

**INITIAL MANAGEMENT EVALUATION REPORT
(IMER)**

For

WILSON CREEK PROPERTY



**Prepared by
Natural Resources Management Section
Riverside County Parks**

June, 2008

**Riverside County
Multi-Species Habitat Conservation Plan
Initial Management Evaluation Report
Habitat Management Unit: Sage**

RESERVE NAME: **SAGE 2**
ACQUISITION NAME: WILSON CREEK
PROJECT ID NUMBER: RC22000204

1. SITE PHYSICAL DESCRIPTION

1.A. Site Physical Location & Access:

The Wilson Creek site consists of five separate parcels. From west to east they are: Wilson Creek-1 (581-180-016), Wilson Creek-2 (583-050-008), Wilson Creek-3 (583-080-011), Wilson Creek-4 (583-160-028) and Wilson Creek-5 (583-080-012). All five parcels lie west of State Highway 371, south of Wilson Valley Road, east of Sage Road and north of State Highway 79.

All five parcel's can be accessed through various dirt roads that start from El Conquista Road, which stems from State Highway 371.

The parcels' general locations are:

PARCEL	UTM (NAD-27, meters)	STATE PLANE (NAD-83, feet)	TOWNSHIP/RANGE/SECTION (Beauty Mt. Quad, SBBM)
1	509831E 370347N	6364962E 2116092N	T8S, R1E, Section 17, SE, SE
2	510920E 3702516N	6368457E 2113066N	T8S, R1E, Section 21
3	512451E 3702047N	6373518E 2111378N	T8S, R1E, Section 22, S1/2
4	512390E 3701459N	6373264E 2109517N	T8S, R1E, Section 27, N1/2
5	513161E 3701910N	6375849E 2110973N	T8S, R1E, Section 22, SE

1.B. Acreage:

Wilson Creek-1	40.00 Acres
Wilson Creek-2	560.00 Acres
Wilson Creek-3	282.03 Acres
Wilson Creek-4	120.00 Acres
Wilson Creek-5	2.38 Acres
Total	1004.41 Acres

1.C. Topography:

The majority of the property is comprised of gently to steeply rolling hills and ridgelines with large rocks and boulders scattered throughout. There are several drainages within the property boundary. Chihuahua Creek (ephemeral) runs through the majority of the Wilson Creek property and serves as a tributary to Temecula Creek to the south. Given the location and topography of the site, the majority of the property is very difficult to fully access.

1.D. Surrounding Land Use:

The area surrounding the Wilson Creek property supports the natural open-space environment of the area, but includes some low/medium-density residences. Both low and medium-density housing consists primarily of modular homes. The majority of the surrounding residents participate in equestrian activities and some OHV activities.

2. BIOLOGICAL ASSESSMENT

2.A. Plant Communities:

All five parcels support a coastal sage scrub plant community, mostly comprised of California buckwheat (*Eriogonum fasciculatum*), deerweed (*Lotus scoparius*) and cactus (*Opuntia spp.*)

In disturbed areas, species composition changes to non-native annual grasses (e.g. *Bromus spp.*) and short-pod mustard (*Hirschfeldia incana*).

2.B. Likely Animal Species:

Because these sites are mostly pristine, it could be expected that many of the animals of the region utilize them. Common species include the coyote (*Canis latrans*), bobcat (*Lynx rufus*), mountain lion (*Felis concolor*), mule deer (*Odocoileus hemionus*), spotted skunk (*Spilogale putorius*), woodrats (*Neotoma spp.*), various field mice (*Peromyscus spp.*), brush rabbit (*Sylvilagus bachmani*),

side-blotched lizard (*Uta stansburiana*), western fence lizard (*Sceloporus occidentalis*), granite spiny lizard (*Sceloporus orcuttii*), coachwhip (*Masticophis flagellum*), southern Pacific rattlesnake (*Crotalus viridis*), and rosy boa (*Lichanura trivirgata*).

