

Physical and Biological Resources Inventory

Cuyamaca Rancho State Park

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PURPOSE

It is the philosophy of the California State Parks Natural Resources Management Program to actively manage Park resources with the intention of returning the system to a state where natural processes function, or to the closest approximation of the natural condition. The following information has been compiled to inform the General Plan effort and identify data gaps. The only targeted field work completed for this effort was an update to the Park Vegetation Map.

This document contains a summary of the known conditions for the physical and biological resources within Cuyamaca Rancho State Park (CRSP). Each section concludes with a description of management actions taken previously or currently in progress, if any.

ENVIRONMENTAL SETTING

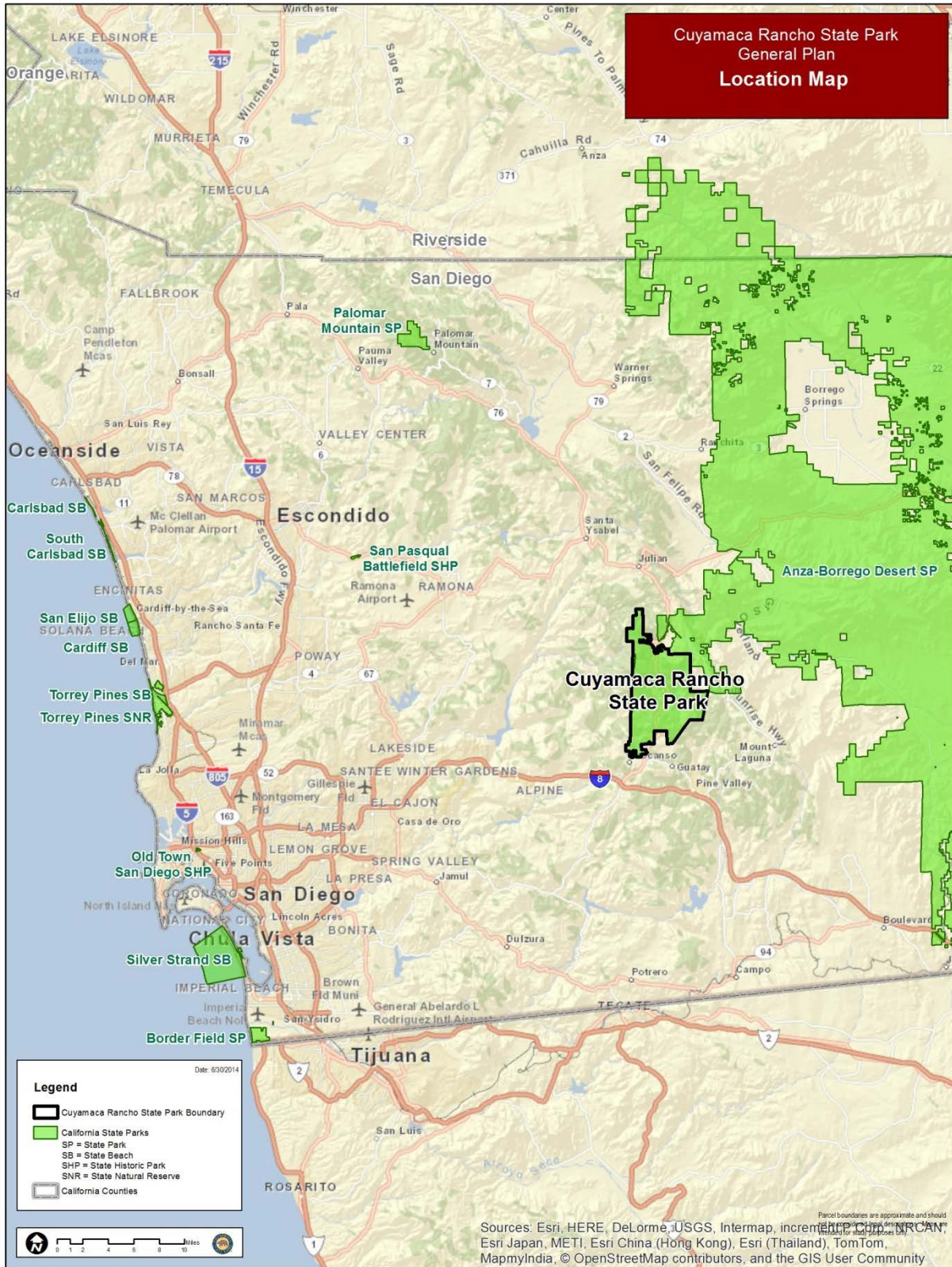
Cuyamaca Rancho State Park is located in a rural and unincorporated portion of San Diego County (Map 1) in the California Floristic Province, Southwest Region, Peninsular Range (Hickman 1993). The Park is located within the Cuyamaca Mountains and extends from an elevation of 3,400 feet near the south boundary to 6,512 feet at Cuyamaca Peak (Map 2). It is characterized by a mediterranean climate with large valleys surrounded by mountain peaks.

The Cuyamaca Mountains are a transitional zone from the marine climate to the west and desert climate to the east. The western peaks average precipitation of 30-33 inches per year while the lower elevations may receive as little as 21-24 inches per year. Much of this precipitation occurs in the form of winter rain and snow with some summer thundershowers. The nearest weather station for climatological data is located adjacent to the park at Cuyamaca Lake, at an elevation of 4,640 feet and has been collecting data since January 1931. The recorded daily high temperature varies from an average of 84°F in July to 50°F in January. The average recorded low temperature ranges from 56°F in July to 30°F in December and January (Western Regional Climate Center).

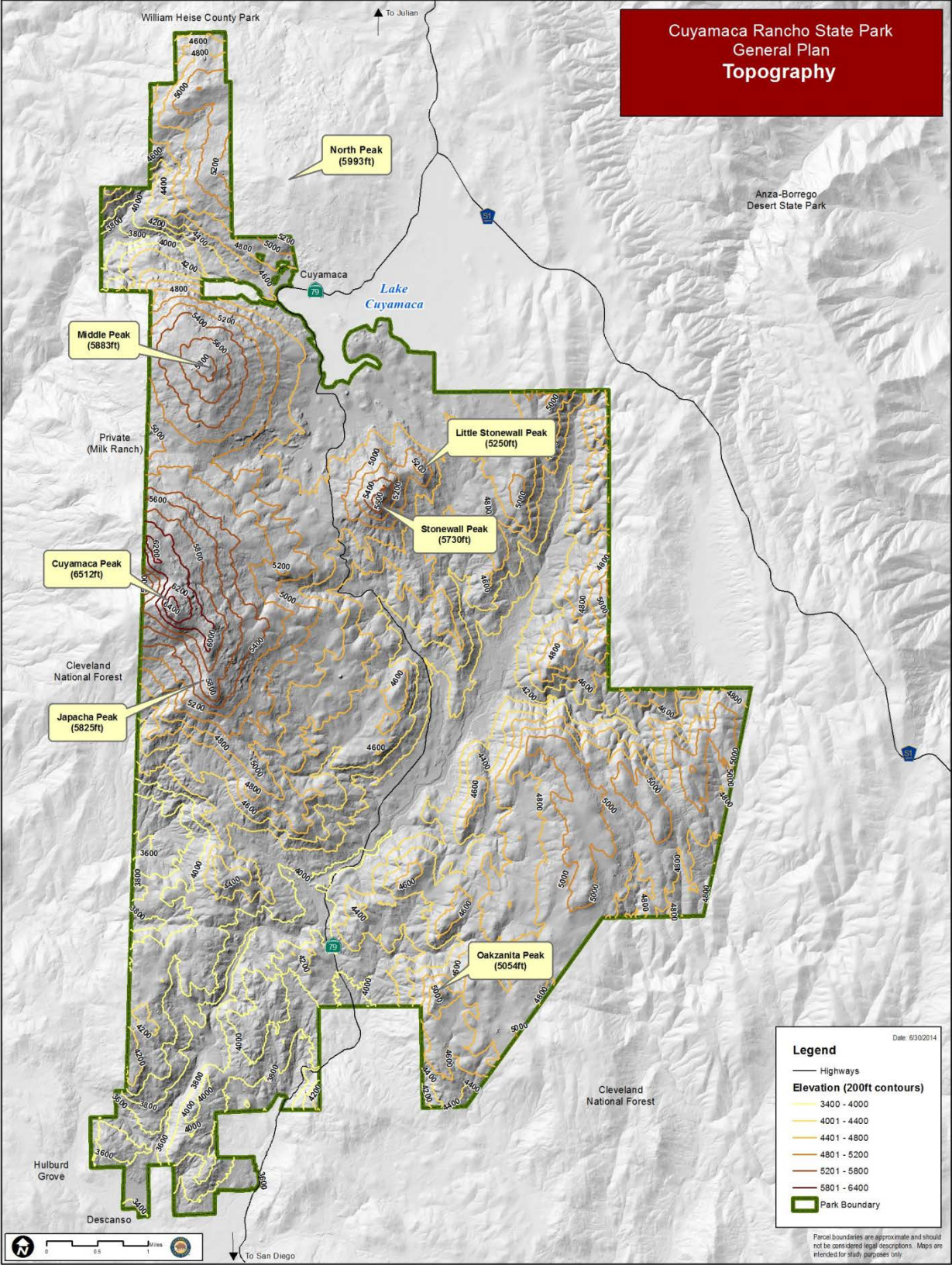
GEOLOGY AND GEOMORPHOLOGY

Cuyamaca Rancho State Park lies within the Cuyamaca Mountains of the Peninsular Ranges Geomorphic Province, which extends over 800 miles from Mount San Jacinto in the north through the Baja peninsula to the south. The landform consists primarily of Mesozoic granite, schist, and gneiss. Most of the rocks in the region were formed from 110 to 240 million years ago. There are no seismic faults in the Park, the closest being the Elsinore Fault zone 4.4 miles to the northwest. Regional crust movements along the Elsinore Fault and the San Jacinto Fault (18.6 miles to the northwest) influenced the structure of the region. Gold has been found to be a geologic component in the region

Map 1: Location of Cuyamaca Rancho State Park in relation to other California State Parks in San Diego County.



Map 2: Topography of Cuyamaca Rancho State Park, with the major peaks identified.



and was previously mined in the Park at Stonewall Mine in the north. The gold has been described as similar in character to the Mother Lode in the Sierra Nevada.

The Park is characterized by large meadows surrounded by rolling hills with a few steep mountain escarpments, many with prominent granite outcroppings (Map 2). These include Middle Peak (5,883 feet), Stonewall Peak (5,730 feet), Little Stonewall Peak (5,250 feet), and Oakzanita Peak (5,054 feet).

SOILS

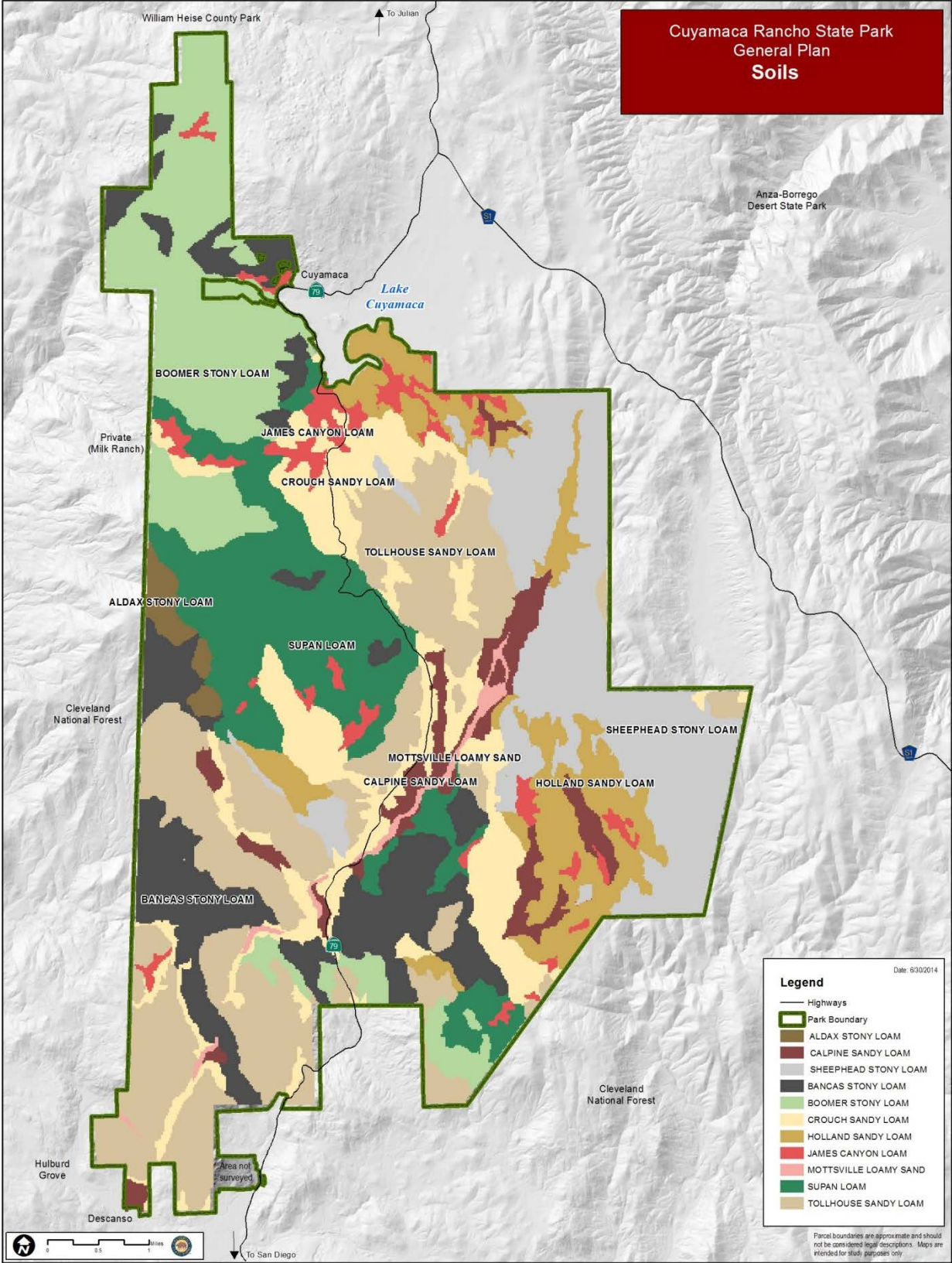
A soil survey of Cuyamaca Rancho State Park was completed in 1984 by George Borst (Borst 1984). He identified 11 soil series, of which three (Aldax, James Canyon, and Supan) were not previously documented as occurring in the region (Map 3). The Park was not surveyed as part of the San Diego County soil survey, so the region appears unmapped according to the Natural Resources Conservation Service (NRCS).

There is a diversity of soil within the Park, ranging from skeletal, coarse, sandy loams to loams with clayey subsoil. These soils are generally highly erodible and vegetation provides stability. The soils can exhibit hydrophobic characteristics during the hot, dry summer months. Following is a summary of the soils found in the Park, based upon Borst (1984) and USDA-NRCS Soil Survey Division (Soil Survey Staff 2013):

Aldax Stony Loam: This series is not typically recognized as occurring in San Diego County, but was identified by Borst (1984) on the south and west slopes of Cuyamaca Peak. It is known to occur in western Nevada and northeast California. The Aldax series consists of shallow, well drained soils on hills with slopes of 4 to 75 percent. They are soft and friable with a neutral to slightly acidic subsoil. Aldax soils are typically used for rangeland with typical vegetation of sagebrush (*Artemisia* sp.) and bitterbrush (*Purshia tridentata*), although in the Park they are described as supporting broad-leaf shrubs with large areas of exposed bedrock.

Bancas Stony Loam: The Bancas series consist of moderately deep, well drained soils formed in residuum weathered from rock usually somewhat metamorphosed but including granite, gneiss, quartz diorite, and quartz mica schist. Bancas soils are found on rolling to very steep uplands with slopes of 5 to 65 percent. Soil between the depths of about 5 and 15 inches usually is moist in some or all parts from about December 1 until late May and usually is dry all the rest of the time. They are well-drained with medium to very rapid runoff and moderate permeability; associated with active erosion. The native vegetation is chaparral, and is mainly chamise (*Adenostoma fasciculatum*), Eastwood's manzanita (*Arctostaphylos glandulosa* ssp. *glandulosa*), cup-leaf lilac (*Ceanothus perplexans*), and scrub oak (*Quercus berberidifolia*).

Map 3: Soils in Cuyamaca Rancho State Park as identified in the 1984 Borst report.



Boomer Stony Loam: The Boomer series consists of deep and very deep, well drained soils that formed in material weathered from metavolcanic rock. These soils are on uplands with slopes ranging from 2 to 75 percent. They are well drained with slow to very rapid runoff and moderately slow permeability. Landslides are common where this series occurs and often springs and seeps are associated with the landslides. Vegetation is typically ponderosa pine (*Pinus ponderosa*), California black oak (*Quercus kelloggii*), incense cedar (*Calocedrus decurrens*), sugar pine (*Pinus lambertiana*), manzanita (*Arctostaphylos* sp.), toyon (*Heteromeles arbutifolia*), western poison-oak (*Toxicodendron diversilobum*), California-lilac (*Ceanothus* sp.) and grasses.

Calpine Sandy Loam: The Calpine series consists of very deep, well drained soils that formed in alluvium derived from granitic rocks. Calpine soils are on alluvial fans, fan remnants, and stream terraces, mostly in the Sweetwater River watershed. Slopes are 0 to 15 percent. The soil is well drained with very low or low surface runoff and high saturated hydraulic conductivity. Calpine soils are usually dry yet moist in the winter and early spring; aridic moisture regime that borders on xeric. They are moderately acid through neutral and were likely developed in wet meadow systems that have since been drained. They are dominated by annual and perennial grasses and forbs with the occasional conifer or oak (*Quercus* sp.).

Crouch Sandy Loam: The Crouch series consists of deep, well drained soils that formed in material weathered from granitic rock. Crouch soils are on mountainous uplands with moderate to steep slopes. They exhibit medium to very rapid runoff with moderately rapid permeability. Vegetation is mainly annual grasses and forbs and shrubs with open stands of conifers and oaks. Large granitic boulders are common although the soil is generally rock-free.

Holland Sandy Loam: The Holland series consists of very deep, well drained soils that formed in material weathered from granitic rock. They are found on moderate to steep slopes in the Park. They are characterized as having slow to very rapid runoff and moderate permeability. Vegetation is generally open to semi-dense stands of ponderosa pine and incense cedar with some white fir (*Abies concolor*), sugar pine, California black oak, or canyon live oak (*Quercus chrysolepis*) with an understory of manzanita, forbs, and grasses.

James Canyon Loam: This series has not been recognized as occurring in southern California by the NRCS, but was identified by Borst (1984) in the meadows on nearly level to moderate slopes primarily in the northern part of the Park. They are very deep, poorly drained soils that formed in alluvium derived from mixed rocks. They have low or medium surface runoff and moderate permeability; often they are saturated and associated with springs and seeps. They support dense perennial grasses and sedges.

Mottsville Loamy Sand: The Mottsville series consists of very deep, excessively drained soils that formed in alluvium derived from granitic rocks. Mottsville soils are on alluvial fans, fan remnants and fan aprons. Within CRSP they are found on the nearly level floodplain of the Sweetwater River. These soils are excessively drained with negligible or very low surface runoff and high saturated hydraulic conductivity. They are susceptible to rare flooding for extremely brief periods throughout the year and support annual grasses, forbs, small shrubs, and dense willow (*Salix* sp.) stands.

Sheephead Stony Loam: The Sheephead series occur on moderately steep to steep slopes and consist of shallow, somewhat excessively drained soils that formed in material weathered from mica, schist, gneiss, or granite. Soil below a depth of 8 inches is usually moist in some or all parts from about December 1 until late May and is continuously dry the rest of the year. They are somewhat excessively drained with medium to very rapid runoff and moderately rapid permeability. They generally support dense chaparral.

Supan Loam: Supan soils are recognized by NRCS as occurring in northern California, but were mapped by Borst (1984) as occurring in CRSP on moderately steep to steep slopes in the central and southern portions. The Supan soils are described as occurring on sloping, plateau-like areas under shrub-grass vegetation. Underlying rock is andesitic and basaltic tuff-breccia or similar rocks. They are well drained with medium to rapid runoff and are moderately slowly permeable. In CRSP they support a dense stand of conifers and oaks with an understory of small shrubs, forbs, and grasses.

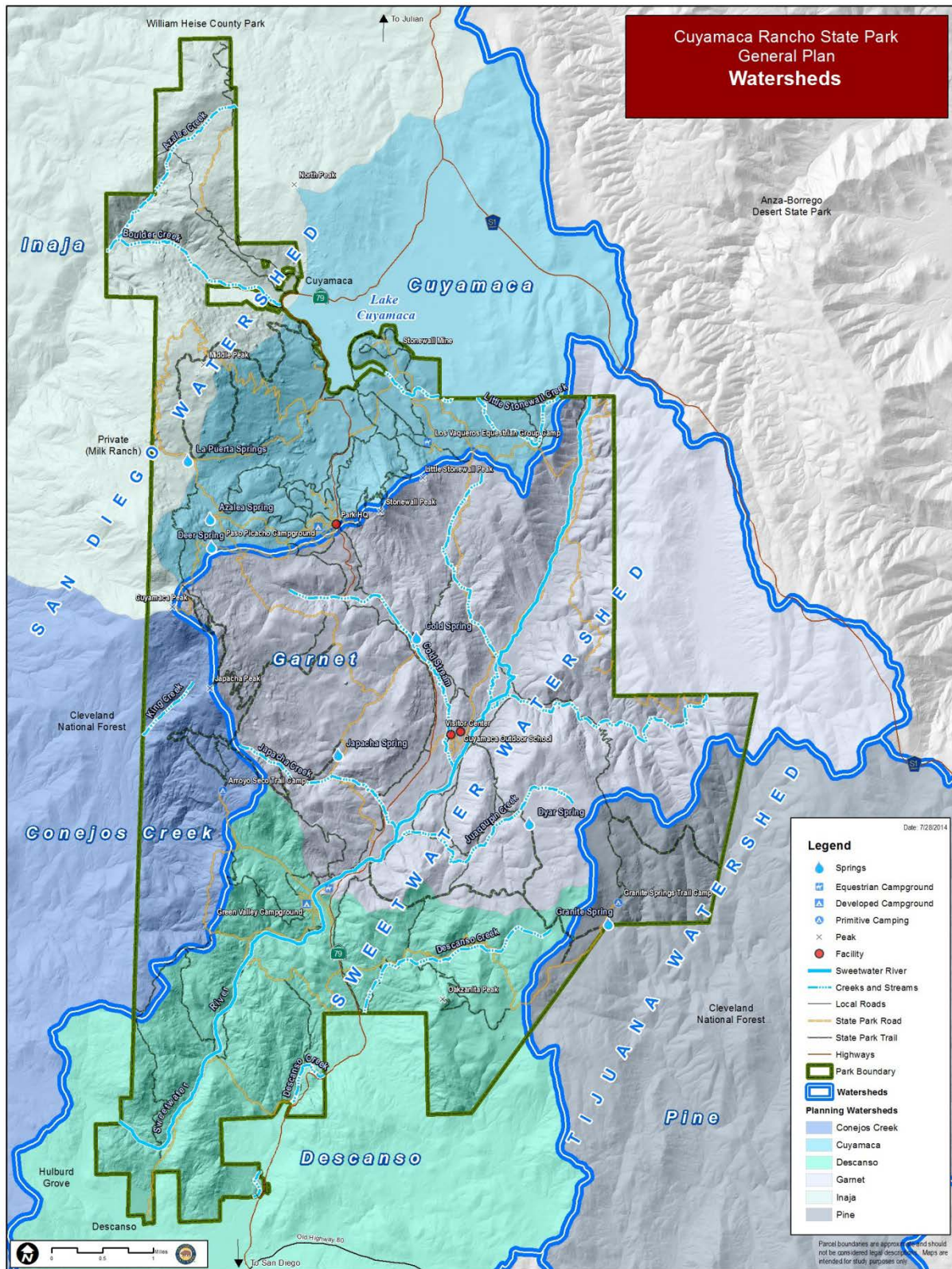
Tollhouse Sandy Loam: The Tollhouse series consists of shallow, somewhat excessively or excessively drained soils that formed in material weathered from granitic rocks. Tollhouse soils are on strongly sloping to very steep mountain slopes. They formed in residuum weathered from granite and closely related coarse crystalline rocks. Rock outcrops are common to many. They are somewhat excessively or excessively drained with rapid to very rapid runoff and moderately rapid or rapid permeability. They support dense stand of chaparral with occasional oaks and conifers.

