LOCKWOOD VALLEY PROJECT

Biological & Wetland Assessment

prepared for:
VTN West, Inc.

prepared by:
Rincon Consultants, Inc.

February 2002

LOCKWOOD VALLEY PROJECT (VTN REF NO. 6008-49)
BIOLOGICAL AND WETLAND ASSESSMENT

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

1.0 INTRODUCTION

The Lockwood Valley project study area is an approximately 315-acre site located to the southwest of the community of Frazier Park on the west side of Interstate 5 in Ventura County (see Figures 1 and 2). Lockwood Valley Road bisects the study area with the southern portion surrounded by Los Padres National Forest and the northern portion bordered by agricultural and residential land uses. The Lockwood Valley project is located along the northern border of the San Guillermo U.S.G.S. 7.5-minute quadrangle map in the eastern half of Section 4 and the western half of Section of 3 (T. 7N / R. 21W).

The northeast corner of the site contains a main residence, garage, caretaker residence, four accessory buildings, a shack, a pump house, and a pond. At the time of the field visit, the caretaker and his family were the only inhabitants observed.

This Biological and Wetland Assessment identifies and maps on-site biological resources including habitat types or plant communities and the occurrence of potential jurisdictional waters of the U.S., including wetlands. The purpose of the biological assessment task is to make a determination of the likely presence or absence of special-status species or other sensitive biological resources, or suitable habit for endangered or otherwise protected species, riparian/wetland habitat areas, and other resources that are regulated under State and Federal resource protection laws or local policies.

2.0 METHODS

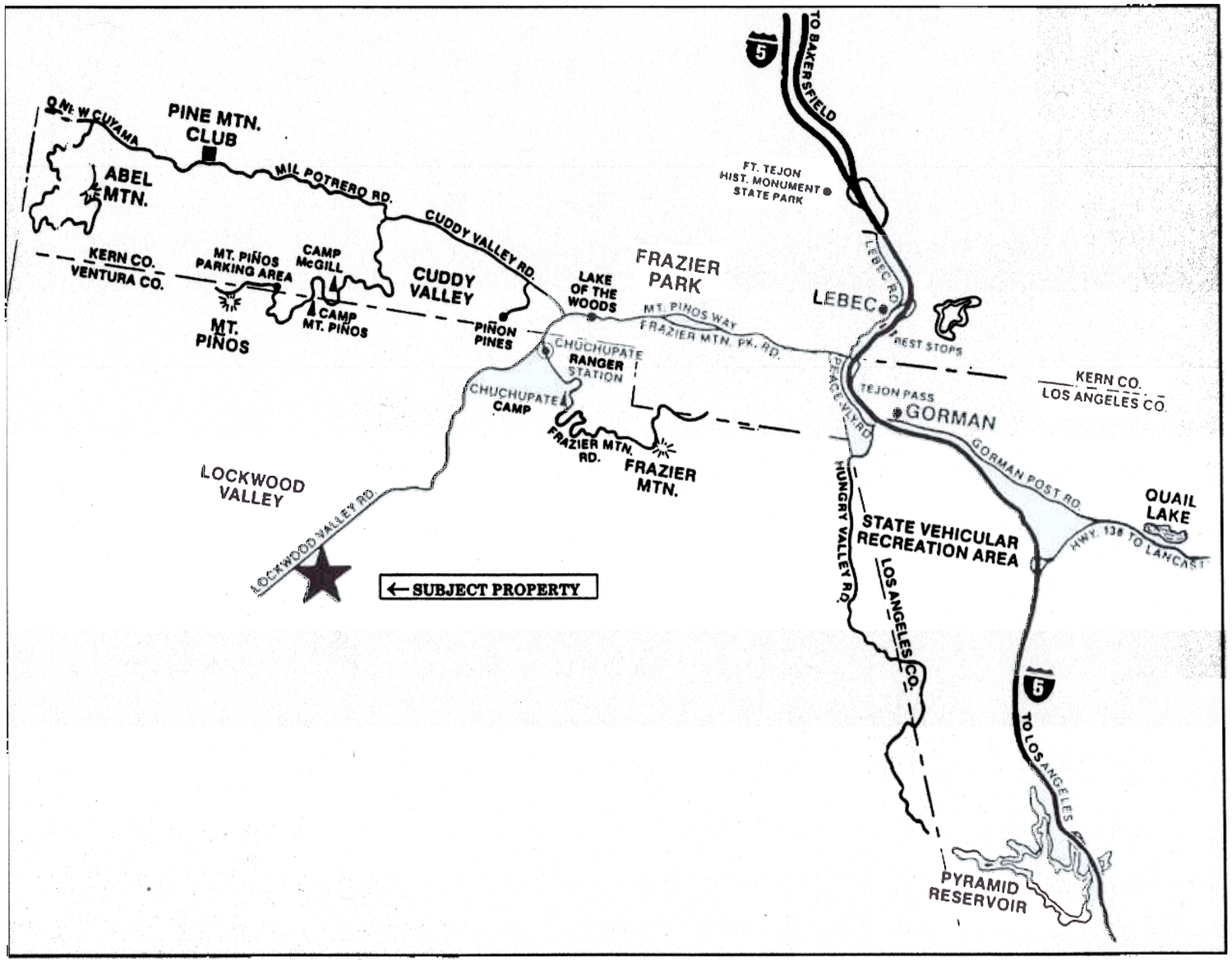
A search and review of the California Natural Diversity Data Base (CNDDB), maintained by the California Department of Fish and Game (DFG), was conducted for an approximately 10-mile radius around the project site. The CNDDB is based on actual recorded occurrences and does not constitute an exhaustive inventory of every resource. A search range of 10-miles was used to identify potential special-status species issues because it encompasses a sufficient distance to accommodate for regional habitat diversity and to overcome the limitations of the CNDDB.

Field reconnaissance of the project site was conducted on July 25 and July 26, 2001 to collect data for preparation of this Biological Assessment and to identify and map the location of on-site habitats. The San Guillermo U.S.G.S. 7.5-minute topographical quadrangle map and an areal photograph of the vicinity (VTN West, date unknown) were used during field reconnaissance to map the location and extent of on-site biological resources.

2.1 Surveys Performed

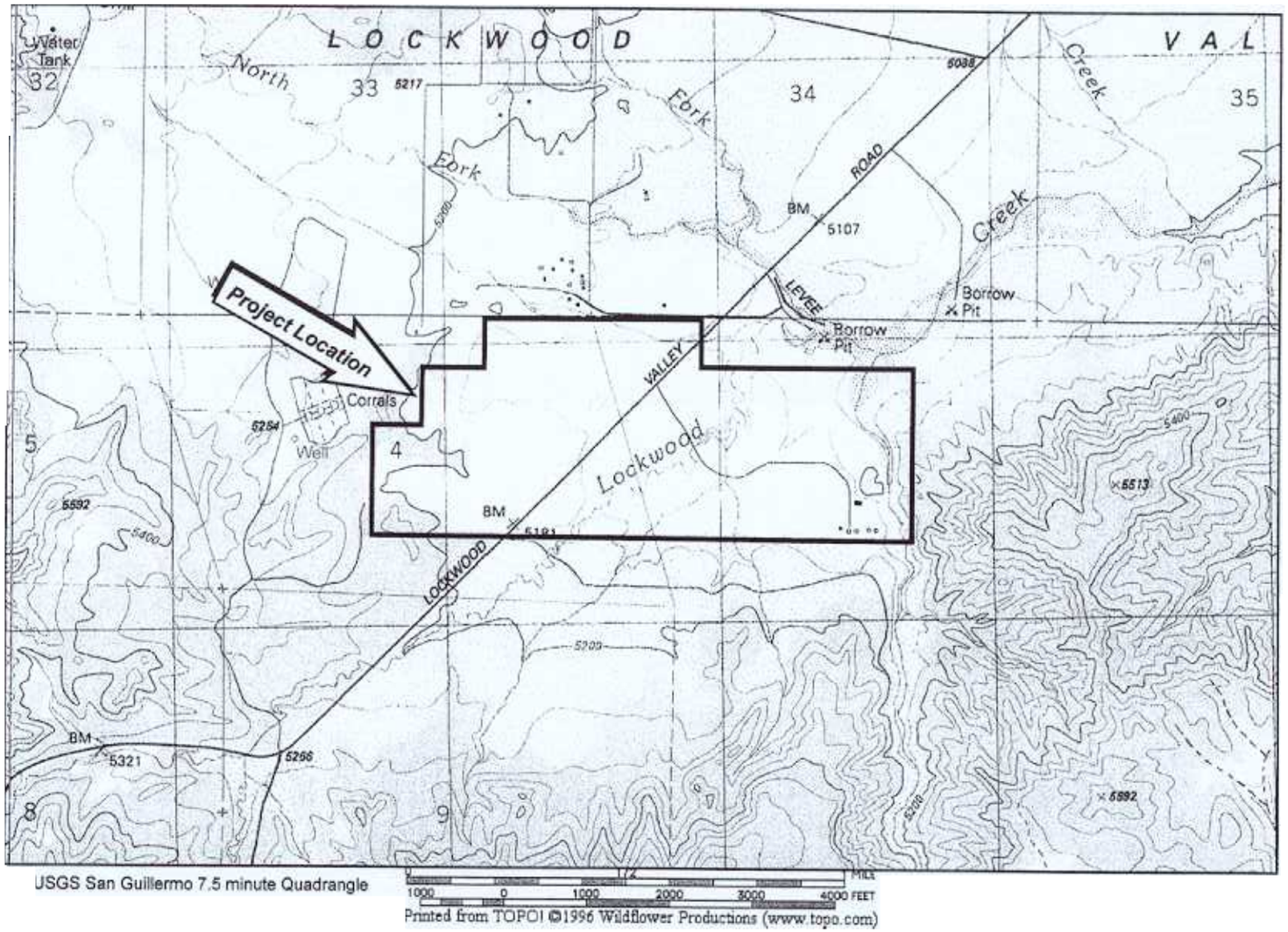
A preliminary floristic inventory and rare plant habitat assessment was conducted during the survey dates to compile a list of vascular flora identifiable during summer months, as well as to assess the potential for special-status plants to occur on the project site.

