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Special thanks to our Contributing Consultants

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Ed Pandolfino

PAR Environmental, Gary and Mary Maniery

Lucky 7 Ranch

And all of the local ranchers, homeowners and workshop participants who contributed their thoughts and ideas to this planning effort.

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- 2) Appendix 2: Glossary of Terms
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1. Executive Summary

The Deer Creek Hills Preserve Master Plan has been prepared to comply with, and elaborate upon the management objectives established in the Memorandum of Understanding (See Appendix 1: Memorandum of Understanding) signed by the participating Deer Creek Hills Preserve acquisition partners. The Master Plan is intended to guide decision-making regarding the anticipated uses of the Preserve which include open space, habitat preservation, grazing, and public recreation. This plan serves to tie the intent of the MOU agreement with the ongoing and future management of the Preserve by defining short-term and long-term uses and actions. Specific contribution to the content of this plan has come from the MOU partners, technical consultants, the surrounding land owners, other interested agencies, and the general public.

The Sacramento Valley Conservancy owns Deer Creek Hills Preserve (the Preserve) jointly with the County of Sacramento (County), the State of California Department of Parks and Recreation (CDPR). In addition, the California Department of Fish and Game (CDFG) provided the largest share of the funding for the acquisition and is a signatory to the MOU.

The Sacramento Valley Conservancy (the Conservancy), which has primary management and operations responsibility, is founded on the premise that open lands are necessary for quality of life and that we must care for the land today so that future generations may enjoy its physical and spiritual benefits tomorrow. The Conservancy's mission is to preserve the beauty, character and diversity of the Sacramento Valley landscape by working with citizens, property owners, public agencies and other non profit organizations. The County of Sacramento Department of Parks and Recreation endeavors to make available a county-wide system of parks and recreation facilities which provide recreation opportunities for the citizens of the local region. California Department of Parks and Recreation strives to provide for the health, inspiration and education of the people of California by preserving biological diversity, protecting natural and cultural resources, and creating opportunities for outdoor recreation. The Department of Fish and Game/Wildlife Conservation Board works to manage California's fish, wildlife, and plant resources, and the habitats upon which they depend, both for their ecological values and for their use and enjoyment by the public. The unified intent of this partnership group concerning the long-term management of the Deer Creek Hills Preserve is to provide for present and future generations an extraordinary resource with its intrinsic natural, historical, cultural, and agricultural values protected and enhanced.

This plan includes the following:

- Baseline inventories and assessments of the Preserve in terms of conditions and resources;
- Characterization of future uses of the Preserve based on the intent of the MOU, resource sensitivities and other management determinants;
- A phased sequence of management actions;
- Identification of the required preconditions (triggers) that must be in place prior to initiating specific development, operations, use and/or management functions at the Preserve;

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- Funding strategies for implementation of the proposed actions including acquisition, improvements, and management actions.

Section 2.0 describes the background of the Deer Creek Hills Preserve in terms of the events leading to the acquisition of the property and the formation of the stewarding partnership as set forth in a memorandum of understanding (MOU). The purpose of this Master Plan is described and a brief characterization of the Preserve and its resources is provided.

Section 3.0 establishes the vision, goals and policy recommendations for this Master Plan. The discussion is tiered with the vision defined first, second, the goals that elaborate on the long-ranged intentions embodied in the vision and then third, the policy recommendations which are organized according to the primary management purposes defined in the MOU including open space and resource management, grazing management, and public access and recreation management.

Section 4.0 describes the conceptual plan for the Deer Creek Hills Preserve. This section is organized according to the principal components of the plan including general management sub-areas, plan use definitions and characterizations, and then overall Preserve standards and elements such as design features for any new development.

Section 5.0 describes the anticipated sequence of actions and phasing. It also characterizes the desired operating structure and partnership configuration among the MOU partners and then identifies potential funding strategies for the various management actions.

Section 6.0 cites the primary references used as the foundation for this plan and Section 7.0 contains supplemental appendix information pertinent to the plan including the **Amended and Restated Memorandum of Understanding (MOU) For Interim Ownership of Deer Creek Hills**, a glossary of terms used in this document, a detailed description of the resource as developed through various field investigations, the public comments derived from Spring 2005 workshops conducted on behalf of the planning effort, and finally an overview of grazing operations in the context of habitat management.

Deer Creek Hills Master Plan

2. Introduction

1.1.2.1. Background

In 1997, after being managed for agricultural uses for over 100 years, 1,892 acres of the Deer Creek Hills Preserve area was proposed for conversion from a General Agricultural Resource Conservation Area to residential and commercial uses. Since the proposed development was situated outside the urban service area as defined by the Sacramento County General Plan and the Sacramento Local Agency Formation Commission (LAFCo), the proposal was rejected by the Sacramento County Board of Supervisors principally due to the limited availability of urban services. The developers then sponsored a ballot initiative, but Sacramento voters did not approve the development which would have resulted in 3,000 housing units. After the ballot initiative was rejected, The Sacramento Valley Conservancy, in collaboration with the County and the State, launched a successful campaign to acquire the land as well as the adjoining acreage that now makes up the total Preserve area.

The purchase of the Deer Creek Hills Preserve was carried out in two acquisition phases with multiple funding sources as outlined below:

Deer Creek Hills Acquisition Funding

Phase I – 2,054 Acres	Funding Amount
Wildlife Conservation Board	\$2,000,000
County of Sacramento	\$2,000,000
CALFED	\$800,000
United States Department of Interior, Bureau of Reclamation	\$450,000
State of California Department of Transportation (CALTRANS)	\$500,000
Sacramento Valley Conservancy (Fundraising Funds)	\$50,000
Total Acquisition Funds for Phase I	\$5,800,000
Phase II – 2,008 Acres	Funding Amount
Wildlife Conservation Board	\$2,000,000
California Department of Parks and Recreation Off Highway Motor Vehicle Recreation Division	\$1,872,276
County of Sacramento	\$1,700,000
SVC (Non-Profit Private Foundations)	\$50,000
SVC (Individual Donors)	\$124
Total Acquisition Funds for Phase II	\$5,622,400
Total Deer Creek Hills Acquisition Cost	\$11,422,400

Concurrent with completion of the acquisitions, a Memorandum of Understanding (MOU) was prepared and signed by the Deer Creek Hills Preserve principal partners who include:

- Sacramento Valley Conservancy (the Conservancy);
- State of California:
 - Department of Fish and Game (DFG),

- Department of Parks and Recreation (CDPR), and;
- County of Sacramento.

The MOU established shared interest in the Preserve and affirmed a mutually shared understanding that the land must remain in its natural condition pending development of this Master Plan to elaborate on future uses of the Preserve. See Figure 2.1 Preserve Ownership Map. The MOU states that the Management (Master) Plan for the Preserve shall be consistent with the following objectives:

- Open space;
- Habitat preservation;
- Grazing; and,
- Public access/recreation.

The MOU generally outlines the roles and responsibilities of the principal partners for the interim period, making the Sacramento Valley Conservancy responsible for management and operations of the Preserve; the County of Sacramento the lead agency for environmental review of the Preserve Master Plan subject to the California Environmental Quality Act; and both the County and the Conservancy together responsible for preparing the Master Plan and obtaining approval of the final version from the County Board of Supervisors and additional partners.

To fulfill the intent of the MOU, the Conservancy held a series of public workshops and focused sessions with representative agencies as part of a public input process conducted to further guide the development of the Master Plan. The workshops and agency sessions were designed to obtain input from the public and agencies regarding:

- General management and preservation considerations for oak woodlands; and,
- Potential future management strategies designed to balance habitat preservation and restoration, grazing operations and public education uses for the Preserve.

1.2.2.2. Purpose of the Master Plan

The Deer Creek Hills Master Plan is intended to guide the management, use, and improvements of the Deer Creek Hills Preserve. It addresses the long-term management objectives identified in the MOU and outlines an optimum blend of purposes articulating opportunities for habitat restoration, public access and compatible cattle ranching operations.

The Deer Creek Hills Master Plan will enable a management entity to move forward with an array of actions ranging from habitat projects such as creek improvement and oak restoration, to wildlife habitat enhancements, and the creation of public access features. Additionally, this Master Plan is intended to serve as a model for how to save and care for oak woodlands through forging relationships with ranchers, nearby land owners, nonprofit organizations, educational and research institutions, and public agencies to ensure the long-term sustainability of an important resource and open space area.

Finally, this plan identifies funding sources and means for accomplishing improvements including lease revenues, grant programs, user fees, volunteer support and mitigation projects.

1.3.2.3. Preserve Location and Description

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Deer Creek Hills Preserve is comprised of 4,062 acres located along the eastern boundary of Sacramento County. The Preserve is bordered on the west by Scott Road and on the east by Michigan Bar Road. The Rancho Murieta community is situated immediately south of the property adjacent to the southern Preserve border. Latrobe Road bisects the land diagonally from west to east. Preserve access is obtained via Latrobe Road from the southwest and Michigan Bar Road along its eastern border. See Figure 2.2 Regional Location Map.

The Preserve consists of gently rolling hills covered by a mix of annual grasslands and varying densities of blue oak woodlands accompanied by the terrestrial and aquatic wildlife dependent on these special conditions. Resource assets include water impounds for cattle grazing, intermittent and perennial streams, and vernal pools. The land is an active working landscape with beef-cattle grazing occurring in the spring and winter months. The presence of cattle defines the character of the land as much as the oak woodlands and grasslands. The historic and prehistoric resources present throughout the property provide a physical reminder of the tremendous transformation the California landscape has undergone in the recent and ancient past.

The topography, mix of habitats, and presence of blue oak woodlands make the Deer Creek Hills Preserve similar in appearance to many areas throughout the Central Valley, however, several factors make this Preserve especially important from ecological and land use perspectives. Both the blue oak woodlands and working ranches of the Sacramento Valley region are under tremendous development pressure. And, the Deer Creek Hills Preserve represents one of the largest stands of blue oaks and one of the most scenic open landscapes remaining in the County.

The Deer Creek Hills Preserve is a strategic anchor for large working ranches in the area and a potential linkage for larger regional public access and habitat corridor opportunities. Preserve lands straddle both the Deer Creek and the Cosumnes River drainage systems and offer important watershed and upland connectivity. The relationship between the property and the larger regional landscape is an important facet of possible management strategies.

Land use in the area surrounding Deer Creek Hills Preserve is primarily agricultural with the exception of the Rancho Murieta community which is a planned community development. Two additional exceptions to the primarily agricultural land uses in the region include the Carson Creek Boys Ranch, a secure commitment facility designed to hold young male wards of the State, and the County Kiefer Landfill facility which is located at the junction of Grant Line Road and Kiefer Boulevard.

The California Department of Fish and Game completed a Conceptual Area Protection Plan (CAPP) which includes the majority of the Deer Creek Hills Preserve and surrounding lands that host significant stands of blue oak woodlands. CAPP identification makes these lands eligible for specific funding support and protections through the Wildlife Conservation Board (WCB). Additionally, in December 2002, the County of Sacramento Board of Supervisors approved the establishment of Williamson Act agricultural Preserve status on 1,760 acres of the Deer Creek Hills Preserve. Six parcels located on both the north and south sides of Latrobe Road west of Michigan Bar Road were included in California Conservation Contract NO. 02-AP-002. Over time, ten additional parcels were added to the agricultural Preserve on the Preserve. All of the restricted parcels involve 10-year contracts with the County of

Sacramento and there is no plan to remove the land from the obligation. See Figure 2.3 CAPP Area Map, and Figure 2.4 Williamson Act Properties.

