The level of grazing can be calculated by setting a residual dry matter target (amount of dry matter left standing after livestock are removed).

Prescribed fires have been successfully conducted in vernal pool/grassland habitats resulting in both decreased presence of invasive exotics and positive response by native perennial grassland species and vernal pool endemics. The best time for conducting such burns appears to be late spring, after most vernal pool plants have set seed, but prior to seed set of invasive annual grasses (particularly if the objective of the burn is exotics control). When burns are conducted at this time of year, most vernal wetland habitats will be too moist to burn, with the primary effects of the burn hitting upland grass species.

Although almost 200 plant species are adapted for life in vernal pools, usually only 15-20 species are found within any one pool. Moreover, the species composition of individual vernal pools is extremely variable, even among pools within close proximity to one another (i.e., the same pasture) (Holland 1976). The abundance and even presence of many vernal pool species is highly dependent upon fluctuating environmental conditions from year to year, in particular the amount of rainfall. Drought years may tend to favor the invasion of exotic annual grasses. The variability of these factors must be taken into account when developing monitoring protocols, interpreting data, and assessing management results. Therefore, measurement of trends is likely to be the more important in factor in assessing changes in vernal pools, rather than year-to-year fluctuations.

Vernal pools and wetland preserves may be considered by mosquito abatement authorities to be a potential mosquito breeding source that could become a public health problem. For this reason, coordination and communication with the Riverside County Mosquito and Vector Control District is essential.

Threats: Vernal pool/grasslands evolved under grazing pressure from native herbivores such as tule elk (*Cervus elaphus nannodes*) and pronghorn (*Antilocapra americana*). Since the first arrival of Euro-Americans in California, the character of California's grassland communities has seen major changes. Specifically, hundreds of species of Mediterranean annual grasses and other exotic plants have established themselves and even become "naturalized" as enduring elements of the natural grassland communities. Certain annual grasses pose a threat to vernal pool species, particularly during drought years when conditions favor their growth over that of native plants.

Annual grasses and other exotics can pose threats to the vernal pool ecosystem by leaving a heavy layer of mulch (dried grasses) on the ground, which can

suppress native plant germination and growth. Annual grasses are fierce competitors for limited space and moisture in vernal pool/grassland soils, which gives them the ability to outcompete and displace native herbs. Finally, invasive exotics growing within pools also pose a threat to native aquatic fauna such as fairy shrimp by providing habitat for predaceous insects. In fact, grazed vernal pools with shrimp have been observed to lose their aquatic fauna over time as *native* vegetation increased subsequent to fencing out livestock. This observation leads to the thought that vernal pools have evolved as dynamic systems whose habitat characteristics change from year to year based not only upon weather, but also herbivory. Herbivory by native ungulates occurred in patches, creating a mosaic of pools with low vegetation and plenty of open water column. This is the type of habitat seemingly preferred by fairy shrimp; whereas lightly grazed or ungrazed pools would have allowed maximum growth of native plants and inhibited populations of aquatic fauna. In addition, hoof prints left by cattle may actually create microhabitat that benefits fairy shrimp.

The aquatic fauna of vernal pools generally have the ability to quickly colonize small islands of fresh water, and are therefore resistant to general extinction but subject to local extirpation. Aside from loss of habitat, local human threats to aquatic fauna that must be managed in a vernal pool preserve include pesticide drift, runoff of contaminated water and mosquito control measures (Kerster 1976). Disturbance of vernal pools by people, motorized vehicles, and livestock could increase the potential for mosquito breeding.

Buffer zones around vernal pool preserves have been recommended depending upon preserve size, with the idea that smaller preserves may require wider buffers because a greater percentage of their area will be subject to negative edge effects than larger preserves (Jones & Stokes 1990). There is no consensus as to the appropriate width for a vernal pool preserve buffer, each site is most appropriately addressed on its own merits.

Ecological Setting: The complexity and conflicting nature of the many natural processes that influence the vernal pool/grassland complex (hydrology, weather, herbivory, fire) and their varying effects upon individual species elements within pools and swales clarifies the need for a systems perspective in managing these habitats. The ideal is a dynamic system that allows variation over time and space of native species abundance, distribution, and even composition, with control to the extent possible of invasive exotics.

Although the soils, hydrology, flora and aquatic fauna of vernal pools tend to be relatively discrete and contained within the landscape, vernal pools are also extremely important elements to a variety of wildlife whose ranges and habitat

needs extend beyond the pools themselves. Many types of waterfowl, shorebirds, raptors and passerine grassland birds utilize vernal pool/grasslands for feeding and nesting (Baker *et al.* 1992). A variety of amphibians, including frogs, toads, and salamanders, have larvae restricted to vernal pools (Kerster 1976). One species of special concern, the western spadefoot toad, has been found adjacent to Skunk Hollow.

In addition, wildlife often play an important role as vectors of dispersion for plant and animal species of vernal pools by carrying seeds and eggs over relatively great distances from one pool to another. Therefore, by connecting or incorporating managed vernal pools within a larger landscape that includes associated habitats (e.g., seasonal wetlands, oak woodlands, and grasslands) the mutually reinforcing benefits that wildlife and vernal pool species provide to one another can be increased. By establishing such large preserves, it is more likely that a representative set of vernal pool types, with varying soils and underlying geology, can be protected. Such variation influences the plant and animal species composition of vernal pools, thus maximizing the number of species present or possible within a preserve. In addition, habitat diversity allows individual species to maintain more genetic diversity within their populations.

### 8.5.2 California Orcutt Grass (*Orcuttia Californica)*

California Orcutt Grass, *Orcuttia californica*, a state and federally-listed endangered species, was found growing in large numbers along the margin of Skunk Hollow during field surveys conducted in 1993 and 1995, and was found in rehydrated soil samples by Zedler *et al.* in 1990. It is a small annual grass that reaches 4 in (10.2 cm) in height, is bright green, and secretes sticky droplets with a bitter taste. Inflorescens, occurring from May through June, consist of seven spikelets arranged in two ranks, with the upper spikelets overlapping on a somewhat twisted axis.

This species once occurred in vernal pools from San Quintin, Baja California, Mexico, northward to Riverside, Los Angeles, and San Diego counties in southern California. Historically, known populations from near Downey and Lakewood in Los Angeles County and near Murrieta Hot Springs in Riverside County were extirpated. It is now known from less than 20 vernal pool sites in western Riverside, San Diego, and Ventura counties. The current population status of the species in Baja California, Mexico, is unknown (FWS 1993b).

Optimal Habitat Conditions: Little is known about the habitat requirements of *Orcuttia californica*. It is a California endemic associated with vernal pools

and requires a period of inundation before germination can occur (Zedler *et al.* 1990). It typically requires deeper pools than most of its conspecifics.

Best Management Practices: Information is generally lacking on the best management practices for *Orcuttia californica.* The primary goal is to minimize direct and indirect disturbances to the pools it occupies, and their watersheds.

Threats: The primary threat to the species is the loss of vernal pools to agriculture and urban development. It is also adversely effected by alterations of the vernal pool watersheds and direct disturbance to pools by off-road vehicles, livestock grazing, trash dumping, fire, drought, and invasive exotic plants (US 1993b).

Ecological Setting: Refer to the description provided above for vernal pools. No specific information is available for *Orcuttia californica.*

### 8.5.3 Riverside Fairy Shrimp and Vernal Pool Fairy Shrimp

California has a diverse fairy shrimp fauna of 17 species, which represent nearly 40 percent of all such species currently described from North America. Of these, six are endemic to California (Eng *et al.* 1990). Tadpole shrimp are endemic as well. These animals occur in seasonal wetlands, mostly vernal pools with varying ranges throughout the state.

The life cycle of fairy shrimp is one adapted to the extremely variable and seasonally harsh conditions of vernal pools. It is thought that generally one generation is produced each season, although it is possible for several generations to be produced, with hatching correlated to times of heavy rainfall (Alexander *et al.* 1976). These crustaceans spend the summer in the desiccated pools as resistant eggs or encysted adult forms. Eggs hatch the following fall/winter under the first conditions of standing water.

Fairy shrimp feed on smaller animals, algae, bacteria and plants germinating on the pool bottoms. They are an important food source for other invertebrates as well as shorebirds and waterfowl. Birds also play an important role in spreading the shrimp from one location and habitat to another, inadvertently carrying the eggs with them as they move about.

The Riverside fairy shrimp (*Streptocephalus wootoni*) was federally-listed as endangered on August 3, 1993 (FWS 1993). The species is known from only a few vernal pools in southwestern Riverside County; Miramar Naval Air Station and Otay Mesa in San Diego County; one location in Orange County; and at

two locations in Baja California, Mexico (Eng *et al.* 1990, Simovich and Fugate 1990, FWS 1993). The Skunk Hollow vernal pool represents the largest known population of this species within its range.

The vernal pool fairy shrimp (*Branchinecta lynchi*) was federally-listed as threatened on September 19, 1994 (FWS 1994). It is endemic to vernal pools in the Central Valley, coast ranges, and a limited number of sites in the Transverse Range and Santa Rosa Plateau of California. Although this species has a relatively wide range, it has a sporadic distribution within vernal pool complexes, wherein the majority of pools within a given complex typically are not inhabited by the species. It is typically found at low population densities in pools where it does occur. It only rarely co-occurs with other fairy shrimp species, but where it does, it is never the numerically dominant species (Eng *et al.* 1990). Vernal pool fairy shrimp were not observed within live samples taken from Skunk Hollow by Eng *et al.* (1990), but was hatched at the laboratory from soil samples. Live individuals have been collected from the nearby Santa Rosa Plateau (Simovich and Fugate 1990).

Optimal Habitat Conditions: Characteristic habitat for the Riverside fairy shrimp includes large, deep vernal pools and seasonal wetlands at least 2.5-ft (0.8 m) deep with minimal vegetation (Simovich and Fugate 1990). At appropriate depths, the temperature of the water in the pool is a critical factor in hatching and development of this species, with a preferred range of 59 to 68 degrees Fahrenheit. Based on this scenario, it is likely that the successful completion of this species' life cycle is dependent upon the deep filling of the pool for at least two months after water temperatures have climbed above 59 degrees Fahrenheit (Simovich and Fugate 1990). Eng *et al.* (1990) also considered the species to be a warm weather hatcher and did not find it in Skunk Hollow during February, but immatures were present in early March with the temperature at about 64 degrees Fahrenheit, and mature individuals were present in late March with the temperature above about 73 degrees Fahrenheit.