The types and distributions of heteromyids (i.e., kangaroo rats and pocket mice) in the Aguanga area are very complex. Recently, the Pacific kangaroo rat (*Dipodomys agilis*) was split into two distinct species; *D. agilis* apparently inhabiting higher altitude sites, while its congener, the target species Delzura kangaroo rat (*D. simulans*) inhabits lower elevation sites. The use of the *simulans* species designation has become common within small mammal circles. Additionally the target subspecies Aguanga kangaroo rat (*D. merriami collinus*) is found in the area. The Delzura kangaroo rat is highly likely to inhabit all these sites, while the Aguanga kangaroo rat could inhabit some of the sandy wash areas.

Cholla cactus (*Cylindropuntia spp.*) with bird nests were found to occur within neighboring MSHCP property United Five Star Corp-3 (U5SC) and may be inhabited by the target species cactus wren (*Campylorhynchus brunnei-capillus cousei*). Suitable habitat within the Wilson Creek property should be inspected to determine the potential presence of cactus wren.

2.C. Other Habitat or Wildlife Features:

The Wilson Creek properties add important wildlife habitat to the southern section of County. The presence of significant rock outcrops and large boulders is considered suitable habitat for several bat species.

Cliff faces with openings or “holes” may be suitable for cavity nesting birds in the area. Potential species that may use the cliffs or holes include cliff swallow (*Petrochelidon pyrrhonota*).

2.D. Target Species:

A qualified small mammal ecologist should perform a trapping program within the Wilson Creek property, along HWY-371, to determine which kangaroo rat species are present.

Please see Appendix A for a qualitative checklist of MSHCP target animal species, and Appendix B. for plant species.

3. IMPACTS AND CURRENT CONDITIONS

3.A. Current Uses:

Aside from OHV and equestrian use on established trails, the majority of the parcels appear to be in pristine condition with little to no impacts.

3.B. Fencing & Access Controls:

There are two main dirt roads that allow access to the Wilson Creek property. The majority of the roads are not frequently used and but should be gated to protect the species documented to occur near the roads within the Wilson Creek property. A major access point for OHV activity can be found to occur near the southwest corner of Wilson Creek-4. Efforts to limit access should be completed as soon as funds are available. Future fencing concerns will require a more in-depth analysis due to the other surrounding MSHCP property boundaries and their respective fencing concerns.

3.C. Off-Road Vehicle (OHV) Use / Damage:

OHV activity can be found to occur on the two main dirt roads that meander throughout Wilson Creek property. The majority of the OHV use can be found within the Wilson Creek-3 and Wilson Creek-4 parcels.

3.D. Illegal Dumping:

Although illegal dumping does occur within the area, it has not been documented to occur within the Wilson Creek property.

3.E. Target Shooting & Hunting:

Shooting has been noticed to occur within the Wilson Creek property. Spent shells can be found in these areas of suitable terrain, usually along the ridgeline roads. Upland game (e.g., dove and quail) can be found throughout the area. Deer hunting activities do not appear to occur on or near the Wilson Creek property.

3.F. Weed Abatement:

Weeds along roadsides will most likely be removed through mowing, hand work and/or string trimmers. Overall, weed abatement is currently not needed within the reserve.

3.G. Other Recreational Opportunities and Constraints:

None.

3.H. Special Conditions of Purchase:

None reported.

4. RESTORATION OPPORTUNITIES

4.A. Target Species:

Currently, no restoration opportunities are needed or foreseen.

4.B. Multi-Species Aspects:

No aspects foreseen as long as the site remains pristine and there is no increase in human activity or wildfires.

5. RERERVE DESIGN AND CONNECTIVITY

5.A. Boundary, Edge and Community Location:

Currently, low density ranchettes are found to occur throughout the area. A large mobile home park is located immediately south of Wilson Creek-4, an increase in edge effects (i.e., trash, OHV access etc.) should be expected.

5.B. Connectivity:

Collectively, the acquired parcels add to the overall goal of preserving habitat and establishing different core areas while ultimately connecting them through corridors. The Wilson Creek properties will help establish Proposed Core Area 7, which will help develop open-space land continuity towards Proposed Core Area 4 to the north, Proposed Core Area 6 to the east, Existing Core L and M to the south and Existing Core J to the west.