1.4.2.4. Preserve Characterization

The following characterizations present an overview of conditions on the Preserve for the purpose of providing a better understanding of the resource. Multiple surveys and studies were completed to obtain and develop the information summarized below. More complete descriptions of each resource can be found in Appendix 3: Resource Descriptions. Specific site investigations included:

- Geomorphology/ hydrology investigations and surveys;
- Vegetation surveys with special attention paid to the presence of invasive exotic species and evaluations of existing Blue oak woodlands to establish baseline conditions of health;
- Archeological surveys focusing on historic and pre-contact archeological resources;
- Extensive bird surveys covering the breeding and winter seasons; and,
- Surveys for small vertebrates.

1.1.1.2.4.1. Topography and Geology

The Deer Creek Hills Preserve topography consists of gently sloping terrain (0-30%) falling to the west and ranging from a 533-foot elevation at the highest ridgeline on the north-eastern corner of the property to a 194-foot elevation at the lowest point in the drainage on the western side of the property. The landform is made up of small rolling hills and knolls with shallowly etched, mostly intermittent, drainage courses. Steep slopes are found along the Deer Creek drainage (up to 50%) and along the ridgeline in the eastern portion of the property (up to 30%). The topography reflects the underlying geological structures and various site disturbances result in localized erosion. Seeps and stock ponds are scattered throughout the property.

Preserve geology is dominated by metamorphic rock associated with the western belt of the Sierra Foothills. Significant quaternary alluvium (recent era) deposits are found in the corridor along Crevis Creek in the vicinity of the corral. Additional small patches of young alluvium are present along the west branch of Crevis Creek and on the Michigan Bar tributaries downstream of the South Pond. See Figures 2.5 Preserve Area Topography Map, 2.6 Generalized Geology, and 2.7 Slope Map.

1.1.2.2.4.2. Seismicity

Although no active faults are known to cross the Deer Creek Hills Preserve, there are a number of potentially active faults within a 100 mile radius. The region is considered a low risk area for high-intensity seismic events. Most germane to the consideration of seismic risk is the level of use envisioned for the Preserve. Seismic risk to facilities and improvements on the Preserve is considered low due to the minimal scale and intensity of use envisioned on the Preserve. Existing off-site water impounds located to the south and southeast of the property have been constructed according to the Department of Water Resources Division of Dam Safety standards, which include seismic protective provisions and which are inspected on a regular basis. Given the predominance of gentle slopes,

landslide potential is negligible with the exception of localized areas on the upper ridgeline and slopes along the Deer Creek and West Crevis drainage at the northern end of the property. Minor risk of liquefaction exists in the vicinity of the off-site reservoir where saturated or deeper soils may be present. If an earthquake occurs during highly saturated winter runoff conditions, the risk of inducing new landslides or for enhanced activity with existing landslides is increased.

1.1.3.2.4.3. Soils

Soil patterns on the Preserve are strongly linked to geology, although climate, vegetation, and topography also affect soil types and characteristics. The following lists the United States Department of Agriculture (USDA) Soils Conservation Service (SCS) Soil Survey classifications for Preserve soils. The most widespread soils are listed first:

- Amador-Gillender complex, 2-15% slopes (101);
- Argonaut-Auburn complex, 3-8% slopes (107);
- Auburn Silty loam, 2-30% slopes (109);
- Argonaut-Auburn Rock outcrop complex, 8-30% slopes (110);
- Crevis Creek sand loam, 0-3% slopes (132);
- Mokelumne gravelly loam, 2-15% slopes (178);
- Mokelumne – Pits mine complex, 15-50% slopes (179);
- Red Bluff loam, 0-2% slopes (191);
- Vleck gravelly loam, 2-15% slopes (235); and,
- White Rock Loam 3-30% slopes (237).

The sandy loam found in Crevis Creek is the soil group most prone to flooding due to a perched high water table in the winter months from December through April. See Figure 2.8 Soils Map.

1.1.4.2.4.4. Hydrology

The hydrology of Deer Creek Hills Preserve is an important indicator of the health and condition of the Preserve and its natural resources. A blend of human interventions combined with the underlying geology, soils, steepness of slopes, and vegetation cover shape the hydrological system on the Preserve. A special attribute of the property is that it encompasses nearly the entire upper watershed of the Crevis Creek drainage system.

Human intervention has been a significant factor affecting hydrology on the Preserve. The introduction of grazing altered and substituted native perennial grasses and forbs with European annual grasses over time. The construction of ditches for mining and related activities removed surface soils and significantly altered drainage flows. Local retention ponds and livestock watering holes also altered the natural flow of drainage – especially in the upper watershed areas. See Figure 2.9 Hydrology Map.

There are three major watersheds/drainages within the Deer Creek Hills Preserve. These include:

- Drainage directly to Deer Creek which is located along the northern property boundary;

- The Crevis Creek drainage system which serves the majority of the central and southern portions of the property; and,
- The tributaries to the Michigan Bar reach of the Cosumnes River which runs along the southeastern portion of the property.

1.1.5.2.4.5. Vegetation

Deer Creek Hills is situated along a margin between the Sierran foothills and the valley floor in a transitional zone made up of a distinct blend of valley grassland habitat mixed with foothill woodland habitats with blue oaks being the predominant tree. Blue oak woodlands form a ring around the extent of the Central and San Joaquin valleys on both the Coast range and the Sierra. Contributing factors that have produced this distinct regional landscape include climate, soils, and other abiotic and biological processes. See Figure 2.10 Regional Vegetation Map.

Blue oak woodland is the signature vegetation community found within the Deer Creek Hills Preserve. The blue oak woodland stands on site are highly variable in composition. They co-occupy Preserve lands with introduced grasslands, blue oak woodland savannah, and wetlands. Interspersed among the denser woodland stands are some interior live oak and gray pine, and in the lower reaches of Crevis Creek some valley oaks can be found.

Similarly to the Preserve hydrology, the vegetation community has also been profoundly shaped by human intervention. Long before the arrival of European settlers, it is thought that this landscape was managed by Native Americans, principally through fire. The introduction of grazing and mining endeavors affected the character and distribution of plants on the Preserve, mainly by introducing non-native (exotic) European plants into what are now the grassland areas. The present landscape is a living record of these interventions, the most recent being the introduction of numerous exotic and invasive plant species. See Figure 2.11 Preserve Vegetation.

1.1.6.2.4.6. Wildlife and Habitat

A measure of the importance of blue oak woodlands and associated grass and savannah habitats is the abundance and diversity of species that make use of it. The Deer Creek Hills Preserve contains habitats and wildlife communities typical of the broader Sierra Foothill/Great Valley region but also somewhat unique to the agricultural and urban make up of Sacramento County.

Habitat is generally defined by vegetative cover. In addition to the native blue oak woodland, savannah, annual grasslands, and limited riparian and aquatic habitats on the Preserve there are a few small remnant stands of introduced ornamental species associated with old homesteads. This diversity provides important food, nesting, cover, and temperature protection for multiple wildlife species. The permanent ponds and other seasonal water sources on site increase the amount of time visiting species spend on site and contribute to the distribution and presence of year-round wildlife across the Preserve.

The blue oak woodlands within the Deer Creek Hills Preserve provide habitat and are browsed by livestock, black-tailed deer, and other foraging herbivores such as rodents. Acorns are eaten by the birds, rodents, and deer. Because of their high nutrient value,

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acorns are an especially critical food source for black-tailed deer, which migrate from higher elevation dry summer ranges to these blue oak woodlands for fall and winter forage.

Preserve grasslands provide habitat for a large variety of birds. Active grazing has limited the extent of upland shrub understory habitat available in woodland areas, and, generally, riparian vegetation on the property is limited. Although limited, there is habitat preferred by riparian associated bird species in several locations on site and bird diversity on the property is high. Common bird species observed on Preserve lands include:

- Mourning Dove;
- Nuttall's and Acorn Woodpeckers;
- Ash-throated Flycatcher;
- Western Bluebird;
- Oak Titmouse;
- Brewer's Blackbird; and ,
- Northern Mockingbird.

In areas where there are denser woodland stands with a highly developed understory, the vegetation cover provides habitat for additional bird species including:

- California Quail;
- California towhee;
- American and Lesser Goldfinch; and,
- Bushtit.

Black Phoebes which nest on ledges of eroded, cut banks, rock outcrops, and bridges are commonly seen foraging for insects in open areas along the creek with flowing or standing water. For a comprehensive list of bird species observed on the Preserve (both nesting and non resident species see Appendix 3).

Wildlife species adapted to open, low-growing vegetation use the Preserve grassland habitat for all or part of their life cycle. Many of these species also utilize the cliffs, ponds, caves, and woodlands on site which meet additional habitat requirements such as cover, nesting, temperature protection, shelter, or rest. Characteristic wildlife species found in Preserve grasslands include:

- Western Meadowlark;
- Horned Lark;
- Western Kingbird;
- Lark Sparrow;
- Loggerhead Shrike
- meadow vole;
- pocket gopher;
- Black-tailed jackrabbit;
- fence lizard;
- rattlesnake; and,
- yellow-bellied racer.

California ground squirrels have not been observed onsite, even though the stands of blue oak woodland, oak savannah and riparian areas are the typical and preferred habitat for that species.

Water is a critical habitat element for wildlife as it is used for drinking, hydration, forage sites, and breeding. The stock ponds, intermittent streams, and seeps on the Preserve meet critical habitat needs by providing aquatic habitat attractive to water birds, amphibians, and reptiles. Aquatic birds use the ponds for feeding, cover and nesting. Resident species such as Mallard, American Coot, and Pied-billed Grebe, and Red-winged Blackbird typically nest in and around the pond sites. Shallow zones in the upper end of the ponds and along the shoreline are utilized by herons, egrets, and migratory shorebirds such as Greater Yellowlegs.

1.1.7.2.4.7. Cultural and Historical Resources

The Deer Creek Hills Preserve is rich in prehistoric and historic archaeological resources and undoubtedly was a highly productive area for Native American peoples. The area has been used by human populations for at least 1,000 years and, based on comparative data found in the archaeological record at Collier Reservoir and nearby Rancho Murieta, may date to the late Pleistocene era (ca 10,000 B.P.). The Preserve region was important to early Sacramento County immigrants as evidenced by the mining and homesteading sites well represented in the historical and archaeological record of the region. These lands were also important to pre-contact period and early nineteenth century Native American pursuits as evidenced by the ubiquitous nature of bedrock milling stations found along Crevis Creek and its tributaries.

The richness and abundance of cultural/historical resources found within the Preserve accentuates the need for extreme caution with any ground work undertaken on site. Caution should be taken to avoid damage or loss of the resources themselves, but also to avoid loss of the potential educational and interpretive uses of these resources for future Preserve visitors.

1.5.2.5. Grazing

Grazing has been the predominant use of the Deer Creek Hills Preserve region for at least a century. This use has shaped the character and physical makeup of the Preserve. Historically, both sheep and cattle were managed on these lands, however, since the 1950's grazing operations have been exclusively limited to seasonal beef-cattle grazing.

