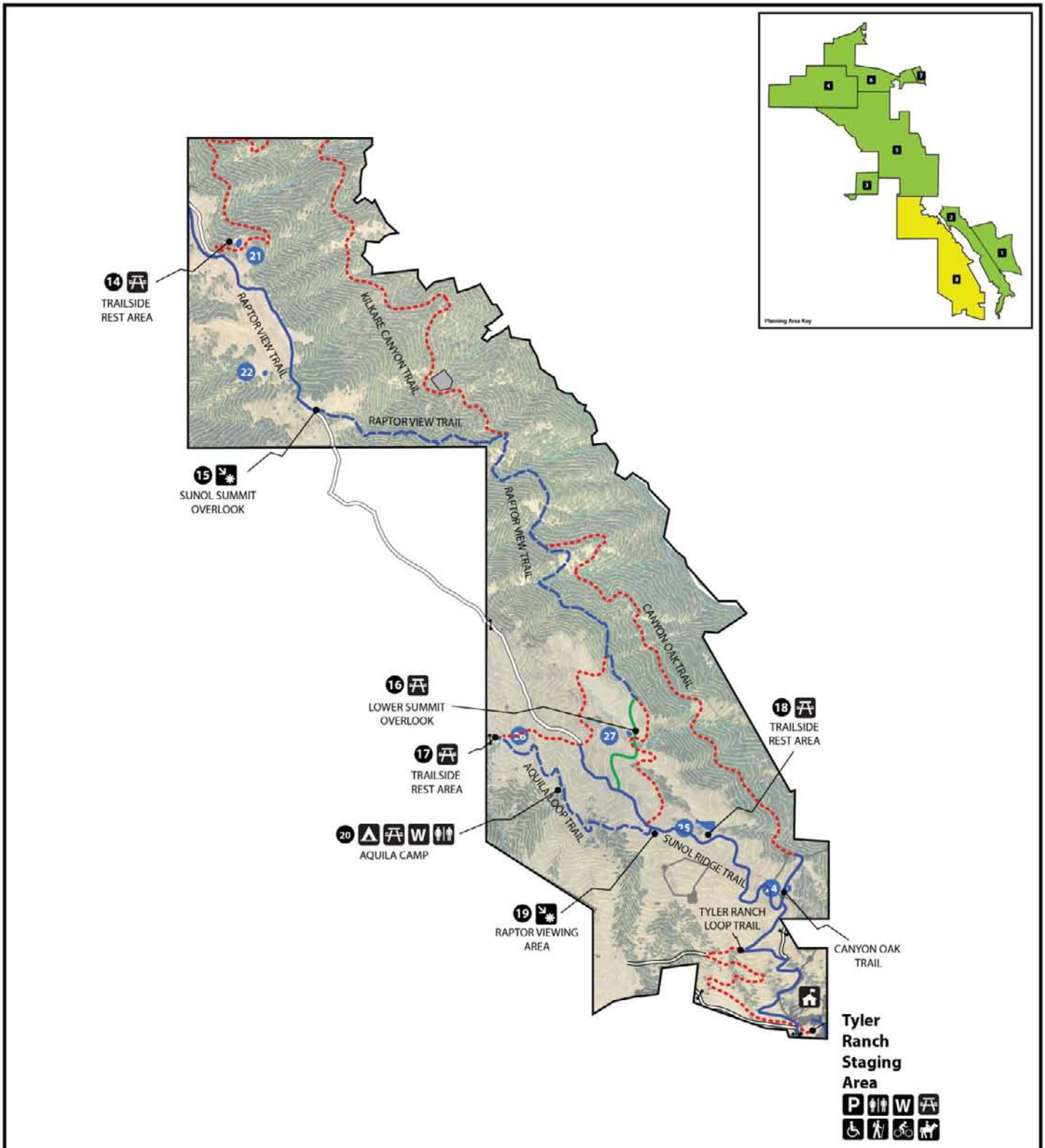

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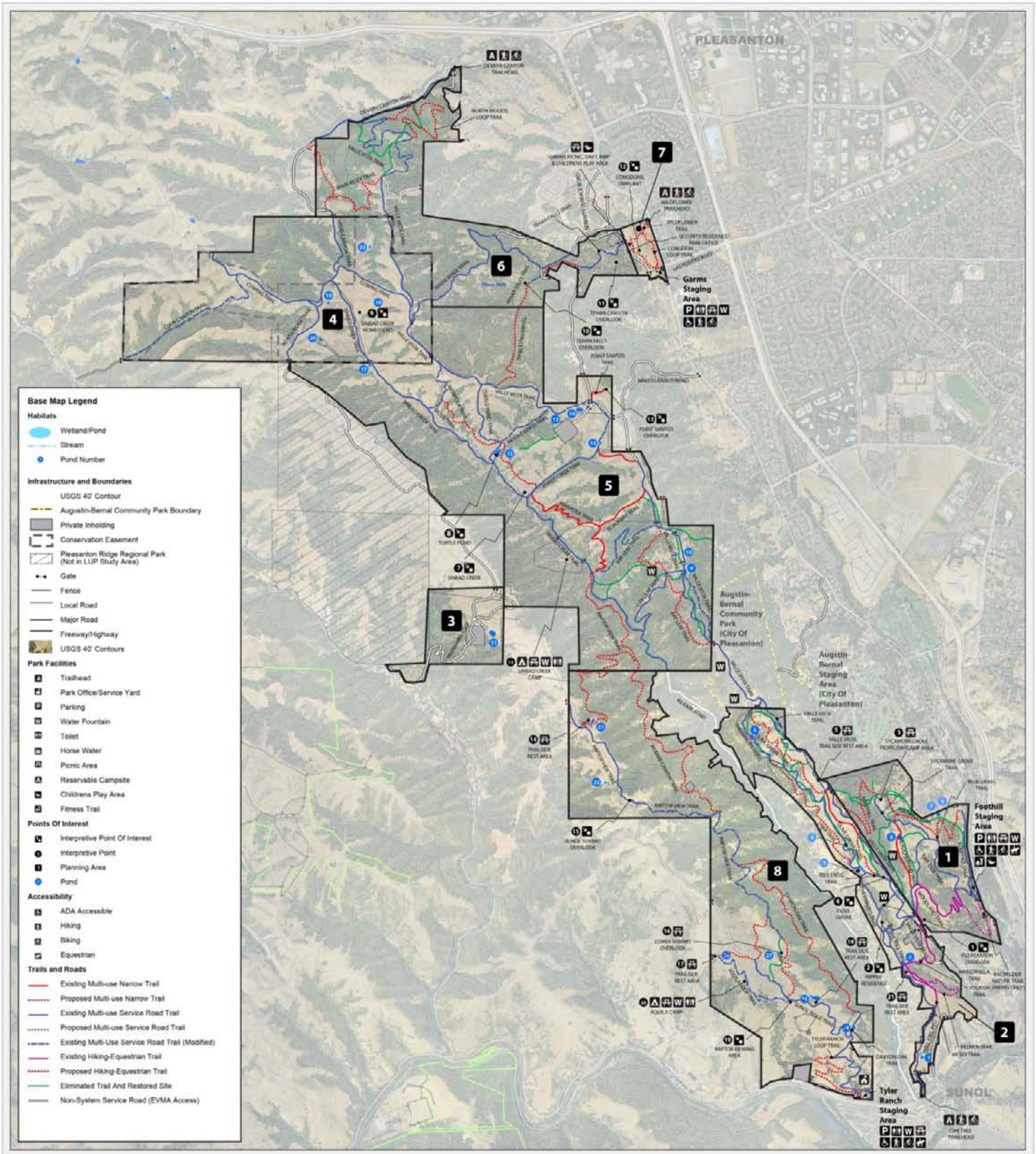
FIGURE 22
Planning Area 8 Implementation Program Actions
Land Use Plan
Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California



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Planning/Stewardship & GIS Services
Hilride Progression Development Group

0 0.5 1 Miles
0 2,000 4,000 Feet

FIGURE 23
PLANNING AREA MAP

Land Use Plan
Pleasanton Ridge Regional Park
Alameda County, California

Refer to back pocket for full size Planning Area Map

Chapter 5

Report Preparation & References

5.1 Report Preparation

This Land Use Plan for Pleasanton Ridge Regional Park was prepared by Julie Bondurant, Senior Park Planner, under the direction of Brian Wiese, Chief, Planning / Stewardship and GIS Services. The CEQA analysis was prepared by Raphael Breines, Senior Park Planner, under the direction of Brian Wiese, Chief, Planning / Stewardship and GIS Services.

Project assistance was provided by the following District staff:

Stewardship: Neal Fujita, Stewardship Manager; Dave Amme, Wildlife Vegetation Program Manager; David Riensche, Wildlife Resource Analyst; Doug Bell, Wildlife Program Manager; Mathew Graul, Water Resources Manager; Nancy Brownfield, Integrated Pest Management Specialist; Steve Bobzien, Ecological Services Coordinator; Wilde Legard, Botanist; Ron Gartland, Vegetation Resource Analyst; Pete Alexander, Fisheries Program Manager.

Operations: John Escobar, Assistant General Manager, Operations (Retired); Jeff Wilson, Chief of Park Operations (Retired); Ann Scheer, Acting Chief of Park Operations; Donald Goodenow, Acting Chief of Maintenance and Skilled Trades (MAST); Kelly Barrington, Interpretive Parklands Unit Manager; Laura Comstock, Interpretive Parklands Unit Manager (Retired); Steve Quick, Park Supervisor; Bill Callender, Park Ranger II; Dave Gorgeous, Park Ranger II.

Interpretive & Recreation Services: Anne Kassebaum, Recreation Services Manager; Erica Herron, Supervising Naturalist, Southeast Sector; and interpretive and recreation program staff.

Land Division: Nancy Wenninger, Assistant General Manager Land Division; Liz Musbach, Land Acquisition Manager, Brad Olson, Environmental Programs Manager, Suzanne Lusk, Right-of-Way Agent - *Trails Development Programs*: Jim Townsend, Manager Trails Development Programs, Terry Noonan, Las Trampas Park Supervisor.

Legal Division: Carol Victor, Assistant District Counsel.

Public Safety & Fire Operations: John Swanson, Assistant Fire Chief; Timothy M. Anderson, Assistant General Manager - Police Chief.

Public Affairs: Carol Johnson, Assistant General Manager, Public Affairs; Shelly Lewis, Community Relations Manager; Isa Polt-Jones, Public Information Representative.

Mapping & GIS Services: Phil Webster, Cartographer; Glenn Gilchrist, Civil Engineer; Robert Ploss, Senior Park Designer, Duncan Marshall, Field Office Surveyor, Steve Gigoux, Field/Office Surveyor.

Administrative Staff: Patti Zierman, Senior Office Specialist.

City of Pleasanton Staff: Susan Andrade-Wax, Director of Parks and Community Services; Mike Fulford, Landscape Architect - Heritage Tree Program; Janice Stern, Planning Manager; Janis Stephen, Assistant Engineer II; Michael Tassaro, City Traffic Engineer.

Alameda County: Phil Sarrey-Kubieck, Senior Planner; Art Kurigera, Roads Program Manager.

Consultants: The following consultants contributed to the development of the LUP:

- Archaeological Resource Service; Cultural Sensitivity Mapping
- Hilride Progression Development Group, LLC; Access & Trail System Concept Plan Map
- Dr. G. Gary Manross, Ph.D., Strategy Research Institute; 2009 Trail Use Survey
- Susan Imboden, Oral Historian; Historic Land Uses.

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5.2.3 Personal Communications

Scott Crawford, Caretaker Tyler Ridge

Appendices

APPENDIX A
TABLE OF PROPOSED NAME CHANGES & NEW NAME PROPOSALS

APPENDIX A
TABLE OF PROPOSED NAME CHANGES & NEW NAME PROPOSALS

The LUP proposes changing the names of a few features and facilities and giving names to some previously unnamed and proposed sites, facilities and trails. The new names are intended for the park brochure.

In keeping with Naming Policy [Resolution No. 2004-04-73 (4/20/04)] contained herein the new trails, features, areas and facilities in Pleasanton Ridge Regional Park are proposed to be named after natural features such as plant and animal life, geographic, topographic or paleontological features, or for cultural features such as archaeological and historic artifacts, historic persons, families or events. Existing historically related names are respected. Native American names may be changed at the discretion of the Native American Community.

Appendix A - Table of Proposed Name Changes & New Name Proposals

Planning Unit	Existing Name	Proposed Name	Facility or Feature Type	Trail Type	Status & Status Change
1	None	Blue Grass	Trail	Narrow	Existing
1	Foothill	Foothill	Staging Area	NA	Existing
1	None	Meadow Pond	Trail	Narrow	Existing
1	None	Bachelder	Nature Trail	Narrow	Proposed
1	None	Sycamore Grove	Picnic/Day Camp Area	NA	Proposed
1	Sycamore Grove	Sycamore Grove	Trail	Service	Existing
1	Woodland	Woodland	Trail	Narrow	Existing
2	None	Lynx View	Trail	Narrow	Proposed
2	Olive Gove	Manzanilla	Trail	Narrow	Existing & Proposed Width Reduction
2	None	Nipper residence	Security residence	NA	Existing
2	Thermalito	Oak Tree	Trailhead	NA	Existing
2	None	Olive Grove	Interpretive Site	NA	Proposed
2	Olive Grove	Olive Grove	Trail	Service & Narrow	Existing & Reroute
2	None	Pelnen	Trail	Narrow	Existing & Proposed
2	Thermalito	Thermalito	Trail	Service	Existing
2	Olive Grove	Tree Frog	Trail	Service	Existing
2	Picnic #5	Valle Vista	Trailside picnic/rest site	NA	Existing
2	None	Wetes	Trail	Narrow	Proposed
2	Ridgeline	Youkis	Trail	Service & Narrow	Existing & Proposed Width Reduction
1, 2	Foothill	Foothill	Trail	Service & Narrow	Existing/ Proposed Reroute
1, 2	Oak Tree & Thermalito (between Oak Tree junction & trailhead)	Oak Tree	Trail	Service	Existing
2, 5, 6	North Ridge & Ridgeline	Valle Vista	Trail	Service& Narrow	Existing & Proposed Reroute & Width Reduction
3	None	Palomares Loop	EVMA	Service	Existing
4	Cook Canyon	Cook Canyon	Trail	Narrow	Existing

Appendix A - Table of Proposed Name Changes & New Name Proposals

Planning Unit	Existing Name	Proposed Name	Facility or Feature Type	Trail Type	Status & Status Change
4	Cowing	Cowing	Trail	Service	Existing
4	None	North Ridge	Trail	Service	Existing
4, 5	Sinbad Creek	Sinbad Creek	Creek		Existing
4, 5	Sinbad Creek	Sinbad Creek	Trail	Service	Existing
5	Bay Leaf	Bay Leaf	Trail	Narrow	Existing & Proposed Reroute & Width Reduction
5	Bay Leaf Mariposa	Mariposa	Trail	Narrow	Existing (Service & Narrow) & Proposed Width Reduction
5	Loop	Needle Grass	Trail	Narrow	Existing
5	Upper Sinbad	Oak Leaf	Trail	Service	Existing
5	None	Point Santos	Trail	Narrow	Existing
5	None	Schuhart	Trail	Narrow	Existing
5	Shady Creek	Shady Creek	Trail	Service	Existing
5	None	Sinbad Creek	Campground	NA	Existing
5	Turtle Pond	Turtle Pond	Trail	Service	Existing
5, 8	none	Kilkare Canyon	Trail	Narrow	Proposed
5, 8	Sunol Ridge	Raptor View	Trail	Service	Existing – partial width reduction
6	none	Devany Canyon	Trailhead	NA	Existing
6	none	Devany Canyon	Trail	Service	Proposed
6	none	Hedd Canyon	Trail	Service & Narrow	Existing/ Proposed
6	none	Main Ridge	Trail	Narrow	Proposed
6	none	North Woods Loop	Trail	Narrow	Proposed & Reroute
6	none	Tehan Falls	Interpretive Site	NA	Proposed
6	none	Tehan Falls	Trail	Narrow	Existing/ Proposed
6	none	Tehan Ridge	Trail	Service	Existing
7	none	Congdon Loop	Trail	Narrow	Proposed
7	none	Garms	Staging Area	NA	Proposed
7	none	Garms	Picnic/Day Camp Area	NA	
7	none	Wildflower	Trail	Narrow	Proposed
8	none	Aquila Loop	Trail	Narrow	Existing & Proposed
8	none	Canyon Oak	Trail	Narrow	Proposed
8	Sunol Ridge	Sunol Ridge	Trail	Service & narrow	Existing/ Proposed
8	none	Tyler Ranch	Staging Area	NA	Proposed
8	none	Tyler Ranch Loop	Trail	Service & narrow	Existing/ Proposed

East Bay Regional Park District

Naming Policy

Resolution No. 2004-04-73 (4/20/04)

The East Bay Regional Park District Board of Directors is responsible for the naming and renaming of Regional Parks[1], trails, features, areas, and facilities. Proposals for naming and/or renaming may come from any source including Board members, staff, volunteers, organizations and individuals.

The procedure for the naming of a Regional Parks, trails, features, areas and facilities began with the District's establishment in 1934. Naming is a way to remember shared history, to identify local natural resources and to honor individuals. Naming is also a useful way to help park users interpret parkland resources and to orient themselves while visiting the Regional Parks.

Recognition naming after persons living or deceased may be allowed in special cases. The District's preference is to express appreciation for contributions through awards, events, tributes, publicity, commemorative items, mementos and letters of appreciation. The number of features and facilities within EBRPD that may be named is finite. The decision not to accept a naming proposal does not diminish the significance of public service or the gratitude of the District to those who have contributed service or monetary donations.

Naming Policy

Regional Parks, trails, features, areas and facilities will be named after natural features such as plant and animal life, geographic, topographic or paleontological features, or for cultural features such as archaeological and historic artifacts, historic persons, families or events. Existing historically related names shall be respected.

Naming in recognition of persons living or deceased may be allowed only in special cases, and will be considered for substantial or outstanding contributions of service, property or funds to the public good of the East Bay Regional Park District, East Bay Region, Bay Area, State, or Nation. The East Bay Regional Park District is not a venue for corporate or personal advertising. Corporate names will not be considered for Regional Parks or significant geographic features, but in special cases, may be considered for facility or area names.

Staff will maintain guidelines, which will include more specific criteria for eligibility and procedure. The EBRPD Board of Directors always maintains flexibility interpreting the policy, and shall have final authority to name parkland features and facilities as it deems appropriate.

[1] All parkland classifications including Regional Trails

APPENDIX B
PLEASANTON RIDGE REGIONAL PARK HABITAT ASSESSMENT MAPS
&
POND DATA

APPENDIX B
PLEASANTON RIDGE REGIONAL PARK HABITAT ASSESSMENT MAPS & POND DATA

The 6,532-acre study area within Pleasanton Ridge Regional Park contains three major plant communities. These communities consist of California annual grassland (with some native perennial grasses present), shrublands (with variable composition), and oak woodlands. Two other communities occur in much smaller areas: riparian- ephemeral canyon creeks, and ponds, springs and seeps; and agriculture.

Pleasanton Ridge Regional Park provides habitat for a variety of wildlife species including critical breeding and foraging habitat for a number of federal and state listed species including: Alameda whipsnake (*Masticophis lateraliss euryxanthus*), California red-legged frog (*Rana draytonii*), western pond turtle (*Clemmys marmorata*), the state and federally protected for golden eagle (*Aquila chrysaetos*), and other raptors, along with habitat that historically sustained federally threatened steelhead (*Onchorhynchus mykiss*).

To be sensitive to these species field surveys were conducted and habitat assessments were prepared as documented in this appendix to establish conservation measures and identify trail routes. A summary of California red-legged frog and Alameda whipsnake data and assessments follow.

Aquatic Habitat

A few of the twenty-seven freshwater ponds support western pond turtle (*Clemmys marmorata*) and the upper reaches of Sinbad and Cook Canyon Creeks and Ponds prpnd 22, prpnd24, prpnd 26 and prpnd 27 along Sunol Ridge support California red-legged frog (*Rana draytonii*) (Norton, 1996; Bobzien and DiDonato, 2007; Caltrans District 4 2008; D Riensche 2011). There is also the potential for lower reaches of the Sinbad Creek to support California steelhead in the future (Alameda Watershed Project 2011).

The current status of California red-legged frog in *t*he East Bay Regional Park District is provided in the *California Red-legged Frog Final Report to USFWS in 2010 in the East Bay Regional Park District* (D. Riensche 1-13-2011) and results for Pleasanton Ridge Regional Park are provided below.

Status of California Red-legged Frog in the East Bay Regional Park District

Annual Report of Activities Conducted under permit TE-817400-7: January 12, 2011

Report Prepared by: David L. Riensche, Wildlife Resource Analyst

Site Name: Pleasanton Ridge Pleasanton Ridge Regional Park, Sunol, CA. East Bay Regional Park District.

Purpose: The purpose of the fieldwork was to document the continued presence of the California Red-legged frog within the properties operated by the East Bay Regional Park District.

Monitoring: In accordance with the terms and conditions of the District permit, the following personnel were present during the 2010 survey period and assisted with aspects of the project.

David L. Riensche, Wildlife Resource Analyst – all survey dates
Sharon Dulava, Wildlife Intern – all survey dates
Emily Brownlee**,** Wildlife Intern – all survey dates

Date of first California red-legged frog survey: June 9, 2010
Date of last California red-legged frog survey: July 26, 2010
Date of first California red-legged frog observed: June 9, 2010
Date of last California red-legged frog observed: July 26, 2010

Methodology: Following the terms and conditions of the District permit**,** California red-legged frogs and tadpoles were captured using Service approved protocols for frog surveys. All California red-legged frogs and tadpoles were captured in livestock ponds that had varied and patchy stands of vegetation (e.g., cattail, spike rush, bulrush and willow).

California Red-legged Frog Survey Results for Pleasanton Ridge Regional Park

Date(s)	Location	EBRPD Pond #	Adults	Tadpoles
06/09/10	37.60443N, Lat., 121.90134W Long.	Prpnd025	0	0
06/09/10	37.60820N, Lat., 121.90590W Long.	Prpnd027	0	6
06/16/10	37.63106N, Lat., 121.92924W Long.	Prpnd021	0	0
06/16/10	37.62479N, Lat., 121.92754W Long.	Prpnd022	1	7
06/16/10	37.60127N, Lat., 121.89633W Long.	Prpnd024	0	0
TOTALS			**1**	**13**

Results: During the 2010 survey the District captured, process and released unharmed a total of one adult and 13 tadpoles at Pleasanton Ridge Regional Park at the ponds listed above. Various life stages of the California red-legged frog were recorded in two out of the five ponds surveyed (occurrence rate of 40 percent). Scheduled monitoring efforts will continue at the park in the future.

Mixed Sage Series Habitat & Alameda Whipsnake

Alameda whipsnake (AWS) is a long, slender colubrid; adults reach up to 5 feet in length. It is a fast-moving predator with a smooth dorsal surface that is sooty black with conspicuous yellow-orange lateral stripes.

AWSs are found primarily in chaparral, sage scrub, and riparian scrub habitats. Areas of concentrated use or "core habitat" are thought to occur on south, southwest, and southeast facing slopes, which provide the maximum penetration of sunlight needed to enable this diurnal snake to maintain the high body temperature required for fast movement.

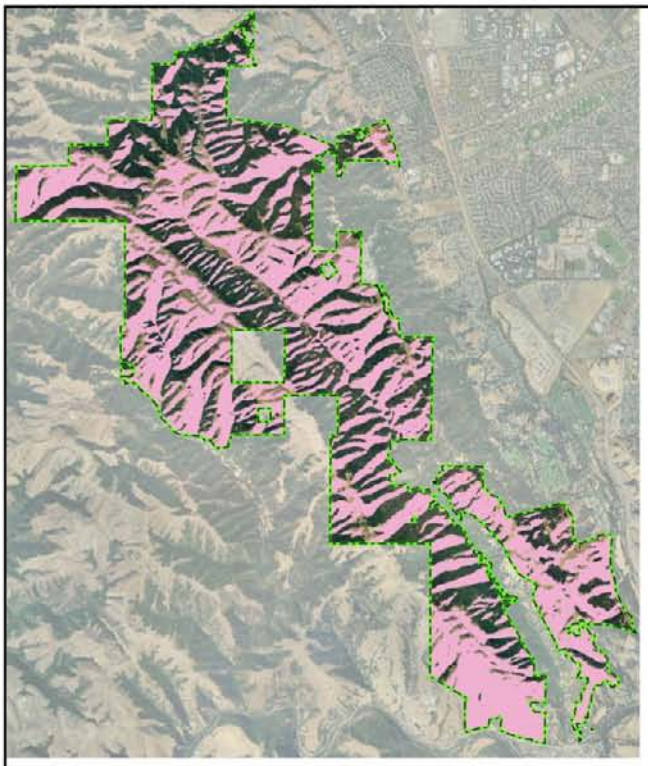
The listing of the AWS as "threatened" under the Endangered Species Act (ESA) in 1997 was followed in October 2000 with a designation of over 400,000 acres in Alameda, Contra Costa, San Joaquin and Santa Clara Counties as "critical habitat" for Alameda whipsnake by the United States Fish and Wildlife Service. As the entire park is located within the designated

"critical habitat" area, these regulatory decisions have parkwide implications for new infrastructure and facility development.

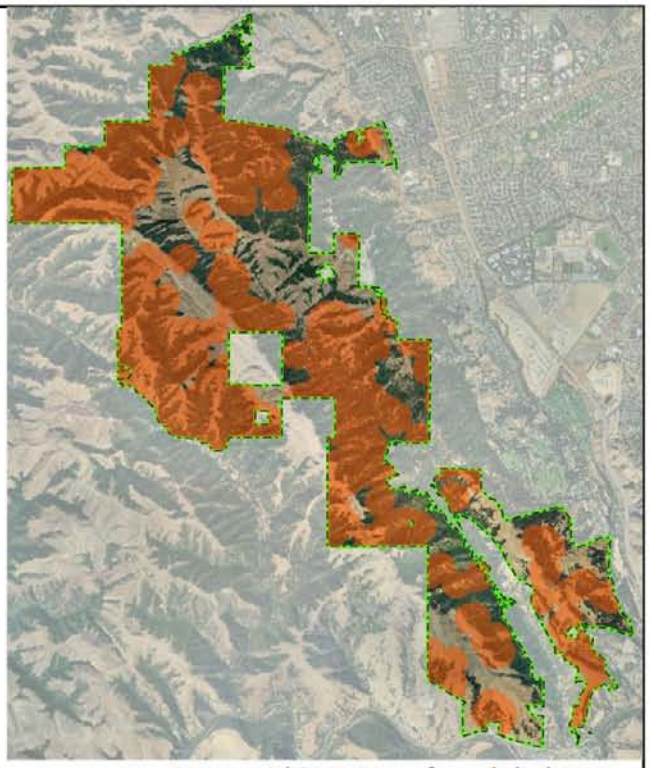
To identify areas with key characteristics of AWS habitat, habitat classification data and aspect data were used to create the AWS habitat assessments maps, which are shown on the following figures. Key or core habitat areas were defined as meeting all five of the following AWS habitat criteria:

- Southwest-southeast and east facing slopes
- Water sources including a 1,640-foot buffer
- Grassland/open area habitat including a 500-foot buffer
- Scrub habitat including a 200-foot buffer
- Rock outcrops including a 200-foot buffer as they provide cover for the snakes and promote lizard populations a significant prey species of the AWS.

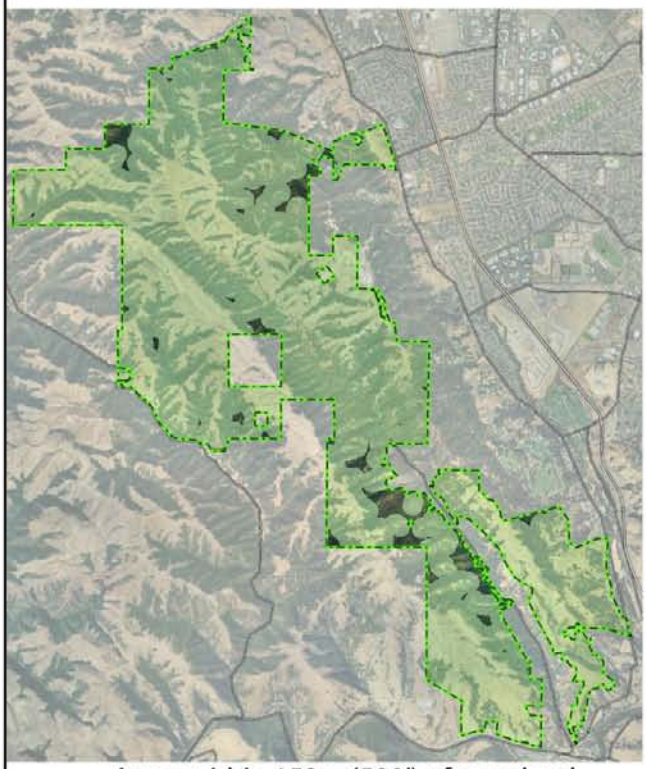
These five criteria were developed based on literature describing ideal attributes of AWS habitat.



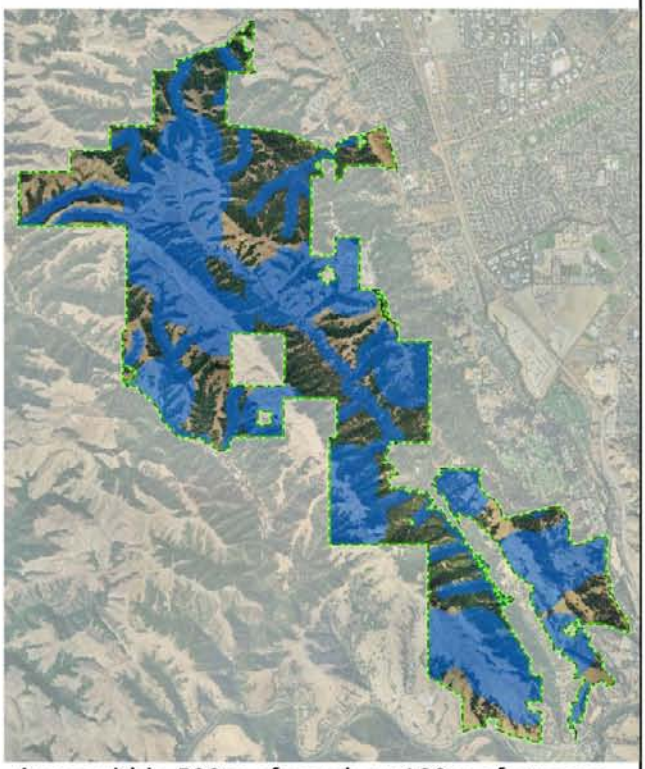
SW, S, SE, and E facing slopes



Areas within 200m of scrub habitat



Areas within 152m (500') of grassland



Areas within 500m of ponds or 100m of streams

East Bay Regional Park District

East Bay Regional Park District
Planning/Stewardship/GIS Services
JAN. 31, 2012

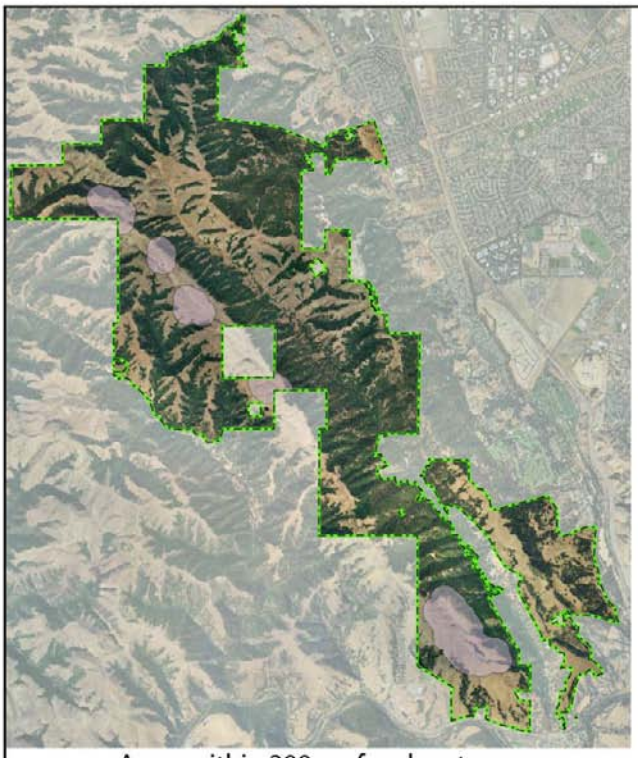
0 0.5 1 Miles

N

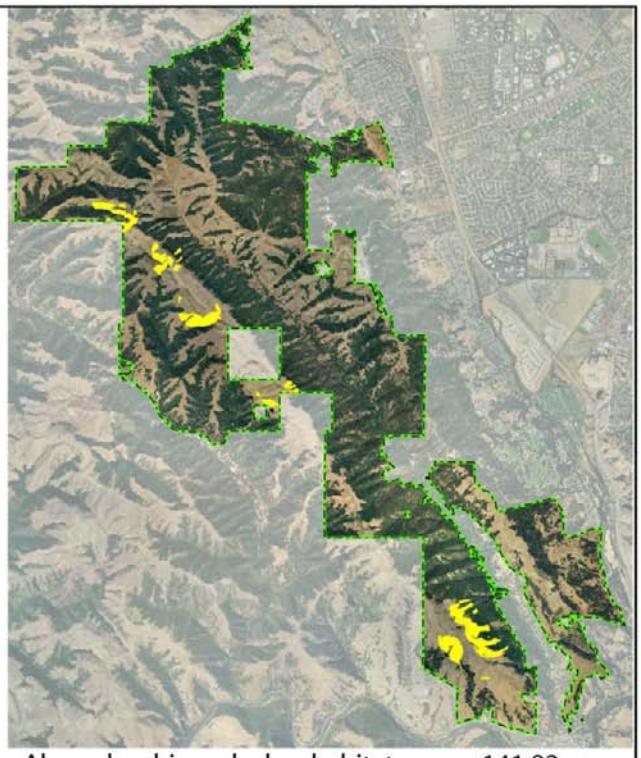
Habitat Analysis Land Use Plan

Pleasanton Ridge Regional Park

Alameda County, California



Areas within 200m of rock outcrops



Alameda whipsnake key habitat areas - 141.82 acres

East Bay Regional Park District

0 0.5 1 Miles

N

Habitat Analysis Land Use Plan

Pleasanton Ridge Regional Park

Alameda County, California

East Bay Regional Park District
Planning/Stewardship/GIS Services
JAN. 31, 2012

APPENIDIX C
PLEASANTON RIDGE REGIONAL PARK - PLANT LIST

Pleasanton Ridge Regional Park
Checklist of Wild Plants
Sorted Alphabetically by Growth Form, Scientific Name

East Bay Regional Park District

This is a comprehensive list of the wild plants reported to be found in Pleasanton Ridge Regional Park. The plants are sorted alphabetically by growth form, then by scientific name. This list includes the common name, family, status, invasiveness rating, origin, longevity, habitat, and bloom dates. EBRPD plant names that have changed since the 1993 Jepson Manual are listed alphabetically in an appendix.