A general wildlife survey was conducted on site for the presence of, or suitable habitat for, special-status species, with special emphasis on evaluation of habitat for species identified in Section 3.3.2 of this report. Protocol DFG or United States Fish and Wildlife Service (USFWS) surveys have not been conducted for the site.



Project Vicinity Map

Figure 1



NORTH

Site Location on USGS Quadrangle

Figure 2

A preliminary determination for the potential presence of jurisdictional waters of the U.S., including wetlands, was conducted onsite. The routine methodology for delineation, according to the U.S. Army Corps of Engineers (Corps) 1987 wetland delineation manual, requires the collection of data and assessment of three parameters: hydrophytic vegetation; hydric soils; and hydrology. Our preliminary delineation for determining the location and extent of potential wetlands and other waters of the U.S. included the evaluation of two of three parameters: vegetation and hydrology.

2.2 Survey Personnel

- David Wolff, Manager, Biological Resources Group; Certified Professional Wetland Scientist
- Kathy Frye, Senior Biologist
- Kevin Merk, Plant Ecologist

3.0 RESULTS

3.1 Setting

The project site is approximately ten miles southwest of Frasier Park and Interstate 5, along the southern border of the Lockwood Valley community, County of Ventura, California. The Lockwood Valley lies within a high valley of the Northern Transverse Ranges southeast and southwest of Mount Pinos and the Tehachapi Mountains, respectively. The Lockwood Valley is an inholding of private property within the surrounding Federal U.S. Forest Service, Los Padres National Forest, Mount Pinos Ranger District. The site consists of primarily level terrain sloping to the northeast, and ranges in elevation from approximately 5,000 to 5,200 feet (1524 to 1585 meters) above mean sea level (msl). The main branch and tributaries to Lockwood Creek are centrally located through the site and Guillermo Creek is along the eastern border with all waters flowing north-northeast. Lockwood Valley and the surrounding Los Padres National Forest experience snow and freezing temperatures in the winter, and dry, hot summers. The normal snow season occurs December 15 to April 15, although it varies from year to year.

The natural landscape in the region of the project site is composed of pine and oak woodlands, riparian woodlands along stream courses, chaparral, scrub, and grassland habitats that occur in a mosaic pattern across the landscape. Rangelands of primarily non-native annual grassland and scrub comprise a significant portion of the agricultural landscape in the lowlands and scrub and woodlands of the National Forest are located on the hills in the region. Included within the natural habitats and agriculture are areas of rural residential and industrial development. Industrial uses are associated primarily with mining.

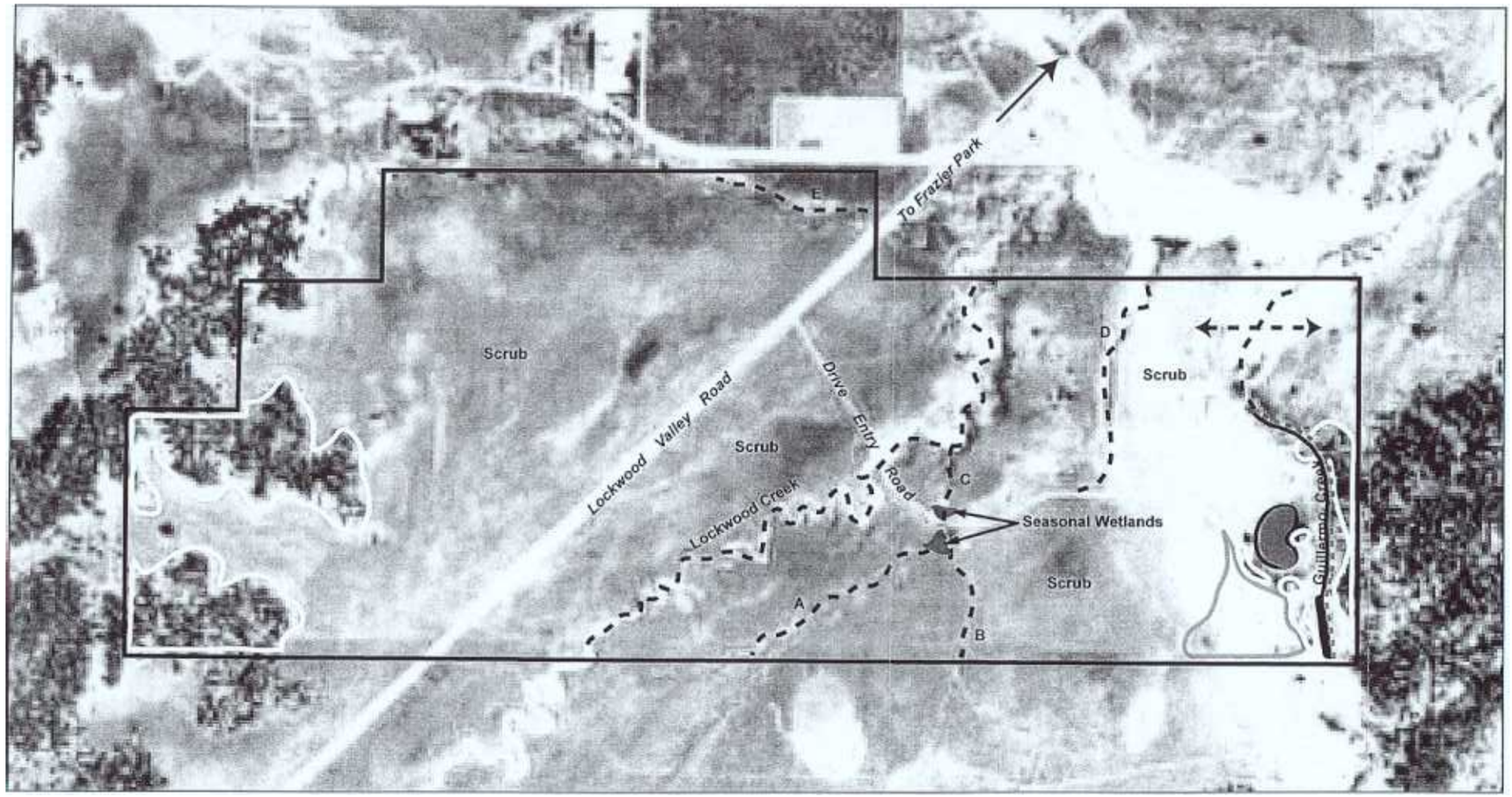
3.2 Habitat Types

Classification of habitat types is based generally on Holland (1986), Sawyer and Keeler-Wolf (1995), and the Wildlife Habitat Relationship System (WHR), with modifications to better represent existing conditions in the field. Elements of five habitat types typical of the general area are represented on the Lockwood Valley project study area including: 1) Sagebrush Scrub; 2) Desert Woodland; 3) Riparian; 4) Freshwater Wetland; and 5) Disturbed/Residential. There are five unnamed drainage courses plus Guillermo and Lockwood Creeks located within the study area that could be determined as "waters of the United States" under the jurisdiction of the United States Army Corps of Engineers (Corps). Basic characteristics of these habitat types are described below. A map indicating the distribution and coverage of the habitat types and wetlands on the site is included as Figure 3. Appendix A includes a list of plant species observed on the project site.

3.2.1 Sagebrush Scrub

The Sagebrush Scrub habitat within the study area is similar to the Great Basin Scrub as described by Holland and the Big Sagebrush Series as described by Sawyer and Keeler-Wolf. This habitat type comprises approximately 277.3 acres of the 315-acre study area, and is characterized by soft-woody shrubs such as sagebrush (*Artemisia tridentata* ssp. *tridentata*), rabbit brush (*Chrysothamnus nauseosus*), interior goldenbush (*Ericameria linearifolia*), and hoary saltbush (*Atriplex canescens*). Bare ground or native perennial plant species such as lupines (*Lupinus* ssp.), several species of buckwheat (*Eriogonum fasciculatum, E. inflatum, E. nudum, E. sperguinum* ssp. *reddingianum, E. umbellatum*), two species of penstemon (*Penstemon centranthifolius, P. heterophyllus*), imbricate phacelia (*Phacelia imbricata*) and corethrogyne (*Lessingia filaginifolia*) are also intermixed with shrubs on the study area. Squirrel tail (*Elymus elymoides*) is the dominant grass between shrubs. Sagebrush Scrub is the dominant habitat onsite, and occurs throughout the study area solely or in association with other habitat types, with the exception of the far southeastern border near the residence.

Sagebrush Scrub typically provides cover and nesting for a variety of animals. Western fence lizard (*Sceloporus occidentalis*), red-tail hawk (*Buteo jamaicensis*), mule deer (*Odocoileus hemionus*) scat, several California ground squirrel (*Spermophilus beecheyi*) burrows, and coyote (*Canis latrans*) scat were observed in the scrub habitat within the study area. Additional common species expected to occur within the scrub community onsite include western rattlesnake (*Crotalus viridus*), California whipsnake (*masticophis lateralis*), ringneck snake (*Diadophis punctatus*), gopher snake (*Pituophis melanoleucis*), American kestrel (*Falco sparverius*), blue-gray gnatcatcher (*Polioptila caerulea*), wrentit (*Chamae fasciata*), and California deer mouse (*Peromyscus californicus*). Open areas between scrub habitat provide foraging habitat for small mammals which in turn serve as a prey base for a variety of animals, including snakes, raptors ("birds of prey"), bobcat (*Lynx rufus*), mountain lion (*Felis concolor*), gray fox (*Urocyon cinereoargentus*) and coyotes. Numerous invertebrate species (such as insects), many of which provide a food source for larger animals such as lizards, birds, and some small mammals can also be found within open scrub communities.