HYDROLOGY

The Park is entirely located within the South Coast hydrologic region and contains headwaters for the Sweetwater River as well as headwaters for tributaries to the San Diego and Tijuana Rivers. The majority of the Park, 63% (15,503 acres), is located within the Sweetwater hydrologic unit. This is followed by 32% (7,862 acres) in the San Diego hydrologic unit and 5% (1,334 acres) in the Tijuana hydrologic unit (CalWater 2.2).

Watersheds are further divided, with the smallest unit being the planning watershed. The Park encompasses six planning watersheds (Map 4). Within the Sweetwater watershed the Park includes the Garnet and Descanso planning watersheds. There are three

Map 4: Hydrology of Cuyamaca Rancho State Park.



planning watersheds in the Park contained within the San Diego watershed: Inaja, Cuyamaca, and Conejos Creek. The portion of the Park in the Tijuana watershed includes a single planning watershed – Pine (CalWater 2.2).

Streams/Drainages: There are approximately 85 miles of mapped streams in CRSP, of which 58 miles are Intermittent and 27 miles are Perennial (Map 4). The largest, in length, is the Sweetwater River at almost 11 miles. It has five perennial tributaries: Juaquapin Creek, Japacha Creek, Cold Stream, Harper Creek, and Stonewall Canyon. The other two perennial creeks in the Park are Boulder Creek, which is the outflow from Cuyamaca Reservoir, and Descanso Creek which is fed by a spring (GIS, NHD flowline layer).

Springs and Seeps: A spring is a concentrated discharge of groundwater, appearing at the ground surface with a current of flowing water. To be distinguished from springs are seepage areas, which indicate a slow movement of groundwater to the surface. There are 19 springs that have been mapped in the Park, of which seven are named: La Puerta, Azalea, and Deer Spring in the San Diego Watershed; Cold, Japacha, and Deer in Sweetwater Watershed; and Granite Spring in Tijuana Watershed. The majority of the springs are in the western portion of the park (Map 4). There are numerous unmapped seeps.

Wells: There are five wells located within the boundaries of CRSP. The wells at Paso Picacho Group Camp, Green Valley, the Outdoor School Camp, and La Cima Conservation Camp are currently in use for potable water. There previously was a hand dug well in the vicinity of Stonewall Mine; it has been disconnected including removal of the electric power.

AIR QUALITY

The San Diego County Air Pollution Control District encompasses most of San Diego County, including Cuyamaca Rancho State Park. The closest air monitoring station is located in Alpine, 15 miles to the southwest and 1,500 feet lower in elevation. The two major pollutant issues for this region are ozone and particulate matter (SDAPCD 2013). State nonattainment levels are reported for Ozone 1-hour and 8-hour as well as particulate matter 2.5 and 10; however there has been a trend of overall improvement since 1990. The Federal standards are not as strict and as a result, the San Diego Air Basin is only out of attainment for Ozone 8-hour in the Federal standards (SDAPCD 2013).

It is likely that air quality in the Park is better than reported in the Air Basin since the park is at a higher elevation than the monitoring stations. Pollutants are pushed against the foothills from onshore breezes then trapped there below the inversion layer, which occurs around 2,000 feet elevation. This is where the Alpine monitoring station is

located; it is the highest elevation monitoring station in the San Diego Air Basin (SDAPCD 2013). The need for air quality data relevant to park management is a noted data gap.

CLIMATE CHANGE

The Peninsular Ranges experienced wetter and cooler temperatures during the early Pleistocene era compared with the current climate (Peryam et al. 2011). A slow change in global climate led to the current conditions which are drier and warmer. Changes in the world climate today are occurring at an unprecedented rate and are observed as warming of the atmosphere and oceans, ocean acidification, diminishing snow and ice, and sea level rise (IPCC 2013). These changes are due to human activities (e.g., fossil fuel combustion, cement production, deforestation, and other land use change) that are associated with the emission of carbon dioxide, methane, nitrous oxide, and other so-called “greenhouse gases” (IPCC 2013). Numerous models have been developed to predict future conditions based upon various scenarios that take into account economic and political drivers of human-caused greenhouse gas emissions. These models were designed for large-scale analysis but recently many of them have been drilled-down to local levels.

Data for California shows an overall trend of increased temperature, greater wildfire risk, reduced snowpack and other changes in water availability, and changes in the distribution of native flora and fauna (CAT 2010; CEC and CNRA 2012). Messner et al. (2011) analyzed climate change data for the San Diego region to provide a scientific basis for the development of climate-preparedness plans by local governments and public agencies. They reported that all models they analyzed agree that the San Diego region will continue to be subject to a warming trend, with a predicted range of increase from 1.5°F to 4.5°F by 2100. Much of this warming will occur during the summer months. Heat waves currently occur primarily in July and August, but this period may be lengthened to June through September. There is further consensus among models that the San Diego region will experience an increase in heat wave frequency, magnitude, and duration (Messner et al. 2011). Precipitation modeling is not as clear, with trends for both increased and decreased precipitation occurring in modeling exercises.

BIOLOGICAL RESOURCES

Biological resources within the Park are diverse and dynamic. Numerous data sources were referenced to compile a complete analysis of existing conditions, with the most extensive information provided by the San Diego Natural History Museum (SDNHM) Atlas databases.

Botanical Resources

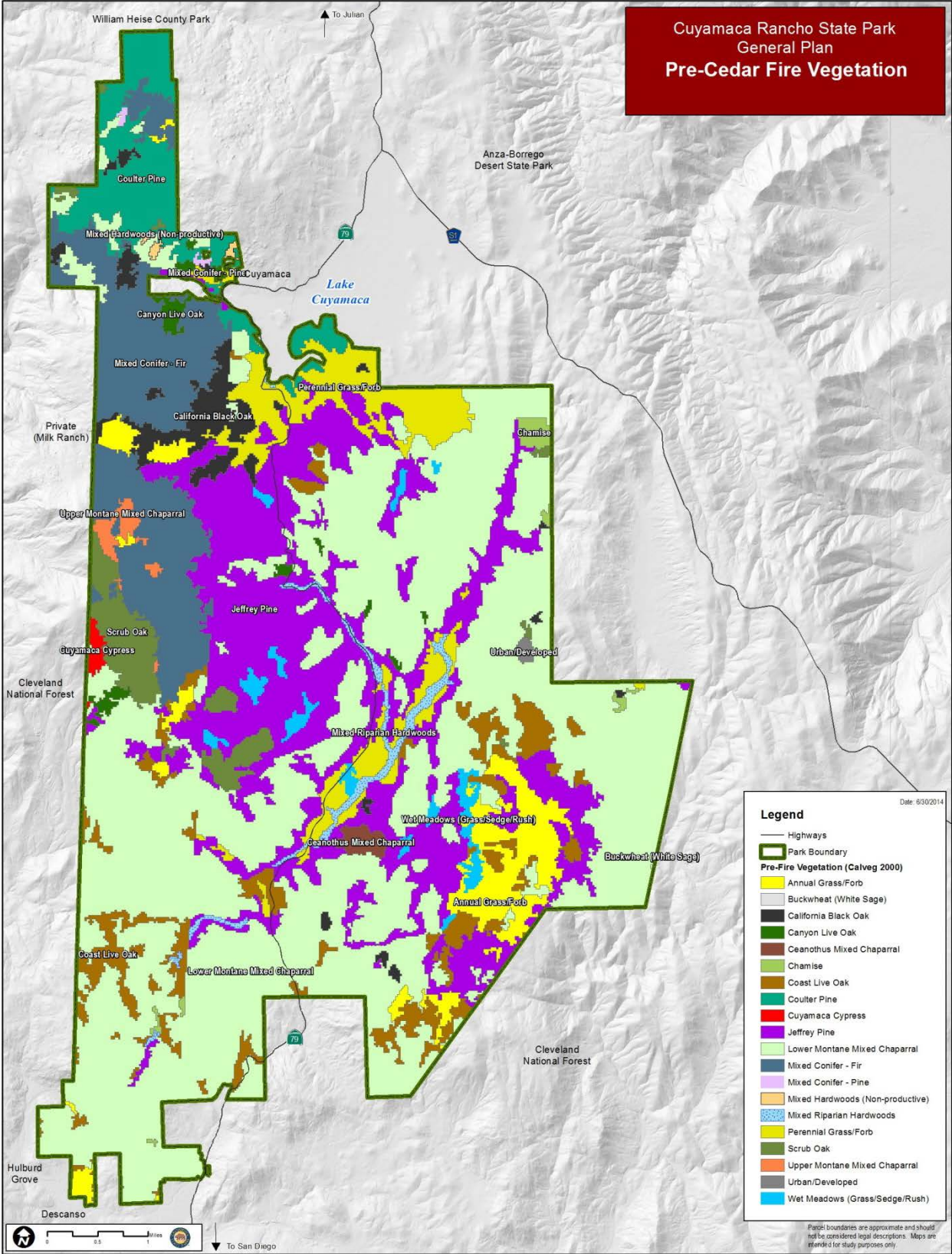
Extensive work has been completed in recent years to develop a current plant species list and vegetation map. Data was collected by C DPR staff as well as queried from the SDNHM Plant Atlas. A total of 697 plant species have been identified within CRSP (as of June 2014), of which 9% are sensitive and 15% are non-native. The complete species list can be found in Appendix A; nomenclature in this document follows that presented in Appendix A.

The majority of the vegetation in the park is relatively young as a result of the October 2003 Cedar Fire which burned over 98% of Cuyamaca Rancho State Park and was the largest wildfire in California's recorded history (post 1932; Cal Fire 2013). The fire was estimated to have consumed 95% of the Park's montane conifer forest canopy (Goforth and Minnich 2008) which resulted in a 98% loss of conifer trees (Franklin and Bergman 2011). In addition, the high fire intensity resulted in loss of litter and duff layers and low seed cone survival (CDPR 2011), which greatly inhibited natural forest regeneration. Therefore, prior knowledge of plant species is not always relevant to current management decisions as distribution has changed significantly and is expected to continue this transitional trend. For example, by 2007 much of the pre-fire forested areas were dominated by fire-following shrubs, primarily a monoculture of Palmer's ceanothus (*Ceanothus palmeri*; CDPR 2011).

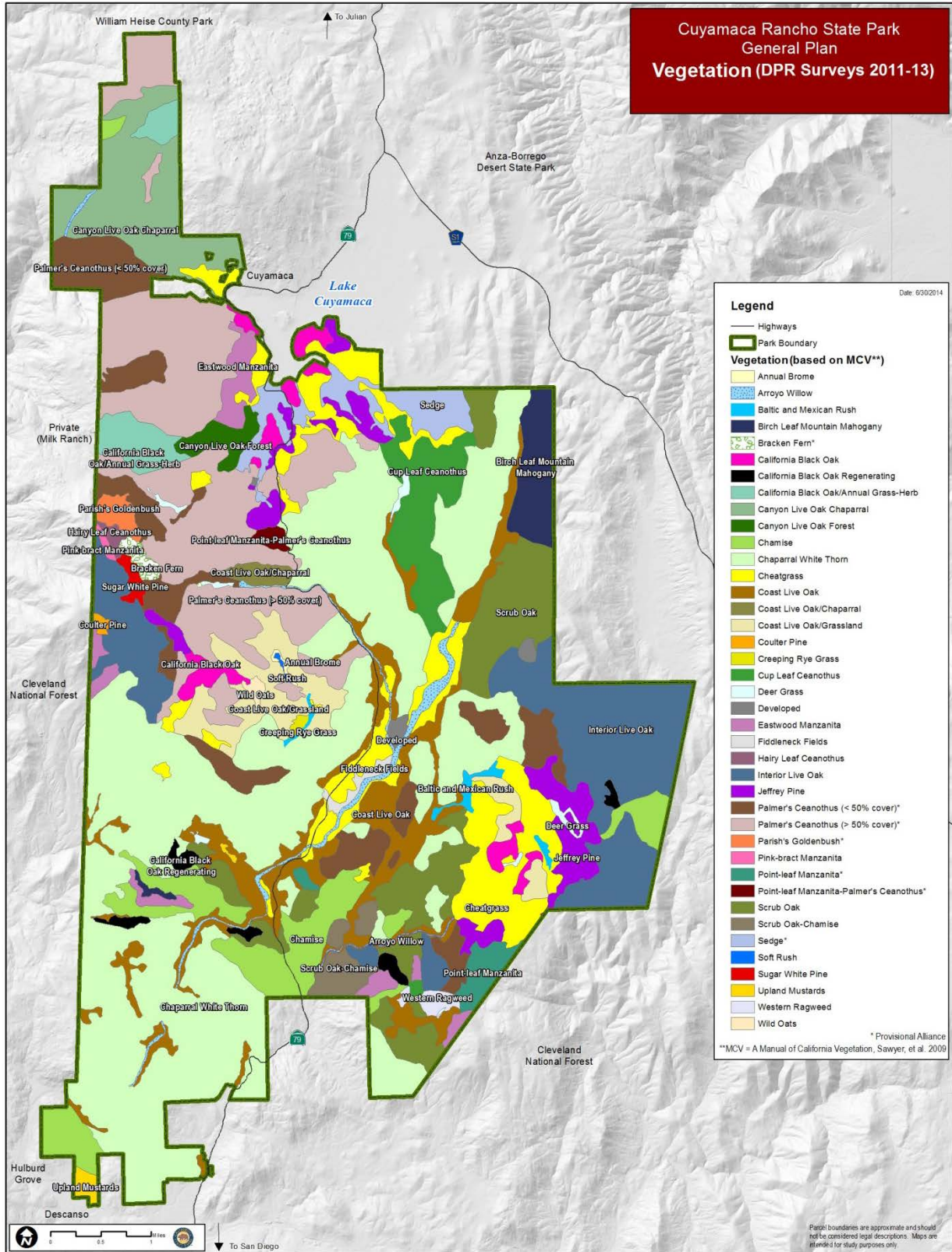
Vegetation Communities

A diverse array of vegetation communities is present within CRSP as a result of the Park's location within a transition zone from coastal to desert ecotone. The existing landscape also drastically changed in response to the Cedar Fire. Structurally and functionally, the vegetation communities were severely altered, and over time, post-fire successional species and assemblages became established. Previous vegetation mapping efforts such as CALVEG (Map 5; USDA Forest Service 2000) and the Vegetation Management Plan Cuyamaca Rancho State Park (Jorgensen 2009) no longer reflected current conditions. As a consequence it was necessary to update the vegetation distribution and location information and establish a new baseline. A revised vegetation map was developed in 2012 and 2013 (Map 6). The classification system outlined in A Manual of California Vegetation (Sawyer et al. 2009) was applied to determine vegetation alliances, with data collection following the California Native Plant Society Vegetation Rapid Assessment Protocol (2007). Using color infrared imagery (SANGIS 2012), initial classifications were assigned and then verified or reassessed based on field surveys. Imagery resolution was accurate to 1.6 feet, with a minimum mapping unit of approximately 10 acres; although smaller acreages were used to identify sensitive vegetation communities, such as wetlands. The combination of infrared imagery and field reconnaissance generated a total of 186 polygons for the Park. The mapping that resulted from this process provides a snapshot of the integrity of existing vegetation and their associated wildlife and plants, but can also serve in guiding future assessments of

Map 5: Vegetation documented within Cuyamaca Rancho State Park prior to the 2003 Cedar Fire (USDA Forest Service 2000), based upon analysis of imagery only. Data was not field verified.



Map 6: Vegetation map produced by California State Parks staff based upon aerial imagery analysis and field verification. Reflects vegetation alliances present and their extent 2011-2013.



the area's natural resources. Following is a summary of the 40 alliances that were mapped within the Park (Map 6). Table 1 contains a crosswalk to habitat types and communities presented in the General Plan.

Table 1: A vegetation crosswalk defines the relationships between different vegetation classification systems. The classification systems are presented in order of detail, with the most general on the left and the most detailed on the right. The General Plan primarily uses generic vegetation communities based upon structure and dominant overstory plants. These are denoted by the rows delineated by the solid black lines. The CDFW Wildlife Habitat Relationships (CDFW 2008) have more detail and are marked by the dashed lines. The Vegetation Alliances (Sawyer et al. 2009) are the most detailed and are separated by the dotted lines.

Community	Wildlife Habitat	Alliance
Meadow and Grassland	Annual Grassland	Annual Brome Grasslands
		California Black Oak Forest/Annual Grass-Herb
		Cheatgrass Grassland
		Fiddleneck Fields
		Upland Mustards
		Western Ragweed Meadows
	Perennial Grassland	Wild Oats Grasslands
		Bracken Fern Patch
		Creeping Rye Grass Turfs
	Wet Meadow	Deer Grass Beds
Baltic and Mexican Rush Marshes		
Sedge Meadows		
Soft Rush Marshes		
Chaparral	Chamise Chaparral	Chamise Chaparral
	Mixed Chaparral	Birch Leaf Mountain Mahogany Chaparral
		Canyon Live Oak Chaparral
		Chaparral White Thorn Chaparral
		Coast Live Oak Woodland/Chaparral
		Coast Live Oak Woodland/Grassland
		Cup Leaf Ceanothus Chaparral
		Eastwood Manzanita Chaparral
		Hairy Leaf Ceanothus Chaparral
		Interior Live Oak Chaparral
		Palmer's Ceanothus Chaparral (< 50% cover)
		Parish's Goldenbush Chaparral
		Pink-bract Manzanita Chaparral
		Point-leaf Manzanita Chaparral
		Point-leaf Manzanita-Palmer's Ceanothus Chaparral
		Scrub Oak Chaparral
Scrub Oak-Chamise Chaparral		
Monoculture Ceanothus	Palmer's Ceanothus Chaparral (> 50% cover)	
Oak Woodland	Coastal Oak Woodland	Coast Live Oak Woodland
	Montane Hardwood	California Black Oak Forest
		California Black Oak Forest Regenerating
Conifer Forest (Sky Island Forest)	Montane Hardwood Conifer	Coulter Pine Woodland
	Jeffrey Pine	Jeffrey Pine Forest
	Sierran Mixed Conifer	Sugar White Pine Forest
Riparian Woodland	Valley Foothill Riparian	Arroyo Willow Thickets
Developed	Developed	Developed

Annual Brome Grasslands

Alliance: *Bromus (diandrus, hordeaceus)-Brachypodium distachyon* Semi-Natural Herbaceous Stands

A single occurrence approximately 11 acres in size located west of Fern Flat Fire Road. It is characterized by 53% herbaceous cover, which is co-dominated by ripgut grass (*Bromus diandrus*) and cheat grass (*B. tectorum*). Other species present include soft chess (*B. hordeaceus*), sedges (*Carex* sp.), wire rush (*Juncus balticus*), Mexican rush (*J. mexicanus*), tumble mustard (*Sisymbrium altissimum*), western ragweed (*Ambrosia psilostachya*), slender wild oat (*Avena barbata*), small-flowered fiddleneck (*Amsinckia menziesii*), and Kentucky bluegrass (*Poa pratensis* ssp. *pratensis*).

Arroyo Willow Thickets

Alliance: *Salix lasiolepis* Shrubland
Association: *Salix lasiolepis/Artemisia douglasiana*

Generally Arroyo Willow Thickets occur along stream channels, which are seasonally or intermittently flooded and characterized by a dominance of arroyo willow (*Salix lasiolepis*). Within CRSP there are 196 acres which are mostly along Cold Stream Creek from its source to the confluence with the Sweetwater River. It can also be found along most of the Sweetwater River, approximately 1.7 miles of Descanso Creek, and along the lower 0.6 miles of Azalea Creek in the northwest corner of the Park.

Field surveys in 2012 documented the arroyo thickets within the Park as characterized by 24% cover dominated by arroyo willow. The tree canopy also contains a small amount of interior coast live oak (*Quercus agrifolia* var. *oxyadenia*), white alder (*Alnus rhombifolia*), and western sycamore (*Platanus racemosa*). Signs of regeneration following the 2003 Cedar Fire were noted. The shrub and herbaceous layers are more diverse. The dominant species are Douglas mugwort (*Artemisia douglasiana*) and manystem sedge (*Carex multicaulis*), although each is less than 5% cover. Also noted present with less than 1% cover are: mulefat (*Baccharis salicifolia* ssp. *salicifolia*), California blackberry (*Rubus ursinus*), California rose (*Rosa californica*), common snowberry (*Symphoricarpos albus* var. *laevigatus*), great march evening-primrose (*Oenothera elata* ssp. *hirsutissima*), Pacific rush (*Juncus effusus* ssp. *austrocalifornicus*), deergrass (*Muhlenbergia rigens*), saltgrass (*Distichlis spicata*), broad-leaf cattail (*Typha latifolia*), tarragon (*Artemisia dracunculoides*), and western poison-oak.

Baltic and Mexican Rush Marshes

Alliance: *Juncus arcticus* (var. *balticus, mexicanus*) Herbaceous
Association: *Juncus arcticus* var. *balticus-Carex praegracilis*

There are three meadows in the central part of the park (68 acres) that were classified as Baltic and Mexican Rush Marshes alliance from aerial interpretation and a 2013 field

survey. The most accessible and largest (43 acres) is along the Dyar Spring Trail to the north of Dyar Spring. The smallest marsh, at 12 acres, is to the southeast near the Harvey Moore Trail. The other marsh is similar in size at 13 acres and is located to the west below West Mesa Fire Road.

The Mexican rush was recorded as the dominant species with 24% cover, followed by sedge with 14% cover. There is a small shrub component, consisting of California rose, hoary nettle (*Urtica dioica* ssp. *holosericea*), and blue elderberry (*Sambucus nigra* ssp. *caerulea*) in descending order of cover. Also present in the herbaceous layer are Pacific rush, Scouler's St. John's wort (*Hypericum formosum* var. *scouleri*), deergrass, Spanish-clover (*Acemisson americanus*), hedge-nettle (*Stachys ajugoides* var. *rigida*), Kentucky bluegrass, yarrow (*Achillea millefolium*), prickly lettuce (*Lactuca serriola*), miniature lupine (*Lupinus bicolor*), southern mule's ear (*Wyethia ovata*), southern checkerbloom (*Sidalcea malviflora* ssp. *sparsifolia*), and small-flowered fiddleneck.

Birch-leaf Mountain Mahogany Chaparral

Alliance: *Cercocarpus montanus* (*C. betuloides* var. *betuloides*) Shrubland

Associations: None, *Cercocarpus montanus*-*Adenostoma fasciculatum*

This alliance covers 367 acres of which the majority is located from La Cima Fire Road to the east (347 acres); the alliance extends beyond the Park boundary. There is also a small (20 acre) patch in the southwest corner of the Park. Both areas are dominated by birch leaf mountain mahogany (*Cercocarpus betuloides* var. *betuloides*) and contain Torrey's scrub oak (*Quercus xacutidens*), chamise, and chaparral yucca (*Hesperoyucca whipplei*). However, within the La Cima Fire Road vicinity there were chaparral whitethorn (*Ceanothus leucodermis*) and Eastwood's manzanita observed whereas in the southwest corner of the Park, California buckwheat (*Eriogonum fasciculatum*), ashy silktassel (*Garrya flavescens*), and Mojave yucca (*Yucca schidigera*) were recorded.