The vernal pool fairy shrimp typically occupies vernal pools with clear to tea-colored water, most commonly in grass or mud bottomed swales, or basalt flow depression pools in unplowed grasslands. However, at least one population occurs in sandstone rock outcrops and another population in alkaline vernal pools. It has been collected from early December to early May. The water in pools inhabited by this species has low total dissolved solids, conductivity, alkalinity, and chloride. It generally occurs in pools when water temperatures are between about 43 and 68 degrees Fahrenheit, and thus is considered a winter to early spring hatcher.

Best Management Practices: Little is known about the precise requirements of vernal pool shrimp species; however, due to their occurrence in specialized and highly threatened vernal pool/seasonal wetland habitats, conservation and management focuses on the preservation and protection of these habitats. The two factors that appear to be most important in affecting their distribution are (1) the chemical nature of the habitat and (2) thermal variations resulting from pools filling at different seasons and from distribution of pools along altitudinal and latitudinal gradients (Eng *et al.* 1990).

Threats: Fairy shrimp have been observed to thrive under a surprising variety of conditions, including at off-road vehicle parks, seasonal wetlands intensively managed for waterfowl, and grazing lands. Off-road vehicles are thought to increase the microhabitat diversity by creating small ponding areas that remain wet longer. However, effects of these activities on vernal pool crustaceans cannot be judged in isolation from their effects on other vernal pool species and the overall ecosystem.

Overgrazing can degrade or destroy fairy shrimp habitat, but undergrazing can have equal or greater adverse effects. Thatch from annual grasses that builds up in ungrazed pools limits the space available for shrimp to forage, as well as allowing access to insectivorous predators that otherwise could not forage in open ponds. The shrimp are evolutionarily adapted to conditions under which vernal pool ecosystems developed (see Vernal Pool section). Fire moves over most vernal pools quickly, due to the moisture and relative lack of fuel, and rarely results in destruction of shrimp eggs.

The specific threats to Riverside and vernal pool fairy shrimp across their range are nearly all associated with the tremendous decline in vernal pool habitat to agriculture and urban development, and similar indirect losses of the vernal pool watersheds.

Ecological Setting: Significant gaps exist in our knowledge of the life cycle, distribution, habitat requirements, and ecological interactions of vernal pool branchiopods in their natural environment. Although some vernal pools can be thought of as relatively discrete systems due to a limited watershed, there are many interactions between vernal pool species and surrounding habitats, as noted above. Therefore, management of fairy shrimp is best concentrated on maintaining healthy vernal pool/seasonal swale systems that encompass representative examples of the full range of vernal pool formations within a complex of associated habitats, such as seasonal wetlands, oak woodlands, and riparian systems. In the absence of complete knowledge of the needs of

individual species, a focus on ecosystem management is the most conservative and prudent course of action.

### 8.5.4 Coastal California Gnatcatcher

*Polioptila californica californica*, a federally-listed threatened species, is one of three subspecies of the California gnatcatcher and is restricted to coastal southern California and northwestern Baja California, Mexico, from Los Angeles County south to El Rosario, Mexico (FWS 1993a). About 41 percent of the subspecies latitudinal distribution is within the United States and 59 percent within Baja California, Mexico. Historically, however, approximately 65 to 70 percent of the subspecies range was located in southern California. The FWS estimated that about 2,562 pairs of coastal California gnatcatcher remained in the United States as of 1993. Of these, 30 pairs were in Los Angeles County, 757 pairs in Orange County, 261 pairs in Riverside County, and 1,514 pairs in San Diego County (FWS 1993a). Most populations occur on private lands.

Gnatcatchers were observed in the Riversidean sage scrub on the hill west of Skunk Hollow in the southwestern corner of the Ranch Bella Vista property. Four to five pairs have been observed consistently within the property in recent years, and several additional pairs have been seen just outside the property along the proposed Murrieta Hot Springs Road alignment. Additional pairs are known from Tucalota Creek to the west of the property. This represents a significant population within southwestern Riverside County. The subspecies has a very restricted distribution: it inhabits coastal areas from Ventura County to north-central Baja California and west of the Transverse and Peninsular Ranges. Once common, its numbers have dropped precipitously during the past 50 years.

Breeding occurs from March to June, and there may be two broods. It is also thought these gnatcatchers, like other gnatcatcher species, mate for life. Most commonly, nest placement is within several meters of the ground in thick sagebrush or sage. Three to five eggs are laid, and both sexes participate in incubation, which takes about 14 days. The young, altricial at birth, are ready to fledge in about nine to 15 days. Both parents tend and feed the young, which can continue for as long as three weeks postfledging. The coastal California gnatcatcher is insectivorous, and also eats spiders and on rare occasions, seeds. Coastal California gnatcatchers are extremely territorial, especially in the proximity of the nest, and breeding territories range in size from two to 14 ac (1 to 6 ha) (FWS 1993a). Home ranges range in size from 13 to 39 ac (5 to 15 ha).

Optimal Habitat Conditions: This nonmigratory passerine is found almost exclusively within moderately dense stands of coastal sage scrub habitat, generally below about 2,034 ft (620 m). They demonstrate a strong preference for California sagebrush or black and/or white sage, vegetation not commonly found in chaparral.

Best Management Practices: The feasibility of artificially creating a viable coastal sage scrub community suitable for the subspecies has not yet been demonstrated, at least on a large scale. Several land planning efforts have been initiated that attempt to address the issue of conserving gnatcatcher habitat. Foremost among these is the Natural Community Conservation Planning Program (NCCP) sponsored by the California Resources Agency. Management of the subspecies is currently focused on the protection and preservation of remaining coastal sage scrub habitat and the establishment of habitat linkages between disjunct habitats.

Threats: Current estimates are that as much as 90 percent of its historical habitat has been destroyed or modified in California due primarily to urban residential development in prime coastal areas. Remnant gnatcatcher populations face threats stemming from habitat fragmentation that hinders dispersal, increases the difficulty of finding mates, and can lead to genetic isolation. In addition, these birds are threatened by brown-headed cowbird parasitism and nest predation. Finally, in addition to development, wildfires also are an important factor threatening coastal sage scrub habitat. Fires, both accidental and controlled burns, can exclude coastal California gnatcatchers for a minimum of five years following a burn or, if burning occurs relatively regularly, gnatcatchers can be excluded permanently. Considering habitat fragmentation and declining extant habitat, fire can extirpate local subpopulations.

### 8.5.5 Stephens' Kangaroo Rat

The Stephens' kangaroo rat (SKR) is listed as endangered under the federal Endangered Species Act, and as threatened under the California Endangered Species Act. This species was known to occur within the Ranch Bella Vista property prior to habitat modifications authorized by the County of Riverside's Section 10(a) Permit. Although not observed during recent surveys, this species may still be present in the habitat adjacent to Skunk Hollow.

The SKR is restricted to southwestern San Bernardino, western Riverside, and northern San Diego Counties of southern California. They are nocturnal and highly sedentary animals, with adults moving an average of only about 100 ft (30 m) during their lifetime, and even juvenile dispersal is generally restricted to

a maximum of about 164 ft (50 m) from their natal burrow. Home range size varies with sex and by season, varying from estimates of about 0.1 to 0.2 ac (0.04 to 0.16 ha) per individual.

Optimal Habitat Conditions: The SKR occupies habitats usually described as sparse slightly disturbed coastal sage scrub or annual grassland. Densest populations have been found in areas where the herbaceous layer still contains California native annuals, and where perennial cover is less than 30 percent. SKR is most commonly associated with *Artemesia californica* and *Eriogonum fasciculatum*. It is generally found below 600 meters elevation on relatively level or gentle slopes with well-drained gravelly soils; they generally avoid areas high in clay content. The species prefers abundant patches of bare ground and few shrubs, presumably because this facilitates bipedal locomotion and affords an unobstructed view while foraging.

Best Management Practices: For long-term preservation of the species, large preserves (~ 3,212 ac [1,300 ha]) are probably needed. A minimum viable population size of about 13,200 individuals has been estimated as necessary to perpetuate the species. For this reason, the focus of management for the species should be on protection/preservation of large blocks of habitat. The Rancho Bella Vista project has participated in the County of Riverside's Habitat Acquisition Program for the SKR through a contribution of $1,247,000.

Threats: The main past and present threat to the SKR has been rapid urbanization, resulting in loss and fragmentation of habitat. Additionally, populations near human dwellings may be vulnerable to predation by feral cats and competition from rats (*Rattus* spp.) and house mice (*Mus musculus*). Other disturbances such as agriculture, grazing, rodent control programs, off-road vehicles, and increased nighttime illumination negatively impact populations.

## 8.6 Prohibited Activities

The MOA for the Skunk Hollow Mitigation Bank prohibits the property owner from conducting the following activities:

- Use or authorize the use of the areas proposed for dedication within the Bank for any purpose that interferes with its use as a mitigation bank.
- Erect any permanent structures within or upon the areas proposed for dedication within the Bank except as required or permitted by this Management Plan.

- Create any easements, encumbrances, leases, licenses, agreements or rights-of-way on the title of the Property other than those set forth in the Approved PTR without the written consent of the CDFG and the COE.

- Construct any structures or engage in any development activities on the Property. Development activities shall mean only actions that may change the physical characteristics of the land but specifically do not include entry upon the land for other purposes such as investigation, measurement, surveying, or as may be required by law or lawful order. This Agreement is not intended to limit or preclude in any way development and related activities undertaken on the lands adjacent to, or in the vicinity of the Bank and the Parties recognize and acknowledge such development is contemplated and consistent with implementation of the CEMP and the establishment and maintenance of the Bank.