Legend

- Potential Waters of the U.S.
- Potential Waters of the U.S. - With Potential Wetland
- Freshwater Marsh
- Disturbed /Residential
- Sagebrush Scrub
- Desert Woodland
- Riparian
- Project Boundary

Biological Resources Map

Figure 3

3.2.2 Desert Woodland

The Desert Woodland habitat within the study area is similar to the Pinyon-Juniper Woodland as described by Holland and the Singleleaf Pinyon Series as described by Sawyer and Keeler-Wolf. This habitat type comprises approximately 28.4 acres of the 315-acre study area, and is characterized by singleleaf pinyon pine (*Pinus monophylla*), Jeffrey pine (*Pinus jeffreyi*) and a few scattered blue oak trees (*Quercus douglasii*), with elements from the scrub community as part of the understory. This habitat type occurs in the eastern portion of the site along slopes surrounding Guillermo Creek and in the vicinity of the residence.

Desert Woodlands provide habitat for a variety of wildlife species. Pines and oaks provide nesting sites and cover for birds (including birds-of-prey) and many mammals. Woody debris and duff in the woodland understory create foraging areas for small mammals and microclimates suitable for amphibians and reptiles. Acorns and pinyon nuts are a valuable food source for many animal species. Species observed during Rincon site visits include: scrub jay (*Aphelocoma corulescens*), California quail, California towhee (*Pipilo crissalis*), squirrel, and tracks of North American raccoon (*Procyon lotor*) and mule deer. Other representative animal species of woodlands observed or expected to occur onsite include southern alligator lizard (*Gerrhonotus multicarinatus*), common king snake (*Lampropeltis getulus*), plain titmouse (*Parus inornatus*), dark-eyed junco (*Junco hyemalis*), and Virginia opossum (*Didelphis virginianus*). Additionally, several raptorial bird species could use the trees onsite as nesting and/or root sites.

3.2.3 Riparian

The Riparian habitat type within Guillermo Creek corresponds to the Southern Cottonwood-Willow Riparian Woodland described by Holland (Figure 3). The Riparian habitat onsite comprises approximately 0.5 acres of the 315-acre study area, and is characterized as patchy occurrences of sand bar willow (*Salix exigua*) and Fremont's cottonwood trees (*Populus fremontii*) along the creek with localized wetland vegetation in areas of flowing and ponded water. Additionally, several arroyo willow (*Salix lasiolepis*) individuals were observed along Guillermo Creek and around the perimeter of the pond. Other plant species observed in this habitat type included: mugwort (*Artemisia douglasiana*), durango root (*Datisca glomerata*), sedge (*Carex* sp.), spikerush (*Eleocharis* spp.), white sweetclover (*Melilotus alba*) and rabbitsfoot grass (*Polypogon monspeliensis*). No other areas of riparian habitat were observed on the project site. However, the banks of Lockwood Creek and drainages A, B, C, D and E primarily contained plant species associated with the scrub habitat onsite, but also include plants such as the interior rose (*Rosa woodsii*) along the banks characteristic of moister environments. Also, occasional occurrences of broomrape (*Orobanche* sp.) were observed within the sandy channels of these drainages. Section 4.0 characterizes the on-site drainages, potential wetlands, and pond within the study area.

Riparian habitat provides foraging and nesting habitat for a variety of songbirds such as common yellowthroat (*Geothlypis trichas*), yellow-rumped warbler (*Dendroica coronata*), ruby-crowned kinglet (*Regulus calendula*), plain titmouse (*Baeolophus inornatus*), and song sparrow (*Melospiza melodia*). Riparian habitats also provide habitat for amphibians and reptiles such as the Pacific chorus frog (*Pseudacris regilla*), pond turtle (*Clemmys* sp.), and

garter snake (*Thamnophis* sp.). During our July site visits, we observed red-tailed hawks and numerous songbirds foraging and perching within this area.

3.2.4 *Freshwater Marsh*

Regionally, this habitat type corresponds to the Coastal and Valley Freshwater Marsh described by Holland and the Cattail, Pondweed, and Spikerush series as described by Sawyer and Keeler-Wolf. This habitat type occurs along the coast and in coastal valleys near river mouths, along drainages, and around the margins of lakes and springs. Freshwater marsh is typically characterized as lacking significant current, and being permanently flooded with fresh water. This habitat type was observed along the pond's perimeter and also in select locations within Guillermo Creek. Common native plant species observed in this habitat area include cattail (*Typha latifolia*), sedges, common spikerush (*Eleocharis macrostachya*), Durango root, and rabbitsfoot grass (*Polypogon monspeliensis*). Additionally, two depressions observed at the confluence of drainage A/B and the beginning of drainage C adjacent to the entry road, contained a predominance of saltbush (*Atriplex* spp.) and creeping wild rye (*Leymus triticoides*) that indicate seasonally ponded water. Wetland habitats are identified by the CNDDB as a natural community of special concern. Open water pond and wetland habitat comprise approximately 1.6 acres onsite.

The Freshwater Marsh onsite provides habitat for aquatic invertebrates such as water striders and boatmen, amphibians such as the Pacific chorus frog, and aquatic birds such as the mallard duck (*Ana platyrhynchos*). American coots (*Fulica americana*) were observed in the pond during the Rincon surveys. Furthermore, emergent vegetation within the Freshwater Marsh could potentially provide breeding habitat for the red-winged blackbird (*Agelaius phoeniceus*) and common snipe (*Gallinago gallinago*).

3.2.5 *Disturbed/Residential*

The disturbed/residential habitat type within the study area comprises approximately 7.2 acres, and includes disturbed areas that have been affected by residential development. This area consists of primarily bare soils, but also supports horticultural and ruderal (weedy) species. Dominant species in this area included non-native annual grasses and forbs. Within the study area, disturbed habitat was observed along the entry road and in the vicinity of the residence onsite. Generally, ruderal/disturbed areas provide marginal habitat value for wildlife although horticultural trees provide roosts for bird species and shade for ground dwelling species. Furthermore, bare soil areas provide basking sites for reptiles.

Disturbed areas on the site support birds and other wildlife adapted to rural and suburban settings. Birds observed in these areas include northern mockingbird (*Mimus polyglottos*), Brewer's blackbird (*Euphagus cyanocephalus*), California quail, European starlings (*Sturnus vulgaris*), violet-green swallows (*Tachycineta thalassina*), and mourning dove (*Zenaida macroura*). Also expected would be yellow-rumped warbler (*Dendroica coronata*) and cliff swallows (*Petrochelidon pyrrhonota*). These areas also provide habitat for small mammals such as the California ground squirrel and Botta's pocket gopher (*Thomomys bottae*), as well as foraging habitat for raptors such as American kestrel.

3.3 Special-Status Species

For the purpose of this report, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS under the Federal Endangered Species Act (FESA); those considered "Species of Concern" by the USFWS; those listed or proposed for listing as Rare, Threatened, or Endangered by the DFG under the California Endangered Species Act (CESA); animals designated as "Species of Special Concern" by the DFG; and plants occurring on lists 1B, 2, and 4 of the CNPS Inventory of Rare and Endangered Vascular Plants of California. The CNDDB indicates plant communities considered rare enough to warrant priority in the state inventory of natural communities and to recommend monitoring or conservation efforts.

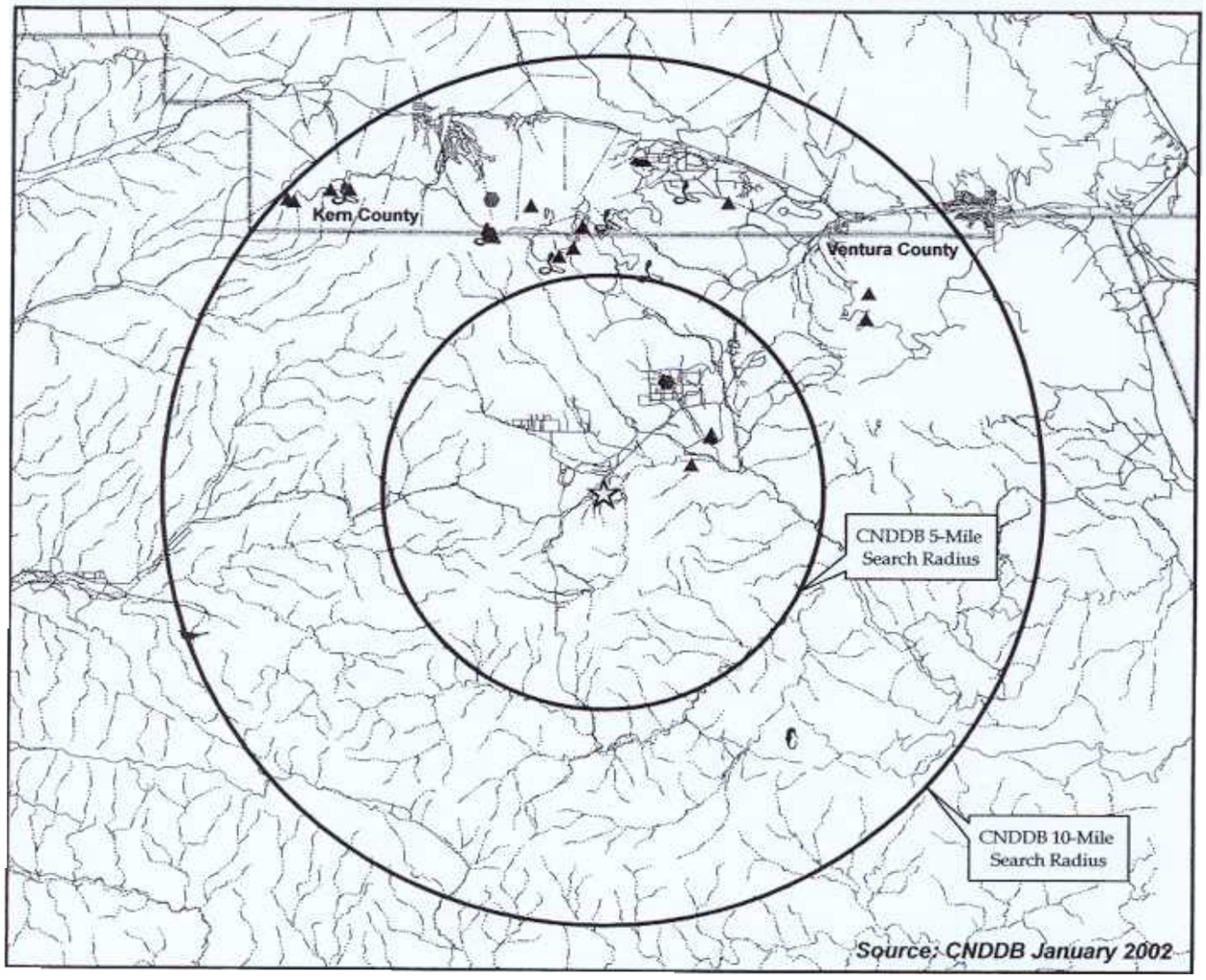
Rincon Consultants biologists developed a target list of special-status plant and animal species that could potentially occur on the site based on our review of the CNDDB, and other sources including U.S. Forest Service documents and our own knowledge of the area. Field reconnaissance to identify habitat types and an evaluation of the on-site soils helped refine the target list of species and focus our assessment of the actual or potential for occurrence of special-status species on the project site. Figure 4 illustrates the results of the CNDDB search within an approximately five- and ten-mile radius of the project site. Appendix B lists the Federal, State, and CNPS status for the CNDDB recorded occurrences within a 10-mile radius search surrounding the project site.