Column Heading	Description
✓	Checklist column for marking off the plants you observe
Scientific Name	According to ***The Jepson Manual: Vascular Plants of California, Second Edition (JM2)*** and ***eFlora*** **(ucjeps.berkeley.edu/IJM.html)**
(JM93 if different)	If the scientific name used in the 1993 edition of *The Jepson Manual (JM93)* is different, the change is noted as (JM93: xxx)
Common Name	According to *JM2* and other references (not standardized)
Family	Scientific family name according to *JM2*, abbreviated by replacing the "aceae" ending with "-" (ie. Asteraceae = Aster-)
Status	Special status rating (if any), listed in 3 categories, divided by vertical bars ('|'): **Federal/California (Fed./Calif.) | California Native Plant Society (CNPS) | East Bay chapter of the CNPS (EBCNPS)** **Fed./Calif.:** FE = Fed. Endangered, FT = Fed. Threatened, CE = Calif. Endangered, CR = Calif. Rare **CNPS** (online as of 2012-01-23): 1B = Rare, threatened or endangered in Calif, 3 = Review List, 4 = Watch List; 0.1 = Seriously endangered in California, 0.2 = Fairly endangered in California **EBCNPS** (online as of 2012-01-23): *A = Statewide listed rare; A1 = 2 East Bay regions or less; A1x = extirpated; A2 = 3-5 regions; B = 6-9
Inv	California Invasive Plant Council Inventory (Cal-IPCI) Invasiveness rating: H = High, L = Limited, M = Moderate, N = Native
OL	Origin and Longevity. Origin: N = Native, Z = naturaliZed or W = Waif; followed by Longevity: A = Annual, B = Biennial, P = Perennial, or a combination (ie. ZAB = naturalized annual or biennial)
Habitat (Bloom)	Habitat description (Bloom date range) according to *JM2* and other sources

This document is a compilation of field surveys submitted by various sources. Readers are encouraged to report any corrections (including probable misidentifications), additions, suggested improvements, or any other feedback by emailing the District Botanist (Wilde Legard, wlegard@ebparks.org). The latest version of this checklist can be found at: http://www.ebparks.org/stewardship/plants/checklist.

Pleasanton Ridge Regional Park
Checklist of Wild Plants

✓	Scientific Name (JM93 if different)	Common Name	Family	Status	Inv	OL	Habitat (Bloom)
O	*Adiantum jordanii*	California Maidenhair	Pterid-	- | - | -	-	NP	Shaded hillsides, moist woodland -
O	*Athyrium filix-femina var. cyclosorum*	Western Lady Fern	Woodsi-	- | - | -	-	NP	Woodland, along streams, seepage area -
O	*Azolla filiculoides*	Mosquito Fern	Azoll-	- | - | -	-	NP	Common. Ponds, slow streams -
O	*Dryopteris arguta*	Coastal Wood Fern	Dryopterid-	- | - | -	-	NP	Locally common. Open, wooded slopes, caves -
O	*Equisetum arvense*	Common Horsetail	Equiset-	- | - | -	-	NP	Streambanks, wet meadows, springs, other wet, shaded places -
O	*Equisetum hyemale subsp. affine*	Common Scouring Rush	Equiset-	- | - | -	-	NP	Streams, moist, sandy, gravelly areas -
O	*Equisetum telmateia subsp. braunii*	Giant Horsetail	Equiset-	- | - | -	-	NP	Streambanks, roadside ditches, seepage areas -
O	*Pellaea andromedifolia*	Coffee Fern	Pterid-	- | - | -	-	NP	Generally rocky or dry areas -
O	*Pentagramma triangularis subsp. triangularis*	Goldenback Fern	Pterid-	- | - | -	-	NP	Gen shaded, sometimes rocky or wooded areas -
O	*Polypodium calirhiza*	Polypody Fern	Polypodi-	- | - | -	-	NP	On plants, rocky cliffs or outcrops, roadcuts, often granitic or volcanic, rarely dunes -
O	*Polystichum munitum*	Western Sword Fern	Dryopterid-	- | - | -	-	NP	Common. Wooded hillsides, shaded slopes, rarely cliffs, outcrops -
O	*Pteridium aquilinum var. pubescens*	Bracken Fern	Dennstaedti-	- | - | -	-	NP	Pastures, woodland, meadows, hillsides, partial to full sun -
O	*Woodwardia fimbriata*	Giant Chain Fern	Blechn-	- | - | -	-	NP	Near streams, springs, seeps -

✓	Scientific Name (JM93 if different)	Common Name	Family	Status	Inv	OL	Habitat (Bloom)
O	*Agrostis capillaris*	Colonial Bent Grass	Po-	- | - | -	-	ZP	Roadsides, open, disturbed places (Jul–Sep)
O	*Agrostis exarata*	Spike Bent Grass	Po-	- | - | -	-	NP	Common. Moist or disturbed areas, open woodland, conifer forest (Jun–Aug)
O	*Agrostis hallii*	Hall's Bent Grass	Po-	- | - | A2	-	NP	Open oak woodland, conifer forest (May–Jul)
O	*Agrostis microphylla*	Small-leaf Bent Grass	Po-	- | - | -	-	NA	Thin, rocky soils, cliffs, vernal pools, occasionally on serpentine (May–Jul)
O	*Agrostis sp.*	Bent Grass	Po-	- | - | -	-		- -
O	*Agrostis stolonifera*	Creeping Bent Grass	Po-	- | - | -	L	ZP	Ditches, lake margins, marshes (Jun–Sep)
O	*Aira caryophyllea*	Silver Hair Grass	Po-	- | - | -	-	ZA	Sandy soils, open or disturbed sites (Apr–Jun)
O	*Anthoxanthum aristatum*	Annual Vernal Grass	Po-	- | - | -	-	ZA	Moist to dry disturbed sites (May–Jun)
O	*Avena barbata*	Slender Wild Oat	Po-	- | - | -	M	ZA	Disturbed sites (Mar–Jun)
O	*Avena fatua*	Wild Oat	Po-	- | - | -	M	ZA	Disturbed sites (Apr–Jun)
O	*Briza maxima*	Rattlesnake Grass	Po-	- | - | -	L	ZA	Shaded sites, roadsides, pastures, weedy on coastal dunes (Apr–Jul)
O	*Briza minor*	Little Quaking Grass	Po-	- | - | -	-	ZA	Shaded or moist, open sites (Apr–Jul)
O	*Bromus carinatus var. carinatus*	California Brome	Po-	- | - | -	-	NP	Coastal prairies, openings in chaparral, plains, open oak and pine woodland (Apr–Aug)
O	*Bromus diandrus*	Ripgut Grass	Po-	- | - | -	M	ZA	Open, gen disturbed areas (Apr–Jul)
O	*Bromus hordeaceus*	Soft Chess	Po-	- | - | -	L	ZA	Fields, disturbed areas (Apr–Jul)
O	*Bromus laevipes*	Woodland Brome	Po-	- | - | -	-	NP	Shrubland, conifer forest, shaded streambanks, roadsides (May–Jul)
O	*Bromus madritensis subsp. madritensis*	Foxtail Chess	Po-	- | - | -	-	ZA	Disturbed areas, roadsides (Apr–Jan)
O	*Bromus madritensis subsp. rubens*	Red Brome	Po-	- | - | -	H	ZA	Disturbed areas, roadsides (Mar–Jun)
O	*Bromus tectorum*	Cheat Grass	Po-	- | - | -	H	ZA	Open, disturbed areas (May–Aug)
O	*Carex nudata*	Torrent Sedge	Cyper-	- | - | A2	-	NP	Rocky or sandy streambeds below high-water mark (Apr–Jul)
O	*Carex praegracilis*	Freeway Sedge	Cyper-	- | - | C	-	NP	Common. Often alkaline, ± moist places (Apr–Aug)
O	*Carex sp.*	Sedge	Cyper-	- | - | -	-		- -
O	*Cortaderia selloana*	Smooth Pampas Grass	Po-	- | - | -	H	ZP	Disturbed sites (Sep–Mar)
O	*Cynodon dactylon*	Bermuda Grass	Po-	- | - | -	M	ZP	Disturbed sites (Jun–Aug)
O	*Cynosurus echinatus*	Bristly Dogtail Grass	Po-	- | - | -	M	ZA	Open, disturbed sites (May–Jul)
O	*Cyperus eragrostis*	Tall Nutsedge	Cyper-	- | - | -	-	NP	Vernal pools, streambanks (May–Nov)
O	*Danthonia californica (JM93: var. californica)*	California Oat Grass	Po-	- | - | C	-	NP	Gen moist meadows, open woodland (Apr–Aug)

✓	Scientific Name (JM93 if different)	Common Name	Family	Status	Inv	OL	Habitat (Bloom)
O	*Deschampsia cespitosa subsp. cespitosa*	Tufted Hair Grass	Po-	- | - | C	-	NP	Meadows, streambanks, coastal marshes, forest (Jul–Aug)
O	*Deschampsia cespitosa subsp. holciformis*	Pacific Hair Grass	Po-	- | - | A2	-	NP	Coastal marshes, meadows (May–Jul)
O	*Deschampsia danthonioides*	Annual Hair Grass	Po-	- | - | C	-	NA	Moist to drying, open sites, meadows, streambanks, vernal pools, occ alkali soil (Mar–Aug)
O	*Deschampsia elongata*	Slender Hair Grass	Po-	- | - | C	-	NP	Wet sites, meadows, lakeshores, shaded slopes (May–Sep)
O	*Digitaria sanguinalis*	Hairy Crab Grass	Po-	- | - | -	-	ZA	Disturbed areas (Jun–Sep)
O	*Distichlis spicata*	Salt Grass	Po-	- | - | -	-	NP	Salt marshes, coastal dunes, moist, alkaline areas (Apr–Sep)
O	*Eleocharis macrostachya*	Common Spikerush	Cyper-	- | - | -	-	NP	Common. Fresh to brackish wetland (Spring–summer)
O	*Eleocharis sp.*	Spikerush	Cyper-	- | - | -	-	NP	- -
O	*Elymus glaucus subsp. glaucus*	Western Wild-rye	Po-	- | - | -	-	NP	Open areas, chaparral, woodland, forest (Jun–Aug)
O	*Elymus multisetus*	Big Squirreltail	Po-	- | - | C	-	NP	Open, sandy to rocky areas (May–Jul)
O	*Elymus triticoides (JM93: Leymus)*	Beardless Wild Rye	Po-	- | - | -	-	NP	Dry to moist, often saline, meadows (Jun–Jul)
O	*Festuca bromoides (JM93: Vulpia)*	Brome Fescue	Po-	- | - | -	-	ZA	Uncommon. Dry, disturbed places, coastal-sage scrub, chaparral (May–Jun)
O	*Festuca californica*	California Fescue	Po-	- | - | C	-	NP	Dry, open forest, moist streambanks, chaparral (May–Jun)
O	*Festuca idahoensis*	Idaho Fescue	Po-	- | - | C	-	NP	Dry, open or shady places (Jul–Sep)
O	*Festuca microstachys (JM93: Vulpia, var. ciliata, confusa, microstacys, pauciflora)*	Hairy Fescue	Po-	- | - | -	-	NA	Disturbed, open, gen sandy soils (Apr–Jun)
O	*Festuca myuros (JM93: Vulpia, var. hirsuta, myuros)*	Rattail Sixweeks Grass	Po-	- | - | -	-	ZA	Common. Generally open places, sandy soils (Feb–May)
O	*Festuca octoflora (JM93: Vulpia, var. hirtella, octoflora)*	Slender Six-weeks Fescue	Po-	- | - | A2	-	NA	Sandy to rocky soils, open sites (Mar–Jun)
O	*Festuca perennis (JM93: Lolium perenne, L. multiflorum)*	Rye Grass	Po-	- | - | -	-	ZP	Dry to moist disturbed sites, abandoned fields (May–Sep)
O	*Festuca rubra*	Red Fescue	Po-	- | - | B	-	NP	Sand dunes, grassland, subalpine forest (May–Jul)
O	*Festuca sp. (annual) (JM93: Vulpia sp.)*	Annual Fescue	Po-	- | - | -	-	NA	- -
O	*Gastridium phleoides (JM93: G. ventricosum)*	Nit Grass	Po-	- | - | -	-	ZA	Open, generally dry, disturbed sites (Apr–Nov)
O	*Glyceria occidentalis*	Western Manna Grass	Po-	- | - | A2	-	NP	Freshwater marshes, ponds and steams (Jun–Aug)
O	*Hordeum brachyantherum subsp. ?*	California / Meadow Barley	Po-	- | - | -	-	NP	

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O	*Hordeum brachyantherum subsp. californicum*	California Barley	Po-	- | - | B	-	NP	Meadows, pastures, streambanks (Mar–Jul)
O	*Hordeum jubatum subsp. jubatum (JM93: no subsp.)*	Foxtail Barley	Po-	- | - | B	-	NAP	Roadsides, disturbed areas, meadows, marshes (May–Jul)
O	*Hordeum marinum subsp. gussoneanum*	Mediterranean Barley	Po-	- | - | -	-	ZA	Dry to moist, disturbed sites (Apr–Jun)
O	*Hordeum murinum subsp. leporinum*	Hare Barley	Po-	- | - | -	-	ZA	Moist, gen disturbed sites. Common (Feb–May)
O	*Hordeum murinum subsp. murinum*	Wall Barley	Po-	- | - | -	-	ZA	Moist, gen disturbed sites (Feb–May)
O	*Juncus balticus subsp. ater (JM93: no subsp.)*	Baltic Rush	Junc-	- | - | -	-	NP	Moist to ± dry sites (Jul–Nov)
O	*Juncus bufonius var. ?*	Toad Rush	Junc-	- | - | -	-	NA	- -
O	*Juncus bufonius var. bufonius*	Toad Rush	Junc-	- | - | -	-	NA	Damp sunny ground, gen disturbed (May–Sep)
O	*Juncus effusus subsp. pacificus (JM93: var.)*	Pacific Rush	Junc-	- | - | -	-	NP	Seeps, shores, marshes, generally damp sunny ground (May–Oct)
O	*Juncus patens*	Spreading Rush	Junc-	- | - | -	-	NP	Marshy places, creeks, seeps (Jun–Oct)
O	*Juncus phaeocephalus var. ?*	Brownhead Rush	Junc-	- | - | -	-	NP	- -
O	*Juncus phaeocephalus var. paniculatus*	Panicled Brownhead Rush	Junc-	- | - | C	-	NP	Wet places, coastal, inland (Jun–Sep)
O	*Juncus phaeocephalus var. phaeocephalus*	Brownheaded Rush	Junc-	- | - | B	-	NP	Coastal meadows, dune hollows, marsh edges (Jun–Aug)
O	*Juncus sp.*	Rush	Junc-	- | - | -	-		- -
O	*Juncus tenuis*	Slender Rush	Junc-	- | - | -	-	NP	Uncommon. Damp places (Jun–Sep)
O	*Juncus xiphioides*	Iris-leaved Rush	Junc-	- | - | -	-	NP	Wet places (Jul–Oct)
O	*Koeleria macrantha*	June Grass	Po-	- | - | C	-	NP	Dry, open sites, clay to rocky soils, shrubland, woodland, conifer forest (May–Jul)
O	*Lamarckia aurea*	Goldentop	Po-	- | - | -	-	ZA	Open ground, moist seeps, rocky hillsides, sandy soil (Feb–May)
O	*Luzula comosa var. comosa (JM93: no var.)*	Common Woodrush	Junc-	- | - | -	-	NP	Meadows, open woodland, conifer forest (Jun–Jul)
O	*Melica californica*	California Melic	Po-	- | - | C	-	NP	Open or rocky hillsides, oak woodland, conifer forest (Apr–May)
O	*Melica imperfecta*	Little California Melica	Po-	- | - | -	-	NP	Dry rocky hillsides, chaparral, woodland (Apr–May)
O	*Melica torreyana*	Torrey's Melic	Po-	- | - | -	-	NP	Chaparral, conifer forest (Mar–Jun)
O	*Panicum capillare*	Witch Grass	Po-	- | - | B	-	NA	Open places, fields, roadsides (Feb–Dec)
O	*Paspalum distichum*	Knot Grass	Po-	- | - | -	-	ZP	Edges of lakes, ponds, rice fields, wet roadside ditches (Jun–Oct)
O	*Phalaris aquatica*	Harding Grass	Po-	- | - | -	M	ZP	Disturbed areas, roadsides (Apr–Aug)
O	*Poa annua*	Annual Blue Grass	Po-	- | - | -	-	ZA	Abundant. Disturbed moist ground (Feb–Sep)

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O	*Poa bulbosa subsp. vivipara (JM93: no subsp.)*	Bulbous Blue Grass	Po-	- | - | -	-	ZP	Disturbed places (Mar–Jul)
O	*Poa secunda subsp. secunda*	One-sided Blue Grass	Po-	- | - | -	-	NP	Common. Dry slopes to saline/alkaline meadows to alpine (Mar–Aug)
O	*Polypogon interruptus*	Ditch Beard Grass	Po-	- | - | -	-	ZP	Common. Streambanks (May–Aug)
O	*Polypogon monspeliensis*	Rabbitfoot Grass	Po-	- | - | -	L	ZA	Moist places, along streams (Apr–Aug)
O	*Scirpus, Isolepis, or Bolboschoenus sp. (JM93: Scirpus sp.)*	Bulrush	Cyper-	- | - | -	-	NAP	
O	*Sorghum halepense*	Johnson Grass	Po-	- | - | -	-	ZP	Disturbed areas, ditch banks, roadsides (May–Aug)
O	*Stipa lepida (JM93: Nassella)*	Foothill Needle Grass	Po-	- | - | C	-	NP	Dry slopes, chaparral, grassland, savanna, coastal scrub (Mar–Jun)
O	*Stipa miliacea var. miliacea (JM93: Piptatherum miliaceum)*	Smilo Grass	Po-	- | - | -	L	ZP	Salt marshes, streambanks, chaparral, open woodland, disturbed (Mar–Sep)
O	*Stipa pulchra (JM93: Nassella)*	Purple Needle Grass	Po-	- | - | C	-	NP	Oak woodland, chaparral, grassland (Mar–Jun)
O	*Triglochin scilloides (JM93: Lilaea)*	Flowering-quillwort	Juncagin-	- | - | C	-	NA	Vernal pools, streams, ponds, lake margins (Mar–Oct)
O	*Typha domingensis*	Southern Cattail	Typh-	- | - | -	-	NP	Nutrient-rich freshwater to brackish marshes, wet disturbed places (Jun–Jul)
O	*Typha latifolia*	Broad-leaved Cattail	Typh-	- | - | -	-	NP	Unpolluted to nutrient-rich freshwater (brackish) marshes (Jun–Jul)

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O	*Acaena pinnatifida var. californica*	California Acaena	Ros-	- | - | C	-	NP	Coastal grassland, open, rocky slopes (Mar–May)
O	*Achillea millefolium*	Yarrow	Aster-	- | - | -	-	NP	Many habitats (Apr–Sep)
O	*Achyrachaena mollis*	Blow Wives	Aster-	- | - | -	-	NA	Common. Grassy sites, often clay soils (Mar–Jun)
O	*Acmispon americanus var. americanus (JM93: Lotus purshianus var. purshianus)*	Spanish Clover	Fab-	- | - | -	-	NA	
O	*Acmispon brachycarpus (JM93: Lotus humistratus)*	Colchita	Fab-	- | - | -	-	NA	Abundant. Grassland, oak and pine woodland, desert flats and mtns, roadsides (Mar–Jun)
O	*Acmispon glaber var. glaber (JM93: Lotus scoparius var. scoparius)*	Deerweed	Fab-	- | - | -	-	NP	Chaparral, roadsides, coastal sands; common (Mar–Aug)
O	*Acmispon parviflorus (JM93: Lotus micranthus)*	Small-flower Lotus	Fab-	- | - | -	-	NA	Abundant. Coastal bluffs to oak/pine or fir woodland, open or disturbed areas (Mar–May)
O	*Acmispon wrangelianus (JM93: Lotus)*	California Lotus	Fab-	- | - | -	-	NA	Abundant. Coastal bluffs, chaparral, disturbed areas (Mar–Jun)
O	*Actaea rubra*	Baneberry	Ranuncul-	- | - | B	-	NP	Deep soils, moist, open to shaded sites, mixed-evergreen or conifer forests (May–Sep)
O	*Agoseris apargioides var. apargioides*	Seaside Dandelion	Aster-	- | - | A1	-	NP	Coastal dunes, sand hills (Apr–May)
O	*Agoseris grandiflora var. grandiflora (JM93: no var.)*	Giant Native Dandelion	Aster-	- | - | -	-	NP	Grassland, scrub, woodland (Apr–Jul)
O	*Agoseris heterophylla var. cryptopleura (JM93: no var.)*	Annual Native Dandelion	Aster-	- | - | -	-	NA	Many open habitats (May–Jun)
O	*Agoseris sp.*	Agoseris	Aster-	- | - | -	-	NP	- -
O	*Allium serra*	Jeweled Onion	Alli-	- | - | -	-	NP	Common. Grassy slopes (Apr–May)
O	*Amsinckia intermedia (JM93: A. menziesii var. intermedia)*	Common Fiddleneck	Boragin-	- | - | -	-	NA	Abundant. Open, generally disturbed places (Mar–Jun)
O	*Amsinckia menziesii (JM93: var. menziesii)*	Small-flowered Fiddleneck	Boragin-	- | - | -	-	NA	Shade-tolerant, open, disturbed areas at forest/woodland edges (May–Jul)
O	*Amsinckia sp.*	Fiddleneck	Boragin-	- | - | -	-	NA	- -
O	*Anagallis arvensis*	Scarlet Pimpernel	Myrsin-	- | - | -	-	ZA	Common. Disturbed places, ocean beaches (Mar–May)
O	*Anaphalis margaritacea*	Pearly Everlasting	Aster-	- | - | -	-	NP	Woodland, disturbed places (Jul–Oct)
O	*Angelica tomentosa*	California Wood Angelica	Api-	- | - | -	-	NP	Generally wooded areas (Jun–Aug)
O	*Anthemis cotula*	Mayweed	Aster-	- | - | -	-	ZA	Common. Disturbed areas, fields, coastal dunes, chaparral, oak woodland (Apr–Aug)
O	*Anthriscus caucalis*	Bur-chervil	Api-	- | - | -	-	ZA	Generally shady places (Apr–Jun)

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O	*Antirrhinum vexillocalyculatum subsp. vexillocalyculatum (JM93: A. vexillo-calyculatum subsp. vexillo-calyculatum)*	Wiry Snapdragon	Plantagin-	- | - | B	-	NA	Disturbed areas (Jun–Aug)
O	*Aphanes occidentalis*	Lady's Mantle	Ros-	- | - | -	-	NA	Seasonally moist grassland, chaparral, woodland (Mar–May)
O	*Apocynum cannabinum*	Indian Hemp	Apocyn-	- | - | A2	-	NP	Moist places, near streams, springs, or as weed in orchards (Apr–Oct)
O	*Aquilegia formosa*	Crimson Columbine	Ranuncul-	- | - | C	-	NP	Streambanks, seeps, moist places, chaparral, oak woodland, mixed-evergreen or conifer forests (Apr–Sep)
O	*Artemisia douglasiana*	Mugwort	Aster-	- | - | -	-	NP	Common. Open to shady areas, often in drainages (May–Nov)
O	*Asclepias fascicularis*	Narrow-leaf Milkweed	Apocyn-	- | - | -	-	NP	Dry ground, valleys, foothills (May–Oct)
O	*Astragalus gambelianus*	Gambel Milkvetch	Fab-	- | - | -	-	NA	Open, grassy areas, scrub (Mar–Jul)
O	*Athysanus pusillus*	Dwarf Sandweed	Brassic-	- | - | -	-	NA	Grassy, open slopes, rocky outcrops, chaparral, flats, floodplains, cliffs, ledges (Feb–Jun)
O	*Baccharis glutinosa (JM93: B. douglasii)*	Marsh Baccharis	Aster-	- | - | -	-	NP	Coastal freshwater and saltwater marshes, streambanks (Jul–Oct)
O	*Barbarea orthoceras*	Erect-pod Winter Cress	Brassic-	- | - | -	-	NP	Meadows, streambanks, moist woodland, grassland (Mar–Jul)
O	*Bellardia trixago*	Mediterranean Linseed	Orobanch-	- | - | -	L	ZA	Disturbed grassland. (Apr–Jun)
O	*Blennosperma nanum var. nanum*	Glue-seed	Aster-	- | - | C	-	NA	Open, grassy areas, often margins of seeps or vernal pools (Jan–May)
O	*Brassica nigra*	Black Mustard	Brassic-	- | - | -	M	ZA	Common. Disturbed areas, fields (Apr–Sep)
O	*Brassica rapa*	Turnip	Brassic-	- | - | -	L	ZA	Disturbed areas (Jan–May)
O	*Brodiaea elegans subsp. elegans*	Harvest Brodiaea	Themid-	- | - | -	-	NP	Grassland, meadows, open woodland, chaparral, occasionally serpentine (Apr–Aug)
O	*Calandrinia ciliata*	Red Maids	Monti-	- | - | -	-	NA	Common. Sandy to loamy soil, grassy areas, cult fields (Feb–May)
O	*Callitriche marginata*	California Water-starwort	Callitrich-	- | - | -	-	NA	Becoming stranded (often in vernal pools) (Mar–Jun)
O	*Calochortus albus*	White Globe Lily	Lili-	- | - | -	-	NP	Common. Shady to open woodland, scrub (Apr–Jun)
O	*Calochortus luteus*	Yellow Mariposa Lily	Lili-	- | - | C	-	NP	Heavy soils in grassland, woodland, mixed-evergreen forest (Apr–Jun)
O	*Calochortus venustus*	White Butterfly Mariposa Lily	Lili-	- | - | B	-	NP	Sandy (often granitic) soil in grassland, woodland, yellow-pine forest (May–Jul)
O	*Calystegia occidentalis subsp. occidentalis*	Western Morning-glory	Convolvul-	- | - | -	-	NP	Dry slopes, chaparral, pine woodland (May–Jul)

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O	*Calystegia sp.*	Morning-glory	Convolvul-	- | - | -	-	NP	- -
O	*Calystegia subacaulis subsp. subacaulis*	Shortstem Morning-glory	Convolvul-	- | - | -	-	NP	Dry, open scrub or woodland (Apr–Jun)
O	*Capsella bursa-pastoris*	Shepherd's Purse	Brassic-	- | - | -	-	ZA	Disturbed areas (Jan–Oct)
O	*Cardamine californica*	Milk Maids	Brassic-	- | - | -	-	NP	Gen shaded sites, canyons, woodland. One of first spring flowers (Jan–May)
O	*Cardamine oligosperma*	Western Bitter-cress	Brassic-	- | - | -	-	NA	Wet meadows, shady banks, damp areas (Mar–Jul)
O	*Carduus pycnocephalus subsp. pycnocephalus (JM93: no subsp.)*	Italian Thistle	Aster-	- | - | -	M	ZA	Roadsides, pastures, disturbed areas (Mar–Jul)
O	*Carduus tenuiflorus*	Slender Flower Thistle	Aster-	- | - | -	L	ZAB	Roadsides, pastures, disturbed areas (Apr–Jun)
O	*Castilleja affinis subsp. affinis*	Common Indian Paintbrush	Orobanch-	- | - | -	-	NP	Chaparral, coastal scrub (Mar–Jun)
O	*Castilleja attenuata*	Valley Tassels	Orobanch-	- | - | -	-	NA	Grassland (Mar–May)
O	*Castilleja foliolosa*	Woolly Paintbrush	Orobanch-	- | - | -	-	NP	Dry, open, rocky slopes, edges of chaparral (Mar–Jun)
O	*Caulanthus lasiophyllus (JM93: Guillenia lasiophylla)*	California Mustard	Brassic-	- | - | -	-	NA	Common. Desert flats, sandy banks, gravelly or rocky areas, talus slopes, shrubland, grassy fields, disturbed site Mar–Jun
O	*Centaurea calcitrapa*	Purple Star-thistle	Aster-	- | - | -	M	ZAB	Pastures, disturbed places (Apr–Nov)
O	*Centaurea melitensis*	Tocalote	Aster-	- | - | -	M	ZA	Disturbed fields, open woodland (Apr–Jul)
O	*Centaurea solstitialis*	Yellow Star-thistle	Aster-	- | - | -	H	ZA	Invasive, roadsides, disturbed grassland or woodland (May–Oct)
O	*Centromadia fitchii (JM93: Hemizonia)*	Fitch Spikeweed	Aster-	- | - | -	-	NP	Grassland, ± alkaline flats, vernal pools, woodland, disturbed sites, serpentine (May–Nov)
O	*Centromadia parryi subsp. congdonii (JM93: Hemizonia)*	Congdon's Tarplant	Aster-	- | 1B.2 | *A2	-	NA	Terraces, swales, floodplains, grassland, disturbed sites (Jun–Oct)
O	*Cerastium glomeratum*	Sticky Mouse-ear Chickweed	Caryophyll-	- | - | -	-	ZA	Dry hillsides, grassland, chaparral, disturbed areas (Spring)
O	*Chenopodium album*	Lamb's Quarters	Chenopodi-	- | - | -	-	ZA	Common. Disturbed areas, fields (Jun–Oct)
O	*Chenopodium californicum*	California Goosefoot	Chenopodi-	- | - | -	-	NP	Generally open sites, sandy to clay soils (Mar–Sep)
O	*Chlorogalum pomeridianum var. pomeridianum*	Wavyleaf Soap Plant	Agav-	- | - | -	-	NP	Common. Open grassland, chaparral, woodland (May–Aug)
O	*Cichorium intybus*	Chicory	Aster-	- | - | -	-	ZP	Common. Roadsides, disturbed places (Apr–Oct)
O	*Cirsium occidentale var. venustum*	Venus Thistle	Aster-	- | - | -	-	NB	Disturbed areas, grassland, woodland (May–Jul)
O	*Cirsium vulgare*	Bull Thistle	Aster-	- | - | -	M	ZB	Common. Disturbed areas (May–Oct)
O	*Clarkia affinis*	Small Clarkia	Onagr-	- | - | C	-	NA	Openings in woodland, chaparral (May–Jun)
O	*Clarkia concinna subsp. automixa*	Santa Clara Red Ribbons	Onagr-	- | 4.3 | *A1	-	NA	Woodland (Apr–Jun)

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O	*Clarkia concinna subsp. concinna*	Red Ribbons	Onagr-	- | - | C	-	NA	Mixed-evergreen forest, woodland, coastal scrub (Apr–Jul)
O	*Clarkia purpurea subsp. quadrivulnera*	Four-spot	Onagr-	- | - | -	-	NA	Common. Open, grassy or shrubby places (Apr–Aug)
O	*Clarkia rubicunda*	Ruby Chalice Clarkia	Onagr-	- | - | -	-	NA	Openings in woodland, forest, chaparral near coast (May–Aug)
O	*Clarkia sp.*	Clarkia	Onagr-	- | - | -	-	NA	- -
O	*Clarkia unguiculata*	Elegant Clarkia	Onagr-	- | - | -	-	NA	Common. Woodland (Apr–Sep)
O	*Claytonia parviflora subsp. ?*	Miner's Lettuce	Monti-	- | - | -	-	NA	- -
O	*Claytonia perfoliata subsp. mexicana*	Angle-leaf Miner's Lettuce	Monti-	- | - | -	-	NA	Shrubland, woodland, rock crevices, rockslides (Feb–Apr)
O	*Claytonia perfoliata subsp. perfoliata*	Common Miner's Lettuce	Monti-	- | - | -	-	NA	Vernally moist, often shady or disturbed sites (Jan–May)
O	*Clinopodium douglasii (JM93: Satureja)*	Yerba Buena	Lami-	- | - | -	-	NP	Shady places, chaparral, woodland (Apr–Sep)
O	*Collinsia heterophylla var. heterophylla (JM93: no var.)*	Chinese-houses	Plantagin-	- | - | -	-	NA	Shady places in chaparral, open mixed woodland, oak woodland (Mar–Jun)
O	*Collinsia parviflora*	Blue-eyed Mary	Plantagin-	- | - | A2	-	NA	Common. Moist, ± shady places, montane (Mar–Jul)
O	*Collinsia sparsiflora var. ?*	Few-flowered Collinsia	Plantagin-	- | - | -	-	NA	- -
O	*Collinsia sparsiflora var. collina*	Few-flowered Collinsia	Plantagin-	- | - | C	-	NA	Disturbed grassy fields, roadbanks, open chaparral, open oak and dry mixed woodland (Mar–Apr)
O	*Conium maculatum*	Poison Hemlock	Api-	- | - | -	M	ZB	Common. Moist, esp disturbed places (Apr–Jul)
O	*Convolvulus arvensis*	Bindweed	Convolvul-	- | - | -	-	ZP	Roadsides, open areas in many pl communities (Mar–Oct)
O	*Corallorhiza striata*	Striped Coralroot	Orchid-	- | - | A1	-	NP	Open to shaded mixed-evergreen or conifer forest, in decomposing leaf litter (Feb–Jul)
O	*Corethrogyne filaginifolia (JM93: Lessingia, var. filaginifolia)*	Common California-aster	Aster-	- | - | C	-	NP	Coastal scrub, chaparral, grassland, foothill woodland, forest (Jul–Nov)
O	*Crassula aquatica*	Water Pygmy-weed	Crassul-	- | - | C	-	NA	Salt marshes, vernal pools, margins of lakes, ponds (Mar–Jun(Aug))
O	*Crassula connata*	Pygmy-weed	Crassul-	- | - | -	-	NA	Open areas (Feb–May)
O	*Crepis vesicaria subsp. taraxacifolia*	Dandelion-leaf Hawksbeard	Aster-	- | - | -	-	ZAB	Sandy clearings, hillsides, disturbed places (Feb–Oct)
O	*Croton setigerus (JM93: Eremocarpus)*	Turkey-mullein	Euphorbi-	- | - | -	-	NA	Dry, open, often disturbed areas (May–Oct)
O	*Cryptantha sp.*	Cryptantha	Boragin-	- | - | -	-	NA	- -