Bracken Fern Patch

Alliance (Provisional): *Pteridium aquilinum* var. *pubescens*

Patches dominated by bracken fern exist in two locations within the western portion of the Park, along Lookout Fire Road (54 acres) and Fern Flat Fire Road (1 acre). These sites occur on southeast-facing slopes, with underlying gabbro soils at elevations between 5,000 and 6,000 feet. Bracken fern comprises >15% absolute cover in the herbaceous layer, with cheat grass and blue wildrye (*Elymus glaucus* ssp. *glaucus*) also present, but at low cover. Common snowberry occurs in the shrub layer, which is generally sparse to open, while Coulter pine is the dominant in the overstory/canopy. Collectively, the Bracken Fern Patch accounts for 0.2% of the vegetation within Cuyamaca Rancho State Park.

California Black Oak Forest

Alliance: *Quercus kelloggii* Forest

Associations: None, *Quercus kelloggii-Quercus chrysolepis*

The California Black Oak Forest is characterized as having a mature overstory almost exclusively consisting of California black oak with a mostly open understory dominated by non-native grasses. It was recorded in three distinct locations, totaling 315 acres, in CRSP during the 2011-2013 vegetation mapping effort: Stonewall Mine area (150 acres), West Mesa (82 acres), and East Mesa (80 acres). While the Stonewall Mine area has the greatest amount of California Black Oak Forest, it is not a contiguous stand but rather consists of six distinct areas ranging in size from 5 to 49 acres. The largest single stand currently in the Park is the West Mesa forest. The next largest contiguous California Black Oak Forest in the Park is 54 acres on East Mesa. This alliance covers 1.3% of the Park.

A few canyon live oak, Coulter pine (*Pinus coulteri*), Jeffrey pine (*P. jeffreyi*), and incense cedar were observed along with California black oak in the overstory. The understory consists of cheat grass, ripgut grass, slender wild oat, western ragweed, California brome (*Bromus carinatus* var. *carinatus*), mountain buckwheat (*Eriogonum fasciculatum* vars.), western bracken fern (*Pteridium aquilinum* var. *pubsecens*), horsetail (*Equisetum* sp.), scarlet bugler (*Penstemon centranthifolius*), Douglas mugwort, and tarragon. The shrub component is minor in cover but diverse in species with blue elderberry, western choke cherry (*Prunus virginiana* var. *demissa*), common snowberry, California rose, skunk bush (*Rhus aromatica*), chaparral coffeeberry (*Frangula californica* ssp. *tomentella*), birch-leaf mountain mahogany, Palmer's ceanothus, point-leaf manzanita (*Arctostaphylos pungens*) and pink-bract manzanita (*A. pringlei* ssp. *drupacea*) recorded.

California Black Oak Forest Regenerating

Alliance (Provisional): *Quercus kelloggii* Forest Regenerating

Five additional polygons in the southern portion of the park (Green Valley area [3], East Mesa [1], and Oakzanita [1]), met the criteria for the California Black Oak Forest, but were distinctly different in post-fire oak recovery and aerial signature from other locations classified to the alliance. These areas exhibited higher oak mortality, more open canopies, and reduced tree height. Consequently, to distinguish and recognize such variation, these polygons were assigned to a California Black Oak Forest Regenerating alliance. In these locations, California black oak maintained >50% relative cover in the overstory and no co-dominant conifers. Point-leaf manzanita, Parish's goldenbush (*Ericameria parishii* var. *parishii*), and Palmer's ceanothus each accounted for <10% of the emergent shrubs, and the herbaceous layer was minimal to sparse. The regenerating alliance, totaling approximately 126 acres, was generally found on north and north-

easting facing slopes in association with granitic outcrops, at elevations ranging from 3,800 to 5,100 feet.

California Black Oak Forest/Annual Grass-Herb

Alliance: *Quercus kelloggii*/annual grass-herb

This alliance is restricted to two stands in the northwest corner of the Park, which together are 303 acres within the Park. It extends beyond the Park boundary, but was not mapped outside the Park. The larger stand is 220 acres within the Park, located along Milk Ranch Road, and continues to the west. The smaller stand is 82 acres within the Park, located along Kelly's Ditch Fire Road, and continues beyond the Park boundary to the east. It consists of both mature and regenerating trees in response to the Cedar Fire.

In addition to California black oak, other species recorded as having measureable cover include canyon live oak in the tree canopy, common snowberry in the shrub layer, and slender wild oat in the herbaceous layer. Other species observed recorded as having less than 1% cover are incense cedar, Jeffrey pine, Palmer's ceanothus, chaparral coffeeberry, deergrass, and western ragweed.

Canyon Live Oak Chaparral

Alliance: *Quercus chrysolepis* Chaparral

There is a total of 968 acres of Canyon Live Oak Chaparral in CRSP, entirely located within the northwest corner, occupying most of the park property north of Boulder Creek. This alliance, occurring on gabbro soils and accounting for 3.9% of the Park, is dominated by resprouting, multi-trunked canyon live oaks that are less than 20 feet in height. Other species present in the shrub layer, but at lower relative cover, include: wavy-leaf ceanothus (*Ceanothus foliosus* var. *foliosus*), chaparral white thorn, cup-leaf lilac, Palmer's ceanothus, Eastwood's manzanita, and pink-bract manzanita. Two separate polygons are mapped within CRSP, but these areas comprise part of a single, contiguous shrubland that extends beyond the Park boundary.

Canyon Live Oak Forest

Alliance: *Quercus chrysolepis* Forest

There is a single, 143 acre occurrence of Canyon Live Oak Forest within CRSP, which is located along Milk Ranch Road, and includes Hual-Cu-Cuish, along with lands extending further to the south and west. Aerial analysis and informal field review revealed that the polygon supports numerous large/tall canyon live oak trees, intermixed in the overstory with a few California black oaks. Palmer's ceanothus occurs sparsely in the shrub layer, while the herbaceous layer is dominated by non-native grasses.

Chamise Chaparral

Alliance: *Adenostoma fasciculatum* Shrubland

Associations: None, *Adenostoma fasciculatum*-(*Arctostaphylos glandulosa*)

Chamise chaparral is a common alliance in the Park, covering 1,078 acres (4.4%) in seven separate stands. They are predominantly located in the southern half of the Park on West and East Mesa, but there is a small occurrence (24 acres) in the northwest corner along the boundary as well. The chamise chaparral stands range in size from 23 acres to 445 acres.

Chamise is the dominant species, accounting for up to 41% of the vegetative cover. Also present with greater than 1% cover are Torrey's scrub oak, Eastwood's manzanita, and birch leaf mountain mahogany. Also noted as present were California buckwheat, point-leaf manzanita, cup-leaf lilac, toyon, California coffeeberry, ashy siltkassel, chaparral yucca, greenbark ceanothus (*Ceanothus spinosus*), showy penstemon (*Penstemon spectabilis* var. *spectabilis*), white sage (*Salvia apiana*), Cleveland sage (*S. clevelandii*), mountain bluecurls (*Trichostema parishii*), and sugar bush (*Rhus ovata*).

Chaparral White Thorn

Alliance: *Ceanothus leucodermis* Shrubland

Associations: None, *Ceanothus leucodermis*-*Arctostaphylos glandulosa*
(Provisional)

The most extensive vegetation cover in CRSP is chaparral white thorn at 6,849 acres, or 27.7% of the Park. It is ubiquitous throughout the central and southern portions of the Park and noticeably absent from Cuyamaca Peak to the north boundary, west of Highway 79.

The alliance is shrub dominated, with a few Coulter pine, California black oak and interior coast live oak observed during the field surveys. The dominant shrubs recorded are: chaparral whitethorn, Eastwood's manzanita, cup-leaf lilac, birch leaf mountain mahogany, chamise, interior live oak (*Quercus wislizeni* var. *frutescens*), and Torrey's scrub oak. Other species noted but accounting for less than 5% of the vegetative cover include California buckwheat, holly-leaf cherry (*Prunus ilicifolia* ssp. *ilicifolia*), holly-leaf redberry (*Rhamnus ilicifolia*), blue elderberry, Palmer's ceanothus, point-leaf manzanita, slender sunflower (*Helianthus gracilentus*), scarlet bugler, chaparral yucca, and Parish's goldenbush.

Cheatgrass Grassland

Alliance: *Bromus tectorum* Semi-Natural Herbaceous Stands

Cheatgrass Grassland is the most common herbaceous alliance within CRSP, covering 1,561 acres (6.3%). The largest occurrences are within the Cuyamaca Meadow Natural

Preserve, along Highway 79 north of Green Valley Campground, and on East Mesa. The East Mesa grassland is the largest contiguous patch at 625 acres.

The herbaceous layer accounts for the majority of cover, with cheatgrass as the dominant species. Red-stem filaree (*Erodium cicutarium*) is also present in substantial numbers. Numerous other species were also observed within the herbaceous layer, including: ripgut grass, slender wild oat, California brome, soft chess, deergrass, western ragweed, Davidson's buckwheat (*Eriogonum davidsonii*), tumble mustard, lupine, small-flowered fiddleneck, yarrow, beardless wild rye (*Elymus triticoides*), wild rye (*E. glaucus*), southern checkerbloom, sedge, and Mexican rush. A diverse, yet not very abundant, shrub layer is present: tarragon, tall buckwheat (*E. elongatum* var. *elongatum*), chaparral coffeeberry, western choke cherry, blue elderberry, birch leaf mountain mahogany, and California goldenrod (*Solidago velutina* ssp. *californica*). A few California black oak, Jeffrey pine, and canyon live oak were also observed.

Coast Live Oak Woodland

Alliance: *Quercus agrifolia* Woodland

Associations: None, *Quercus agrifolia*/chaparral, *Q. agrifolia*/*Symphoricarpos albus*

A common alliance, Coast Live Oak Woodland covers 1,442 acres, or 5.8%, of the Park. It is primarily found in proximity to the major waterways, including the Sweetwater River, Cold Stream Creek, and Descanso Creek. The largest contiguous stand is 444 acres in size and extends from the Sweetwater River to Juaquapin Creek.

Jeffrey pine, Coulter pine, and California black oak are present in the tree canopy in addition to the dominant coast live oak. The shrub layer consists of birch leaf mountain mahogany, chamise, chaparral whitethorn, cup-leaf lilac, point leaf manzanita, California buckwheat, common snowberry, blue elderberry, tarragon, California rose, Palmer's ceanothus, California blackberry, white-flower currant (*Ribes indecorum*), Parish's goldenbush, pine goldenbush (*Ericameria pinifolia*), chaparral coffeeberry, and skunk bush. The herbaceous layer contains Johnston's honeysuckle (*Lonicera subspicata* var. *denudata*), fragrant everlasting (*Pseudognaphalium beneolens*), California brome, soft chess and cheat grass. Three listed herbaceous plants are also known to occur within the Coast Live Oak Woodland in CRSP: San Diego milkvetch (*Astragalus oocarpus*), Cuyamaca larkspur (*Delphinium hesperium* ssp. *cuyamacae*), and San Bernardino aster (*Symphyotrichum defoliatum*).

Coast Live Oak Woodland/Chaparral

Alliance: *Quercus agrifolia*/Chaparral

A single stand of 79 acres of Coast Live Oak Woodland/Chaparral is present west of Highway 79, north of Cold Stream Creek. There is a regenerating tree composition of

coast live oak along with a dominance of point-leaf manzanita and Palmer's ceanothus. Blue elderberry, common snowberry, and slender wild oat are also present.

Coast Live Oak Woodland/Grassland

Alliance: *Quercus agrifolia*/Grassland

Associations: None, *Quercus agrifolia-Quercus kelloggii*, *Quercus agrifolia*/grass

The Coast Live Oak Woodland/Grassland alliance is present on both West and East Mesa, totaling 680 acres. The West Mesa polygon is the largest at 551 acres. There are two separate polygons on East Mesa measuring 49 and 81 acres.

Coulter pine, interior live oak and black oak are present in addition to coast live oak. The herbaceous layer is dominated by non-native annual grasses such as ripgut grass, slender wild oat, cheat grass, tumble mustard, and hairy rat-tail fescue (*Festuca myuros*). Native herbaceous species were limited, only Andrews' bedstraw (*Galium andrewsii* ssp. *andrewsii*) and California brome were observed during field surveys. The shrub layer is primarily composed of Palmer's ceanothus, holly-leaf redberry, and chaparral coffeeberry but also blue elderberry, skunk bush, Torrey's scrub oak, birch-leaf mountain mahogany, point-leaf manzanita, California buckwheat, western ragweed, and canyon live oak.

Coulter Pine Woodland

Alliance: *Pinus coulteri* Woodland

There is a single stand of Coulter Pine Woodland, 18 acres in size, along the western Park boundary southwest of Cuyamaca Peak. Coulter pine is the only pine species present. Black oak and canyon live oak are present, but not dominant, in the tree canopy. Eastwood's manzanita and point-leaf manzanita are present in the shrub canopy. No herbaceous species were evident in the understory.

Creeping Rye Grass Turfs

Alliance: *Leymus triticoides* (*Elymus triticoides*) Herbaceous

There is a small, 16 acre, occurrence of Creeping Rye Grass Turfs along an unnamed intermittent creek northeast of Japacha Spring. Only herbaceous species were recorded as being present. Beardless wild rye, cheat grass, and small-flowered fiddleneck are dominant. Soft chess, California goldenrod, western ragweed, tidy tips (*Layia platyglossa*) and cryptantha (*Cryptantha* sp.) are also present.

Cup Leaf Ceanothus Chaparral

Alliance: *Ceanothus greggii* (*C. perplexans*) Shrubland

Associations: None, *Ceanothus greggii-Adenostoma fasciculatum*

This alliance is found primarily as a contiguous block in Stonewall Canyon (588 acres), with an additional 13 acres along the Oakzanita Peak Trail. Both areas show evidence of Cedar Fire recovery with the presence of regenerating Torrey's scrub oak and coast live oak. Regenerating black oak was recorded in Stonewall Canyon but not along Oakzanita Peak Trail. Both areas are dominated by cup leaf ceanothus, but the Oakzanita Peak Trail area is co-dominated by Palmer's ceanothus and has Eastwood's manzanita whereas the Stonewall Canyon area has only a few Palmer's ceanothus along with point-leaf manzanita, birch leaf mountain mahogany, chaparral whitethorn, holly-leaf redberry, skunk bush, and chamise.

Deer Grass Beds

Alliance: *Muhlenbergia rigens* Herbaceous

Located throughout the Park, Deer Grass Beds are primarily found in association with water: Azalea Spring, Cold Stream, Stonewall Canyon, Seco Arroyo, and near an unnamed tributary to Pine Valley Creek. There are two additional locations along old ranching roads on East Mesa and Oakzanita Peak. They range in size from 1.5 acres to 22.4 acres, totaling 75 acres of coverage which equates to about 0.3% of the Park.

As the name implies, this alliance is dominated by deer grass. Other species present with a measureable amount of cover include sedges, Mexican rush, Kentucky bluegrass, and cheat grass. The following species were also noted: English plantain (*Plantago lanceolata*), western ragweed, bull thistle (*Cirsium vulgare*), California goldenrod, San Bernardino aster, yarrow, soft chess, cudweed (*Pseudognaphalium* sp.), Davidson's buckwheat, common sand aster (*Corethrogyne filaginifolia*), willow dock (*Rumex salicifolius*), San Diego gumplant (*Grindelia hallii*), Pacific rush, iris leaved rush (*Juncus xiphioides*), wild rye, southern checkerbloom, and roundleaf leather root (*Hoita orbicularis*).

Deer Grass Beds are a herbaceous alliance but a few shrubs may be present as well. During the field surveys California buckwheat, California rose, and hairy leaf ceanothus (*Ceanothus oliganthus*) were observed. In addition, the listed plants Cuyamaca larkspur and Orcutt's brodiaea (*Brodiaea orcuttii*) are known to occur within the Deer Grass Beds but were not observed during the vegetation mapping field surveys as they were conducted in October.

Developed

Developed areas include the Paso Picacho Group Camp, La Cima Conservation Camp, and the Cuyamaca Outdoor School/Dyar House/Visitor Center complex. These locations, comprising a total of 54 acres, are characterized by a dominance of facilities, buildings, roadways, and other actively managed areas, which support less than 15% cover of woody/perennial vegetation. Other sites with development, such as the family

campgrounds and Hual-Cu-Cuish have been classified into alliances based on aerial imagery and field verification, which confirmed greater vegetation cover in the tree/shrub layer and less overall development.

Eastwood's Manzanita Chaparral

Alliance: *Arctostaphylos glandulosa* Shrubland

Associations: None, *Arctostaphylos glandulosa-Adenostoma fasciculatum-Ceanothus greggii*

The Eastwood's Manzanita Chaparral alliance is primarily located around the periphery of the Park, specifically adjacent to Hual-Cu-Cuish, in the King Creek Drainage along the Park's western boundary, southwest of Pine Ridge, and near Oakzanita Peak. In total, the Eastwood's Manzanita Chaparral alliance covers 332 acres within CRSP. The King Creek area is the only part of the Eastwood's Manzanita Chaparral alliance to contain trees, which accounts for 11% of the total cover and includes Coulter pine and the Federally listed Cuyamaca cypress (*Cupressus stephensonii*).

Common species that were encountered, in addition to Eastwood's manzanita, during the field surveys include: birch leaf mountain mahogany, chamise, cup-leaf lilac, Torrey's scrub oak, point-leaf manzanita, California black oak, canyon live oak, toyon, chaparral yucca, ashy silktassel, and creeping sage (*Salvia sonomensis*).

Fiddleneck Fields

Alliance: *Amsinckia (menziesii, tessellata)* Herbaceous

A single 51 acre polygon classified as Fiddleneck Fields was documented in Green Valley along the Sweetwater River, between Cold Stream and Japacha Creek. This alliance is known to vary annually in extent based on the quantity and timing of precipitation. During the field review, drought conditions likely contributed to a lower observed relative cover of fiddleneck (>8%) than would be expected during an average year. Nevertheless, the species remained persistent and notable within the herbaceous layer. Along with the fiddleneck, cheat grass and henbit (*Lamium amplexicaule*) were prevalent in the understory, with red-stem filaree and riggut grass also present, but at very low cover. In the overstory, the vegetation was minimal; consisting of only a few, scattered blue elderberry.

Hairy Leaf Ceanothus Chaparral

Alliance: *Ceanothus oliganthus* Shrubland

A single 31 acre stand of Hairy Leaf Ceanothus Chaparral occurs within CRSP, in the Cherry Flat area. This is consistent with the type remarks that small, localized stands tend to occur following fire disturbance and remain for 30-40 years. The 2003 Cedar Fire burned through this area and regenerating conifers and hardwoods are present, including

Coulter pine, incense cedar, and California black oak. Coulter pine and California black oak seedlings were also noted.

The site is co-dominated by hairy leaf ceanothus and Parish's goldenbush. Also present are: point-bract manzanita, western bracken fern, chaparral coffeeberry, creeping snowberry, Palmer's ceanothus, California goldenrod, and lowland cudweed (*Gnaphalium palustre*).

Interior Live Oak Chaparral

Alliance: *Quercus wislizeni* (*Q. wislizeni* var. *frutescens*) Shrubland

Associations: None, *Quercus wislizeni*-*Ceanothus leucodermis*, *Q. w.*-

Cercocarpus montanus (*C. betuloides* var. *b.*), *Q. w.*-*Q. berberidifolia*

The third most common alliance in the Park, Interior Live Oak Chaparral covers 1,993 acres which is 8.1% of CRSP. It is located primarily in two areas, the largest of which totals 1,458 acres along the eastern Park boundary near East Mesa, and a smaller occurrence along the west slope of Cuyamaca Peak (431 acres). There are also two stands, 34 acres and 70 acres in size, in the vicinity of Oakzanita Peak.

In addition to the dominant interior live oak, the common shrub species include: birch leaf mountain mahogany, Palmer's ceanothus, canyon live oak, and hairy leaf ceanothus. Other shrubs reported are: blue elderberry, California rose, point-leaf manzanita, Eastwood's manzanita, cup-leaf lilac, Torrey's scrub oak, scrub oak, Parish's goldenbush, chaparral coffeeberry, and slender sunflower. The herbaceous layer consists of non-native grasses such as ripgut grass and soft chess.

Regenerating coast live oak is the only tree species recorded along the eastern Park boundary whereas regenerating California black oak is found in the other polygons. The polygon on Cuyamaca Peak also contains Coulter pine, sugar pine, and white fir.

Jeffrey Pine Forest

Alliance: *Pinus jeffreyi* Forest

Association: None, *Pinus jeffreyi*-*Quercus kelloggii*

The Jeffrey Pine Forest was mapped as occurring on 592 acres of the Park. This limited distribution accounts for 2.4% of the total park area. This is primarily due to local loss of the forest canopy during the 2003 Cedar Fire. This isolation within the Park and the region leads to the inclusion of the Jeffrey Pine Forest in the Sky Island Forest (See "Sensitive Plants and Sensitive Vegetation Communities" below for definition). Climate change may be a threat in the region to the continued presence of the Jeffrey Pine Forest as it is already currently occurring on or near the highest peaks in the Park, which therefore does not allow for an elevational shift.

Within the Park the Jeffrey Pine Forest is characterized by moderate sized trees (11-24 inches dbh, 65-115 feet tall). Field surveys confirmed the dominance of Jeffrey pine in the overstory with 10% of the cover. Incense cedar, black oak, coast live oak, and canyon live oak were also present in the overstory. The shrub layer consisted of point-leaf manzanita, Palmer's ceanothus, western choke cherry, common snowberry, Davidson's buckwheat, foothill buckwheat (*Eriogonum wrightii* var. *membranaceum*), chaparral coffeeberry, California rose, birch leaf mountain mahogany, and blue elderberry. The herbaceous layer included common sand aster, tarragon, cheat grass, soft chess, rip gut grass, slender wild oat, California goldenrod, California brome, kotolo (*Asclepias eriocarpa*), and scarlet bugler.

Palmer's Ceanothus Chaparral (<50% cover)

Alliance (Provisional): *Ceanothus palmeri* (<50% cover) Shrubland

Thirteen locations, totaling 1,336 acres or 5.4% of the park's vegetation, are classified as having <50% absolute cover of Palmer's ceanothus. This alliance is widespread throughout CRSP, extending from the area of Boulder Creek in the north (321 acres) to East Mesa in the southeast corner of the Park (82 acres). Canyon live oak and skunk bush are co-dominant in the shrub canopy (~10% absolute cover), with coast live oak and black oak typically occurring in the overstory, and absent or minimal herbaceous species. Generally these stands maintain a north to northeast orientation on slopes that vary in elevation from 4,000 to 5,000 feet. In some areas, Palmer's ceanothus exists as tall thickets (6 to 8 feet in height), creating closed and impenetrable understories.

Palmer's Ceanothus Chaparral (>50% cover)

Alliance (Provisional): *Ceanothus palmeri* (>50% cover) Shrubland

Palmer's Ceanothus Chaparral is present and conspicuous in areas formerly supporting Jeffrey Pine Forest and Coulter Pine Woodland, and to a lesser extent, California Black Oak Forest and Coast Live Oak Woodland. Shrubs form monotypic stands (>50% absolute cover) without notable co-dominants, an overstory, or herbaceous layer. The alliance constitutes the second most prevalent vegetation community within the park, encompassing a total of 2,899 acres or 11.7% of the park lands. Twelve locations, ranging in size from 16 to 924 acres are largely concentrated within the north and west-central portions of CRSP. Palmer's Ceanothus Chaparral persists at the higher elevations, typically ranging between 4,500 to over 5,500 feet.