Cow-calf pairs and heifers are raised on the Deer Creek Hills Preserve and are typically onsite from mid-November through mid-May when calves are weaned and sold. Preserve lands are subdivided into grazing pastures which are partitioned by fencing. Fencing is also located along all property perimeters as well as along both sides of the Latrobe Road public right-of-way through the property. The site is divided into five principal pastures as shown in Figure 2.12 Grazing Fields Map, the Corral Field, Barn Field, Upper Field and the South Field. Cattle are moved between these grazing fields to get maximum use of the land while maintaining ample forage resources and preventing adverse effects on soils and vegetation from over, or under grazing.

From a management perspective, grazing uses of the Preserve have been viewed holistically. There is an intertwined relationship between grazing and the hydrology, vegetation and wildlife communities found on the Preserve. The relationship is neither wholly beneficial nor wholly detrimental and there are multiple variables involved given the various plant communities and habitat-types found on the Preserve. There is a likely correlation between cattle grazing and the repression of blue oak regeneration. However, this correlation has not been evaluated at the Preserve and it has been shown in other studies such as one conducted in Santa Barbara County that among the multiple variables evaluated for affect on regeneration suppression, grazing was a non-factor. (Factors Limiting Recruitment in Valley and Coast Live Oak, C.M. Taylor, et al., 2002) Cattle tend to have greater impact in areas closer to their water, mineral, and salt sources. Many of the intermittent drainages on the Preserve show evidence of cattle use. On the other hand, many native plant species depend on cattle grazing to control the non-native/exotic annual grasses that compete for water, sunlight and soil nutrients. Strategically timed grazing may actually facilitate oak regeneration by suppressing competitive annuals and forbs in the vicinity of oak seedlings, allowing more access to sunlight and water. Grazing is also the most cost effective and least invasive means of fire prevention on site. Finally, grazing practices and public access programs require careful management coordination to ensure the safety of the public and the cattle.

1.6.2.6. Constraints Overview

Site-related constraints have reviewed based on the general conditions described above matched against the intended purpose of the Preserve as described in Section 3.0 and the physical characteristics of the actual planned uses as described in Section 4.0. Generally, the site is relatively unconstrained for the range of uses proposed in this Master Plan. For example, with a few minor exceptions, site topography is conducive to trail routes to virtually every point on the Preserve because of the gently sloping topography and absence of sensitive or impenetrable vegetation such as the California Chaparral vegetation community. The hydrology presents some potential constraints with certain areas subject to seasonal flooding and the broad distribution of drainages which necessitates frequent stream crossings for trail routes.

Additionally, biological sensitivity of these hydrology resources suggests ensuring that important habitat areas are not adversely affected by public use especially during critical periods such as nesting times. No specific rare or endangered species habitat has been identified other than a few isolated groves of Elderberry shrubs that are known to provide habitat for the listed Elderberry Bark Beetle. Seismic risk to facilities and improvements on the Preserve is considered low due to the minimal scale and intensity of use envisioned on the Preserve. As mentioned above, off-site water impounds located to the south and southeast of the property have been constructed according to the Department of Water Resources Division of Dam Safety standards.

Fire risk is an inherent factor for this area due to the prolonged dry season which corresponds with the warmest period of the year. The amount of vegetation cover combined with topography and absence of humidity converge to result in high fire conditions especially during the late summer and early fall. Cultural and archeological resources are widely distributed throughout the Preserve and could potentially be subject to risk with unsupervised public access allowed on the Preserve. Finally, the surrounding properties can be sensitive to

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increased public access, with or without docent supervision. As shown on the Constraints Map, the property perimeter has been demarcated with a 300 foot “good neighbor buffer” as a means of respecting adjoining the properties’ need for privacy. See Figure 2.13 Constraints Map.

In 2006, the California Geological Survey (CGS) conducted an investigation of the potential for naturally occurring asbestos (NOA) in eastern Sacramento County. Findings from this study suggest that the easternmost portion of the County including portions of Deer Creek Hills and Rancho Murieta are moderately likely to contain soils bearing NOA. If NOA were to occur, it would most likely be associated with the Gopher Ridge Volcanics as indicated in Figures 2.6 Generalized Geology and 2.8 Soils. This formation is characterized as a metamorphosed mafic volcanic material consisting of volcanic breccias and lesser amounts of low-flow rocks. This Master Plan does not address NOA-related issues because it has not been confirmed that the onsite rocks and soils do in fact contain NOA, nor has there been any level of risk assessment conducted either based on the concentration of NOA particles present in the rocks and soils or the types of recreational uses envisioned at the Preserve in relationship to actual risk exposure.

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3. Vision, Goals and Policy/Recommendations

1.1.3.1. Vision

The vision for the Deer Creek Hills Preserve was synthesized from the missions of the Sacramento Valley Conservancy and MOU partners, the requirements of the MOU, and the ideas and input gathered through the public input process. The vision incorporates ideals regarding open space needs and the Preserve's inherent resource values and then characterizes the future condition that will result from the implementation of the spirit of this plan.

The vision for the Deer Creek Hills Preserve describes:

The Deer Creek Hills Preserve as a permanent open space natural Preserve and park on which the following uses occur in a balanced and sustainable manner.

- ❖ Open space and habitat management, preservation and restoration;
- ❖ Grazing management, as a land use and a tool for habitat management; and,
- ❖ Public access and appropriate recreational and education uses.

Blended recreation, agriculture and environmental preservation management objectives are employed to create an uncompromised open space legacy for the use and enjoyment of future generations.

1.2.3.2. Goals

The goals for the Deer Creek Hills Preserve Master Plan express long-range intent and set direction toward an ideal future condition. This Master Plan elaborates on the objectives listed in the MOU by setting the following goals:

- ❖ Preserve a natural resource area that serves biological, habitat, hydrological and other natural functions and continues to serve as a refuge and sanctuary for indigenous plant and animal species, as well as cultural and archeological resources;
- ❖ Balance appropriate public uses with habitat restoration and preservation, and grazing management purposes;
- ❖ Continue livestock grazing practices that preserve, sustain, or improve the condition of the natural resources;
- ❖ Provide a place for innovative public/private research, educational and interpretive opportunities;
- ❖ Increase the availability of outdoor recreation and access opportunities for the local region;
- ❖ Ensure the compatibility of the Preserve and its management and uses with regards to the surrounding ownerships and uses;
- ❖ Provide good stewardship of public assets;

- ❖ Ensure the best use of financial resources;
- ❖ Apply adaptive management principles to all existing and proposed uses in order to track conditions resulting from actions and adjust as necessary or appropriate.

1.3.3.3. Policy Recommendations

Policies for the Deer Creek Hills Preserve are detailed elaborations of Preserve goals in terms of specific actions or guiding principles designed to influence decisions. The policies are organized according to the primary MOU management components: open space/habitat, grazing, and public access. Management activities as elaborated in this section of the Plan are to be composed of the most effective, practical, economical, and technologically appropriate practices (or combinations of practices) necessary to positively affect the condition of Preserve resources and the patterns of associated public access and grazing activities. Interventions may include an array of actions and remedies to address declining or at-risk resources.

1.1.1.3.3.1. Open Space, Resource Preservation and Habitat (OSRP) Policies

Policies for open space and habitat preservation are broken out categorically according to the specific type of resource, including categories for oak woodlands, weed control, wildlife habitat, hydrologic/geomorphologic functions, and cultural/archeological resources.

OSRP I. Oak Woodlands Restoration: Prior research suggests that the blue oak and evergreen oaks distributed throughout the Preserve are not a robust vegetation community and show little evidence of regeneration. Additional research is needed to determine the cause and effect of the status of these woodlands.

Pursuant to Sacramento County Code, the Tree Preservation Fund for Sacramento County shall be used for tree planting and preservation programs and public education programs regarding trees; the Board of Supervisors may direct Tree Preservation Fund monies to non-profit organizations for the implementation of these programs (SCC 19.12.220).

Protected woodland habitat could be used as a suitable site for replacement tree plantings required by ordinances (Sacramento County Draft General Plan Policy CO-157).

The following polices are intended to support the existing stands of woodlands and contribute to their long term management.

- a. **Investigation:** Conduct detailed investigations regarding the historic pattern of oak woodland distribution and determine the causative factors in their status.
- b. **Regeneration:** In areas where it is confirmed that oaks have been removed and are not regenerating, promote scientifically based tree planting programs and measures that provide protection of oak seedlings from browsing and weed encroachment.
- c. **Invasives:** Control invasive weed species under, and within the vicinity of the oak woodlands.
- d. **Funding:** Develop financing sources for oak woodland regeneration studies, plantings and enhancement.

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- 1) Utilization of available tree mitigation funds collected by Sacramento County and other local jurisdictions shall be made possible through tree planting programs and studies at the Preserve.
 - 2) Participate in State and Federal cost share programs and grants to support these research and planting programs.
- e. Fire:** Apply prescribed fire and other methods to help control the spread of Medusahead grass, Yellow Star thistle, and other invasive wildland weed species. Any weed management with fire shall be conducted with permits from the Regional Air Quality District and the County Fire Department and would be closely monitored with adequate, qualified staff. Due to the high fire risk on site, especially during the dry season, fire is a last resort management technique.
- f. Restoration:** Restore native plants understory as an alternative to exotic grasses to reduce weeds and provide a longer grazing season for livestock. Encourage diverse understory vegetation including shrubs and multiple layers of vegetation to provide habitat for bird species.
- g. Grazing:** Optimize the benefits of grazing as a means for more uniform understory control in oak woodland areas. Utilize applied grazing practices to remove non-native annual grass phytomass (thatch or biomass) from the blue oak woodland understory with the goal of increasing the number and abundance of native plant species, improving overall ecosystem health, and restoring some of the native components unique to the blue oak woodland habitat. (see Appendix 5: Grazing Management)

OSRP II. Weed Control: Exotic and invasive plant species pose a significant threat to the habitat viability of the Preserve. Besides out-competing existing native species, invasive species contribute to numerous other management concerns including the health of the oak woodlands. Invasive species tend to dominate plant communities leading to monoculture conditions which affect wildlife foraging and habitat. Additionally, invasives are a management impediment to grazing practices, a nuisance factor for public access and contribute to fire risk.

- a. Prescribed burns:** Consider conducting (permitted and monitored) prescribed burns if combined cover of Medusahead and Barbed Goatgrass are found to exceed 25% of the total vegetation cover in a defined area (see OSPRI e. Fire policy). All other methods of weed control and abatement will be considered before prescribed burns are utilized on site.
- b. Yellow Star thistle:** Control Yellow Star thistle along Latrobe Road through removal by hand and application of herbicides to prevent additional infestations.
- c. Klamath weed:** Conduct research on optimum control methods for Klamath Weed.
- d. Salt licks:** Move salt licks away from oak woodland and over-stressed open grassland areas to reduce cattle congregating in the shade near the salt licks. Relocating salt licks will reduce disturbances that contribute to the establishment of Milk Thistle and Italian Thistle.
- e. Milk thistle:** Control Milk Thistle by herbicide application and/or solarization.

- f. **Italian thistle:** Conduct research on the most appropriate methods for Italian Thistle control. Options include herbicide application and intensive spring grazing, especially, along Latrobe Road.
- g. **Other:** Monitor for infestations of Dog Fennel, Parentucellia, and Ammi. Research applicable control methods if infestations of these species increase.

OSRP III. Wildlife Habitat: Deer Creek Hills Preserve provides important habitat for a variety of species. Consistent with the goal of preserving the natural resource area so that it can serve biological and habitat functions and provide refuge for indigenous plant and animal species, the following policies are intended to help manage and protect these important resources.