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O	*Cryptantha torreyana var. pumila (JM93: no var.)*	Dwarf Cryptantha	Boragin-	- | - | A2	-	NA	Generally chaparral, foothill woodland (Apr–Jun)
O	*Cuscuta subinclusa*	Canyon Dodder	Convolvul-	- | - | B	-	NP	Generally on herbs, shrubs, in forests near streams, river canyon bottoms, salt marshes (Mar–Oct(Dec?))
O	*Cynara cardunculus subsp. flavescens (JM93: no subsp.)*	Artichoke Thistle	Aster-	- | - | -	M	ZP	Disturbed places (Apr–Jul)
O	*Cynoglossum grande*	Grand Hound's Tongue	Boragin-	- | - | -	-	NP	Chaparral, woodland (Feb–May)
O	*Daucus pusillus*	Rattlesnake Weed	Api-	- | - | -	-	NA	Rocky or sandy places (Apr–Jun)
O	*Delphinium decorum subsp. decorum*	Coast Larkspur	Ranuncul-	- | - | C	-	NP	Open coastal grassland, chaparral (Mar–May)
O	*Delphinium nudicaule*	Red Or Orange Larkspur	Ranuncul-	- | - | C	-	NP	Moist talus, wooded, rocky slopes (Mar–Jun)
O	*Delphinium patens subsp. patens*	Spreading Larkspur	Ranuncul-	- | - | -	-	NP	Grassland, open woodland (Mar–Jun)
O	*Delphinium sp.*	Larkspur	Ranuncul-	- | - | -	-	NP	- -
O	*Dichelostemma capitatum subsp. capitatum*	Blue Dicks	Themid-	- | - | -	-	NP	Open woodland, scrub, desert, grassland (Mar–Jun)
O	*Dichelostemma congestum*	Fork-toothed Ookow	Themid-	- | - | -	-	NP	Open woodland, grassland (Apr–Jun)
O	*Dittrichia graveolens*	Stinkwort	Aster-	- | - | -	M	ZA	Disturbed areas (Sep–Nov)
O	*Dodecatheon clevelandii subsp. patulum*	Padre Shooting Star	Primul-	- | - | C	-	NP	Moist places, often on serpentine or in ± alkaline sites (Mar–May)
O	*Dodecatheon clevelandii subsp. sanctarum*	Coastal Shooting Star	Primul-	- | - | A1	-	NP	Woodland (Mar–May)
O	*Dodecatheon hendersonii*	Mosquitobills Shooting Star	Primul-	- | - | -	-	NP	Gen in shady sites (Mar–Jul)
O	*Draba verna*	Spring Whitlow Grass	Brassic-	- | - | B	-	NA	Open or disturbed areas (Feb–May)
O	*Drymocallis glandulosa var. glandulosa (JM93: Potentilla glandulosa ssp. glandulosa)*	Sticky Cinquefoil	Ros-	- | - | -	-	NP	Gen ± shady or moist areas (May–Jul)
O	*Dudleya cymosa subsp. paniculata*	Common / Hot Rock Dudleya	Crassul-	- | - | B	-	NP	Uncommon. Rocky outcrops, canyons (May–Jun)
O	*Echinodorus berteroi*	Upright Burhead	Alismat-	- | - | A2	-	NA	Ponds, ditches (Mid-summer–fall)
O	*Epilobium brachycarpum*	Panicled / Weedy Willowherb	Onagr-	- | - | -	-	NA	Common. Dry open or disturbed woodland, grassland, roadsides (Jun–Sep)
O	*Epilobium canum subsp. canum*	California Fuchsia	Onagr-	- | - | -	-	NP	Dry slopes, ridges (Jun–Dec)
O	*Epilobium densiflorum*	Dense-flower Willowherb	Onagr-	- | - | C	-	NA	Streambanks, outwashes, seasonal moist flats (May–Oct)
O	*Epilobium minutum*	Chaparral Willowherb	Onagr-	- | - | -	-	NA	Dry, open, disturbed areas, vernal pools, often after fire (Apr–Sep)
O	*Erigeron canadensis (JM93: Conyza)*	Horseweed	Aster-	- | - | -	-	ZA	Disturbed places (All year)
O	*Erigeron petrophilus var. petrophilus*	Rock-loving Fleabane	Aster-	- | - | A2	-	NP	Rocky foothills to montane forest, sometimes on serpentine (May–Sep)

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O	*Eriogonum nudum var. ?*	Naked-stem Buckwheat	Polygon-	- | - | -	-	NP	- -
O	*Eriogonum nudum var. auriculatum*	Ear-shaped Wild Buckwheat	Polygon-	- | - | A1	-	NP	Common. Sand or gravel (May–Oct)
O	*Eriogonum sp.*	Wild Buckwheat	Polygon-	- | - | -	-	NAP	- -
O	*Erodium botrys*	Long-beaked Filaree	Gerani-	- | - | -	-	ZA	Dry, open or disturbed sites (Mar–Jul)
O	*Erodium cicutarium*	Redstem Filaree	Gerani-	- | - | -	L	ZA	Open, disturbed sites, grassland, scrub (Feb–Sep)
O	*Erodium moschatum*	Greenstem Filaree	Gerani-	- | - | -	-	ZA	Open, disturbed sites (Feb–Sep)
O	*Eschscholzia californica*	California Poppy	Papaver-	- | - | -	-	NP	Grassy, open areas (Feb–Sep)
O	*Euphorbia peplus*	Petty Spurge	Euphorbi-	- | - | -	-	ZA	Common. Disturbed areas (Feb–Aug)
O	*Euphorbia spathulata*	Wart Spurge	Euphorbi-	- | - | -	-	NA	Open, gen disturbed places (Mar–Jun)
O	*Eurybia radulina (JM93: Aster radulinus)*	Broadleaf Aster	Aster-	- | - | -	-	NP	Dry forest, oak/pine woodland, brushy slopes (Jul–Sep)
O	*Euthamia occidentalis*	Western Goldenrod	Aster-	- | - | -	-	NP	Marshes, streambanks, meadows (Jul–Nov)
O	*Foeniculum vulgare*	Fennel	Api-	- | - | -	H	ZP	Roadsides, disturbed sites (May–Sep)
O	*Fragaria vesca*	Wood Strawberry	Ros-	- | - | -	-	NP	Gen partial shade in forest (Jan–Jul)
O	*Fritillaria affinis (JM93: var. affinis)*	Checker Lily	Lili-	- | - | -	-	NP	Common. Oak or pine scrub, grassland (Mar–Jun)
O	*Galium andrewsii subsp. gatense*	Phlox-leaf Serpentine Bedstraw	Rubi-	- | 4.2 | *A2	-	NP	Dry, rocky places in serpentine soil, chaparral or open oak/pine woodland (Apr–Jun)
O	*Galium aparine*	Goose Grass	Rubi-	- | - | -	-	NA	Grassy, ± shady places (Apr–Jun)
O	*Galium californicum subsp. californicum*	California Bedstraw	Rubi-	- | - | -	-	NP	Shady to open places, conifer or mixed forest, chaparral, sea cliffs, hillsides (Mar–Jul)
O	*Galium murale*	Tiny Bedstraw	Rubi-	- | - | -	-	ZA	Damp, mossy places, grassy hillsides, dry disturbed areas (Apr–May)
O	*Galium porrigens var. porrigens*	Climbing Bedstraw	Rubi-	- | - | -	-	NP	Among shrubs in chaparral, forest (May–Aug)
O	*Gamochaeta ustulata (JM93: Gnaphalium purpureum)*	Purple Cudweed	Aster-	- | - | -	-	NA	Dunes, bluffs, fields, disturbed sites (Apr–Jul)
O	*Geranium dissectum*	Cut-leaved Geranium	Gerani-	- | - | -	M	ZA	Open, disturbed sites (Mar–Jul)
O	*Geranium molle*	Hairy Dove's Foot Geranium	Gerani-	- | - | -	-	ZA	Open to shaded sites, disturbed ground (Feb–Aug)
O	*Geranium robertianum*	Herb Robert	Gerani-	- | - | -	-	ZAB	Open to shaded sites (Apr–Sep)
O	*Gilia achilleifolia subsp. multicaulis*	Many-stem California Gilia	Polemoni-	- | - | -	-	NA	Open or shaded, gen grassy places, sandy or rocky soil (Feb–Jun)
O	*Gilia capitata subsp. ?*	Globe Gilia	Polemoni-	- | - | -	-	NA	- -
O	*Gilia tricolor subsp. ?*	Bird's-eye Gilia	Polemoni-	- | - | -	-	NA	- -
O	*Gilia tricolor subsp. tricolor*	Bird's-eye Gilia	Polemoni-	- | - | B	-	NA	Open, grassland, hills, valleys (Mar–May)
O	*Gnaphalium or Pseudognaphalium sp. (JM93: Gnaphalium sp.)*	Everlasting Cudweed	Aster-	- | - | -	-		- -

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O	*Gnaphalium palustre*	Lowland Cudweed	Aster-	- | - | -	-	NA	Arroyos, sandy streambeds, pond edges, potholes (May–Oct)
O	*Grindelia camporum (JM93: var. camporum, G. hirsutula var. davyi)*	Great Valley Gumplant	Aster-	- | - | -	-	NP	Sandy or saline bottomland, roadsides (May–Nov)
O	*Helenium puberulum*	Rosilla	Aster-	- | - | -	-	NB	Streambanks, seepage areas, lake margins (Jun–Aug)
O	*Helminthotheca echioides (JM93: Picris)*	Bristly Ox-tongue	Aster-	- | - | -	L	ZAB	Common. Disturbed areas (All year)
O	*Heracleum maximum (JM93: H. lanatum)*	Cow Parsnip	Api-	- | - | -	-	NP	Moist places, wooded or open (Apr–Jul)
O	*Hesperevax sparsiflora var. sparsiflora*	Erect Hesperevax	Aster-	- | - | -	-	NA	Common. Open, clay and/or rocky, generally serpentine soil (Mar–Jun)
O	*Heterotheca sp.*	Goldenaster	Aster-	- | - | -	-	NP	- -
O	*Heuchera micrantha*	Small-flower Alumroot	Saxifrag-	- | - | C	-	NP	Moist, rocky banks and cliffs (Apr–Jul)
O	*Hieracium albiflorum*	White Hawkweed	Aster-	- | - | B	-	NP	Forest (May–Sep)
O	*Hirschfeldia incana*	Shortpod Mustard	Brassic-	- | - | -	M	ZBP	Disturbed areas (Apr–Oct)
O	*Holocarpha heermannii*	Heermann Tarplant	Aster-	- | - | -	-	NA	Grassland (May–Nov)
O	*Hypochaeris glabra*	Smooth Cat's-ear	Aster-	- | - | -	L	ZA	Common. Disturbed areas, grassland, open woodland (Mar–Jun)
O	*Hypochaeris radicata*	Rough Cat's-ear	Aster-	- | - | -	M	ZP	Disturbed areas, grassland, open woodland (Apr–Jul)
O	*Kickxia elatine*	Sharp Point Fluvellin	Plantagin-	- | - | -	-	ZA	Disturbed, open places (Apr–Oct)
O	*Lactuca serriola*	Prickly Lettuce	Aster-	- | - | -	-	ZA	Abundant. Disturbed places (May–Oct)
O	*Lactuca virosa*	Tall Wild Lettuce	Aster-	- | - | -	-	ZB	Disturbed, shrubby and wooded slopes (Jun–Aug)
O	*Lagophylla ramosissima (JM93: subsp. ramosissima)*	Common Hare-leaf	Aster-	- | - | -	-	NA	Grassland, openings in scrub, woodland, forest (Apr–Oct)
O	*Lamium amplexicaule*	Clasping Henbit	Lami-	- | - | -	-	ZAB	Disturbed sites, cult or abandoned fields (Apr–Sep)
O	*Lasthenia californica subsp. californica (JM93: no subsp.)*	California Goldfields	Aster-	- | - | -	-	NA	Many habitats (Feb–Jun)
O	*Lasthenia glabrata subsp. glabrata*	Yellow-ray Goldfields	Aster-	- | - | B	-	NA	Saline places, vernal pools (Mar–May)
O	*Lathyrus vestitus var. vestitus*	Pale Purple Pacific Pea	Fab-	- | - | -	-	NP	North: Conifer forest. South: chaparral & oak woodland (Feb–Jul)
O	*Layia platyglossa*	Tidy-tips	Aster-	- | - | C	-	NA	Many habitats (Feb–Jul)
O	*Lemna gibba*	Swollen Duckweed	Lemn-	- | - | -	-	NP	Common. Fresh or brackish water -
O	*Lemna minor*	Common Lesser Duckweed	Lemn-	- | - | -	-	NP	Common. Freshwater (Aug)
O	*Lepidium didymum (JM93: Coronopus didymus)*	Lesser Swine Cress	Brassic-	- | - | -	-	ZA	Common. Disturbed areas, fields, pastures (Mar–Jul)

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O	*Lepidium latifolium*	Perennial Peppergrass	Brassic-	- | - | -	H	ZP	Pastures, disturbed areas, fields, grassland, saline meadows, streambanks, sagebrush scrub, edge of marshes (Jun–Sep)
O	*Lepidium nitidum (JM93: var. nitidum, oreganum)*	Threadleaf Peppergrass	Brassic-	- | - | -	-	NA	Alkaline soils, pastures, dry vernal pools, fields, beaches (Feb–Mar)
O	*Lepidium strictum*	Prostrate Peppergrass	Brassic-	- | - | -	-	ZA	Uncommon. Disturbed areas, woodland, slopes (Apr–Jun)
O	*Leptosiphon acicularis (JM93: Linanthus)*	Bristly Leptosiphon	Polemoni-	- | 4.2 | *A1	-	NA	Grassy areas, woodland, chaparral (Apr–May)
O	*Leptosiphon androsaceus (JM93: Linanthus)*	Pinklobe Leptosiphon	Polemoni-	- | - | C	-	NA	Open or shaded areas in woodland, chaparral (Apr–Jun)
O	*Leptosiphon bicolor (JM93: Linanthus)*	Bicolor Leptosiphon	Polemoni-	- | - | -	-	NA	Common. Open, grassy areas, chaparral, woodland (Mar–Jun)
O	*Leptosiphon ciliatus (JM93: Linanthus)*	Whisker Brush	Polemoni-	- | - | B	-	NA	Common. Open or wooded areas (Mar–Jul)
O	*Lessingia sp.*	Lessingia	Aster-	- | - | -	-	NA	- -
O	*Limosella acaulis*	Southern Mudwort	Scrophulari-	- | - | A2	-	NA	Wet, muddy places, generally fresh water (May–Oct)
O	*Linum bienne*	Narrow-leaf Flax	Lin-	- | - | -	-	ZP	Garden escape; grassland, woodland, disturbed places, esp coastal (Mar–Jun)
O	*Lithophragma affine*	Woodland Star	Saxifrag-	- | - | -	-	NP	Open, grassy slopes (Mar–Apr)
O	*Lithophragma heterophyllum*	Hill Starflower	Saxifrag-	- | - | -	-	NP	Shaded slopes (Feb–Jun)
O	*Lobularia maritima*	Sweet Alyssum	Brassic-	- | - | -	L	ZP	Disturbed areas, fields (Mar–Oct)
O	*Logfia filaginoides (JM93: Filago californica)*	California Fluffweed	Aster-	- | - | -	-	NA	Common, ± weedy. Bare, rocky, or grassy sites, drainages (Feb–May)
O	*Logfia gallica (JM93: Filago)*	Daggerleaf Cottonrose	Aster-	- | - | -	-	ZA	Bare or grassy openings, burns (Mar–Jul)
O	*Lomatium dasycarpum subsp. dasycarpum*	Woolly Fruited Desertparsley	Api-	- | - | -	-	NP	Rocky (gen serpentine), chaparral, woodland (Mar–Jun)
O	*Lomatium utriculatum*	Bladder Parsnip	Api-	- | - | -	-	NP	Open grassy slopes, meadows, woodland (Feb–May)
O	*Lotus corniculatus*	Bird's-foot Trefoil	Fab-	- | - | -	-	ZP	Open, disturbed areas (Jun–Sep)
O	*Lunaria annua*	Money Plant	Brassic-	- | - | -	-	ZA	Disturbed areas (Apr–Jun)
O	*Lupinus bicolor*	Miniature Lupine	Fab-	- | - | -	-	NA	Abundant. Open or disturbed areas (Mar–Jun)
O	*Lupinus latifolius var. latifolius*	Broadleaf Lupine	Fab-	- | - | -	-	NP	Moist areas, open woodland (Apr–Jul)
O	*Lupinus luteolus*	Butter Lupine	Fab-	- | - | A1	-	NA	Clearings, open or disturbed areas (May–Aug)
O	*Lupinus microcarpus var. densiflorus*	Gully Lupine	Fab-	- | - | -	-	NA	Abundant. Open or disturbed areas, occ seeded on roadbanks (Apr–Jun)
O	*Lupinus microcarpus var. microcarpus*	Chick Lupine	Fab-	- | - | -	-	NA	Abundant. Open or disturbed areas, occ seeded on roadbanks (Mar–Jun)

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O	*Lupinus nanus*	Sky Lupine	Fab-	- | - | -	-	NA	Abundant. Open or disturbed areas (Mar–Jun)
O	*Lupinus succulentus*	Arroyo Lupine	Fab-	- | - | -	-	NA	Abundant. Open or disturbed areas, often seeded on roadbanks (Feb–May)
O	*Lythrum hyssopifolia*	Grass-poly	Lythr-	- | - | -	-	ZAP	Marshes, drying pond margins, disturbed ground (Apr–Oct)
O	*Madia exigua*	Thread-stem Tarweed	Aster-	- | - | -	-	NA	Grassy, open, or disturbed sites, in sandy or clayey soils, including serpentine (Apr–Jul)
O	*Madia gracilis*	Gumweed	Aster-	- | - | -	-	NA	Open, semi-shaded or disturbed sites, many habitats, incl serpentine (Apr–Aug)
O	*Madia sativa*	Coast Tarweed	Aster-	- | - | -	-	NA	Grassy, open, or disturbed sites (May–Oct)
O	*Maianthemum stellatum (JM93: Smilacina stellata)*	Starry False Solomon's Seal	Rusc-	- | - | -	-	NP	Moist woodland, streambanks, open slopes (Apr–Jun)
O	*Malacothrix coulteri*	Snake's Head Dandelion	Aster-	- | - | A1	-	NA	Sandy, open areas, in coastal-sage scrub, grassland, desert (Mar–May)
O	*Malva nicaeensis*	Bull Mallow	Malv-	- | - | -	-	ZA	Disturbed places (Mar–Jun)
O	*Malva parviflora*	Cheeseweed	Malv-	- | - | -	-	ZA	Common. Disturbed places (Mar–May)
O	*Malva pseudolavatera (JM93: Lavatera cretica)*	Cretan Mallow	Malv-	- | - | -	-	ZAB	Uncommon. Disturbed places on coastal bluffs, dunes, occ inland (Apr–Jun)
O	*Marah fabacea (JM93: M. fabaceus)*	California Man-root	Cucurbit-	- | - | -	-	NP	Streamsides, washes, shrubby open areas (Feb–Apr)
O	*Marah oregana (JM93: M. oreganus)*	Coast Man-root	Cucurbit-	- | - | C	-	NP	Shrubby or open areas, forest edges (Mar–May)
O	*Marrubium vulgare*	Common Horehound	Lami-	- | - | -	L	ZP	Disturbed sites, gen overgrazed pastures (Mar–Nov)
O	*Matricaria discoidea (JM93: Chamomilla suaveolens)*	Pineapple Weed	Aster-	- | - | -	-	ZA	Abundant. Disturbed sites, riverbanks (Feb–Aug)
O	*Meconella californica*	California Meconella	Papaver-	- | - | A1	-	NA	Open, rocky areas (Mar–May)
O	*Medicago arabica*	Spotted Bur Clover	Fab-	- | - | -	-	ZA	Disturbed and agricultural areas, fields, woodland (Mar–Jun)
O	*Medicago polymorpha*	California Burclover	Fab-	- | - | -	L	ZA	Common. Chaparral, oak woodland, streambanks, roadsides, disturbed areas (Mar–Jul)
O	*Mentha pulegium*	Pennyroyal	Lami-	- | - | -	M	ZP	Moist places, fields (Jul–Oct)
O	*Mentha sp.*	Mint	Lami-	- | - | -	-		- -
O	*Mentha spicata (JM93: var. spicata)*	Spearmint	Lami-	- | - | -	-	ZP	Moist places, marshes, lakeshores, fields (Jul–Oct)
O	*Micranthes californica (JM93: Saxifraga)*	California Saxifrage	Saxifrag-	- | - | -	-	NP	Moist, shady places (Feb–May(Jun))
O	*Micropus californicus var. ?*	Slender Cottonweed	Aster-	- | - | -	-	NA	- -
O	*Micropus californicus var. californicus*	Cottonweed	Aster-	- | - | -	-	NA	Clearings, often disturbed, dry or seasonally moist soils (Mar–Jun)

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O	*Microseris sp.*	Silverpuffs	Aster-	- | - | -	-	NA	- -
O	*Microsteris gracilis (JM93: Phlox)*	Slender Annual Phlox	Polemoni-	- | - | -	-	NA	Dry to moist areas (Mar–Aug)
O	*Mimulus cardinalis*	Scarlet Monkeyflower	Phrym-	- | - | C	-	NP	Moist to wet places along streams, seepage areas (May–Sep)
O	*Mimulus guttatus*	Golden Monkeyflower	Phrym-	- | - | -	-	NP	Common. Wet places, gen terrestrial, occ emergent or floating in mats (Mar–Aug)
O	*Monardella villosa subsp. villosa (JM93: M. villosa subsp. villosa, globosa, M. antonina subsp. antonina)*	Coyote-mint	Lami-	- | - | -	-	NP	Dry rocky slopes, oak woods, chaparral (May–Aug)
O	*Montia fontana*	Water Chickweed	Monti-	- | - | C	-	NA	Common. Ponds, streams, vernal pools, seeps (Jul–Aug)
O	*Nasturtium officinale (JM93: Rorippa nasturtium-aquaticum)*	Water Cress	Brassic-	- | - | -	-	NP	Streams, springs, marshes, lake margins, swamps (Mar–Nov)
O	*Navarretia pubescens*	Downy Navarretia	Polemoni-	- | - | C	-	NA	Open, slopes, gravel, clay (May–Jul)
O	*Navarretia sp.*	Navarretia	Polemoni-	- | - | -	-	NA	
O	*Navarretia squarrosa*	Skunkweed	Polemoni-	- | - | -	-	NA	Common. Open, wet, gravelly flats, slopes (Jun–Aug)
O	*Nemophila heterophylla*	Variable-leaf Nemophila	Boragin-	- | - | -	-	NA	Common. Forest, chaparral, roadsides, streambanks (Feb–Jun)
O	*Nemophila menziesii var. menziesii*	Baby Blue-eyes	Boragin-	- | - | -	-	NA	Meadows, grassland, chaparral, woodland, slopes (Feb–May)
O	*Nemophila parviflora var. parviflora*	Small-flower Nemophila	Boragin-	- | - | C	-	NA	Woodland, forest, roadsides, slopes (Mar–Jul)
O	*Nuttallanthus texanus (JM93: Linaria canadensis)*	Blue Toadflax	Plantagin-	- | - | B	-	NA	Sand or gravel (Mar–May)
O	*Osmorhiza berteroi (JM93: O. chilensis)*	Sweet-cicely	Api-	- | - | -	-	NP	Conifer forest, woodland, disturbed areas (Apr–Jul)
O	*Osmorhiza brachypoda*	California Sweet Cicely	Api-	- | - | B	-	NP	Moist ravines, conifer forest, woodland (Mar–May)
O	*Oxalis corniculata*	Creeping Wood Sorrel	Oxalid-	- | - | -	-	ZP	Disturbed areas (Most of Year)
O	*Oxalis pes-caprae*	Bermuda Buttercup	Oxalid-	- | - | -	M	ZP	Disturbed areas, roadsides, grassland, dunes (Jan–May)
O	*Papaver heterophyllum (JM93: Stylomecon heterophylla)*	Wind Poppy	Papaver-	- | - | -	-	NA	Grassy areas, openings in chaparral (Apr–May)
O	*Pentachaeta exilis subsp. exilis*	Meager Pentachaeta	Aster-	- | - | A1	-	NA	Grassland, foothill woodland (Mar–May)
O	*Perideridia kelloggii*	Kellogg Yampah	Api-	- | - | -	-	NP	Open grassland, serpentine outcrops (Jul–Aug)
O	*Perideridia oregana*	Oregon Yampah	Api-	- | - | A2	-	NP	Open flats or slopes, pine/oak woodland (Jul–Aug)

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O	*Persicaria amphibia (JM93: Polygonum amphibium var. emersum, stipulaceum)*	Water Smartweed	Polygon-	- | - | -	-	NP	Shallow lakes, streams, shores (Jun–Nov)
O	*Phacelia californica*	California Phacelia	Boragin-	- | - | -	-	NP	Bluffs, open slopes, road cuts, chaparral, woodland (Mar–Sep)
O	*Phacelia distans*	Common Phacelia	Boragin-	- | - | -	-	NA	Common. Clay to rocky soils, slopes (Mar–May)
O	*Phacelia imbricata subsp. imbricata*	Rock Phacelia	Boragin-	- | - | -	-	NP	Slopes, roadsides, flats, canyons, chaparral, woodland (Apr–Jul)
O	*Phacelia nemoralis subsp. nemoralis*	Bristly Phacelia	Boragin-	- | - | B	-	NBP	Moist slopes, streambanks, mixed-evergreen forest (Apr–Jul)
O	*Pholistoma auritum var. auritum*	Fiesta Flower	Boragin-	- | - | B	-	NA	Ocean bluffs, talus slopes, woodland, streambanks, canyons (Mar–Jun)
O	*Phoradendron serotinum subsp. tomentosum (JM93: P. villosum)*	Oak Mistletoe	Visc-	- | - | -	-	NP	Generally on Quercus, rarely on Adenostoma, Arctostaphylos, Rhus, Umbellularia (Jul–Sep)
O	*Phyla nodiflora (JM93: var. nodiflora)*	Lemon Verbena	Verben-	- | - | -	-	NP	Wet places, pond margins (May–Nov)
O	*Phyla sp.*	Verbena / Fog-fruit	Verben-	- | - | -	-	NP	- -
O	*Piperia unalascensis*	Alaska Rein Orchid	Orchid-	- | - | A1	-	NP	Generally dry sites, scrub, woodland, forest (May–Aug)
O	*Plagiobothrys bracteatus*	Bracted Popcornflower	Boragin-	- | - | -	-	NA	Common. Vernal pools, wet places in grassland, coastal-sage scrub, chaparral (Apr–Jun)
O	*Plagiobothrys nothofulvus*	Rusty Popcornflower	Boragin-	- | - | -	-	NA	Common; open woodland, grassland (Mar–May)
O	*Plagiobothrys sp.*	Popcornflower	Boragin-	- | - | -	-		- -
O	*Plantago erecta*	California Dwarf Plantain	Plantagin-	- | - | -	-	NA	Sandy, clay, serpentine soil; grassy slopes, flats, open woodland (Mar–May)
O	*Plantago lanceolata*	English Plantain	Plantagin-	- | - | -	L	ZA	Common. Disturbed areas (Apr–Aug)
O	*Platystemon californicus*	Cream Cups	Papaver-	- | - | -	-	NA	Open grassland, sandy soil, burns (Mar–May)
O	*Plectritis ciliosa (JM93: subsp. ciliosa, insignis)*	Longspur Plectritis	Valerian-	- | - | B	-	NA	Common. Open, partly shaded slopes (Mar–Jun)
O	*Plectritis macrocera*	Longhorn Plectritis	Valerian-	- | - | -	-	NA	Common. Open, partly shaded slopes (Mar–Jun)
O	*Pogogyne serpylloides*	Thymeleaf Beardstyle	Lami-	- | - | -	-	NA	Grassy, brushy areas (Mar–Jun)
O	*Polygonum aviculare subsp. depressum (JM93: P. arenastrum)*	Knotweed	Polygon-	- | - | -	-	ZA	Disturbed places (May–Nov)
O	*Portulaca oleracea*	Purslane	Portulac-	- | - | -	-	ZP	Disturbed soil (Late spring-early fall)
O	*Potamogeton or Stuckenia sp. (JM93: Potamogeton sp.)*	Pondweed	Potamogeton-	- | - | -	-	NP	- -
O	*Prosartes hookeri (JM93: Disporum)*	Hooker Fairy Bells	Lili-	- | - | C	-	NP	Montane conifer, mixed-evergreen forest, exposed roadside (Mar–Jun)

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O	*Prunella vulgaris var. ?*	European Selfheal	Lami-	- | - | -	-	ZP	- -
O	*Pseudognaphalium californicum (JM93: Gnaphalium)*	California Everlasting	Aster-	- | - | -	-	NB	Sandy canyons, dry hills, coastal chaparral (Apr–Jul)
O	*Pseudognaphalium luteoalbum (JM93: Gnaphalium luteo-album)*	Weedy Cudweed	Aster-	- | - | -	-	ZA	Disturbed sites, fields, streambeds (Apr–Aug)
O	*Pseudognaphalium ramosissimum (JM93: Gnaphalium)*	Pink Everlasting	Aster-	- | - | -	-	NB	Dry, open slopes, woodland, sandy fields, dunes (Jul–Sep)
O	*Psilocarphus tenellus (JM93: var. tenellus)*	Slender Woolly-marbles	Aster-	- | - | -	-	NA	Common. Dry, seasonally moist slopes, flats, burns, trails, rarely vernal pools (Mar–Jul)
O	*Pterostegia drymarioides*	Pink Creeper	Polygon-	- | - | -	-	NA	Common. Sand or gravel (Mar–Jul)
O	*Rafinesquia californica*	California Chicory	Aster-	- | - | B	-	NA	Open sites in scrub, woodland; often common after fire (Apr–Jul)
O	*Ranunculus aquatilis var. diffusus (JM93: var. capillaceus)*	Thread-leaf Water Buttercup	Ranuncul-	- | - | -	-	NP	Ponds, lakes, streams (Mar–Sep)
O	*Ranunculus californicus var. californicus (JM93: no var.)*	California Buttercup	Ranuncul-	- | - | -	-	NP	Grassland, open woodland (Mar–Aug)
O	*Ranunculus hebecarpus*	Downy Buttercup	Ranuncul-	- | - | -	-	NA	Grassland, open woodland (Mar–May)
O	*Ranunculus muricatus*	Prickleseed Buttercup	Ranuncul-	- | - | -	-	ZA	Stream-banks, drainages, low meadows (Apr–Jun)
O	*Ranunculus orthorhynchus var. bloomeri*	Bloomer Buttercup	Ranuncul-	- | - | A1	-	NP	Meadows, marshy areas (Mar–May)
O	*Ranunculus sp.*	Buttercup	Ranuncul-	- | - | -	-		- -
O	*Raphanus sativus*	Radish	Brassic-	- | - | -	L	ZA	Disturbed areas, fields (May–Jul)
O	*Rumex acetosella*	Sheep Sorrel	Polygon-	- | - | -	M	ZP	± Disturbed, often acidic places (Apr–Jul)
O	*Rumex conglomeratus*	Green Dock	Polygon-	- | - | -	-	ZP	Common. Moist places (May–Aug)
O	*Rumex crispus*	Curly Dock	Polygon-	- | - | -	L	ZP	Abundant. Disturbed places (All year)
O	*Rumex pulcher*	Fiddle Dock	Polygon-	- | - | -	-	ZP	Disturbed places, meadows, moist or dry habitats (May–Sep)
O	*Rupertia physodes*	California Tea	Fab-	- | - | -	-	NP	Woodland (May–Sep)
O	*Sagina apetala*	Dwarf Pearlwort	Caryophyll-	- | - | -	-	NA	Sandy disturbed areas, river bars, streamsides (Spring–early summer)
O	*Sagina decumbens subsp. occidentalis*	Western Pearlwort	Caryophyll-	- | - | C	-	NA	Dry streams, chaparral, grassy areas, rock outcrops, vernal pools (Spring–early summer)
O	*Sagittaria latifolia*	Wappato / Tule Potato / Arrowhead	Alismat-	- | - | A1	-	NP	Ponds, slow streams (Jul–Aug)
O	*Salvia columbariae*	Chia	Lami-	- | - | B	-	NA	Dry, disturbed sites, chaparral, coastal-sage scrub (Mar–Jun)
O	*Sanicula arctopoides*	Footsteps-of-spring	Api-	- | - | A1x	-	NP	Open coastal bluffs, headlands, dunes (Feb–May)

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O	*Sanicula bipinnata*	Poison Sanicle	Api-	- | - | -	-	NP	Open grassland or pine/oak woodland (Apr–May)
O	*Sanicula bipinnatifida*	Purple Sanicle	Api-	- | - | -	-	NP	Open grassland, gen on serpentine, or pine/oak woodland (Mar–May)
O	*Sanicula crassicaulis*	Pacific Woodland Sanicle	Api-	- | - | -	-	NP	Open slopes, ravines, woodland (Mar–May)
O	*Scandix pecten-veneris*	Venus' Needle	Api-	- | - | -	-	ZA	Grassy slopes, roadsides (Apr–Jun)
O	*Scrophularia californica (JM93: subsp. californica, floribunda)*	California Figwort	Scrophulari-	- | - | -	-	NP	Common; damp places, chaparral, roadsides (Mar–Jul)
O	*Scutellaria tuberosa*	Blue / Tuberous Skullcap	Lami-	- | - | C	-	NP	Dry sites, chaparral, oak woodland (Mar–Jul)
O	*Sedum spathulifolium*	Broadleaf Stonecrop	Crassul-	- | - | B	-	NP	Outcrops, often in shade (Apr–Aug)
O	*Senecio aronicoides*	California Woolly Butterweed	Aster-	- | - | C	-	NP	Dry or drying sites in open woodland, upper foothill, montane forest (Apr–Jul)
O	*Senecio vulgaris*	Common Groundsel	Aster-	- | - | -	-	ZA	Common. Disturbed areas (Feb–Jul)
O	*Sherardia arvensis*	Field Madder	Rubi-	- | - | -	-	ZA	Pastures, disturbed areas, grassland, dry meadows, oak woodland (Mar–Jul)
O	*Sidalcea malviflora subsp. ?*	Common Checkerbloom	Malv-	- | - | -	-	NP	- -
O	*Sidalcea malviflora subsp. malviflora*	Common Checkerbloom	Malv-	- | - | B	-	NP	Coastal prairie, scrub, open forest (Mar–Jul)
O	*Silene gallica*	Small-flower Catchfly	Caryophyll-	- | - | -	-	ZA	Fields, disturbed areas (Spring–early summer)
O	*Silybum marianum*	Milk Thistle	Aster-	- | - | -	L	ZAB	Roadsides, pastures, disturbed areas (Feb–Jun)
O	*Sinapis arvensis*	Charlock	Brassic-	- | - | -	L	ZA	Disturbed areas (Mar–Sep)
O	*Sisymbrium officinale*	Hedge Mustard	Brassic-	- | - | -	-	ZA	Disturbed areas, fields, pastures (Apr–Sep)
O	*Sisyrinchium bellum*	Western Blue-eyed-grass	Irid-	- | - | -	-	NP	Common. Open, gen moist, grassy areas, woodland (Mar–May)
O	*Solidago velutina subsp. californica (JM93: S. californica)*	California Goldenrod	Aster-	- | - | -	-	NP	Woodland margins, grassland, disturbed soils (May–Nov)
O	*Soliva sessilis*	Common Soliva	Aster-	- | - | -	-	ZA	Disturbed areas, especially hard-packed paths (Apr–Jul)
O	*Sonchus asper subsp. asper*	Prickly Sow Thistle	Aster-	- | - | -	-	ZA	Common. Slightly moist disturbed sites, along streams (All year)
O	*Sonchus oleraceus*	Common Sow Thistle	Aster-	- | - | -	-	ZA	Abundant. Disturbed places (All year)
O	*Spergularia rubra*	Red Sand-spurry	Caryophyll-	- | - | -	-	ZAP	Forest, meadows, mud flats, disturbed
O	*Stachys rigida var. quercetorum (JM93: S. ajugoides var. rigida)*	Common Rigid Hedge-nettle	Lami-	- | - | -	-	NP	Moist to ± dry places (Mar–Oct)
O	*Stellaria media*	Common Chickweed	Caryophyll-	- | - | -	-	ZA	Oak woodland, meadows, disturbed areas (Feb–Sep)
O	*Stephanomeria virgata subsp. pleurocarpa*	Twiggy Wreath Plant	Aster-	- | - | C	-	NA	Chaparral openings, grassland (Jun–Nov)