Parish's Goldenbush Chaparral

Alliance (Provisional): *Ericameria parishii* Shrubland

Parish's goldenbush, a post-fire follower, maintains > 50% relative cover in a single area (81 acres) located near Azalea Spring and the park's western boundary. Palmer's ceanothus and canyon live oak exist as sub-dominants in the shrub layer, with >25% and

<10% relative cover, respectively. In the overstory, Coulter pine forms a sparse emergent canopy (4% relative cover), while perennial herbs [e.g., white globe lily (*Calochortus albus*) and western morning-glory (*Calystegia occidentalis* ssp. *fulcrata*)] are present in the openings of the shrub layer, but at very low cover (<1%). The ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*), a CNPS List 4.2 species, is also historically known to occur at two sites within Parish's Goldenbush Chaparral.

Pink-bract Manzanita Chaparral

Alliance: *Arctostaphylos pringlei* ssp. *drupacea* Shrubland

A single polygon 17 acres in size on Cherry Flat, to the north of Cuyamaca Peak, is the only occurrence of Pink-bract Manzanita Chaparral in the Park. It is a shrub community but mostly as a result of the Cedar Fire consumption of the tree canopy. There are numerous regenerating trees including: white fir, incense cedar, sugar pine, Coulter pine, California black oak, and canyon live oak. Hairy leaf ceanothus is present as both a tree and shrub. The shrub layer is dominated by pink-bract manzanita, but also contains hairy leaf ceanothus, Parish's goldenbush, chaparral coffeeberry, common snowberry, and Sierra gooseberry (*Ribes roezlii* var. *roezlii*). The herbaceous layer is dominated by western bracken fern and California goldenrod.

Point-leaf Manzanita Chaparral

Alliance (Provisional): *Arctostaphylos pungens* Shrubland

In the southern portion of CRSP, two areas dominated by point-leaf manzanita were identified. The larger polygon, located along East Mesa Fire Road, and a smaller polygon, situated east of Green Valley and SR-79, encompass a total of 169 acres. Point-leaf manzanita, an obligate seeder and frequent disturbance/fire follower, occurs as the dominant shrub with 55-90% relative cover. The canopy is fairly continuous and the shrub layer is generally <10 feet in height. Subdominant shrubs, such as Palmer's ceanothus and whitethorn ceanothus maintain a relative cover of >5%, with minimal herbs in the understory. Emergent coast live oak and black oak are present, exhibiting from sparse to moderate cover. The area also supports the Cuyamaca Larkspur, a State Rare and CNPS List 1B.2 species, whose occurrence has been documented subsequent to the 2003 Cedar Fire.

Point-leaf Manzanita-Palmer's Ceanothus Chaparral

Alliance (Provisional): *Arctostaphylos pungens*-*Ceanothus palmeri* Shrubland

The Point-leaf Manzanita-Palmer's Ceanothus Chaparral (41 acres) lies directly south of the Paso Picacho Campground in the north-central portion of the park. The area, located on a gradual, southeast-facing slope, has approximately 30% relative cover of the two co-dominant shrubs, along with 10% relative cover of the mountain buckwheat (*Eriogonum fasciculatum* var. *polifolium*). The herb layer is sparse, although the common sand aster

is present (10% cover), along with narrow-leaf bedstraw (*Galium angustifolium* ssp. *angustifolium*) and doveweed (*Croton setigerus*), which both have fairly low cover (<1%). San Diego sunflower (*Hulsea californica*), a CNPS List 1B.3 species that prefers openings and burned areas, has also been previously recorded at this location. Coast live oak is the dominant in the open overstory, with a relative cover exceeding 15%.

Scrub Oak Chaparral

Alliance: *Quercus berberidifolia* (*Q. xacutidens*) Shrubland

Association: None, *Quercus berberidifolia* (*Quercus xacutidens*)-*Adenostoma fasciculatum*

The Scrub Oak Chaparral alliance is located on 1,344 acres in CRSP, primarily within the Sweetwater River Watershed. There is a single 93 acre polygon along Little Stonewall Creek, in the San Diego River Watershed, in the northeast corner of the Park. Due to hybridization, however, the prevalent scrub oak species occurring at CRSP is Torrey's scrub oak rather than scrub oak. But, as a result of the phenotypic overlap and taxonomic difficulties of these species, all the scrub oak stands have been assigned to the scrub oak alliance.

Field review found that this shrub dominated alliance supported minimal tree and herbaceous species. The shrubs observed include a dominance of Torrey's scrub oak along with birch-leaf mountain mahogany, Eastwood's manzanita, chaparral whitethorn, cup leaf lilac, and point leaf manzanita. A few California black oak and coast live oak were also documented in the overstory.

Scrub Oak-Chamise Chaparral

Alliance: *Quercus berberidifolia* (*Q. xacutidens*)-*Adenostoma fasciculatum*
Shrubland

The Scrub Oak-Chamise Chaparral alliance covers 199 acres in CRSP along Descanco Creek, including the west facing slope of Oakzanita Peak. These areas are co-dominated by Torrey's scrub oak and chamise, accounting for almost 85% of the total shrub cover. As with the Scrub Oak Chaparral alliance described above, Torrey's scrub oak was prevalent but all scrub oak stands have been assigned the scrub oak alliance. The remaining cover is predominantly comprised of point leaf manzanita and California buckwheat. No trees or herbaceous plants were reported.

Sedge Meadows

Alliance (Provisional): *Carex* sp. Herbaceous

Two large sedge meadows exist along the northern boundary of the park, in the vicinity of Camp Hual-Cu-Cush, Los Caballos Campground, and Stonewall Mine. At these locations, an unknown carex is dominant in the herbaceous layer (45% relative cover),

with western ragweed and blue wildrye occurring as subdominants (>25% cover), along with horsetail (<10% cover). In this historically grazed area, the canopy is open to intermittent, with emergent blue elderberry and arroyo willow present, but at low cover in the overstory. Sedge meadows (or montane meadows), which are characterized by seasonally saturated soils, serve to support a unique and diverse array of herbaceous species. Historically and currently, the area serves as habitat for several rare plants, including the State Endangered Parish's meadowfoam (*Limnanthes alba* ssp. *parishii*) and Cuyamaca Lake downingia (*Downingia concolor* var. *brevior*), the State Rare Cuyamaca larkspur, and the CNPS List 1B.2 San Diego gumplant.

Soft Rush Marshes

Alliance: *Juncus effusus* Herbaceous

West Mesa contains a single 6 acre wet meadow classified as Soft Rush Marsh. It is located along an un-named tributary to Japacha Creek. The vegetation is dominated by hoary nettle and Scouler's St. John's wort in the herbaceous layer and California rose in the shrub layer. Other herbs present include: Mexican rush, Pacific rush, deergrass, sedges, and western bracken fern. A few broad-leaf cattail, spike rush (*Eleocharis* sp.), and Kentucky bluegrass were also observed. In addition to California rose, there are blue elderberry, chaparral coffeeberry, and Palmer's ceanothus present in the shrub layer.

Sugar White Pine Forest

Alliance: *Pinus lambertiana* Forest

There is currently a single 43 acre stand of Sugar White Pine Forest on Cuyamaca Peak, extending north along the east facing slope. In addition to sugar pine, there are Jeffrey pine, Coulter pine, incense cedar, white fir, and California black oak. Shrubs include cup leaf manzanita, chaparral coffeeberry, hairy ceanothus, Sierra gooseberry, buck lotus (*Hosackia crassifolius* var. *crassifolius*), and Parish's goldenbush. The herbaceous vegetation consists of giant red paintbrush (*Castilleja miniata* ssp. *miniata*), monardella (*Monardella macrantha*), and sweet pea (*Lathyrus vestitus*).

Upland Mustards

Alliance: *Brassica (nigra)* and Other Mustards Semi-Natural Herbaceous Stands

The Upland Mustards alliance occurs in two distinct areas of the Park. There is a small, 6.6 acre patch, along Seco Arroyo in the center of the Park and a larger, 46.8 acre patch, in the southwest corner. The area field checked was the Seco Arroyo polygon, which is dominated by shortpod mustard (*Hirschfeldia incana*), a Cal-IPC moderate ranked non-native plant. Native doveweed and common sand aster along with non-native red-stem filaree were also common. In addition, the following herbs were recorded as having less than 1% total cover: California brome, cheat grass, deergrass, fragrant everlasting, hoary nettle, Davidson's buckwheat, and sedges.

This area still shows signs of regeneration following the 2003 Cedar Fire. There are a few Coulter pine and coast live oak present. A few shrubs are also present including California buckwheat, point leaf manzanita, and broom snakeweed (*Gutierrezia sarothrae*).

Western Ragweed Meadows

Alliance: *Ambrosia psilostachya* Provisional Herbaceous

The Oakzanita Peak Trail travels through the single polygon of the Western Ragweed Meadows alliance with CRSP. It is 60 acres in size with 100% of the shrub cover consisting of foothill buckwheat although there are a few broom matchweeds present. The herbaceous layer is almost exclusively comprised of western ragweed with a small amount of cheat grass. The presence of junegrass (*Koeleria macrantha*), soft chess, and common sand aster were also noted. There are no trees present.

Wild Oats Grasslands

Alliance: *Avena (barbata, fatua)* Semi-Natural Herbaceous Stands

There is a single 23 acre polygon of Wild Oats Grasslands in CRSP, located on West Mesa alongside the east bank of an un-named intermittent stream. There are a few regenerating trees present, which include Coulter pine, coast live oak, and canyon live oak. The few shrubs recorded in the polygon are foothill buckwheat and mountain buckwheat.

Wild Oat Grasslands are an herb dominated alliance, with slender wild oat and ripgut grass co-dominants in CRSP. Cheat grass, soft chess, and tumble mustard account for a moderate amount of herbaceous cover, while there are trace amounts of western ragweed, common sand aster, wild rye (*Elymus* sp.), wild oat (*Avena fatua*), California buckwheat, junegrass, bird's nest thistle (*Cirsium scariosum* var. *americanum*), and bent grass (*Agrostis* sp.).

Sensitive Plants and Sensitive Vegetation Communities

A total of 61 sensitive plants have been documented (as of June 2014) to occur in the Park (Appendix A) based upon Colorado Desert District records, the SDNHM Plant Atlas, and the California Natural Diversity Database (CNDDDB 2013). These include California Rare (2) and Endangered (2), Federally Endangered (1), California Native Plant Society Sensitive (33), and species of local concern (28). Numerous plants occur on more than one list, so the total is greater than the summation of the number of sensitive plants. In addition to individual plants, the Park contains three sensitive vegetation communities: Cuyamaca cypress stand, montane meadow/grassland, and sky island forest.

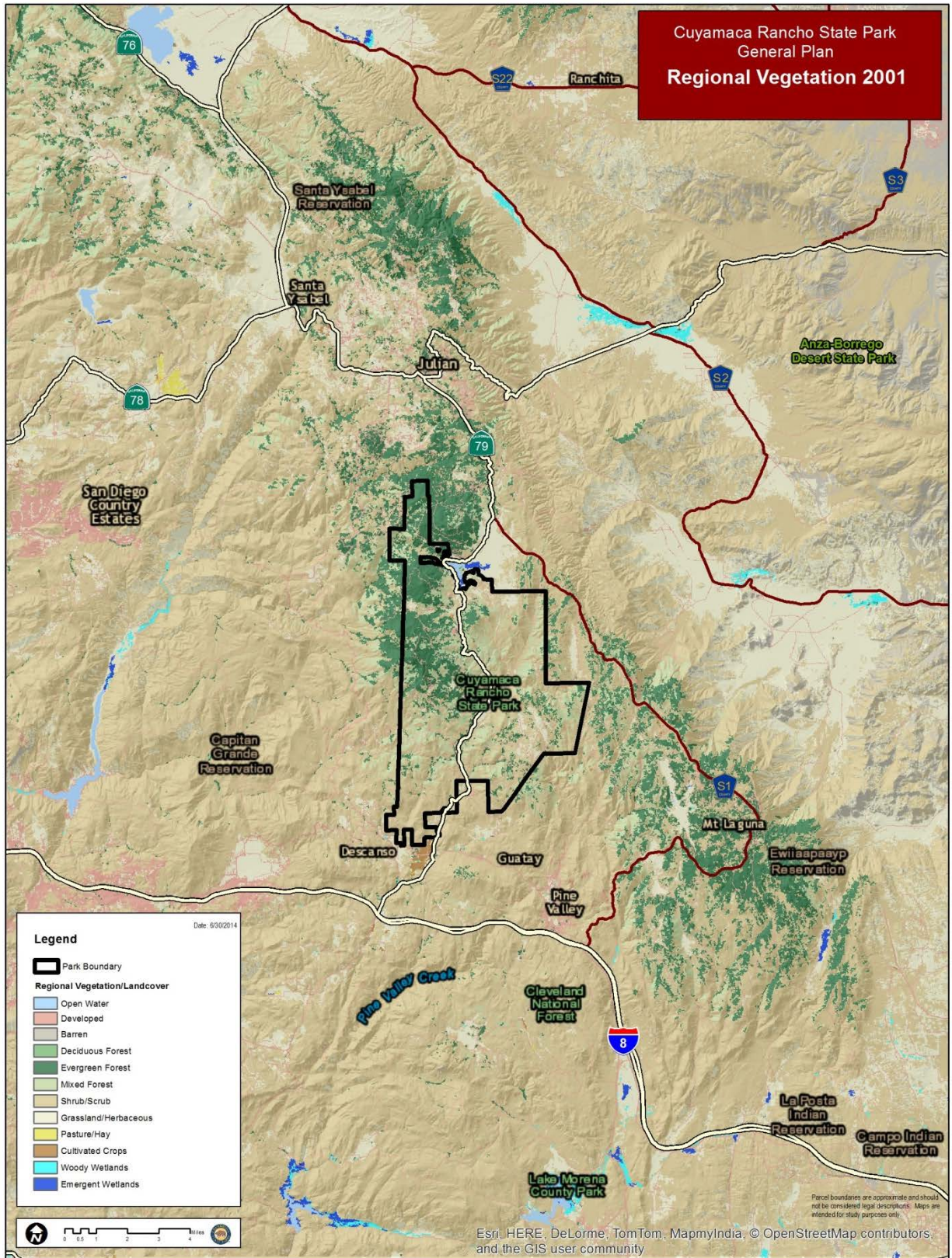
Meadow and grassland systems have declined significantly in expanse throughout North America. Slittrer et al. (2011) found that the greatest loss of net habitat in California between 1973 and 2000 occurred in the grassland and oak woodland ecosystems. These changes have occurred as a result of grazing, frequent fires, and development. This loss has widespread impacts as the associated wetlands provide natural ground water storage, filtration, purification, and wildlife habitat. Rare plants disproportionately occur within these habitats. These include the State Endangered Parish's meadowfoam and Cuyamaca Lake downingia, the Federally Endangered San Bernardino bluegrass (*Poa atropurpurea*), and the State Rare Cuyamaca larkspur. Additional protections for montane meadow/grasslands, such as the Cuyamaca Meadow Natural Preserve, have been established within the Park. A contributing factor to Los Caballos Equestrian Camp not being reopened following the Cedar Fire is the presence of listed plant species within the campground.

Many rare plant surveys have been conducted as focused project-specific surveys, so park-wide data is biased towards areas of development. When sensitive plants are observed findings are entered into the District-wide Plants of Concern Geodatabase. Staff has also digitized sensitive plant locations based upon older survey reports and maps with hand-drawn polygons. This includes work by Allen, Dr. Ellen Bauder (1992), Weir, Hirshberg, and others as far back as the early 1980s. Dr. Jon Rebman with the SDNHM conducted post-Cedar Fire sensitive plants surveys.

The Cuyamaca cypress is endemic to the Cuyamaca Mountains and only known to occur with Cuyamaca Rancho State Park and the adjacent Cleveland National Forest. Due to this limited distribution it is listed as both a sensitive plant and sensitive plant community. The Cuyamaca cypress is a Federal Species of Concern, USFS Region 5 Sensitive Plant Species, and CNPS List 1B. In addition, the Cuyamaca cypress stand is recognized as a CNPS Rare Natural Community. Fire is a required natural disturbance for Cuyamaca cypress seed dispersal, but often consumes the mature trees. Much of the population was burned during the 1950 Conejo Fire and again during the 2003 Cedar Fire. Natural regeneration was observed after both fires; it has recovered as a result of natural processes.

Sky Island Forest is a descriptive term from the field of Island Biogeography which equates the isolation of habitats, such as forests atop mountain peaks surrounded by lowlands, to geographic islands surrounded by water (MacArthur and Wilson 1967). The Jeffrey pine and montane hardwood conifer forests within the Cuyamaca Mountains are Sky Island Forests, surrounded by desert and semi-arid desert vegetation (Map 7). This isolation has increased after the Cedar Fire as the forest within the park has been fragmented and distances between patches are now greater than the seed dispersal

Map 7: Regional vegetation as recorded in 2001. Note how the forested areas (dark green) are isolated within the landscape, resembling islands.



capacity (Goforth and Minnich 2008). Therefore, many of the previously connected forest and woodland stands are now local islands, surrounded by grassland and chaparral. The Reforestation Project has been designed to reconnect these newly isolated patches of forest to protect the overall health and perpetuation of the Sky Island Forest within the Park. More information can be found below under Vegetation Management.

Vegetation Management

The vegetation within CRSP has traditionally been managed to reach a target of pre-European contact conditions. Since the 1800s the vegetation has changed drastically due to mining, grazing, logging, introduction of non-native plants, fire suppression, and extreme wildfires. A change in philosophy has occurred in recent years as studies compare the ecosystems of California mountains with that of the Peninsular Range located in Mexico, such as the San Pedro de Martir in northern Baja California and include climate impacts and resilience in planning (Stephens et al. 2010). These areas were ecologically similar historically, but political boundaries have caused a divergence as the former is in the United States and the latter in Mexico. The San Pedro de Martir is now considered by many plant ecologists a reference location for vegetation studies within California mountains as there is minimal to no history of fire suppression (Goforth and Minnich 2008, Stephens et al. 2010). The vegetation within the San Pedro de Martir reacts very differently to similar factors like drought and naturally ignited fire.

Non-native Plants

Non-native plants are plants which originated elsewhere and are currently growing beyond their natural range and in locales beyond their potential natural dispersal area (Randall and Hoshovsky 2000). Such plants have been introduced to California both purposefully and accidentally. There are a total of 101 documented non-native plant species occurring in the Park. Of these, 32 are recognized by the California Invasive Plant Council (Cal-IPC) as invasive (Appendix A). An invasive plant is a non-native species which displaces native species and results in change to the ecosystem function (Randall and Hoshovsky 2000). Therefore, not all non-native plants are invasive, but all invasive plants are non-native. The majority of the non-native plants in CRSP (62 species) are recognized by the Colorado Desert District as they originated elsewhere, but are naturalized and therefore not listed by Cal-IPC.

As part of the Natural Resources On-going Maintenance Program, CDPR staff and contractors monitor and treat the non-native plants within CRSP. Actions may include mechanical control, herbicide treatment, prescribed fire, or a combination of methods. Current management is directed by the “Policy for Non-Native Plants in the Colorado Desert District: Guidelines for Controlling Non-Native Plants and the Use of Appropriate Plant Species in Landscaping and Developed Areas” (Jorgensen 1996) and the “Vegetation Management Plan Cuyamaca Rancho State Park” (Jorgensen 2009).

A complete mapping of non-native plants within CRSP has not been completed. Management focus over the last 15 years has been on the treatment of tocalote, bull thistle, and woolly mullein. Tocalote is only known to occur along East Mesa Fire Road and South Boundary Fire Road. Treatments have been successful in decreasing the extent and preventing spread. Woolly mullein and bull thistle are widespread in the Park, primarily occurring in seasonally wet areas (Wilkinson et al. 1997). A single yellow star-thistle (*Centaurea solstitialis*) plant was observed in 2013 on Middle Peak, it was immediately removed (Hendrickson, pers. comm.)

There has been limited treatment of salt cedar, Harding grass, cultivated timothy, crested wheat grass, and tall fescue. Resource management actions have successfully eradicated Chinese elm (*Ulmus parvifolia*) and black poplar (*Populus nigra*) (Wilkinson et al. 1997).

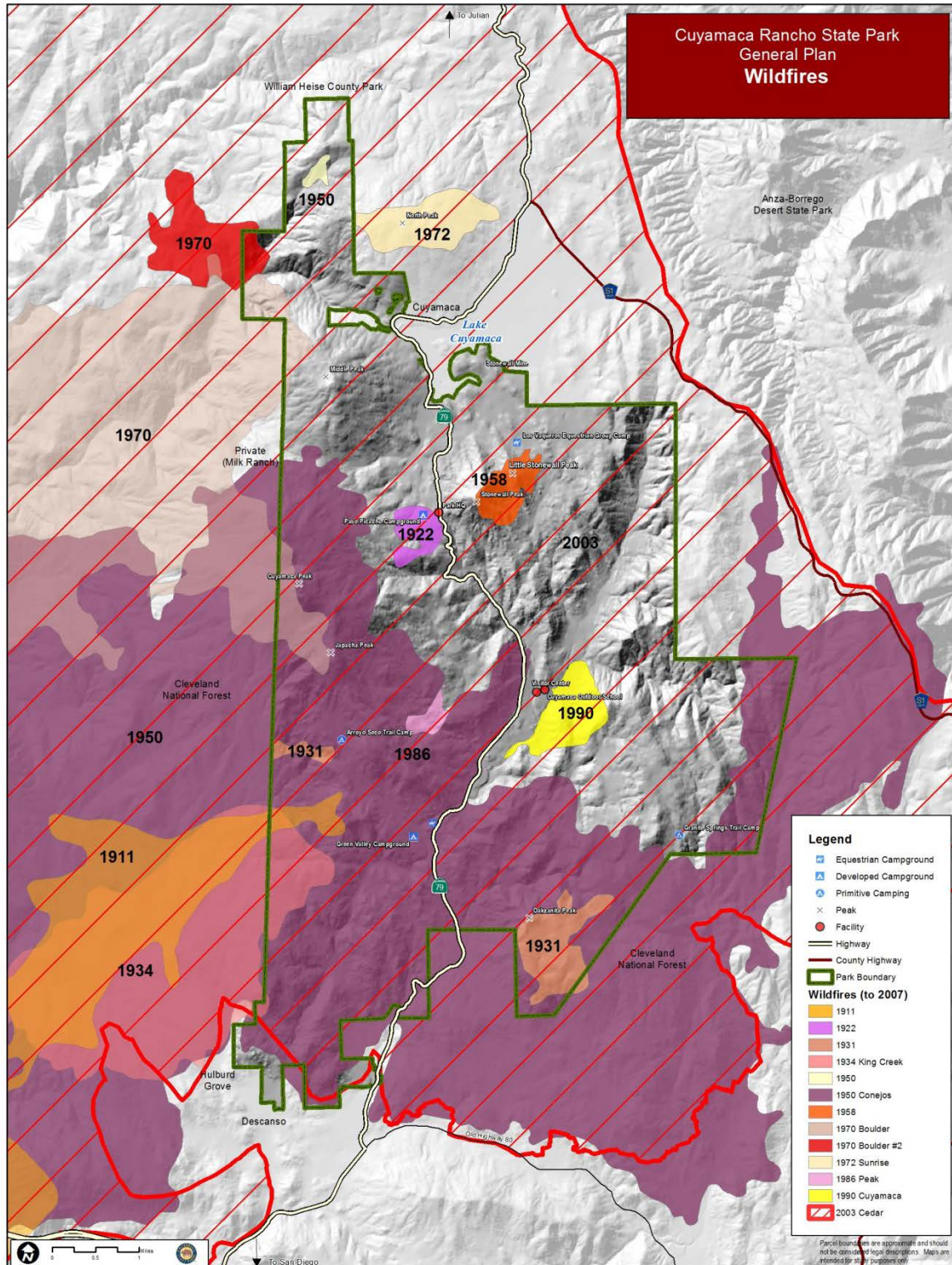
Fire Management

Fire is a natural feature within the landscape, with much of the environment within Cuyamaca Rancho State Park adapted to and dependent upon fire. Low intensity, lightning strike fires were present prior to human occupation. These were then supplemented by Native American ignition patterns, primarily within the grasslands (Anderson 2005). Fire suppression began in the Cuyamaca Mountains in 1910 by the United States Forest Service and was fully implemented by the 1930s as the Civilian Conservation Corps built roads to fight fires and contributed firefighting crews (CDPR 1983). These suppression actions, coupled with the history of logging, cessation of grazing, and introduction of non-native species led to an increase in fuel loads which has resulted in larger, hotter, and faster burning wildfires.