- Types of uses not permitted unless authorized or necessary to implement the Management Plan include (1) recreational off-road vehicle use (property owner may enter property by vehicle until fee title is transferred; and (2) grading, excavation, or other construction activities, except for such activities necessary to implement this Management Plan or to restore habitat values.

### 8.7 Public Use

A secondary management goal for the Skunk Hollow Mitigation Bank is to develop a public access/education program for Skunk Hollow, subject to approval by regulatory agencies with oversight for protected species. With clear goals, adequate oversight and enforcement, such a program could be implemented in the preserve without posing risks to the resources. In fact, the primary reason for recommending such a program is to ensure the long-term protection and viability of the resource. A public access/education program can be designed to: 1) discourage abuse of the preserve by a public that otherwise may perceive no value to the site; 2) promote appreciation for vernal pool habitats and foster local civic pride in protection of the threatened and endangered species on-site; and, 3) develop a constituency for the preserve that will aid in its management and interpretation.

The minimum program for public use is identified in the PAR (Appendix A). The specific components of the program are:

- Direct public access to the vernal pool will be prohibited through the strategic placement of fences, by conducting regular patrols, and responding to reports of illegal access. However, a series of trails with various interpretive signs will be established to allow directed public access.

- Access will be granted by the CNLM to groups or individuals for the purpose of birdwatching, natural resource data collection and research, native plant study, and other resource-oriented activities on a monitored basis.

- The CNLM will conduct community outreach and environmental education programs by providing interpretive literature to the public and speaking at community meetings when requested, and within the limits of the PAR.

Only nonconsumptive uses are appropriate within the preserve. Examples of these activities include: photography, botanical study, birdwatching, etc. Smoking, pets, and high-impact recreation such as bicycles and off-road vehicles will be prohibited.

### 8.8 Coordination and Partnerships

Coordinating management of the preserve with neighboring property owners will be one of the most important tasks performed by CNLM in managing the Skunk Hollow Mitigation Bank. Coordination with the Riverside County Mosquito Abatement District will also be necessary if mosquito control measures must be implemented at the preserve. In this case, effort must be made to develop an integrated mosquito control program that avoids the use of mosquitofish (*Gambusia* sp.) and chemicals. Research in Sacramento County has shown that in relatively undamaged vernal pools, mosquitos are found only during the final weeks before the pools dry (Wright 1990). Coordination and agreement concerning the timing and extent of any grazing that may be proposed in the future will be required with the grazing lessee.

Any plans for prescribed burning should be developed in consultation with the County of Riverside Fire Marshall. Permits to conduct such burning must be obtained from the Riverside County Air Pollution Control District.

Notification to the CNLM, as Conservation Easement Grantee for the Skunk Hollow Mitigation Bank, should be provided for any special activities, projects, or problems that arise with respect to the preserve.

### 8.9 Permit and Legal Requirements

Sampling of vernal pool invertebrates in Skunk Hollow will require a Section 10(1)(a)(1) incidental take permit from the FWS under provisions of the federal Endangered Species Act. Several qualified consultants in the area already hold appropriate valid incidental take permits.

If prescribed burns are deemed appropriate and necessary on the preserve in the future to control invasive exotics, a burn permit will be required from the Riverside County Air Pollution Control District.

### 8.10 Facilities and Public Services Maintenance Program

Responsibilities for installation and/or maintenance of fencing, signs, and trails servicing Skunk Hollow will be shared by Pacific Bay Homes, the Community Services District, and the CNLM as described in the PAR (Appendix A).

### 8.11 Cultural Resources Management

No cultural resource management activities are necessary or proposed as part of the Skunk Hollow Mitigation Bank management plan.

## 9. Real Estate Issues

### 9.1 Property Taxes

There will be no property taxes required for the Skunk Hollow Mitigation Bank as it will be owned in fee title by the CNLM, a not-for-profit organization.

### 9.2 Title Considerations

The CNLM will acquire appropriate title insurance as the holder of the title for the Skunk Hollow Mitigation Bank property.

### 9.3 Land Acquisition

There are no plans to acquire additional lands in conjunction with the Skunk Hollow Mitigation Bank. However the inter-agency MOA for the bank allows for the incorporation of additional acreage upon written agreement of all signatory parties to the agreement, or their successors.

## 10. Funding Mechanisms

Funding for the establishment and management of the Mitigation Bank will be provided through an Endowment Account comprised of "Management Deposits" (i.e., for initial management activities) and "Endowment Deposits" (i.e., for management in perpetuity). These categories are further defined below.

### 10.1 Total Cost

The PAR summarizes the total costs of establishing and managing the Skunk Hollow Mitigation Bank. These costs are funded by Initial and Capital Costs and Ongoing Costs (Endowment Account) and are projected to be $531,221. This total cost includes "initial and capital costs" of $33,455. Initial costs are expenses that must be met in the first year of operation, and capital costs include expenses for recommended one-time major improvements or investments. Initial and capital costs for the site include new fencing and signs, biological surveys, permit acquisition, development of the management plan and other documentation, access control and monitoring, development of interpretive literature, exotic plant control, administrative costs, and equipment. Funding for initial and capital costs is derived from Management Deposits to the Total Initial and Capital and Ongoing Endowment. Initial and capital costs are

incurred once, whether in the first year or over several years once operation commences.

The remaining $497,766 of the endowment fund, as shown in the PAR, represents "ongoing costs" (Endowment Account) related to those management activities that will occur regularly in perpetuity to sustain the Bank. These include maintenance and periodic replacement of fencing, ongoing biological surveys and reporting, patrolling, exotic plant control, equipment maintenance, administration, and sanitation control. Funding for ongoing costs is derived from Endowment Deposits to the Endowment Account.

## 10.2 Mitigation

The Skunk Hollow Mitigation Bank will provide 129 Mitigation Credits that can be used for off-site compensatory mitigation for unavoidable impacts to wetlands subject to the terms and conditions contained in the MOA. The Bank serves to ensure the long-term preservation of the Skunk Hollow vernal pool system, including the pool's watershed, and dependent biota.

## 10.3 Mitigation Allocation

The 129 Mitigation Credits certified through the MOA will be available for withdrawal for projects requiring compensation under the Section 404 permit requirements of the federal Clean Water Act for both in-kind and out-of-kind impacts to aquatic habitats as determined by the COE, in consultation with the Environmental Protection Agency (EPA) and the FWS. The Credits may not be used to mitigate for unavoidable impacts to coastal tidally-influenced wetlands, vernal pools within San Diego County, and oak woodlands, unless otherwise specifically approved on a case-by-case basis by the COE. Projects using credits from the Bank must be located within the Credit (Service) Area as defined in the MOA, unless also specifically approved on a case-by-case basis by the COE.

## 10.4 Financing Structure

### 10.4.1 Initial and Capital Costs

As described previously, initial and capital costs are funded by the Management Deposits to the Total Initial and Capital and Ongoing Endowment Account. These Management Deposits will be initially derived from contributions made by the Property Owner (Pacific Bay Homes) up to a total sum of $33,455. Until such time that this sum is reached, all net proceeds from the sale of Mitigation Credits will be deposited in the Endowment Account. All Management Deposits will be used to pay for initial management activities. Once the Property Owner has deposited the full amount of its obligation to the Management Deposits account, it shall have no further obligation to make additional Management Deposits or to pay for the short-term maintenance,

management, and operation of the Bank. However, the Property Owner shall also be required to make Endowment Deposits as described below.

### 10.4.2 Ongoing Costs

The ongoing costs of managing the Bank are funded by Endowment Deposits to the Endowment Account. The Property Owner will fund the Endowment Account by depositing into the account an Endowment Deposit of $3,858 for each approved Mitigation Credit, concurrently with the conveyance of each Credit, until such time that the total cumulative sum of the Endowment Account equals $497,766.

### 10.4.3 Target Deficit Final Deposit

In the event that the total amount of the Endowment Account, as of the date five years from the date of the conveyance of the Property to the Center for Natural Lands Management (Target Date), does not equal or exceed the sum of $497,766 (Target Amount), the Property Owner shall deposit into the Endowment Account the difference between the Target Amount and the total of all deposits previously made (Target Deficit Final Deposit). The Target Deficit Final Deposit will be made within 60 days following the Target Date.

### 10.5 Special Districts

The Skunk Hollow Mitigation Bank is not subject to taxing authorities of any special districts.

## 11. Reporting Requirements

Annual reports that summarize the past year's management activities, monitoring results, etc., will be prepared each year. The annual reports will serve to highlight anticipated changes in management practices that may be required, which will then be incorporated into the annual plan and budgets.

### 11.1 Annual Reports

Management of the Skunk Hollow Mitigation Bank will be reported semiannually by the CNLM. An annual report to summarize the past year's management activities, monitoring results, and other activities will also be prepared by the Skunk Hollow Bank Manager. The annual reports will discuss coordination with conservation organizations, research and monitoring results, relationships and any grazing agreements with neighboring property owners, security and trespass problems and corrections, improvements and maintenance, patrolling, and visitor services. In particular, any adaptive management modifications to existing management programs will be noted, providing a justification for such changes based on monitoring data or other information pertinent to the issue in question. A summary of budgeted funds will also be provided in the annual report. All pertinent biological information will be

forwarded to the California Natural Diversity Data Base using it's standardized field survey forms. Quarterly reports will cover the same topics as the annual reports, with the exception that only current or unusual events will be reported.

### 11.2 Invoicing Procedures

If any management activities are performed under contract, procedures for invoicing will need to be defined with consideration given to all contractual relationships between the owner/manager/lessee/contractor relative to the property.

## 12. Workload and Budgets

### 12.1 Annual Work Plan

Annual work plans for each ensuing year will be prepared. They will be derived from the goals and objectives in this management plan and coordinated with the previous year's progress. The annual work plan will list management plan objectives and break these down into discrete tasks to be undertaken each year to achieve or initiate progress on achieving those objectives. Depending upon the task and nature of the workload, some management objectives will not be achieved until several successive years of work have been completed.

Multi-year tasks are to be noted as such in the annual work plan. To the extent possible, objectives to be achieved will be listed in order of priority. Specific tasks to be conducted must be listed with the recommended time line or time frame for their completion. The first year annual work plan provides the format for succeeding annual work plans, and concentrates on implementation of the highest priority management needs.