- a. **Grazing exclosures:** Create several small experimental grazing exclosures as controls to better determine grazing impacts on key habitat categories such as select riparian areas and upland oak woodlands.
- b. **Riparian enhancement:** Conduct scientifically-based riparian area enhancements including planting native vegetation in areas with good potential for riparian restoration.
- c. **Bird surveys:** Implement bird species surveys in conjunction with experimental management changes designed to monitor impacts of implemented actions on bird abundance and diversity.

OSRP IV. Hydrology and Geomorphology: Hydrology and geomorphology policies address identified site disturbances and other factors associated with water quality and the health and functionality of the Preserve's hydrological system. These policies are organized according to the primary watershed systems including the Deer Creek Tributaries, Crevis Creek tributaries and the Michigan Bar Tributaries that drain into the Cosumnes River. See Figure 2.9 Hydrology Map.

- a. **Deer Creek tributaries**
 - 1) Rehabilitate the mine pond and disturbed uplands area within the DC_east_mine pond reach to minimize impacts to hydrology, sedimentation, and water quality.
 - 2) Restore disturbed floodplain and channel system and reduce effects of trails and ditch failures.
 - 3) Emphasize protection management for the west and central tributaries of Deer Creek and the fenceline branch of the east tributary. Monitor future upstream land and water use for the DC_east_fenceline tributary.
- b. **Crevis Creek: West Branch tributaries**
 - 1) Rehabilitate the largest active gullies (gullies a and b), and other disturbed uplands.
 - 2) Monitor future upstream land activities (offsite) and water use since a large percentage of this drainage area is off-site.
 - 3) Rehabilitate the disturbed floodplain and unstable channel in the WC2 reach to improve channel and floodplain functions, in-channel habitat and water quality.
 - 4) Restore or mitigate the WC2 reach for riparian and floodplain habitat.

- 5) Field assess the risk of new gully formation from existing and potential ditch failures. If the risk is high, implement actions to remove or purposely breach long ditch remnants across steep slopes.

c. Crevis Creek: Scott Road Branch and Tributaries

- 1) Rehabilitate active gullies from breaches of the historic (mining-related) inter-basin ditches and road crossings. Pay particular attention to the headwater area of the Scott Road tributary that was ‘captured’ by ditches and gullies and flows into the northwest tributary of the North Branch of Crevis Creek.
- 2) Reduce active head cutting in the west and east tributaries and minimize continued stream widening downstream of their confluence to reduce fine sediment loads to the downstream reaches of Crevis Creek and improve water quality and in-channel habitat in the on-site reach.

d. Crevis Creek: North Branch Tributaries

- 1) Initiate rehabilitation of the Barn Pond spillway and adjacent disturbed uplands, stabilize subbasins with channels that are downcutting and/or actively headcutting, and modify abandoned dam berms.
- 2) Reconfigure the Barn Pond dam and spillway to provide flows to the bypass reach, improve or increase reservoir storage volume, and reduce erosion and sedimentation from uncontrolled overflows.
- 3) Rehabilitate the disturbed uplands by the Barn Pond. Remediate the active gullies and reduce trail and road disturbances that cause concentrated runoff and high sediment loads in the northwest tributary and in the grassland and fenceline tributaries.
- 4) Relocate the fenceline to reduce multiple trail impacts on runoff and erosion.
- 5) Evaluate the main stem of the north branch with regards to degraded conditions.
- 6) Identify strategies to reduced stress from continued upstream tributary erosion and benefit the mainstem.
- 7) Restore the incised channel of the northwest tributary’s lower reach to help maintain groundwater support to the NC2 reach.
- 8) Improve the Upper Pond dam, outlet and spillway and the downstream Latrobe Road crossing to benefit local wetlands, water quality, and improve water supply for range management.

e. Crevis Creek: East Branch Tributaries

- 1) Reduce erosion and sedimentation from Latrobe Road and its right-of-way, as well as the direct disturbance associated with multiple fords crossing the creek.

f. Crevis Creek: Mainstem

- 1) Reduce disturbance and stress related to the erosion, sedimentation, and water quality impacts from Latrobe Road and the ford by the corral.
- 2) Develop options for alternative routing, seasonal restrictions, and engineering improvements to provide a more stable all-weather travel surface for the Latrobe Road.
- 3) Prioritize protection of the existing high quality riparian corridor from future disturbance.

g. Michigan Bar: West Tributaries

- 1) Reduce direct soil compaction, related erosion and sedimentation impacts from vehicle access.

- 2) Monitor offsite uses of Michigan Bar Road and suggest options for alternate routing, seasonal restrictions, and engineered improvements to provide a stable all-weather travel surface.

h. Michigan Bar: South Pond Tributaries

- 1) Develop options to decrease soil compaction and trail use pressure in this corridor.

i. Michigan Bar: Canyon Tributary

- 1) Reduce erosive stress and rehabilitate the actively degraded portions of MB4_north.
- 2) Address the disturbed uplands, abandoned dam, and disturbed channel and floodplain in MB6_north and MB5_f.
- 3) Complete additional research on the hydrologic and sediment impacts of the Michigan Bar Road to determine whether management actions are needed.
- 4) Protect the functioning reaches of MB3 and MB4.

j. Michigan Bar: Southeast Tributary

- 1) Monitor future off-site activities/land use to protect the Deer Creek Hills reach from adverse impacts of upstream land and water disturbances.

OSRP V. Archeological and Cultural Resources: Important cultural and archeological resources present on the Preserve necessitate multiple management activities including ensuring resource protection and creating opportunities for public education. The following policies address both resource protection and resource interpretation for public benefit.

- a. Preservation:** Utilize “in-situ” (left in place) preservation methods to avoid damaging archaeological and cultural resources. Emphasize preservation of the entire site versus preserving individual artifacts.
- b. Grading and other earthwork:** For all large footprint facilities such as parking lots requiring grading avoid cutting into existing grade to protect any potential non-surveyed resources potentially present. Ensure that an archeologist is present for earthwork involving existing grade disturbance.
- c. Management activities:** Ensure that management activities adhere to the intent of applicable laws regarding the protection of archeological resources.
- d. Disclosure:** Through consultation with an archeologist and sensitivity evaluations, determine which of the Preserve’s cultural and archeological resources may be interpreted for the public versus which resources must remain undisclosed.
- e. Interpretive information:** Develop stories pertinent to the Preserve that help convey the condition of the resources and capture unique or informative aspects of both historical and pre-contact inhabitants. Incorporate these stories into interpretive information for the public through signage and educational and interpretive media.

OSRP VI. Fire Management: Fire management is a requisite responsibility for Preserve management as the region is especially vulnerable to wildfire due to the combined factors of fuel load and dry hot season conditions. Fire risk is also increased

because Preserve lands are situated in close proximity to urban lands and urban uses. Fire management policies are organized by function and purpose.

a. Fire Management for Ecological and Habitat Benefits

- 1) History: Develop a data base of the fire history of this region.
- 2) Assessments: Conduct fire load assessments of Preserve vegetation.
- 3) Controlled Burns: Apply controlled burns on an as-needed and permitted basis for multiple management objectives including fire management, weed control, oak woodland management, and specific habitat management (see OSPRI e. Fire policy). All other methods of weed control and abatement will be considered before controlled burns are utilized on site.

b. Fire Risk Deterrence

- 1) Assessments: Conduct a fire risk assessment in cooperation with the County and adjoining property owners.
- 2) Weed Control: Conduct weed control along Latrobe and Michigan Bar roads.
- 3) Setbacks: Establish setbacks between high fuel load areas and flammable structures such as wooden kiosks, storage structures or other flammable elements. Site, design, and manage facilities to reduce fire risk i.e., site flammable facilities away from updraft locations, areas of dense scrub vegetation, and canopy vegetation.
- 4) Enforce No Fires/No Smoking: Smoking, open fires, fireworks, and other combustible materials shall be prohibited with exception of cooking stoves and campfires in designated areas during seasonal, pre-approved, staffed, docent-led camp activities, and managed controlled burns for habitat purposes (see OSPRI e. Fire policy).

1.1.2.3.3.2. Grazing Policies (G)

Livestock grazing operations will continue as an on-going activity on the Preserve. To ensure that grazing operations, to the greatest extent possible, enhance and do not degrade the existing resources and provide public education opportunities about agricultural traditions, it is imperative that Preserve management and staff work closely with the grazing lessee. Additionally, lessee input must be obtained regarding management decisions about public access and resource management that affect grazing operations.

G I. Grazing and Habitat Resource Management

- a. Stress:** Identify and site livestock water and salt supplement sites to reduce stress on specific resource areas and according to habitat and restoration goals.
- b. Current grazing operations:** Allow grazing lessee to continue current grazing practices as long as resource management conflicts or other public-use issues can be circumvented through scheduling, temporary closures and seasonal management adjustments.

- c. **Strategy integration:** Integrate strategies for grazing management when implementing other management measures such as grazing ex-closure fencing so as not to result in a net loss in grazing production.
- d. **Understory:** Optimize the benefits of grazing as a means for more uniform understory vegetation control in oak woodland areas.
- e. **Monitoring:** Conduct Residual Dry Matter (RDM) monitoring in the fall (September) of each year to evaluate and, in consultation with the grazing lessee, adjust, if necessary, the animal stocking rate, accordingly. Note: RDM is only one evaluative factor among many such as seasonal rainfall levels, weed infestation extent, and other resource and/or operating considerations that may influence stocking rates and stock timing.

G II. Grazing and Public Access

- a. **Education:** Develop interpretive information about the history and relevance of agriculture and appropriate behavior where and when livestock is present. Incorporate this information into docent led hikes and display on interpretive and informational signs.
- b. **Access:** Restrict and/or divert public access during scheduled grazing operations for livestock management purposes including during calving and times when cattle are being moved in and out of grazing areas at the beginning and end of the grazing season (round-ups).
- c. **Coordination:** Coordinate the times and locations for restricting public access with grazing lessee.
- d. **Arbitration:** In the event of possible use-related conflicts that can't be resolved through internal Preserve management coordination, the Advisory Council should be consulted with participation by Sacramento County Agricultural Commissioner and Director of Weights and Measures to help facilitate issue resolution either as a member of the Advisory Council or as an independent advisor.

1.1.3.3.3. Public Access and Recreation Policies (PA)

The following policies address public access and use of the Deer Creek Hills Preserve. They are organized by baseline conditions, Phase I and Phase II.

PA I. Baseline Access Conditions

- a. **Exclude dogs and other pets:** All pets are prohibited to reduce the risks of conflict between recreational users, habitat resource sensitivity, and grazing cattle.
- b. **Access Closures to Accommodate Grazing:** Close select areas of the Preserve to public access during key grazing management periods, such as round ups and calving periods.
- c. **No Fires/No Smoking:** Smoking, open fires, fireworks, and other combustible materials shall be prohibited with exception of cooking stoves and campfires in designated areas during seasonal, pre-approved, staffed, docent-led camp activities, and managed controlled burns for habitat purposes.

- d. **Resource Sensitive Recreation:** Accommodate only resource sensitive recreational uses onsite to maintain consistency with the intent of the MOU.
- e. **Trash:** All waste and litter shall be hauled offsite by the Preserve users (pack-in, pack-out).