Numerous wildfires have burned within CRSP, including two of the largest fires on record (post 1932) for San Diego County (Map 8). The first was the August 1950 Conejos Fire, which burned almost 63,000 acres, of which over 11,000 acres were in the Park (CDPR 1983). In 2003, the Cedar Fire, which is the largest mapped fire in California history, consumed over 270,000 acres including 95% of the Park.

A prescribed fire program was initiated in December 1977 with the burning of ten, 0.25 acre test plots on East Mesa in five different fuel types (CDPR 1983). The first understory burn was conducted in pine-oak woodland near Paso Picacho Campground in April 1978 (CDPR 1983, Biswell 1989). Research burns continued through 1980, with the largest plot being approximately 212 acres in size, although most plots were 10-20 acres in size (CDPR 1983). Following these research burns, an aggressive park-wide fire management plan was proposed in 1983. It proposed to burn approximately 2,000 acres per year in multiple burn units throughout park and established fire return intervals based upon dominant vegetation type. However, the goals turned out to be unrealistic and the program was never fully implemented although small prescribed burns were periodically conducted. Complete records of the prescribed fire program were not available during the compilation of this data so a prescribed fire history map is not available.

Map 8: Wildfires are common within Cuyamaca Rancho State Park. However, the 1950 Conejos Fire (dark purple) and the 2003 Cedar Fire (red hatch) were extreme events during the last 75 years.



After the 2002 Pines Fire, which burned to the east of CRSP, a new comprehensive Prescribed Fire Plan was developed by Goforth and Boyce (2003) for CRSP. The purpose continued to be to return fire to the landscape to restore forest health and create a mosaic of stand complexity across the landscape to prevent the spread of large scale wildfire. However, the October 2003 Cedar Fire burned through 95% of CRSP, greatly altering the landscape making the Goforth and Boyce Plan (2003) obsolete before it was implemented. A new plan has not been developed.

Reforestation

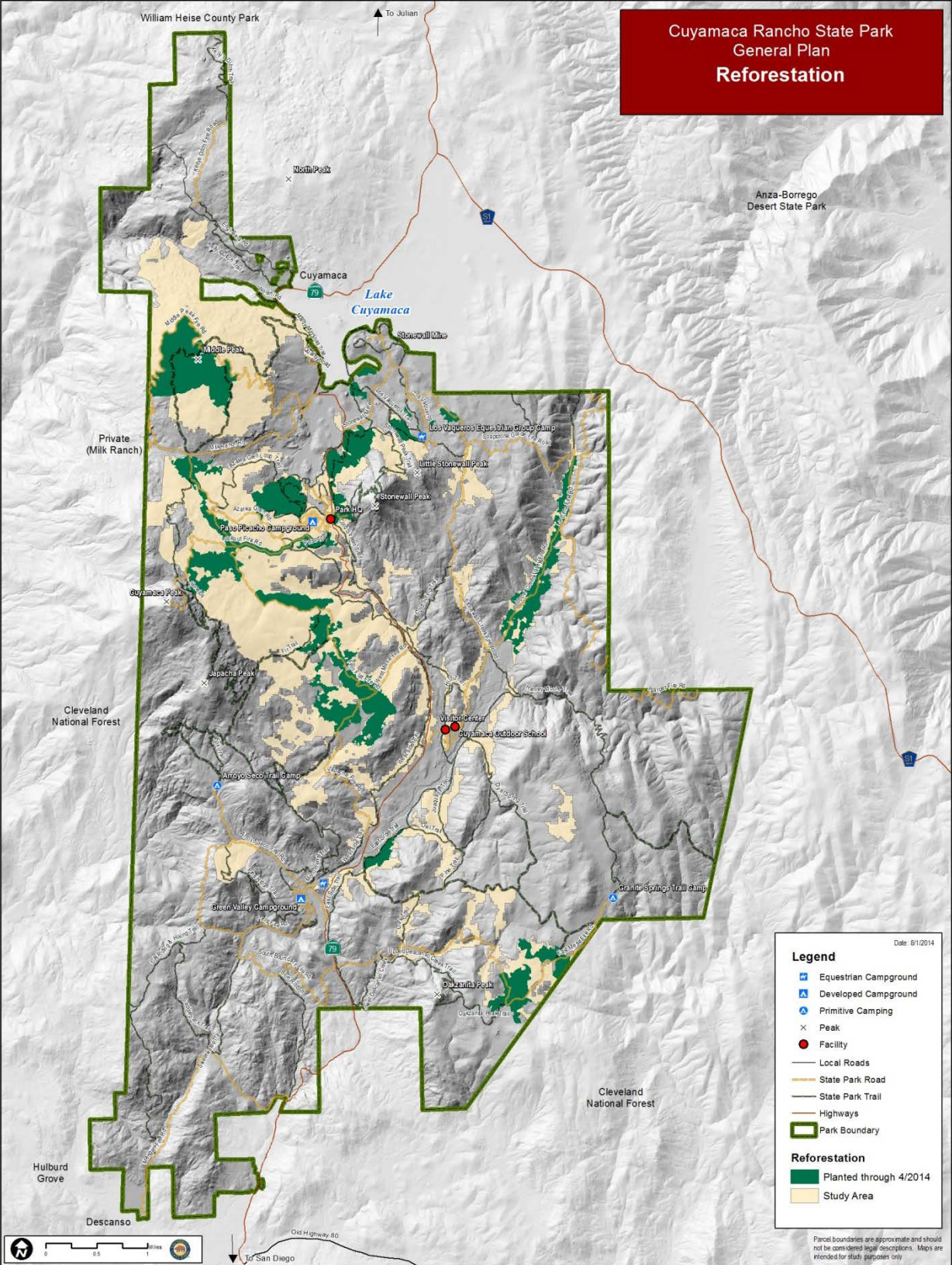
A reforestation project was initiated in 2007 (Map 9), four years after the Cedar Fire, to facilitate the recovery of the forest within CRSP (CDPR 2012). The long-term goal of the reforestation effort is to restore the biodiversity and ecosystem function of the sky island forests, which includes natural resilience to wildfire, disease, insects, and invasive exotics species (Wells 2013). The project is designed to accomplish these goals by planting conifers in approximately 26% (2,530 acres) of the previously forested wildlands. Natural post-fire regeneration is mimicked through a patchy distribution which, once the trees mature, will act as centers of dispersal for recolonization of the remaining previously forested areas (CDPR 2010, CDPR 2012, Wells 2013). Specific planting areas are identified based upon the following criteria: presence of mixed conifer forest or pine-oak woodland prior to 2003, distance to existing seed source, soil type, slope, elevation, aspect, accessibility, and the absence of sensitive natural and cultural resources (Jorgensen 2009).

Seedlings were initially sourced from the CAL FIRE Magalia nursery and the USFS Placerville nursery. In 2010 and 2012, seed cones were collected from pockets of mature conifers at several locations in the Park which survived the Cedar Fire. These seeds supplement USFS seed stock. The combination of zone-appropriate stock and locally sourced seed aids in preserving the genetic integrity and diversity of the sky island forest (CDPR 2011). Annual assessment of the Park's seed cone crop occurs for potential sustainable harvest. Cones are stored at CAL FIRE's Lewis A. Moran Reforestation Center in Davis, CA.

The overall target for the project is a planting ratio of 65% Jeffrey pine, 15% Coulter pine, 8% sugar pine, 7% white fir, and 5% incense cedar seedlings. These ratios are based upon historical species surveys. Initial plantings favored Jeffrey pines, but will decrease in future years in order to reach the target ratio. All plantings are expected to be completed by 2020 but maintenance activities, including prescribed burning, brush removal, and thinning will occur indefinitely (CDPR 2011).

As of April 2014 approximately 1,240 acres (49% of the project area) have been planted (Map 9) with approximately 380,000 seedlings. Biological monitoring conducted in 2011 and 2013 indicates average survival rates of approximately 70%, and as high as

Map 9: The accomplishments of the Reforestation Project through April 2014 (green) and the area within which the sites for the remaining plantings will be selected (beige).



93% in some areas, using shade cards and biodegradable mulch mats. During 2015-2023, there will be nine additional plantings. This schedule may be accelerated or slowed depending upon funding and other factors such as weather.

Wildlife Resources

Cuyamaca Rancho State Park and the surrounding environs provide a wide variety of habitats for wildlife. Data regarding species detections were compiled primarily from the park files, CNDDDB, and the SDNHM Atlases for Birds, Reptiles, Amphibians, and Mammals. Species that were detected within proximity to the Park have been included as they may be observed from the park (such as birds on Lake Cuyamaca), may utilize the Park as part of their home range, or could be impacted by activities at the Park. There are no known native fish species within CRSP. Complete species lists are in Appendix A.

A total 204 bird species have been observed in or near the park, of which 8% have special status and 2% are non-native (Appendix A). The SDNHM Bird Atlas field data collection primarily occurred from 1997 to 2002, so a complete pre-Cedar Fire species list is available. Additional bird surveys were conducted by Colorado Desert District staff since the Cedar Fire, some focusing on changes to species assemblages as a result of fire response. Five bird species have not been detected since the 2003 Cedar Fire, but conversely, eleven new species were recorded post-Cedar Fire (Table 2). These changes in bird species assemblage supports the vegetative analysis that the habitat has changed significantly, including a change in suitability for many species. This is the only complete dataset for which we have this comparison data.

Table 2: Birds that have not been recorded within CRSP since the 2003 Cedar Fire.

Common Name	Scientific Name
Pre Cedar Fire Only	
California spotted owl	<i>Strix occidentalis ssp. occidentalis</i>
Northern saw-whet owl	<i>Aegolius acadicus</i>
Gray Vireo	<i>Vireo vicinior</i>
Red-breasted Nuthatch	<i>Sitta canadensis</i>
Golden-crowned Kinglet	<i>Regulus satrapa</i>
Post Cedar Fire Only	
Merlin	<i>Falco columbarius</i>
Common Ground Dove	<i>Columbina passerine</i>
Hammond's Flycatcher	<i>Empidonax hammondi</i>
Gray Flycatcher	<i>Empidonax wrightii</i>
Rock Wren	<i>Salpinctes obsoletus</i>
White-throated Sparrow	<i>Zonotrichia albicollis</i>
Brewer's Sparrow	<i>Spizella breweri</i>
Hooded Warbler	<i>Wilsonia citrine</i>
Yellow-breasted Chat	<i>Icteria virens</i>
Indigo Bunting	<i>Passerina cyanea</i>
Scott's Oriole	<i>Icterus parisorum</i>

The mammal species list contains 40 species but is incomplete, primarily due to a need for more data regarding small mammals. A compilation of confirmed and probable, but not detected, species can be found in Appendix A. Species included as probably occurring are that which have been detected within proximity to the Park or for which suitable habitat is present but they have not been detected through standard sampling methodologies or incidental observations. Researchers from the University of California, Davis conducted a mountain lion study from 2001 through 2008 in which they outfitted mountain lions with GPS collars. They also captured and ear tagged one bobcat during this time. Overlapping this study, CDFW collared deer from 2002-2004.

Sensitive Wildlife Resources

Sensitive wildlife resources include species listed as Rare, Threatened, or Endangered by the USFWS or CDFW, but also include California Species of Special Concern, Fully Protected Species, and Candidate Species. Many species have multiple listing statuses (Appendix A).

The 17 listed bird species that occur in the Park include the State Endangered and Fully Protected bald eagle, State Threatened Swainson's hawk, and State and Federally Endangered southwestern willow flycatcher. The California condor, State and Federally Endangered and State Fully Protected, has also been included. It was historically documented nesting in the vicinity (Gedney 1900) and a single individual was observed flying over the Park in 2007 (10News 2007).

The Federally Endangered arroyo toad is known to be present within CRSP and the USFWS has designated critical habitat for the arroyo toad along the Sweetwater River throughout the Park. The extirpated Federally Threatened California red-legged frog was included on the species list due to history of its presence and the continued availability of suitable habitat.

There are nine California Species of Special Concern reptile species known to occur within CRSP. This includes the orange-throated whiptail, which is likely to be present within the Park but has not been confirmed.

The Townsend's big-eared bat is the only species in CRSP that is a California Candidate for listing. It is also the only known listed mammal species within the Park.

Significant data gaps exist for sensitive wildlife species within CRSP as there is no information regarding their distribution or status.

Non-native Wildlife Resources

A number of non-native wildlife species have been detected within CRSP. These species may be deleterious to the native biota through numerous factors including transmission of disease, direct predation, and competition for resources. As with non-native plants, non-native wildlife has been introduced both intentionally and unintentionally. Species of concern range in size from feral pigs (*Sus scrofa*) down to the goldspotted oak borer (*Agrilus auroguttatus*).

Feral pigs are a non-native species known to occur in California and throughout the United States. Feral pigs pose a serious threat to California's native ecosystems due to their omnivorous diets and because they forage by rooting, which physically disturbs soils and associated plants and animals (Sweitzer and Van Vuren 2008, 2002). They were introduced in San Diego County in 2009 near El Capitan Reservoir and have since been observed within CRSP. The Colorado Desert District has entered into a multi-party MOU for the Feral Pig Eradication and Control Project in San Diego County. A mitigated negative declaration has been prepared for implementing the multi-agency eradication efforts, which are scheduled to begin in San Diego County in 2014. Recorded pig activity within CRSP has not warranted trapping at this time, but monitoring will be conducted.

The bullfrog (*Rana catesbeiana*) is native to the eastern United States; it was introduced to California in the early 1900s primarily for human consumption. Bullfrogs are larger than the native frogs (Stebbins 1985), predate upon them, and are a carrier of chytrid fungus (Snow and Witmer 2010). Bullfrogs are dependent upon a permanent water source with a preference for locales with emergent vegetation (Stebbins 1985). They are known to occur within CRSP but their distribution and abundance have not been fully documented nor have any control measures been taken.

There is very little information regarding fish in the waterways. Rainbow trout (*Oncorhynchus mykiss*) are present in the Sweetwater River watershed above Green Valley Falls and are often observed at the Highway 79 crossing as well as in Japacha Creek and Cold Stream (Barabe 2013). There is currently no fish stocking within the Park, but genetic analysis on fish captured between September 2010 and November 2013 suggests these are naturalized populations from historic fish plants as tested fish have hatchery stock markers (Jacobson et al. 2014). There are multiple natural and anthropogenic barriers that prevent fish movement, including waterfalls and road culverts.

An invasive pest native to southeastern Arizona, the goldspotted oak borer was first detected in San Diego County in 2004. By 2008 it was documented on coast live oak, canyon live oak, and California black oak in CRSP. The goldspotted oak borer larvae forage under the oak bark, primarily in the cambium on the main stem and larger

branches. This leads to limb and branch die back, and ultimately tree mortality. A steering committee for a regional approach to containment and control was established, including CDPR staff. All oak wood is currently under quarantine and approximately 600 tons of infested oak have been treated.

Non-native avian species within CRSP include the wild turkey (*Meleagris gallopavo*), domestic pigeon (*Columbia livia*), house sparrow (*Passer domesticus*), and European starling (*Sturnus vulgaris*). Control efforts have previously focused on the wild turkey, but extirpation was not achieved. Wild turkey was first introduced to California in 1877 for recreation and food; they are a popular upland game bird and introductions have continued into the 21st century (Ahlborn, no date). However, they cause damage to the environment and can become aggressive toward humans, particularly during the breeding season. Their foraging of acorns and scratching for arthropods has contributed to the sensitivity of the oaks within CRSP. Wild turkey control was implemented in the 1990s and continued for 8 years by CDFW, but a reduction in the turkey population was not documented. Conversely, the population continued to increase. It was speculated by Park staff at the time that failure was due to many factors, including CDFW restrictions on trapping and the ability to euthanize captured individuals (Jorgensen and Dice 2003).

The house sparrow and European starling were introduced to the United States in the mid and late 1800s, respectively (Sibley 2003). There has been no active management of these species.

The opossum is native to the eastern United States and is the only native North American marsupial. It was introduced to southern California as early as the 1880s for hunting (Sumner and Dixon 1953). It is an omnivorous nocturnal animal that resides in many environments but shows a preference for proximity to streams and wetlands. The presence of opossum in developed and urban areas can pose a threat to human health as they are carriers of many diseases including tuberculosis and spotted fever (UC IPM 2013). Their presence in CRSP has primarily been documented through road kill evidence; no management action has been taken to date.

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APPENDIX A

Species Lists:

1. Plants
2. Birds
3. Mammals
4. Reptiles
5. Amphibians

**Plant List for Cuyamaca Rancho State Park
(August 2014)**

Family	Scientific Name	Common Name	Status*	
Isoetaceae - Quillwort	<i>Isoetes orcuttii</i>	Orcutt's Quillwort	LLD	
Equisetaceae - Horsetail	<i>Equisetum arvense</i>	Common Horsetail		
	<i>Equisetum hyemale</i> ssp. <i>affine</i>	Common Scouring-Rush		
	<i>Equisetum laevigatum</i>	Smooth Scouring-Rush		
	<i>Equisetum telmateia</i> ssp. <i>braunii</i>	Giant Horsetail		
Blechnaceae - Deer Fern	<i>Woodwardia fimbriata</i>	Giant Chain Fern		
Dennstaedtiaceae - Braken	<i>Pteridium aquilinum</i> var. <i>pubescens</i>	Western Bracken		
Dryopteridaceae - Wood Fern	<i>Polystichum imbricans</i> ssp. <i>curtum</i>	Canyon Sword Fern		
	<i>Polystichum imbricans</i> ssp. <i>imbricans</i>	Imbricate Sword Fern		
Pteridaceae - Brake	<i>Aspidotis californica</i>	California Lace Fern		
	<i>Aspidotis densa</i>	Dream	LLD	
	<i>Cheilanthes clevelandii</i>	Cleveland's Lip Fern		
	<i>Cheilanthes covillei</i>	Coville's Lip Fern		
	<i>Cheilanthes intertexta</i>	Coastal Lip Fern		
	<i>Cheilanthes newberryi</i>	California Cotton Fern		
	<i>Pellaea andromedifolia</i>	Coffee Fern		
	<i>Pellaea mucronata</i> var. <i>mucronata</i>	Bird's Foot Cliff-Brake		
	<i>Pentagramma triangularis</i> ssp. <i>triangularis</i>	California Goldback Fern		
	<i>Pentagramma triangularis</i> ssp. <i>rebmanii</i>	Rebman's Silverback Fern	LLD	
Woodsiaceae - Cliff Fern	<i>Cystopteris fragilis</i>	Brittle Bladder Fern		
Cupressaceae - Cypress	<i>Calocedrus decurrens</i>	California Incense Cedar		
	<i>Hesperocyparis stephensonii</i>	Cuyamaca Cypress	CNPS 1B.1	
Pinaceae - Pine	<i>Abies concolor</i>	White Fir		
	<i>Pinus coulteri</i>	Coulter Pine		
	<i>Pinus jeffreyi</i>	Jeffrey Pine		
	<i>Pinus lambertiana</i>	Sugar Pine		
	<i>Pinus ponderosa</i> var. <i>ponderosa</i>	Ponderosa Pine		
Agavaceae - Agave	<i>Hesperoyucca whipplei</i>	Chapparal Yucca		
	<i>Yucca schidigera</i>	Mojave Yucca		
Alliaceae - Onion	<i>Allium amplexens</i>	Paper Onion		
	<i>Allium campanulatum</i>	Sierra Onion		
	<i>Allium marvinii</i>	Yucaipa Onion	CNPS 1B.1	
	<i>Allium parryi</i>	Parry's Onion	LLD	
	<i>Allium peninsulare</i> var. <i>peninsulare</i>	Red-Flower Onion		
Cyperaceae - Sedge	<i>Carex athrostachya</i>	Slender-Leaf Sedge		
	<i>Carex densa</i>	Dense Sedge		
	<i>Carex fracta</i>	Fragile-Sheath Sedge		
	<i>Carex globosa</i>	Round-Fruit Sedge		
	<i>Carex multicaulis</i>	Many-Stem Sedge		
	<i>Carex sartwelliana</i>	Yosemite Sedge		
	<i>Carex schottii</i>	Schott's Sedge		
	<i>Carex senta</i>	Western Rough Sedge		
	<i>Carex subfusca</i>	Rusty Sedge		
	<i>Cyperus erythrorhizos</i>	Red-Root Flatsedge		
	<i>Cyperus squarrosus</i>	Beard Flatsedge		
	<i>Eleocharis bella</i>	Delicate Spike-Rush		
	<i>Eleocharis macrostachya</i>	Pale Spike-Rush		
	<i>Eleocharis montevidensis</i>	Dombey's Spike-Rush		
	<i>Eleocharis parishii</i>	Parish's Spike-Rush		
	<i>Eleocharis quinqueflora</i>	Few-Flower Spike-Rush		
	<i>Schoenoplectus acutus</i> var. <i>occidentalis</i>	Viscid Bulrush		
	<i>Scirpus microcarpus</i>	Small-Fruit Bulrush		
	Iridaceae - Iris	<i>Iris missouriensis</i>	Western Blue Flag	LLD
		<i>Sisyrinchium bellum</i>	Blue-Eyed-Grass	
Juncaceae - Rush	<i>Juncus balticus</i> ssp. <i>ater</i>	Wire Rush		
	<i>Juncus bryoides</i>	One-Flower Dwarf Rush		
	<i>Juncus bufonius</i> var. <i>bufonius</i>	Toad Rush		
	<i>Juncus bufonius</i> var. <i>occidentalis</i>	Western Toad Rush		
	<i>Juncus dubius</i>	Mariposa Rush		
	<i>Juncus effusus</i> ssp. <i>austrocalifornicus</i>	Pacific Rush		
	<i>Juncus luciensis</i>	Lucia Rush		
	<i>Juncus macrophyllus</i>	Long-Leaf Rush		
	<i>Juncus mexicanus</i>	Mexican Rush		
	<i>Juncus occidentalis</i>	Western Rush		