### 12.2 First Year Work Plan

The recommended First Year Work Plan is attached as Appendix D. This plan concentrates in particular on the short-term priorities identified in Section 8.

### 12.3 Budgets

Budgets will be estimated on the basis of operating expenditures, labor hours (if appropriate) and expected capital outlays.

#### 12.3.1 Operating Budgets

The budget required to implement the First Year Work Plan is presented in the PAR. It specifies the funds required for tasks, staff, contract work, overhead and administration, and other associated expenses. The PAR distinguishes between initial and capital requirements and ongoing (i.e., operating) needs.

#### 12.3.2 Staff and Benefits Budgets

The level of work outlined in this management plan is not believed to be sufficient to warrant the hiring of full, part-time or seasonal staff. It is anticipated that all tasks will be accomplished by existing CNLM staff.

### 12.4 Supervision and Staffing

Management of the Skunk Hollow Mitigation Bank will be the responsibility of the CNLM and will be performed by existing staff.

## 13. List of Preparers

Richard D. Williams, Consulting Biologist, prepared the management plan under contract to the Center for Natural Lands Management.

Sherry Teresa, Executive Director, Center for Natural Lands Management, provided review and oversight during the preparation of the management plan.

Kent A. Smith, McCollum Associates provided background information and reviews for the management plan.

## 14. References

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# APPENDIX A Property Analysis Record for the Barry Jones Wetland Mitigation Bank

# PROJECT DATA

Project Title: Skunk Hollow Conservation Bank PAR ID: RANCHOBV

Prepared by: Sherry Teresa/CNLM Preparation Date: 02/21/1996
Address: 1808 Tribute Road, Suite B Telephone: 916.567.4180
City: Sacramento, CA 95815-4312

U.S.G.S. Quad: Management Type: Ownership

Location/Jurisdiction: City of Temecula Acres: 140.00
County: Rivrside

| Project Status: | Start Date | Completion | Status/Notes |
|---|---|---|---|
| Construction: | / / | / / | |
| Restoration: | / / | / / | |
| Stewardship: | / / | / / | |

Owner: Elizabeth Jackson
Organization: FN Development Company
Address: 18499 Von Karman Avenue, Suite 900 Telephone:
City: Irvine, CA 92715 Fax:
E-Mail address:

Project Proponent: JM Development Company
Organization:
Address: Telephone:
City: Fax:
E-Mail address:

Consultant #1: Ed Sauls
Organization: The Sauls Company
Address: 742 Summit Drive, Suite 100 Telephone: 714.497.5439
City: Laguna Beach, CA 92651 Fax: 714.497.8940
E-Mail address:

Consultant #2: Barry Jones
Organization: Sweetwater Environ. Biolog.Inc
Address: 3838 Camino del Rio North, Suite 270 Telephone: 619.624.2300
City: San Diego, CA 92108 Fax: 619.624.2301
E-Mail address:

The Center for Natural Lands Management prepared this software to assist conservation planners develop the management tasks and costs of long-term stewardship. While the sources are thought to be reliable, the Center makes no representations about the accuracy of cost estimates. The date of the cost information is 1995. The operation of the program is not guaranteed by the Center. Management requirements are determined by the user. Users should consult with their own financial advisors before relying on the results of their analysis.

# PURPOSES FOR PRESERVATION

Property Title: Skunk Hollow Conservation Bank PAR ID: RANCHOBV

| RANK | APPLICABLE AGENCY PERMITS | SUMMARY | MEMO |
|---|---|---|---|
| 1 | Cal. Dept. Fish & Game 2081 | | Needed as of 11/6/95 |
| 1 | Cal.Dept.Fish & Game 1601/1603 | | Needed as of 11/6/95 |
| 1 | US Fish & Wildlife Svc. 7/11a | | Needed as of 11/6/95 |
| 1 | Corps of Engineers 404 | | Needed as of 11/6/95 |

| RANK | OTHER PURPOSES FOR PRESERVATION | SUMMARY | MEMO |
|---|---|---|---|

# DOCUMENTS AND REFERENCES

Property Title: Skunk Hollow Conservation Bank PAR ID: RANCHOBV

| | DOCUMENT/REFERENCE | CONTACT | PHONE | DATE RCV'D |
|---|---|---|---|---|
| 1 | Title Report with survey map | Ed Sauls | 714.497.5439 | / / |
| 2 | Biotic Assessments and Maps | Same | | / / |
| 3 | Improvement Maps | Same | | / / |
| 4 | Restoration Plans and Maps | Same | | / / |
| 5 | Water Quality within 12 months | Same | | / / |
| 6 | Hazardous Materials Evaluation | Same | | / / |
| 7 | Homeowners Association Doc. | Same | | / / |
| 8 | COE 404 | Same | | / / |
| 9 | USFWS End. Sp. Take | Same | | / / |
| 10 | CDFG 2081 | Same | | / / |
| 11 | CDFG 1601/1603 | Same | | / / |
| 12 | Mgmt.Implementation Agreements | Same | | / / |
| 13 | Aerial Photographs | Same | | / / |

| | | | |
|---|---|---|---|
| Other | On-site | Reservoir | Above-ground water reservoir |

| Field Survey DEGRADED FEATURES/EXOTICS | LOCATION | SIZE MEASURE | NOTES |
|---|---|---|---|
| Erosion | On-site | 0.00 | Minor |
| Roads | On-site | 0.00 | Several dirt roads |
| Toxic Dumping | On-site | 0.00 | Minor residential dumping |
| Other | On-site | 0.00 | Agriculture |
| Other | On-site | 0.00 | Unnamed grass species |

# REQUIREMENTS SUMMARY

Property Title: Skunk Hollow Conservation Bank PAR ID: RANCHOBV

| CONTRACT | NOTES |
|---|---|
| Inter-agency Programs | Conservation Bank Implement. Agreement (IA) |
| Cooperative Agreements | Comprehensive Environmental Mgmt Plan (CEMP) |

| SPECIAL DISTRICTS SERVICES AND FEES | REQUIREMENT | FEE RATE | MEASURE |
|---|---|---|---|
| Other | Need to see tax assessment for spec.dist | 0.00 | |

| DIVISION OF RESPONSIBILITIES | P/M/A/W/O | NOTES |
|---|---|---|
| Fencing | Agency | CSA all perimeter fencing |
| Fire Zone/Buffer Management | Manager | Within open space |
| Hiking trails | Association | CSA outside of open space parcel. |
| Interpretive Signs | Manager | Within open space |