PA II. Phase I

- a. **Trail Conduct Brochures:** Provide trail etiquette brochures at trailheads and for all docent-led activities on the Preserve to educate the public about appropriate conduct around natural resources, historical/cultural resources, and grazing cattle.
- b. **Docent volunteer programs:** Utilize volunteer docent support to facilitate docent supervised access including public access guided tours, educational programs, and habitat enhancement, trail, and other maintenance projects, day use (when staffed) and pre-arranged docent-led picnic and overnight trips.
- c. **On-site Trails and Day Use:** Increase the range of experiences for the day user when and if sufficient docent supervision and staffing is available including improvement of parking area in the phase I staging area near the corral, and basic visitor amenities including the phase I self-guided nature trail.
- d. **Good Neighbor Buffer Zones:** Keep all trails and public access outside of the defined Good Neighbor Buffer Zones.

PA III. Phase II

- a. **Latrobe Closure:** Close Latrobe Road to through traffic. Allow access during operating hours and install a gate to restrict access during non-operating times.
- b. **Caretaker Residence:** Investigate the establishment of a staffed permanent caretaker facility on site to manage access and monitor public use conduct.
- c. **Public Education Program:** Continue to develop public education programs to inform the public about the natural, cultural and agricultural resources and ranching operations on site and to teach people about trail conduct.
- d. **Investigate Trail Linkages:** Investigate the potential for trail linkages between the Preserve trail system and existing and proposed regional trail corridors.
- e. **Group Camping:** Accommodate group camping activities on a reservation and docent-led basis.
- f. **Group Picnic Areas:** Provide group picnic areas that are located and designed to be compatible with on-going grazing operations and the natural character of the Preserve.
- g. **Parking:** Improve parking areas for public access.

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- h. Service amenities for public access:** Provide public service amenities including trailhead and staging area(s), accessible toilet facilities, visitor information kiosks, and an orientation assembly area.
- i. Self-guided Tour Area:** Develop an accessible trail and other educational, interpretive and public amenity features.
- j. Potable Water:** Analyze the feasibility of, and options for an on-site potable water supply and delivery system.

- k. Investigate improvement of the segment of Latrobe Road that provides access to the Preserve, including the potential and cost for an all-season bridge over Crevis Creek at west entry.

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4. Deer Creek Hills Preserve Concept Plan

1.1.4.1. Concept Plan Components and Organization

This section describes the physical plan including existing facilities and uses as well as the future envisioned facilities and uses. There are three parts to the Preserve Concept Plan:

1. Management sub-areas that assist in providing structure for the distribution of the plan components and uses including public access and recreation, resource/habitat related programs, grazing uses, and fire management.
2. Use Classifications categories pertaining to the various management purposes of the Preserve.
3. Overall elements related to Preserve function, identity, design, image and security.

1.2.4.2. Planning Sub-Areas

For planning and management purposes, the larger Preserve area has been subdivided into smaller areas as described below. These sub-areas provide context and framework for the distribution of recreation resources, restoration efforts fire prevention measures, and grazing operations. There are four planning sub-areas within the larger Preserve boundaries.

1.1.4.2.1. Northwest Area

The Northwest Area adjoins a portion of Scott Road on the west and Latrobe Road on the south. There are approximately 27,658 feet of trails in this nearly 1,050-acre portion of the Preserve. Ownership of this section of the Preserve is divided between exclusively State-owned property along the northern boundary and property in shared Conservancy/County ownership. Special features in this section include remnant mine tailing areas, the North Pond, and the corral area, which is the principal entry point for public access and grazing operations. Additionally, the mainstem of Crevis Creek flows through the Northwest Area. As the point of departure for the docent-led events and activities, this section of the Preserve encompasses a broad diversity of topography and vegetation types creating a wide range of visitor experiences. This section of the property is relatively wooded in comparison to other sub-areas on site. This diversity contributes to the Northwest Area being the optimum choice for current Phase I public uses and as a potential expansion area for Phase II public uses. This area is identified as an alternative option for the Phase I primary development area for public access. Because this area includes some of the primary grazing pastures, additional public access related uses and facilities should be carefully coordinated with the grazing manager. There are also specific habitat issues including the mine tailing area hydrological restoration needs affecting this Area.

1.1.2.4.2.2. Northeast Area:

The Northeast Area of the Preserve is bordered by Latrobe Road on the south and includes a portion of Deer Creek in the north. The area is comprised predominantly of grasslands with woodland covering some of the lower elevations. The Northeast Area includes the highest elevations found on the Preserve. There are a total of 1,278 acres in this area and approximately 12,088 feet of trails. Special features include the upper pond area which will likely be a high-priority restoration area because of upstream erosion and

disturbances around the pond. Because there is an extensive portion of this region with no tree canopy and minimal designated trail access, the Northeast Area will serve primarily as a grazing resource and opens space preserve. Habitat restoration and some fire management fuel load reduction especially along the upper segment of Latrobe Road may also occur here. Limited public access and recreation use is expected in the Northeast Area in Phases I and II.

1.1.3.4.2.3. Southeast Area:

The Southeast portion of the Preserve adjoins the south side of Latrobe road, borders the community of Rancho Murrieta, and adjoins Michigan Bar Road along its eastern border. This area also is comprised of substantial woodland vegetation with grasslands dominating the upper elevations in the eastern portion of the sub-area. There are 1,685 acres in the Southeast Area and approximately 17,709 feet of trail corridor. Special features include the South Pond and associated riparian and aquatic habitat. This Area has significant hydrological and riparian habitat sensitivities and consequently Phase I and Phase II access in this area must be very carefully managed to minimize potential conflicts with these identified sensitivities.

1.1.4.4.2.4. Southwest Area:

The Southwest Area is located in the southwest corner of the Preserve adjoining Latrobe Road to the north and adjacent to the Rancho Murieta community. The portion of the mainstem of Crevis Creek that flows through the Southwest Area is subject to periodic flooding. This section of the Preserve is approximately 80-acres in size with 1255 feet of trail corridor. The Southwest Area is not subject to the same grazing intensity as the other sub-areas because it is primarily used as a temporary holding pasture when cattle are moved in and out of the Preserve. It is a diverse portion of the Preserve that hosts a variety of vegetation, topography and other unique features. Some of the largest blue oak specimens on the Preserve are found in the Southwest Area. The area is also centrally located in relation to other sub-areas. This central location creates a convenient hub and staging point for access to the rest of the Preserve. Therefore, along with the Northwest Area the Southwest Area is designated as the other alternative primary development area for Phase I and Phase II public access and recreation serving facilities.

1.3.4.3. Preserve Use Classifications

Resource classification categories differentiate areas of the Preserve according to management objectives, level of public use, and site sensitivities. The use classifications are organized according to the primary management functions identified by the MOU.

1.1.1.4.3.1. Open Space, Resource Preservation and Restoration

Classifications intended for resource improvement and modification on the Deer Creek Hills Preserve are based on an ecosystem level understanding of the resources identified and described in Appendix 3: Resource Descriptions. The following open space, resource preservation and restoration classifications are associated with specific conditions found on-site. They are subject to periodic up-date and modification based on adaptive management principles and actual resource response to initial remedial actions. Adaptive management practices and principles are to be applied in all resource-related

management activities conducted on the Preserve. Management activities as elaborated in the Policy/Recommendation section of this Plan are to be composed of the most effective, practical, economical, and technologically appropriate practices (or combinations of practices) necessary to positively affect the condition of Preserve resources and the patterns of associated public access and grazing activities. Interventions may include an array of remedies for declining or at-risk resources.

Resource protection and improvement-related classifications include weed control, riparian habitat improvement buffers, hydrological restoration buffers, other resource buffers such as for cultural/historical resources and open space preserve.

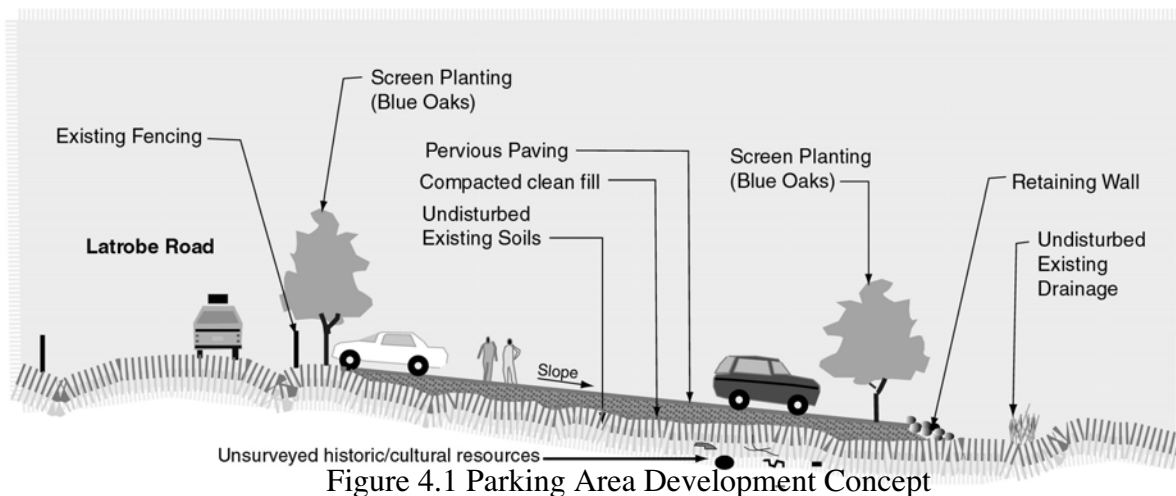
- a. **Weed Control:** Weed control and abatement areas are defined according to pre-established thresholds for weed density and distribution as described under weed abatement policies, Section OSRP II. Defined areas for abatement include frontages along both sides of Latrobe Road, Preserve frontage along Michigan Bar Road and specific heavily impacted areas such as the upper Southwest Area and the area around the corral. Special management and actions proposed in these areas are defined in Section OSRP II.
- b. **Riparian Habitat Improvement Buffers:** Onsite riparian habitat areas are limited to the constructed larger watering ponds and some of the larger drainage courses such as the Mainstem of Crevis Creek.
- c. **Hydrological Restoration Buffers:** Hydrological Restoration Buffers are the areas subject to restoration/improvement actions described in Section OSRP IV.
- d. **Rare or Endangered Plant buffers:** Rare or Endangered Plant buffers are areas yet to be defined but would overlay known rare or endangered plant species locations and would then superimpose special management treatments as described in OSRP I.
- e. **Oak Woodland improvement buffers:** Although no specific actions or areas are identified in this plan, it is envisioned that various research-supported restoration actions will be implemented in the future. Identified oak woodland (OSRP I) policy measures will be applied on a case by case basis.
- f. **Other Resource Buffers:** Other Resource Buffers include the locations and the surrounding area of identified cultural/historical resources, especially those considered highly sensitive to disturbance. Special management and actions proposed in these areas are defined in Section OSRP V.
- g. **Open Space Preserve:** Refers to all Preserve lands. This designation serves as the generic status of the land if no special use designation overlays that particular area. The Open Space Preserve designation assumes potentially high sensitivity to the land in terms of natural and/or cultural/historic resources and therefore open and unrestrained access is not allowed.

1.1.2.4.3.2. Public Access and Recreational Uses

Public Access uses of the Preserve have been defined by relative levels of sensitivity and the extent that other management objectives affect a specific area.