5.C. Nearby Existing Reserves:

The U5SC property borders the Wilson Creek-1 & 2 parcels. The Odegard, Gambill, Jalem, Bergman, Kiang and Smith properties are all located within a 2 mile radius of the U5SC property.

5.D. Priority for Future Purchases:

Priority for future purchases should be given to those areas that will most likely be developed in the near future. The areas of most concern are found to the west of the Wilson Creek property, where open-space land is being replaced with housing developments. If concerns are to purchase land in the immediate area, then the parcels between Wilson Creek and the Odegard, U5SC, Gambill, Jalem, Bergman, Kiang and Smith properties should be a priority. These areas will establish continuity between the parcels and limit the chance of fragmentation from future development, while establishing MSHCP goal, Proposed Core Area 7.

6. INTERIM MANAGEMENT

6.A. Public Issues:

The main priority in initial management should be to adequately assess and control OHV and potential hunting use in the area. This should include the gating and/or closing of any side roads entering the property. This effort may include some fencing to make the gates more effective. Prior to any such efforts, an in-depth, cost effective, analysis should be completed to determine the best location(s) for these gates and fences.

Patrols of the area should occur once a week. Repairs to any gates or fences should be completed immediately upon discovery.

6.B. Biological Issues:

The potential presence of the Aguanga kangaroo rat and cactus wren should be assessed by qualified biologists.

6.C. Recommended Interim Management Scenario:

- 1) Install gate, horse step and fencing along eastern border of Wilson Creek-3 where the access road enters the property (see Appendix C). This area should be signed with a moderately aggressive sign.
- 2) A gate should be installed along the ridgeline road entering the north side of Wilson Creek-3.
- 3) The areas should be patrolled initially every week to determine the reaction of local citizens and/or trespassers to the above road closure. If no significant impacts occur, patrols could be relaxed to twice a month.
- 4) Maintain fencing and signs as needed.