3.3.1 Special-Status Plants and Plant Communities of Special Concern

The CNDDB contains records of seven special-status plant species that are known from relatively localized occurrences near the project site (see Appendix B and Figure 4). In addition, a plant species of limited distribution, heart-leaved thornmint (*Acanthomintha obovata* ssp. *cordata*, is also known to occur in the project vicinity and was observed on site. All eight of these special-status plant species occur within the immediate vicinity of the study area, and have the potential to occur on the Lockwood Valley site. These plants include: Big Bear Valley woollypod (*Astragalus leucolobus*), late-flowered mariposa lily (*Calochortus weedii* var. *vestus*), pale-yellow layia (*Layia heterotricha*), flax-like monardella (*Monardella linoides* ssp. *oblonga*), Baja navarretia (*Navarretia peninsularis*), Abrams's oxytheca (*Oxytheca parishii* var. *abransii*), and salt spring checkerbloom (*Sidalcea neomexicana*). The CNDDB contains no records of plant communities of special concern near the project site although Riparian and Freshwater Marsh habitats, both CDFG communities of special concern, occur onsite. The County of Ventura General Plan states that riparian vegetation is locally significant due to its rarity, high value as wildlife habitat, and use as a wildlife migration corridor.

The following species accounts briefly present relevant ecological and range information and legal status for all the special-status plant species with potential to occur within the study area.

- **Big Bear Valley woollypod**, a CNPS List 1B species, is a perennial herb in the pea family (Fabaceae). This plant typically occurs in lower montane coniferous forest, pebble plain, pinyon-juniper woodland or on gravelly knolls among sagebrush or stony lakeshores between 1670 and 2515 meters, and is locally



☆ PROJECT LOCATION
PRAIRIE FALCON
TEHACHAPI POCKET MOUSE
SOUTHERN RUBBER BOA
VERNAL POOL FAIRY SHRIMP
▲ PALE-YELLOW LAYIA
▲ BIG BEAR VALLEY WOOLLYPOD
▲ FLAX-LIKE MONARDELLA
▲ SALT SPRING CHECKERBLOOM
● ABRAMS'S OXYTHECA
● BAJA NAVARRETIA
● LATE-FLOWERED MARIPOSA LILY

N
W
S
2.5
5
Miles

CNDDB Recorded Occurences Figure 4

common in the Big Bear Valley. The blooming period for this species is typically from May to July. The Forest Service (USDA 1999) states the species also occurs in areas with disturbed soils on fuel breaks, within residential tracts and adjacent to roads. The nearest recorded CNDDB occurrence is located approximately seven miles northwest at the summit of Mount Pinos. Although a species of *Astragalus* was observed onsite, it was determined not to be the Big Bear Valley woollypod because the inflated fruits were glabrous and not covered with dense wooly hairs. Furthermore, since this species would have been in bloom during Rincon field surveys of the project site, and no individuals were observed, this species is not expected to occur within the project site.

- **Late-flowered mariposa lily**, a CNPS List 1B species, is a small, bulbiferous, herbaceous perennial plant in the lily family (Liliaceae). This plant typically occurs in chaparral and cismontane woodland between 270 and 1910 meters. The blooming period for this species is typically from May to July. The U.S. Forest Service (USDA 1999) states the species appears to be disturbance oriented and has been noted on road banks and fuel breaks. The taxon has been found on sandstone, siltstone, shale and serpentine substrates. The nearest recorded CNDDB occurrence is located approximately eight miles northwest on Mount Pinos. The rock outcrop/woodland habitat type and disturbed areas within the study area represent potential habitat for this species. Opened fruits characteristic of the lily family were observed in several locations in the scrub habitat in the eastern portion of the site during late July 2001 surveys. These fruits were likely of plants in the genus *Calochortus*, however given the phenology of the plant material, we were unable to identify these individuals to species. Furthermore, surveys were performed past the blooming period when flower parts are present to identify members of the lily family to a level sufficient to determine rarity. Therefore, the presence or absence of this species cannot be determined at this time. Seasonally-timed focused surveys would be necessary to determine this species presence/absence from the project site.
- **Pale-yellow layia**, a CNPS List 1B species, is an annual herb in the aster family (Asteraceae). The species typically occurs in pinyon-juniper woodland and valley and foothill grassland between 270 and 1365 meters often on alkaline or clay soils. On Los Padres National Forest they are associated with calcareous potreros. This layia typically blooms from March through June. The nearest recorded CNDDB occurrence is located approximately 1.7 miles northeast in the Lockwood Valley in pinyon-juniper woodland in open areas with sagebrush, shadscale, and brome grass. The woodland habitat in the east and scattered grassland beneath the sagebrush within the study area represent potential habitat for this species. Since surveys were conducted outside of the blooming period, presence or absence for this species cannot be determined at this time.
- **Flax-like monardella**, a CNPS List 1B species, is a perennial herb in the mint family (Lamiaceae) that typically occurs on decomposed granitic soils or disturbed areas in lower and upper montane coniferous forest and pinyon-juniper woodland habitat types. This species usually blooms from June through August. The nearest recorded CNDDB occurrence is located approximately six miles northeast along Cuddy Valley Road to Mount Pinos. Since this species

would have been in bloom during Rincon field surveys of the project site, and no individuals were observed, this species is not expected to occur within the project site.

- **Baja navarretia**, a CNPS List 1B species, is an annual herb in the phlox family (Polemoniaceae). It typically occurs in wet areas associated with lower montane coniferous forests and chaparral between 1500 and 2425 meters. This species usually blooms from June to August. The nearest recorded CNDDB occurrence is located approximately eight miles northwest on Mount Pinos and was located by a 1905 record of this species. No other occurrences are recorded within the 10-mile radius search of the CNDDB database. Although marginal habitat may exist onsite, no Baja navarretia individuals were observed during the floristic inventory during the plants blooming period when it could most easily be identified. Since this species would have been in bloom during Rincon field surveys of the project site, and no individuals were observed, this species is not expected to occur within the project site.

- **Abrams's oxytheca**, a CNPS List 1B species, is an annual herb in the buckwheat family (Polygonaceae) that inhabits shale to sandy places in chaparral habitat from 1150 to 2060 meters. This species usually blooms from June to August. The nearest recorded CNDDB occurrence is located approximately eight miles northwest near the Stauffer post office in Lockwood Valley and is based on historical collections. No other occurrences are recorded within the 10-mile radius search of the CNDDB database. Although habitat may exist onsite, especially within sandy washes, no Abrams's oxytheca individuals were observed during the floristic inventory during the plants blooming period when it could most easily be identified. Since this species would have been in bloom during Rincon field surveys of the project site, and no individuals were observed, this species is not expected to occur within the project site.

- **Salt spring checkerbloom**, a CNPS List 2 species, is a perennial herb species in the mallow family (Malvaceae) that typically inhabits alkali playas, brackish marshes, chaparral, coastal sage scrub, lower montane coniferous forest, and Mojave and desert scrub below 1500 meters. This species typically blooms from March through June. The nearest recorded CNDDB occurrence is located approximately 2.5 miles northeast in the eastern end of Lockwood Valley in big sagebrush scrub habitat surrounded by pinyon-juniper woodland. Although a similar mix of habitats exists onsite, no salt spring checkerbloom individuals or any members of the *Sidalcea* genera were observed during the floristic inventory. Due to its perennial nature, this species would have been observed onsite even though floristic surveys were conducted outside the blooming period for this species. Therefore, this species is not expected to occur within the project site.

- **Heart-leaved thornmint**, a CNPS List 4 species, is an annual herb in the mint family (Lamiaceae) that typically grows in openings in chaparral, cis-montane woodland, pinyon and juniper woodland, and valley and foothill grassland between 785 - 1540 meters. This species usually blooms from April to May. Heart-leaved thornmint is occurs throughout the Inner South Coast Range of southern California and has been known to occur in the Lockwood Valley area

(Smith 1976). Several individual heart-leaved thornmint plants were observed onsite in the sandy bed of the Lockwood Creek channel. Potential habitat for this species occurs throughout the project site and is primarily associated with the scrub habitat and in sandy washes of Lockwood Creek and Drainages A, B, C, and D.

3.3.2 Special-Status Wildlife

The CNDDB has the recorded occurrence of three special-status wildlife species within an approximately 10-mile radius of the project site (See Figure 3 and Appendix B). The following discuses the species listed in the CNDDB 10-mile search, as well as several other potential special-status species identified from U.S. Forest Service literature, their habitat requirements, and whether or not the site could support these species or if they were observed during field reconnaissance of the site.