# INITIAL & CAPITAL ONSITE TASKS AND COSTS

Property Title: Skunk Hollow Conservation Bank PAR ID: RANCHOBV

| ACTIVITIES LIST | NEEDED | MEASURE | Relevant Measure NUMBER OF UNITS | COST/ UNIT | ANNUAL COST | TIMES YEARS | TOTAL COST |
|---|---|---|---|---|---|---|---|
| -CAPITAL IMPROVEMENTS- | | | | | | | |
| Fence - Installed | CSA/responsibilit | Lin. Ft. | 785.00 | 4.50 | 3,532.50 | 0.0 | 0.00 |
| Fence - Installed | CSA/Commun.ThemeFenc | Lin. Ft. | 3,600.00 | 25.00 | 90,000.00 | 0.0 | 0.00 |
| Lock | Padlock | Item | 1.00 | 17.00 | 17.00 | 1.0 | 17.00 |
| -BIOTIC SURVEYS- | | | | | | | |
| Wildlife Biologist | Field Svy. & Reports | L. Hours | 32.00 | 23.13 | 740.16 | 1.0 | 740.16 |
| Plant Ecologist | Field Svy. & Reports | L. Hours | 24.00 | 23.13 | 555.12 | 1.0 | 555.12 |
| Invertebrates | Field Svy. & Reports | L. Hours | 48.00 | 23.13 | 1,110.24 | 1.0 | 1,110.24 |
| Hydrologist | Field Svy. & Reports | L. Hours | 16.00 | 45.00 | 720.00 | 1.0 | 720.00 |
| -BIOLOGICAL PERMITS- | | | | | | | |
| Permit | USFWS Trapping | Item | 2.00 | 23.13 | 46.26 | 1.0 | 46.26 |
| -REPORTING- | | | | | | | |
| Management Plan | Report - Initial | L. Hours | 60.00 | 23.13 | 1,387.80 | 1.0 | 1,387.80 |
| Management Plan | Report - Updates | L. Hours | 20.00 | 23.13 | 462.60 | 0.0 | 0.00 |
| Management Plan | Fire Mgmt. Plan | L. Hours | 35.00 | 23.13 | 809.55 | 1.0 | 809.55 |
| Database Management | Report | L. Hours | 16.00 | 23.13 | 370.08 | 1.0 | 370.08 |
| GIS/CAD Management | Report | L. Hours | 8.00 | 23.13 | 185.04 | 1.0 | 185.04 |
| Photodocumentation | Survey | L. Hours | 2.00 | 23.13 | 46.26 | 1.0 | 46.26 |
| Photo Materials | Film/Process | Roll | 2.00 | 13.00 | 26.00 | 1.0 | 26.00 |
| -PUBLIC SERVICES- | | | | | | | |
| Access Control | Enforcement | L. Hours | 25.00 | 23.13 | 578.25 | 1.0 | 578.25 |
| Patrolling | Patrolling 4hrs/wk | L. Hours | 312.00 | 23.13 | 7,216.56 | 1.0 | 7,216.56 |
| Sign | 21"x14" Polyethn | Item | 25.00 | 3.00 | 75.00 | 1.0 | 75.00 |
| Trail | Maint. Decomp granit | L. Hours | 25.00 | 15.63 | 390.75 | 0.0 | 0.00 |
| Trail | DG/2"deep.,39600 sq' | Matl. CuYd | 19.50 | 249.00 | 4,855.50 | 0.0 | 0.00 |
| Interpretive Literature | Labor | L. Hours | 20.00 | 23.13 | 462.60 | 1.0 | 462.60 |
| Interpretive Literature | Copying 5000 copies | Page | 5,000.00 | 0.08 | 400.00 | 1.0 | 400.00 |
| Community Outreach | Meetings | L. Hours | 8.00 | 23.13 | 185.04 | 1.0 | 185.04 |
| Compliance Monitor | Inspections | L. Hours | 8.00 | 23.13 | 185.04 | 1.0 | 185.04 |
| -HABITAT MAINT. & ENHANCEMENT- | | | | | | | |
| Exotic Plant Control | Spraying | L. Hours | 20.00 | 15.63 | 312.60 | 1.0 | 312.60 |
| Exotic Plant Control | Roundup | Gal. | 1.00 | 57.00 | 57.00 | 1.0 | 57.00 |
| Exotic Plant Control | Grazing Mgmt | L. Hours | 30.00 | 23.13 | 693.90 | 1.0 | 693.90 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Exotic Plant Control | Mowing | L. Hours | 8.00 | 15.00 | 120.00 | 1.0 | [illegible] |
| Exotic Plant Control | 21" Mower - Rental | Hour | 8.00 | 15.00 | 120.00 | 1.0 | 120.00 |
| Fire Breaks | Disk 2700'*30'wi | 5 Acres | 2.00 | 125.00 | 250.00 | 1.0 | 250.00 |
| -OFFICE MAINTENANCE- | | | | | | | |
| Liability | Property | Acre | 131.00 | 0.35 | 45.85 | 1.0 | 45.85 |
| Office Supplies | Supplies | Person | 0.20 | 192.00 | 38.40 | 1.0 | 38.40 |
| Computer - 486 Color | Laptop | Item | 0.20 | 2,800.00 | 560.00 | 1.0 | 560.00 |
| Computer software | Microsoft Office Pkg | Item | 0.20 | 450.00 | 90.00 | 1.0 | 90.00 |
| Laser Printer | Printer | Item | 0.20 | 500.00 | 100.00 | 1.0 | 100.00 |
| Maps - US/GS 7.5 | Purchase | Item | 3.00 | 4.50 | 13.50 | 1.0 | 13.50 |
| Administrative | Organ. & Resupply | L. Hours | 2.00 | 23.13 | 46.26 | 1.0 | 46.26 |
| Employee Reports | Time | Month | 2.00 | 23.13 | 46.26 | 1.0 | 46.26 |
| -GENERAL MAINTENANCE- | | | | | | | |
| Sanitation Control | Pick-up | L. Hours | 50.00 | 15.63 | 781.50 | 1.0 | 781.50 |
| Hauling | Haul | Mile | 30.00 | 0.25 | 7.50 | 1.0 | 7.50 |
| -FIELD EQUIPMENT- | | | | | | | |
| Grader | Rent/no labor | Day | 1.00 | 575.00 | 575.00 | 1.0 | 575.00 |
| Vehicle | Fuel | Mileage | 600.00 | 0.26 | 156.00 | 1.0 | 156.00 |
| Binoculars | Binoculars | 10X50 | 0.20 | 250.00 | 50.00 | 1.0 | 50.00 |
| Spotting Scope | Scope | 40X | 0.20 | 300.00 | 60.00 | 1.0 | 60.00 |
| Tripod | Tripod | Item | 0.20 | 125.00 | 25.00 | 1.0 | 25.00 |
| Cellular Phone - Mobile | Phone-3 watt | Item | 0.20 | 100.00 | 20.00 | 1.0 | [illegible]00 |
| Chemical Sprayer | 5 Gallon | Item | 1.00 | 63.00 | 63.00 | 1.0 | [illegible]00 |
| Power Tools | Hand | Item | 1.00 | 500.00 | 500.00 | 1.0 | 500.00 |
| Hip Waders | Waders | Item | 1.00 | 65.00 | 65.00 | 1.0 | 65.00 |
| Other | pH/temp meter | Item | 1.00 | 270.00 | 270.00 | 1.0 | 270.00 |
| Other | Turbidimeter | Item | 1.00 | 700.00 | 700.00 | 1.0 | 700.00 |
| Other | Misc. Equipment | Item | 1.00 | 200.00 | 200.00 | 1.0 | 200.00 |
| | | | | | | Total | 21,082.77 |

INITIAL AND CAPITAL LABOR SUMMARY

| HOURLY RATE | HOURS | TOTAL | COST |
|---|---|---|---|
| 15.00 | 8.00 | 120.00 | 120.00 |
| 15.63 | 70.00 | 1,094.10 | 1,094.10 |
| 23.13 | 630.00 | 14,571.90 | 14,571.90 |
| 45.00 | 16.00 | 720.00 | 720.00 |
| | 724.00 | 16,506.00 | 16,506.00 |

# ONGOING ONSITE TASKS AND COSTS

Property Title: Skunk Hollow Conservation Bank PAR ID: RANCHOBV

| ACTIVITIES LIST | NEEDED | MEASURE | Relevant Measure NUMBER OF UNITS | COST/ UNIT | TOTAL COST | YEARS DIVIDE | ANNUAL COST |
|---|---|---|---|---|---|---|---|
| -CAPITAL IMPROVEMENTS- | | | | | | | |
| Fence - Installed | CSA/responsibilit | Lin. Ft. | 785.00 | 4.50 | 3,532.50 | 0.0 | 0.00 |
| Fence - Installed | CSA/Commun.ThemeFenc | Lin. Ft. | 3,600.00 | 25.00 | 90,000.00 | 0.0 | 0.00 |
| Lock | Padlock | Item | 1.00 | 17.00 | 17.00 | 5.0 | 3.40 |
| -BIOTIC SURVEYS- | | | | | | | |
| Wildlife Biologist | Field Svy. & Reports | L. Hours | 32.00 | 23.13 | 740.16 | 1.0 | 740.16 |
| Plant Ecologist | Field Svy. & Reports | L. Hours | 24.00 | 23.13 | 555.12 | 1.0 | 555.12 |
| Invertebrates | Field Svy. & Reports | L. Hours | 48.00 | 23.13 | 1,110.24 | 1.0 | 1,110.24 |
| Hydrologist | Field Svy. & Reports | L. Hours | 16.00 | 45.00 | 720.00 | 1.0 | 720.00 |
| -BIOLOGICAL PERMITS- | | | | | | | |
| Permit | USFWS Trapping | Item | 2.00 | 23.13 | 46.26 | 2.0 | 23.13 |
| [illegible] | | | | | | | |
| Management Plan | Report - Initial | L. Hours | 60.00 | 23.13 | 1,387.80 | 0.0 | 0.00 |
| Management Plan | Report - Updates | L. Hours | 20.00 | 23.13 | 462.60 | 5.0 | 92.52 |
| Management Plan | Fire Mgmt. Plan | L. Hours | 35.00 | 23.13 | 809.55 | 5.0 | 161.91 |
| Database Management | Report | L. Hours | 16.00 | 23.13 | 370.08 | 1.0 | 370.08 |
| GIS/CAD Management | Report | L. Hours | 8.00 | 23.13 | 185.04 | 1.0 | 185.04 |
| Photodocumentation | Survey | L. Hours | 2.00 | 23.13 | 46.26 | 3.0 | 15.42 |
| Photo Materials | Film/Process | Roll | 2.00 | [illegible] | [illegible] | 3.0 | 8.66 |
| -PUBLIC SERVICES- | | | | | | | |
| Access Control | Enforcement | L. Hours | 25.00 | 23.13 | 578.25 | 3.0 | 192.75 |
| Patrolling | Patrolling 4hrs/wk | L. Hours | 312.00 | 23.13 | 7,216.56 | 1.0 | 7,216.56 |
| Sign | 21"x14" Polyethn | Item | 25.00 | 3.00 | 75.00 | 7.0 | 10.71 |
| Trail | Maint. Decomp granit | L. Hours | 25.00 | 15.63 | 390.75 | 0.0 | 0.00 |
| Trail | DG/2"deep.,39600 sq' | Matl. CuYd | 19.50 | 249.00 | 4,855.50 | 0.0 | 0.00 |
| Interpretive Literature | Labor | L. Hours | 20.00 | 23.13 | 462.60 | 1.0 | 462.60 |
| Interpretive Literature | Copying 5000 copies | Page | 5,000.00 | 0.08 | 400.00 | 1.0 | 400.00 |
| Community Outreach | Meetings | L. Hours | 8.00 | 23.13 | 185.04 | 1.0 | 185.04 |
| Compliance Monitor | Inspections | L. Hours | 8.00 | 23.13 | 185.04 | 1.0 | 185.04 |
| -HABITAT MAINT. & ENHANCEMENT- | | | | | | | |
| Exotic Plant Control | Spraying | L. Hours | 20.00 | 15.63 | 312.60 | 1.0 | 312.60 |
| Exotic Plant Control | Roundup | Gal. | 1.00 | 57.00 | 57.00 | 1.0 | 57.00 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Exotic Plant Control | Grazing Mgmt | L. Hours | 30.00 | 23.13 | 693.90 | 1.0 | 693 |
| Exotic Plant Control | Mowing | L. Hours | 8.00 | 15.00 | 120.00 | 2.0 | 60.00 |
| Exotic Plant Control | 21" Mower - Rental | Hour | 8.00 | 15.00 | 120.00 | 2.0 | 60.00 |
| Fire Breaks | Disk 2700'*30'wi | 5 Acres | 2.00 | 125.00 | 250.00 | 1.0 | 250.00 |
| -OFFICE MAINTENANCE- | | | | | | | |
| Liability | Property | Acre | 131.00 | 0.35 | 45.85 | 1.0 | 45.85 |
| Office Supplies | Supplies | Person | 0.20 | 192.00 | 38.40 | 1.0 | 38.40 |
| Computer - 486 Color | Laptop | Item | 0.20 | 2,800.00 | 560.00 | 4.0 | 140.00 |
| Computer software | Microsoft Office Pkg | Item | 0.20 | 450.00 | 90.00 | 5.0 | 18.00 |
| Laser Printer | Printer | Item | 0.20 | 500.00 | 100.00 | 4.0 | 25.00 |
| Maps - US/GS 7.5 | Purchase | Item | 3.00 | 4.50 | 13.50 | 5.0 | 2.70 |
| Administrative | Organ. & Resupply | L. Hours | 2.00 | 23.13 | 46.26 | 1.0 | 46.26 |
| Employee Reports | Time | Month | 2.00 | 23.13 | 46.26 | 1.0 | 46.26 |
| -GENERAL MAINTENANCE- | | | | | | | |
| Sanitation Control | Pick-up | L. Hours | 50.00 | 15.63 | 781.50 | 1.0 | 781.50 |
| Hauling | Haul | Mile | 30.00 | 0.25 | 7.50 | 3.0 | 2.50 |
| -FIELD EQUIPMENT- | | | | | | | |
| Grader | Rent/no labor | Day | 1.00 | 575.00 | 575.00 | 5.0 | 115.00 |
| Vehicle | Fuel | Mileage | 600.00 | 0.26 | 156.00 | 1.0 | 156.00 |
| Binoculars | Binoculars | 10X50 | 0.20 | 250.00 | 50.00 | 5.0 | 10.00 |
| Spotting Scope | Scope | 40X | 0.20 | 300.00 | 60.00 | 10.0 | 6.00 |
| Tripod | Tripod | Item | 0.20 | 125.00 | 25.00 | 8.0 | 3.12 |
| Cellular Phone - Mobile | Phone-3 watt | Item | 0.20 | 100.00 | 20.00 | 5.0 | 4.00 |
| Chemical Sprayer | 5 Gallon | Item | 1.00 | 63.00 | 63.00 | 5.0 | 1.00 |
| Power Tools | Hand | Item | 1.00 | 500.00 | 500.00 | 5.0 | 100.00 |
| Hip Waders | Waders | Item | 1.00 | 65.00 | 65.00 | 5.0 | 13.00 |
| Other | pH/temp meter | Item | 1.00 | 270.00 | 270.00 | 1.0 | 270.00 |
| Other | Turbidimeter | Item | 1.00 | 700.00 | 700.00 | 1.0 | 700.00 |
| Other | Misc. Equipment | Item | 1.00 | 200.00 | 200.00 | 1.0 | 200.00 |
| | | | | | | Total | 15,808.07 |