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O	*Streptanthus glandulosus subsp. glandulosus (JM93: incl. S. albidus subsp. peramoenus)*	Bristly Jewel Flower	Brassic-	- | - | B	-	NA	Serpentine, bare slopes, chaparral & woodland openings (Apr–Jul)
O	*Stuckenia pectinata (JM93: Potamogeton pectinatus)*	Fennel-leaf Pondweed	Potamogeton-	- | - | -	-	NP	Common. Ponds, lakes, marshes, streams (May–Jul)
O	*Symphyotrichum chilense (JM93: Aster chilensis)*	Common California Wild Aster	Aster-	- | - | -	-	NP	Grassland, salt marshes, disturbed places (Jun–Oct)
O	*Taraxacum officinale*	Common Dandelion	Aster-	- | - | -	-	ZBP	Abundant. Esp disturbed areas (All year)
O	*Taraxia ovata (JM93: Camissonia)*	Golden Eggs Suncup	Onagr-	- | - | C	-	NP	Grassy fields, gen clay soil (Mar–Jun)
O	*Tellima grandiflora*	Fringe Cups	Saxifrag-	- | - | B	-	NP	Moist slopes (Apr–Jul)
O	*Thalictrum fendleri var. polycarpum*	Foothill Meadow-rue	Ranuncul-	- | - | -	-	NP	Moist, open to shaded places, woodland, forest (Mar–Jun)
O	*Thysanocarpus curvipes*	Hairy Fringepod	Brassic-	- | - | -	-	NA	Common. Slopes, washes, moist meadows, woodland, streambanks (Feb–Jun)
O	*Thysanocarpus laciniatus var. laciniatus (JM93: no var.)*	Narrowleaf Fringepod	Brassic-	- | - | B	-	NA	Oak woodland, rocky ridges, slopes, chaparral, washes (Mar–May)
O	*Torilis arvensis*	Tall Sock-destroyer	Api-	- | - | -	M	ZA	Disturbed places (Apr–Jul)
O	*Torilis nodosa*	Short Sock-destroyer	Api-	- | - | -	-	ZA	Disturbed places (Apr–Jun)
O	*Toxicoscordion fremontii (JM93: Zigadenus)*	Common Star Lily	Melanthi-	- | - | -	-	NP	Grassy or wooded slopes, outcrops (Feb–Jun)
O	*Tragopogon porrifolius*	Purple Salsify	Aster-	- | - | -	-	ZBP	Common. Disturbed places (Mar–Nov)
O	*Tribulus terrestris*	Puncture Vine	Zygophyll-	- | - | -	-	ZA	Dry, disturbed areas incl roadsides, railways, vacant lots (Apr–Oct)
O	*Trichostema lanceolatum*	Vinegar Weed	Lami-	- | - | -	-	NA	Dry, open, gen disturbed habitats (Jun–Nov)
O	*Trientalis latifolia*	Starflower	Myrsin-	- | - | C	-	NP	Shaded places, esp woodland (Apr–Jul)
O	*Trifolium albopurpureum (JM93: var. albopurpureum)*	Rancheria Clover	Fab-	- | - | C	-	NA	Abundant. Dunes, grassland, wet meadows, slopes, disturbed areas, etc (Mar–Jun)
O	*Trifolium angustifolium*	Narrow-leaved Clover	Fab-	- | - | -	-	ZA	Disturbed areas (Late spring)
O	*Trifolium barbigerum (JM93: var. barbigerum)*	Bearded Clover	Fab-	- | - | B	-	NP	Wet meadows, open, disturbed areas (Apr–Jun)
O	*Trifolium bifidum var. decipiens*	Deceiving Clover	Fab-	- | - | -	-	NA	Open, grassy areas, forest (Apr–Jun)
O	*Trifolium ciliolatum*	Foothill Clover	Fab-	- | - | -	-	NA	Locally common. Grassland, chaparral, disturbed areas (Mar–Jun)
O	*Trifolium depauperatum var. truncatum*	Truncate Sack Clover	Fab-	- | - | -	-	NA	Grassy flats, disturbed slopes, openings in woodland (Apr–Jun)
O	*Trifolium dubium*	Little Hop Clover	Fab-	- | - | -	-	ZA	Agricultural, disturbed areas, lawns (Spring)
O	*Trifolium glomeratum*	Clustered Clover	Fab-	- | - | -	-	ZA	Uncommon. Disturbed areas (Mar–May)

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O	*Trifolium gracilentum (JM93: var. gracilentum)*	Pinpoint Clover	Fab-	- | - | -	-	NA	Open, disturbed places, occas serpentine (Mar–Jun)
O	*Trifolium grayi (JM93: T. barbigerum var. andrewsii)*	Gray's Clover	Fab-	- | - | A1?	-	NA	Wet meadows, foothill slopes, pine woodland (Apr–Jun)
O	*Trifolium hirtum*	Rose Clover	Fab-	- | - | -	M	ZA	Disturbed areas, roadsides (Apr–May)
O	*Trifolium incarnatum*	Crimson Clover	Fab-	- | - | -	-	ZA	Uncommon. Disturbed areas (May–Aug)
O	*Trifolium microcephalum*	Small-head Clover	Fab-	- | - | -	-	NA	Streambanks, moist, disturbed areas, roadsides, serpentine, conifer forest (Apr–Aug)
O	*Trifolium microdon*	Thimble Clover	Fab-	- | - | -	-	NA	Common locally. Open, moist or dry, gen disturbed areas (Mar–Jun)
O	*Trifolium oliganthum*	Few-flowered Clover	Fab-	- | - | C	-	NA	Woody or shrubby slopes, roadsides (Mar–Jun)
O	*Trifolium pratense*	Red Clover	Fab-	- | - | -	-	ZP	Disturbed areas (Apr–Oct)
O	*Trifolium sp.*	Clover	Fab-	- | - | -	-		- -
O	*Trifolium subterraneum*	Subterranean Clover	Fab-	- | - | -	-	ZA	Meadows, roadsides, disturbed areas (Mar–Apr)
O	*Trifolium variegatum var. ? (JM93: no var.)*	White-tip Clover	Fab-	- | - | -	-	NA	- -
O	*Trifolium willdenovii*	Tomcat Clover	Fab-	- | - | -	-	NA	Abundant. Disturbed, gen spring-moist, heavy soils, occas serpentine (Mar–Jun)
O	*Trillium chloropetalum*	Giant Trillium	Melanthi-	- | - | -	-	NP	Edges of redwood forest, chaparral, gen moist slopes, canyon banks in alluvial soils (Apr–May)
O	*Trillium ovatum subsp. ovatum*	Western White Trillium	Melanthi-	- | - | A2	-	NP	Redwood, mixed-evergreen forest on moist wooded slopes (Feb–Apr)
O	*Triphysaria eriantha subsp. eriantha*	Yellow Johnny-tuck	Orobanch-	- | - | -	-	NA	Grassland, foothills (Mar–May)
O	*Triphysaria pusilla*	Dwarf Owl's Clover	Orobanch-	- | - | -	-	NA	Grassland (Apr–Jun)
O	*Triteleia hyacinthina*	Fool's Onion	Themid-	- | - | -	-	NP	Grassland, vernally wet meadows, occ drier slopes (Mar–Jul)
O	*Triteleia laxa*	Ithuriel's Spear	Themid-	- | - | -	-	NP	Common. Open forest, conifer or foothill woodland, grassland on clay soil (Apr–Jun)
O	*Turritis glabra (JM93: Arabis, var. glabra)*	Tower Mustard	Brassic-	- | - | C	-	NP	Open fields, meadows, slopes (Apr–Jul)
O	*Uropappus lindleyi*	Silverpuffs	Aster-	- | - | -	-	NA	Common. Open grassland, woodland, chaparral, deserts, gen in loose soils (Mar–May)
O	*Urospermum picroides*	False Hawkbit	Aster-	- | - | -	-	ZAP	Uncommon. Disturbed places (Apr–Jul)
O	*Urtica dioica subsp. holosericea*	Hoary Nettle	Urtic-	- | - | -	-	NP	Meadows, seeps, springs, margins of marshes, streams, lakes, moist areas in chaparral, coastal scrub (Jun–Sep)
O	*Urtica urens*	Dwarf Nettle	Urtic-	- | - | -	-	ZA	Disturbed areas, stream banks, shaded areas in grassland, oak woodland, chaparral, coastal-sage scrub, riparian woodland (Jan–Jun)

✓	Scientific Name (JM93 if different)	Common Name	Family	Status	Inv	OL	Habitat (Bloom)
O	*Verbascum thapsus*	Woolly Mullein	Scrophulari-	- | - | -	L	ZB	Roadsides, streambanks, disturbed areas (May–Sep)
O	*Verbena lasiostachys var. ?*	Western Vervain	Verben-	- | - | -	-	NP	- -
O	*Verbena lasiostachys var. scabrida*	Robust Vervain	Verben-	- | - | -	-	NP	Open, dry to wet places (May–Sep)
O	*Veronica americana*	American Brooklime	Plantagin-	- | - | C	-	NP	Common. Moist to wet soil, springs, slow streams, meadows, lakeshores (May–Aug)
O	*Veronica arvensis*	Common Speedwell	Plantagin-	- | - | -	-	ZA	Meadows (Apr–Jul)
O	*Veronica peregrina subsp. xalapensis*	Purslane Speedwell	Plantagin-	- | - | -	-	NA	Moist places (Apr–Aug)
O	*Veronica persica*	Persian Speedwell	Plantagin-	- | - | -	-	ZA	Wet, disturbed areas, fields (Feb–May)
O	*Veronica sp.*	Speedwell	Plantagin-	- | - | -	-		- -
O	*Vicia americana subsp. americana (JM93: var. americana)*	American Vetch	Fab-	- | - | -	-	NP	Generally open, moist forest, along streams, disturbed areas (Mar–Jun)
O	*Vicia benghalensis*	One-sided Purple Vetch	Fab-	- | - | -	-	ZP	Grassland, roadsides, disturbed areas (Mar–Jun)
O	*Vicia gigantea*	Giant Vetch	Fab-	- | - | C	-	NP	Coastal shrub, coastal forest, chaparral (Mar–Aug)
O	*Vicia sativa subsp. nigra*	Narrow-leaved Vetch	Fab-	- | - | -	-	ZA	Roadsides, disturbed areas, grassland, open areas in oak and riparian woodlands (Mar–Jun)
O	*Vicia sativa subsp. sativa*	Spring Vetch	Fab-	- | - | -	-	ZA	Roadsides, disturbed areas, grassland, open areas in oak and riparian woodlands (Mar–Jun)
O	*Vicia sp.*	Vetch	Fab-	- | - | -	-		- -
O	*Vicia villosa subsp. varia*	Sparsely Hairy Vetch	Fab-	- | - | -	-	ZAB	Grassland, roadside, disturbed areas (Mar–Jun)
O	*Vinca major*	Greater Periwinkle	Apocyn-	- | - | -	M	ZP	Coastal bluffs, sheltered places, esp along stream beds (Mar–Jun(Jan))
O	*Viola pedunculata*	Johnny-jump-up	Viol-	- | - | C	-	NP	Open, grassy slopes, hillsides, chaparral, oak woodland, gen full sun (Feb–Apr)
O	*Viola sp.*	Violet	Viol-	- | - | -	-	NP	- -
O	*Wyethia angustifolia*	Narrow-leaved Mule's Ears	Aster-	- | - | -	-	NP	Grassland (Apr–Aug)
O	*Wyethia glabra*	Smooth Mule's Ears	Aster-	- | - | C	-	NP	Gen shady sites (Mar–Jun)
O	*Wyethia helenioides*	Gray Mule's Ears	Aster-	- | - | -	-	NP	Open grassland, woodland, scrub (Mar–May(Aug))
O	*Xanthium spinosum*	Spiny Cocklebur	Aster-	- | - | -	-	NA	Disturbed, seasonally wet, often alkaline sites, in grassland, marshes, watercourses (Jul–Oct)
O	*Xanthium strumarium*	Cocklebur	Aster-	- | - | -	-	NA	Disturbed, seasonally wet, often alkaline sites, in grassland, marshes, watercourses (Jul–Oct)
O	*Yabea microcarpa*	California Hedge Parsley	Api-	- | - | C	-	NA	Grassy slopes, dunes, chaparral, woodland (Apr–Jun)
O	*Zeltnera davyi (JM93: Centaurium)*	Davy's Centaury	Gentian-	- | - | B	-	NA	Moist coastal bluffs, dunes, open forest (May–Aug)

✓	Scientific Name (JM93 if different)	Common Name	Family	Status	Inv	OL	Habitat (Bloom)
O	*Zeltnera sp. (JM93: Centaurium)*	Centaury	Gentian-	- | - | -	-	NA	- -

✓	Scientific Name (JM93 if different)	Common Name	Family	Status	Inv	OL	Habitat (Bloom)
O	*Acacia melanoxylon*	Blackwood Acacia	Fab-	- | - | -	L	ZP	Uncommon. Disturbed areas (Feb-Mar)
O	*Acer macrophyllum*	Big-leaf Maple	Sapind-	- | - | -	-	NP	Common. Streambanks, canyons (Mar–Jun)
O	*Adenostoma fasciculatum var. fasciculatum (JM93: no var.)*	Chamise	Ros-	- | - | -	-	NP	Dry slopes, ridges, chaparral (May–Jun)
O	*Aesculus californica*	California Buckeye	Sapind-	- | - | -	-	NP	Dry slopes, canyons, borders of streams (May–Jun)
O	*Alnus rhombifolia*	White Alder	Betul-	- | - | -	-	NP	Along permanent streams (Apr–Jun)
O	*Amelanchier utahensis*	Utah Service-berry	Ros-	- | - | C	-	NP	Open, rocky slopes, canyons, banks of creeks, deserts, conifer forest (Apr–Jun)
O	*Arbutus menziesii*	Pacific Madrone	Eric-	- | - | C	-	NP	Conifer, oak forests (Mar–May)
O	*Artemisia californica*	California Sagebrush	Aster-	- | - | -	-	NP	Coastal scrub, chaparral, open woodland (Aug–Nov)
O	*Baccharis pilularis subsp. consanguinea (JM93: no subsp.)*	Coyote Brush	Aster-	- | - | -	-	NP	Coastal bluffs, woodland, grassland, disturbed sites, occ on serpentine (Jul–Dec)
O	*Berberis pinnata subsp. pinnata*	Shinyleaf Oregon-grape	Berberid-	- | - | C	-	NP	Rocky slopes, conifer forest, oak woodland, chaparral (Feb–May)
O	*Ceanothus cuneatus var. cuneatus*	Buckbrush	Rhamn-	- | - | C	-	NP	Sandy to rocky flats, slopes, ridges (Feb–May)
O	*Clematis ligusticifolia*	Western Virgin's Bower	Ranuncul-	- | - | C	-	NP	Along streams, wet places (Jun–Sep)
O	*Cornus sericea subsp. sericea*	American Creek Dogwood	Corn-	- | - | C	-	NP	Generally moist habitats (May–Jul)
O	*Corylus cornuta subsp. californica (JM93: var. californica)*	California Hazelnut	Betul-	- | - | -	-	NP	Common. Many habitats, esp moist, shady places (Jan–Mar)
O	*Crataegus gaylussacia (JM93: C. suksdorfii)*	Suksdorf's Hawthorn	Ros-	- | - | -	-	NP	Streamsides in meadows, scrub, forest (May–Jun)
O	*Ericameria linearifolia*	Interior Goldenbush	Aster-	- | - | -	-	NP	Dry slopes, valleys, foothill and desert woodland, saltbush and creosote-bush scrub (Mar–May)
O	*Eriophyllum confertiflorum var. confertiflorum*	Golden-yarrow	Aster-	- | - | -	-	NP	Many dry habitats (Apr–Aug)
O	*Eucalyptus globulus*	Blue Gum	Myrt-	- | - | -	M	ZP	Common. Disturbed areas (Oct–Jan)
O	*Eucalyptus sp.*	Gum	Myrt-	- | - | -	-	ZP	- -
O	*Frangula californica subsp. californica (JM93: Rhamnus)*	California Coffee Berry	Rhamn-	- | - | -	-	NP	Coastal-sage scrub, chaparral, forest, woodland (May–Jul)
O	*Garrya elliptica*	Coast Silk Tassel	Garry-	- | - | B	-	NP	Seacliffs, sand dunes, chaparral, foothill-pine woodland (Jan–Mar)
O	*Genista monspessulana*	French Broom	Fab-	- | - | -	H	ZP	Common. Disturbed places. (Mar–Jun)
O	*Heteromeles arbutifolia*	Christmas Berry / Toyon	Ros-	- | - | -	-	NP	Chaparral, oak woodland, mixed-evergreen forest ((May)Jun–Aug)
O	*Holodiscus discolor var. discolor (JM93: no var.)*	Oceanspray	Ros-	- | - | -	-	NP	Moist woodland edges, rocky slopes (May–Aug)

✓	Scientific Name (JM93 if different)	Common Name	Family	Status	Inv	OL	Habitat (Bloom)
O	*Lonicera hispidula (JM93: var. vacillans)*	Hairy Vine Honeysuckle	Caprifoli-	- | - | -	-	NP	Canyons, streamsides, woodland (May–Jun)
O	*Lupinus albifrons var. albifrons*	Bush Lupine	Fab-	- | - | -	-	NP	Common. Chaparral, foothill woodland (Mar–Jun)
O	*Lupinus albifrons var. collinus*	Bay Area Silver Lupine	Fab-	- | - | -	-	NP	Cliffs, forest openings (Mar–Jun)
O	*Lupinus arboreus*	Yellow Bush Lupine	Fab-	- | - | A2	N	NP	Coastal bluffs, dunes, or more inland (Apr–Jul)
O	*Mimulus aurantiacus var. aurantiacus (JM93: no var.)*	Bush Monkeyflower	Phrym-	- | - | -	-	NP	Disturbed areas, coastal cliffs, canyon sides (Mar–Jun)
O	*Oemleria cerasiformis*	Oso Berry	Ros-	- | - | -	-	NP	Chaparral, canyons, streambanks, lowland wet to dry open woodland, coast to shaded conifer forest (Feb–Apr)
O	*Olea europaea*	Olive	Ole-	- | - | -	L	ZP	Generally waif, persisting from cultivation (Feb–Jun)
O	*Physocarpus capitatus*	Pacific Ninebark	Ros-	- | - | C	-	NP	Moist banks, n-facing slopes, mixed-conifer forest (May–Jul)
O	*Platanus racemosa*	Western Sycamore	Platan-	- | - | B	-	NP	Common. Streamsides, canyons, arroyos (Feb–Apr)
O	*Prunus dulcis*	Almond	Ros-	- | - | -	-	ZP	Canyons, roadsides, grassland (as waif) (Feb–Mar)
O	*Prunus emarginata*	Bitter Cherry	Ros-	- | - | C	-	NP	Rocky slopes, canyons, chaparral, mixed-evergreen, conifer forest (Apr–Jun)
O	*Prunus subcordata*	Sierra Plum	Ros-	- | - | C	-	NP	Mixed-evergreen or conifer forest (Mar–May)
O	*Prunus virginiana var. demissa*	Western Choke Cherry	Ros-	- | - | -	-	NP	Rocky slopes, canyons, scrubland, oak/pine woodland (May–Jun)
O	*Quercus agrifolia var. agrifolia*	Coast Live Oak	Fag-	- | - | A2	-	NP	Valleys, slopes, mixed-evergreen forest, woodland (Mar–Apr)
O	*Quercus chrysolepis*	Canyon Live Oak	Fag-	- | - | -	-	NP	Canyons, shaded slopes, chaparral, mixed-evergreen forest, woodland (Apr–May)
O	*Quercus douglasii*	Blue Oak	Fag-	- | - | -	-	NP	Dry slopes, interior foothills, woodland (Apr–May)
O	*Quercus garryana var. garryana*	Oregon / Garry Oak	Fag-	- | - | B	-	NP	Slopes, mixed-evergreen or conifer forest (Apr–Jun)
O	*Quercus kelloggii*	California Black Oak	Fag-	- | - | -	-	NP	Slopes, valleys, woodland, conifer forest (Apr–May)
O	*Quercus lobata*	Valley Oak	Fag-	- | - | B	-	NP	Slopes, valleys, savanna (Mar–Apr)
O	*Quercus sp.*	Oak	Fag-	- | - | -	-	NP	- -
O	*Quercus wislizeni var. wislizeni*	Interior Live Oak	Fag-	- | - | -	-	NP	Interior canyons, slopes, pine/oak woodland (Mar–May)
O	*Rhamnus crocea*	Spiny Redberry	Rhamn-	- | - | C	-	NP	Coastal-sage scrub, chaparral, woodland (Jan–Apr)
O	*Rhamnus ilicifolia*	Hollyleaf Redberry	Rhamn-	- | - | C	-	NP	Chaparral, montane forest (Mar–Jun)
O	*Ribes californicum var. californicum*	Hillside Gooseberry	Grossulari-	- | - | -	-	NP	Forest openings, woodland (Feb–Mar)

✓	Scientific Name (JM93 if different)	Common Name	Family	Status	Inv	OL	Habitat (Bloom)
O	*Ribes divaricatum var. pubiflorum*	Straggle Gooseberry	Grossulari-	- | - | B	-	NP	Uncommon. Coastal bluffs, forest edges (Mar–May)
O	*Ribes malvaceum var. malvaceum*	Chaparral Currant	Grossulari-	- | - | B	-	NP	Chaparral, oak woodland (Oct–Apr)
O	*Ribes menziesii var. menziesii (JM93: no var.)*	Canyon Gooseberry	Grossulari-	- | - | -	-	NP	Common. Forest openings, chaparral (Feb–Apr)
O	*Rosa californica*	California Rose	Ros-	- | - | -	-	NP	Gen ± moist areas in sun, esp streambanks (Feb–Nov)
O	*Rosa gymnocarpa var. gymnocarpa (JM93: no var.)*	Wood Rose	Ros-	- | - | -	-	NP	Common. Gen in shade of forest, scrub ((Feb)Apr–Jul)
O	*Rubus armeniacus (JM93: R. discolor)*	Himalayan Blackberry	Ros-	- | - | -	H	ZP	Common. Disturbed areas, roadsides (Mar–Jun)
O	*Rubus parviflorus*	Thimbleberry	Ros-	- | - | -	-	NP	Common; moist semi-shaded areas, esp edges of woodland (Mar–Aug)
O	*Rubus ursinus*	California Blackberry	Ros-	- | - | -	-	NP	Open, disturbed areas (Mar–Jul)
O	*Salix exigua var. hindsiana (JM93: no var.)*	Hinds' Willow	Salic-	- | - | -	-	NP	Common. Floodplains, sandy gravel (Apr–May)
O	*Salix laevigata*	Red Willow	Salic-	- | - | -	-	NP	Common. Riverbanks, seepage areas, lakeshores, canyons (Dec–Jun)
O	*Salix lasiandra var. lasiandra (JM93: S. lucida subsp. Lasiandra)*	Pacific Willow	Salic-	- | - | -	-	NP	Wet meadows, lakeshores, riverbanks (May–Jun)
O	*Salix lasiolepis*	Arroyo Willow	Salic-	- | - | -	-	NP	Common. Shores, marshes, meadows, etc (Jan–Jun)
O	*Salix sp.*	Willow	Salic-	- | - | -	-	?P	- -
O	*Salvia mellifera*	Black Sage	Lami-	- | - | -	-	NP	Coastal-sage scrub, lower chaparral (Mar–Jun)
O	*Sambucus nigra subsp. caerulea (JM93: S. mexicana)*	Blue Elderberry	Adox-	- | - | -	-	NP	Common. Streambanks, open places in forest (Mar–Sep)
O	*Solanum umbelliferum*	Blue Witch	Solan-	- | - | -	-	NP	Shrubland, mixed-evergreen forest, woodland (All year)
O	*Symphoricarpos albus var. laevigatus*	Snowberry	Caprifoli-	- | - | -	-	NP	Shady woodland, streambanks, N. slopes (May–Jul)
O	*Symphoricarpos mollis*	Creeping Snowberry	Caprifoli-	- | - | -	-	NP	Ridges, slopes, open places in woodland (Apr–May)
O	*Toxicodendron diversilobum*	Western Poison Oak	Anacardi-	- | - | -	-	NP	Canyons, slopes, chaparral, coastal scrub, oak woodland (Apr–Jun)
O	*Umbellularia californica*	California Bay	Laur-	- | - | -	-	NP	Common. Canyons, valleys, chaparral (Nov–May)
O	*Vitis californica*	California Wild Grape	Vit-	- | - | -	-	NP	Streamsides, springs, canyons (May–Jun)

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Wild Plant Name Changes

JM93 Scientific Name (JM2 name changes)

Acer negundo var. californicum (no var.)

Adenostoma fasciculatum (var. fasciculatum)

Agoseris grandiflora (var. grandiflora)

Agoseris heterophylla (var. cryptopleura)

Agrostis viridis (Polypogon)

Alisma plantago-aquatica (A. triviale)

Amsinckia menziesii var. intermedia (A. intermedia)

Amsinckia menziesii var. menziesii (no var.)

Antirrhinum vexillo-calyculatum ssp. vexillo-calyculatum (A. vexillocalyculatum subsp. vexillocalyculatum)

Arabis breweri var. breweri (Boechera breweri subsp. breweri)

Arabis glabra var. glabra (Turritis glabra)

Arctostaphylos tomentosa ssp. crustacea (A. crustacea subsp. crustacea)

Aster chilensis (Symphyotrichum chilense)

Aster lentus (Symphyotrichum lentum)

Aster radulinus (Eurybia radulina)

Aster subulatus var. ligulatus (Symphyotrichum subulatum var. parviflorum)

Atriplex joaquiniana (A. joaquinana)

Atriplex lentiformis ssp. lentiformis (no subsp.)

Atriplex triangularis (A. prostrata)

Azolla mexicana (A. microphylla)

Baccharis douglasii (B. glutinosa)

Baccharis pilularis (subsp. consanguinea)

Baccharis salicifolia (subsp. salicifolia)

Balsamorhiza macrolepis var. macrolepis (no var.)

Blepharizonia plumosa ssp. plumosa (no subsp.)

Blepharizonia plumosa ssp. viscida (Blepharizonia laxa)

Boschniakia strobilacea (Kopsiopsis)

Bromus catharticus (var. catharticus)

Camissonia boothii ssp. decorticans (Eremothera)

Camissonia graciliflora (Tetrapteron graciliflorum)

Camissonia intermedia (Camissoniopsis)

Camissonia micrantha (Camissoniopsis)

Camissonia ovata (Taraxia)

Cardaria draba (Lepidium)

Carduus pycnocephalus (subsp. pycnocephalus)

Carex deweyana ssp. leptopoda (C. leptopoda)

Carex lanuginosa (C. pellita)

Carex ovalis (C. leporina)

Ceanothus thyrsiflorus (var. thyrsiflorus)

Centaurium davyi (Zeltnera)

Centaurium muehlenbergii (Zeltnera)

Cephalanthus occidentalis var. californicus (no var.)

Chamomilla suaveolens (Matricaria discoidea)

Chenopodium ambrosioides (Dysphania)

Chenopodium macrospermum var. halophilum (no var.)

Chenopodium multifidum (Dysphania multifida)

Chenopodium rubrum (var. rubrum)

Chrysothamnus nauseosus ssp. mohavensis (Ericameria nauseosa var. mohavensis)

Cirsium cymosum (var. cymosum)

Claytonia parviflora ssp. parviflora (subsp. utahensis)

Collinsia bartsiifolia var. davidsonii (var. stricta)

Collinsia heterophylla (var. heterophylla)

Conyza bilbaoana (Erigeron sumatrensis)

Conyza bonariensis (Erigeron)

Conyza canadensis (Erigeron)

Conyza coulteri (Laennecia)

Corallorhiza maculata (var. maculata)

Cordylanthus mollis ssp. mollis (Chloropyron molle subsp. molle)

Coronopus didymus (Lepidium didymum)

Corylus cornuta var. californica (subsp. californica)

Cotoneaster pannosa (C. pannosus)

Cryptantha decipiens (C. rattanii)

Cryptantha intermedia (var. intermedia)

Cryptantha muricata (var. muricata)

Cryptantha torreyana (var. pumila)

Cupressus macrocarpa (Hesperocyparis)

Cuscuta salina var. major (C. pacifica var. pacifica)

Cynara cardunculus (subsp. flavescens)

Danthonia californica var. californica (no var.)

Dicentra chrysantha (Ehrendorferia)

Disporum hookeri (Prosartes)

Disporum smithii (Prosartes)

Draba cuneifolia var. integrifolia (no var.)

Duchesnea indica (no var.)

Epilobium pygmaeum (E. campestre)

Eragrostis curvula var. curvula (no var.)

Erechtites glomerata (Senecio glomeratus)

Erechtites minima (Senecio minimus)

Eremocarpus setigerus (Croton)

Erigeron philadelphicus (var. philadelphicus)

Eriogonum umbellatum var. bahiiforme (var. smallianum)

Eriophyllum lanatum var. achillaeoides (var. achilleoides)

Eryngium aristulatum var. aristulatum (E. jepsonii)

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Wild Plant Name Changes

JM93 Scientific Name (JM2 name changes)

Erysimum capitatum var. angustatum (var. capitatum)
Filago californica (Logfia filaginoides)
Filago gallica (Logfia)
Fritillaria affinis var. affinis (no var.)
Galium trifidum var. pacificum (subsp. columbianum)
Gastridium ventricosum (G. phleoides)
Gnaphalium bicolor (Pseudognaphalium biolettii)
Gnaphalium californicum (Pseudognaphalium)
Gnaphalium canescens ssp. beneolens (Pseudognaphalium beneolens)
Gnaphalium canescens ssp. microcephalum (Pseudognaphalium microcephalum)
Gnaphalium luteo-album (Pseudognaphalium luteoalbum)
Gnaphalium purpureum (Gamochaeta ustulata)
Gnaphalium ramosissimum (Pseudognaphalium)
Gnaphalium stramineum (Pseudognaphalium)
Grindelia camporum var. camporum (no var.)
Grindelia hirsutula var. davyi (G. camporum)
Grindelia hirsutula var. hirsutula (no var.)
Guillenia flavescens (Caulanthus)
Guillenia lasiophylla (Caulanthus lasiophyllus)
Hedera helix ssp. helix (no subsp.)
Heliotropium curassavicum (var. oculatum)
Hemizonia congesta ssp. congesta (subsp. lutescens)
Hemizonia corymbosa ssp. corymbosa (Deinandra corymbosa)
Hemizonia fitchii (Centromadia)
Hemizonia lobbii (Deinandra)
Hemizonia parryi ssp. congdonii (Centromadia)
Hemizonia parryi ssp. parryi (Centromadia)
Hemizonia pungens ssp. maritima (Centromadia pungens subsp. pungens)
Hemizonia pungens ssp. pungens (Centromadia)
Heracleum lanatum (H. maximum)
Herniaria hirsuta ssp. cinerea (var. cinerea)
Holodiscus discolor (var. discolor)
Hordeum jubatum (subsp. jubatum)
Horkelia californica ssp. californica (var. californica)
Horkelia californica ssp. dissita (var. elata)
Horkelia californica ssp. frondosa (var. frondosa)
Isopyrum occidentale (Enemion)
Iva axillaris ssp. robustior (no subsp.)
Juglans californica var. hindsii (J. hindsii)
Juncus balticus (subsp. ater)
Juncus effusus var. pacificus (subsp. pacificus)
Juncus lesueurii (J. lescurii)
Koeleria phleoides (K. gerardii)
Lagophylla ramosissima ssp. ramosissima (no subsp.)
Lasthenia californica (subsp. californica)
Lavatera cretica (Malva pseudolavatera)
Lepidium dictyotum var. dictyotum (no var.)
Lepidium latipes var. latipes (no var.)
Lepidium nitidum var. nitidum (no var.)
Lepidium nitidum var. oreganum (no var.)
Leptochloa fascicularis (L. fusca subsp. fascicularis)
Lessingia filaginifolia var. californica (Corethrogyne filaginifolia)
Lessingia filaginifolia var. filaginifolia (Corethrogyne filaginifolia)
Lewisia rediviva (var. rediviva)
Leymus condensatus (Elymus)
Leymus triticoides (Elymus)
Lilaea scilloides (Triglochin)
Limosella subulata (Limosella australis)
Linanthus acicularis (Leptosiphon)
Linanthus ambiguus (Leptosiphon)
Linanthus androsaceus (Leptosiphon)
Linanthus bicolor (Leptosiphon)
Linanthus ciliatus (Leptosiphon)
Linanthus dichotomus (Linanthus dichotomus subsp. dichotomus or meridianus)
Linanthus dichotomus (Linanthus dichotomus subsp. dichotomus or meridianus)
Linanthus parviflorus (Leptosiphon)
Linaria canadensis (Nuttallanthus texanus)
Lolium multiflorum (Festuca perennis)
Lolium perenne (Festuca perennis)
Lolium temulentum (Festuca temulenta)
Lonicera hispidula var. vacillans (no var.)
Lotus humistratus (Acmispon brachycarpus)
Lotus micranthus (Acmispon parviflorus)
Lotus purshianus var. purshianus (Acmispon americanus var. americanus)
Lotus scoparius var. scoparius (Acmispon glaber var. glaber)
Lotus strigosus (Acmispon)
Lotus wrangelianus (Acmispon)
Luzula comosa (var. comosa)
Madia madioides (Anisocarpus)
Malacothamnus fasciculatus (var. nuttallii)
Marah fabaceus (M. fabacea)
Marah oreganus (M. oregana)

East Bay Regional Park District

Wild Plant Name Changes

JM93 Scientific Name (JM2 name changes)