Family	Scientific Name	Common Name	Status*
	<i>Juncus oxymers</i>	Pointed Rush	
	<i>Juncus rugulosus</i>	Wrinkled Rush	
	<i>Juncus tiehmii</i>	Nevada Rush/Tiehm's Rush	
	<i>Luzula comosa</i>	Common Wood-Rush	
Juncaginaceae - Arrow-Grass	<i>Lilaea scilloides</i>	Flowering Quill Wort	
Liliaceae - Lily	<i>Calochortus albus</i>	White Globe Lily, Fairy Lantern	
	<i>Calochortus concolor</i>	Golden-Bowl Mariposa Lily	
	<i>Calochortus invenustus</i>	Shy Mariposa Lily	LLD
	<i>Calochortus splendens</i>	Splendid Mariposa Lily	
	<i>Calochortus weedii</i> var. <i>weedii</i>	Weed's Mariposa Lily	
	<i>Lilium humboldtii</i> spp. <i>ocellatum</i>	Ocellated Lily	CNPS 4.2
Melanthiaceae - False Hellebore	<i>Toxicoscordion venenosum</i> var. <i>venosum</i>	Death Camas	
Orchidaceae - Orchid	<i>Corallorhiza maculata</i>	Spotted Coralroot	
	<i>Piperia leptopetala</i>	Narrow-Petal Rein Orchid	CNPS 4.3
	<i>Piperia transversa</i>	Royal Rein Orchid	
	<i>Piperia unalascensis</i>	Slenderspire Piperia	
	<i>Platanthera dilatata</i> var. <i>leucostachys</i>	White-Flower Bog-Orchid	LLD
Poaceae (Gramineae) - Grass	<i>Agropyron cristatum</i> ssp. <i>pectinatum</i>	Crested Wheat Grass	Naturalized
	<i>Agrostis exarata</i>	Spike Redtop	
	<i>Agrostis pallens</i>	Seashore Bentgrass	
	<i>Agrostis scabra</i>	Rough Ticklegrass	
	<i>Agrostis stolonifera</i>	Creeping Bent	Naturalized
	<i>Alopecurus aequalis</i> var. <i>aequalis</i>	Short-Awn Foxtail	
	<i>Alopecurus pratensis</i>	Meadow Foxtail	Naturalized
	<i>Aristida pupurea</i> var. <i>parishii</i>	Parish's Three-Awn	
	<i>Avena barbata</i>	Slender Wild Oat	Cal-IPC moderate
	<i>Avena fatua</i>	Wild Oat	Cal-IPC moderate
	<i>Avena sativa</i>	Cultivated Oat	Naturalized
	<i>Bouteloua barbata</i> var. <i>barbata</i>	Six-Weeks Grama	
	<i>Bouteloua curtipendula</i>	Side-Oats Grama	LLD
	<i>Bromus arenarius</i>	Australian Chess	Naturalized
	<i>Bromus carinatus</i> var. <i>carinatus</i>	California Brome	
	<i>Bromus catharticus</i> var. <i>catharticus</i>	Rescue Grass	Naturalized
	<i>Bromus diandrus</i>	Ripgut Grass	Cal-IPC moderate
	<i>Bromus grandis</i>	Tall Brome	
	<i>Bromus hordeaceus</i>	Soft Chess	Cal-IPC limited
	<i>Bromus japonicus</i>	Japanese Brome	Cal-IPC limited
	<i>Bromus madritensis</i> ssp. <i>rubens</i>	Foxtail Chess, Red Brome	Cal-IPC high
	<i>Bromus orcuttianus</i>	Orcutt's Brome	
	<i>Bromus tectorum</i>	Cheat Grass, Downy Brome	Cal-IPC high
	<i>Crypsis schoenoides</i>	Prickle Grass	Naturalized
	<i>Cynodon dactylon</i>	Bermuda Grass	Cal-IPC moderate
	<i>Cynosurus echinatus</i>	Hedgehog Dogtail	Cal-IPC moderate
	<i>Dactylis glomerata</i>	Orchard Grass	Cal-IPC limited
	<i>Danthonia californica</i>	California Oatgrass	LLD
	<i>Danthonia unispicata</i>	One-Spike Oatgrass	LLD
	<i>Deschampsia danthonioides</i>	Annual Hairgrass	
	<i>Deschampsia elongata</i>	Slender Hairgrass	
	<i>Distichlis spicata</i>	Saltgrass	
	<i>Echinochloa crus-galli</i>	Common Barnyard Grass	Naturalized
	<i>Elymus glaucus</i> ssp. <i>glaucus</i>	Blue Wildrye	
	<i>Elymus glaucus</i>		
	<i>Elymus glaucus</i> ssp. <i>virescens</i>	Greenish-Blue Wildrye	
	<i>Elymus hispidus</i>	Intermediate Wheatgrass	Naturalized
	<i>Elymus multisetus</i>	Big Squirreltail	
	<i>Elymus ponticus</i>	Tall Wheatgrass	Naturalized
	<i>Elymus trachycaulus</i> ssp. <i>trachycaulus</i>	Slender Wheatgrass	
	<i>Elymus triticoides</i>	Beardless Wild-Rye	
	<i>Elymus xhansenii</i>	Hansen's Wild-Rye	
	<i>Eragrostis minor</i>	Little Lovegrass	Naturalized
	<i>Festuca bromoides</i>	Six-Weeks Fescue	Watchlist
	<i>Festuca microstachys</i>	Gray's Fescue	
	<i>Festuca myuros</i>	Hairy Rat-Tail Fescue	Naturalized
	<i>Festuca occidentalis</i>	Western Fescue	

Family	Scientific Name	Common Name	Status*
	<i>Festuca octoflora</i>	Slender Fescue	
	<i>Festuca perennis</i>	Italian Ryegrass	Cal-IPC moderate
	<i>Gastridium phleoides</i>	Nit Grass	Naturalized
	<i>Holcus lanatus</i>	Common Velvet Grass	Cal-IPC moderate
	<i>Hordeum brachyantherum</i> ssp. <i>californicum</i>	California Barley	
	<i>Hordeum jubatum</i> ssp. <i>jubatum</i>	Foxtail Barley	
	<i>Hordeum murinum</i> ssp. <i>glaucum</i>	Glaucous Barley	
	<i>Hordeum murinum</i> ssp. <i>leporinum</i>	Hare Barley	Cal-IPC moderate
	<i>Hordeum vulgare</i>	Cultivated Barley	Naturalized
	<i>Koeleria macrantha</i>	Junegrass	
	<i>Melica imperfecta</i>	Coast Range Melic	
	<i>Muhlenbergia rigens</i>	Deergrass	
	<i>Panicum capillare</i>	Witchgrass	
	<i>Phalaris aquatica</i>	Harding Grass	Cal-IPC moderate
	<i>Phalaris minor</i>	Little-Seed Canary Grass	Naturalized
	<i>Phleum pratense</i>	Cultivated Timothy	Naturalized
	<i>Poa annua</i>	Annual Bluegrass	Naturalized
	<i>Poa atropurpurea</i>	San Bernardino Bluegrass	CNPS 1B.2, FE
	<i>Poa bigelovii</i>	Bigelow's Bluegrass	
	<i>Poa bulbosa</i>	Bulbous Bluegrass	Naturalized
	<i>Poa compressa</i>	Canadian Bluegrass	Naturalized
	<i>Poa howellii</i>	Howell's Bluegrass	
	<i>Poa palustris</i>	Fowl Bluegrass	Naturalized
	<i>Poa pratensis</i> ssp. <i>pratensis</i>	Kentucky Bluegrass	Cal-IPC limited
	<i>Poa secunda</i> ssp. <i>secunda</i>	One-Sided Bluegrass	
	<i>Polypogon monspeliensis</i>	Annual Beard Grass	Cal-IPC limited
	<i>Polypogon viridis</i>	Water Bent	Naturalized
	<i>Secale cereale</i>	Common Rye	Naturalized
	<i>Sporobolus cryptandrus</i>	Sand Dropseed	
	<i>Stipa cernua</i>	Nodding Needlegrass	
	<i>Stipa coronata</i>	Giant Stipa	
	<i>Stipa lemmonii</i> ssp. <i>lemmonii</i>	Lemmon's Stipa	
	<i>Stipa miliacea</i> var. <i>miliacea</i>	Smilo Grass	
	<i>Stipa occidentalis</i> var. <i>californica</i>	California Needlegrass	
	<i>Stipa pulchra</i>	Purple Needlegrass	
	<i>Stipa speciosa</i>	Desert Needlegrass	
	<i>Triticum aestivum</i>	Cereal Wheat	Naturalized
Potamogetonaceae - Pondweed	<i>Potamogeton illinoensis</i>	Shining Pondweed	
	<i>Stuckenia pectinata</i>	Fennel-Leaf Pondweed	
Ruscaceae - Butcher's-Broom	<i>Maianthemum stellatum</i>	False Solomon's Seal	LLD
Themidaceae - Brodiaea	<i>Brodiaea orcutti</i>	Orcutt's Brodiaea	CNPS 1B.1
	<i>Bloomeria crocea</i> var. <i>crocea</i>	Common Goldenstar	
	<i>Brodiaea terrestris</i> ssp. <i>kernensis</i>	Dwarf Brodiaea	
	<i>Dichelostemma capitatum</i> ssp. <i>capitatum</i>	Blue Dicks	
Typhaceae - Cattail	<i>Typha domingensis</i>	Southern Cattail	
	<i>Typha latifolia</i>	Broad-Leaf Cattail	
Adoxaceae - Adoxa	<i>Sambucus nigra</i> ssp. <i>caerulea</i>	Blue Elderberry	
Amaranthaceae - Amaranth	<i>Amaranthus albus</i>	White Tumbleweed	Naturalized
	<i>Amaranthus hybridus</i>	Amaranth	Naturalized
Anacardiaceae - Sumac or Cashew	<i>Rhus aromatica</i>	Skunk Bush	
	<i>Rhus ovata</i>	Sugar Bush	
	<i>Toxicodendron diversilobum</i>	Western Poison-Oak	
Apiaceae (Umbelliferae) - Carrot	<i>Angelica tomentosa</i>	California Angelica	
	<i>Anthriscus caucalis</i>	Bur Chervil	Naturalized
	<i>Apium graveolens</i>	Common Celery	Naturalized
	<i>Cicuta maculata</i> var. <i>angustifolia</i>	Narrow-Leaf Water Hemlock	
	<i>Lomatium dasycarpum</i> ssp. <i>dasycarpum</i>	Woolly-Fruit Lomatium	
	<i>Oenanthe sarmentosa</i>	Pacific Oenanthe	
	<i>Osmorhiza brachypoda</i>	California Sweet-Cicely	
	<i>Osmorhiza chilensis</i>	Mountain Sweet-Cicely	
	<i>Perideridia parishii</i> ssp. <i>latifolia</i>	Southern Yumpah	
	<i>Sanicula bipinnatifida</i>	Purple Sanicle	
	<i>Sanicula tuberosa</i>	Turkey Pea Sanicle	
	<i>Tauschia arguta</i>	Southern Tauschia	

Family	Scientific Name	Common Name	Status*
	<i>Torilis arvensis</i>	Japanese Hedge-Parsley	
	<i>Yabea microcarpa</i>	California Hedge-Parsley	
Apocynaceae - Dogbane	<i>Apocynum androsaemifolium</i>	Bitter Dogbane	
	<i>Apocynum cannabinum</i>	Indian-Hemp	
	<i>Asclepias californica</i>	Milkweed	
	<i>Asclepias eriocarpa</i>	Kotolo, Indian Milkweed	
	<i>Asclepias fascicularis</i>	Narrow-Leaf Milkweed	
	<i>Vinca major</i>	Greater Periwinkle	Cal-IPC moderate
Asteraceae (Compositae) - Sunflower	<i>Achillea millefolium</i>	Yarrow, Milfoil	
	<i>Acourtia microcephala</i>	Sacapellote	
	<i>Ambrosia acanthicarpa</i>	Annual Bur-Sage	
	<i>Ambrosia psilostachya</i>	Western Ragweed	
	<i>Agoseris grandiflora</i>	Large-Flower Agoseris	
	<i>Agoseris retrorsa</i>	Spear-Leaf Agoseris	
	<i>Anthemis cotula</i>	Dog Fennel, Chamomile	Cal-IPC ENL
	<i>Arctium minus</i>	Lesser Burdock	Naturalized
	<i>Artemisia douglasiana</i>	Douglas Mugwort	
	<i>Artemisia dracunculus</i>	Tarragon, Dragon Sagewort	
	<i>Artemisia ludoviciana</i> ssp. <i>incompta</i>	Mountain Sagewort	
	<i>Artemisia tridentata</i> ssp. <i>vaseyana</i>	Mountain Sagebrush	
	<i>Baccharis salicifolia</i> ssp. <i>salicifolia</i>	Mule Fat	
	<i>Blennosperma nanum</i> var. <i>nanum</i>	Common Blennosperma	
	<i>Brickellia californica</i>	California Brickellbush	
	<i>Carduus pycnocephalus</i>	Italian thistle	Cal-IPC moderate
	<i>Centaurea melitensis</i>	Tocalote	Cal-IPC moderate
	<i>Centaurea solstitialis</i>	Yellow Star-thistle	Cal-IPC high
	<i>Chaenactis artemisiifolia</i>	White Pincushion	
	<i>Chaenactis glabriuscula</i> var. <i>flabriuscula</i>	Yellow Pincushion	
	<i>Chaenactis parishii</i>	Parish's Pincushion	CNPS 1B.3
	<i>Cirsium occidentale</i> var. <i>californicum</i>	California Thistle	
	<i>Cirsium scariosum</i> var. <i>americanum</i>	Bird's-Nest Thistle, Elk Thistle	
	<i>Cirsium vulgare</i>	Bull Thistle	Cal-IPC moderate
	<i>Cnicus benedictus</i>	Blessed Thistle	Naturalized
	<i>Cordylanthus nevinii</i>	Nevin's Bird's Beak	
	<i>Corethrogyne filaginifolia</i>	Common Sand-Aster	
	<i>Ericameria cuneata</i> var. <i>macrocephala</i>	Laguna Mountain Goldenbush	CNPS 1B.3
	<i>Ericameria cuneata</i> var. <i>spathulata</i>	Wedge-Leaf Goldenbush	
	<i>Ericameria linearifolia</i>	Interior Goldenbush	
	<i>Ericameria nauseosa</i> var. <i>bernardina</i>	Bernardina Rabbitbrush	LLD
	<i>Ericameria parishii</i> var. <i>parishii</i>	Parish's Goldenbush	
	<i>Ericameria pinifolia</i>	Pine Goldenbush	
	<i>Erigeron canadensis</i>	Horseweed	
	<i>Erigeron divergens</i>	Diffuse Daisy	
	<i>Erigeron foliosus</i> var. <i>foliosus</i>	Leafy Daisy	
	<i>Eriophyllum confertiflorum</i> var. <i>confertiflorum</i>	Long-Stem Golden-Yarrow	
	<i>Euthamia occidentalis</i>	Western Goldenrod	
	<i>Gnaphalium palustre</i>	Lowland Cudweed	
	<i>Grindelia hallii</i>	San Diego Gumplant	
	<i>Gutierrezia sarothrae</i>	Broom Matchweed/Snakeweed	
	<i>Hazardia squarrosa</i> var. <i>grindelioides</i>	Southern Sawtooth Goldenbush	
	<i>Helenium puberulum</i>	Rosilla	
	<i>Helianthus californicus</i>	California Sunflower	
	<i>Helianthus gracilentus</i>	Slender Sunflower	
	<i>Hemizonella minima</i>	Miniature Tarweed	
	<i>Hieracium albiflorum</i>	White Hawkweed	
	<i>Hulsea californica</i>	San Diego Hulsea	CNPS 1B.3
	<i>Hymenothrix wrightii</i>	Wright's Hymenothrix	CNPS 4.3
	<i>Lactuca serriola</i>	Prickly Lettuce	Cal-IPC ENL
<i>Lagophylla ramosissima</i>	Common Hareleaf		
<i>Lasthenia gracilis</i>	Common Goldfields		
<i>Layia glandulosa</i>	White Layia		
<i>Layia platyglossa</i>	Tidy Tips		
<i>Lessingia glandulifera</i> var. <i>glandulifera</i>	Valley Lessingia		
<i>Logfia filaginoides</i>	California Cottonrose		

Family	Scientific Name	Common Name	Status*
	<i>Madia elegans</i> ssp. <i>elegans</i>	Elegant Madia	
	<i>Madia exigua</i>	Pygmy/Threadstem Madia	
	<i>Madia gracilis</i>	Slender Madia	
	<i>Malacothrix californica</i>	Desert Dandelion	
	<i>Malacothrix clevelandii</i>	Cleveland's Malacothrix	
	<i>Matricaria discoidea</i>	Common Pineapple-Weed	
	<i>Micropus californicus</i> var. <i>californicus</i>	Slender Cottonweed	
	<i>Packera ganderi</i>	Gander's/San Diego Butterweed	CNPS 1B.2, CR
	<i>Pentachaeta aurea</i> ssp. <i>aurea</i>	Golden-Ray Pentachaeta	CNPS 4.2
	<i>Pseudognaphalium beneolens</i>	Fragrant Everlasting	
	<i>Pseudognaphalium californicum</i>	California Everlasting	
	<i>Pseudognaphalium luteoalbum</i>	Fragrant Everlasting Cudweed	
	<i>Pseudognaphalium stramineum</i>	Cotton-Batting Plant	
	<i>Rafinesquia californica</i>	California Chicory	
	<i>Solidago velutina</i> ssp. <i>californica</i>	California Goldenrod	
	<i>Sonchus asper</i> ssp. <i>asper</i>	Prickly Sow-Thistle	Naturalized
	<i>Stephanomeria exigua</i> ssp. <i>deanei</i>	Deane's Small Wreath-Plant	
	<i>Stephanomeria virgata</i> ssp. <i>pleurocarpa</i>	Tall Wreath-Plant	
	<i>Stylocline gnaphaloides</i>	Everlasting Nest-Straw	
	<i>Symphotrichum defoliatum</i>	San Bernardino Aster	CNPS 1B.2
	<i>Taraxacum officinale</i>	Common Dandelion	Cal-IPC ENL
	<i>Tragopogon dubius</i>	Goat's Beard	Cal-IPC ENL
	<i>Uropappus lindleyi</i>	Silver Puffs	
	<i>Wyethia ovata</i>	Southern Mule's Ear	
	<i>Xanthium strumarium</i>	Cocklebur	Naturalized
Berberidaceae - Barberry	<i>Berberis aquifolium</i> var. <i>dictyota</i>	California Barberry	
	<i>Berberis pinnata</i> ssp. <i>pinnata</i>	Shiny-Leaf Barberry	
Betulaceae - Birch	<i>Alnus rhombifolia</i>	White Alder	
Boraginaceae - Borage or Waterleaf	<i>Amsinckia eastwoodiae</i>	Eastwood's Fiddleneck	
	<i>Amsinckia intermedia</i>	Rancher's Fiddleneck	
	<i>Amsinckia menziesii</i>	Small-Flowered Fiddleneck	
	<i>Cryptantha affinis</i>	Common Cryptantha	
	<i>Cryptantha flaccida</i>	Flaccid Cryptantha	
	<i>Cryptantha intermedia</i>	Nievitans Cryptantha	
	<i>Cryptantha micrantha</i> ssp. <i>lepida</i>	Mountain Red-Root Cryptantha	
	<i>Cryptantha microstachys</i>	Tejon Cryptantha	
	<i>Cryptantha muricata</i> var. <i>denticulata</i>	Prickly-Nut Cryptantha	
	<i>Cryptantha muricata</i> var. <i>jonesii</i>	Jones's Cryptantha	
	<i>Cryptantha simulans</i>	Pine Cryptantha	
	<i>Emmenanthe penduliflora</i> var. <i>penduliflora</i>	Whispering Bells	
	<i>Eriodictyon crassifolium</i> var. <i>crassifolium</i>	Felt-leaf Yerba Santa	
	<i>Eriodictyon parryi</i>	Sticky Nama, Poodle-Dog Bush	
	<i>Nemophila menziesii</i> var. <i>integrifolia</i>	Small-Flower Baby Blue Eyes	
	<i>Nemophila pedunculata</i>	Meadow Nemophila	
	<i>Pectocarya penicillata</i>	Winged Pectocarya	
	<i>Phacelia brachyloba</i>	Short-Lobe Phacelia	
	<i>Phacelia cicutaria</i> var. <i>hispida</i>	Caterpillar Phacelia	
	<i>Phacelia curvipes</i>	Washoe Phacelia	
	<i>Phacelia davidsonii</i>	Davidson's Phacelia	
	<i>Phacelia distans</i>	Wild-Heliotrope	
	<i>Phacelia imbricata</i> ssp. <i>patula</i>	Ives's Phacelia	
	<i>Phacelia ramosissima</i>	Branching Phacelia	
	<i>Phacelia umbrosa</i>	Colorado Desert Phacelia	
	<i>Plagiobothrys arizonicus</i>	Arizona Popcornflower	
	<i>Plagiobothrys bracteatus</i>	Bract Popcornflower	
	<i>Plagiobothrys collinus</i> var. <i>fulvescens</i>	Rough Popcornflower	
	<i>Plagiobothrys nothofulvus</i>	Rusty Popcornflower	
	<i>Plagiobothrys tenellus</i>	Slender Popcornflower	
	<i>Plagiobothrys trachycarpus</i>	Rough-Fruit Popcornflower	
Brassicaceae (Cruciferae) - Mustard	<i>Barbarea orthoceras</i>	Erect-Pod Winter-Cress	
	<i>Boechera californica</i>	California Rock-Cress	
	<i>Boechera xylopoda</i>	Bigfoot Hybrid Rock-Cress	
	<i>Brassica rapa</i>	Turnip, Field Mustard	Cal-IPC limited
	<i>Camelina microcarpa</i>	Big-Seed False-Flax	

Family	Scientific Name	Common Name	Status*
	<i>Capsella bursa-pastoris</i>	Shepherd's Purse	Naturalized
	<i>Cardamine californica</i>	Milk Maids, Tooth Wort	
	<i>Caulanthus heterophyllus</i> var. <i>heterophyllus</i>	San Diego Jewelflower	
	<i>Descurainia pinnata</i> ssp. <i>brachycarpa</i>	Alkali Western Tansy-Mustard	
	<i>Descurainia sophia</i>	Fine-Leaf Tansy-Mustard	Cal-IPC limited
	<i>Draba verna</i>	Vernal Whitlow	
	<i>Erysimum capitatum</i> var. <i>capitatum</i>	Western Wallflower	
	<i>Hirschfeldia incana</i>	Short-Pod Mustard	Cal-IPC moderate
	<i>Lepidium densiflorum</i>	Common Peppergrass	
	<i>Lepidium lasiocarpum</i> ssp. <i>lasiocarpum</i>	Sand Peppergrass	
	<i>Lepidium nitidum</i>	Shining Peppergrass	
	<i>Lepidium virginicum</i> ssp. <i>menziesii</i>	Hairy Peppergrass	
	<i>Lepidium virginicum</i> ssp. <i>virginicum</i>	Virginia Peppergrass	
	<i>Nasturtium officinale</i>	Water-Cress	
	<i>Raphanus raphanistrum</i>	Jointed Charlock	Naturalized
	<i>Raphanus sativus</i>	Wild Radish	Cal-IPC limited
	<i>Rorippa curvipes</i>	Blunt-Leaf Yellow-Cress	
	<i>Sinapis alba</i>	White Mustard	Naturalized
	<i>Sisymbrium altissimum</i>	Tumble/Jim Hill Mustard	Naturalized
	<i>Sisymbrium officinale</i>	Hedge Mustard	Naturalized
	<i>Sisymbrium orientale</i>	Hare's-Ear Cabbage	Naturalized
	<i>Streptanthus bernardinus</i>	Laguna Mountain Jewelflower	CNPS 4.3
	<i>Streptanthus campestris</i>	Southern Jewelflower	CNPS 1B.3
	<i>Thysanocarpus curvipes</i> ssp. <i>curvipes</i>	Lacepod, Fringepod	
	<i>Thysanocarpus curvipes</i> ssp. <i>elegans</i>	Lacepod, Fringepod	
	<i>Thysanocarpus laciniatus</i>	Notch Fringepod	
	<i>Turritis glabra</i>	Tower Mustard	
	<i>Thysanocarpus radians</i>	Ribbed Fringepod	
Cactaceae - Cactus	<i>Echinocereus engelmannii</i>	Engelmann's Hedgehog Cactus	
	<i>Opuntia phaeacantha</i>	Desert Prickly-Pear	
Campanulaceae - Bellflower	<i>Downingia concolor</i> var. <i>brevior</i>	Cuyamaca Lake Downingia	CNPS 1B.1, CE
	<i>Githopsis diffusa</i> ssp. <i>candida</i>	San Gabriel Bluecup	
	<i>Heterocodon rariflorum</i>	Heterocodon	
	<i>Lobelia cardinalis</i> var. <i>pseudosplendens</i>	Western Cardinal Flower	
	<i>Nemacladus longiflorus</i> var. <i>longiflorus</i>	Long-Flower Threadplant	
	<i>Nemacladus pinnatifidus</i>	Comb-Leaf Threadplant	
Cannabaceae - Hemp	<i>Celtis reticulata</i>	Net-Leaf Hackberry	LLD
Caprifoliaceae - Honeysuckle	<i>Lonicera subspicata</i> var. <i>denudata</i>	Johnston's Honeysuckle	
	<i>Symphoricarpos albus</i> var. <i>laevigatus</i>	Common Snowberry	
	<i>Symphoricarpos mollis</i>	Creeping Snowberry, Trip Vine	
Caryophyllaceae - Pink	<i>Cerastium fontanum</i> ssp. <i>vulgare</i>	Common mouse-ear chickweed	Naturalized
	<i>Cerastium glomeratum</i>	Mouse-Ear Chickweed	Naturalized
	<i>Minuartia douglasii</i>	Douglas's Sandwort	
	<i>Minuartia pusilla</i>	Annual Sandwort	
	<i>Moehringia macrophylla</i>	Large-Leaf Sandwort	
	<i>Sagina apetala</i>	Dwarf Pearlwort	Naturalized
	<i>Silene antirrhina</i>	Sleepy/Snapdragon Catchfly	
	<i>Silene armeria</i>	Sweet William Catchfly	Naturalized
	<i>Silene laciniata</i> ssp. <i>laciniata</i>	Southern/Mexican Pink	
	<i>Silene lemmonii</i>	Lemmon's Pink/Catchfly	
	<i>Silene verecunda</i>	Cuyamaca Catchfly	
	<i>Spergularia rubra</i>	Ruby Sand-Spurry	Naturalized
	<i>Stellaria media</i>	Common Chickweed	Naturalized
	<i>Stellaria nitens</i>	Shining Chickweed	
Celastraceae - Staff Tree	<i>Euonymus occidentalis</i> var. <i>parishii</i>	Western Burning Bush	
Chenopodiaceae - Goosefoot	<i>Chenopodium berlandieri</i> var. <i>zschackei</i>	Zschack's Goosefoot	
	<i>Chenopodium californicum</i>	California Goosefoot	
	<i>Chenopodium murale</i>	Nettle-Leaf Goosefoot	Naturalized
	<i>Salsola australis</i>	Tumbleweed	Cal-IPC limited
Cistaceae - Rock-Rose	<i>Crocanthemum aldersonii</i>	Peak Rush-Rose	
Convolvulaceae - Morning-Glory	<i>Calystegia occidentalis</i> ssp. <i>fulcrata</i>	Western Morning-Glory	
	<i>Cuscuta subinclusa</i>	Canyon Dodder	
Cornaceae - Dogwood	<i>Cornus nuttallii</i>	Mountain Dogwood	LLD
	<i>Cornus sericea</i> ssp. <i>occidentalis</i>	Creek Dogwood	