7. MAPS – Appendix C.

8. SITE PHOTOGRAPHS – Appendix D.

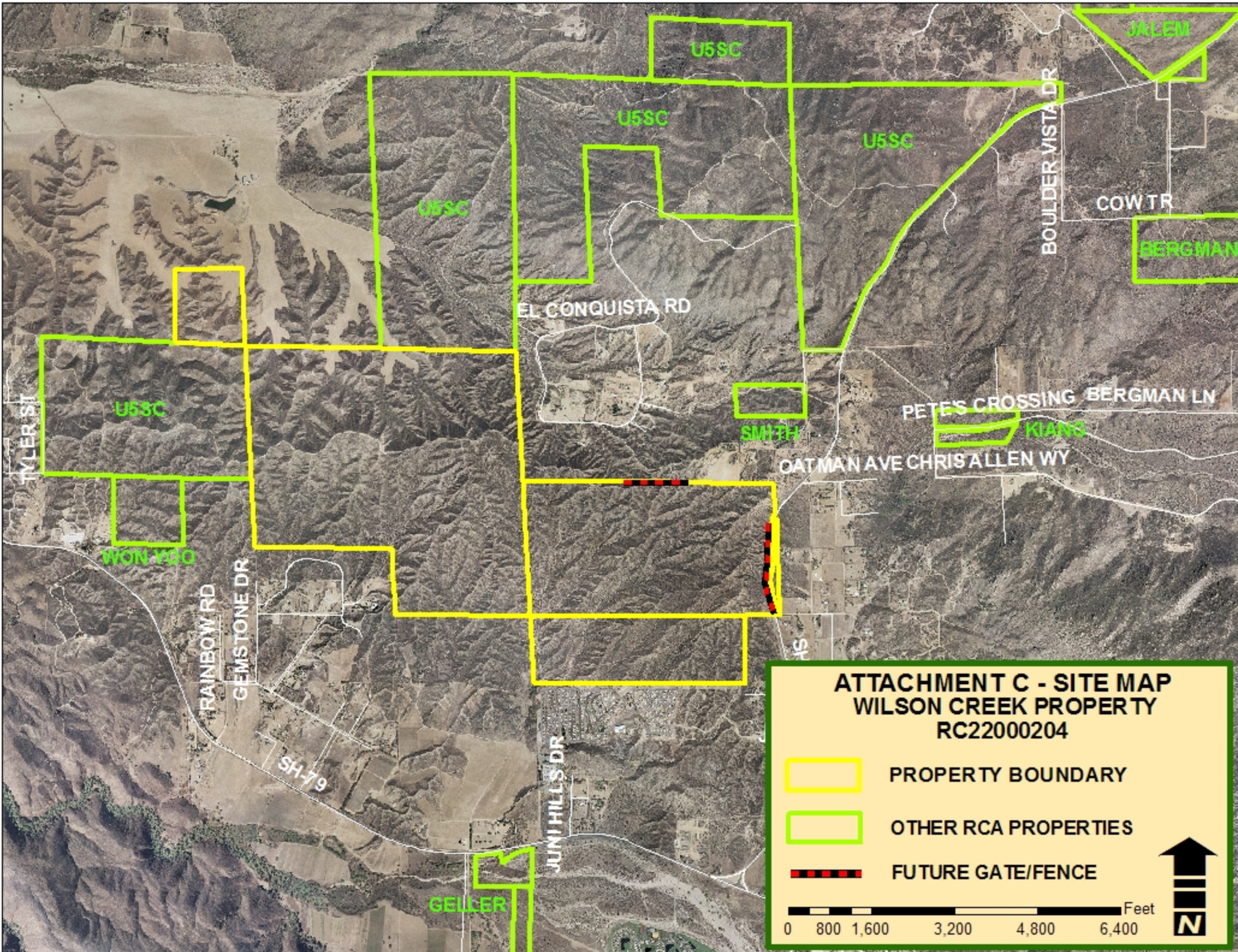
COMMON NAME	SCIENTIFIC NAME	HABITAT	NOT PRESENT	NOT LIKELY PRESENT	POSSIBLY PRESENT	LIKELY PRESENT	CONFIRMED PRESENT
INVERTEBRATES							
RIVERSIDE FAIRY SHRIMP	<i>Streptocephalus woottoni</i>	Vernal Pool	✓				
SANTA ROSA PLATEAU FAIRY SHRIMP	<i>Linderiella santarosae</i>	Vernal Pool	✓				
VERNAL POOL FAIRY SHRIMP	<i>Branchinecta lynchi</i>	Vernal Pool	✓				
INSECTS							
QUINO CHECKERSPOT BUTTERFLY	<i>Euphydryas editha quino</i>	Sage Scrub			✓		
DELHI SANDS FLOWER-LOVING FLY	<i>Rhaphiomidas terminus abdominalis</i>	Delhi Sands	✓				
FISH							
ARROYO CHUB	<i>Gila orcuttii</i>	Aquatic	✓				
SANTA ANA SUCKER	<i>Catostomus santaanae</i>	Aquatic	✓				
AMPHIBIANS							
COAST RANGE NEWT	<i>Taricha torosa tarosa</i>	Riparian / Intermittant Streams		✓			
ARROYO TOAD	<i>Bufo californicus</i>	Riparian / Well-watered Streams	✓				
WESTERN SPADEFOOT TOAD	<i>Scaphiopus hammondi</i>	Temp. Pools / Surrounding Uplands	✓				
CALIFORNIA RED-LEGGED FROG	<i>Rana aurora draytonii</i>	Permanent Streams and Rivers	✓				
MOUNTAIN YELLOW-LEGGED FROG	<i>Rana mucosa</i>	Mountain Streams / Rivers / Lakes	✓				
REPTILES							
WESTERN POND TURTLE	<i>Clemmys marmorata pallida</i>	Aquatic	✓				
SAN DIEGO COAST HORNED LIZARD	<i>Phrynosoma coronatum blainvillii</i>	Sage Scrub / Grasslands				✓	
SOUTHERN SAGEBRUSH LIZARD	<i>Sceloporus graciosus vandenburgianus</i>			✓			
GRANITE SPINY LIZARD	<i>Sceloporus orcuttii</i>	Sage Scrub with Rocks				✓	
GRANITE NIGHT LIZARD	<i>Xantusia henshawi henshawi</i>	Rocky sage scrub & chaparral			✓		
ORANGE-THROATED WHIPTAIL	<i>Cnemidophorus hyperythrus beldingii</i>	Sage Scrub			✓		
SAN DIEGO BANDED GECKO	<i>Coleonyx variegatus abbottii</i>	Sage Scrub / Chaparral			✓		
SAN BERNARDINO MOUNTAIN KINGSSNAKE	<i>Lampropeltis zonata parviruba</i>	Upper Elev. Chaparral & Mountains		✓			