Melilotus alba (M. albus)
Melilotus indica (M. indicus)
Mentha spicata var. spicata (no var.)
Mimulus aurantiacus (var. aurantiacus)
Mirabilis californica (M. laevis var. crassifolia)
Monardella antonina ssp. antonina (M. villosa subsp. villosa)
Monardella douglasii ssp. douglasii (no subsp.)
Monardella villosa ssp. globosa (subsp. villosa)
Montia fontana ssp. chondrosperma (no subsp.)
Myrica californica (Morella)
Nassella cernua (Stipa)
Nassella lepida (Stipa)
Nassella pulchra (Stipa)
Osmorhiza chilensis (O. berteroi)
Oxalis albicans ssp. pilosa (O. pilosa)
Parvisedum pentandrum (Sedella pentandra)
Phacelia ramosissima var. latifolia (no var.)
Phacelia ramosissima var. ramosissima (no var.)
Phlox gracilis (Microsteris)
Phoradendron macrophyllum (P. serotinum subsp. macrophyllum)
Phoradendron villosum (P. serotinum subsp. tomentosum)
Phyla nodiflora var. incisa (no var.)
Phyla nodiflora var. nodiflora (no var.)
Picris echioides (Helminthotheca)
Piperia elegans (subsp. elegans)
Piptatherum miliaceum (Stipa miliacea var. miliacea)
Plagiobothrys canescens (var. canescens)
Plagiobothrys fulvus (var. campestris)
Plectritis brachystemon (P. congesta subsp. brachystemon)
Plectritis ciliosa ssp. ciliosa (no subsp.)
Plectritis ciliosa ssp. insignis (no subsp.)
Plectritis congesta (subsp. congesta)
Pleuropogon californicus (var. californicus)
Pluchea odorata (var. odorata)
Poa bulbosa (subsp. vivipara)
Polygonum amphibium var. emersum (Persicaria amphibia)
Polygonum amphibium var. stipulaceum (Persicaria amphibia)
Polygonum arenastrum (P. aviculare subsp. depressum)
Polygonum hydropiperoides (Persicaria)
Polygonum lapathifolium (Persicaria lapathifolia)
Polygonum persicaria (Persicaria maculosa)
Polygonum punctatum (Persicaria punctata)
Populus balsamifera ssp. trichocarpa (P. trichocarpa)
Potamogeton pectinatus (Stuckenia pectinata)
Potentilla glandulosa ssp. glandulosa (Drymocallis glandulosa var. glandulosa)
Psilocarphus tenellus var. tenellus (no var.)
Ranunculus aquatilis var. capillaceus (var. diffusus)
Ranunculus californicus (var. californicus)
Ranunculus canus (var. canus)
Ranunculus occidentalis (var. occidentalis)
Ranunculus sceleratus (var. sceleratus)
Rhamnus californica ssp. californica (Frangula)
Rhamnus tomentella ssp. tomentella (Frangula californica subsp. tomentella)
Rhus trilobata (R. aromatica)
Ribes menziesii (var. menziesii)
Rorippa nasturtium-aquaticum (Nasturtium officinale)
Rorippa palustris var. occidentalis (subsp. palustris)
Rosa gymnocarpa (var. gymnocarpa)
Rubus discolor (R. armeniacus)
Rumex maritimus (R. fueginus)
Rumex salicifolius var. crassus (R. crassus)
Rumex salicifolius var. salicifolius (no var.)
Rumex salicifolius var. transitorius (R. transitorius)
Salicornia europaea (S. depressa)
Salicornia subterminalis (Arthrocnemum subterminale)
Salicornia virginica (S. pacifica)
Salix exigua (var. hindsiana)
Salix lucida ssp. lasiandra (Salix lasiandra var. lasiandra)
Sambucus mexicana (S. nigra subsp. caerulea)
Satureja douglasii (Clinopodium)
Saxifraga californica (Micranthes)
Scirpus acutus var. occidentalis (Schoenoplectus)
Scirpus americanus (Schoenoplectus)
Scirpus californicus (Schoenoplectus)
Scirpus cernuus (Isolepis)
Scirpus maritimus (Bolboschoenus maritimus subsp. paludosus)
Scirpus robustus (Bolboschoenus)
Scrophularia californica ssp. californica (no subsp.)
Scrophularia californica ssp. floribunda (no subsp.)
Senecio breweri (Packera)
Senecio mikanioides (Delairea odorata)
Silene californica (S. laciniata subsp. californica)

East Bay Regional Park District

Wild Plant Name Changes

JM93 Scientific Name (JM2 name changes)

Smilacina racemosa (Maianthemum racemosum)
Smilacina stellata (Maianthemum stellatum)
Solidago californica (S. velutina subsp. californica)
Solidago canadensis ssp. elongata (S. elongata)
Sparganium erectum ssp. stoloniferum (S. eurycarpum var. greenei)
Sparganium eurycarpum ssp. eurycarpum (var. eurycarpum)
Spergula arvensis ssp. arvensis (no subsp.)
Spergularia media (var. media)
Stachys ajugoides var. ajugoides (no var.)
Stachys ajugoides var. rigida (Stachys rigida var. quercetorum)
Streptanthus albidus ssp. peramoenus (S. glandulosus subsp. glandulosus)
Stylomecon heterophylla (Papaver heterophyllum)
Taeniatherum caput-medusae (Elymus)
Thysanocarpus laciniatus (var. laciniatus)
Tolmiea menziesii (T. diplomenziesii)
Trifolium albopurpureum var. albopurpureum (no var.)
Trifolium albopurpureum var. dichotomum (T. dichotomum)
Trifolium albopurpureum var. olivaceum (T. olivaceum)
Trifolium barbigerum var. andrewsii (T. grayi)
Trifolium barbigerum var. barbigerum (no var.)
Trifolium gracilentum var. gracilentum (no var.)
Vicia americana var. americana (subsp. americana)
Vicia ludoviciana var. ludoviciana (subsp. ludoviciana)
Viola adunca (var. adunca)
Vulpia bromoides (Festuca)
Vulpia microstachys var. ciliata (Festuca microstachys)
Vulpia microstachys var. confusa (Festuca microstachys)
Vulpia microstachys var. microstachys (Festuca microstachys)
Vulpia microstachys var. pauciflora (Festuca microstachys)
Vulpia myuros var. hirsuta (Festuca myuros)
Vulpia myuros var. myuros (Festuca myuros)
Vulpia octoflora var. hirtella (Festuca octoflora)
Vulpia octoflora var. octoflora (Festuca octoflora)
Zigadenus fremontii (Toxicoscordion)

APPENDIX D
PLEASANTON RIDGE REGIONAL PARK - WILDLIFE RESOURCE CHECKLIST

PLEASANTON RIDGE REGIONAL PARK - WILDLIFE RESOURCE CHECKLIST

CLASS	COMMONNAME	LATIN NAME	OBS	EXP	OCCURR	STATUS
Amphibians	Arboreal Salamander	*Aneides lugubris*	yes		K	
Amphibians	Bullfrog	*Rana catesbiana*	yes		O/B	
Amphibians	California Newt, Coast Range	*Taricha torosa*	yes		O/B	
Amphibians	California Slender Salamander	*Batrachoseps attenuatus*	yes		O/B	
Amphibians	Ensatina, Yellow-eyed	*Ensatina eschscholtzi*	yes		K	
Amphibians	**Foothill Yellow-legged Frog**	***Rana boylii***		no		**SSC**
Amphibians	Pacific Treefrog	*Hyla regilla*	yes		O/B	
Amphibians	**Red-legged Frog, California**	***Rana draytonii***	**yes**		**O/B**	**FT,SSC**
Amphibians	Rough-skinned Newt, Northern	*Taricha granulosa*	yes		K	
Amphibians	**Tiger Salamander, California**	***Ambystoma californiense***	**yes**		**P**	**FT,ST**
Amphibians	**Western Spadefoot Toad**	***Spea hammondi***		**no**		**SSC**
Amphibians	Western Toad, California	*Bufo boreas*		yes	K	
Birds	Acorn Woodpecker	*Melanerpes formicivorus*	yes		O	
Birds	Allen's Hummingbird	*Selasphorus sasin*	yes		O	
Birds	American Avocet	*Recurvirostra americana*		no		
Birds	American Bittern	*Botaurus lentiginosus*		no		
Birds	American Coot	*Fulica americana*		yes	K	
Birds	American Crow	*Corvus brachyrhynchos*	yes		O	
Birds	American Dipper	*Cinclus mexicanus*		no		
Birds	American Goldfinch	*Carduelis tristis*	yes		O	
Birds	American Green-winged Teal	*Anas crecca*		no		
Birds	American Kestrel	*Falco sparverius*	yes		O/B	
Birds	American Pipit	*Anthus rubescens*		yes	K	
Birds	American Robin	*Turdus migratorius*	yes		O/B	
Birds	American White Pelican	*Pelecanus erythrorhynchos*		no		
Birds	American Wigeon	*Anas americana*		no		
Birds	Anna's Hummingbird	*Calypte anna*	yes		O/B	
Birds	Arctic Loon	*Gavia arctica*		no		
Birds	Ash-throated Flycatcher	*Myiarchus cinerascens*		yes	O	
Birds	Baird's Sandpiper	*Calidris bairdii*		no		
Birds	**Bald Eagle**	***Haliaeetus leucocephalus***		no		**BGPA,SE,CFP, Fed Delisted**
Birds	Band-tailed Pigeon	*Columba fasciata*	yes		O/B	
Birds	**Bank Swallow**	***Riparia riparia***		no		**ST**
Birds	Barn Swallow	*Hirundo rustica*	yes		O	
Birds	Barrow's Goldeneye	*Bucephala islandica*		no		
Birds	Belted Kingfisher	*Ceryle alcyon*	yes		O	
Birds	Bewick's Wren	*Thryomanes bewickii*	yes		O/B	
Birds	Black Phoebe	*Sayornis nigricans*	yes		O/B	
Birds	Black Scoter	*Melanitta nigra*		no		
Birds	Black Tern	*Chlidonias niger*		no		**SSC**
Birds	Black Turnstone	*Arenaria melanocephala*		no		
Birds	Black-bellied Plover	*Pluvialis squatarola*		no		
Birds	Black-chinned Hummingbird	*Archilochus alexandri*		yes	K	rare
Birds	Black-chinned Sparrow	*Spizella atrogularis*		yes	K	rare
Birds	Black-crowned Night Heron	*Nycticorax nycticorax*		no	O	
Birds	Black-headed Grosbeak	*Pheucticus melanocephalus*	yes		O/B	
Birds	Black-necked Stilt	*Himantopus mexicanus*		no		
Birds	Black-throated Gray Warbler	*Dendroica nigrescens*		yes	K	
Birds	Blue Grosbeak	*Guiraca caerulea*		no		
Birds	Blue-gray Gnatcatcher	*Polioptila caerulea*		no		
Birds	Blue-winged Teal	*Anas discors*		no		
Birds	Bonaparte's Gull	*Larus philadelphia*		no		
Birds	Brandt's Cormorant	*Phalacrocorax penicillatus*		no		
Birds	Brewer's Blackbird	*Euphagus cyanocephalus*		yes	K	
Birds	Brown Creeper	*Certhia americana*		yes	K	
Birds	**Brown Pelican**	***Pelecanus occidentalis***		no		**FE,SE,CFP**
Birds	Brown-headed Cowbird	*Molothrus ater*		yes	O	
Birds	Bufflehead	*Bucephala albeola*		yes	K	
Birds	**Burrowing Owl**	***Athene (Speotyto) cunicularia***		**yes**	**P**	**SSC**

PLEASANTON RIDGE REGIONAL PARK - WILDLIFE RESOURCE CHECKLIST

CLASS	COMMONNAME	LATIN NAME	OBS	EXP	OCCURR	STATUS
Birds	Bushtit	*Psaltriparus minimus*	yes		O/B	
Birds	Bullock's Oriole	*Icterus bullockii*		yes	O/B	
Birds	**California Black Rail**	***Laterallus jamaicensis coturniculus***		no		**ST, CFP**
Birds	**California Clapper Rail**	***Rallus longirostris obsoletus***		no		**FE,SE,CFP**
Birds	California Gull	*Larus californicus*		yes	K	
Birds	California Quail	*Callipepla californica*	yes		O/B	
Birds	California Towhee	*Pipilo fuscus*	yes		O/B	
Birds	California Thrasher	*Toxostoma redivivum*		yes	O	
Birds	Calliope Hummingbird	*Stellula calliope*		yes	K	
Birds	Canada Goose	*Branta canadensis*		yes	K	
Birds	Canvasback	*Aythya valisineria*		no		
Birds	Canyon Wren	*Catherpes mexicanus*		no		
Birds	Caspian Tern	*Sterna caspia*		no		
Birds	Cattle Egret	*Bubulcus ibis*		no		
Birds	Cedar Waxwing	*Bombycilla cedrorum*	yes		O	
Birds	Chestnut-backed Chickadee	*Parus rufescens*	yes		O/B	
Birds	Chipping Sparrow	*Spizella passerina*		yes	K	
Birds	Cinnamon Teal	*Anas cyanoptera*		no		
Birds	Cliff Swallow	*Hirundo pyrrhonota*		yes	O	
Birds	Common Barn Owl	*Tyto alba*		yes	K	
Birds	Common Goldeneye	*Bucephala clangula*		no		
Birds	Common Loon	*Gavia immer*		no		
Birds	Common Merganser	*Mergus merganser*		yes	K	
Birds	Common Moorhen (Gallinule)	*Gallinula chloropus*		no		
Birds	Common Murre	*Uria aalge*		no		
Birds	Common Poorwill	*Phalaenoptilus nuttalii*		no		
Birds	Common Raven	*Corvus corax*	yes		O	
Birds	Common Snipe	*Gallinago gallinago*		no		
Birds	Common Tern	*Sterna hirundo*		no		
Birds	Common Yellowthroat	*Geothlypis trichas*		no		
Birds	**Cooper's Hawk**	***Accipiter cooperii***	**yes**		**O/B**	**CWL**
Birds	Dark-eyed (Oregon) Junco	*Junco hyemalis*	yes		O/B	
Birds	**Double-crested Cormorant**	***Phalacrocorax auritus***		**yes**	**K**	**CWL**
Birds	Downy Woodpecker	*Picoides pubescens*	yes		O	
Birds	Dunlin	*Calidris alpina*		no		
Birds	Dusky Flycatcher	*Empidonax oberholseri*		no		
Birds	Eared Grebe	*Podiceps nigricollis*		no		
Birds	Elegant Tern	*Sterna elegans*		no		
Birds	Eurasian Wigeon	*Anas penelope*		no		
Birds	European Starling	*Sturnus vulgaris*	yes		O	
Birds	**Ferruginous Hawk**	***Buteo regalis***		no		**CWL**
Birds	Forster's Tern	*Sterna forsteri*		no		
Birds	Fox Sparrow	*Passerella iliaca*		yes	O	
Birds	Gadwall	*Anas strepera*		no		
Birds	Glaucous Gull	*Larus hyperboreus*		no		
Birds	Glaucous-winged Gull	*Larus glaucescens*		no		
Birds	**Golden Eagle**	***Aquila chrysaetos***	**yes**		**O/B**	**BGPA, CFP, CWL**
Birds	Golden-crowned Kinglet	*Regulus satrapa*	yes		O	
Birds	Golden-crowned Sparrow	*Zonotrichia atricapilla*	yes		O	
Birds	Grasshopper Sparrow	*Ammodramus savannarum*	yes		0/B	**SSC**
Birds	Great Blue Heron	*Ardea herodias*		yes	O	
Birds	Great Egret	*Casmerodius albus*		yes	K	
Birds	Great Horned Owl	*Bubo virginianus*		yes	O	
Birds	Greater Roadrunner	*Geococcyx californianus*		no		
Birds	Greater Scaup	*Aythya marila*		no		
Birds	Greater White-fronted Goose	*Anser albifrons*		no		
Birds	Greater Yellowlegs	*Tringa melanoleuca*	yes		O	
Birds	Green-backed Heron	*Butorides striatus*		yes	K	
Birds	Hairy Woodpecker	*Picoides villosus*		yes	K	

PLEASANTON RIDGE REGIONAL PARK - WILDLIFE RESOURCE CHECKLIST

CLASS	COMMONNAME	LATIN NAME	OBS	EXP	OCCURR	STATUS
Birds	Hammond's Flycatcher	*Empidonax hammondii*		no		
Birds	Heermann's Gull	*Larus heermanni*		no		
Birds	Hermit Thrush	*Catharus guttatus*	yes		O	
Birds	Hermit Warbler	*Dendroica occidentalis*		yes	K	
Birds	Herring Gull	*Larus argentatus*		no		
Birds	Hooded Merganser	*Lophodytes cucullatus*		no		
Birds	Hooded Oriole	*Icterus cucullatus*		yes	K	
Birds	Horned Grebe	*Podiceps auritus*		no		
Birds	**Horned Lark, California**	***Eremophila alpestris actia***	**yes**		**O/B**	**CWL**
Birds	House Finch	*Carpodacus mexicanus*	yes		O	
Birds	House Sparrow	*Passer domesticus*	yes		O	
Birds	House Wren	*Troglodytes aedon*	yes		O/B	
Birds	Hutton's Vireo	*Vireo huttoni*	yes		O	
Birds	Killdeer	*Charadrius vociferus*	yes		O/B	
Birds	Lark Sparrow	*Chondestes grammacus*		yes	K	
Birds	Lawrence's Goldfinch	*Carduelis lawrencei*	yes		O	
Birds	Lazuli Bunting	*Passerina amoena*		yes	O	
Birds	Least Sandpiper	*Calidris minutilla*		no		
Birds	**Least Tern**	***Sternula antillarum browni***		no		**FE,SE,CFP**
Birds	Lesser Golden-Plover	*Pluvialis dominica*		no		
Birds	Lesser Goldfinch	*Carduelis psaltria*	yes		O	
Birds	Lesser Scaup	*Aythya affinis*		no		
Birds	Lesser Yellowlegs	*Tringa flavipes*		no		
Birds	Lewis' Woodpecker	*Melanerpes lewis*		no		
Birds	Lincoln's Sparrow	*Melospiza lincolnii*		yes	K	
Birds	**Loggerhead Shrike**	***Lanius ludovicianus***		**yes**	**O/B**	**SSC**
Birds	**Long-eared Owl**	***Asio otus***		no		**SSC**
Birds	Long-billed Curlew	*Numenius americanus*		no		
Birds	Long-billed Dowitcher	*Limnodromus scolopaceus*		no		
Birds	MacGillivray's Warbler	*Oporornis tolmiei*		yes	K	
Birds	Mallard	*Anas platyrhynchos*	yes		O/B	
Birds	Marbled Godwit	*Limosa fedoa*		no		
Birds	Marsh Wren	*Cistothorus palustris*		no		
Birds	**Merlin**	***Falco columbarius***		no		**SSC**
Birds	Mew Gull	*Larus canus*		no		
Birds	Mountain Bluebird	*Sialia currucoides*		no		
Birds	Mourning Dove	*Zenaida macroura*	yes		O/B	
Birds	Nashville Warbler	*Vermivora ruficapilla*		no		
Birds	Northern Oriole	*Icterus galbula*		yes	O/B	
Birds	Northern Flicker	*Colaptes auratus*	yes		O/B	
Birds	**Northern Harrier**	***Circus cyaneus***		**yes**	**O**	**SSC**
Birds	Northern Mockingbird	*Mimus polyglottos*	yes		K/B	
Birds	Northern Pintail	*Anas acuta*		no		
Birds	Northern Pygmy-Owl	*Glaucidium gnoma*		yes	K	rare
Birds	Northern Rough-winged Swallow	*Stelgidopteryx serripennis*		yes	K	
Birds	Northern Saw-whet Owl	*Aegolius acadicus*		yes	K	
Birds	Northern Shoveler	*Anas clypeata*		no		
Birds	Nuttall's Woodpecker	*Picoides nuttallii*	yes		O/B	
Birds	Oak Titmouse	*Baeolophus inornatus*	yes		O/B	
Birds	Oldsquaw	*Clangula hyemalis*		no		rare
Birds	Olive-sided Flycatcher	*Contopus borealis*	yes		O	
Birds	Orange-crowned Warbler	*Vermivora celata*	yes		O/B	
Birds	**Osprey**	***Pandion haliaetus***		no		**WL**
Birds	Pacific-slope Flycatcher	*Empidonax difficilis*	yes		O/B	
Birds	Parasitic Jaeger	*Stercorarius parasiticus*		no		
Birds	Pectoral Sandpiper	*Calidris melanotos*		no		
Birds	Pelagic Cormorant	*Phalacrocorax pelagicus*		no		
Birds	**Peregrine Falcon, American**	***Falco peregrinus anatum***		**yes**	**P**	**CFP,Fed Delisted, St Delisted**
Birds	Phainopepla	*Phainopepla nitens*		no		

PLEASANTON RIDGE REGIONAL PARK - WILDLIFE RESOURCE CHECKLIST

CLASS	COMMONNAME	LATIN NAME	OBS	EXP	OCCURR	STATUS
Birds	Pied-billed Grebe	*Podilymbus podiceps*		yes	K	
Birds	Pine Siskin	*Carduelis pinus*		yes	K	
Birds	Plain Titmouse	*Parus inornatus*	yes		O/B	
Birds	**Prairie Falcon**	***Falco mexicanus***		**yes**	**P**	**CWL**
Birds	Purple Finch	*Carpodacus purpureus*		yes	K	
Birds	Red Knot	*Calidris canutus*		no		
Birds	Red-breasted Merganser	*Mergus serrator*		no		
Birds	Red-breasted Nuthatch	*Sitta canadensis*		yes	K	
Birds	Red-breasted Sapsucker	*Sphyrapicus ruber*		yes	K	
Birds	Red-necked Grebe	*Podiceps grisegena*		no		
Birds	Red-necked Phalarope	*Phalaropus lobatus*		no		
Birds	Red-shouldered Hawk	*Buteo lineatus*	yes		O	
Birds	Red-tailed Hawk	*Buteo jamaicensis*	yes		O/B	
Birds	Red-throated Loon	*Gavia stellata*		no		
Birds	Red-winged Blackbird	*Agelaius phoeniceus*		yes	K	
Birds	Redhead	*Aythya americana*		no		
Birds	Ring-billed Gull	*Larus delawarensis*		no		
Birds	Ring-necked Duck	*Aythya collaris*		yes	K	
Birds	Ring-necked Pheasant	*Phasianus colchicus*		no		
Birds	Rock Dove (Domestic Pigeon)	*Columba livia*		yes	K	
Birds	Rock Wren	*Salpinctes obsoletus*		yes	K	
Birds	Ross' Goose	*Chen rossii*		no		
Birds	Rough-legged Hawk	*Buteo lagopus*		no		
Birds	Ruby-crowned Kinglet	*Regulus calendula*	yes		O	
Birds	Ruddy Duck	*Oxyura jamaicensis*		no		
Birds	Ruddy Turnstone	*Arenaria interpres*		no		
Birds	Rufous Hummingbird	*Selasphorus rufus*		yes	K	
Birds	Rufous-crowned Sparrow	*Aimophila ruficeps*		yes	K	
Birds	Rufous-sided Towhee	*Pipilo erythrophthalmus*	yes		O/B	
Birds	Sage Sparrow	*Amphispiza belli*		no		
Birds	Sanderling	*Calidris alba*		no		
Birds	Sandhill Crane	*Grus canadensis*		no		
Birds	Savannah Sparrow	*Passerculus sandwichensis*		yes	K	
Birds	**Saltmarsh Common Yellowthroat**	***Geothlypis trichas sinuosa***		no		**SSC**
Birds	Say's Phoebe	*Sayornis saya*	yes		O	
Birds	Scrub Jay, Western	*Aphelocoma coerulescens*	yes		O/B	
Birds	Semipalmated Plover	*Charadrius semipalmatus*		no		
Birds	**Sharp-shinned Hawk**	***Accipiter striatus***		**yes**	**O**	**CWL**
Birds	Short-billed Dowitcher	*Limnodromus griseus*		no		
Birds	**Short-eared Owl**	***Asio flammeus***		no		**SSC**
Birds	Snow Goose	*Chen caerulescens*		no		
Birds	Snowy Egret	*Egretta thula*		no		
Birds	Snowy Plover	*Charadrius alexandrinus nivosus*		no		**FT, SSC**
Birds	Solitary Vireo	*Vireo solitarius*		yes	K	
Birds	Song Sparrow	*Melospiza melodia*	yes		O/B	
Birds	Sora	*Porzana carolina*		no		
Birds	Spotted Sandpiper	*Actitus macularia*		yes		
Birds	Stellar's Jay	*Cyanocitta stelleri*	yes		O/B	
Birds	Suisun Song Sparrow	*Melospiza melodia*		no		
Birds	Surf Scoter	*Melanitta perspicillata*		no		
Birds	Surfbird	*Aphriza virgata*		no		
Birds	**Swainson's Hawk**	***Buteo swainsoni***		no	**O**	**ST - rare**
Birds	Swainson's Thrush	*Catharus ustulatus*	yes		O	
Birds	Thayer's Gull	*Larus thayeri*		no		
Birds	Townsend's Solitaire	*Myadestes townsendi*		no		
Birds	Townsend's Warbler	*Dendroica townsendi*		yes	K	
Birds	Tree Swallow	*Tachycineta bicolor*		yes	K	
Birds	**Tricolored Blackbird**	***Agelaius tricolor***		no		**SSC**
Birds	Tundra (Whistling) Swan	*Cygnus columbianus*		no		

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CLASS	COMMONNAME	LATIN NAME	OBS	EXP	OCCURR	STATUS
Birds	Turkey Vulture	*Cathartes aura*	yes		O	
Birds	Varied Thrush	*Ixoreus naevius*		yes	O	
Birds	Vaux's Swift	*Chaetura vauxi*		no		
Birds	Violet-green Swallow	*Tachycineta thalassina*	yes		O	
Birds	Virginia Rail	*Rallus limicola*		no		
Birds	Wandering Tattler	*Heteroscelus incanus*		no		
Birds	Warbling Vireo	*Vireo gilvus*	yes		O	
Birds	Water Pipet	*Anthus spinoletta*		yes		
Birds	Western Bluebird	*Sialia mexicana*	yes		O/B	
Birds	Western Flycatcher	*Empidonax difficilis*		yes	K	
Birds	Western Grebe	*Aechmophorus occidentalis*		no		
Birds	Western Gull	*Larus occidentalis*		no		
Birds	Western Kingbird	*Tyrannus verticalis*	yes		O	
Birds	Western Meadowlark	*Sturnella neglecta*	yes		O/B	
Birds	Western Sandpiper	*Calidris mauri*		no		
Birds	Western Screech-Owl	*Otus kennicottii*		yes	K/B	
Birds	Western Tanager	*Piranga ludoviciana*		yes	K	
Birds	Western Wood-Pewee	*Contopus sordidulus*		yes	O	
Birds	**Western Yellow-billed Cuckoo**	***Coccyzus americanus occidentalis***		no		**SE**
Birds	Whimbrel	*Numenius phaeopus*		no		
Birds	White-breasted Nuthatch	*Sitta carolinensis*	yes		O	
Birds	White-crowned Sparrow	*Zonotrichia leucophrys*	yes		O	
Birds	White-throated Sparrow	*Zonotrichia albicollis*		yes	K	
Birds	White-throated Swift	*Aeronautes saxatalis*	yes		O	
Birds	**White-tailed Kite**	***Elanus leucurus***		**yes**	**O**	**CFP**
Birds	Wild Turkey	*Meleagris gallopavo*	yes		O/B	
Birds	Willet	*Catoptrophorus semipalmatus*		no		
Birds	**Willow Flycatcher**	***Empidonax traillii***		no		**FE**
Birds	Wilson's Phalarope	*Phalaropus tricolor*		no		
Birds	Wilson's Warbler	*Wilsonia pusilla*	yes		O	
Birds	Winter Wren	*Troglodytes troglodytes*		yes	K	
Birds	Wood Duck	*Aix sponsa*		yes	K	
Birds	Wrentit	*Chamaea fasciata*	yes		O	
Birds	**Yellow Warbler**	***Dendroica petechia brewsteri***		**yes**	**P**	**SSC**
Birds	Yellow-billed Magpie	*Pica nuttalli*		no		
Birds	Yellow-breasted Chat	*Icteria virens*		no		
Birds	Yellow-headed Blackbird	*Xanthocephalus xanthocephalus*		no		
Birds	Yellow-rumped (Audubon's) Warbler	*Dendroica coronata*	yes		O	
Birds	Yellow-rumped (Myrtle) Warbler	*Dendroica coronata*	yes		O	
Mammals	Audubon Cottontail	*Sylvilagus audubonii*		yes	K	
Mammals	**Badger, American**	***Taxidea taxus***		**yes**	**P**	**SSC**
Mammals	Big Brown Bat	*Eptesicus fuscus*		yes	K	
Mammals	Black Rat	*Rattus rattus*		yes	K	
Mammals	Black-tailed Hare	*Lepus californicus*	yes		O	
Mammals	Bobcat	*Lynx rufus*		yes	O	
Mammals	Botta Pocket Gopher	*Thomomys bottae*	yes		O	
Mammals	Brazilian Free-tailed Bat	*Tadarida brasiliensis*		no		
Mammals	Broad-footed Mole	*Scapanus latimanus*		yes	K	
Mammals	Brush Mouse	*Peromyscus boylii*		no		
Mammals	Brush Rabbit	*Sylvilagus bachmani*		yes	K	
Mammals	California Ground Squirrel	*Spermophilus beecheyi*	yes		O/B	
Mammals	California Meadow Mouse	*Microtus californicus*	yes		O	
Mammals	California Mouse	*Peromyscus californicus*		yes	K	
Mammals	California Myotis	*Myotis californicus*		yes	K	
Mammals	California Pocket Mouse	*Perognathus californicus*		yes	K	
Mammals	Virginia Opossum	*Didelphis marsupialis*		yes	K	
Mammals	Coyote	*Canis latrans*	yes		O/B	
Mammals	Deer Mouse	*Peromyscus maniculatus*		yes	K	
Mammals	Desert Wood Rat	*Neotoma lepida*		no		

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CLASS	COMMONNAME	LATIN NAME	OBS	EXP	OCCURR	STATUS
Mammals	Dusky-footed Wood Rat, San Francisco	*Neotoma fuscipes annectens*		yes	K	
Mammals	Fox Squirrel	*Sciurus niger*	yes		O	
Mammals	Fringed Myotis	*Myotis thysanodes*		no		
Mammals	Gray Fox	*Urocyon cinereoargenteus*	yes		O	
Mammals	Hairy-winged Myotis	*Myotis volans*		no		
Mammals	Heermann Kangaroo Rat	*Dipodomys heermanni*		yes	P	
Mammals	Hoary Bat	*Lasiurus cinereus*		no		
Mammals	House Mouse	*Mus musculus*		yes	K	
Mammals	**Kit Fox, San Joaquin**	***Vulpes macrotis mutica***		no		**FE,ST**
Mammals	Little Pocket Mouse	*Perognathus longimembris*		no		
Mammals	Long-eared Myotis	*Myotis evotis*		yes	K	
Mammals	Long-tailed Weasel	*Mustela frenata*		yes	K	
Mammals	Mountain Lion	*Felis concolor*		yes	K	
Mammals	Black-tailed Deer	*Odocoileus hemionus columbarius*	yes		O/B	
Mammals	Muskrat	*Ondatra zibethica*		no		
Mammals	Norway Rat	*Rattus norvegicus*		yes	K	
Mammals	Ornate Shrew	*Sorex ornatus*		yes	K	
Mammals	**Pallid Bat**	***Antrozous pallidus***	**yes**		**O**	**SSC**
Mammals	Pig, Feral	*Sus scrofa*		yes	K	
Mammals	Pinyon Mouse	*Peromyscus trueii*		yes	K	
Mammals	Raccoon	*Procyon lotor*		yes	K	
Mammals	Red Bat	*Lasiurus borealis*		no		
Mammals	Red Fox	*Vulpes fulva*		yes	K	
Mammals	**Ringtail**	***Bassariscus astutus***		no		**CFP**
Mammals	River Otter	*Lutra canadensis*		no		
Mammals	**Salt Marsh Harvest Mouse**	***Reithrodontomys raviventris***		no		**FE,SE,CFP**
Mammals	**Saltmarsh Wandering Shrew**	***Sorex vagrans halicoetes***		no		**SSC**
Mammals	**San Joaquin Pocket Mouse**	***Perognathus inornatus inornatus***		no		**SSC**
Mammals	**San Pablo Vole**	***Microtus californicus***		no		**SSC**
Mammals	Silvery-haired Bat	*Lasionycteris noctivagans*		yes	K	
Mammals	Spotted Skunk	*Spilogale putorius*		no		
Mammals	Striped Skunk	*Mephitis mephitis*	yes		K/B	
Mammals	**Townsend's big-eared Bat**	***Corynorhinus townsendii***		**yes**	**P**	**FSC,SSC**
Mammals	Trowbridge Shrew	*Sorex trowbridgii*		yes	K	
Mammals	Vagrant Shrew	*Sorex vagrans*		no		
Mammals	Western Harvest Mouse	*Reithrodontomys megalotis*		yes	K	
Mammals	Western Pipistrelle	*Pipistrellus hesperus*		yes	K	
Mammals	Yuma Myotis	*Myotis yumanensis*		no		
Reptiles	Blunt-nosed Leopard Lizard	*Gambelia silus*		no		
Reptiles	California Black-headed Snake	*Tantilla planiceps*		no		
Reptiles	**California Legless Lizard, Black**	***Anniella pulchra nigra***		no		**SSC**
Reptiles	**California Legless Lizard, Silvery**	***Anniella pulchra***		no		**FSC,SSC**
Reptiles	California Mountain Kingsnake,Coast	*Lampropeltis zonata*		no		
Reptiles	Coachwhip, San Joaquin Whipsnake	*Masticophis flagellum*		no		
Reptiles	**Coast Horned Lizard, California**	***Phrynosoma blainvillii***		**no**		**SSC**
Reptiles	**Common Garter Snake, Giant**	***Thamnophis sirtalis***		no		**FT, ST**
Reptiles	Coast Garter California	*Thamnophis elegans sirtalis*	yes		K/B	
Reptiles	Common Garter Snake, Valley	*Thamnophis sirtalis*		no		
Reptiles	Common Garter Snake,Calif.Red-sided	*Thamnophis sirtalis*		no		
Reptiles	Common Kingsnake, California	*Lampropeltis getulus*	yes		K/B	
Reptiles	Gilbert's Skink, Variegated	*Eumeces gilberti*		no		
Reptiles	Glossy Snake, California	*Arizona elegans*		no		
Reptiles	Gopher Snake, Pacific	*Pituophis melanoleucus*	yes		K/B	
Reptiles	Long-nosed Snake, Western	*Rhinocheilus lecontei*		no		
Reptiles	Night Snake, California	*Hypsiglena torquata*	yes		K/B	
Reptiles	Northern Alligator Lizard, SF	*Gerrhonotus coeruleus*		no		
Reptiles	Racer, Western Yellow-bellied	*Coluber constrictor*	yes		K/B	
Reptiles	Ringneck Snake, Pacific	*Diadophis punctatus*	yes		K/B	
Reptiles	Rubber Boa, Pacific	*Charina bottae*		yes	K	

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CLASS	COMMONNAME	LATIN NAME	OBS	EXP	OCCURR	STATUS
Reptiles	Sagebrush Lizard, Northern	*Sceloporus graciosus*		no		
Reptiles	Sharp-tailed Snake	*Contia tenuis*	yes		K/B	
Reptiles	Side-blotched Lizard, California	*Uta stansburiana*		no		
Reptiles	Southern Alligator Lizard, Calif.	*Gerrhonotus multicarinatus*	yes		K/B	
Reptiles	Striped Racer, Alameda	*Masticophis lateralis lateralis*		yes	K/B	
Reptiles	Western Aquatic Garter Snake	*Thamnophis couchi*		no		
Reptiles	Western Aquatic Garter Snake,S.Cruz	*Thamnophis atratus atratus*	yes		K/B	
Reptiles	Western Fence Lizard, Northwestern	*Sceloporus occidentalis*	yes		O/B	
Reptiles	**Western Pond Turtle**	***Emys marmorata***	**yes**		**O/B**	**SSC**
Reptiles	Western Rattlesnake, North.Pacific	*Crotalus viridis*	yes		K	
Reptiles	Western Skink, Western subspp.	*Eumeces skiltonianus*	yes		K/B	
Reptiles	Western Terrestrial Garter Snake	*Thamnophis elegans*	yes		K/B	
Reptiles	Western Whiptail, California	*Cnemidophorus tigris*		no		
Reptiles	**Whipsnake, Alameda**	***Masticophis lateralis euryxanthus***		**yes**	**O**	**FT,ST**
Invertebrates	**Longhorned Fairy Shrimp**	***Branchinecta longiantenna***		no		**FE**
Invertebrates	**Vernal Pool Fairy Shrimp**	***Branchinecta lynchi***		no		**FT**

APPENDIX E
GRAZING UNIT MANAGEMENT PLAN (GUMP)

GRAZING MANAGEMENT PLAN
PLEASANTON RIDGE REGIONAL PARK

INTRODUCTION

The purpose of the Grazing Management Plan is to provide a comprehensive vegetation management program for Pleasanton Ridge Regional Park. The Grazing Plan identifies relevant vegetation management issues and defines management objectives and prescriptions intended to benefit plant and animal life and to reduce the vegetation fuel that contributes to wildfire fire hazard risk. This Plan is consistent with the direction contained within the EBRPD *Master Plan* (EBPRD 1997) and the *Wildland Management Policies and Guidelines* (EBRPD 2001). The EBRPD Master Plan states that "The District will conserve, enhance, and restore biological resources to promote naturally functional ecosystems. Conservation efforts may involve using controlled grazing, in accordance with Wildland Management Policies and Guidelines, prescribed burning, mechanical treatments, integrated pest management, and/or habitat protection and restoration."