The plan defines the following classifications:

- a. **Trailhead/Staging Area:** Public staging infrastructure areas located at designated access points in the Northwest and Southwest Areas. Trailhead/staging areas will accommodate parking, educational and directional signage, information kiosks, accessible toilet facilities, and other visitor amenities. These areas are planned to receive higher intensities of public use. Parking surfaces are to be rustic permeable materials; i.e. decomposed granite, crushed rock or permeable asphalt. They will include landscape screening, utilizing a palette of local stock native plant materials and featuring blue oaks as the primary screen tree (See suggested Table 4.1 Plant Palette). The grading for the staging area parking and trailhead facility is to be accomplished with borrowed fill in order to achieve the desired slopes and shape without disturbing un-surveyed cultural/historical resources possibly present. See Figure 4.1 Parking Area Development Concept.



- b. **Self-guided Tour Area:** The self-guided tour area will include a trail with interpretive displays and markers and other public amenity features. It will be sited in either the Northwest or Southwest area pending more detailed site sensitivity investigations as related to natural and cultural/historic resources.
- c. **Group Picnic Area:** Group Picnic Area is a designated area for approved and supervised picnic activities. Although it will be kept in a rustic character, the area will include some comfort features including picnic tables, portable rest rooms and interpretive displays. It is to be sited in an area with an established canopy of oak woodlands and will include access from the Staging Area as well as directional signage.
- d. **Group Overnight Area:** Group Overnight Area is a designated area for reservation only, approved and supervised group overnight events. Similar to the Group Picnic Area, the Group Overnight Area will be kept in a rustic character with portable toilets brought in for the overnight event itself. It is also to be located within the 80-acre Southwest Area and near the Staging Area. An

alternate site for group overnight events is located just west of the largest pond in the Northwest Area.

- e. **Guided Tour Trail Corridor:** The Guided Tour Trail Corridor is a designated and developed trail corridor system that is managed according to specific resource conditions and therefore subject to periodic closures or rerouting according to conditions or adjoining management objectives, including natural resource sensitivities; grazing operations, and fire management. It is sited just south of the Staging Area.
- f. **Open Space Preserve:** Open Space Preserve applies to the majority of areas within the Preserve and includes all lands maintained largely in natural condition with trail walking and nature appreciation uses.
- g. **Protected Area Special Management Areas:** to be applied to areas within the Preserve where, because of identified or potential environmental, cultural or archeological sensitivities, restoration management objectives, grazing or neighboring property buffers or other conditions, public uses and access are limited, restricted, or prohibited.

1.13.4.3.3. Grazing Uses

Grazing uses are applicable to the entire Preserve. As described above, it is preferable for the grazing manager to maneuver the cattle distribution among the pastures of the Preserve in order to optimize the use of the available feed and not over exploit any particular area of the Preserve at the same time. The five pasture fields enable this distributing of cattle according to management objectives. See Figure 2.12 Grazing Fields map.

- a. **Grazing Reserve:** Grazing Reserve refers to areas where grazing is allowed. The Grazing Reserve is the entire Deer Creek Hills property with the exception of the Southwest Area and areas subject to temporary closure for habitat or hydrological remedial actions. The Southwest Field will be used on an occasional basis and only for the loading in and loading out of livestock or as temporary pasture upon special arrangement with the Conservancy.
- b. **Salt lick and Nutrient Sites:** Salt lick and Nutrient Sites are sites that require minimal improvements and can be located and relocated according to three different considerations including nearby quality of graze materials, habitat or restoration activities, and public access requirements.
- c. **Watering Sites:** Watering sites include the existing standing ponds and water structures distributed throughout the Preserve. Watering sites are typically bermed entrapments of surface drainage designed to capture spring run-off for cattle watering. These sites are much less mobile than salt/nutrient sites and can be managed to redirect livestock use to specific locations, but only through direct coordination with the grazing lessee.
- d. **Loading and Unloading Area:** Loading and unloading area refers to the Corral facility in the Northwest Area and is the existing loading and pick up area for cattle operations. Improvements to this area for public access will incorporate access requirements for cattle moving operations including sufficient turning area for vehicles, fence enclosures, and other accessory structures.

1.1.4.4.3.4. Fire Management

Fire management features described here characterize features that are intended to serve as fire deterrent. They include fuel modification zones throughout the entire Preserve and emergency access corridors for emergency response access. These features are intended to reduce the frequency, severity, and size of wildfires with their associated losses and costs. See Figure 4.2 Generalized Management Plan. See OSPRI e: Fire policy for precautions about weed management with fire.

- a. Fuel Load Modification:** Fuel load modification involves the management of vegetation cover on the Preserve specifically for fire inhibition. Included in this category are the areas with the highest public adjacency including the frontages along Scott, Latrobe and Michigan Bar Roads. Methods and measures employed in these areas must be consistent with other management goals particularly those aimed at habitat and resource management. Grazing, control burns, mowing and manual plant trimming or removal are recommended fuel load reduction measures to be employed.
- b. Onsite Water Storage:** On-site water storage capacity to be located in the vicinity of the Holding Area will enhance emergency response capabilities for fires. The size and capacity requirements for such a facility should be based on an evaluation of probable demand resulting from a wildfire occurrence. Siting the facility close to Latrobe Road would enable rapid access and deployment.
- c. Emergency Access:** Fire response to the Preserve will exploit the existing network of grazing access roads as shown on the Management Plan. This existing road system enables access to the primary wooded portions of the Preserve. Emergency access gates located along Latrobe Road will help prevent unauthorized use of these roads.

1.4.4.4. Overall Preserve Elements

The Deer Creek Hills Preserve already has a recognizable identity as a result of its distinct topography, extensive blue oak woodlands, and rural working ranch character. Plan development must be sensitive to this character and serve to reinforce it with the treatment of introduced structures and facilities. Although further refinement of this identity will be needed, this plan establishes natural values and the working ranch character as the principal themes to adhere to with regards to all introduced elements. The following section describes Plan components that are not confined to specific use areas of the Preserve.

1.1.1.4.4.1. Preserve Circulation

As shown in Figure 4.2 Generalized Management Plan, a network of roads and various classes of trails are a part of the Plan along with support components such as trailheads and gates. The segment of Latrobe Road that transects the Preserve is shown as a potential future regional trail linking with both Sacramento and El Dorado County trail systems. This trail linkage enables the more active trail recreationist to experience the Preserve without imposing additional management burden because the corridor is confined to the existing Latrobe road easement that will be closed to motorized vehicular access but open to bicycles and equestrian users. The next class of trail is the docent led trail network for Phase I and II that will be converted to a multi-use trail upon the appropriate triggers being in place as outlined above. The next class of trail is the Phase II self guided and accessible trail system developed in the either the Northwest or

Southwest Area of the Preserve. The self-guided trail also incorporates signage and interpretive components. The next class of circulation is an emergency access system that facilitates fire management and other emergency response capabilities as well as grazing management access and circulation. Collectively this encompasses the overall circulation system for the Preserve.

1.1.2.4.4.2. Design Considerations

“Design” considerations are the underlying themes and standards that govern function, and aesthetics of the developed elements of the Preserve. A design theme establishes consistent Preserve-wide standards that contribute to the image, and treatment of the Preserve in terms of materials, colors, surfaces, plantings, signs, and other characteristics of all developed elements. Design considerations also encompass the actual configuration of developed elements on the Preserve in terms of siting, scale and configuration. This plan identifies the natural attributes of the site – especially the blue oak woodlands and rolling topography along with its rural/agricultural heritage and image as the predominant themes to build upon.

1.1.3.4.4.3. Context-Sensitive Development

Designated areas and uses must conform to the existing natural context on the Preserve. Recreation use, environmental conservation, and restoration activities should be adapted to the site’s intrinsic resource values and should take into consideration the functional and aesthetic impacts of each action. A context-sensitive approach requires that Preserve infrastructure and recreational facilities be developed carefully with respect for the natural setting, surrounding land use, sensitive resources, and topographic contours found on-site. Recreation areas and improvements are to be developed where they are needed in such way as to blend in and be compatible with the surroundings. Areas with environmental, cultural, and scenic value must be protected from potential adverse effects resulting from development.

1.1.4.4.4.4. Multiple-Use Design

As a natural area and working ranch, the Deer Creek Hills Preserve provides value as habitat, grazing area, and recreation, among other uses. Multiple-use design recognizes the value of co-existing uses and seeks to implement functionality and aesthetics that promote compatibility. Integrated use is possible through careful designation and control of public access points, designation of uses, and public education.

1.1.5.4.4.5. Low Environmental Impact

Design, operation, and management of the Preserve must be conducted in such ways as to have minimal impact on the environment. Preserve design and use should conscientiously seek to minimize adverse effects on wildlife and the habitats upon which they depend by integrating conservation and restoration values, with recreation and grazing values.

1.1.6.4.4.6. Signage

The Preserve requires a well-designed and coherent signage system to notify users of park rules, direct the public to appropriate use areas, present and interpret park resources, ensure public safety, explain recreational opportunities, and encourage public participation in Preserve stewardship. A conceptual example of an entry sign is illustrated below in Figure 4.3 Entry Sign Concept. Consistent with the suggested comprehensive design theme, this sign is intended to convey both a rural/agricultural image as well as one conveying the Preserve's natural resources – particularly the blue oak woodlands. The use of locally quarried Placer cobble as a base structure reinforces a site-derived image and consequently a sense of place.



Figure 4.3 Entry Sign Concept

1.1.7.4.4.7. Other Design Elements

Other design elements include trail standards, trail markers, entry gates, interpretive displays and kiosks.

- a. Trail Standards:** Trails are intended to be low-profile pedestrian trails. The Phase I trails take advantage of cattle paths and ranch management routes but as public uses increase, a formalized trail standard is envisioned. Proper trail design accommodates surface drainage and establishes widths suitable for anticipated traffic levels while not over imposing on the site. A conceptual trail standard is shown below in Figure 4.4 Typical Developed Trail Section.

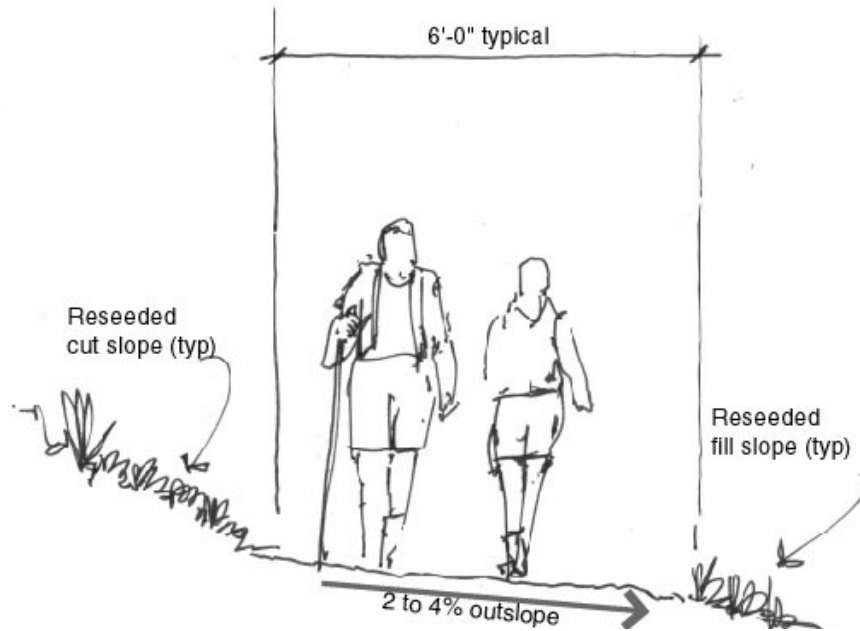


Figure 4.4 Typical Developed Trail Section

- b. Trail Markers:** Trail markers need to be permanent, able to withstand cattle contact and visible but low profile. Figure 4.5 Typical Trail Marker, illustrates a thin profile flexible marker that could accomplish these design purposes. Wayfaring information and site logo are typically displayed on such signs.