SAN DIEGO MOUNTAIN KINGSSNAKE	<i>Lampropeltis zonata pulchra</i>	Upper Elev. Chaparral & Mountains		✓			
SOUTHERN RUBBER BOA	<i>Charina bottae umbratica</i>	Mountains		✓			
NORTHERN RED DIAMOND RATTLESNAKE	<i>Crotalus ruber ruber</i>	Sage Scrub / Chaparral				✓	
BIRDS							
DOUBLE-CRESTED CORMORANT	<i>Phalacrocorax auritus</i>	Aquatic	✓				
AMERICAN BITTERN	<i>Botaurus lentiginosus</i>	Marsh	✓				
GREAT BLUE HERON	<i>Ardea herodias</i>	Waterways & Surrounding Areas	✓				
BLACK-CROWNED NIGHT HERON	<i>Nycticorax nycticorax</i>	Waterways & Surrounding Areas	✓				
WHITE-FACED IBIS	<i>Plegadis chihi</i>	Waterways & Surrounding Areas	✓				
MOUNTAIN PLOVER	<i>Charadrius montanus</i>	Waterways & Surrounding Areas	✓				
TURKEY VULTURE	<i>Carthartes aura</i>	Cosmopolitan				✓	
GOLDEN EAGLE	<i>Aquila chrysaetos</i>	Cosmopolitan			✓		
BALD EAGLE	<i>Haliaeetus leucocephalus</i>	Lakes	✓				
WHITE-TAILED KITE	<i>Elanus leucurus</i>	Brushy Grassland			✓		
NORTHERN HARRIER	<i>Circus cyaneus</i>	Brushy Grassland			✓		
SHARP-SHINNED HAWK	<i>Accipiter striatus</i>	Woodlands & Surrounding Areas		✓			
COOPER'S HAWK	<i>Accipiter cooperii</i>	Woodlands & Surrounding Areas		✓			
NORTHERN GOSHAWK	<i>Accipiter gentilis</i>	Mountains	✓				
SWAINSON'S HAWK	<i>Buteo swainsoni</i>	Open Country		✓			
FERRUGINOUS HAWK	<i>Buteo regalis</i>	Open Country			✓		
OSPREY	<i>Pandion haliaetus</i>	Lakes	✓				
MERLIN	<i>Falco columbarius</i>	Open Woods & Surrounding Areas	✓				
PRAIRIE FALCON	<i>Falco mexicanus</i>	Open Country		✓			
PEREGRINE FALCON	<i>Falco peregrinus</i>	Open Country Near Wetlands	✓	✓			
MOUNTAIN QUAIL	<i>Oreortyx pictus</i>	Mountains		✓			
WESTERN YELLOW-BILLED CUCKOO	<i>Coccyzus americanus occidentalis</i>	Riparian	✓				
CALIFORNIA SPOTTED OWL	<i>Stryx occidentalis occidentalis</i>	Mountains	✓				
BURROWING OWL	<i>Athene cunicularia hypugaea</i>	Open Country			✓		
BLACK SWIFT	<i>Cypseloides niger</i>	Cliffs Near Water	✓				
WILLIAMSON'S SAPSUCKER	<i>Sphyrapicus thyroideus</i>	Mountains	✓				