- No vernal pools exist onsite, therefore, the project site does not support habitat for the Federally Threatened **vernal pool fairy shrimp** (*Branchinecta lynchi*). The closest known occurrence for this species is approximately six miles to the southeast between Mutau and Little Mutau Creeks. Fairy shrimp are not expected to occur onsite.
- The CNDDB contains the following occurrences of special-status aquatic species approximately 12 miles south of the project site along Sespe Creek: the arroyo toad (*Bufo microscaphus californicus)*; the two-striped garter snake; and southwestern pond turtle *(Clemmys marmorata pallida)*. Additionally, the California red-legged frog (*Rana aurora draytonii*) is known to occur within Sespe and Piru Creeks.

  The Federally Endangered and State Species of Concern **arroyo toad**, is a small light greenish gray or tan toad with warty skin and dark spots. The arroyo toad is restricted to rivers that have shallow, gravelly pools adjacent to sandy terraces and the presence of water during the breeding and through the larval development period, approximately March through July. Juvenile and adult toads utilize gravel bars and terraces that have nearly complete closure of cottonwoods (*Populus* spp.), oaks (*Quercus* spp.), or willows (*Salix* spp.) for foraging and burrowing, with juveniles active above ground during the day and adults active above ground at night. Guillermo Creek contained water for a sufficient time for larval development this year but lacks the sandy terrace habitat through the project site essential for foraging and burrowing. No arroyo toads were observed or are expected onsite due to lack of habitat.

  The **two-striped garter snake** is a state species of concern that occurs from sea level to 7,000 feet in elevation in highly aquatic habitat found in or near permanent fresh water especially with rocky beds and willow thickets or emergent vegetation. It occurs throughout most of the South Coast and Transverse ranges, which locates the project site within the range of this species. No two-striped garter snakes were observed, although suitable habitat for this species exists along Guillermo Creek and within the pond.

  The **southwest pond turtle** (SWPT), a Federal and State Species of Concern, and

the Federally Threatened **California red-legged frog** (CRLF) prefer permanent aquatic habitats with similar characteristics: dense shrubby, or emergent riparian vegetation, such as arroyo willow, cattails, and bulrushes, associated with deep (greater than 2 feet), still or slow-moving water. Additionally, SWPT prefers exposed rocks or floating logs within the water for basking. CRLF generally inhabit aquatic habitats up to 5,000 feet and SWPT inhabits aquatic habitats below 6,000 feet. The site contains suitable potential breeding habitat in the pond and foraging habitat in adjacent uplands for both species. Guillermo Creek may also provide foraging opportunities. Critical Habitat has been designated for the CRLF across a portion of the Transverse Ranges in Los Padres National Forest within Critical Habitat Unit No. 27, although most of Lockwood Valley (including the project site) is within a non-designated hole of this unit (USFWS 2001). No SWPT or CRLF were observed onsite. However, the USFWS often requires a habitat survey and a two-day, two-night protocol CRLF survey to determine the presence or absence of the CRLF species. Therefore, since the site contains suitable habitat for the SWPT and CRLF, and focused/protocol surveys have not been conducted, a statement regarding presence or absence of these species cannot be made at this time.

- The nearest recorded CNDDB occurrence for the State Threatened **southern rubber boa** *(Carina bottae umbratica)* is located approximately five miles north of the project site in Cuddy Valley at the border of Ventura and Kern counties. Isolated populations of rubber boas have been found on Mount Pinos, Mount Abel, and Alamo Mountain and genetic analysis of these individuals show them to be intergrades between the southern and northern subspecies. The species is found from sea level to 2740 m (9040 ft), although in the southern California forests it has generally found between 4,900 and 7,900 feet. The rubber boa is found in a variety of montane forest habitats including ponderosa pine, mixed conifer, riparian, montane chaparral, and wet meadow habitats. The rubber boa is an extremely secretive snake seeking cover in rotting logs, pieces of bark, boards, rocks, and other surface debris. The snake also occasionally climbs. The snake is most active after dusk or prior to dawn but may also be active during the day and is inactive during cooler periods. Breeding occurs from April to June. Although this species was not observed, the project site is within the elevational range and the area adjacent to Guillermo Creek within the study area may provide suitable habitat for this species.
- The nearest recorded CNDDB occurrence for the **Tehachapi slender salamander** (*Batrachoseps stebbinsi*), State Threatened and a Federal Species of Concern, is approximately 14 miles northeast of the site in Fort Tejon State Historical Park, Kern County. The narrow range of this species is primarily restricted to the Piute and Tehachapi mountains of Kern County. U.S. Forest Service literature (USDA 1999) states that potential habitat occur in the Mount Pinos/Frasier Mountain area. The salamander is found primarily in mixed pine-oak and riparian woodlands in moist canyons, ravines, and north-facing slopes at elevations between 2,500 and 5,000 feet. It forages primarily under surface objects such as pieces of bark or flat talus rocks in moist areas or in leaf litter, and may enter termite tunnels and earthworm burrows. This species retreats to moist

underground niches or seepage areas during drier periods. Surface activity is generally nocturnal and strongly correlated with periods of fall, winter and spring precipitation. No Tehachapi slender salamanders were observed onsite but potential habitat exists along Guillermo Creek and the adjacent pond.

- The nearest recorded CNDDB occurrence for the **yellow-blotched salamander** (*Ensatina eschscholzii croceator*), a Federal and State Species of Concern, is approximately 11 miles northwest of the site, south of Camp Condor near the Ventura and Kern County border in Los Padres National Forest. This is a moderate sized (48-78mm), yellow blotched on brown-black background color, nocturnal salamander that lays its eggs terrestrially. It occurs in the Tehachapi Mountains and extends in to the vicinity of Mount Pinos, Frasier Mountain and Alamo Mountain. The yellow-blotched salamander occurs in a variety of habitats but is most common in mixed stands of oaks and conifers. Down logs, leaf litter, and woody debris appear to be important habitat elements. No yellow-blotched salamander was observed onsite but potential habitat exists in the woodland habitats in the eastern portion of the site.
- The nearest recorded CNDDB occurrence for the **San Diego horned lizard** (*Phrynosoma coronatum blainvillei*), a Federal and State Species of Concern, is approximately 12 miles to the east. Horned lizards are most common is shrub dominated communities with loose, fine soils with a high sand fraction; an abundance of native ants (food source); and open areas for basking. A horned lizard was observed onsite in the sandy dry substrate of drainage B at the center of the site. Suitable habitat exists for the horned lizard throughout the site.
- The CNDDB lists several raptors (birds of prey) as occurring within the 10-mile search range. The nearest recorded occurrence for the **prairie falcon** (*Falco mexicanus*), a California Species of Concern is approximately 10 miles from the site. The CNDDB also lists an occurrence for the Federal and State Endangered **California condor** approximately 12 miles to the south in the Sespe-Piru Condor Area. The Sespe-Piru area is used by the condor throughout the year for nesting and roosting, and the project site is within the foraging area of the condor. U.S. Forest Service literature (USDA 1999) identified the **northern goshawk**, a Federal and State Species of Concern, as a bird-of-prey that could use the study area for foraging during the breeding season. An adult and an immature Goshawk were observed at Mount Pinos in July 1991. Goshawks can occur in a variety of coniferous forest communities including ponderosa and Jeffrey pines. Based on field observations, the study area supports a prey base (small to medium sized birds and squirrels) for the prairie falcon, northern goshawk, and other foraging raptors. The area also supports larger prey, such as raccoon and deer, which may be fed upon by the California condor. Therefore, the study area supports suitable foraging habitat for these wide-ranging special-status bird species.
- The **blue grouse** (*Dendragapus obscurus*), a local Species of Concern, is found in open, medium to mature-aged stands of fir, Douglas fir, and other conifer habitats, interspersed with medium to large openings, and available water. The grouse is a ground nester in brushy areas of downed logs and sagebrush. In California the blue grouse inhabits North Coast Ranges in northwestern

California, and the Klamath, Sierra Nevada, and portions of the Warner, White, and Tehachapi Mts. The Mount Pinos blue grouse is a species of local concern because of its extremely localized distribution. It is known only from areas above 6,500 feet in the Mount Pinos/Mount Abel area, with the exception of one outlying record of grouse chicks from Big Pine Mountain in the 1930's. Dicky and van Rossem (1923) described the grouse of the southern Sierra Nevada and Mount Pinos as a distinct sub-species, D. o. *howardi*, citing eight specimens from the area. It is unclear whether the grouse still occur in the region. Lentz (1993) describes several unconfirmed sightings near Sawmill Mountain (just west of Mount Pinos) in the early 1990's, but she says the last verified records are from 1976 and 1979. No blue grouse were observed onsite and are not expected due to the elevation of the project site being below the species range, as described above.

- There are currently no known breeding locations of the State and Federally Endangered **southwest willow flycatcher** (*Empidonax traillii extimus*) in the surrounding Los Padres National Forest and no CNDDB recorded occurrences within 10-mile radius of the study area. The willow flycatcher has been observed along San Francisquito Creek and the Santa Clara River in Soledad Canyon. The southwest willow flycatcher is a Neotropical migrant that breeds in low-elevation riparian habitats. Occupied sites are highly localized and variable in vegetation structure, although research on the Kern River indicates that nesting all territories had high vegetative volume in the lower strata and high canopy density. The southwestern willow flycatcher is found in association with riparian habitat where willow, cottonwoods, and stinging nettles are dense. Therefore, suitable habitat for this species is lacking since the project site contains only a relatively small patch of sparse/isolated riparian habitat.

- The nearest recorded CNDDB occurrence for the **Tehachapi pocket mouse** (*Perognathus alticola inexpectatus*), a State and Federal Species of Concern, is approximately seven miles north of the study area in Kern County. Historic records locate this species at Cuddy Valley and Mount Pinos. CNDDB states that trapping in Cuddy Valley in 1979 and 1989 had negative results for the Tehachapi pocket mouse. This taxon is endemic to the Tehachapi Mountains and the western Transverse Ranges. The pocket mouse is associated with arid annual grassland, desert scrub communities, pinyon pine woodland, and open desert-side pine forest at elevations between 3,500 and 6,000 feet (USDA 1999). Although the pocket mouse was not observed during July surveys, the project site is within the elevational range of the species and suitable habitat occurs throughout the site.