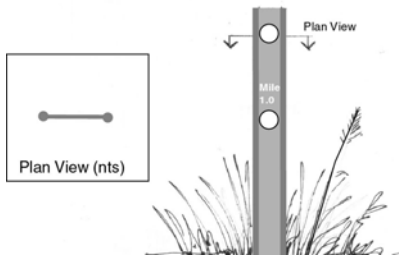


Figure 4.5 Typical Trail Marker

- c. Entry Gates:** The Entry gate must be sufficiently durable to handle normal wear and tear as well as potentially severe vandalism. The gate can also help reinforce a sense of place. The following gate design is adapted from an entry gate developed for an oak woodland interpretive area in Calabasas, Southern California. It is constructed with cut steel plating and it includes a compound lock system to enable key access by multiple authorized users. See Figure 4.6 Gate Concept below.

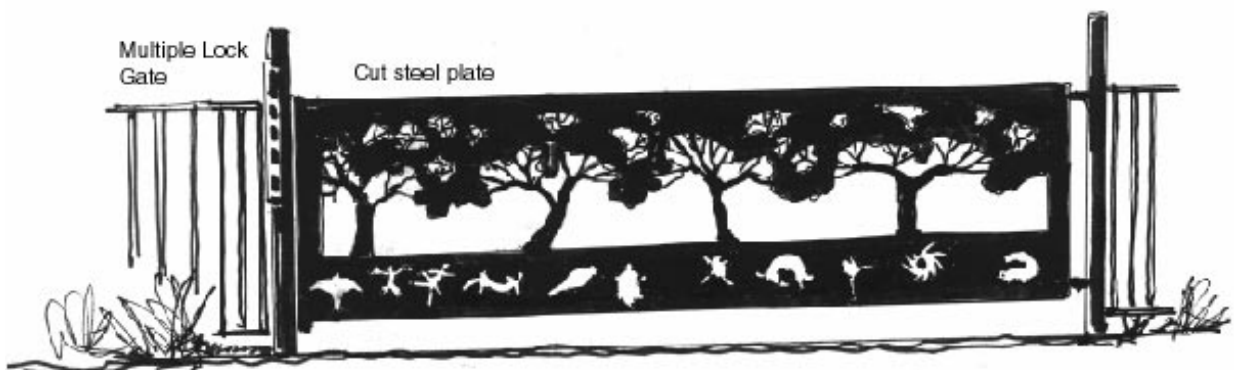


Figure 4.6 Gate Concept

- d. **Interpretive Sign Displays:** Similar to trail markers, interpretive sign displays need to be low profile but durable. The design intent for interpretive signage is to not overpower the resource or subject. Figure 4.7 Typical Interpretive Sign illustrates this intent:

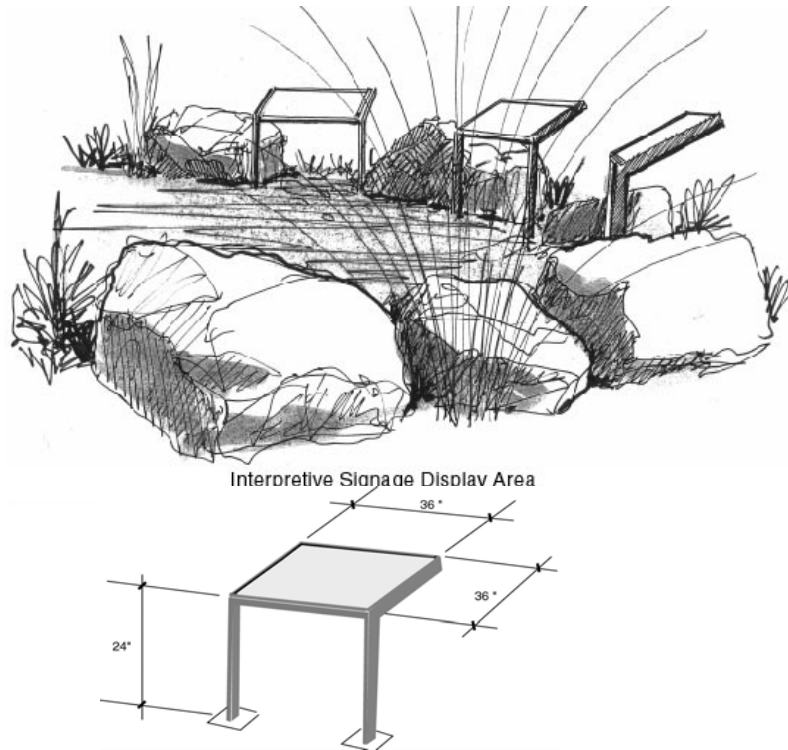


Figure 4.7 Typical Interpretive Sign

- e. **Kiosks:** Kiosks are structures that lend themselves to thematic design and are well suited to the rural and natural theme established for the Preserve. However as a free-standing structure exposed to both public use and the elements, it has to be sufficiently durable to withstand wear and tear. Figure 4.8, Information Kiosk, shows an example of such a structure:

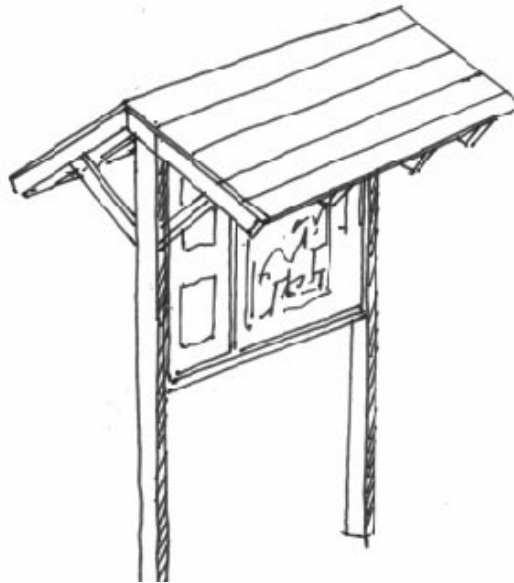


Figure 4.8 Informational Kiosk

1.1.8.4.4.8. Landscaping and Restoration Plants

This plan promotes the use of native plants at the Preserve if and where vegetation needs to be enhanced, restored, supplemented, or replaced with regards to public recreational use areas and facilities. This plant list includes native species from the broader habitat range from Valley flatlands to the upper Foothill zone. The following is a suggested palette and should not be considered a comprehensive list for restoration actions on the Preserve but rather as a collection of plants suitable for enhancement of public access and recreation areas and other developed areas of the Preserve.

Table 4.1
Suggested Native Plant Species for Recreation Related Improvements

Common Name	Scientific Name
Box elder	<i>Acer negundo</i> ssp. <i>californicum</i>
California buckeye	<i>Aesculus californica</i>
White alder	<i>Alnus rhombifolia</i>
Oregon ash	<i>Fraxinus latifolia</i>
California black walnut	<i>Juglans californica</i>
Foothill (Grey) pine	<i>Pinus sabiniana</i>
California sycamore	<i>Platanus racemosa</i>
Fremont cottonwood	<i>Populus fremontii</i>
Blue oak	<i>Quercus douglasii</i>
Interior live oak	<i>Quercus wislizenii</i>
Valley oak	<i>Quercus lobata</i>
California black oak	<i>Quercus kelloggii</i>
Arroyo willow	<i>Salix lasiolepis</i>
Black willow	<i>Salix gooddingii</i>
Red willow	<i>Salix laevigata</i>
Pacific willow	<i>Salix lucida</i>
Sandbar willow	<i>Salix exigua</i> , <i>S. hindsiana</i>
California bay	<i>Umbellularia californica</i>
Chamise	<i>Adenostoma fasciculatum</i>
Coyote brush	<i>Baccharis pilularis</i>
Mulefat	<i>Baccharis viminea</i> , <i>B. salicifolia</i>
Buckbrush	<i>Ceanothus</i> sp., incl. <i>C. cuneatus</i>
Buttonbush, button willow	<i>Cephalanthus occidentalis</i>
Western redbud	<i>Cercis occidentalis</i>
Mountain mahogany	<i>Cercocarpus betuloides</i>
Brown dogwood	<i>Cornus glabrata</i>
Yerba Santa	<i>Eriodictyon californicum</i>
Toyon	<i>Heteromeles arbutifolia</i>
Coffeeberry	<i>Rhamnus californica</i>
California wild rose	<i>Rosa californica</i>
California blackberry	<i>Rubus ursinus</i>
Elderberry	<i>Sambucus mexicana</i>
California grape	<i>Vitis californicus</i>
Manzanita	<i>Mazanita</i> sp
Squaw bush	<i>Rhus ovata</i>
Bent grass, spike redtop	<i>Agrostis exarata</i>
Deergrass	<i>Muhlenbergia rigens</i>
Dogbane	<i>Apocynum cannabinum</i>
Penstemon	<i>Penstemon</i> sp.
Blue-eyed grass	<i>Sisyrinchium bellum</i>
California barley	<i>Hodeum californicum</i>
California brome	<i>Bromus carinatus</i>
California fuchsia	<i>Epilobum canum</i>
California buckwheat	<i>Erigonum californicum</i>
California poppy	<i>Eschscholzia californica</i>
Bird's-eye gilia	<i>Gilia tricolor</i>

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Common Name

Scientific Name

Owl's clover

Castilleja exserta

5. Implementation

The Implementation section describes the sequence of Preserve development and identifies how development can be accomplished.

1.1.5.1. Phased Public Access Plan

The conceptual phasing plan is a trigger-based process i.e., actions for implementation are dependent on key decision points and/or or key actions such as the ability to manage access on Latrobe Road or the development of appropriate security, staffing and funding support. Other key triggers include sufficient available funding, specific livestock grazing and public access coordination measures and the completion of specific prerequisite infrastructure to accommodate a subsequent phase or action. Implementation actions are also dependent on funding and the availability of staffing and volunteers.

1.1.5.1.1. Phase I

Phase I comprises the management practices carried out by the Conservancy from the time the MOU agreement was formalized through to the adoption of this Master Plan. See Figure 4.2 Generalized Management Plan. During Phase I only limited public access is allowed on the Preserve. The schedule of activities and public access dates are determined by the Conservancy and are based on public demand, the grazing operator's needs and schedule, and the availability of staff, docents and other volunteers. Docent led tours, educational programs, and overnight trips are made available to groups and individuals in Phase I and later phases by means of advance scheduling through the Conservancy. Managing public access in Phase I through docent led tours serves multiple purposes including:

- Introducing a diversity of recreational user groups to the Preserve;
- Providing opportunities for the Conservancy to educate recreational users about rules and regulations for Preserve use; and,
- Enabling Preserve access to be managed with respect to restoration and grazing activities.

Longer-term Preserve rules and regulations will be developed by the Conservancy, with input from MOU partners, docents, and the grazing lessee as part of the implementation of this plan. Preserve rules and regulations address issues including, but not limited to, the following:

- Ensuring the privacy and integrity of adjoining private lands by prohibiting all site visitors from entering adjacent private land;
- Requiring visitors to stay on marked trails;
- Prohibiting dogs and other pets on-site; and,
- Prohibiting all forms of smoking, fireworks and other fire risks on Preserve lands at all times.