DOWNY WOODPECKER	<i>Picoides pubescens</i>	Areas With Trees	✓				
SOUTHWESTERN WILLOW FLYCATCHER	<i>Empidonax traillie extimus</i>	Riparian	✓				
CALIFORNIA HORNED LARK	<i>Eremophila alpestris acta</i>	Open Grasslands & Sage Scrub			✓		
TREE SWALLOW	<i>Tachycineta bicolor</i>	Wooded Areas Near Water	✓				
PURPLE MARTIN	<i>Progne subis</i>	Open Country		✓			
CACTUS WREN	<i>Campylorhynchus brunneicapillus</i>	Sage Scrub With Cactus				✓	
COASTAL CALIFORNIA GNATCATCHER	<i>Poliopitila californica californica</i>	Sage Scrub			✓		
LOGGERHEAD SHRIKE	<i>Lanius lucovicianus</i>	Cosmopolitan		✓			
LEAST BELL'S VIREO	<i>Vireo bellii pusillus</i>	Extensive Riparian	✓				
NASHVILLE WARBLER	<i>Vermivora ruficapilla</i>	Riparian	✓				
YELLOW WARBLER	<i>Dendroica petechia brewsteri</i>	Riparian	✓				
McGILLIVRAY'S WARBLER	<i>Oporornis tolmiei</i>	Riparian	✓				
WILSON'S WARBLER	<i>Wilsonia pusilla</i>	Riparian	✓				
YELLOW-BREASTED CHAT	<i>Icteria virens</i>	Riparian	✓				
GRASSHOPPER SPARROW	<i>Ammodramus savannarum</i>	Grasslands		✓			
BELL'S SAGE SPARROW	<i>Amphispiza belli belli</i>	Chaparral		✓			
SO. CAL. RUFOUS-CROWNED SPARROW	<i>Aimophila ruficeps canescens</i>	Sage Scrub / Chaparral Slopes			✓		
LINCOLN'S SPARROW	<i>Melospiza lincolni</i>	Mountain Bogs & Meadows	✓				
TRICOLORED BLACKBIRD	<i>Agelaius tricolor</i>	Marsh	✓				
MAMMALS							
BOBCAT	<i>Lynx rufus</i>	Cosmopolitan				✓	
MOUNTAIN LION	<i>Felis concolor</i>	Remote Mountainous Areas			✓		
LONG-TAILED WEASEL	<i>Mustela frenata</i>	Open Country			✓		
COYOTE	<i>Canis latrans</i>	Cosmopolitan					✓
BRUSH RABBIT	<i>Sylvilagus bachmani</i>	Chaparral			✓		
SAN DIEGO BLACK-TAILED JACKRABBIT	<i>Lepus californicus bennettii</i>	Open Country			✓		
LOS ANGELES POCKET MOUSE	<i>Perognathus longimembris breviansus</i>	Streambeds & Sandy Areas			✓		
NORTHWESTERN SAN DIEGO POCKET MOUSE	<i>Chaetodipus fallax fallax</i>	Sage Scrub / Chaparral				✓	
AGUNAGA KANGAROO RAT	<i>Dipodomys merriami collinus</i>	Sandy Areas Near Aguanga			✓		
SAN BERNARDINO KANGAROO RAT	<i>Dipodomys merriami parvus</i>	Sandy Areas / San Jacinto River		✓			
DELZURA KANGAROO RAT	<i>Dipodomys simulans</i>	Sage Scrub / Chaparral				✓	
STEPHENS' KANGAROO RAT	<i>Dipodomys stephensi</i>	Open Country			✓		
SAN DIEGO DESERT WOODRAT	<i>Neotoma lepida intermedia</i>	Sage Scrub / Chaparral				✓	
SAN BERNARDINO FLYING SQUIRREL	<i>Glaucomys sabrinus californicus</i>	Mountains	✓				