- Two Federal bat Species of Concern, the **fringed myotis** (*Myotis thysanodes*) and **long-legged myotis** (*Myotis volans*), occur in a variety of habitats although both are usually associated with coniferous forests. The fringed myotis is also commonly found in pinyon-juniper woodlands and the long-legged myotis also occurs in riparian and desert habitats. Both bats are found primarily above elevations of 4500 feet. Caves, buildings, mine shafts, rock crevices in cliff faces, trees and bridges are used for maternity and night roosts, while hibernation has been documented only in buildings and mines for the fringed bat. The long-

legged bat uses abandoned buildings, cliff crevices, exfoliating tree bark, and hollow within snags as summer day roosts; caves and tunnels as hibernacula. No bat species were observed while onsite, although suitable habitat for both species exists in the woodland habitat along the east and western boundaries and the buildings in the residential area. Buildings and trees may provide potential day roosts for the long-legged myotis and night and maternity roosts for the fringed myotis. Trees onsite may also provide hibernation habitat for the fringed bat.

4.0 WETLANDS

Potential jurisdictional waters of the U.S. and wetland areas within the study area include the pond near the eastern border, Guillermo Creek and portions of the adjacent bank, and depressions adjacent to the entry road in unnamed drainage C and at the confluence of drainages A and B (see Figure 3). Potential waters of the U.S. (non-wetland) occur in the remainder of drainages A, B, and C, in the onsite portions of Drainages D and E, and in Lockwood Creek, as hydrophytic vegetation was lacking but a distinct channel was observed in these areas. Jurisdictional wetlands are determined by three criteria, as outlined in the United States Army Corps of Engineers' 1987 Wetland Delineation Manual: hydrophytic vegetation; hydrology; and hydric soils. Rincon Consultants performed a preliminary wetland delineation based on two of the three parameters. Hydrophytic vegetation and evidence of hydrology observed in these areas indicate potential wetland habitat. Topographical maps and aerial photography were used to map and determine the acreage of potential waters of the U.S. and wetland locations.

Based on these criteria, a total of approximately 6.4 acres of "waters of the United States" and wetlands (as a subcategory of "waters") subject to Corps jurisdiction were identified within the study area. The extent and location of the on-site waters/wetlands are shown in Figure 3 and acreage figures shown below in Table 1.

Table 1: Potential Waters of the U.S. and Wetlands

Preliminary Jurisdictional Area	Potential Waters of the U.S. (acres)	Potential Wetlands (acres)	Total (acres)
Pond	-	1.7	1.7
Guillermo Creek and associated drainage	3.0 -	0.3 0.1	3.3 0.1
Lockwood Valley Creek	0.6	-	0.6
Drainage A	0.2	0.01	0.21
Drainage B	0.1	0.01	0.11
Drainage C	0.1	0.01	0.11
Drainage D	0.2	-	0.2
Drainage E	0.1	-	0.1
Approximate Total	**4.3**	**2.1**	**6.4**

4.1 Pond

The kidney-shaped pond can be located on the Lockwood Valley U.S.G.S. 7.5 minute quadrangle topographic map as a body of water in the southeast corner of the project site between Guillermo Creek and the residence. Overflow from Guillermo Creek

appears to flow to the pond via a channel parallel to the creek and leading to the pond. This channel is discussed with the following Guillermo Creek discussion. The northern edge of the pond appears to impound water due to a wide earthen berm. Water was present in the pond during the July 2001 site visits. Riparian habitat, dominated by willow species, lines the banks of the pond. Freshwater marsh habitat, dominated by obligate wetland species such as cattail and spikerush, is located in the shallow water and lower banks of the pond. The area of surface water, along with saturated soils, would be considered potential wetlands under Corps jurisdiction.

4.2 Creeks and Drainages

Guillermo Creek and adjacent channel

Guillermo Creek, identified on the San Guillermo U.S.G.S. 7.5 minute quadrangle topographic map by name and as an intermittent blue-line creek, originates offsite to the south in Los Padres National Forest and traverses the site along the eastern border in a primarily south to north direction. This drainage has a silt and cobble substrate onsite that widens to a sandy wash as it exits at the northeast border of the site. During the July 2001 survey, water was observed in the creek onsite up to the point where it reached the wash, and then it was dry. Water observed averaged approximately two to three inches depth and 3.5 feet width, at waters edge. The bottom of the channel, upstream from the wash, averages approximately two to three times the water width observed along the eastern border. The wash had a series of low flow channels through an area that widens to approximately 500 feet as it exits the site at the north. From south to north, Guillermo Creek passes through riparian woodland then shrubland as it makes its way through the study area. The area of flow in the creek supports emergent vegetation, algae, and an aquatic insect population. The drainage onsite appears to fall within the waters of the U.S. wetland category, resulting in approximately 3.3 acres of waters that includes 0.3 acres of wetland habitat.

A channel, originating at the southeastern corner of the property, splits from the western bank of Guillermo Creek and flows north where it empties to the pond, as stated in the pond section above. A berm separates this side-channel from Guillermo Creek. Well-developed willow riparian habitat has established in and around the side-channel, along with hydrophytic understory vegetation. The length of the channel onsite appears to fall within the waters of the U.S. wetland category, resulting in approximately 0.1 acre of riparian/wetland habitat.

Lockwood Creek

Lockwood Creek, identified on the San Guillermo U.S.G.S. 7.5 minute quadrangle topographic map of the area as a named and intermittent blue-line creek, originates offsite to the south in Los Padres National Forest and traverses the center of the site east and approximately parallel to Lockwood Valley Road in a primarily south to north direction. This is a sinuous drainage with a sand and cobble substrate onsite. Lockwood Creek passes through scrub as it makes its way across the study area, although it does contain interior rose along the banks of the creek. No water was observed in the creek during July 2001 surveys. The channel averages approximately six feet in width, although the channel contains wide turns or multiple low flow channels in some areas due to the sinuous nature of the creek. The entire length of Lockwood Creek

onsite appears to fall within the waters of the U.S. category, resulting in approximately 0.6 acres of waters of the U.S.

Drainage A, B, and C

Drainage A and B, identified on the Lockwood Valley U.S.G.S. 7.5 minute quadrangle topographic map of the area as intermittent blue-line creeks, originate offsite to the south in Los Padres National Forest and traverse the center of the site east of Lockwood Creek in a primarily south to north direction to their confluence located just upstream or south of the entry road. Drainage A and B are secondary tributaries to Lockwood Creek. Drainage C, a primary tributary to Lockwood Creek, originates north of the entry road and traverses south to north to its confluence with Lockwood Creek onsite. There is no culvert beneath the entry road to allow flows from drainage A/B to C and it appears that stormflows pond in depressions on either side of the road at the confluence of drainage A/B and at the beginning of C. Drainages A, B and C have a sand and cobble substrate and pass through scrub habitat as they make their way across the study area. The two ponded areas adjacent to the road contained hydrophytic vegetation indicating these two areas may be wetlands. The remainder of the lengths of drainages A, B, and C appear to be waters of the U.S. Approximately 0.2 acres of drainage A and 0.1 acres of drainage B fall under the waters of the U.S. category. Approximately 0.1 acres of drainage C fall under the waters of the U.S. category. Approximately 0.03 acres of drainages A, B, and C fall within the potential seasonal wetland category.

Drainage D

Drainage D, identified on the Lockwood Valley U.S.G.S. 7.5 minute quadrangle topographic map of the area as a low elevation area, originates at the base of a hill north of the entry road and traverses south to north in the eastern portion of the site. The topographical map illustrates a sandy wash where the drainage flows north offsite to its confluence with Lockwood Creek. Drainage D has a sand and cobble substrate and passes through scrub habitat as it makes its way across the study area. No water was observed in Drainage D during July 2001 surveys. The entire length of this approximately 0.2-acre drainage onsite would likely be considered waters of the U.S.

Drainage E

Drainage E, identified on the Lockwood Valley U.S.G.S. 7.5 minute quadrangle topographic map of the area as an intermittent blue-line creek, originates offsite to the north in Lockwood Valley and traverses the site along the northern border in a primarily north to south direction. According to aerial photography, this creek traverses scrub habitat. All of Drainage E onsite, or approximately 0.1 acres, falls within the potential waters of the U.S. category.

5.0 CONCLUSION

The Lockwood Valley project study area contains five habitat types that are typical to the region including: Sagebrush Scrub, Desert Woodland, Riparian, Freshwater Marsh, and Disturbed/Residential. Approximately 6.4 acres of potential waters of the U.S. consisting of the pond, Lockwood Creek, Guillermo Creek and a side channel, Drainages A, B, C, D, and E would likely fall under the jurisdiction of the United States Army Corps of Engineers. Of the 6.4 acres of waters, approximately 2.1 acres of potential

wetlands within portions of Drainages A, B and C, the pond, and Guillermo Creek and its entire associated channel may fall under the jurisdiction of the United States Army Corps of Engineers.

The study area has the potential to support a variety of special-status plant and wildlife species. The project site supports two plant communities of special concern: Southern Cottonwood Willow Riparian Woodland and Freshwater Marsh. Other than the heart-leaved thornmint, which is a CNPS List 4 species, no special-status plant species were observed onsite. However, Rincon surveys were conducted outside the blooming period for two special-status plant species, the Late-flowered mariposa lily and the Pale-yellow layia. One special-status wildlife species, the San Diego horned lizard, was observed onsite during surveys in Drainage B. This species has the potential to utilize the majority of the project site, as suitable habitat was observed throughout. Additionally, the project site is within the species range and contains suitable habitat for other special-status wildlife species as described above in Section 3.3.2.

In conclusion, the study area has several constraints to development that would require permitting or consultation from resource agencies.

6.0 RECOMMENDATIONS

The following identifies general permitting agency requirements and also provides recommendations for further studies. At this point it is not known what development VTN proposes for the Lockwood Valley Project so mitigation measures to offset potential impacts to biological resources are general in nature.