ONGOING LABOR SUMMARY

| HOURLY RATE | HOURS | TOTAL |
|---|---|---|
| 15.00 | 4.00 | 60.00 |
| 15.63 | 70.00 | 1,094.10 |
| 23.13 | 528.00 | 12,212.64 |
| 45.00 | 16.00 | 720.00 |
| | 618.00 | 14,086.74 |

# B I O L O G I C A L A N D F I E L D A S S E S S M E N T

Property Title: Skunk Hollow Conservation Bank PAR ID: RANCHOBV

| | Biotic Survey SPECIES NAME | LISTED STATE/FEDERAL | ACRES | STATUS |
|---|---|---|---|---|
| 1 | Pools, Vernal (Low, amphibious community dominated by annual herbs, grasses.) | | 33.00 | Highly sensitive area |
| 2 | Bat, CA Leaf-Nosed (Macrotus californiacus) | SC | 0.00 | Potential/moderate |
| 3 | Bat, CA Mastiff (Eumops perotis californicus) | SC | 0.00 | Potential/moderate |
| 4 | Bat, Pallid (Antrozous pallidus) | SC | 0.00 | Potential/Moderate |
| 5 | Bat, Spotted (Euderma maculatum) | SC | 0.00 | Potential/Moderate |
| 6 | Bat, Townsend's W. Big-Eared (Plecotus townsendii) | SC | 0.00 | Potential/Moderate |
| 7 | Blackbird, Tricolor (Agelaius tricolor) | SC | 0.00 | Observed nearby |
| 8 | Butterfly, Bay Checkerspot (Euphydryas editha bayensis) | FT | 0.00 | (quino) Potential/Mod-High |
| 9 | Char, Yellow-Breasted (Icteria virens) | SC | 0.00 | Observed |
| 10 | Eagle, Golden (Aquila chrysaetos) | SC | 0.00 | Observed |
| 11 | Falcon, Peregrine (Falco peregrinus) | FE | 0.00 | Potential/Low |
| 12 | Flycatcher, S.western Willow (Empidonax traillii extimus) | FE | 0.00 | Potential/Low |
| 13 | Frog, California Red-legged (Rana aurora draytonii) | SC/FPE | 0.00 | Potential/Low |

| | | | | |
|---|---|---|---|---|
| 14 | Gnatcatcher, California (Polioptila californica) | FT | 0.00 | Observed |
| 15 | Hawk, Cooper's (Accipiter cooperi) | SC | 0.00 | Potential/Low |
| 16 | Hawk, Ferruginous (Buteo regalis) | SC | 0.00 | Potential/Moderate |
| 17 | Hawk, Northern Harrier (Circus cyaneus) | SC | 0.00 | Observed |
| 18 | Lizard, Orange-Throat Whiptail (Cnemidophorus hyperythrus) | SC | 0.00 | & t.multiscutatus/Both Present |
| 19 | Mouse, Los Angeles Pocket (Perognathus longimembris brevinasus) | SC | 0.00 | &(San Diego)/Potential/Hi&Lo |
| 20 | Mouse, Tulare Grasshopper (Onychomys torridus tularensis) | SC | 0.00 | (Southern)/Potential Moderate |
| 21 | Owl, Burrowing (Athene cunicularia) | SC | 0.00 | Potential/High |
| 22 | Plover, Mountain (Charadrius montanus) | SC | 0.00 | Potential/Low |
| 23 | Rat, Stephens' Kangaroo (Dipodomys stephensi) | ST/FE | 0.00 | Present prior to "take" permit |
| 24 | Shrimp, Riverside Fairy (Streptocephalus woottoni) | FE | 0.00 | Observed |
| 25 | Snake, Coast Patch-Nosed (Salvadora hexalepis virgultea) | SC | 0.00 | Potential/Moderate |
| 26 | Snake, Red Diamond Rattle (Crotalus ruber) | SC | 0.00 | Potential/Moderate |
| 27 | Toad, Western Spadefoot (Scaphiopus hammondii) | SC | 0.00 | Observed |
| 28 | Toad, Arroyo Southwestern (Bufo microscaphus californicus) | SC | 0.00 | Potential/Low |
| 29 | Turtle, Southwestern Pond (Clemmys marmorata pallida) | SC | 0.00 | Observed |

| | | | | |
|---|---|---|---|---|
| 30 | Warbler, California Yellow (Dendroica petechia brewsteri) | SC | 0.00 | Observed |
| 31 | Other (Other) | | 0.00 | S.legless lizard/Poten.Mod |
| 32 | Other (Other) | | 0.00 | Lepus ca. bennettii/Observed |
| 33 | Other (Other) | | 0.00 | rufous-crowned sparrow/Observ |
| 34 | Other (Other) | | 0.00 | [illegible] |
| 35 | Other (Other) | | 0.00 | Falco columbarius/Potent.Low |
| 36 | Other (Other) | | 0.00 | San D.ringneck snake/Pot.Low |
| 37 | Other (Other) | | 0.00 | Coastal rosy boa/Potent.Mod |
| 38 | Other (Other) | | 0.00 | Thamnophis hammondi/Observed |
| 39 | Ambrosia, San Diego (Ambrosia pumila) | CNPS1B | 0.00 | Observed |
| 40 | Brodiaea, Orcutt's (Brodiaea orcuttii) | CNPS1B | 0.00 | Potential/High |
| 41 | Brodiaea, Thread-leaved (Brodiaea filifolia) | SE | 0.00 | Potential/High |
| 42 | Grapplinghook, Palmer's (Harpagonella palmeri) | CNPS2 | 0.00 | Observed |
| 43 | Grass, California Orcutt (Orcuttia californica) | SE/FE | 0.00 | Observed |
| 44 | Navarretia, Prostrate (Navarretia fossalis) | CNPS1B | 0.00 | Potential/High |
| 45 | Onion, Munz's (Allium fimbriatum var munzii) | ST | 0.00 | Observed |
| 46 | Other | | 0.00 | Myosurus minimus/Potent.High |

()

| Field Survey NEIGHBORING USES OF PROPERTY | LOCATION | PERMITTED/ LEGAL | PROBLEM N/L/M/H | NOTES |
|---|---|---|---|---|
| Residential | Surrounding | | | |
| Dedicated Preserve | 1.5 miles SW | | | |
| Agricultural | Dry crops between Preserve & Project | | | |
| Minor Roads | Crossing site | | | Several dirt roads cross site |
| Other | Ranches | | | Several ranches to the North |

| Field Survey ADDITIONAL USES OF PROPERTY | LOCATION | PERMITTED/ LEGAL | PROBLEM N/L/M/H | NOTES |
|---|---|---|---|---|
| ORVS | On-site | U | Low | |

| Field Survey WATER FEATURES | LOCATION | SIZE | MEASURE | NOTES |
|---|---|---|---|---|
| Vernal Pools | On-site | 33.50 | Acres | One of the largest vernal pool |
| Other | | 0.00 | | Tucalota Creek |
| Other | | 0.00 | | Several unnamed drainages |
| Other | | 0.00 | | Artificial pond |

| Field Survey PHYSICAL/LEGAL FEATURES | LOCATION | DESCRIPTION | NOTES |
|---|---|---|---|

Property Title: Skunk Hollow Conservation Bank PAR ID: RANCHOBV

| | | TOTAL | RATE | INCLUDING GENERAL ADMIN. |
|---|---|---|---|---|
| INITIAL & CAPITAL COSTS | | | | |
| Total from Initial and Capital Onsite Costs | | $ 21,082.77 | | |
| Site Related Administrative Tasks and Costs | | | | |
| Produce contracts | | 1,000.00 | | |
| Record documents/Closing Cost | | 100.00 | | |
| Process endowment | | 270.00 | | |
| Network Interview & Contracts | | 800.00 | | |
| Contract Maintenance | | 0.00 | | |
| Insurance | | 100.00 | | |
| Set up acti... fee | | 60.00 | | |
| Property tax exemption filing | | 60.00 | | |
| Supervisor site visits | | 250.00 | | |
| Other | | 0.00 | | |
| Contingency Fund | 10.00% | 2,372.26 | | |
| Total Administration and Site | | 26,095.05 | 22.00% | 33,455.19 |
| ONGOING COSTS | | | | |
| Total from Ongoing Onsite Costs | | $ 16,808.07 | | |
| Site Related Administrative Tasks and Costs | | | | |
| Contract maintenance | | 250.00 | | |
| Insurance | | 100.00 | | |
| Project accounting | | 180.00 | | |
| Property exemption filing | | 60.00 | | |
| Supervisor site visits | | 250.00 | | |
| Other | | 0.00 | | |
| Contingency Fund | 10.00% | 1,764.81 | | |
| Total Administration and Site | | 19,412.88 | 22.00% | 24,888.30 |
| Ongoing Endowment at Capitalization Rate of | | | 5.00% | 497,766.08 |
| Total Initial and Capital and Ongoing Endowment | | | | $531,221.27 |