COMMON NAME	SCIENTIFIC NAME	HABITAT(S)	GENERAL LOCATIONS	NOT PRESENT	NOT LIKELY PRESENT	POSSIBLY PRESENT	LIKELY PRESENT	CONFIRMED PRESENT
beautiful hulsea	<i>Hulsea vestita</i> var. <i>callicarpa</i>	Mid-level mountains	SJMTS	✓				
Brand's phacelia	<i>Phacelia stellaris</i>	Sandy benches	SARIV	✓				
California beardtongue	<i>Penstemon californicus</i>	Mid-level mountains	SJMTS, DVA, SRP			✓		
California bedstraw	<i>Galium californicum</i> var. <i>primum</i>	Upper elevation chaparral	SJMTS, DVA, San Timoteo		✓			
California black walnut	<i>Juglans californica</i> var. <i>californica</i>	Streams	SRP, Pedley	✓				
California muhly	<i>Muhlenbergia californica</i>	Riparian / seeps	Sage area, Prado area, GAV, TEM	✓				
California Orcutt grass	<i>Orcuttia californica</i>	Vernal pools	SALT, SRP, SKUNK	✓				
chickweed oxytheca	<i>Oxytheca caryophylloides</i>	Mountains	SJMTS		✓			
Cleveland's bush monkeyflower	<i>Mimulus clevelandii</i>	Upper elevation chaparral	SAMTS		✓			
cliff cinquefoil	<i>Potentilla rimicola</i>	High elevation rocks	SJMTS	✓				
Coulter's goldfields	<i>Lasthenia glabrata</i> var. <i>coulteri</i>	Alkali vernal plains	SJVAL, Perris Valley, Nichols Rd.	✓				
Coulter's matilija poppy	<i>Romneya coulteri</i>	Dry washes and canyons	GAV, TEM		✓			
Davidson's saltscale	<i>Atriplex sereana</i> var. <i> davidsonii</i>	Alkali vernal plains and pools	SJVAL, Perris Valley, Nichols Rd.	✓				
Englemann oak	<i>Quercus engelmannii</i>	Mesic fans and slopes	SRP, SAMTS, GAV		✓			
Fish's mildwort	<i>Polygala cornuta</i> var. <i>fishiae</i>	Oak riparian woodlands	SRP, SAMTS, Temecula area	✓				
graceful tarplant	<i>Holcarpa virgata</i> elongata	Level grasslands and shrublands	SRP	✓				
Hall's monardella	<i>Monardella macrantha</i> var. <i>hallii</i>	Mountain foothills, dry slopes, ridges	SAMTS, Pine Cove aera		✓			
Hammitt's clay-cress	<i>Sibaropsis hammittii</i>	Clay grasslands	SAMTS		✓			
heart-leaved pitcher plant	<i>Lepechinia cardiophylla</i>	Forests	SAMTS	✓				
intermediate mariposa lily	<i>Calochortus weedii</i> var. <i>intermedius</i>	Dry rocky slopes in SS / CHAP, burned areas	SAMTS, DVA, VAIL		✓			
Jaegar's milk-vetch	<i>Astragalus pachypus</i> var. <i>jaegeri</i>	Dry areas	VAIL, Agunaga area, Protrero area			✓		
Johnston's rock cress	<i>Arabis johnstonii</i>	Upper elevation chaparral, forests	SJMTS		✓			
lemon lily	<i>Lilium parryi</i>	Mountain wet places	SJMTS	✓				
little mouseltail	<i>Myosaurus minimum</i> apus	Vernal pools, alkali sinks	SALT, SRP, GAV, MARB	✓				
long-spined spine flower	<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	Rocky clay soils	GAV, TEM, SAMTS, SRP			✓		
many-stemmed dudleya	<i>Dudleya multicaulis</i>	Rocky clay soils, outcrops	GAV, TEM			✓		
Mojave tarplant	<i>Deinandra</i> [Hemizonia] <i>mohavensis</i>	Clay or silty streams	SJMTS and foothills		✓			
mud nama	<i>Nama stenocarpum</i>	Marshes	SJRIV near Gilman	✓				
Munz's mariposa lily	<i>Calochortus palmeri</i> var. <i>munzii</i>	Mountains, chaparral	SJMTS		✓			
Munz's onion	<i>Allium munzii</i>	Clay soils in SS / CHAP / Grasslands	GAV, TEM, SAMTS, SKUNK, SKIN		✓			
Nevin'a barberry	<i>Berberis nevinii</i>	Course soils in chaparral	Varies			✓		
ocellated Humboldt lily	<i>Lilium humboldtii</i> ocellatum	Mountain riparian	SAMTS, Palomar Mts.	✓				
Orcutt's brodiaea	<i>Brodiaea orcuttii</i>	Mesic grasslands and pools	SRP	✓				
Palmer's grapplinghook	<i>Harpagonella palmeri</i>	Clay soils in SS / CHAP / Grasslands	varies		✓			
Palomar monkeyflower	<i>Mimulus diffusus</i>	Sandy soils in upper elev. CHAP, forests	SAMTS, SJMTS	✓				
Parish's brittlescale	<i>Atriplex parishii</i>	Alkaine soils	SALT, lower SJRIV	✓				
Parish's meadowfoam	<i>Limnanthes gracilis</i> var. <i>parishii</i>	Ephemeral wetlands	SRP	✓				
Parry's spine flower	<i>Chorizanthe parryi</i> var. <i>parryi</i>	Alluvial scrub	Varies		✓			