- **Plant Communities of Special Concern** - Constraints to development exist onsite due to the presence riparian and wetland habitat types, as well as the presence of protected trees. County of Ventura General Plan policies call for the evaluation of discretionary development within 300 feet of streams or wetlands and the protection of habitat within a 100-foot (minimum) buffer zone of those aquatic habitats, which would include the riparian and marsh habitats onsite. Loss of these riparian communities due to site grading or development would pose a constraint to development and may require avoidance or compensatory mitigation by the County. Currently, mandatory compensatory mitigation is required for Federal Corps Nationwide Permits for wetland impacts, and the DFG has been requesting replacement mitigation for wetland and riparian habitat losses. If special-status plant species exist within the scrub or pinyon woodland communities, encroachment into those areas due to development would pose a constraint to development and may require replacement mitigation. See the discussions regarding special-status flora below.
- **Oak, and Landmark Trees.** Felling or removal of protected single trunk oaks (*Quercus* spp.) with a 9.5" circumference, multi-trunk oaks with a combined 6.25' circumference, or sycamore (*Platanus* spp.) with a 9.5" circumference would present a constraint to development and would require a County of Ventura permit. Additionally, encroachment into the protected zone of these trees may also pose constraints to development. Permit requirements may include a tree inventory/survey to determine specific impacts to oaks and/or other landmark trees, replacement mitigation and the protection of remaining trees during

construction. Oaks were observed in the woodland community and on a knoll between Drainage D and Lockwood Creek. Also, see the discussion below related to wildlife and the removal of trees.

- **Special-Status Flora.** The late-flowered mariposa lily and pale-yellow layia have the potential to occur within the project site, as discusses in 3.3.1 Special Status Plants, and if present onsite, may provide constraints to development. The preliminary field reconnaissance, performed in July 2001, was outside of the blooming period for these special-status plants. It is recommend that focused rare plant surveys be conducted in accordance with CNPS and DFG guidelines, which include: up to three surveys be conducted during the species blooming period to ensure that seasonal variations in the target species are covered; surveys are conducted during the appropriate flowering period for identification to species or subspecies; and the surveyors use of accepted survey protocols. Surveys for these species would occur between March and July. If these special status plant species are found onsite, mitigation for the loss of species and/or habitat may be required under CEQA or by regulatory agencies.

- **Waters of the United States and Wetlands Issues** - Constraints to development exist due to the creeks and drainages onsite. Any project fill or road crossings of jurisdictional waters, including wetlands, would require a Section 404 Corps permit, Section 401 Regional Water Quality Control Board (RWQCB) Certification, and a DFG Streambed Alteration Agreement. Any fill, resulting in the loss of wetlands and waters, would also require compensatory mitigation. Our preliminary delineation revealed that Lockwood Creek, Guillermo Creek and its associated drainage, and five unnamed drainages that traverse the study area likely fall under the jurisdiction of the Corps and DFG (Figure 3). Corps jurisdiction would extend to the ordinary high water mark within drainages and DFG jurisdiction would extend out to the outer edge of the riparian vegetation canopy or edge of wetland vegetation. Constraints due to development would occur due to riparian and wetland vegetation associated with waters and wetland. It is recommended that a formal Corps wetland delineation be performed in order to determine the extent of jurisdictional waters and wetlands onsite. Modifications to the pond, Guillermo or Lockwood creeks, or other onsite drainages may require a permit from the Corps and the DFG.

- **Special-Status Wildlife.** The San Diego horned lizard is a Federal and State species of Concern and while the direct loss of the species or its habitat would be considered adverse, it may not pose a significant constraint to development due to the available suitable coast horned habitat in the vicinity. However, preconstruction surveys and relocation of lizards to undisturbed areas of the site may be required as mitigation for the project. At a minimum, this salvage and relocation may need to occur during initial site disturbance, and be performed by a qualified biologist. Additionally, species with a similar level of sensitivity (species of concern) not observed onsite but with suitable habitat onsite may be viewed in a similar manor. These species include the two-striped garter snake, southwestern pond turtle, the yellow-blotched and Tehachapi slender salamander, Tehachapi pocket mouse, and the two bat species. These species would not be expected to pose major constraints to development but may require

mitigation, such as pre-construction surveys. The July 2001 field survey revealed that the site has potential habitat for several other special-status wildlife species known to occur in the vicinity. Species that may require USFWS or DFG protocol presence/absence surveys may include CRLF and southern rubber boa. Consultation with USFWS and DFG should be sought regarding the need for protocol surveys for these or other species, as protocol surveys are generally more time intensive than general biological assessments and often require specialized training or equipment during specific seasons. The preparation of a report describing protocol survey methods and results would also be required by regulatory agencies.

Nesting birds are protected under the DFG code and the Federal Migratory Bird Treaty Act. Restrictions may exist with respect to hawks or other resident or migratory birds during the nesting season, if nesting birds occur onsite. Tree removal should be conducted outside the breeding season between September and February. Given the potential for special-status birds to nest on site, pre-construction surveys should be conducted to determine that nesting birds are not affected by construction-related activities if work cannot be conducted during September and February. If active nests are located onsite during a pre-construction survey, then all construction work should cease, and the DFG and USFWS shall be contacted for guidance on appropriate setbacks or other measures required by these agencies.

Retention of snags (standing dead trees) and dying trees should be considered as this adds habitat values for hole and cavity nesting bird and bat species that rely on the decaying tree elements for survival and reproduction. Additionally, restrictions may occur due to bats in buildings or in live or dead trees. If required, the use of specialized recording equipment to detect vocalization or mist netting for capture may be necessary.

In the event that any Federally Threatened, Endangered or Federal candidate species are determined to be present onsite and a Section 404 permit is required from the Corps, a Section 7 consultation would occur between the Corps and USFWS to ensure the species is not put in jeopardy by permit issuance. More detailed environmental review (including focused surveys) may also be required by the County of Ventura. Mitigation for the loss of species habitat would most likely be required under CEQA or by regulatory agencies. If no Federal nexus can be invoked through the Section 404 permitting process, and Federally Threatened, Endangered or Federal candidate species are determined to be present onsite, an ESA Section 10 permit may be required by the USFWS for construction and operation of the project. The Section 10 consultation process is used to authorize incidental take when no Federal agency is involved. This process may take several years (at least 2) and includes development of a Habitat Conservation Plan for protecting and enhancing the Federally listed species at a specific location in perpetuity. If "take" were only issued for construction activities, or limited only to those specific areas where a Corps Section 404 permit is required, a Section 10 permit may be needed for the long-term life of the project.

7.0 REFERENCES

1) California Department of Fish and Game, California Natural Diversity Data Base (Rarefind). Computer listing and map locations of historic and current recorded occurrences of special-status species and natural communities of special concern for USGS 7.5 minute quadrangle maps: San Guillermo, Sawmill Mountain, Cuddy Valley, Frazier Mountain, Alamo Mountain, Lockwood Valley, Lion Canyon, and Topatopa Mountains.

2) California Department of Fish and Game. *Endangered and Threatened Animals of California.* 12 pgs. Natural Heritage Division, Natural Diversity Data Base. July 2001.

3) California Department of Fish and Game. *Endangered, Threatened, and Rare Plants of California.* 16 pgs. Natural Heritage Division, Plant Conservation Program. July 2001.

4) California Department of Fish and Game. *Special Animals.* 42 pgs. Natural Heritage Division, Natural Diversity Data Base. July 2001.

5) California Department of Fish and Game. *Special Plants List.* 119 pgs. Natural Heritage Division, Natural Diversity Data Base. July 2001.

6) California Department of Fish and Game. 1999. *Fish and Game Code of California,* the California Endangered Species Act. Gould Publications, Altamonte Springs, FL.

7) California Department of Fish and Game. 2001. *Fish and Game Code of California,* Section 3503.5. Birds of prey and their eggs. *It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.* Gould Publications, Altamonte Springs, FL.

8) Environmental Laboratory. 1987. *Corps of Engineers Wetland Delineation Manual,* Technical Report Y-87-1, U.S. Army Engineers Waterways Experiment Station, Vicksburg, Miss.

9) Hickman, James C., Ed. 1993. *The Jepson Manual, Higher Plants of California.* University of California Press.

10) Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California.* California Department of Fish and Game, Sacramento.

11) Mayer, Kenneth and Laudenslayer, William Jr., Editors. 1988. *A Guide to Wildlife Habitats of California.* California Department of Forestry and Fire Protection

12) Munz, P.A. and D. Keck. 1968. *A California Flora with Supplement.* University of California Press, Berkeley.

13) Peterson, Roger Tory. 1990. *A Field Guide to Western Birds,* Houghton Mifflin Company.

14) Reed, P.B., Jr. *National List of Plant Species That Occur in Wetlands, California (Region).* U.S. Fish and Wildlife Service Biological Report 88(26.10). 1988. 135pp.

15) Sawyer, J.O. and T. Keeler-Wolf. 1995. *A Manual of California Vegetation.* California Native Plant Society, Sacramento.

16) Skinner, M.W. and B.M. Pavlik. 1994. *California Native Plant Society's Inventory of Rare and Endangered Plants of California.* California Native Plant Society, Sacramento.

17) Smith, Clifton F. 1976. *A Flora of the Santa Barbara Region, California.* Santa Barbara Museum of Natural History.

18) Stebbins, Robert C. 1985. *A Field Guide to Western Reptiles and Amphibians.* Houghton Mifflin Company.

19) Twisselmann, Ernest C. and L. Maynard Moe. 1995. *A Key to Vascular Plant Species of Kern County, California & A Flora of Kern County, California.* California Native Plant Society, Sacramento.

20) United States Department of Agriculture, U.S. Forest Service, Pacific Southwest Research Station. 1999. *Southern California Mountains and Foothills Assessment.*

21) United States Fish and Wildlife Service. 1973. The Endangered Species Act of 1973, as amended (16 U.S.C 1531 *et seq.*)

22) Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. *California Wildlife Habitat Relationships System Vol I-III.* California Department of Fish and Game, Sacramento, California.