The District Planning/Stewardship Department manages and implements grazing practices according to the District"s Management Policies and Guidelines, and with the help of qualified livestock producers of the local and regional ranching community. The District Wildland Vegetation Program Manager coordinates livestock practices with the Park Supervisors and the livestock management Licensees. The Licensee incorporates the District"s stewardship management objectives for each grazing unit. Management goals include: 1) encouraging and enhancing native grassland communities, 2) minimizing wildfire potential and brush encroachment, 3) controlling and managing invasive weedy vegetation, 4) enhancing wildlife habitat, 5) protecting and enhancing riparian and wetland habitat values, 6) controlling and minimizing erosion potential, 7) maintaining open landscapes and viewsheds, and 8) minimizing impacts to park users. The Pleasanton Ridge Regional Park Grazing Management Plan is based on these policies and an evaluation of the current conditions at the Preserve, which are described below.

Pleasanton Ridge Regional Park occupies forested and grassland vegetation along most of Pleasanton Ridge and portions of the adjacent parallel Sunol Ridge from Devaney Canyon on the north to the town of Sunol on the south. Elevations range from 400 feet to 1900 feet in elevation. The eastern and southern slopes are very steep (45%-75%). The central drainage between the two ridges is Sinbad Creek that drains towards the south to Alameda Creek at the town of Sunol. Sinbad Creek is primarily a seasonal creek with some permanent pools in the summer. The drainages are dominated by shady oak/bay vegetation. There are several constructed ponds that hold water year-long on the upper reaches of the ridges.

SURVEYS AND INVENTORIES

Field observations and anecdotal information gained largely in conjunction with the grazing activities have been recorded since the lands were purchased. Range improvement infrastructure has been inventoried by mapping the locations of fencing and water developments. A plant community map has been compiled as an element of the Land Use Plan (Refer to *Appendix C – Plant List*).

Soils

The soils of the Pleasanton Ridge area have been identified and mapped based on information contained in the Alameda County Soil Survey (USDA, 1966). County soil surveys have been prepared

by the Natural Resource Conservation Service (NRCS) to provide information to land users about the suitability and productivity of local soil types for various uses, such as crop growing, range, and forest management. Soil maps included in the soil survey are aerial photographs that provide an overview of the soils and vegetation of a given area. The soils in differ from place to place in slope, texture, depth, drainage, stoniness, and other characteristics that affect their management. The soils found on the Pleasanton Ridge are primarily silty loams and loams with some clay loams (Refer to *Table A – Soils*).

Field Surveys

A range analysis has been compiled for the six areas covered by grazing licenses in Pleasanton Ridge Regional Park. This analysis involved the mapping and assessment of the vegetation, soils, and resource infrastructure. The range analysis provided an estimate of annual forage production for average, favorable, and unfavorable rainfall years using information contained in the Alameda County Soil Survey. The information is used collectively to assess resource conditions and determine how many grazing animals each of the grazing units could support under different scenarios. Natural landscape features such as plant communities and wetland areas were mapped and identified on aerial photographs. Wildlife populations in the area have also been evaluated as part of the LUP process (Refer to *Appendix D - Wildlife Resource Checklist*). A plant inventory was compiled from past and current botanical information including focused field surveys. Structures associated with long-term land uses in the area, such as fences, gates, developed springs, and ponds have been located and described.

Vegetation Mapping

Natural plant communities of the Pleasanton Ridge were identified using aerial photographs in conjunction with site visits in the field. An ongoing plant inventory was maintained over the course of the field work to identify plant species and to acquire a sense of the land and its relative biotic condition. The inventory was conducted by foot and/or vehicle throughout the property. The plant inventory is by no means exhaustive, and is intended as an ongoing list to which additional species can be added over time. Plant communities are also mapped and described in the Land Use Plan (Refer to *Appendix C - Plant List*).

Natural Plant Communities were named according to A Manual of California Vegetation (Sawyer, Keeler-Wolf, Evens 2009), where applicable. This reference classifies vegetation into “series,” which constitutes subsets of tree, shrub, or herbaceous plant communities. Thus, a tree community might include, For example, a blue oak or coast live oak series, a shrub community a chamise or coyote brush series. These plant communities can be cross-referenced to vegetation types established for the California Wildlife Habitat Relationships (WHR) database of the California Department of Fish and Game (Airola 1988, Mayer and Laudenslayer 1988, Zeiner et al. 1988a, 1988b, 1990). The WHR is used, among other things, to predict wildlife species associated with various plant communities. Refer to *Section 3.1.2.5 - Plant Communities & Associated Wildlife* of the LUP for a discussion of habitat types and *Section 3.1.2.6 - Special Status and Protected Species* for a description of listed species that have been identified at the park.

Range Analysis

A range analysis process is used to determine the forage production and livestock carrying capacities of the suitable grazing areas on Pleasanton Ridge. Suitable grazing areas are primarily in grassland and woodland grass environments, which comprise the majority of the land. The Alameda County Soil Survey was used as the basis for the range analysis. The soil survey provides useful information

regarding the suitability and productivity of the various soils for livestock grazing. The survey associates soils with different "range sites" on the basis of their similarities in texture, depth, and slope. Forage production estimates for average, favorable, and unfavorable rainfall years are provided in pounds per acre for each range site. Forage production was determined by multiplying the annual forage yield (in pounds per acre) of each range site by the acreages of the various range sites. Residual dry matter (RDM) standards were subtracted from the total. RDM is the amount of vegetation that must remain on the ground at the end of the grazing season (fall) to provide soil protection and nutrient recycling.

The range analysis establishes stocking levels that are generally not to be exceeded in any given grazing season. These stocking levels are intended to serve as benchmarks from which necessary adjustments in animal numbers can be made in response to annual variations in forage production. The results of the range analysis provided an estimate of the amount of vegetation available for livestock to consume in an average, favorable and unfavorable rainfall year. This information is translated into animal unit months (AUMs) and animal numbers. Park staff periodically inspects the rangeland during the grazing season to determine if grazing use needs to be adjusted to insure that desired amounts of residual plant material remain on the ground. The range analysis establishes stocking levels that are generally not to be exceeded in any given grazing season. These stocking levels serve as benchmarks to adjust animal numbers can in response to annual variations in forage production. The results of the range analysis provided an estimate of the amount of vegetation available for livestock to consume in an average, favorable and unfavorable rainfall year. This information is translated into animal numbers and AUMs. Park staff periodically inspect the range during the grazing season to determine if grazing use needs to be adjusted up or down to insure that desired amounts of residual plant material remain on the ground.

ALTERNATIVES CONSIDERED

These are several methods commonly used in managing vegetation. Each method has advantages and disadvantages that determine its suitability for particular situations and purposes. This section identifies alternatives that were considered for managing wildland vegetation on Pleasanton Ridge, in order to determine the preferred management recommendations for the Land Use Plan. A managed program of livestock grazing has been determined to be the preferred option. The alternatives listed below include all of the options currently available for managing wildland vegetation. Relevant issues are addressed briefly to provide a basis for understanding the consequences of implementing the various alternatives.

Permanent Rest

Permanent rest is the cessation of all forms of active vegetation management. Under this option the land would be allowed to lie fallow. The open grassland would begin to accumulate large amounts of dead and standing biomass. This would suppress the growth of many desirable non-native and the majority of the native forbs and wildflowers creating the conditions for the permanent establishment of weeds such as poison hemlock, black mustard, Italian thistle and sweet fennel. Portions of the grasslands would eventually succeed to weeds and brush resulting in a significant loss of plant and animal diversity and an increase in the fire hazard.

The permanent rest option would significantly increase the threat of uncontrolled wildfire. In areas close to the urban interface the local Fire Departments often require ungrazed land to have a network of firebreaks disked down to bare mineral soil to mitigate fire hazard conditions. This is an expensive practice and it creates opportunities for invasive weeds to establish a foothold in the disturbed ground

and spread to surrounding areas. This kind of cultivation on steep slopes also contributes to the production of sediment in the streams and riparian areas.

Prescribed Burning, Mowing and Herbicides

Prescribed burning, mechanical treatment and herbicide applications, while useful, are costly and prohibitive, and their utility in managing wildland vegetation on a large landscape scale is limited. Prescribed burns must be carefully orchestrated and implemented and are difficult to carry out in urbanized areas. On-site personnel, firefighting equipment, and construction of control lines are necessary to conduct safe and effective prescribed burns and to minimize the potential for escape. Prescribed burns must also be conducted under specific climatic conditions and air quality restrictions. Mowing, especially with litter removal, while effective, are time consuming, expensive, and inappropriate on steep terrain. The use of selective and non-selective herbicides to annually treat the natural vegetation on a large-scale is an inappropriate and improper use of this management tool. The result is the creation of weedy habitat and a commitment repeated applications. Consequently, prescribed burning, mechanical treatment and herbicides are most appropriate for site-specific management of relatively small areas.

Livestock Grazing

Goat Grazing. The utilization of intensive goat grazing in late spring or early summer is another possible weed and fuel abatement practice. Like cultivation, this practice can enhance the spread of more weeds as the weedy species will have already gone to seed prior to the goat grazing treatment leaving a perfect bed for the reestablishment and spread of the weedy species that thrive on disturbance. This alternative is not preferred.

Cattle or Sheep (Livestock) Grazing. Properly managed livestock grazing (cattle or sheep) is the preferred alternative for managing wildland vegetation on Pleasanton Ridge given the realities of conserving undeveloped open space in the urban-wildland interface. The use of livestock grazing as a management tool requires the optimal distribution of livestock to achieve the level of grazing necessary to manage fuel loads and meet resource management objectives over widespread areas.

Cattle and sheep are grazed at the park during the growing season to coincide with ranching industry operations in California that revolve around seasonal patterns of rainfall and forage production. Livestock disperse over the land more widely during the winter and early spring seasons because they derive a large part of their water requirements from the green vegetation. This results in more effective livestock distribution across the landscape and a more uniform treatment of the vegetation. In the hot summer months, when the forage is dry, livestock can linger closer to water sources and shade and do not use the land as effectively, tending to over-utilize certain areas near water and under-utilize areas farther away from water. These problems can be dealt with the proper development of water sources and the rotation of livestock to summer pastures.

The purpose of livestock grazing from a resource management perspective is to apply grazing pressure on the non-native vegetation during the early part of the growing season when other desirable non-native and native plants are attempting to germinate, colonize gaps in the vegetative structure, and re-establish themselves among their neighbors in the plant composition. Plants have co-evolved over eons of time in association with grazing animals and the foraging and trampling activity of domestic livestock is comparable to that of the behavior of native wild herbivores, which once roamed the area in considerable numbers. The natural result of this grazing and disturbance activity provides for a greater diversity of plant life than would be accomplished by letting the land lie fallow.

VEGETATION MANAGEMENT OBJECTIVES AND MANAGEMENT PRESCRIPTIONS

The prescriptions outlined below are intended to carry out the objectives of the District's wildland vegetation management program. The District"s Master Plan (EBRPD 1997) states that:

> *"The goal of the District's wildland management program is to conserve and enhance important resource values such as soil, vegetation, wildlife and water to ensure that natural parkland ecosystems are maintained in a healthy and productive condition."*

The District"s Wildland Management Policies and Guidelines (EBRPD 2001) states that:

> *"Wildland vegetation management will conserve and enhance natural communities, promote the restoration of indigenous vegetation, preserve and protect populations of rare, threatened, endangered, and sensitive plant species and their habitats, reduce fire hazard conditions."*

The individual objectives of the wildland vegetation management program are listed below, followed by the relevant management prescriptions. (Additional vegetation and wildlife recommendations are found in the Land Use Plan.)

Management Objective 1

Use grazing, burning, mechanical, biological, and chemical treatments as resource management tools to maintain and enhance plant and animal diversity, preserve the open space character of the landscape, and achieve wildland fire control objectives.

Vegetation management activities on Pleasanton Ridge are intended to optimize habitat conditions for resident plant and animal species, while achieving wildland fire control objectives. Management strategies will involve modern resource management practices, based on scientific principles, and supported by available research. New scientific information will be incorporated into the management program as it becomes available.

> ***Management Prescription:*** *Livestock grazing will be used as the primary vegetation management option, given its practicality and cost-effectiveness. Prescribed burning and mechanical, biological, and chemical methods will be used as secondary management tools for site-specific purposes, such as weed control.*

Management Objective 2

Manage the land to minimize the potential for uncontrolled wildfires.

The natural vegetation of Pleasanton Ridge is a mosaic of grassland, scrub, and oak/bay forest communities. Annual grassland and woodland grass vegetation does not survive beyond late spring or early summer, and the remnant, dried plant material accumulated on the ground or left standing during the hot summer and early fall months represents a potential wildfire hazard. This fuel load can amount to as much as two or more tons of biomass per acre each year. Wildfires that ignite on park land can present an immediate threat to adjacent private property, and can expose park users in the interior of the park to potential danger. Oaks and other tree species can be incinerated by uncontrolled wildfires that burn accumulated undergrowth and spread upward into the tree canopies.

Alameda and Contra Costa Counties, early in the twentieth century, recognized the increase in wildfire danger as the hill country began to be used more extensively for recreational use. County officials recommended that "adequate firefighting facilities be provided, that well located fire-breaks be constructed and maintained, and that adequate provision be made for the reduction of fire hazards by the removal, by early burning or by other means, of the grasses and weeds along the roadsides throughout the regions where fire hazards occur." The counties also recommended "that every landowner be urged to make all possible effort to protect his lands from fire by cleaning ranch roadsides and fence lines, and by maintaining fire breaks and guards throughout his properties (Farm Bureau Monthly 1939).

> ***Management Prescription:*** *Livestock grazing will be used to reduce vegetation growth in the grasslands and woodland understories to fire-safe levels. Mowing and prescribed burning may be used to supplement the grazing effort in situations where livestock grazing is unable to achieve the desired results.*

Management Objective 3

Manage the land to control the dominating influence of non-native herbaceous vegetation.

The grazing practices of the past on Pleasanton Ridge have disturbed the soil and eliminated much of the existing native vegetation, especially the native bunch grasses, although certain forb and wildflower species have re-colonized the site over time as the land has reverted back to its natural condition. Grassland management to maintain and enhance whatever native herbaceous vegetation remains or reappears will require treatment methods (mowing, burning and/or grazing practices) to reduce competition from the more aggressive and competitive non-native annual plants (EBRPD 2001, p. 11; Bentley and Talbot 1948; Daubenmire 1968; Parker 1989; Fossum 1990). The need for management of the grassland vegetation is related to the tendency of the non-native annual grasses and herbs to rapidly monopolize the landscape and inhibit the germination and growth of native grasses and flowering forbs through the production of biomass, the capture of water and mineral resources, and the physical and chemical effects of accumulated plant litter.

> ***Management Prescription:*** *Livestock grazing will be used to manage grassland vegetation and promote plant diversity by impairing the growth of the non-native grasses and herbs to allow smaller and slower-growing plants to regenerate and coexist with them. Livestock grazing is recognized as the primary management tool in accomplishing this objective, because of its applicability to widespread areas.*

Management Objective 4

Manage the land to ensure that livestock grazing practices are compatible with wildlife management objectives.

The key to the conservation of wildlife is to maintain the quality of their natural environment. Wildlife inhabiting Pleasanton Ridge are native species that are adapted to the various habitats and successional stages of the plant communities that are present. Pleasanton Ridge supports species of large and small mammals, songbirds, raptors, and reptiles and amphibians, which use the land as foraging, denning, roosting and breeding habitat, and provide prey to various predators (Refer to *Section 3.1.2.5 - Plant Communities & Associated Wildlife* of the LUP). Numerous animals inhabit or use open grasslands where the plant cover is maintained in a low profile by herbivores. Livestock grazing is used to sustain habitat conditions that contribute to the maintenance of these animal populations.

Management Prescription: *Livestock grazing, and to a lesser extent, burning, and mechanical methods will be used to maintain suitable habitat conditions for wildlife. This management strategy is consistent with the California Wildlife Habitat Relationships (WHR) Database for non-native annual grasslands, which indicates that the reduction of the natural vegetation from a tall-herb to a short-herb habitat structure has a beneficial or neutral effect on most wildlife. Grazing strategies will be compatible with maintaining suitable habitat conditions for state designated fully protected species, species of special concern and state- and federally-listed species.*

Management Objective 5

Manage riparian and wetland areas to maintain and enhance habitat conditions for special status wildlife species.

All riparian and wetland areas are valuable wildlife habitat, providing important nesting, perching, and feeding sites for many wildlife species, as well as critical habitat for other aquatic insect and invertebrate organisms. Riparian and wetland vegetation occurs in the wetlands and intermittent drainages on Pleasanton Ridge as a result of winter rainfall runoff, high water tables, and/or the presence of springs and seeps. Livestock and wildlife currently obtain their drinking water from developed springs, ponds, and ephemeral creeks. Some of the ponds on the Pleasanton Ridge were constructed many decades ago by previous landowners and have become colonized by aquatic wildlife in the presence of livestock grazing. Park District biologists have observed a coexistence of livestock grazing with aquatic wildlife.

Management Prescription: *Riparian and wetland areas will be managed to maintain suitable habitat conditions for plants and animals. The need for special riparian and wetland protection measures that involve fencing will be determined on a case-by-case basis by District biologists. Periodic, short duration grazing or burning may be allowed within fenced areas to stimulate new vegetative growth and prevent the accumulation of dead vegetation and the establishment of weedy plants. The timing and duration of livestock grazing within the fenced enclosures will be consistent with plant and wildlife requirements. Ponds will be designed and maintained to encourage water retention and to drain adequately during overflow conditions. Some ponds may be constructed so that their water is capable of being drained to control bullfrogs and other non-native, predatory species that may impact native, aquatic organisms. When ponds are dredged, efforts will be made to set aside seed bank material from pond bottoms for subsequent deposition back into the pond so as to encourage new aquatic plant growth following treatment. Planting of emergent wetland vegetation may be undertaken along pond margins.*

Management Objective 6

Manage the land to minimize erosion and to provide soil protection.

A certain amount of soil erosion takes place naturally and is a normal outcome of steep slopes, immature soils, and unstable geologic conditions (e.g., slides). Other evidence of erosion can be attributed to the effects of heavy rainfall, abnormal flooding, wildfire, improper road drainage, rodent activity, past land use practices, human error, and a host of other causes and effects. Vegetation and vegetation residue inhibits erosion by reducing the overland flow and velocity of runoff, trapping sediments and increasing water infiltration and absorption at the soil surface. Herbaceous vegetation is

effective at protecting the soil from raindrop impact, because it covers and protects the majority of the soil surface. Its extensive fibrous root system knits together and ultimately becomes soil organic matter, which helps minimize erosion by binding the soil and enhancing soil structure.

> ***Management Prescription:*** *Pleasanton Ridge will be managed to minimize or eliminate occurrences of accelerated soil erosion where possible. Erosion will be minimized or prevented by maintaining a cover of live vegetation or vegetation residue on the ground at all times, which is the most successful long-term approach to controlling soil erosion. Existing and potential soil erosion problems will continue to be identified and corrective measures will be undertaken to repair damage and mitigate causative effects. Where erosion is occurring from the impact of improper livestock use, adjustments will be made to reduce animal numbers, improve animal distribution, change the grazing season, or lengthen rest and rotation periods. Disruptive activities in areas having unstable soils will be avoided, whenever possible. The progress of active rill and gully erosion will be arrested and steps will be taken to restore these areas to stable conditions and prevent future problems. Soil disturbance associated with construction and maintenance operations will be minimized. Severely disturbed sites with a potential for serious erosion will be stabilized as rapidly as possible by establishing an herbaceous plant cover.*

Management Objective 7

Control undesirable, weedy plant species.

Weeds deprive desirable vegetation of moisture, plant nutrients, and sunlight, and cause decreased forage yields. Their roots interfere with the root development of associated plants. Some weeds are poisonous or otherwise injurious to humans, livestock, or livestock products. Undesirable weedy plants may be spread by animals or by human activities, such as road grading or supplemental feeding of hay contaminated with weed seeds. The park district has an aggressive program to control or eradicate weedy plants.

> ***Management Prescription:*** *The evaluation and control of pest plant problems will be performed in accordance with the EBRPD Board-adopted Pest Management Policies and Practices manual (1987) and applicable state and county regulations. Occurrences of weedy plant species, such as artichoke thistle, yellow starthistle, purple starthistle, spiny clotbur, mustard, fennel, poison hemlock, broom, etc., will be controlled using all available means. Spot treatment of weeds will be conducted by the county agricultural department, park staff, and grazing tenants. There is a tendency for certain undesirable plants, like mustard, fennel, and poison hemlock to colonize fallow land, and this problem will be prevented, where possible.*

GRAZING MANAGEMENT PROGRAM: The Stewardship Grazing Management Model

Fire and Grazing are the two most important ecological processes that govern the structure, function, and composition of California‟s grassland, scrubland, and forested plant communities (Heady *et al.* 1977, Sampson 1952, Savory 1988). The native grasslands and coastal scrub communities evolved with fire and grazing long before European man‟s arrival (Lewis 1973, Biswell 1956). In pre-European times the populations of the native grazing species (rodents, rabbits, mule deer, elk, and antelope) responded to fire events and hunting/predator pressures. The composition and diversity of the contiguous native perennial grasslands and savannas that once dominated the coastal mountain valleys were shaped by the ebb and flow of fire and grazing (Edwards 1992). Concurrent with the disturbance and overutilization of California perennial grassland resources by western man is the arrival and

dominance of the Mediterranean annual grasses and broadleaf weeds. Through the 18th, 19th, and 20th centuries each decade would bring a host of new exotic species to the California native grassland (Burchum 1957). Periods of more frequent and hotter fires, overgrazing, and disturbance has further fragmented the California native grassland ecosystem. With no grazing and no fire (no management) the native perennial grassland with all its associated plant, animal, and insect components is an endangered plant community.

The primary goal of a stewardship grazing program is the utilization of controlled livestock grazing as a tool to enhance and restore the health, diversity, and productivity of native grassland plant communities. The negative effects of uncontrolled, year-long livestock grazing are well known. They include soil compaction, degraded riparian habitat, poor water quality, erosion, the elimination of native perennial grasses, and wildlife habitat degradation. For the grassland itself, the effects of total rest from grazing (no grazing) can be just as damaging, where rank, undecomposed annual grass mulch smothers and eventually eliminates the native perennial grasses as well as the wildflowers (Menke 1989, Menke 1992). These problems can only be addressed through the reintroduction and the strategic use of fire and grazing. With grazing, the careful management of livestock numbers and the control of the season, frequency, duration, and intensity of grazing are utilized to attain specific landscape goals. Grazing cannot replace fire nor can fire replace grazing. They are both important processes. This stewardship goal considers all facets of the grassland community: species diversity, wildlife richness, aquatic and riparian habitat quality, and the human community. The size and number of pastures, the number and class of livestock, and the timing of grazing events are critical components of a stewardship grazing program (Morris and Amme 1995).

MANAGEMENT ADMINISTRATION

Management prescriptions for the conservation of park resources are provided by the Planning/Stewardship Department, which is responsible for developing and establishing the vegetation management plans and providing technical expertise in vegetation management issues. The prescriptions are implemented by the Wildland Vegetation Program Manager and Operations field staff. All day-to-day grazing management activities on the parks are the responsibility of the Park Supervisors. The Park Supervisors establish constructive, everyday working relationships with the ranchers and coordinate with them over issues related to everyday livestock grazing operations. Annual meetings are held with the rancher, Park Supervisor, Unit Manager and the Wildland Vegetation Program Manager to share information and instruct ranchers about Park District expectations for grazing on park land. The Park Supervisor monitors the forage levels to assure that an adequate amount of green or dried vegetation remains on the ground during the grazing season. The number of livestock and the period of time the animals are allowed to remain on the land throughout the growing season are commensurate with forage availability and other resource management considerations. Ranchers recognize that in some years it is necessary to reduce stocking levels during periods of drought or loss of forage due to wildfire.

Seasonal and Adaptive Management

The management goals for Pleasanton Ridge Regional Park have economical, agricultural, recreational, public safety, and natural resource conservation facets. The Park District practices moderate seasonal and rotational grazing by livestock to manage the rangeland. This strategy enhances the vegetation diversity as well as provides an affable environment for the park users by reducing deleterious impacts to the grasslands, roads, trails, and riparian habitat. Park District grazing units are administered under an adaptive management strategy that allows for modifications in resource management goals and activities. These goals and activities are

intended to provide, and sustain, specific outcomes and benefits from the land consistent with maintaining ecosystem values. Park staff recognizes that any resource management program, however well-conceived or managed, has room for improvement and the vegetation management program will be constantly analyzed to find ways to minimize negative effects. The management of Pleasanton Ridge is continually under review and subject to adjustments based on field and seasonal changes.

Range Improvement Infrastructure

Range improvements are structural developments undertaken for the purpose of improving the land by promoting better vegetation management. Infrastructure improvements such as water developments, coupled with fencing, enable a finer degree of animal management. The water improvements can be accomplished with the current water resources. All structural improvements are inspected to ensure that they are properly maintained, functional, and compatible with park operational considerations. Range improvements will meet proper design, size, location, and installation standards and maintain harmony with other parkland uses, values, and activities. Construction and installation of these improvements will be in accordance with EBRPD specifications. The rancher is responsible for maintaining and repairing all buildings, structures and improvements related to grazing use. These include all fences, gates, corrals, cattle guards, wells, pumps and pressure systems, spring boxes, water troughs and tanks, ponds, and riparian and wetland enclosures. Corrals enable livestock to be moved in and out of a given area, and provide a confined space to process the animals and provide veterinary care.

Supplemental Feeding

Supplemental feed, as the name implies, furnish nutrients that are lacking in the natural forage. In fall and early winter domestic livestock often are unable to consume enough forage to meet their nutritional needs due to the high water content of the grasses. This deficiency may be offset by feeding grains, molasses, or hay. During the late winter and spring, an adequate diet of all the essential nutrients, with the possible exception of salt and certain minerals, can be obtained from the natural forage. Forage quality follows a declining trend as the growing season progresses. Generally, some supplemental nutrition is allowed to maintain animal‟s health (i.e., molasses and salt licks). Supplements can be strategically used to attract livestock to areas where grazing is needed to manage the vegetation. Supplemental feeding of straw and alfalfa hay is *not* permitted to prolong grazing use in areas where permitted forage utilization levels have been reached or exceeded. Livestock are generally removed to different pastures or on to private property managed by the grazing tenants.

Managing Interaction with People

In the District‟s experience there are relatively few negative interactions between grazing livestock and park users. Approximately three to four incidents are reported each year, out of 15 million visits to the parks each year. However, the Park District takes all incidents seriously and has developed a number of proactive actions to address this concern. Wherever livestock grazing is practiced on Park District lands informational and educational signage is available to acquaint the park users to the purpose and presence of livestock. Grazing animal informational signs are posted at the staging areas of the parks where livestock grazing occurs. This sign describes the benefits of livestock grazing including the maintenance of healthy grassland, the reduction of dense vegetation (fuel) to reduce wildfires, the control of invasive brush and weeds, the enhancement of plant diversity including wildflowers and native grasses, and the enhancement of habitat diversity for wildlife. The park user is notified at the entrance gates that they are entering a cattle grazing area. This notification sign gives tips for avoid frightening livestock into a defensive action, especially when cows and their calves are present, and

identifies ways they react to off-leash dogs. The EBRPD website also identifies parks where livestock are grazing so one can choose which park to visit. Any problems or negative interactions that do occur are recorded and dealt with by the park supervisor and the Public Safety Department. Claims filed with Public Safety are evaluated by the District Risk Department. Grazing tenants are required in their lease to remove identified problem livestock and undertake remedies (e.g., relocating water troughs, trail/road maintenance and enhancement, seasonal rotation, etc.) to minimize these interactions.

Monitoring and Inspections

Grazing program monitoring activities involve recording land and habitat conditions and trends to determine how well stewardship objectives outlined in this plan are being met. Monitoring efforts may range from making simple observations to establishing observation plots, transects, and photo-points. The vegetation is inspected during the course of the grazing season to ensure that established grazing levels are not exceeded. Periodic surveys for special-status wildlife species will be conducted to monitor populations. The information and data will be used to contribute to improved management. Remedial actions are taken to correct identifiable problems in land management practices to ensure that desired plant and animal habitat conditions are maintained. Visual vegetative condition assessments are conducted in the spring to confirm that adequate forage is available to support permitted livestock and that required amounts of residual dry matter remain on the ground to protect the soil, encourage nutrient recycling, and maintain suitable conditions for subsequent regrowth. The relative abundance and composition of the vegetation are used as indicators of overall rangeland condition. Grazing practices are adjusted, when appropriate, to encourage the growth of native plant species and to improve wildlife and riparian/mesic habitat.

Residual Dry Matter (RDM) and Rangeland Condition

The purpose of RDM monitoring is to collect information in a practical manner that is adequate to assess rangeland condition and make management adjustments when needed (Guenther & Hayes 2008). California‟s dominant annual grassland vegetation germinates with the onset of fall rains, grows slowly during the winter months, and increases rapidly in the spring in response to warmer temperatures and increasing sunlight. The peak, standing crop occurs when the soil moisture is exhausted as the plants mature. Grazing on annual grasslands is managed to ensure that a certain amount of ungrazed plant material, or residual dry matter, is left on the ground at the end of the grazing season. The amount of RDM remaining is a major factor influencing plant productivity and composition. Low amounts of RDM tend to favor the growth of undesirable plants; too much mulch results in a thatch layer, which inhibits new plant growth. An optimal mixture of desirable plant species occurs within annual grasslands where approximately 1,000 pounds per acre of RDM remains at the end of the grazing cycle. This standard translates into approximately 6 to 8 inches of standing vegetation following grazing. Grassland vegetation RDM plots are clipped and weighed in the fall to monitor the amount of forage remaining at the end of the grazing season. For ocular estimates, a RDM Monitoring Photo Guide can be used that illustrates how an area appears when RDM is at different levels, representing pounds per acre. The Pleasanton Ridge supervisor periodically monitors forage utilization to insure that the Licensee receives advanced notice when or before residual dry matter levels reach 200 lbs/acre above the minimum standards to allow Licensee ample time to decrease herd size or remove livestock.

Overall rangeland condition and long-term trends are evaluated to determine the effect land management practices are having on soil, water quality, vegetation, and wildlife resources. The relative presence, abundance, dominance, and composition of native plant species are indicators of range condition as the land slowly recovers from decades of farming, haying, and unregulated grazing

activities. Marked areas on a map with photo points are established in representative problem areas of the Park to assess changes in plant composition and landscape features over time.

Monitoring and Botanical Surveys

The Park District Botanist compiles and maintains a robust database of all sensitive and special status plants and vegetation types on District land (Refer to *Appendix C - Plant List*). This database is used to monitor District-wide vegetation health, and is available for distribution to interested parties. Special status plant species at Pleasanton Ridge include the Santa Clara red ribbons (*Clarkia concinna* ssp. *automixa*), Congdon‟s tarplant (*Hemizonia parryi* ssp. *congdonii*), and bristly linanthus (*Linanthus acicularis*). These plants are monitored and counted on an annual or biennial basis. The Park District utilizes this data to implement appropriate adjustments in the grazing management program. Other monitoring priorities include the presence of non-native invasive plants/noxious weeds (e.g., medusahead, yellow starthistle, etc.) and desirable native perennial grasses. However, the annual grassland composition can change dramatically each year depending on rainfall and temperature patterns, which can easily mask the effects of any particular livestock management prescription (Bartolome *et al.* 2006).

Range Analysis

The purpose of the range analysis process is to determine the proper stocking rates for all park grazing units consistent with resource conservation objectives. The analysis provides a reasonably accurate estimate for determining the number of livestock an area can be expected to support in an average, favorable, and unfavorable rainfall year. Where historical or current grazing records are available, the process is used to verify whether existing use levels are adequate, or whether adjustments are necessary. Where this information is unavailable, the analysis offers a reliable method for establishing an initial stocking rate.

The Park District utilizes the soil surveys prepared for each County by the USDA Natural Resource Conservation Service (NRCS) in cooperation with the University of California Agricultural Experiment Station. The surveys provide useful information about the kind, location, productivity, and suitability of soils for various engineering and agricultural uses, including livestock grazing. Soils are grouped into "range sites" on the basis of similarities in texture, depth, and slope. For each grassland site this information is used in conjunction with field mapping data to determine the livestock forage production and the number of animal units (AU‟s) that the land can adequately support in an average, favorable (wet), and unfavorable (drought) rainfall year. Use levels are changed to reflect existing conditions. The range analysis information presented below does not reflect total forage utilization. The District allows for up to 1000 to 1200 lbs of residual dry matter (RDM) to be saved (remain) on the ground by the end of the growing season (late May/early June). This prevents excessive runoff/soil erosion and provides optimum cover/habitat for birds and terrestrial wildlife.

GRAZING UNIT MANAGEMENT PLANS

Pleasanton Ridge is divided into six grazing units: South Pleasanton Ridge Grazing Unit 1, Northern Sunol Ridge Grazing Unit 2, Western Pleasanton Ridge Grazing Unit 3 (Shea Homes), Central Main Ridge Grazing Unit 4, Eastern Pleasanton Ridge Grazing Unit 5 (Garms), and the South Sunol Ridge Grazing Unit 6 (Tyler Ranch) (Refer to *Figure 6- Range Management*)

South Pleasanton Ridge Grazing Unit 1

This grazing unit comprises 882 acres of grassland, mixed with savannah oak woodland and steep slopes of chaparral. The Grassland and woodland areas of the grazing unit have a notable representation of native grasses and wildflowers that are maintained by the grazing practices prescribed for the park. The grazing unit contains potential habitat for the California red-legged frog, a federally-listed, threatened species and a California species of special concern, and the Alameda whipsnake. The park exists near or adjacent to residential development and isolated homes, and fire prevention is a primary objective of the grazing program. This unit is just north of the town of Sunol situated between Killkare Canyon (Sinbad Creek) on the west and the eastern slope of Pleasanton Ridge along Foothill Road. The primary access to this grazing unit is from the south in the town of Sunol and from Foothill Road staging area. The purpose of the grazing plan is to obtain uniform utilization of the forage and allow the grass to recover between grazing events, minimizing physical damage to the soil and grass resources. The grazing plan for this unit is seasonal rotation grazing (December to May, depending upon rainfall amounts and temperatures) utilizing juvenile steers (.5 Animal Units). This unit is divided into two primary grazing units by a fence that runs along the ridge top: 1) the east side unit, and 2) the west side unit. The east side unit, next to Foothill Road, has the corrals for managing the steers when they arrive and leave the South Pleasanton Ridge Unit. The rotation schedule is timed to the growth stage and rates of the grassland forage depending on the rainfall and the impacts on the roads and trails. The steers are initially moved into the east pasture in the winter (December) and are rotated between the east side and the west side during the growing season. Generally, the steers are moved out of the east unit into the larger west unit soon after the winter rains begin in earnest. The steers are moved back into the eastern grazing unit for brief periods of time when the soil is less susceptible to damage by the steer‟s hooves.