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Crassulaceae - Stonecrop	<i>Crassula comata</i>	Pygmyweed	
	<i>Dudleya pulverulenta</i>	Chalk Dudleya	
Cucurbitaceae - Gourd	<i>Cucurbita foetidissima</i>	Calabazilla	
	<i>Marah macrocarpus</i> var. <i>macrocarpus</i>	Manroot, Wild-Cucumber	
Datisceae - Teasel	<i>Datisca glomerata</i>	Durango Root	
Ericaceae - Heath	<i>Arctostaphylos glandulosa</i> ssp. <i>cushingiana</i>	Cushing Manzanita	
	<i>Arctostaphylos glandulosa</i> ssp. <i>glandulosa</i>	Eastwood Manzanita	
	<i>Arctostaphylos glauca</i>	Big-Berry Manzanita	
	<i>Arctostaphylos pringlei</i> ssp. <i>drupacea</i>	Pink-Bract Manzanita	
	<i>Arctostaphylos pungens</i>	Point-Leaf Manzanita	
	<i>Pyrola picta</i>	White-Veined Wintergreen	
Rhododendron occidentale	<i>Rhododendron occidentale</i>	Western Azalea	
Euphorbiaceae - Spurge	<i>Euphorbia serpyllifolia</i> ssp. <i>hirtula</i>	Hairy Thyme-Leaf Spurge	
	<i>Croton setigerus</i>	Doveweed	
	<i>Euphorbia lurida</i>	Wood Spurge	
	<i>Euphorbia spathulata</i>	Reticulate-Seed Spurge	
Fabaceae (Leguminosae) - Legume	<i>Acmispon americanus</i> var. <i>americanus</i>	Spanish-Clover	
	<i>Acmispon argophyllus</i> var. <i>argophyllus</i>	Silver-Leaf Lotus	
	<i>Acmispon glaber</i> var. <i>glaber</i>	Coastal Deerweed	
	<i>Acmispon heermannii</i> var. <i>heermannii</i>	Heermann's Lotus	
	<i>Acmispon brachycarpus</i>	Hill Lotus	
	<i>Acmispon nevadensis</i> var. <i>nevadensis</i>	Sierra Nevada Lotus	
	<i>Acmispon parviflorus</i>	Miniature Lotus	
	<i>Acmispon strigosus</i>	Bishop's/Strigose Lotus	
	<i>Amorpha fruticosa</i>	False Indigo	
	<i>Astragalus douglasii</i> var. <i>parishii</i>	Parish's Locoweed	
	<i>Astragalus oocarpus</i>	San Diego Milkvetch	CNPS 1B.2
	<i>Hoita macrostachya</i>	Leather Root	
	<i>Hoita orbicularis</i>	Round-Leaf Psoralea	
	<i>Hosackia crassifolius</i> var. <i>crassifolius</i>	Buck Lotus	
	<i>Hosackia oblongifolia</i> var. <i>oblongifolia</i>	Stream Lotus	
	<i>Lathyrus vestitus</i> var. <i>alefeldii</i>	San Diego Sweet Pea	
	<i>Lathyrus vestitus</i> var. <i>vestitus</i>	Canyon Sweet Pea	
	<i>Lupinus bicolor</i>	Miniature Lupine	
	<i>Lupinus concinnus</i>	Bajada Lupine	
	<i>Lupinus excubitus</i> var. <i>austromontanus</i>	Grape Soda Lupine	
	<i>Lupinus formosus</i> var. <i>formosus</i>	Summer Lupine	
	<i>Lupinus hirsutissimus</i>	Stinging Lupine	
	<i>Lupinus latifolius</i> var. <i>parishii</i>	Parish's Stream Lupine	
	<i>Medicago lupulina</i>	Black Medick, Yellow Trefoil	Naturalized
	<i>Medicago polymorpha</i>	California Burclover	Cal-IPC limited
	<i>Melilotus indicus</i>	Indian Sweetclover	Naturalized
	<i>Rupertia rigida</i>	Parish's Psoralea	CNPS 4.3
	<i>Thermopsis californica</i> var. <i>semota</i>	Velvety False-Lupine	CNPS 1B.2
	<i>Trifolium albopurpureum</i>	Rancheria Clover	
	<i>Trifolium ciliolatum</i>	Tree Clover	
	<i>Trifolium depauperatum</i> var. <i>truncatum</i>	Dwarf-Sack Clover	
	<i>Trifolium gracilentum</i>	Pin-Point Clover	
	<i>Trifolium microcephalum</i>	Maiden Clover	
	<i>Trifolium obtusiflorum</i>	Creek Clover	
<i>Trifolium variegatum</i>	White-Tip Clover		
<i>Trifolium willdenovii</i>	Valley Clover		
<i>Trifolium wormskioldii</i>	Cow Clover		
<i>Vicia americana</i> ssp. <i>americana</i>	American Vetch		
<i>Vicia villosa</i> ssp. <i>varia</i>	Hairy Vetch	Cal-IPC ENL	
Fagaceae - Oak	<i>Quercus agrifolia</i> var. <i>agrifolia</i>	Coast Live Oak, Encina	
	<i>Quercus agrifolia</i> var. <i>oxyadenia</i>	Interior Coast Live Oak	
	<i>Quercus berberidifolia</i>	Scrub Oak	
	<i>Quercus chrysolepis</i>	Canyon Live Oak	
	<i>Quercus kelloggii</i>	California Black Oak	
	<i>Quercus wislizeni</i> var. <i>frutescens</i>	Oak	
Garryaceae - Silk Tassel	<i>Quercus xacutidens</i>	Torrey's Scrub Oak	
	<i>Garrya flavescens</i>	Ashy Silktassel	
	<i>Garrya fremontii</i>	Bearbrush/Fremont's Silk Tassel	

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Gentianaceae - Gentian	<i>Frasera parryi</i>	Deer's Ears	
	<i>Zeltnera exaltata</i>	Centaur	
	<i>Zeltnera venusta</i>	Canchalagua	
Geraniaceae - Geranium	<i>Erodium cicutarium</i>	Red-Stem Filaree/Storksbill	Cal-IPC limited
	<i>Erodium moschatum</i>	White-Stem Filaree/Storksbill	Naturalized
	<i>Geranium carolinianum</i>	Carolina Geranium	
	<i>Geranium dissectum</i>	Cut-Leaf Geranium	
Grossulariaceae - Gooseberry	<i>Ribes indecorum</i>	White-Flower Currant	
	<i>Ribes roezlii</i> var. <i>roezlii</i>	Sierra Gooseberry	
Hypericaceae - St. John's Wort	<i>Hypericum anagalloides</i>	Tinker's Penny	
	<i>Hypericum formosum</i> var. <i>scouleri</i>	Scouler's St. John's Wort	
Lamiaceae (Labiatae) - Mint	<i>Lamium amplexicaule</i>	Henbit	Naturalized
	<i>Marrubium vulgare</i>	Horehound	Cal-IPC limited
	<i>Mentha arvensis</i>	Tule Mint	Naturalized
	<i>Monardella breweri</i> ssp. <i>lanceolata</i>	None	
	<i>Monardella macrantha</i> ssp. <i>hallii</i>	Hall's Monardella	CNPS 1B.3
	<i>Monardella macrantha</i> ssp. <i>macrantha</i>	Scarlet Monardella	
	<i>Pycnanthemum californicum</i>	Mountain Mint	
	<i>Salvia apiana</i>	White Sage	
	<i>Salvia clevelandii</i>	Cleveland Sage/Fragrant Sage	
	<i>Salvia somomensis</i>	Creeping Sage	LLD
	<i>Scutellaria bolanderi</i> ssp. <i>austromontana</i>	Southern Mountains Skullcap	CNPS 1B.2
	<i>Scutellaria tuberosa</i>	Danny's Skullcap	
	<i>Stachys ajugoides</i> var. <i>rigida</i>	Hedge-Nettle	
	<i>Stachys stebbinsii</i>	Stebbin's Hedge-Nettle	
	<i>Trichostema austromontanum</i> ssp. <i>austromontanum</i>	Blue Curls	
	<i>Trichostema parishii</i>	Mountain Bluecurls	
Limnanthaceae - Meadowfoam	<i>Limnanthes alba</i> var. <i>parishii</i>	Parish's Meadowfoam	CNPS 1B.2, CE
Linaceae - Flax	<i>Hesperolinon micranthum</i>	Thread-Stem Dwarf-Flax	
	<i>Linum lewisii</i> var. <i>lewisii</i>	Wild Flax	
Loasaceae - Loasa	<i>Mentzelia albicaulis</i>	Kuha	
	<i>Mentzelia dispersa</i>	Nada Stick-Leaf	
	<i>Mentzelia montana</i>	Montane Mentzelia	
	<i>Mentzelia veatchiana</i>	Veatch's Stick-Leaf	
Lythraceae - Loosestrife	<i>Lythrum californicum</i>	California Loosestrife	
	<i>Lythrum hyssopifolia</i>	Grass Poly	Naturalized
Malvaceae - Mallow	<i>Malacothamnus densiflorus</i>	Many-Flower Bushmallow	
	<i>Malva neglecta</i>	Common Mallow	Naturalized
	<i>Sidalcea sparsifolia</i>	None	
Montiaceae - Miner's Lettuce	<i>Calandrinia ciliata</i>	Red Maids	
	<i>Calyptidium monandrum</i>	Common Calyptidium	
	<i>Claytonia exigua</i> ssp. <i>exigua</i>	Serpentine Montia	
	<i>Claytonia parviflora</i> i. <i>parviflora</i>	Utah Miner's-Lettuce	
	<i>Claytonia parviflora</i> ssp. <i>viridis</i>	Green Miner's-Lettuce	
	<i>Claytonia perfoliata</i> ssp. <i>intermontana</i>	Miner's -Lettuce	
	<i>Claytonia perfoliata</i> ssp. <i>mexicana</i>	Mexican Miner's-Lettuce	
	<i>Claytonia rubra</i> ssp. <i>rubra</i>	Redstem Springbeauty	
	<i>Lewisia brachycalyx</i>	Southwestern Bitter-Root	CNPS 2.2
	<i>Lewisia nevadensis</i>	Nevada Bitter-Root	LLD
	<i>Montia chamissoi</i>	Toad-Lily	
	<i>Montia fontana</i>	Chickweed	
<i>Montia linearis</i>	Linear-Leaf Montia		
Myrsinaceae - Myrsine	<i>Anagallis arvensis</i>	Scarlet Pimpernel	Naturalized
Oleaceae - Olive	<i>Fraxinus velutina</i>	Velvet Ash	
Onagraceae - Evening-Primrose	<i>Camissonia strigulosa</i>	Sandysoil Sun Cup	
	<i>Camissoniopsis confusa</i>	San Bernardino Sun Cup	
	<i>Camissoniopsis hirtella</i>	Field Sun Cup	
	<i>Camissoniopsis ignota</i>	Jurupa Hills Sun Cup	
	<i>Camissoniopsis micrantha</i>	Miniature Sun Cup	
	<i>Camissoniopsis pallida</i> ssp. <i>pallida</i>	Pale Yellow Sun Cup	
	<i>Clarkia delicata</i>	Delicate/Campo Clarkia	CNPS 1B.2
	<i>Clarkia purpurea</i> ssp. <i>quadrivulnera</i>	Four-Spot Clarkia	
	<i>Clarkia purpurea</i> ssp. <i>viminea</i>	Large Clarkia	LLD
	<i>Clarkia rhomboidea</i>	Diamond Clarkia	

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	<i>Epilobium brachycarpum</i>	Summer Cotton Weed	
	<i>Epilobium canum</i> ssp. <i>canum</i>	California Fuchsia	
	<i>Epilobium canum</i> ssp. <i>latifolium</i>	Broad-Leaf California Fuchsia	
	<i>Epilobium ciliatum</i> ssp. <i>ciliatum</i>	Willow Herb	
	<i>Epilobium densiflorum</i>	Dense-Flower Boisduvalia	
	<i>Epilobium minutum</i>	Small-Flower Willow Herb	
	<i>Gayophytum diffusum</i> ssp. <i>parviflorum</i>	Hairy-Leaf Gayophytum	
	<i>Gayophytum humile</i>	Dwarf Groundsmoke	
	<i>Gayophytum oligospermum</i>	Few-Seed Gayophytum	LLD
	<i>Oenothera elata</i> ssp. <i>hirsutissima</i>	Great Marsh Evening-Primrose	
Orobanchaceae - Broom-Rape	<i>Castilleja applegatei</i> ssp. <i>martinii</i>	Desert Indian Paintbrush	
	<i>Castilleja attenuata</i>	Valley Tassels	
	<i>Castilleja exserta</i> ssp. <i>exserta</i>	Purple Owl's-Clover	
	<i>Castilleja miniata</i> ssp. <i>miniata</i>	Giant Red Paintbrush	
	<i>Castilleja minor</i> ssp. <i>spiralis</i>	California Thread-Torch	
	<i>Cordylanthus nevini</i>	Nevin's Bird's Beak	
	<i>Cordylanthus rigidus</i> ssp. <i>setigerus</i>	Dark-Tip Bird's Beak	
	<i>Kopsiopsis strobilacea</i>	California Groundcone	LLD
	<i>Orobanche bulbosa</i>	Chaparral Broom-Rape	
	<i>Orobanche fasciculata</i>	Clustered Broom-Rape	
Paeoniaceae - Peony	<i>Paeonia californica</i>	California Peony	
Papaveraceae - Poppy	<i>Argemone munita</i>	Chicalote, Prickly Poppy	
	<i>Dendromecon rigida</i>	Bush Poppy	
	<i>Ehrendorferia chrysantha</i>	Golden Ear-Drops	
	<i>Eschscholzia californica</i>	California Poppy	
	<i>Platystemon californicus</i>	Cream Cups	
Phrymaceae - Hopseed	<i>Mimulus aurantiacus</i> var. <i>pubescens</i> x var. <i>puniceus</i>	San Diego Monkey Flower	
	<i>Mimulus brevipes</i>	Slope Semiphore	
	<i>Mimulus breweri</i>	Brewer's Monkey Flower	
	<i>Mimulus cardinalis</i>	Scarlet Monkey Flower	
	<i>Mimulus clevelandii</i>	Flower	CNPS 4.2
	<i>Mimulus congdonii</i>	Congdon's Monkey Flower	
	<i>Mimulus fremontii</i> var. <i>fremontii</i>	Fremont's Monkey Flower	
	<i>Mimulus guttatus</i>	Seep Monkey Flower	
	<i>Mimulus palmeri</i>	Palomar Monkey Flower	
	<i>Mimulus pilosus</i>	Downy Monkey Flower	
Plantaginaceae - Plantain	<i>Antirrhinum coulterianum</i>	Coulter's Snapdragon	
	<i>Antirrhinum nuttallianum</i> ssp. <i>nuttallianum</i>	Nuttall's Snapdragon	
	<i>Callitriche heterophylla</i> var. <i>bolanderi</i>	Bolander's Water-Starwort	
	<i>Callitriche marginata</i>	Long-Stalk Water-Starwort	
	<i>Callitriche palustris</i>	Vernal Water-Starwort	
	<i>Collinsia childii</i>	Child's Blue-Eyed Mary	
	<i>Collinsia concolor</i>	Southern Chinese Houses	
	<i>Collinsia heterophylla</i>	Chinese Houses	
	<i>Collinsia parviflora</i>	Blue-Eyed Mary	
	<i>Keckiella ternata</i> var. <i>ternata</i>	Summer Bush Penstemon	
	<i>Penstemon centranthifolius</i>	Scarlet Bugler	
	<i>Penstemon heterophyllus</i> var. <i>australis</i>	Chaparral Penstemon	
	<i>Penstemon heterophyllus</i> var. <i>heterophyllus</i>	Foothill Penstemon	
	<i>Penstemon spectabilis</i> var. <i>spectabilis</i>	Showy Penstemon	
	<i>Penstemon xparishii</i>	Parish's Beardtongue	
	<i>Plantago lanceolata</i>	English Plantain, Rib-Grass	Cal-IPC limited
	<i>Plantago major</i>	Common Plantain	Naturalized
	<i>Plantago patagonica</i>	Desert Plantain	
	<i>Veronica anagallis-aquatica</i>	Water Speedwell	Naturalized
	<i>Veronica arvensis</i>	Corn Speedwell	Naturalized
<i>Veronica peregrina</i> ssp. <i>xalapensis</i>	Mexican/Purslane Speedwell		
Platanaceae - Plane Tree or Sycamore	<i>Platanus racemosa</i>	Western Sycamore	
Polemoniaceae - Phlox	<i>Allophylum giloides</i>	Straggling False-Gilia	
	<i>Allophylum violaceum</i>	Violet False-Gilia	
	<i>Allophylum glutinosum</i>	Blue False-Gilia	
	<i>Collomia grandiflora</i>	Large-flowered Collomia	
	<i>Eriastrum sapphirinum</i> ssp. <i>dasyanthum</i>	Many-Flower Woolly-Star	
	<i>Eriastrum sapphirinum</i> ssp. <i>sapphirinum</i>	Sapphire Woolly-Star	

Family	Scientific Name	Common Name	Status*
	<i>Gilia angelensis</i>	Grassland Gilia	
	<i>Gilia brecciarum</i> ssp. <i>neglecta</i>	Nevada Gilia	LLD
	<i>Gilia capitata</i> ssp. <i>abrotanifolia</i>	Ball Gilia	
	<i>Gilia clivorum</i>	Purple-Spot Gilia	
	<i>Gilia diegensis</i>	San Diego Gilia	
	<i>Gilia ochroleuca</i> ssp. <i>exilis</i>	Volcanic Gilia	
	<i>Gilia ophthalmoides</i>	Eyed Gilia	LLD
	<i>Leptosiphon ciliatus</i>	Whisker Brush	
	<i>Leptosiphon floribundus</i> ssp. <i>glaber</i>	Summer Snow	
	<i>Leptosiphon parviflorus</i>	Coast Baby-Star	
	<i>Leptosiphon pygmaeus</i> ssp. <i>continentalis</i>	Pygmy Linanthus	
	<i>Linanthus dichotomus</i> ssp. <i>dichotomus</i>	Evening Snow	
	<i>Linanthus orcuttii</i>	Laguna/Orcutt's Linanthus	CNPS 1B.3
	<i>Microsteris gracilis</i>	Slender Phlox	
	<i>Navarretia atractyloides</i>	Holly-Leaf Skunkweed	
	<i>Navarretia intertexta</i> ssp. <i>propinqua</i>	Great Basin Navarretia	
	<i>Navarretia peninsularis</i>	Peninsular Navarretia	CNPS 1B.2
	<i>Navarretia tagetina</i>	Marigold Navarretia	LLD
	<i>Phlox austromontana</i>	Desert-Mountain Phlox	
	<i>Saltugilia australis</i>	Southern Gilia	
<i>Saltugilia caruifolia</i>	Caraway-Leaf Gilia	CNPS 4.3	
Polygonaceae - Buckwheat	<i>Chorizanthe fimbriata</i> var. <i>laciniata</i>	Lacinate Spineflower	
	<i>Chorizanthe leptotheca</i>	Peninsular/Ramona Spineflower	CNPS 4.2
	<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	Long-spined Spineflower	CNPS 1B.2
	<i>Eriogonum apiculatum</i>	San Jacinto Buckwheat	LLD
	<i>Eriogonum davidsonii</i>	Davidson's Buckwheat	
	<i>Eriogonum elongatum</i> var. <i>elongatum</i>	Tall Buckwheat	
	<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i>	Inland California Buckwheat	
	<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	Mountain Buckwheat	
	<i>Eriogonum gracile</i> var. <i>gracile</i>	Slender Buckwheat	
	<i>Eriogonum gracile</i> var. <i>incultum</i>	Smooth Slender Buckwheat	
	<i>Eriogonum molestum</i>	Pineland Buckwheat	LLD
	<i>Eriogonum nudum</i> var. <i>pauciflorum</i>	Pine Buckwheat	
	<i>Eriogonum parishii</i>	Parish's Buckwheat	
	<i>Eriogonum thurberi</i>	Thurber's Buckwheat	
	<i>Eriogonum wrightii</i> var. <i>membranaceum</i>	Foothill Buckwheat	
	<i>Persicaria amphibia</i>	Water/Kelp Smartweed	
	<i>Polygonum aviculare</i> ssp. <i>depressum</i>	Knotweed, Doorweed	Naturalized
	<i>Polygonum douglasii</i>	Douglas's Knotweed	
	<i>Polygonum lapathifolium</i>	Weed	
	<i>Polygonum parryi</i>	Parry's Knotweed	LLD
	<i>Pterostegia drymarioides</i>	Granny's Hairnet	
	<i>Rumex californicus</i>	Willow Dock	
	<i>Rumex crispus</i>	Curly Dock	Cal-IPC limited
	<i>Rumex salicifolius</i>	Willow Dock	
	<i>Sidothea trilobata</i>	Puncturebract	
Portulacaceae - Purslane	<i>Portulaca oleracea</i>	Purslane	Naturalized
Ranunculaceae - Buttercup	<i>Aquilegia formosa</i>	California Columbine	
	<i>Clematis ligusticifolia</i>	Yerba de Chiva	
	<i>Clematis pauciflora</i>	Ropevine Clematis	
	<i>Delphinium cardinale</i>	Cardinal/Scarlet Larkspur	
	<i>Delphinium hesperium</i> ssp. <i>cuyamaca</i>	Cuyamaca Larkspur	CNPS 1B.2, CR
	<i>Delphinium patens</i> ssp. <i>hepaticoides</i>	Liver-Leaf/Spreading Larkspur	
	<i>Delphinium parishii</i> ssp. <i>subglobosum</i>	Colorado Desert Larkspur	CNPS 4.3
	<i>Ranunculus aquatilis</i> var. <i>diffusus</i>	Hair-Leaf Water Buttercup	
	<i>Ranunculus californicus</i> var. <i>californicus</i>	California Buttercup	
	<i>Ranunculus testiculatus</i>	Bur Buttercup	Naturalized
	<i>Thalictrum fendleri</i> var. <i>fendleri</i>	Fendler's Meadow-Rue	
	<i>Thalictrum fendleri</i> var. <i>polycarpum</i>	Smooth-Leaf Meadow-Rue	
	Rhamnaceae - Buckthorn	<i>Ceanothus foliosus</i> var. <i>foliosus</i>	Wavy-Leaf-Lilac
<i>Ceanothus leucodermis</i>		Chaparral Whitethorn	
<i>Ceanothus oliganthus</i> var. <i>oliganthus</i>		Hairy Ceanothus	
<i>Ceanothus oliganthus</i> var. <i>orcuttii</i>		San Diego Hairy Ceanothus	
<i>Ceanothus oliganthus</i> X <i>palmeri</i>		None	