Appendix A

Plant Species Observed

Appendix A. Plant species observed on the Lockwood Valley Project Site on July 25 and 26, 2001.

Scientific Name	Common Name
Acanthomentha obovata ssp. *cordata*	Heart-leaved thornmint
Achillea millefolium	yarrow
Achnatherum occidentalis	western needlegrass
Agropyron desertorum	desert agropyron
Amaranthus sp.	amaranth
Argemone munita	chicalote
Artemisia douglasiana	mugwort
Artemisia tridentata	sagebrush
Asclepias fascicularis	milkweed
Astragalus sp.	locoweed
Atriplex canescens	hoary saltbush
Bloomeria crocea	goldenstar
Bromus carinatus var. *carinatus*	California brome
Calystegia malacophylla	morning glory
Camissonia micrantha	small flowered camissonia
Carex douglasii	Douglas' sedge
Castilleja linariifolia	indian paint brush
Ceanothus cordulatus	mountain whitethorn
Chaenactis glabriuscula	yellow pincushion
Chenopodium album	white goosefoot
Chrysothamnus nauseosus	rabbit brush
Cirsium occidentale var. *venustum*	Venus thistle
Convolvulus arvensis	field bindweed
Datisca glomerata	Durango root
Eleocharis macrostachya	common spikerush
Elymus elymoides	squirrel tail
Epilobium brachycarpum	panicle-flowered willow herb
Epilobium canum ssp. *latifolium*	California fuchsia
Ericameria linearifolia	interior goldenbush
Eriogonum fasciculatum	California buckwheat
Eriogonum inflatum	desert trumpet
Eriogonum nudum	naked buckwheat
Eriogonum spergulinum ssp. *reddingianum*	buckwheat
Eriogonum umbellatum	sulphur buckwheat
Eschscholzia californica	California poppy
Euphorbia palmeri	wood spurge
Gilia achilleifolia ssp. *multicaulis*	gilia
Helianthus annuus	sunflower
Heterotheca grandiflora	telegraph weed
Iva axillaris ssp. *robustior*	poverty weed
Juncus mexicanus	Mexican rush
Juncus phaeocephalus	brown-headed rush
Lactuca serriola	prickly lettuce
Lessingia filaginifolia	corethrogyne
Lessingia tenuis	spring lessingia
Lomatium sp.	parsnip
Lonicera subspicata.	chaparral honeysuckle

Appendix A (continued).

Scientific Name	Common Name
Lupinus breweri var. *bryoides*	Brewer's lupine
Malacothamnus orbiculatus = *M. fremontii*	
Melilotus albus ?	
Mentzelia congesta ? 2 vars.	
Mucronea californica var. calif.	
Muhlenbergia rigens	
Oenethera deltoides	
Orobanche californica* ssp. *feudgei	Gray's broomrape
Penstemon centranthifolius	scarlet buglar
Penstemon heterophyllus ?	chaparral penstemon
Phacelia imbricata ?	imbricate phacelia
Pinus monophylla	pinyon pine
Pinus jeffreyi	Jeffrey pine
Populus fremontii	Fremont's cottonwood
~~***Potentilla bolanderi*** var. *parryi*~~ Horkelia rydbergii	potentilla
Psoralea californica Pediomelum californ	mormon tea
Quercus douglasii	blue oak
Quercus turbinella	desert scrub oak
	California coffeeberry
?	interior rose
Rumex salicifolius	willow dock
Salix exigua	sandbar willow
Salix lasiolepis	arroyo willow
Salsola tragus	Russian thistle
Salvia columbariae	chia
Stachys albens	hedge nettle
Stephanomeria virgata ?	wire lettuce
Triticum aestivum	wheat

Polygyna monspeliensis
75 taxa

28 locally rare

37% rare

Typha latifolia

Appendix B

California Natural Diversity Data Base Summary Tables

List of Elements and Status by Scientific Name
Lockwood Valley Project

Scientific/Common Name	Federal/ State Status	Global/ State Rank	CNPS/ R-E-D	CDFG Status
ASTRAGALUS LEUCOLOBUS *BIG BEAR VALLEY WOOLLYPOD*	None/ None	G2/ S2.2	1B/ 2-2-3	
BRANCHINECTA LYNCHI *VERNAL POOL FAIRY SHRIMP*	Threatened/ None	G2G3/ S2S3		
CALOCHORTUS WEEDII VAR VESTUS *LATE-FLOWERED MARIPOSA LILY*	None/ None	G3T2/ S2.2	1B/ 2-2-3	
CHARINA BOTTAE UMBRATICA *SOUTHERN RUBBER BOA*	None/ Threatened	G5T2T3 / S2S3		
FALCO MEXICANUS *PRAIRIE FALCON*	None/ None	G5/ S3		SC
LAYIA HETEROTRICHA *PALE-YELLOW LAYIA*	None/ None	G1/ S1.1	1B/ 3-3-3	
MONARDELLA LINOIDES SSP OBLONGA *FLAX-LIKE MONARDELLA*	None/ None	G5T2/ S2.2	1B/ 3-1-3	
NAVARRETIA PENINSULARIS *BAJA NAVARRETIA*	None/ None	G3?/ S2.2	1B/ 2-2-2	
OXYTHECA PARISHII VAR ABRAMSII *ABRAMS'S OXYTHECA*	None/ None	G4?T2/ S2.2	1B/ 2-2-3	
PEROGNATHUS ALTICOLA INEXPECTATUS *TEHACHAPI POCKET MOUSE*	None/ None	G2T1T2 / S1S2		SC
SIDALCEA NEOMEXICANA *SALT SPRING CHECKERBLOOM*	None/ None	G4?/ S2S3	2/ 2-2-1	

Selected EOs by Scientific Name

Scientific Name	Common Name	General Habitat	icro Habitat
ASTRAGALUS LEUCOLOBUS	BIG BEAR VALLEY WOOLLYPOD	LOWER MONTANE CONIFEROUS FOREST, PEBBLE PLAIN, PINYON AND JUNIPER WOODLAND, UPPER MONTANE CONIFEROUS FOREST.	DRY PINE WOODS, GRAVELLY KNOLLS AMONG SAGEBRUSH, OR STONY LAKE SHORES IN THE PINE BELT. (425)1670-2515M.
BRANCHINECTA LYNCHI	VERNAL POOL FAIRY SHRIMP	ENDEMIC TO THE GRASSLANDS OF THE CENTRAL VALLEY, CENTRAL COAST MTNS, AND SOUTH COAST MTNS, IN ASTATIC RAIN-FILLED POOLS.	INHABIT SMALL, CLEAR-WATER SANDSTONE-DEPRESSION POOLS AND GRASSED SWALE, EARTH SLUMP, OR BASALT-FLOW DEPRESSION POOLS.
CALOCHORTUS WEEDII VAR VESTUS	LATE-FLOWERED MARIPOSA LILY	CHAPARRAL, CISMONTANE WOODLAND.	DRY, OPEN COASTAL WOODLAND, CHAPARRAL; ON SERPENTINE. 270-1910M.
CHARINA BOTTAE UMBRATICA	SOUTHERN RUBBER BOA	RESTRICTED TO THE SAN BERNARDINO AND SAN JACINTO MTNS; FOUND IN A VARIETY OF MONTANE FOREST HABITATS.	FOUND IN VICINITY OF STREAMS OR WET MEADOWS; REQUIRES LOOSE, MOIST SOIL FOR BURROWING; SEEKS COVER IN ROTTING LOGS.
FALCO MEXICANUS	PRAIRIE FALCON	(NESTING) INHABITS DRY, OPEN TERRAIN, EITHER LEVEL OR HILLY.	BREEDING SITES LOCATED ON CLIFFS. FORAGES FAR AFIELD, EVEN TO MARSHLANDS AND OCEAN SHORES.
LAYIA HETEROTRICHA	PALE-YELLOW LAYIA	PINYON-JUNIPER WOODLAND, VALLEY AND FOOTHILL GRASSLAND. MANY HISTORICAL, EXTIRPATED OCCURRENCES.	ALKALINE OR CLAY SOILS; OPEN AREAS. 270-1365 (2675)M.
MONARDELLA LINOIDES SSP OBLONGA	FLAX-LIKE MONARDELLA	LOWER MONTANE CONIFEROUS FOREST, UPPER MONTANE CONIFEROUS FOREST, PINYON JUNIPER WOODLAND.	ON DRY SLOPES OF YELLOW PINE FOREST, DECOMPOSED GRANITIC SOILS; ALSO IN ROADSIDE DISTURBED AREAS. 1695-2470M.
NAVARRETIA PENINSULARIS	BAJA NAVARRETIA	LOWER MONTANE CONIFEROUS FOREST, CHAPARRAL.	WET AREAS IN OPEN FOREST. 1500-2425M.
OXYTHECA PARISHII VAR ABRAMSII	ABRAMS'S OXYTHECA	CHAPARRAL. KNOWN ONLY FROM SANTA BARBARA AND VENTURA COUNTIES.	SHALE TO SANDY PLACES. 1150-2060M.
PEROGNATHUS ALTICOLA INEXPECTATUS	TEHACHAPI POCKET MOUSE	ARID ANNUAL GRASSLAND & DESERT SHRUB COMMUNITIES BUT ALSO TAKEN IN FALLOW GRAIN FIELD & IN RUSSIAN THISTLE.	BURROWS FOR COVER & NESTING. AESTIVATES AND HIBERNATES DURING EXTREME WEATHER. FORAGES ON OPEN GROUND & UNDER SHRUBS.
SIDALCEA NEOMEXICANA	SALT SPRING CHECKERBLOOM	ALKALI PLAYAS, BRACKISH MARSHES, CHAPARRAL, COASTAL SCRUB, LOWER MONTANE CONIFEROUS FOREST, MOJAVEAN DESERT SCRUB.	ALKALI SPRINGS AND MARSHES. 0-1500M.