APPENDIX B.
Target Plant Species

Payson'r jewelflower	<i>Caulanthus simulans</i>	Pinyon-Juniper, chaparral, sage scrub	Agunaga area		✓			
peninsular spine flower	<i>Chorizanthe leptotheca</i>	Dry open areas	Varies		✓			
Plummer's mariposa lily	<i>Calochortus plummerae</i>	Varies	SJMTS, Jurupa Hills		✓			
prostrate navarretia	<i>Navarretia prostrata</i>	Sage scrub, vernal pools, grasslands	SRP		✓			
prostrate spine flower	<i>Chorizanthe procumbens</i>	Sandy openings in CHAP / SS	SAMTS		✓			
Rainbow manzanita	<i>Arctostaphylos rainbowensis</i>	Iron rich soils in chaparral	SRP, GAV, TEM, Wildomar area		✓			
round-leaved filaree	<i>Erodium macrophyllum</i>	Grasslands	GAV, DVA, TEM	✓				
San Diego ambrosia	<i>Ambrosia pumila</i>	Grasslands	Alberhill, Lake Street, SKUNK	✓				
San Diego button-celery	<i>Eryngium aristulatum var. parishii</i>	Vernal pools	SRP	✓				
San Jacinto Mountains bedstraw	<i>Galium angustifolium jacinticum</i>	Forests	SJMTS	✓				
San Jacinto Valley crownscale	<i>Atriplex coronatum var. notatior</i>	Floodplains	MYSTIC, SALT	✓				
San Miguel savory	<i>Satureja chandleri</i>	Varies	SRP	✓				
Santa Ana River woollystar	<i>Eriastrum densifolium sanctorum</i>	Alluvial scrub (immature)	SARIV	✓				
shaggy-haired alumroot	<i>Heuchera hirsutissima</i>	Forests	SJMTS	✓				
slender-horned spine flower	<i>Dodecahema leptoceras</i>	Alluvial scrub (mature)	Indian Creek, VAIL area	✓				
small-flowered microserius	<i>Microserius douglasii var. platycarpha</i>	Clay foothills and grasslands	SRP, Bachelor Mt. area	✓				
small-flowered morning-glory	<i>Convolvulus simulans</i>	Clay and serpentine soils in grasslands	Varies	✓				
smooth tarplant	<i>Centromadia pungens (Hemizonia pungens laevis)</i>	Varies	Varies	✓				
spreading navarretia	<i>Navarretia fossalis</i>	Vernal pools and ditches	SALT, SJRIV	✓				
sticky-leaved dudleya	<i>Dudleya viscida</i>	Rocky canyon slopes	SAMTS		✓			
thread-leaved brodiaea	<i>Brodiaea filifolia</i>	Alkali pools, mesic grasslands	SJRIV, SALT, SRP	✓				
Vail Lake ceanothus	<i>Ceanothus ophiocilius</i>	Dry ridgetops in chaparral	VAIL area		✓			
vernal barley	<i>Hordeum intercedens</i>	Vernal pools and mesic grasslands	SALT, SJRIV	✓				
Wright's trichocoronis	<i>Trichocoronis wrightii var. wrightii</i>	Alkali vernal pools and flats	SJRIV, MYSTIC	✓				
Yucaipa onion	<i>Allium marvinii</i>	Clay soils in chaparral	Beaumont area		✓			



APPENDIX D.



Northern border looking south.



Mid-ridge road looking north.

APPENDIX D.



Mid-ridge road looking south.



Mid-ridge road looking west.

APPENDIX D.



Mid- ridge road looking west towards cliffs.



Mid-ridge road looking east.