Northern Sunol Ridge Grazing Unit 2

This small grazing unit, comprising 371 acres, includes grassland mixed with shrubland, and coast live oak and bay woodlands. This unit is currently not being grazed because of road access problems and poor to non-existent fencing adjoining private property. When the access and fencing problems are remedied this unit will be grazed seasonally by a small number cows with their calves (~12). The grazing unit contains potential habitat for the California red-legged frog, a federally-listed threatened species and a California species of special concern. The season of grazing will be from January to March. The purpose of this short grazing season is to reduce the amount of spring biomass but to ensure that there is at least a month between April-May to regrow to encourage the establishment of native perennial grasses and wildflowers.

Western Pleasanton Ridge Grazing Unit 3 (Shea Homes)

This grazing unit comprises 1,052 acres of grassland, coast live oak and bay woodlands, oak savanna, and limited chaparral where the Pleasanton Ridge and Sunol Ridge come together. Currently this grazing unit is part of a land bank Conservation Easement, the Pleasanton Ridge Conservation Bank (PRCB), for the mitigation for Alameda whipsnake and red legged frog. This potentially provides a valuable tool to facilitate implementation of projects proposed in the LUP. This unit has good fencing and includes a small pasture that is not part of the conservation easement. This grazing unit has a long homestead history that included cultivation and sheep grazing. As a consequence, much of the land has a history of being heavily impacted by grazing animals. The grazing plan for this area is light seasonal grazing by a small number of heifers (January – late April). The goal of this grazing plan is to gradually increase the productivity of this unit and leave an increasing amount of residual dry matter to

enhance native perennial grasses and sustain the heifers when they are moved in the next season in late December or early January.

Central Main Ridge Grazing Unit 4

This grazing unit currently comprises 2,313 acres of grassland, coastal live oak and bay woodlands, oak savanna, and limited chaparral. This unit includes land bank land on the northern end of Pleasanton Ridge adjacent to Unit 3. The fence infrastructure for this grazing unit is very limited to non-existent along the eastern boundary especially in the vicinity of the Santos Ranch Road private properties. The District has recently made acquisitions that will eventually allow for this Grazing Unit to be properly fenced. The soils in the central portion of this unit are very good and provide a bountiful amount of forage which contributes to the fire hazard. Water for livestock is currently limited in this area, however, existing buried waterlines can be expanded to provide better forage utilization. In order to manage the grassland of this grazing unit the District currently employs seasonal sheep grazing. The sheep are physically rotated throughout the grasslands by a sheep herder during the spring season (late March to early May). Each grazing area is grazed down to 6 to 8 inches in height and moved on to another area. Management recommendations is to complete the boundary fence which will expand grazing options, including seasonal use of cattle in areas not responding properly to the current sheep grazing option.

Eastern Pleasanton Ridge Grazing Unit 5 (Garms)

The grazing unit comprises 115 acres that is primarily grassland and scattered oak savanna. It is adjacent to the Pleasanton Ridge Regional Park headquarters near Foothill Blvd. This unit is seasonally grazed by a small number of cows and calves in the winter. Generally, eight pair (cow-calf) are moved into this pasture on October 1st and removed on April 1st. This grazing regimen also helps eliminate rank grass production that threatens an existing stand of Congdon‟s tarplant (*Hemizonia parryi* ssp. *congdonii*).

South Sunol Ridge Grazing Unit 6 (Tyler Ranch)

The grazing unit comprises 2,630 acres that includes grassland, valley oak savannah and oak/bay forest on the west-facing slopes. The steep east-facing slope is dominated by a dense oak/bay forest, blue oak woodland and both hard and soft chaparral. This unit has been privately run as a year-long cow-calf operation and is currently being grazed as such. It is not possible to manage the Tyler property with seasonal steers because the fencing infrastructure is in very poor condition and the topography is too steep. Because of the steepness of the terrain and limited space at the bottom of the hill on the outskirts of Sunol, it is very difficult and expensive to remove the cattle to other off-site areas. There are several well placed ponds and troughs throughout the west-faced grassland that facilitates uniform grazing by the livestock. There is a centrally located corral and holding area with a working water trough system, which allows for the maintenance of the livestock and the removal of mature steers.

CONCLUSION

EBRPD wildland grazing activities are managed in accordance with accepted resource management principles and standards. These principles and standards are outlined in the EBRPD Wildland Management Policies and Guidelines manual. A scientific method of analyzing forage production on the various parks is conducted to determine the number of animals the land can support. Livestock use levels are regulated from year to year depending on how much vegetation is produced during the growing season. This takes into account the need to leave behind a certain percentage of ungrazed

vegetation to protect the land from erosion, allow nutrient recycling back into the soil, and maintain acceptable visual standards.

The District also has a policy to exclude livestock from sensitive areas when exclusion is needed to protect important resources such as wetlands and special status plants and animals. The ranchers authorized to use park land for grazing are responsible for the health, well-being, management, and containment of livestock on the parks, and are required to maintain fences, gates, water developments, and corrals. A fair market value rental fee is charged for the privilege of grazing on park land. Revenue from the overall District-wide program is used, in part, to fund the park district‟s wildland vegetation management program.

The District recognizes that many thousands of residents will populate the general area over the next several decades, which will increase the demand for open space and recreational amenities. The undeveloped wildland that remains will provide important plant and animal habitat and natural corridors for the movement of wildlife. These wildlands must be managed to maintain some semblance of a natural ecological balance given their increased isolation and fragmentation.

Pleasanton Ridge - AUM Range Analysis - Grazing Unit 1

PR_Unit1_AUM_analysis_2011.xlsx

			AUMs/Acre			Total AUMs		
Veg Type	**Soil**	**Acres**	**Wet**	**Normal**	**Dry**	**Wet**	**Normal**	**Dry**
Grassland	MhE2	58.02	2.0	1.0	0.0	116.03	58.02	0.00
Grassland	LpF2	3.80	1.8	1.4	0.5	6.84	5.32	1.90
Grassland	LuD	108.76	2.0	1.0	0.0	217.52	108.76	0.00
Grassland	LpF2	0.31	1.8	1.4	0.5	0.55	0.43	0.15
Grassland	MhF2	0.61	2.0	1.0	0.0	1.21	0.61	0.00
Grassland	Za	9.23	1.8	1.4	0.5	16.62	12.93	4.62
Grassland	RoF	2.62	0.0	0.0	0.0	0.00	0.00	0.00
Grassland	LuD	72.75	2.0	1.0	0.0	145.51	72.75	0.00
Grassland	LuE2	6.53	2.0	1.0	0.0	13.05	6.53	0.00
Grassland	LuE2	1.31	2.0	1.0	0.0	2.61	1.31	0.00
Grassland	LtF2	7.60	1.8	1.4	0.5	13.69	10.64	3.80
Grassland	MhE2	40.58	2.0	1.0	0.0	81.15	40.58	0.00
Grassland	MhF2	4.63	2.0	1.0	0.0	9.27	4.63	0.00
Grassland	LuE2	16.36	2.0	1.0	0.0	32.72	16.36	0.00
Grassland	Sa	11.46	1.0	0.5	0.0	11.46	5.73	0.00
Grassland	LuD	5.81	2.0	1.0	0.0	11.63	5.81	0.00
Grassland	LcF2	0.07	0.5	0.0	0.0	0.03	0.00	0.00
Grassland	PoE2	15.59	2.5	1.5	0.5	38.99	23.39	7.80
Grassland	PoC2	45.19	2.5	1.5	0.5	112.98	67.79	22.60
Grassland	RoF	3.35	0.0	0.0	0.0	0.00	0.00	0.00
Grassland	RoF	0.12	0.0	0.0	0.0	0.00	0.00	0.00
Grassland	RoF	0.09	0.0	0.0	0.0	0.00	0.00	0.00
Grassland	PoE2	6.49	2.5	1.5	0.5	16.23	9.74	3.25
	Total:	**421.28**				**848.09**	**451.32**	**44.11**

Pleasanton Ridge - AUM Range Analysis - Grazing Unit 2

PR_Unit2_AUM_analysis_2011

			AUMs/Acre			Total AUMs		
Veg Type	**Soil**	**Acres**	**Wet**	**Normal**	**Dry**	**Wet**	**Normal**	**Dry**
Grassland	MhE2	5.73	2.0	1.0	0.0	11.45	5.73	0.00
Grassland	MhE2	36.80	2.0	1.0	0.0	73.61	36.80	0.00
Grassland	LpF2	6.26	1.8	1.4	0.5	11.27	8.76	3.13
Grassland	MhF2	4.09	2.0	1.0	0.0	8.18	4.09	0.00
Grassland	GaE2	0.13	1.2	0.7	0.0	0.16	0.09	0.00
Grassland	GaF2	3.79	0.8	0.5	0.0	3.03	1.90	0.00
Grassland	LsC	26.13	1.8	1.4	0.5	47.03	36.58	13.06
Grassland	LpF2	4.29	1.8	1.4	0.5	7.72	6.00	2.14
	Total:	**87.23**				**162.46**	**99.96**	**18.34**

Pleasanton Ridge - AUM Range Analysis - Grazing Unit 3

PR_Unit3_AUM_2011.xlsx

			AUMs/Acre			Total AUMs		
Veg Type	**Soil**	**Acres**	**Wet**	**Normal**	**Dry**	**Wet**	**Normal**	**Dry**
Grassland	LuE2	2.91	2.0	1.0	0.0	5.82	2.91	0.00
Grassland	MhE2	162.84	2.0	1.0	0.0	325.68	162.84	0.00
Grassland	MhF2	4.32	2.0	1.0	0.0	8.65	4.32	0.00
Grassland	MhE2	10.95	2.0	1.0	0.0	21.91	10.95	0.00
Grassland	LuE2	11.32	2.0	1.0	0.0	22.65	11.32	0.00
Grassland	LpF2	5.72	1.8	1.4	0.5	10.29	8.01	2.86
Grassland	MhF2	19.91	2.0	1.0	0.0	39.81	19.91	0.00
Grassland	LpF2	0.29	1.8	1.4	0.5	0.53	0.41	0.15
Grassland	LuE2	160.27	2.0	1.0	0.0	320.55	160.27	0.00
Grassland	LuD	20.57	2.0	1.0	0.0	41.15	20.57	0.00
Grassland	MhF2	59.12	2.0	1.0	0.0	118.24	59.12	0.00
Grassland	LpF2	0.73	1.8	1.4	0.5	1.32	1.03	0.37
Grassland	LpF2	0.98	1.8	1.4	0.5	1.76	1.37	0.49
Grassland	LpF2	0.81	1.8	1.4	0.5	1.46	1.14	0.41
Grassland	MhF2	8.83	2.0	1.0	0.0	17.67	8.83	0.00
Grassland	GaF2	0.25	0.8	0.5	0.0	0.20	0.13	0.00
Grassland	GaE2	2.94	1.2	0.7	0.0	3.53	2.06	0.00
Grassland	MhF2	26.76	2.0	1.0	0.0	53.52	26.76	0.00
Grassland	LuD	12.22	2.0	1.0	0.0	24.45	12.22	0.00
Grassland	GaF2	2.56	0.8	0.5	0.0	2.05	1.28	0.00
Grassland	LuD	8.22	2.0	1.0	0.0	16.43	8.22	0.00
Grassland	GaE2	6.58	1.2	0.7	0.0	7.90	4.61	0.00
Grassland	LpF2	2.00	1.8	1.4	0.5	3.59	2.79	1.00
Grassland	MhE2	15.05	2.0	1.0	0.0	30.09	15.05	0.00
Grassland	MhF2	0.38	2.0	1.0	0.0	0.76	0.38	0.00
	Total:	**546.56**				**1080.00**	**546.50**	**5.27**

Pleasanton Ridge - AUM Range Analysis - Grazing Unit 4

PR_Unit4_AUM_analysis_2011.xlsx

			AUMs/Acre			Total AUMs		
Veg Type	Soil	Acres	Wet	Normal	Dry	Wet	Normal	Dry
Grassland	CdB	0.32	2.5	1.5	0.5	0.79	0.47	0.16
Grassland	MhF2	0.96	2.0	1.0	0.0	1.92	0.96	0.00
Grassland	LpF2	6.57	1.8	1.4	0.5	11.82	9.19	3.28
Grassland	LuD	0.85	2.0	1.0	0.0	1.70	0.85	0.00
Grassland	LuE2	2.35	2.0	1.0	0.0	4.69	2.35	0.00
Grassland	MhF2	0.55	2.0	1.0	0.0	1.10	0.55	0.00
Grassland	MhE2	4.98	2.0	1.0	0.0	9.96	4.98	0.00
Grassland	MhE2	354.62	2.0	1.0	0.0	709.23	354.62	0.00
Grassland	MhF2	28.20	2.0	1.0	0.0	56.39	28.20	0.00
Grassland	LuE2	0.93	2.0	1.0	0.0	1.87	0.93	0.00
Grassland	MhF2	0.86	2.0	1.0	0.0	1.71	0.86	0.00
Grassland	LpF2	2.64	1.8	1.4	0.5	4.75	3.69	1.32
Grassland	LuE2	0.10	2.0	1.0	0.0	0.20	0.10	0.00
Grassland	LpF2	9.75	1.8	1.4	0.5	17.56	13.65	4.88
Grassland	MhF2	1.20	2.0	1.0	0.0	2.41	1.20	0.00
Grassland	LpF2	0.10	1.8	1.4	0.5	0.19	0.15	0.05
Grassland	GaF2	0.07	0.8	0.5	0.0	0.06	0.04	0.00
Grassland	LuD	3.96	2.0	1.0	0.0	7.91	3.96	0.00
Grassland	GaE2	0.75	1.2	0.7	0.0	0.90	0.53	0.00
Grassland	MhE2	7.77	2.0	1.0	0.0	15.54	7.77	0.00
Grassland	MhF2	15.14	2.0	1.0	0.0	30.29	15.14	0.00
Grassland	MhF2	39.36	2.0	1.0	0.0	78.71	39.36	0.00
Grassland	LpF2	17.06	1.8	1.4	0.5	30.70	23.88	8.53
Grassland	MhF2	92.14	2.0	1.0	0.0	184.29	92.14	0.00
Grassland	W	0.15	0.0	0.0	0.0	0.00	0.00	0.00
Grassland	LsC	2.37	1.8	1.4	0.5	4.26	3.32	1.18
Grassland	LsC	0.05	1.8	1.4	0.5	0.09	0.07	0.02
Grassland	DaB	6.19	1.8	1.4	0.5	11.13	8.66	3.09
Grassland	LsC	0.01	1.8	1.4	0.5	0.01	0.01	0.00
Grassland	LuD	9.75	2.0	1.0	0.0	19.50	9.75	0.00
Grassland	W	0.34	0.0	0.0	0.0	0.00	0.00	0.00
Grassland	YmB	1.75	1.5	1.0	0.2	2.63	1.75	0.35
Grassland	LsC	2.22	1.8	1.4	0.5	3.99	3.11	1.11
Grassland	GaE2	1.45	1.2	0.7	0.0	1.74	1.02	0.00
Grassland	MhF2	22.24	2.0	1.0	0.0	44.48	22.24	0.00
Grassland	GaF2	3.28	0.8	0.5	0.0	2.62	1.64	0.00
Grassland	LuD	6.73	2.0	1.0	0.0	13.46	6.73	0.00
Grassland	GaF2	1.23	0.8	0.5	0.0	0.98	0.61	0.00
Grassland	GaF2	0.40	0.8	0.5	0.0	0.32	0.20	0.00
	Total:	**649.36**				**1279.90**	**664.66**	**23.98**

Pleasanton Ridge - AUM Range Analysis - Grazing Unit 5

PR_Unit5_AUM_analysis_2011

			AUMs/Acre			Total AUMs		
Veg Type	**Soil**	**Acres**	**Wet**	**Normal**	**Dry**	**Wet**	**Normal**	**Dry**
Grassland	PgB	0.81	1.5	1.0	0.5	1.21	0.81	0.40
Grassland	PoE2	30.76	2.5	1.5	0.5	76.89	46.13	15.38
Grassland	LpF2	6.66	1.8	1.4	0.5	11.98	9.32	3.33
Grassland	PoC2	0.59	2.5	1.5	0.5	1.48	0.89	0.30
Grassland	LuD	8.48	2.0	1.0	0.0	16.96	8.48	0.00
Grassland	PgB	1.84	1.5	1.0	0.5	2.76	1.84	0.92
Grassland	GaF2	0.16	0.8	0.5	0.0	0.13	0.08	0.00
	Total:	**49.29**				**111.40**	**67.54**	**20.32**

Pleasanton Ridge - AUM Range Analysis - Grazing Unit 6

Tyler Ranch - grassland-soil AUMs - north grasslands

	AUMs per acre					Total AUMs		
Soil	**wet**	**normal**	**dry**	**Acres**		**wet**	**normal**	**dry**
GaF2	0.8	0.5	0	8.11		6.48	4.05	0.00
GaF2	0.8	0.5	0	10.58		8.46	5.29	0.00
GaF2	0.8	0.5	0	0.82		0.65	0.41	0.00
LpF2	1.8	1.4	0.5	0.21		0.37	0.29	0.10
LpF2	1.8	1.4	0.5	0.48		0.86	0.67	0.24
LpF2	1.8	1.4	0.5	0.68		1.22	0.95	0.34
LpF2	1.8	1.4	0.5	3.79		6.83	5.31	1.90
LpF2	1.8	1.4	0.5	0.25		0.45	0.35	0.12
LpF2	1.8	1.4	0.5	6.07		10.92	8.49	3.03
MhE2	2	1	0	3.67		7.35	3.67	0.00
MhE2	2	1	0	5.93		11.86	5.93	0.00
MhE2	2	1	0	2.12		4.23	2.12	0.00
MhE2	2	1	0	8.53		17.05	8.53	0.00
MhE2	2	1	0	3.35		6.71	3.35	0.00
MhE2	2	1	0	29.29		58.58	29.29	0.00
			Total:	**83.86**		**142.02**	**78.69**	**5.73**

Tyler Ranch - grassland-soil AUMs - south grasslands

	AUMs per acre					Total AUMs		
Soil	**wet**	**normal**	**dry**	**Acres**		**wet**	**normal**	**dry**
LpF2	1.8	1.4	0.5	0.27		0.49	0.38	0.14
LpF2	1.8	1.4	0.5	6.50		11.70	9.10	3.25
LsC	1.8	1.4	0.5	0.19		0.34	0.27	0.10
LsC	1.8	1.4	0.5	5.07		9.12	7.10	2.53
LuD	2	1	0	12.47		24.95	12.47	0.00
LuE2	2	1	0	61.74		123.48	61.74	0.00
LuE2	2	1	0	27.53		55.06	27.53	0.00
MhE2	2	1	0	0.14		0.27	0.14	0.00
MhE2	2	1	0	0.06		0.12	0.06	0.00
MhE2	2	1	0	0.00		0.01	0.00	0.00
MhE2	2	1	0	4.88		9.75	4.88	0.00
MhE2	2	1	0	256.25		512.50	256.25	0.00
MhF2	2	1	0	1.43		2.85	1.43	0.00
MhF2	2	1	0	23.09		46.17	23.09	0.00
RoF	0	0	0	16.89		0.00	0.00	0.00
YmA	1.5	1	0.2	0.41		0.61	0.41	0.08
YmA	1.5	1	0.2	0.84		1.26	0.84	0.17
			Totals:	**417.76**		**798.71**	**405.69**	**6.27**

			Unit 6 Totals:	**501.62**		**940.73**	**484.38**	**12.00**

Pleasanton Ridge Regional Park Soil Type

Soil	Description
CdB	Clear Lake clay, drained, 0 to 3 percent slopes
DaB	Danville silty clay loam, 0 to 3 percent slopes
GaE2	Gaviota rocky sandy loam, 5 to 40 percent slopes, eroded
GaF2	Gaviota rocky sandy loam, 40 to 75 percents slopes, eroded
LcF2	Linne clay loam, shallow, 45 to 75 percent slopes, eroded
LpF2	Los Gatos-Los Osos complex, 45 to 75 percent slopes, eroded
LsC	Los Osos loam, seeped variant, 3 to 15 percent slopes
LtF2	Los Osos silty clay loam, 45 to 75 percent slopes, eroded
LuD	Los Osos and Millsholm soils, 7 to 30 percent slopes
LuE2	Los Osos and Millsholm soils, 30 to 45 percent slopes, eroded
MhE2	Milsholm silt loam, 30 to 45 percent slopes, eroded
MhF2	Millsholm silt loam, 45 to 75 percent slopes, eroded
PgB	Pleasanton gravelly loam, 3 to 12 percent slopes
PoC2	Positas gravelly loam, 2 to 20 percent slopes, eroded
PoE2	Positas gravelly loam, 20 to 40 percent slopes, eroded
RoF	Rock land
Sa	San Ysidro loam
W	Water
YmA	Yolo loam, 0 to 3 percent slopes
YmB	Yolo loam, 3 to 10 percent slopes
Za	Zamora silt loam, 0 to 4 percent slopes

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APPENDIX F
SUMMARY OF GRASSLAND MONITORING PROJECT FINDINGS

Summary of Annual Final Draft Report of the Grassland Monitoring Project 2009 Field Season (Year 8) for The East Bay Regional Park District

Principal Investigators: Professors James W. Bartolome and Reginald H. Barrett
Co-Investigators: Peter Hopkinson, Michele Hammond, Naomi Schowalter, Luke Macaulay, Sheri Spiegal, Rebecca Wenk

INTRODUCTION

In its eighth year, the Grassland Monitoring Project continues to develop and implement improved quantitative monitoring methods to determine the response of Park District grassland communities to management. The focus of the project is on the Valley grassland community in four Park District units: Morgan Territory, Pleasanton Ridge, Sunol-Ohlone, and Vasco Caves. Valley grassland is the East Bay's and the District's most extensive grassland vegetation type and has high bird conservation value.

Following the collection of baseline data, the project has intensified its focus on native plant and grassland bird diversity in the Valley grassland and the effects of livestock grazing on this diversity. We have begun to elucidate the effects of grazing compared to no grazing on native plants and birds, which will be expanded as we gather further years of data.

Although many of the general relationships among plants, animals, and environment are known for the Valley grassland, information from previous research and experience is not sufficient to predict the effects of management reliably. Better descriptions of the spatial and temporal variation in grassland communities combined with an understanding of the relationships between vegetation structure and animal abundance will help guide reliable and informed management decisions.

VEGETATION MONITORING OVERVIEW

Annual rainfall amount and pattern wield enormous control over Valley grassland vegetation; species composition, diversity, dominance relationships, and production all vary significantly with annual rainfall. The first several years of the project saw average or above-average rainfall. The last three years 2007-2009, however, were drought years, and, consequently, the project now has much-needed data on the response of the Valley Grassland community to drought.

Consistent with previous years, species cover distribution in 2009 was highly skewed to a few dominant species. Of the 100 species observed in 2009, the three most abundant species, wild oats (*Avena fatua*), broadleaf filaree (*Erodium botrys*), and annual ryegrass (*Lolium multiflorum*), all non-native species, made up almost 40% of the total relative cover. Total species richness for 2009 was 100 species. Fifty percent of the species were native, and 50% were non-native. Of the 50 native species, 60% were annual forbs, 28% were perennial forbs, and 10% were perennial grasses.

Rainfall appears to be the primary driver of native species richness and native cover, with high rainfall years producing greater cover and richness than low rainfall years. Livestock grazing may exert some influence on diversity metrics, however, even at the landscape level.

California's Valley grassland typically has low cover of native species. Consistent with this generalization, absolute native cover at the study sites has been low, fluctuating between 3 – 7% depending on year. Averaged over all sites, native cover appears to track rainfall amount and pattern: 2005 was a wet year, and native cover was notably high; in contrast, 2007's very dry weather was the likely cause of the lowest native cover observed during the project's run. Although 2008 and 2009 were also drought years, native cover was greater in both years than 2007's low.

When categorized by grazing status, annual native cover fluctuates differently within each park from 2005 to 2009. Morgan Territory's grazed plots declined in native cover in 2007 and 2008 compared to 2006 and had less native cover than its ungrazed plots in both 2007 and 2008; Morgan Territory's ungrazed plots increased slightly in native cover over the same period. However, this trend was reversed in 2009: grazed plots increased in native cover, overtaking ungrazed plots, which declined in native cover. Trends at Vasco Caves were complicated by a 2006 wildfire that burnt some of the ungrazed plots. In 2009, on Vasco Caves' grazed plots, there was a return to a more moderate level of native cover; ungrazed plots at Vasco Caves also experienced a decline in native cover in 2009. At Sunol, both grazed and ungrazed plots decreased in native cover from 2005 to 2007 but increased in 2008. Ungrazed plots at Sunol decreased once again in native cover in 2009, but grazed plots experienced a dramatic increase. Grazed plots had much greater native cover than ungrazed plots in all years at Sunol. Comparing parks over the last four years, there was no consistent trend in native cover and grazing status.

Native species richness (the number of native species in a location) is an important metric in the Valley grassland. In Valley grassland, non-native species typically make up more than 90% of the cover. Species richness, in contrast, is more evenly distributed between native and non-native species. Like native cover, native species richness generally appears to track annual weather patterns and not management regimes. Average native species richness on all cattle-grazed plots in 2009 was greater than on ungrazed plots or on sheep-grazed plots. In the non-drought years of 2003 to 2006, grazed plots generally exhibited higher native richness than ungrazed plots, and at the landscape level, grazing appeared to maintain higher native species richness. However, in the last three years of drought, this relationship became more complicated. The drought/grazing interaction is complex, with weather, site, and grazing factors playing roles. Even in the three drought years, grazed plots had greater native species richness than ungrazed sites in almost all comparisons.

As noted in previous reports, the bunchgrass Purple needlegrass (*Nassella pulchra*) has exhibited a steady decline over the course of the project; purple needlegrass is the most abundant native species in our study plots. This decline in Purple needlegrass has occurred in all parks and on grazed and ungrazed plots leading us to surmise that the decline was related to regional environmental factors rather than management activities. In 2008, this decline slowed somewhat; however, in 2009, annual average cover of Purple needlegrass dropped once again. This decrease in Purple needlegrass cover occurred at all parks sampled in 2009 except for Pleasanton Ridge. Fluctuations in Purple needlegrass cover appear to be driven primarily by regional environmental factors with livestock grazing exerting little influence. The installation of additional grazed and ungrazed plots at Vasco Caves should help confirm or refute this hypothesis over the next few years.

Purple false-brome (*Brachypodium distachyon*), a non-native grass, may be spreading on EBRPD properties. Since 2003, it has been observed on over 50% of the study plots; of the four parks sampled in 2009, only at Vasco Caves were there no purple false-brome observations. Unfortunately, no information about management control of this grass has been found.

In 2009, we found one species rated as "high" in the California Invasive Plant Council's Invasive Plant Inventory (Cal-IPC 2006): Medusahead (*Taeniatherum caput-medusae*). Implementing a control program may inhibit the spread of medusahead. Because we did not survey the invasive-species-rich Brushy Peak, Chabot Ridge, and Sycamore Valley in 2008 and 2009, the number of invasive species observed in the last two years is lower than in earlier years of this study.

AVIAN MONITORING OVERVIEW

The monitoring project has completed a baseline inventory of common grassland birds on park district Valley grassland and continues to focus on the effect of livestock grazing on grassland bird diversity and abundance. Point count surveys are conducted on the same grassland monitoring plots as the vegetation plots within areas that are livestock grazed and ungrazed.

On plot avian detection rates remain fairly constant and show no obvious temporal trends over the years of the study, 2004-2009. Plot detection rates are counted as the total number of individual birds on plot (within 100m of center) added cumulatively over three surveys per breeding season. In spite of the differences in climate, 2007-2008 had below average rainfall, there is no obvious trend showing climatic effects on median avian plot detection rates over all the parks and years.

Sunol-Ohlone continues to have the highest overall park avian species richness while Vasco Caves remains the lowest. This trend is also reflected in the cumulative park avian species richness within the 2004-2009 Breeding Bird Status table.

A continuing focus of the grassland bird monitoring project is to look at the grassland-specialist species that are commonly found on plot. Our grassland bird guild, Grasshopper Sparrow, Horned Lark, Savannah Sparrow, and Western Meadowlark, were chosen for their status as species of conservation and management concern and well known preference for breeding within park district grassland habitat. Comparing all the parks over 2004-2009, this grassland bird guild has a patchy distribution with low numbers of detection. None of the parks has a consistent yearly presence of all four of the guild species. For the guild, median plot detection rates are heavily weighted by the number of zeros, or plots with no birds detected. Vasco Caves is the only park where individuals from the guild are consistently found on a majority of the plots.

Our dataset does not show significant population trends for any of the guild species, because the four species are at very low numbers throughout all the parks. Our most ubiquitous grassland species, the Western Meadowlark, has a downward trend throughout the study with the 2nd lowest number of observations in 2009. Savannah Sparrows also showed a downward trend, dropping to zero detections in 2008 but reappearing with small numbers on plot in 2009. Horned Larks, our second most abundant guild species, are remaining more or less consistent in their number of total detections per year. Grasshopper Sparrows are also remaining consistent with their low numbers of total detection rates per year. Overall the grassland bird guild remains a low density community, present in some areas and consistently absent from other locations within these parks. Future analyses looking at landscape scale factors like grassland patch size, along with land-use history, current management, and other grassland habitat characteristics may help to explain the grassland bird distribution within the park district.

PREVIOUS WORK

Previous reports have detailed 1) grassland insect abundance and diversity (2008 report); 2) small mammal relationships with soil, vegetation and livestock grazing (2007 report); 3) mid-project review (2006 report); and 4) considerations for the development of a grassland vegetation monitoring program (2005 report).

To date, the project has resulted in one doctoral dissertation (2007), two master's theses (2004, 2008), an undergraduate senior thesis (2008), three scientific journal articles (2007, 2008, 2009), and a conference proceedings article (2008) (see Appendix A for details). An article on the habitat associations of grassland birds will be submitted for publication in early 2011, and work is progressing on an article evaluating the spatial and temporal variability of the East Bay grasslands.

The rich EBRPD dataset has also proven essential to the development of new ecological models and hypotheses about the Valley grassland. Four book chapters have been informed by these models and hypotheses, including chapters in two important recent reviews of California grasslands: *Terrestrial vegetation of California*, 3rd edition and *California grasslands: ecology and management* (Bartolome et al. 2007, Huntsinger et al. 2007, Jackson and Bartolome 2007).

We have made 44 presentations about Project findings and methodology at public agency meetings and scientific conferences, including in 2009, a presentation at the California Society for Ecological Restoration and California Native Grasslands Association Joint Conference.

(Full annual reports for all eight years of the Grassland Monitoring Project are on file at the East Bay Regional Park District).

APPENDIX G
CULTURAL FEATURES

APPENDIX G - CULTURAL FEATURES

AMERICAN FARM PERIOD (A.D. 1850 TO 1970S) – TOWN DEVELOPMENT & MAJOR LANDOWNERS OF PLEASANTON RIDGE REGIONAL PARKLANDS TERRITORY

Following California‟s statehood in September 1850, the courts reviewed the Mexican land grants, which were either confirmed or denied to the original grantee. In most cases, land grants rapidly came into the hands of new owners, more often than not recent American arrivals (Barter et al. 1994:25). After the Homestead Act was passed in 1861, settlers began arriving in the area to settle, form towns and file homestead claims on free government land; although often, squatters settled on private lands instead (Marschner 2002).

1850 to 1889 - Town Development

Alameda County was formed on March 25, 1853 from portions of Contra Costa and Santa Clara Counties, and small towns began to emerge in the Murray Township. In the late 1850s, a small store and trading post were set up at Alisal (now Pleasanton) in Rancho Valle de San Jose. In 1859, Don Refugio Bernal built a one-mile racetrack on his 52,000-acres of land, known as Rancho del Valle de San Jose. A few years later, his sons, Augustin and Antonio Bernal became owners of the racetrack. His son Frederick sold to Joseph F. Nevis who had married Augustin Bernal‟s widow. Nevis improved the track to regulation specifications and operated it as a business venture later selling to Rodney G. Mackenzie in 1911. By 1941 the Fair Association had purchased the first 100 acres of what now make up the 268-acre Fairgrounds: today the race track is recognized as the oldest in the country.

Beginning in 1863, lots were sold and Alisal boasted a blacksmith, carpenter, wagon factory, and doctor. In the following year, a school was established (Munro-Raser 1883:478). In 1867, the land surrounding the settlement was formally surveyed and the town of Pleasanton was founded (Munro-Fraser 1883:479). A destructive earthquake in 1868 leveled many of the buildings in these early settlements and in the surrounding area (Marschner 2002:149).

During the 1860s, one store and a school also opened in Sunol. In 1869, Sunol was established as a station along the Central Pacific Railroad‟s original route from Sacramento through Niles Canyon to its west coast terminuses of Oakland and San Jose. The arrival of the transcontinental railroad in southern Alameda County stimulated a significant increase in the area‟s economic and population growth. The railroad led to the development of many new agricultural ventures, especially fruit growing, because it was now possible to transport farm products more easily to market.

1850 to 1889 –Settlement in the area now contained in Pleasanton Ridge Regional Park

Beginning in the 1860s homesteads and ranching in what is now Pleasanton Ridge Regional Park began to show up in the literature when several parcels that are now contained within the parkland were inhabited by various hunters, ranchers and farmers. By 1874 all land within the current park boundaries had been surveyed and parcels owned by either resident farmers /stockmen or by men who were neither residents nor agriculturalists, but apparently owned the land for speculation. During this period half of the land now contained within the park was owned by speculators. The major landowners are described below.

Mclaughlin. Charles McLaughlin, a railroad contractor and land speculator was one of at least four individuals that held the land within the area of the Pleasanton Ridge Conservation Easement/PRCB (North Sinbad Creek Valley) by 1878. Mr. McLaughlin owned the largest holding in this area (Thompson and West 1878, Chavez 1989).

Bachelder. In closer proximity to Sunol, Thomas Bachelder, a San Francisco attorney originating from Maine, apparently left his law practice to develop the Sunol property as an investment and in 1871 he purchased 1,700 acres north of Sunol centered in the valley of Sinbad Creek that included the property now referred to as the Nipper Ranch. Based on the 1878 *Historical Atlas of Alameda County*, Bachelder had a house and outbuildings adjacent to Bachelder (now Sinbad) Creek, about a mile north of Sunol.

The property was likely used for grazing land before Bachelder planted over 500 acres in orchards, including olives (*Handbook and Directory of Murray Township,* 1886*)*. Some of the olive trees in the park today may date from these early Bachelder plantings in the early 1870s.