# APPENDIX B Sensitive Plant Species Observed On-site or with the Potential to Occur Within the Barry Jones Wetland Mitigation Bank

| Species | Status* | Potential for Occurrence |
|---|---|---|
| Munz's onion<br>*Allium munzii* | PE/ST<br>CNPS List 1B; 3-3-3 | Observed during surveys in 1995 |
| California orcutt grass<br>*Orcuttia californica* | FE/SE<br>CNPS List 1B; 3-3-2 | Observed May, 1993 |
| San Diego ragweed<br>*Ambrosia pumila* | CNPS List 1B; | Observed May, 1993 |
| Palmer's grapplinghook<br>*Harpagonella palmeri* | CNPS List 2; 1-2-1 | Observed during surveys in 1995 |
| Orcutt's brodiaea<br>*Brodiaea orcuttii* | CNPS List 1B; 1-3-2 | High-Appropriate vernal pool/grassland habitat on-site |
| Prostrate navarettia<br>*Navarretia fossalis* | PT<br>CNPS List 1B; 2-3-2 | High-Appropriate vernal pool habitat on-site |
| Little Mousetail<br>*Myosurus minimus apus* | CNPS List 3; 2-3-2 | High-Appropriate vernal pool habitat on-site |
| Thread-leaved brodiaea<br>*Brodiaea filifolia* | PT/SE<br>CNPS List 1B; 3-3-3 | High-Appropriate vernal pool/ grassland habitat on-site |

*See Appendix C for status code definitions.

# APPENDIX C Sensitive Animal Species Observed On-site or with the Potential to Occur Within the Barry Jones Wetland Mitigation Bank

| Species | Status* | Potential for Occurrence |
|---|---|---|
| **Invertebrates:** | | |
| Quino checkerspot<br>*Euphydryas editha quino* | PE | Moderate to high: species known historically from Murrieta Hot Springs (Allen 1990) |
| Riverside fairy shrimp<br>*Streptocephalus wootoni* | FE | Observed on-site (Eng *et al.* 1990; Simovich and Fugate 1990) |
| Vernal pool fairy shrimp<br>*Branchinecta lynchi* | FT | Observed on-site (Eng *et al.* 1990; Simovich and Fugate 1990) |
| **Amphibians:** | | |
| Western spadefoot<br>*Scaphiopus hammondii* | CSC | Observed at Skunk Hollow and in adjacent pools |
| Arroyo southwestern toad<br>*Bufo microscaphus californicus* | FE, CSC | Low potential: probably does not occur on-site. No historic records and habitat generally inappropriate |
| California red-legged frog<br>*Rana aurora draytoni* | FT, CSC | Low potential: small areas of unoccupied habitat present |
| **Reptiles:** | | |
| Southwestern pond turtle<br>*Clemmys marmorata pallida* | CSC | High potential: observed nearby during 1993 and 1995 surveys |
| San Diego horned lizard<br>*Phrynosoma coronatum blainvillii* | CSC | High potential: observed nearby during 1993 surveys |
| Coastal whiptail<br>*Cnemidophorus tigris multiscutatus* | CSC | High potential: observed nearby during 1993 and 1995 surveys |
| Belding's orange-throated whiptail<br>*Cnemidophorus hyperythrus beldingi* | CSC | High potential: observed nearby during 1993 surveys |
| Silvery legless lizard<br>*Anniella nigra argentea* | CSC | Moderate potential: potential habitat occurs in area |
| Two-striped garter snake<br>*Thamnophis hammondii* | CSC | Observed in 1993 near Skunk Hollow |

| Species | Status* | Potential for Occurrence |
|---|---|---|
| Northern red diamond rattlesnake<br>*Crotalus ruber ruber* | CSC | Moderate potential: suitable sage scrub habitat nearby |
| Coast patch-nosed snake<br>*Salvadora hexalepis virgultea* | CSC | Moderate potential: suitable habitat and prey (whiptails) present in nearby sage scrub |
| San Diego ringneck snake<br>*Diadophus punctatus similis* | CSC | Low to moderate potential: marginal habitat available nearby in dense shrub/wooded areas |
| **Birds:** | | |
| White-tailed kite<br>*Elanus leucurus* | CSC | Observed nearby during 1993 surveys |
| Cooper's hawk (nesting)<br>*Accipiter cooperii* | CSC | Low potential: suitable breeding habitat occurs nearby areas |
| Golden eagle<br>*Aquila chrysaetos* | FP, CSC | Observed on-site during 1993 and 1995 surveys |
| Ferruginous hawk (wintering)<br>*Buteo regalis* | CSC | Moderate potential: suitable wintering habitat in grasslands |
| Northern harrier<br>*Circus cyaneus* | CSC | Observed nearby during 1993 and 1995 surveys and may nest |
| Merlin<br>*Falco columbarius* | CSC | Low potential: may visit during winter |
| Peregrine falcon<br>*Falco peregrinus* | FE, SE | Very low potential: may visit during winter |
| Burrowing owl (burrow sites)<br>*Speotyto cunicularia* | CSC | High potential: observed nearby during 1993 surveys |
| Vaux's swift<br>*Chaetura vauxi* | CSC | High potential as a spring migrant |
| Mountain plover (wintering)<br>*Charadrius montanus* | FC, CSC | Low potential: rare winter visitor to parts of Riverside County |
| Loggerhead shrike<br>*Lanius ludovicianus* | CSC | Observed nearby during 1993 and 1995 surveys and may nest |
| Coastal California gnatcatcher<br>*Polioptilia californica californica* | FT, CSC | Observed nearby during 1993 and 1995 surveys (see text) |

| Species | Status* | Potential for Occurrence |
|---|---|---|
| Yellow warbler<br>*Dendroica petechia* | CSC | Observed nearby in riparian area during 1993 surveys |
| Yellow-breasted chat<br>*Icteria virens* | CSC | Observed nearby in riparian area during 1993 surveys |
| California horned lark<br>*Eremophila alpestris actia* | CSC | Observed nearby during 1993 surveys |
| Southwestern willow flycatcher<br>*Empidonax traillii extimus* | FE | Very low potential: migrants may occur but unlikely to nest |
| Southern California rufous-crowned sparrow<br>*Aimophila ruficeps canescens* | CSC | Observed nearby in sage scrub during 1993 and 1995 surveys |
| Tricolored blackbird<br>*Agelaius tricolor* | CSC | Observed at Skunk Hollow in 1993 |
| **Mammals:** | | |
| Stephens' kangaroo rat<br>*Dipodomys stephensi* | FE, ST | Present on-site prior to habitat modification under take permit |
| Pallid bat<br>*Antrozous pallidus pacificus* | CSC | Moderate potential: could forage over site but not roost |
| Spotted bat<br>*Euderma maculatum* | CSC | Moderate potential: could forage over site but not roost |
| Townsend's big-eared bat<br>*Plecotus townsendii* | CSC | Moderate potential: could forage over site but not roost |
| Western mastiff bat<br>*Eumops perotis californicus* | CSC | Moderate potential: could forage over site but not roost |
| California leaf-nosed bat<br>*Macrotis californicus* | CSC | Moderate potential: could forage over site but not roost |
| San Diego black-tailed jackrabbit<br>*Lepus californicus bennettii* | CSC | Observed at Skunk Hollow during 1993 and 1995 surveys |
| Los Angeles pocket mouse<br>*Perognathus longimembris brevinasus* | CSC | High: observed in sage scrub at Murrieta Hot Springs Rd |
| Northwestern San Diego pocket mouse<br>*Chaetodipus fallax fallax* | CSC | Low to moderate potential in sage scrub habitat nearby |
| San Diego desert woodrat<br>*Neotoma lepida intermedia* | CSC | Moderate potential: woodrat sign found but may have been dusky-footed woodrat |
| Southern grasshopper mouse<br>*Onychomys torridus ramona* | CSC | Moderate potential: could occur in all arid habitats |

## Appendix C (cont.): Sensitivity Codes

### FEDERAL SPECIES DESIGNATIONS (FWS 1993a, 1993b, 1993c, 1994, 1995, 1996)

| | |
|---|---|
| FE | Federal endangered species |
| FT | Federal threatened species |
| PE | Species proposed for listing as endangered |
| PT | Species proposed for listing as theatened |
| FC | Species with enough data on file to support proposals for federal listing |

### STATE SPECIES DESIGNATIONS (CDFG 1992, 1993, 1996a, 1996b; Jennings and Hayes 1994)

| | |
|---|---|
| SE | California state-listed endangered species |
| ST | California state-listed threatened species |
| FP | California fully-protected species |
| CSC | California species of special concern |

### CALIFORNIA NATIVE PLANT SOCIETY (CNPS) DESIGNATIONS (Skinner and Pavlik 1994)

**List**

| | |
|---|---|
| 1 | Plants of highest priority |
| 1A | Plants presumed extinct in California |
| 1B | Plants rare, threatened or endangered in California and elsewhere. |
| 2 | Plants rare, threatened or endangered in California, but common elsewhere. |
| 3 | Plants about which we need more information. |
| 4 | Plants of limited distribution (a watch list). |