Trail closures to accommodate grazing operations are also required during Phase I. The timing of trail closures is dependent on grazing schedules and specific weather conditions on a year to year basis. Restricting trail use is necessary to prevent rutting and erosion on Preserve lands and to ensure public safety and the security of grazing operations, and to manage fire risk.

Motorized vehicle use will be accommodated for special tour events including disabled access and to enhance the environmental education program at Prairie City State Vehicle Recreation Area. Motorized access will be limited by seasonal conditions, will always be docent led and must be pre-approved by the Conservancy.

Volunteers during this Phase are recruited to help with tours and maintenance of the Preserve. Volunteers and docents must receive prior training by the Conservancy in order to act as Deer Creek Hills Preserve docents and guides.

Other elements of the plan that will be implemented in Phase I include:

- Utilization of a part-time volunteer ranger for security enforcement and patrols;
- Installation of boundary signs and “no trespassing” signs;
- Design, development and installation of Deer Creek Hills entry signs;
- Development of a portable information kiosk;
- Creation and distribution of a brochure/guidebook listing the rules and regulations on the Preserve;
- Installation of a gravel paving in north parking area (corral vicinity) to accommodate parking of vehicles and horse trailers and to prevent erosion and run-off;
- Provision of chemical toilets in the north parking area on scheduled public access days;
- A docent-supervised, day-use self-guided interpretive trail and primitive picnic area to be located based on evaluations related to natural and cultural/historic resource sensitivity with regards to public access. The self-guided trail will be coordinated with a field journal and brochure keyed to several trail stops; and,
- As funding becomes available, implement habitat and resource improvements based on the actions and recommendations noted above.

During Phase I, the Conservancy, consistent with the principle of adaptive management, will review public access and other Preserve programs to make adjustments, as necessary. Criteria for evaluating Preserve programs include:

- Number of visitors and/or program demand;
- Amount of conflict encountered between public access, grazing activities and/or natural resources based on annual or semi-annual surveys of public use grazing lessee operations as well as the Conservancy/consultant’s conducted biological surveys of resource conditions;
- Availability of docents for all user groups; and,
- The amount of financial support for programs from donations, grants, or other means.

Based on these ongoing reviews of Preserve activities, decisions to continue existing uses, to restrict additional areas from public access, or to open areas to public access will be made. All activities including camping, picnic areas, trail systems, and use by individuals or groups are to be reevaluated annually to determine if there are conflicts or incompatibilities occurring. If a particular activity observed to be incompatible with other operation requirements such as grazing management, habitat or other resource management including archaeological resources then appropriate adjustments to those uses must be made.

1.1.2.5.1.2. Phase II

Phase II implementation is driven by the following key trigger occurrences. See Figures 5.1 Phase II Management Plan and 5.2 Concept Plan, Northwest and Southwest Area Detail. The following actions are conditional to the establishment of a higher level of security at the Preserve. This higher security could be achieved through the closure and/or gating of Latrobe Road, and/or the installation of a staffed on-site caretaker facility.

- Design, fabrication and installation of entry gates;
- Development of an accessible self-guided trail system and interpretive displays in either the Southwest Area or Northwest Area;
- Continued implementation of habitat and resource improvements based on the actions and recommendations noted above;
- Group outdoor assembly and activity area in the Southwest area and/or the Northwest Area; and,
- As funding is available, extend the self-guided trail system with additional trail segments and interpretive stations to be sited to minimize impacts on sensitive or important natural and cultural/historic resource areas.

1.1.3.5.1.3. Beyond Phase II

The Conservancy will actively coordinate with its MOU partners and the community to maximize partnerships for assistance with the management of the Deer Creek Hills Preserve. When and if management resources expand, a number of additional uses and functions are envisioned as possible beyond Phase II. The viability of possible actions and public uses of the Preserve will depend on a number of variables including the general build-out of the region around the Preserve and sufficient allocations of funding and staffing. However any additional use must be consistent and compatible with the primary goals of this Master Plan and the basic objectives described in the partnership MOU that characterize a well-balanced blend of habitat and natural resources, grazing uses and compatible public uses.

- Regional trail linkage: Establish connections to other resource areas through easements and/or acquisitions, with willing sellers only, to link with other open space areas such as oak woodlands to the north, south, and east, the Cosumnes River, and/or the American River. This acquisition and/or trail easement provision is conditional to willing sellers and cooperative property owners only;
- Comprehensive open trail system: A more extensive public access and trail network beyond Phase I and Phase II access. A prerequisite for a more extensive trail network is ensuring its compatibility with the Preserve natural resources and cattle grazing operations as well as adequate security, staffing, funding and facilities;
- Consider, upon meeting other management objectives including the development of appropriate security, staffing and funding, providing open trail access throughout the Preserve. Open trails must abide by the defined good neighbor adjoining property buffer setbacks and would be available for public use from dawn to dusk;
- Consider adding additional trailhead and small roadside parking areas for additional trail access points along Latrobe Road;

- Reserve the option, and only based on an agreement among all the applicable ownership partners, to sell a portion of the Preserve to a rancher with a conservation easement retaining rights to continue habitat restoration and studies, docent-led access, and, some non-docent led trail routes;
- Design and build an educational interpretive center near the staging area minimizing both physical and visual impacts on the site;
- The interpretive center shall be subordinate to the Preserve resource in terms of scale and function, and shall reflect in exhibits and programs the various resources and ecological processes that are characteristic of the Preserve;
- Siting for the center will be based on minimizing infrastructure demands for the facility, limiting the footprint of the developed portions to minimize site disturbances, and abiding by habitat and archeological/cultural resource protection policies described above;
- Develop and implement an Educational Nature Program for regional area schools similar to the Sly Park program;
- Develop equestrian trailhead and trail facilities including stables trailhead and an equestrian trail system;
- Implement a cross-country running program for area schools that could serve local race events;
- Allow docent-supervised hunting training activities such as the Ducks Unlimited Greenwing Hunting Program that potentially could include waterfowl and turkey and,
- Investigate the legal and technical requisites for establishing a designated green burial site (The definition of a green burial varies, but it generally means either cremation or full-body burial with no embalming fluids and a biodegradable wooden box or shroud – typically interred in a natural preserve type setting).
- Re-evaluate leashed-pet access to the Preserve conditionally as based upon consistency with the goals of this Master Plan and the objectives defined in the partnership MOU.

1.2.5.2. Partnerships, Partner responsibilities and implementation roles

The formalized partnership relationship between the Conservancy, the County, CDPH and DFG as described in the MOU necessitates the acceptance of responsibility and support commitments from these principal partners. One of the desirable outcomes of these relationships is sharing available resources to achieve the goals set forth in this Master Plan. To help advise Preserve management activities, the management entity will form an Advisory Council consisting of designated representatives from each of the MOU partners, interested community groups and surrounding landowners and ranchers. This council will meet annually, but ad hoc meetings could be requested at any time by members of the council.

As future public uses are considered and implemented, the underlying purpose of the Preserve as a working ranch and a resource protection and restoration area must not be lost in this transition. The mission of the Conservancy, which has primary management and operations responsibility, directs it to provide balanced management

of resource conservation, agriculture and public recreation. In order to recognize the full possibilities of the Deer Creek Hills Preserve, the Conservancy, the County of Sacramento, the California Department of Parks and Recreation, and the community must maintain and expand their long-term partnership.

1.3.5.3. Funding

This plan identifies a number of funding sources or support activities for improvements, including grant programs, user fees, volunteer services, and mitigation. A broad-based approach is recommended in addition to a basic sorting of needs to differentiate short-term from long-term funding requirements for targeted actions.

1.1.1.5.3.1. Grants

- a. Federal And State Grant Funding:** State and federal grants for parks, trails, open space, wildlife habitat, and conservation have been important sources of funding historically in many jurisdictions, but should not be presumed to be reliably available on an on-going basis. State grant funds have been a significant source for local parks and open space initiatives.
- b. Proposition 40:** The California Clean Water, Clean Air, Safe Neighborhood Parks and Coastal Protection Act was approved by voters in 2002. The program is managed by the State Department of Parks and Recreation. A wide range of potential projects may be candidates for this funding including projects ranging from deferred maintenance to facilities improvement and development, and land acquisition.
- c. Existing and future State resources and park bonds:** It is anticipated that there will continue to be park and resource targeted bond funding established through State initiatives such as The California Clean Water, Clean Air, Safe Neighborhood Parks and Coastal Protection Act. Because of the broad management goals for the Preserve, funding categories can range for habitat and water quality related funds to public access and environmental education funding.
- d. Other:** Various other State and Federal government programs exist that could be accessed to help implement this plan. Some of these include the USDA EQUIP Program, USFWS Partners for Wildlife, CALFED restoration grants, and so on. Conservation Partnerships should be matured to help locate and access these types of funding sources.

1.1.2.5.3.2. User Fees

User fees are a commonly used way for sites such as the Preserve to cover wear and tear (maintenance and operation costs) related costs. A certain amount of infrastructure improvements might be met via a fee-based program. Typically, fee recovery is achieved through staffed entry fee exaction or via an “iron ranger” type facility. An iron ranger is a self pay fee collection box used at campgrounds or public facilities that do not have full time attendants. User fees could also be activity or event based where the public would pay for pre-arranged activities at the Preserve. Reasonable user fees are typically accepted by the public, as long as park users feel that they are receiving comparable value in return.

1.1.3.5.3.3. Lease Revenue

Ongoing grazing use of the Preserve will continue through a lease arrangement with the grazing operator. Leasing fees and other specifics of the lease will be contingent upon overall management considerations and resource conditions and therefore will be negotiated between the Conservancy and the grazing operator. The preference is for a long-term lease arrangement between The Conservancy and the grazing lessee based on ecological management principles and objectives. See Appendix 5: Grazing Management.

1.1.4.5.3.4. Mitigation Funding

A fourth funding option is to pursue funding from mitigation sources for habitat studies which are resource appropriate or restoration projects, such as blue oak woodland regeneration projects. Funding from mitigation such as nearby mining projects could also be pursued to fund facility improvements and Preserve staffing.

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6. References

- 1) **Factors Limiting Recruitment in Valley and Coast Live Oak**, C.M. Taylor, et al., 2002
- 2) **Transition Plan For Accessibility In California State Parks Accessibility Section Acquisition and Development Division September 2001 Updated December 2003**
- 3) **Lynch Canyon Resource Management Plan**, Solano County Farmlands & Open Space District, June 1998
- 4) **The Dry Creek Parkway Recreation Master Plan**, County of Sacramento, 2003
- 5) **Resource Master Plan Aliso and Woods Canyon Regional Park**, County of Orange, 1991
- 6) **California Resources Code**
- 7) **The Impacts of Farmland Conversion California**. Jones & Stokes Associates, Inc. California Department of Conservation, Office of Land Conservation. 1991
- 8) **Mather Regional Park Land Use Plan**, County of Sacramento, 1995

7. Appendices

- 1) **AMENDED AND RESTATED MEMORANDUM OF UNDERSTANDING (MOU) For Interim Ownership of Deer Creek Hills, Sacramento, California**
- 2) **Glossary of Terms**
- 3) **Resource Descriptions**
- 4) **Public Comments**
- 5) **Grazing Management**

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