During the 1880s, Bachelder subdivided much of his land into 10 to 30 acre parcels for small farms or resort houses. An April 21, 1888 auction brochure advertising the sale of lots in the "Thermal Addition" or "Thermal Rancho" by the Sunol Land and Improvement Company is in the archives of the Bancroft library at the University of California at Berkeley. The brochure markets lots now as small as 5 to 15 acres primarily for summer resorts. The brochure indicates that land in the addition "ran back three miles" from the Sunol Station and it was "selected with special reference to olive groves." Bachelder sold the lots primarily near the creek and the town and then he sold the remaining land in the hilly areas to the Sunol Land and Improvement Company. After subdividing and selling his property in the 1880s Bachelder moved back to San Francisco to reconvene his law practice.

Perkins. William Perkins, carpenter (Richard N. Schellens Historical Collection, n.d. 63:62) and hunter (USFC 1880), immigrated to Alameda County from England sometime between 1870 and 1880 (USFC 1860, 1870, 1980). His homestead was on public land west of Rancho Santa Rita and north of the Bachelder lands (now known as the Tehan Falls/Swartz property). The household included John W. Badger, a farmer from New Hampshire, his wife, Alice (age 18) and Ying, a 16-year-old male cook from Hong Kong (USFC 1880). Around this time (circa – 1866) Tehan Falls was named in honor of William Tehan, an early pioneer who lived in the nearby community of Dublin (Moiser and Mosier 1986). In 1878, besides Perkins, the only neighbor with a house erected on his property was Albert Marsh (Thompson & West 1878). It appears that John Green may have procured the Perkins property prior to 1889 (Grant Deed 71-117501). In 1894 the neighbors included Pat Murray, Albert Marsh, J.W. Dougherty, H. Hughes, W. Campbell Sr., and C. Booth.

1900-1960

Throughout the early and mid-1900s, both Pleasanton and Dublin continued as agricultural communities. Although Dublin was positioned at the intersection of two stagecoach routes that later became freeways, the town did not grow as rapidly as Pleasanton. During this period the ridgelands continued to support agricultural and ranching interests including the farms and ranches owned by the families described below.

Thermal Fruit Company And Nipper Family. In 1904, John Rupert, as owner of the Thermal Fruit Company, purchased approximately 500 of the remaining acres of ridge land along Pleasanton Ridge (now Pleasanton Ridge parklands) from the Sunol Land Company. He used what is now known as the Nipper family ranch house and barn for the company"s farm operation. During its first 20 years, the Thermal Fruit Company apparently continued to subdivide the land and sell parcels when it could. A 1913 map of Thermal Rancho Subdivision F shows a house, barn and blacksmith shop on lot 9.

Up until 1920 there were about 250 acres farmed to peaches, pears, apples, prunes, and apricots, plus a vineyard in the southern portion of what is now Pleasanton Ridge Regional Park. The trees were mostly removed during the 1920s as operating costs increased with higher taxes and wages and the company began losing money. Also, the older orchards were becoming less productive, further reducing income. After

removing most of the trees, much of the land was farmed to wheat, barley and oats, sometimes on a share basis, and sometimes by Carl Nipper.

Carl Nipper, a secretary, then later a General Manager for the Western Pacific Railroad, became the Thermal Fruit Company secretary in 1932. Mr. Rupert hired Mr. Nipper to increase the company‟s productivity and lower its costs. Nipper‟s efforts to make the company profitable were unsuccessful. In the late 1930s, the ranch was leased to several different tenant ranchers who attempted to farm the property. By 1942, most of the remaining orchards were removed. Carl Nipper acquired the property in 1945 because of his majority ownership in the Thermal Fruit Company. Nipper continued to lease some of the property to tenant ranchers who grew wheat, barley and oats. After acquiring all the stock, and locating a few stray shares, Nipper dissolved the corporation in 1958.

The Nipper family members were San Jose residents and they never lived full-timed on the ranch. The main ranch house was occupied by a ranch manager. Carl Nipper moved a small cabin to the property in the 1950s as a place for his family to stay when they worked on the ranch during weekends. The cabin had been built in the 1940s by the Southern Pacific Railroad as a maintenance worker‟s cottage.

Cook Family. Charles Cook and his wife owned a little over 400 acres in Palomares Canyon that they purchased in the early 1900s. This property is located along a piece of Cook Canyon that the District owns. The Cooks settled in and lived there with their eight children. They remained on the land for approximately 30 years. Charles Cook was a well-known and highly regarded sheep breeder and rancher who emigrated from England, owned ranches in Wyoming and Nebraska, and bought 500 acres in Palomares Canyon. He settled in Castro Valley with his wife. When he died in the early 1930s, he left the Cook Canyon property to three of his sons, Frank, Chester and Charles Jr. (Frank quitclaimed his interest). In the next few years, Chester and his wife purchased another almost 1,400 acres, which were the entire Sections 15 and 23 and the NW 80 acres of Section 26, most of which is now in the park. Later, Charles Jr. and his wife bought Sections 22 and 27, which are located outside of the park.

Two of the sons, Charles and Chester, ended up living on the Palomares Canyon Ranch. Chester lived at the foot of Cook Canyon and Charles lived further south at the other end of the ranch. Early on, the Cooks ran sheep on their ranches. As sheep became less profitable, most people in the area started bringing in cattle, though Chester Cook only had sheep. A road had been constructed by the time the Cook homestead was established that passed by the Cook House. This road terminated at the present day Palomares Road, which connects Sunol to Castro Valley, Hayward, and San Leandro (General Land Office 1866). The Cook family retained title to the land until 1963; the land was then leased from the new owner by the Cook family until approximately 1970.

Tyler Family. In 1930, a private company known as the Spring Valley Water Company (SVWC) began selling acreage to the City of San Francisco. Ten years later, SVWC sold 680.17 acres north of Alameda Creek to E. F. Tyler. Esmund Tyler (also known as Esmond, E. F. and E. Tyler, 1897–1957), a California native, and his wife, Mabel (Harden) Tyler (1896–1994), a native of Illinois who grew up in Hayward, made their living raising cattle in the Hayward area until they purchased their first Sunol parcel from SVWC in the 1930s (Imboden 2010). In 1943, E.F. Tyler purchased a second piece of rangeland adjacent to the north end of an original purchase from W. R. Stone. Then in 1945 Tyler acquired four Kilkare Manor blocks from Domenico and Anna Tonelli, bringing his total holdings at Sunol to approximately 1,500 acres (Imboden 2010). The ranchlands stretch almost three and one-half miles along Sunol Ridge, one of the most prominent ridgelines in Alameda County and constitute a significant portion of Alameda Creek Watershed.

E.F. Tyler and Mabel Tyler reportedly never lived at the Tyler Ranch “Foothill Farms,”instead they made their home behind the Masonic Home, located along Mission Boulevard in Union City, California.

However, their daughter Frances and her husband, Edwin Burr, were reported to have lived in three different houses located on the property (Imboden 2010). The first house is said to have been located just northwest of the Foothill Farms barn. The second house was located farther west along Niles Canyon and the third house was reported to be located north (uphill) from the barn and original house. The second and third houses are now privately owned inholdings in the park.

The purchase of 1,476 acres of Tyler Ranch as public parklands was made possible with the assistance of the Tyler family heirs and with the Priem Family Foundation. The Priem Family Foundation was established by the entrepreneur Curtis R. Priem and his wife, Veronica, in September of 1999. The Foundation is a private non-profit foundation incorporated in the State of California concerned about the loss of open space in the East Bay.

1970s-Present

Several families continued to either live on the land or lease the land for farming and/or ranching through the 1970s. These landowners are described below.

Nipper Family. During Ward Hill‟s interview with Bill Nipper, Mr. Nipper described the weekend chores: fixing fences, pruning orchards, fixing water pipes, house repairs and building stock ponds. In the 1970s Nipper worked with several different residential developers to get approvals for a subdivision on the property. The District purchased much of the original ranch in the early 1980s. The District purchased an additional 7.5-acre parcel with the house and outbuildings in 1987.

Sinbad Creek Valley. During the 1970s, the northern Sinbad Creek Valley was owned by various individuals until the property was purchased by the Rhodes Partnership in 1981 solely for cattle grazing. It was then sold to Shea Homes, which had intended to purchase the property to develop into a residential subdivision. In 1995 American Lands Conservancy purchased approximately 657 acres of the area and established it as the Pleasanton Ridge Conservation Bank (PRCB)/conservation easement.

Tehan Falls/Swartz. It is not known when the Tehan Falls/Swartz property became known as the "Hidden Valley Ranch" as depicted on signs at the entrance to the parcel. However, it is known that the property was used for agricultural purposes. Dorothea Porter Swezey owned the subject parcel for an unknown length of time prior to her sale to joint owners (Swartz, Fisher, Lehne, Roberts, and Butler) on September 2, 1971. The Lehnes, the owners with the most interest in the property, resided in the William Perkins house until it burned down. Mr. Lehne later built a new home at the top of the hill and outside the park boundaries. On December 17, 1973, Virginia Fisher transferred her interest among the other co-owners. The land was transferred to the East Bay Regional Park District in 2008-2009.

HISTORIC STRUCTURES AND FEATURES

Remnants of historic resources associated with 19th and 20th century homesteading and ranching include fences demarking former ranch sites, stock ponds, stock trails, water tanks and pipelines, fruit and olive orchards, and building remnants. Structures and landscape features from the American Farm Era remaining in the park are associated with the Nipper, Bachelder, Perkins, Rupert and Cook families. These are described below.

Nipper Ranch. The Nipper Ranch buildings are located approximately one mile north of the town of Sunol in a hilly area at the southern end of the Pleasanton Ridge along the Oak Tree Trail. Sinbad Creek and Kilkare Road are located to the west. The complex consisted of four buildings - a ranch house, cabin, barn and blacksmith shop, two of which remain standing. The Nipper buildings were examined by a historian and a report was written documenting these resources before the cabin and blacksmith shop were

demolished. Copies of this report are on file at the park office and at the Peralta Oaks Administration office. The house, with views out to the Sunol Valley, sits at the highest point on the site. A number of small trees are growing near the house. The hills to the west and north of the house are planted with rows of olive trees.

The Nipper Ranch House is a two-story, rectangular structure 39 feet by 32 feet with a side gabled roof with asphalt shingles. Structurally, the house is of stud-wall, wood-frame construction with a perimeter foundation of stone, which was replaced with concrete along the front façade when the exterior and interior of the house were extensively remodeled in the early 1980s. The basic form of the main body of the house remains intact. The modern garage north of the house also dates from the early 1980s (Ward Hill 1999). The house currently serves as a park security residence.

The Nipper Barn is located approximately 100 feet southeast of the house. It is a two-story barn with a rectangular plan (40 feet by 32 feet). The barn‟s site slopes to the south so that the north-façade opens into the second level while the doors to the first level are on the south façade. The vertical wood board siding is secured with round and square nails. The north and south sides of the barn have sliding doors on the second and first levels respectively. The sliding doors probably replaced the original hinged doors. A pair of hinged, double doors also open onto the second level on the south façade. The first level interior is divided up into four or five feeding stalls for cattle or horses on each side. The second level is an open free-space with a heavy, wood plank floor. A series of exposed, cross wood planks nailed to the rafters form the roof structure. The second level was used for storing hay, in addition to fruit and olives (Bill Nipper). The barn‟s south and west façade are the most weathered and deteriorated and should be evaluated by a building contractor or structural engineer who could provide specific solutions for upgrading the structural integrity of the barn.

The Nipper Blacksmith Shop was located approximately 300 feet southwest of the barn. The rectangular, single story, wood frame building was probably used for storing tools and other equipment. Due to the overall deteriorated condition that included serious structural deficiencies, the Nipper Blacksmith shop was removed in November 2008. Useable remnants were salvaged and will be used in future park projects.

The Nipper Cabin, a small, rectangular stud-wall, wood frame cabin with a foundation of concrete footings, was an old railroad lineman‟s shack the Nipper family had hauled up to the ranch house site for use as a summer cabin. It was located on the flat area south of the blacksmith shop. The Nipper cabin was demolished years ago due to severe damage to the structural integrity of the building.

While the *Nipper Ranch* property has not been listed under any historic designation criteria, nor have the buildings been included in any historic resource surveys, the Nipper Ranch buildings and related landscape features would be potentially eligible for the California Register under Criterion A if they retained a higher level of historic integrity from their period of significance. Additionally, the earliest person associated with the buildings, John Rupert (Thermal Fruit Company) does not appear to have been a significant figure in the agricultural history of Southern Alameda County. Consequently, none of the buildings appear to be significant under Criterion B. The ranch house does not appear to be eligible under criterion C because its historic integrity has been compromised. The barn also does not appear to be significant under Criterion C. (Ward Hill, Architectural Historian, April 1999).

The Nipper Ranch buildings would most likely be eligible under Criteria A or C under Item #1 of the *Public Resources Code Section 5024.1 – California Register of Historic Resources Criteria*. The potential significance under Criterion A would be in context of local agricultural history. The house may also be eligible under Criterion C as a rare, surviving example of an early ranch house in this area. The problem with the potential eligibility of the house and the ranch complex is the issue of historic integrity from their

period of significance, the 1880s to about 1920. The extensive alterations to the house have compromised is its integrity of materials, workmanship, design, association and feeling. Both the exterior and interior of house have been rebuilt with modern materials.

In addition to the major alterations to the house, a number of significant features related to the farm operation have not survived. Most of the original orchards have been removed, although many olive trees still survive. The original fruit drying buildings and other facilities have been demolished or are now in ruins. (*Note*: The District retains photographs of the extensive fruit drying facilities originally on the property that are no longer extant).

The ranch house complex has only two buildings surviving from the period of significance; the house and the barn. The barn retains the highest level of historic integrity of the two structures and its two level design on a sloping site is unusual. The barn, however, does not appear to be sufficiently significant to be individually eligible for the California Register under Criterion C, but it does appear to be of some local significance as an unusual example of this building type surviving from the 19th century.

Tehan Falls Property. Based on the mapped location, it is likely that the historic house foundation remains identified on the Tehan Falls property are from the William Perkins homestead. The building remnants consist of a foundation with an attached brick and stone chimney and a collapsed wooden structure. Historic artifacts are found throughout the site. Remnants of historic landscaping at the site include yard modifications, fences, fruit trees, and introduced landscape trees.

Conservation Easement (Formerly Amador Land and Cattle Company/Neu Property). This property contains several springs, an abandoned home site and an orchard. The remnants and debris remaining from an old barn and some outbuildings located off the upper Sinbad Creek Trail were removed in November 2008.

Garms Residence. The Garms residence is a two-story stucco residence that was reportedly built in the 1930s and is currently used as a park security residence and office. The house was extensively remodeled in the 1980s and as a result does not appear to be a potentially significant historic feature. It is surrounded by mature landscaping and remnants of former structures, indicated by the presence of foundation remains. Remnants of a former horse stable can be seen towards the north end of the Garms area. The foundation is the only remaining feature and it consists of four rows of eight, square-shaped cement pilings that rise a few inches from the ground. They are placed 25 feet apart, in a northwest-southeast orientation. Each piling is one foot square. Additionally there is an 8-foot by 5-foot concrete pad with rebar located at the northwest end of the foundation pilings.

Vinson/Poole Residence. One of the park residences is located on the former Poole property. Its approximately 2,000 square feet with a two car detached garage. The Poole‟s bought their property from Ted Vinson before the District purchased it from the Poole family. There are no structures of any historic merit standing on the property.

Tyler Ranch Complex. In the area of the future Sunol Ridge Staging Area (former Tyler Ranch property) located within near the town of Sunol at 12565 Foothill Road there is a vacant house, a barn, a workshop, a storage shed, a chicken coop, a spring and series of corals and animal pens. There are also two abandoned cabins located on the steep eastern slope of the property (Lopez 2008).

The barn is a two-and-one-half story, entry aisle barn of wooden frame construction and a low-pitched, dropped front gabled roof. There is a single bay at the north elevation and open shed attachment on the south elevation to provide access for hay and horse stalls. The roof is constructed of corrugated metal with over hanging eaves and exposed rafters. Wall cladding is a single walled, vertical board of wood- framed

construction. The structure has a newer foundation (likely improvements constructed after the Tyler‟s acquired the property in the 1940s), but was likely originally constructed on flat level ground.

The workshop building is a one-story wooden workshop with a low-pitched, side-gabled roof. The roof is constructed of corrugated metal over wood framing with board and batten construction. The structure has an open shed with several work bays and a small closed in office on the east elevation. The work bays have open rafters and wide eaves with wood bracing. The office door has a wooden six-panel door and there are several windows as well as a second door on the north and west elevations. One of the windows is a three over three, fixed window with a wooden frame typical of late 19th century construction. There is also an underground fuel tank under the structure.

The residence is a mobile home situated just east of the barn and workshop. It appears to be situated atop an historic rock foundation that might be remnants of an earlier building, possibly the original residence. Additionally, there are fruit trees and other vegetation that may be remnant landscaping from the earlier structure, including four black locust trees.

The storage shed is located northeast of the workshop and west of the mobile home. The structure is a one story high, half-gabled shed of wood construction. There is a single open bay along the east elevation and a pair of out swinging hinge doors. The roof consists of open eves and is constructed of corrugated metal.

A scatter of historic artifacts was observed on the south side of the shed and within a swale formed by a spring, which heads south through the main pasture. Artifacts observed included bottle glass (olive green wine bottle glass, aqua and clear colored glass), fragments of ceramic tableware and a few bricks that could indicate the presence of a spring box.

The construction history of the Tyler Ranch buildings and features appear to be early 20th century (1900-1940s), but could be earlier.

Fences. The parklands also contain remnants of abandoned historic barbed wire fences with severely weathered posts with cut nails, fence staples and wire nails, as well as miles of barbed wire fencing installed by the District. The diversity of fasteners indicates the constant maintenance carried out from the nineteenth into the twenty first century to control livestock and to mark property boundaries. Examples can be found throughout the park.

Ranch Roads. The parklands include abandoned historic wagon roads, an abandoned wooden bridge (on the Tehan Falls/Swartz property) and secondary dirt roads connecting the main roads. Three wagon roads were identified inside the Tehan falls project area. These dirt roads are generally eight to twelve feet wide, with a single lane, and it appears that they were never improved for modern automobile use.

Stock Ponds. The parklands contain a number of historic and modern stock ponds built to provide a water supply source for cattle. Most of these ponds remain in operation and many support introduced and native wildlife species including California red-legged frogs (refer to *Section B - Biological Resources* for a discussion of the biological value of these ponds).

CRITERIA FOR DETERMINING HISTORIC SIGNIFICANCE OF A RESOURCE

For a resource to be eligible for the California Register, it must satisfy all of the following three criteria:

1) Meet one (1) or more of the four (4) criteria of significance:
   a. The resource is associated with events or patterns of events that made a significant contribution to the broad patterns of local and regional history

b. The resource is associated with the lives of persons important to the nation or to California‟s past
c. The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values
d. The resource has the potential to yield information important to the prehistory of the state or the nation (this criterion applies primarily to archaeological sites)

2) The resource retains historic integrity (defined below) and

3) It is fifty years old or older (except for rare cases of structures of "exceptional significance").

The California Register regulations define "integrity" as "the authenticity of a property‟s physical identity, evidenced by the survival of characteristics that existed during the property‟s physical period of significance." That is, it must retain enough of its historic character or appearance to be recognizable as an historic resource. California Register regulations specify that integrity is a quality that applies to historic resources in seven ways: location, design, setting, materials, workmanship, feeling and association. A property must retain most of these qualities to process integrity.

APPENDIX H
CALIFORNIA PUBLIC RESOURCES CODE SECTION 5024.1 – CALIFORNIA REGISTER OF HISTORIC RESOURCES CRITERIA

APPENDIX H
California Public Resources Code Section 5024.1

(a) A California Register of Historical Resources is hereby established. The California Register is an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change. The commission shall oversee the administration of the California Register.

(b) The California Register shall include historical resources determined by the commission, according to procedures adopted by the commission, to be significant and to meet the criteria in subdivision (c).

(c) A resource may be listed as an historical resource in the California Register if it meets any of the following National Register of Historic Places criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

(2) Is associated with the lives of persons important in our past.

(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

(4) Has yielded, or may be likely to yield, information important in prehistory or history.

(d) The California Register shall include the following:

(1) California properties formally determined eligible for, or listed in, the National Register of Historic Places.

(2) State Historical Landmark No. 770 and all consecutively numbered state historical landmarks following No. 770. For state historical landmarks preceding No. 770, the office shall review their eligibility for the California Register in accordance with procedures to be adopted by the commission.

(3) Points of historical interest, which have been reviewed by the office and recommended for listing by the commission for inclusion in the California Register in accordance with criteria adopted by the commission.

(e) If nominated for listing in accordance with subdivision (f), and determined to be significant by the commission, the California. Register may include the following:

(1) Individual historical resources.

(2) Historical resources contributing to the significance of an historic district under criteria adopted by the commission.

(3) Historical resources identified as significant in historical resources surveys, if the survey meets the criteria listed in subdivision (g).

(4) Historical resources and historic districts designated or listed as city or county landmarks or historic properties or districts pursuant to any city or county ordinance, if the criteria for designation or listing under the ordinance have been determined by the office to be consistent with California Register criteria adopted by the commission.

(5) Local landmarks or historic properties designated under any municipal or county ordinance.

(f) A resource may be nominated for listing as an historical resource in the California Register in accordance with nomination procedures adopted by the commission, subject to all of the following:

(1) If the applicant is not the local government in whose jurisdiction the resource is located, a notice of nomination in the form prescribed by the commission shall first be submitted by the applicant to the clerk of the local government. The notice shall request the local government to join in the nomination, to provide comments on the nomination, or if the local government declines to join in the nomination or fails to act upon the notice of nomination within 90 days, the nomination may be submitted to the office and shall include any comments of the local government.

(2) Prior to acting on the nomination of a survey, an individual resource, an historic district, or other resource to be added to the California Register, the commission shall notify property owners, the local government in which the resource is located, local agencies, other interested persons, and members of the general public of the nomination and provide not less than 60 calendar days for comment on the nomination. The commission shall consider those comments in determining whether to list the resource as an historical resource in the California Register.

(3) If the local government objects to the nomination, the commission shall give full and careful consideration to the objection before acting upon the nomination. Where an objection has been raised, the commission shall adopt written findings to support its determination concerning the nomination. At a minimum, the findings shall identify the historical or cultural significance of the resource, and, if applicable, the overriding significance of the resource that has resulted in the resource being listed in the California Register over the objections of the local government.

(4) If the owner of a private property or the majority of owners for an historic district or single property with multiple owners object to the nomination, the commission shall not list the property as an historical resource in the California Register until the objection is withdrawn. Objections shall be submitted to the commission by the owner of the private property in the form of a notarized statement certifying that the party is the sole or partial owner of the property, and that the party objects to the listing.

(5) If private property cannot be presently listed in the California Register solely because of owner objection, the commission shall nevertheless designate the property as eligible for listing.

(g) A resource identified as significant in an historical resource survey may be listed in the California Register if the survey meets all of the following criteria:

(1) The survey has been or will be included in the State Historic Resources Inventory.

(2) The survey and the survey documentation were prepared in accordance with office procedures and requirements.

(3) The resource is evaluated and determined by the office to have a significance rating of Category 1 to 5 on DPR Form 523.

(4) If the survey is five or more years old at the time of its nomination for inclusion in the California Register, the survey is updated to identify historical resources, which have become eligible or ineligible due to changed circumstances or further documentation, and those which have been demolished or altered in a manner that substantially diminishes the significance of the resource.

(h) Upon listing an historical resource or determining that a property is an historical resource that is eligible for listing, in the California Register, the commission shall notify any owner of the historical resource and also the county and city in which the historical resource is located in accordance with procedures adopted by the commission.

(i) The commission shall adopt procedures for the delisting of historical resources, which become ineligible for listing in the California Register.

APPENDIX I
AREA DEMOGRAPHICS & TRAIL USER SURVEY SUMMARY

APPENDIX I AREA DEMOGRAPHICS & TRAIL USER SURVEY SUMMARY

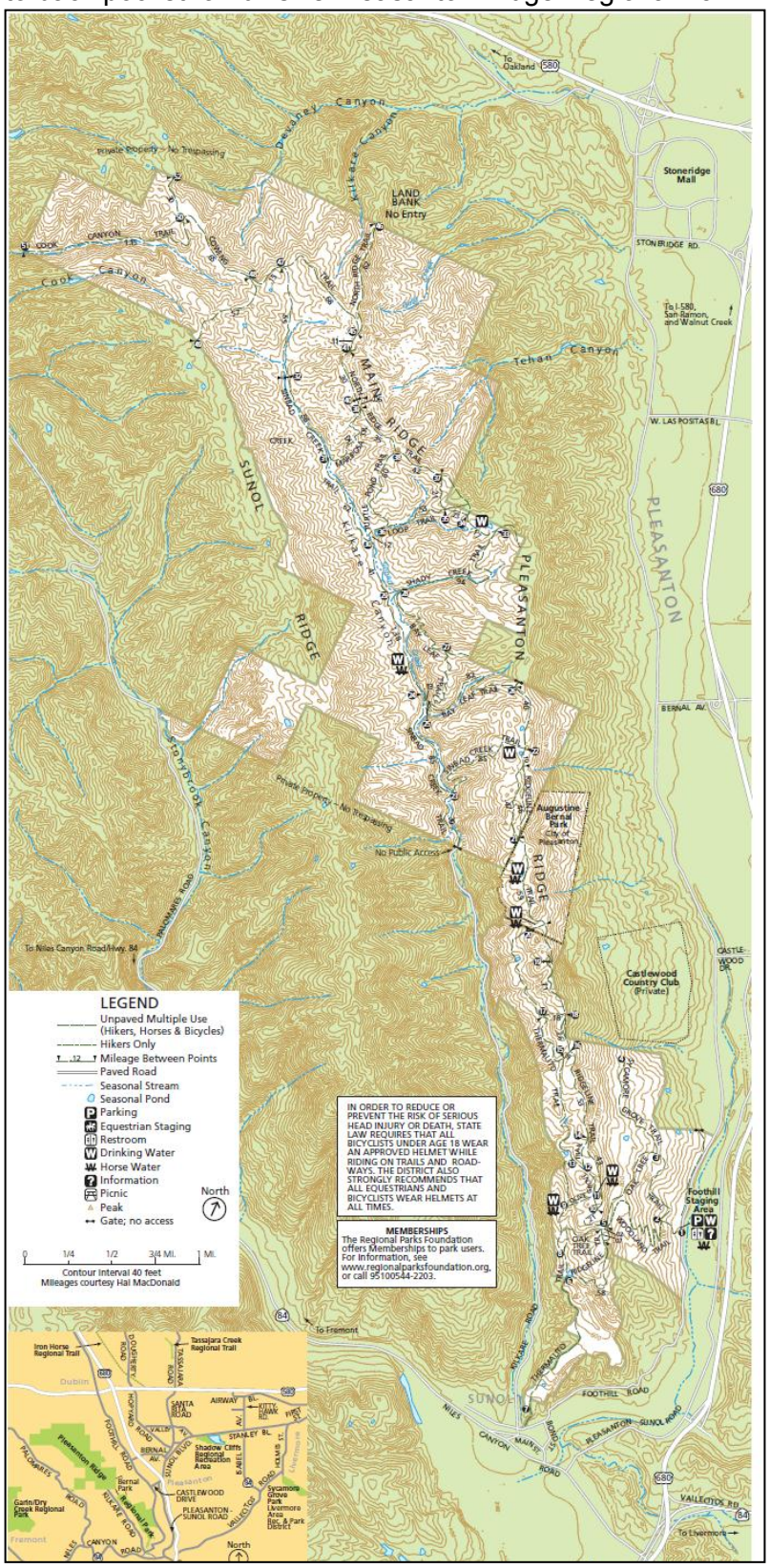
Area Demographics

	Factor	Alameda Co.	Contra Costa Co.	Pleasanton	Dublin	Sunol
	Total Population	1,510,271	1,049,025	33,191	41,840	1,332
Ethnicity	American Indian and Alaska Native	0.6%	0.6%	0.3%	0.7%	1%
	Asian persons	26.1%	14.4.0%	11.7%	10.3%	4.8%
	Black persons	12.6%	9.3%	1.4%	10.1%	0.1%
	Native Hawaiian and Other Pacific Islander	0.8%	0.5%	0.1%	0.3%	0.3%
	Hispanic or Latino origin (of any race)	22.5%	24.4%	7.9%	13.5%	8.7%
	Two or more races	6.0%	5.9%	2.8%	3.9%	3.4%
	White persons	43.0%	58.6%			
	White persons, not Hispanic	34.1%	47.8%	80.4%	69.4%	80.9%
Age	Under 5 years	7.0%	6.6%	6.8%	5.9%	
	Under 18 years	23.1%	24.9%	21.4%	21.0%	
	18–64 years	65.2%	62.2%	64.2%		
	65 years & over	10.9%	12.2%	47.6%	4.6%	
Disabilities	An estimated 4,268,000 people in California have a disability, or 13.1% of the population age 5 and over. An estimated 832,000 people, or 2.5% of the population 5 and over, have difficulty performing self-care activities, also known as Activities of Daily Living, such as dressing, bathing, or getting around inside the home. Source: Tabulations by the Center for PAS from the 2005 American Community Survey (ACS).					
	Persons who will have a disability over the course of their lives	1 in 5 or 20 percent of the population				

Note: Total Populations = 2010 Census
Ethnicity and age = 2000 Census
Source: http://quickfacts.census.gov/qfd/states/06/0620018.html

APPENDIX J
2011 PLEASANTON RIDGE PARK BROCHURE

Refer to back pocket for full size Pleasanton Ridge Regional Park Brochure



APPENDIX K
TRAIL CONSTRUCTION & TRAIL MODIFICATION BEST MANAGEMENT PRACTICES (BMPS)

TRAIL CONSTRUCTION & TRAIL MODIFICATION BEST MANAGEMENT PRACTICES (BMPS)

Following are best management practices that will be employed to minimize adverse impacts to the parkland environment during trail construction, modification and/or restoration activities, as appropriate:

- Develop trails to contour alongside slopes (not the fall line of a slope) as fall-line trails become watercourses, erode easily and then are difficult to maintain. Contour trails should be cut on a full bench, rather than a combination of cut and fill. The cut material should be broadcast downslope, unless the trail is near a creek. Cut material can also be utilized for the ramp section of rolling dips if it is compacted one layer at a time.
- Out-slope trails in most cases (except for short sections at outside bends) to encourage water to run off the side of the trail, rather than along the trail. Trails should be built to have about 3 to 5 percent outslope after trail compaction has occurred, so initial out-sloping should be greater than 5 percent. After a year or two, it should be expected that maintenance would be needed to return and "de-berm" sections of trail where soil compaction and displacement have exceeded the outsloping.
- Incorporate rolling dips (grade reversals 12 to 20 feet long) that avoid the short and abrupt style of traditional "water bars" into a trail where they will enhance natural grade dips (as a backup to out-sloping) to avoid water flow along a trail.
- Locate the outside bend of a trail at a relative high point to help reduce erosion; a reduction in erosion is achieved because the upslope naturally slows a bicycle rider, which reduces the need to brake or skid, which can displace sediments on the trail surface.
- Locate climbing turns or switchbacks whenever possible where the side-slope is 10 percent or less, in order to create a sustainable, low-erosion trail. The actual trail gradient should be determined by site geology and terrain. The wider the turn and the lower the slope of the turn itself, the less braking and skidding (going downhill) is needed, and less wheel spinning (going uphill) is likely.
- Reduce locations where bicycles tend to brake heavily and or have to climb steep hills, which could cause erosion. Make a conscious effort to design trails with consistent "flow" (IMBA), 2004). Exaggerate grade reversals at outside bends. Gradual flow transitions should also reduce user conflicts.
- If landslides or slope failures occur, cut a temporary ramp through the edge of the scarp, have the trail traverse across the slide, and then cut another ramp to go up the scarp on the other side to reduce the tendency for users to create unsanctioned trails around the head of the landslide scarp.
- Close trails in areas with active landslides and highly erodible soils during wet weather and storm events.
- Maintain the trail corridor by trimming encroaching vegetation to keep trail in a safe and operable condition thereby encouraging users to stay within the constructed trail bed.
- Conform trail approaches as they intersect with other trails to reduce water collection at the junction and moderate the speed of trail users.
- Minimize disturbance to the soil surface to reduce erosion and maintenance problems; minimized trail widths to reduce the amount of bare soil subject to erosion and produce less concentrated runoff than wider trails (with all other factors being equal).
- Prepare specific erosion control plans as part of the trail construction documentation for new trail alignments. Criteria to be used in determining the erosion potential and developing the plan include: slope; soil type; soil composition and permeability; and the relative stability of the underlying geologic unit.
- Incorporate erosion- and sediment-control measures where trails are located in riparian zones to minimize the mobilization of sediment to creeks and other water bodies including:

- Using paving stones or other rock work (to armor the trail surface).
- Providing settling areas for trail drainage where water can infiltrate and sediment can settle out.
- Constructing creek crossings so that they do not greatly alter the cross-sectional shape of the channel or floodplain.
- Sloping the approach to a creek or drainage crossing downward toward the creek and then climbing upward when traveling away from the creek drainage bed, so that in the event of a blockage in the channel, the creek water would not be diverted to flow along the trail.
- Enclosing and covering exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways.
- Containing soil and filtering runoff from distributed areas by berms, vegetated filters, silt fencing, straw wattles, plastic sheeting, catch basins, or other means necessary to prevent the escape of sediment from disturbed areas.
- Prohibiting the placement of earth or organic material where it may be directly carried into a stream, swale, ditch, marsh, pond, or body of standing water.
- Prohibiting the following types of materials from being rinsed or washed into waterways: concrete, solvents and adhesives, fuels, dirt, gasoline, asphalt, and concrete saw slurry.
- Only conducting dewatering activities with implementation of proper construction water quality control measures in place.

- Use rock drains and gravel surfaces where trails cross seep areas to minimize potential for trail users to bypass the soggy area in ever-increasing arcs. Use soil amendments such as sand, crushed rock, or gravel to make a trail less prone to compaction and displacement; amendments can also help the tread drain better.
- Limit the source of water for horse troughs to seeps, springs and existing water lines; do not divert water from creeks or other waterways.
- Abandon, obliterate and restore trails where it has been determined that the trail would be a significant risk to park resources or safety of the park users. In these cases, the decommissioned trail will be:
    - Blocked with local native vegetation materials such as limbs, logs, rocks and brush (or fencing) that will be placed in such a way as to create obstacles for the trail user
    - Rehabilitated by filling and reshaping the former trail surface to blend with the natural contours. If soil compaction has occurred, the soil will be scarified and aerated.
    - Revegetated by planting native vegetation, transplanted from the vicinity, or seeded with native species found in the area.
    - Posted "*not a trail, habitat restoration taking place."*

  Once the obliteration and restoration has been completed, the decommissioned trail should be totally obscured, present a difficult and uncomfortable route to the potential trail user, and, if possible, the view of the trail blocked from a designated trail.

APPENDIX L

PLAY AND FITNESS APPARATUS PROTOTYPES

Sample Play and Fitness Apparatus

These prototypes are only intended as guidelines in determining the type of play and fitness apparatus intended for the designated play and fitness areas and are not intended to represent specific designs or manufactured items, which will be determined during the design phase of these projects (Refer *to Figure 23 – Planning Area Map* for locations of these amenities).