**R-E-D Codes**

R (Rarity)

| | |
|---|---|
| 1 | Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction or extirpation is low at this time. |
| 2 | Occurrence confined to several populations or to one extended population. |
| 3 | Occurrence limited to one or a few highly restricted populations, or present in such numbers that it is seldom reported. |

E (Endangerment)

| | |
|---|---|
| 1 | Not endangered. |
| 2 | Endangered in a portion of its range. |
| 3 | Endangered throughout its range. |

D (Distribution)

| | |
|---|---|
| 1 | More or less widespread outside California. |
| 2 | Rare outside California. |
| 3 | Endemic to California. |

# APPENDIX D First Year Management Plan for the Barry Jones Wetland Mitigation Bank

| TASK NO. | TASK DESCRIPTION | COST TO CSA | COST TO CNLM |
|---|---|---|---|
| **CAPITAL IMPROVEMENTS:** | | | |
| 1 | The County Service Area (CSA) will install 4,385 linear feet of perimeter and internal fencing. | $93,532.50 | |
| 2 | The Center for Natural Lands Management (CNLM) will install and maintain a padlock on the entrance gate to the property. | | $17.00 |
| **BIOTIC SURVEYS:** | | | |
| 3 | A wildlife biologist will perform visual surveys and live-trapping (as needed) to document the status of wildlife populations on the property. Direct observations of animals and their sign will be documented on standardized data sheets. Data recorded will include: species, number of individuals, habitat use, behaviors, weather conditions, date, and other parameters deemed appropriate by the biologist and the property manager. Efforts will be focused on locating special-status species such as Stephens' kangaroo rat and California gnatcatcher. Incidental observations of other wildlife species will also be recorded. Labor and budget allocations may be shared with biologists conducting surveys identified in Tasks 4, and 5, in order to allow flexibility in completing the surveys in the most effective manner. | | $740.16 |
| 4 | A plant ecologist will perform a vegetation survey on the property with a focus on populations of sensitive plants, especially *Orcuttia californica*. A quantitative assessment will be performed of species composition, diversity and abundance. Monitoring shall utilize methods that yield data comparable to that presented by Zedler et al. (1990) (e.g., frequency or estimated cover class methods at randomly established quadrants). The botanist will also document the distribution of invasive exotic plants including an estimate of relative abundance that can be compared with estimates made in subsequent years. Procedures will be initiated to eradicate or control exotics as necessary and appropriate. Labor and budget allocations may be shared with biologists conducting surveys identified in Tasks 3, and 5, in order to allow flexibility in completing the surveys in the most effective manner. | | $555.12 |
| 5 | A qualified biologist will perform a survey of invertebrate populations within the Skunk Hollow vernal pool using "wet-sampling" methods and other procedures as deemed appropriate by the biologist and the property manager. The biologist will consider methods that yield data comparable to that presented in Simovich and Fugate (1990). Attention will be focused on monitoring trends in populations of Riverside fairy shrimp and vernal pool fairy shrimp, including monitoring of changes in species composition, diversity, and abundance. The biologist will also document the occurrence of any bullfrogs or other exotic animals and initiate procedures for the eradication of these animals through netting, gigging, or other method as deemed appropriate. Labor and budget allocations may be shared with biologists conducting surveys identified in Tasks 3, and 4, in order to allow flexibility in completing the surveys in the most effective manner. | | $1,110.24 |

| TASK NO. | TASK DESCRIPTION | COST TO CSA | COST TO CNLM |
|---|---|---|---|
| **PHYSICAL STUDIES:** | | | |
| 6 | A qualified individual will conduct annual sampling of the physical characteristics of the vernal pool for the following parameters: surface area, duration of ponding, water depth, temperature, pH, and turbidity. | | $720.00 |
| **BIOLOGICAL PERMITS:** | | | |
| 7 | All state and federal permits required for the sampling of protected species as identified in Tasks 3, 4, and 5 will be obtained prior to sampling. | | $46.26 |
| **REPORTING:** | | | |
| 8 | The CNLM will prepare an initial property management plan for the Barry Jones Wetland Mitigation Bank. | | $1,387.80 |
| 9 | The CSA will prepare updates to the land management plan. | $462.60 | |
| 10 | The CNLM will prepare a Fire Management plan in consultation with the County of Riverside Fire Marshall and appropriate wildlife agencies. The plan will strive to: avoid catastrophic wildfires; develop alternatives for reducing fuel loads; minimize effects on Skunk Hollow from burning activities on adjacent properties; and, if prescribed burns are implemented, develop "optimal" fire regimes for key sensitive species. | | $809.55 |
| 11 | The CNLM will establish and manage a database to document results of all monitoring studies and land management activities. | | $370.08 |
| 12 | The CNLM will establish a GIS/CAD system to document and monitor physical and biological conditions, as appropriate, with the Mitigation Bank. | | $185.04 |
| 13 | The CNLM will establish permanent photodocumentation stations that ensure complete coverage of the Barry Jones Wetland Mitigation Bank property and its facilities. Photos will be taken during the vernal pool inundation season each winter and spring in a manner that allows ongoing comparison between years. Photos may be taken by biologists during the completion of the biotic surveys listed in Tasks 3, 4, and 5. | | $46.26 |
| 14 | The CNLM will obtain film for needed for the completion of Task 12 and be responsible for satisfactory processes and storage of exposed film. | | $26.00 |
| **PUBLIC SERVICES:** | | | |
| 15 | The CNLM will conduct routine patrols to ensure against unauthorized pedestrian or vehicular traffic within the fenced perimeter of the property. Patrols will be conducted a minimum of 4 hours/week throughout the year. This task includes enforcement actions needed to promote compliance. | | $7,794.81 |
| 16 | The CNLM will install three 21" x 14" polyethylene signs at locations to be determined by the property manager. | | $75.00 |
| 17 | The CSA will install and maintain 39,600 sq. ft. of trail throughout the property in consultation with the property manager and appropriate agencies. The trails will be covered with 2" of decomposed granite. | $5,246.25 | |

| TASK NO. | TASK DESCRIPTION | COST TO CSA | COST TO CNLM |
|---|---|---|---|
| 18 | The CNLM will develop interpretive materials/program that describe the natural resources of the property, prohibited activities, nature trails, and other information to further understanding and support of the preserve among adjacent property owners. | | $462.60 |
| 19 | The CNLM will make 5,000 copies of all interpretive materials. | | $400.00 |
| 20 | The CNLM will establish and conduct a community outreach program targeted at promoting an understanding, appreciation, and support for the Barry Jones Wetland Mitigation Bank and the resources it protects. | | $185.04 |
| 21 | The CNLM will perform inspections of the property as necessary to ensure compliance with all enhancement and protection measures, including access control measures and monitoring of impacts to watershed.. | | $185.04 |
| **HABITAT MAINTENANCE AND ENHANCEMENT:** | | | |
| 22 | The CNLM will conduct spraying of herbicides as necessary and appropriate for the control of invasive exotic plant species. | | $312.00 |
| 23 | The CNLM will purchase one gallon of "Roundup" herbicide. | | $57.00 |
| 24 | The CNLM, as appropriate, will develop and manage a limited grazing program for the property in consultation with applicable wildlife agencies. | | $693.90 |
| 25 | The CNLM, as necessary and appropriate, will conduct a mechanical mowing program for the control of invasive exotic plant species. | | $120.00 |
| 26 | The CNLM will rent a 21" power mower for use in the mowing program. | | $120.00 |
| 27 | The CNLM will coordinate the discing of a fire break around the perimeter of the property. The break will be approximately 30 ft. wide and 2,700 ft. in length for a total of approximately 5 acres. | | $250.00 |
| **OFFICE MAINTENANCE:** | | | |
| 28 | The CNLM will obtain property liability insurance. | | $45.85 |
| 29 | The CNLM will purchase/provide office supplies needed for the performance of the Management Plan. | | $38.40 |
| 30 | The CNLM will provide a 486 color laptop computer for use in documenting property management activities. | | $560.00 |
| 31 | The CNLM will purchase/provide Microsoft Office software package for maintenance of management records and activities. | | $90.00 |
| 32 | The CNLM will provide a laser printer for use in printing documents related to the project. | | $100.00 |

| TASK NO. | TASK DESCRIPTION | COST TO CSA | COST TO CNLM |
|---|---|---|---|
| **GENERAL MAINTENANCE:** | | | |
| 33 | The CNLM will purchase USGS 7.5 min. Quadrangles for the property. | | $13.50 |
| 34 | The CNLM will provide administrative support for the project. | | $46.26 |
| 35 | The CNLM will prepare employee reports and time sheets for work conducted for the property management program. | | $46.26 |
| 36 | The CNLM will collect all trash from the property. | | $781.50 |
| 37 | The CNLM will haul all collected trash to a suitable land fill or other appropriate disposal site. | | $7.50 |
| **FIELD EQUIPMENT:** | | | |
| 38 | The CNLM will rent a grader and operator for use in establishing fire breaks and other earth moving activities. | | $575.00 |
| 39 | The CNLM will provide the property manager with a vehicle for use in carrying out the responsibilities of the management plan. | | $156.00 |
| 40 | The CNLM will provide 10x50 binoculars for purposes of conducting biological inventories. | | $50.00 |
| 41 | The CNLM will provide a 40x spotting scope for purposes of conducting biological inventories. | | $60.00 |
| 42 | The CNLM will provide a tripod for the spotting scope described in Task 40 for purposes of conducting biological inventories. | | $25.00 |
| 43 | The CNLM will provide a 3-watt cellular phone for use by the property manager. | | $20.00 |
| 44 | The CNLM will provide a 5-gallon sprayer for application of chemical herbicides. | | $63.00 |
| 45 | The CNLM will provide power hand tools. | | $500.00 |
| 46 | The CNLM will provide waders for use during biological inventories of the property. | | $65.00 |
| 47 | The CNLM will provide a pH/temp meter for collecting water quality data. | | $270.00 |
| 48 | The CNLM will provide a turbidimeter for collecting water quality data. | | $700.00 |
| 49 | The CNLM will provide miscellaneous other equipment for use on the project. | | $200.00 |