Family	Scientific Name	Common Name	Status*
	<i>Ceanothus palmeri</i>	Palmer's-Lilac	
	<i>Ceanothus perplexans</i>	Cup-Leaf-Lilac	
	<i>Fragula californica</i> ssp. <i>tomentella</i>	Chaparral Coffeeberry	
	<i>Rhamnus ilicifolia</i>	Holly-Leaf Redberry	
Rosaceae - Rose	<i>Adenostema fasciculatum</i> var. <i>fasciculatum</i>	Chamise	
	<i>Adenostema sparsifolium</i>	Red Shank	
	<i>Agrimonia gryposepala</i>	Common Agrimony	
	<i>Amelanchier utahensis</i>	Utah Service-Berry	
	<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	Mahogany	
	<i>Drymocallis glandulosa</i> var. <i>glandulosa</i>	Sticky Cinquefoil	
	<i>Drymocallis glandulosa</i> var. <i>reflexa</i>	Greene's Cinquefoil	
	<i>Fragaria vesca</i>	California/Wood Strawberry	
	<i>Heteromeles arbutifolia</i>	Toyon, Christmas Berry	
	<i>Holodiscus discolor</i> var. <i>microphyllus</i>	Oceanspray	LLD
	<i>Horkelia clevelandii</i> var. <i>clevelandii</i>	Cleveland's Horkelia	LLD
	<i>Malus pumila</i>	Apple	Naturalized
	<i>Poteridium annuum</i>	Western Burnet	
	<i>Poteridium sanguisorba</i>	Garden Burnet	Naturalized
	<i>Prunus emarginata</i>	Bitter Cherry	
	<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	Islay, Holly-Leaf Cherry	
	<i>Prunus virginiana</i> var. <i>demissa</i>	Western Choke Cherry	
	<i>Rosa californica</i>	California Rose	
	<i>Rosa woodsii</i> ssp. <i>ultramontana</i>	Interior Rose	LLD
	<i>Rubus armeniacus</i>	Himalayan Blackberry	Naturalized
	<i>Rubus glaucifolius</i>	Cuyamaca/Gander's Raspberry	LLD
	<i>Rubus ursinus</i>	California Blackberry	
Rubiaceae - Madder or Coffee	<i>Galium andrewsii</i> ssp. <i>andrewsii</i>	Moss/Phlox-Leaf Bedstraw	
	<i>Galium angustifolium</i> ssp. <i>angustifolium</i>	Narrow-Leaf Bedstraw	
	<i>Galium angustifolium</i> ssp. <i>nudicaule</i>	Naked-Stem Bedstraw	
	<i>Galium aparine</i>	Grass	Naturalized
Saxifragaceae - Saxifrage	<i>Heuchera rubescens</i>	San Diego Alumroot	CNPS 2.3
	<i>Lithophragma affine</i>	Woodland Star	
	<i>Saxifraga californica</i>	California Saxifrage	
	<i>Lithophragma glabrum</i>	Bulbous Woodland Star	LLD
Salicaceae - Willow	<i>Populus fremontii</i> ssp. <i>fremontii</i>	Western Cottonwood	
	<i>Salix laevigata</i>	Red Willow	
	<i>Salix lasiolepis</i>	Arroyo Willow	
Scrophulariaceae - Figwort	<i>Scrophularia californica</i>	California Bee Plant/Figwort	
	<i>Verbascum thapsus</i>	Common/Woolly Mullein	Cal-IPC limited
Solanaceae - Nightshade	<i>Datura wrightii</i>	Western Jimson Weed	
	<i>Nicotiana attenuata</i>	Coyote Tobacco	
	<i>Solanum parishii</i>	Parish's Nightshade	
	<i>Solanum umbelliferum</i>	Blue Witch	
	<i>Solanum xanti</i>	Chaparral Nightshade	
Tamaricaceae - Tamarisk	<i>Tamarix parviflora</i>	Tamarisk, Salt-Cedar	Cal-IPC high
Urticaceae - Nettle	<i>Urtica doica</i> ssp. <i>holosericea</i>	Hoary Nettle	
Valerianaceae - Valerian	<i>Plectritis congesta</i> var. <i>brachystemon</i>	Short-Spur Plectritis	
	<i>Plectritis ciliosa</i>	Long-Spur Plectritis	
Verbenaceae - Vervain	<i>Verbena lasiostachys</i> var. <i>lasiostachys</i>	Western Vervain	
Violaceae - Violet	<i>Viola douglasii</i>	Douglas's Violet	
	<i>Viola lobata</i> ssp. <i>lobata</i>	Moose-Horn Violet	
	<i>Viola pinetorum</i> ssp. <i>pinetorum</i>	Grey-Leaf Yellow Violet	
	<i>Viola purpurea</i> ssp. <i>quercetorum</i>	Oak Yellow Violet	
Viscaceae - Mistletoe	<i>Arceuthobium campylopodum</i>	Western Dwarf Mistletoe	
	<i>Phoradendron juniperinum</i>	Incense-Cedar Mistletoe	
	<i>Phoradendron macrophyllum</i>	Big-Leaf Mistletoe	
	<i>Phoradendron leucarpum</i> ssp. <i>tomentosum</i>	Oak Mistletoe	

Family	Scientific Name	Common Name	Status*
*Includes Sensitive and Non-native species rankings as follows:			
FE	Federally Endangered		
CE	State of California Endangered		
CR	State of California Rare		
CNPS 1B.1	California Native Plant Society Rare Plant Rank - Rare, threatened or endangered in California and elsewhere, seriously threatened in California		
CNPS 1B.2	California Native Plant Society Rare Plant Rank - Rare, threatened or endangered in California and elsewhere, moderately threatened in California		
CNPS 1B.3	California Native Plant Society Rare Plant Rank - Rare, threatened or endangered in California and elsewhere, not very threatened in California		
CNPS 2.2	California Native Plant Society Rare Plant Rank - Rare, threatened or endangered in California, more common elsewhere, moderately threatened in California		
CNPS 2.3	California Native Plant Society Rare Plant Rank - Rare, threatened or endangered in California, more common elsewhere, not very threatened in California		
CNPS 4.2	California Native Plant Society Rare Plant Rank - Limited distribution, watchlist, moderately threatened in California		
CNPS 4.3	California Native Plant Society Rare Plant Rank - Limited distribution, watchlist, not very threatened in California		
LLD	Colorado Desert District identified plants with Locally Limited Distribution		
Cal-IPC high	California Invasive Plant Council - severe ecological impacts, moderate to high rate of dispersal and establishment, widely distributed ecologically		
Cal-IPC moderate	California Invasive Plant Council - substantial and apparent ecological impacts, moderate to high rate of dispersal and establishment, disturbance driven		
Cal-IPC limited	California Invasive Plant Council - invasive but minor statewide ecological impacts or limited information, low to moderate invasion rate, limited distribution		
Cal-IPC ENL	California Invasive Plant Council - Evaluated for ranking but not listed due to lack of information or no significant impacts at this time		
Watchlist	California Invasive Plant Council recognized as spreading in California wildlands but not on above lists		
Naturalized	Not native to California but not reconized as invasive		

**Bird List for Cuyamaca Rancho State Park
(August 2014)**

Family	Common Name	Scientific Name	Status*	
Loons	Red-throated Loon	<i>Gavia stellata</i>		
	Common Loon	<i>Gavia immer</i>		
Grebes	Pied-billed Grebe	<i>Podilymbus podiceps</i>		
	Eared Grebe	<i>Podiceps nigricollis</i>		
	Western Grebe	<i>Aechmophorus occidentalis</i>		
	Clark's Grebe	<i>Aechmophorus clarkii</i>		
Cormorants	Double-crested Cormorant	<i>Phalacrocorax auritus</i>		
Wading Birds	Snowy Egret	<i>Egretta thula</i>		
	Great Blue Heron	<i>Ardea herodias</i>		
	Great Egret	<i>Ardea alba</i>		
	Cattle Egret	<i>Bubulcus ibis</i>		
	Green Heron	<i>Butorides virescens</i>		
	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>		
Geese	Canada Goose	<i>Branta canadensis</i>		
Dabbling Ducks	Wood Duck	<i>Aix sponsa</i>		
	Mallard	<i>Anas platyrhynchos</i>		
	Eurasian Wigeon	<i>Anas penelope</i>		
	American Wigeon	<i>Anas americana</i>		
	Gadwall	<i>Anas strepera</i>		
	Northern Pintail	<i>Anas acuta</i>		
	Cinnamon Teal	<i>Anas cyanoptera</i>		
	Green-winged Teal	<i>Anas crecca</i>		
	Northern Shoveler	<i>Anas clypeata</i>		
	Canvasback	<i>Aythya valisineria</i>		
	Redhead	<i>Aythya americana</i>		
	Ring-necked Duck	<i>Aythya collaris</i>		
	Lesser Scaup	<i>Aythya affinia</i>		
	Surf Scoter	<i>Melanitta perspicillata</i>		
	Bufflehead	<i>Bucephala albeola</i>		
	Ruddy Duck	<i>Oxyura jamaicensis</i>		
	Hooded Merganser	<i>Lophodytes cucullatus</i>		
	Common Merganser	<i>Mergus merganser</i>		
	Diurnal Raptors	Turkey Vulture	<i>Cathartes aura</i>	
		California Condor	<i>Gymnogyps californianus</i>	FE, SE, FP
Northern Harrier		<i>Circus cyaneus</i>	SSC	
White-tailed Kite		<i>Elanus leucurus</i>	FP	
Sharp-shinned Hawk		<i>Accipiter striatus</i>		
Cooper's Hawk		<i>Accipiter cooperii</i>		
Zone-tailed Hawk		<i>Buteo albonotatus</i>		
Red-shouldered Hawk		<i>Buteo lineatus</i>		
Swainson's Hawk		<i>Buteo swainsonii</i>	ST	
Red-tailed Hawk		<i>Buteo jamaicensis</i>		
Ferruginous Hawk		<i>Buteo regalis</i>		
Rough-legged Hawk		<i>Buteo lagopus</i>		
Osprey		<i>Pandion haliaetus</i>		
Bald Eagle		<i>Haliaeetus leucocephalus</i>	FE (delisted), SE, FP	
Golden Eagle		<i>Aquila chrysaetos</i>	FP	
American Kestrel		<i>Falco sparverius</i>		
Merlin		<i>Falco columbarius</i>		
Prairie Falcon		<i>Falco mexicanus</i>		
Turkey		Wild Turkey	<i>Meleagris gallopavo</i>	Non-native
Quail		Mountain Quail	<i>Oreortyx pictus</i>	
	California Quail	<i>Callipepla californica</i>		
Gruiformes	Virginia Rail	<i>Rallus limicola</i>		
	American Coot	<i>Fulica americana</i>		
Plovers	Killdeer	<i>Charadrius vociferus</i>		
	Greater Yellowlegs	<i>Tringa melanoleuca</i>		
	Wilson's Snipe	<i>Gallinago delicata</i>		

Family	Common Name	Scientific Name	Status*
Gulls	Bonaparte's Gull	<i>Larus philadelphia</i>	
Terns	Caspian Tern	<i>Sterna caspia</i>	
Pigeons and Doves	Domestic Pigeon	<i>Columbia livia</i>	Non-native
	Band-tailed Pigeon	<i>Columbia fasciata</i>	
	Mourning Dove	<i>Zenaida macroura</i>	
	Common Ground Dove	<i>Columbina passerina</i>	
Roadrunner	Greater Roadrunner	<i>Geococcyx californianus</i>	
Owls	Barn Owl	<i>Tyto alba</i>	
	Western Screech Owl	<i>Otus kennicottii</i>	
	Great Horned Owl	<i>Bubo virginianus</i>	
	California Spotted Owl	<i>Strix occidentalis</i>	SSC
	Northern Saw-whet Owl	<i>Aegolius acadicus</i>	
Kingfisher	Belted Kingfisher	<i>Ceryle alcyon</i>	
Swifts	White-throated Swift	<i>Aeronautes saxatalis</i>	
Hummingbirds	Black-chinned	<i>Archilochus alexandri</i>	
	Anna's Hummingbird	<i>Calypte anna</i>	
	Costa's Hummingbird	<i>Calypte costae</i>	
	Rufous Hummingbird	<i>Selasphorus rufus</i>	
	Allen's Hummingbird	<i>Selasphorus sasin</i>	
Woodpeckers	Northern Flicker	<i>Colaptes auratus</i>	
	Lewis' Woodpecker	<i>Melanerpes lewis</i>	
	Acorn Woodpecker	<i>Melanerpes formicivorus</i>	
	Hairy Woodpecker	<i>Picoides villosus</i>	
	Nuttall's Woodpecker	<i>Picoides nuttallii</i>	
	White-headed Woodpecker	<i>Picoides albolarvatus</i>	
	Red-naped Sapsucker	<i>Sphyrapicus nuchalis</i>	
	Red-breasted Sapsucker	<i>Sphyrapicus ruber</i>	
	Williamson's Sapsucker	<i>Sphyrapicus thyroideus</i>	
Tyrant Flycatchers	Olive-sided Flycatcher	<i>Contopus cooperi</i>	SSC
	Western Wood Pewee	<i>Contopus sordidulus</i>	
	Willow Flycatcher	<i>Empidonax traillii</i>	SE, FE
	Hammond's Flycatcher	<i>Empidonax hammondii</i>	
	Gray Flycatcher	<i>Empidonax wrightii</i>	
	Dusky Flycatcher	<i>Empidonax oberholseri</i>	
	Pacific-slope Flycatcher	<i>Empidonax difficilis</i>	
	Say's Phoebe	<i>Sayornis saya</i>	
	Black Phoebe	<i>Sayornis nigricans</i>	
	Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>	
	Western Kingbird	<i>Tyrannus verticalis</i>	
	Scissor-tailed Flycatcher	<i>Tyrannus forficatus</i>	
Shrikes and Vireos	Loggerhead Shrike	<i>Lanius ludovicianus</i>	
	Hutton's Vireo	<i>Vireo huttoni</i>	
	Gray Vireo	<i>Vireo vicinior</i>	SSC
	Cassin's Vireo	<i>Vireo cassinii</i>	
	Warbling Vireo	<i>Vireo gilvus</i>	
Jays, Crows, and Allies	Pinyon Jay	<i>Gymnorhinus cyanocephalus</i>	
	Steller's Jay	<i>Cyanocitta stelleri</i>	
	Western Scrub Jay	<i>Aphelocoma californica</i>	
	Clark's Nutcracker	<i>Nucifraga columbiana</i>	
	American Crow	<i>Corvus brachyrhynchos</i>	
	Common Raven	<i>Corvus corax</i>	
Larks	Horned Lark	<i>Eremophila alpestris</i>	
Swallows	Tree Swallow	<i>Tachycineta bicolor</i>	
	Violet-green Swallow	<i>Tachycineta thalassina</i>	
	Purple Martin	<i>Progne subis</i>	SSC
	Northern Rough-winged	<i>Stelgidopteryx serripennis</i>	
	Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	
Chickadees, Nuthatches, and Allies	Oak Titmouse	<i>Baeolophus inornatus</i>	

Family	Common Name	Scientific Name	Status*
	Mountain Chickadee	<i>Poecile gambeli</i>	
	Bushtit	<i>Psaltriparus minimus</i>	
	Pygmy Nuthatch	<i>Sitta pygmaea</i>	
	Red-breasted Nuthatch	<i>Sitta canadensis</i>	
	White-breasted Nuthatch	<i>Sitta carolinensis</i>	
	Brown Creeper	<i>Certhia americana</i>	
Wrens	Rock Wren	<i>Salpinctes obsoletus</i>	
	Canyon Wren	<i>Catherpes mexicanus</i>	
	Marsh Wren	<i>Cistothorus palustris</i>	
	Bewick's Wren	<i>Thryomanes bewickii</i>	
	Winter Wren	<i>Troglodytes troglodytes</i>	
	House Wren	<i>Troglodytes aedon</i>	
Wrenit	Wrenit	<i>Chamaea fasciata</i>	
Kinglets and Gnatcatchers	Ruby-crowned Kinglet	<i>Regulus calendula</i>	
	Golden-crowned Kinglet	<i>Regulus satrapa</i>	
	Blue-gray Gnatcatcher	<i>Poliptila caerulea</i>	
Thrushes	Western Bluebird	<i>Sialia mexicana</i>	
	Mountain Bluebird	<i>Sialia currucoides</i>	
	Varied Thrush	<i>Ixoreus naevius</i>	
	Townsend's Solitaire	<i>Myadestes townsendi</i>	
	Swainson's Thrush	<i>Catharus ustulatus</i>	
	Hermit Thrush	<i>Catharus guttatus</i>	
	American Robin	<i>Turdus migratorius</i>	
Mimids	Northern Mockingbird	<i>Mimus polyglottos</i>	
	Gray Catbird	<i>Dumetella carolinensis</i>	
	California Thrasher	<i>Toxostoma redivivum</i>	
Pipits	American Pipit	<i>Anthus rubescens</i>	
Waxwings, Silky-Flycatchers, and Starlings	Phainopepla	<i>Phainopepla nitens</i>	
	Cedar Waxwing	<i>Bombycilla cedrorum</i>	
	European Starling	<i>Sturnus vulgaris</i>	Non-native
Wood-Warblers	Orange-crowned Warbler	<i>Vermivora celata</i>	
	Nashville Warbler	<i>Vermivora ruficapilla</i>	
	Yellow Warbler	<i>Dendroica petechia</i>	SSC
	Magnolia Warbler	<i>Dendroica magnolia</i>	
	Black-throated Blue Warbler	<i>Dendroica caerulescens</i>	
	Yellow-rumped Warbler	<i>Dendroica coronata</i>	
	Black-throated Gray	<i>Dendroica nigrescens</i>	
	Townsend's Warbler	<i>Dendroica townsendi</i>	
	Hermit Warbler	<i>Dendroica occidentalis</i>	
	Ovenbird	<i>Seiurus aurocapillus</i>	
	Macgillivray's Warbler	<i>Oporornia tolmiei</i>	
	Common Yellowthroat	<i>Geothlypis trichas</i>	
	Hooded Warbler	<i>Wilsonia citrina</i>	
	Wilson's Warbler	<i>Wilsonia pusilla</i>	
	Yellow-breasted Chat	<i>Icteria virens</i>	SSC
Tanagers, Cardinals, and their Allies	Summer Tanager	<i>Piranga rubra</i>	SSC
	Western Tanager	<i>Piranga ludoviciana</i>	
	Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>	
	Blue Grosbeak	<i>Passerina caerulea</i>	
	Lazuli Bunting	<i>Passerina amoena</i>	
	Indigo Bunting	<i>Passerina cyanea</i>	
Emberizine Sparrows and their Allies	Spotted Towhee	<i>Pipilo maculatus</i>	
	California Towhee	<i>Pipilo crissalis</i>	
	Green-tailed Towhee	<i>Pipilo chlorurus</i>	
	Rufous-crowned Sparrow	<i>Aimophila ruficeps</i>	
	Chipping Sparrow	<i>Spizella passerina</i>	
	Brewer's Sparrow	<i>Spizella breweri</i>	
	Black-chinned Sparrow	<i>Spizella atrogularis</i>	

Family	Common Name	Scientific Name	Status*
	Sage Sparrow	<i>Amphispiza bellie</i>	
	Lark Sparrow	<i>Chondestes grammacus</i>	
	Savannah Sparrow	<i>Passerculus sandwichensis</i>	
	Grasshopper Sparrow	<i>Ammodramus savannarum</i>	SSC
	Fox Sparrow	<i>Passerella iliaca</i>	
	Song Sparrow	<i>Melospiza melodia</i>	
	Lincoln's Sparrow	<i>Melospiza lincolnii</i>	
	Dark-eyed Junco	<i>Junco hyemalis</i>	
	White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	
	White-throated Sparrow	<i>Zonotrichia albicollis</i>	
	Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>	
	Chestnut-collared Longspur	<i>Calcarius ornatus</i>	
	Icterids	Hooded Oriole	<i>Icterus cucullatus</i>
Bullock's Oriole		<i>Icterus bullockii</i>	
Scott's Oriole		<i>Icterus parisorum</i>	
Yellow-headed Blackbird		<i>Xanthocephalus xanthocephalus</i>	SSC
Red-winged Blackbird		<i>Agelaius phoeniceus</i>	
Tricolored Blackbird		<i>Agelaius tricolor</i>	SSC
Western Meadowlark		<i>Sturnella neglecta</i>	
Brewer's Blackbird		<i>Euphagus cyanocephalus</i>	
Finches and Old World Sparrows	Brown-headed Cowbird	<i>Molothrus ater</i>	
	Red Crossbill	<i>Loxia curvirostra</i>	
	Evening Grosbeak	<i>Coccothraustes vespertinus</i>	
	Purple Finch	<i>Carpodacus purpureus</i>	
	Cassin's Finch	<i>Carpodacus cassinii</i>	
	House Finch	<i>Carpodacus mexicanus</i>	
	Lesser Goldfinch	<i>Carduelis psaltria</i>	
	Lawrence's Goldfinch	<i>Carduelis lawrencei</i>	
	Pine Siskin	<i>Carduelis pinus</i>	
House Sparrow	<i>Passer domesticus</i>	Non-native	

*Includes Sensitive and Non-native species rankings as follows:

FE Federally Endangered
FE (delisted) Federally Endangered, delisted
FP California Fully Protected
SE California State Endangered
ST California State Threatened
SSC California Species of Special Concern
Non-native Non-native species

**Mammals List for Cuyamaca Rancho State Park
(August 2014)**

Common Name	Scientific Name	Status*
ornate shrew	<i>Sorex ornatus</i>	
desert shrew	<i>Notiosorex crawfordi</i>	
broad-footed mole	<i>Scapanus latimanus</i>	
Yuma myotis	<i>Myotis yumanensis</i>	
long-eared myotis	<i>Myotis evotis</i>	
fringed myotis	<i>Myotis thysanodes</i>	
long-legged myotis	<i>Myotis volans</i>	
California myotis	<i>Myotis californicus</i>	
western small-footed myotis	<i>Myotis ciliolabrum</i>	
silver-haired bat	<i>Lasionycteris noctivagans</i>	
western pipistrelle	<i>Pipistrellus hesperus</i>	
big brown bat	<i>Eptesicus fuscus</i>	
western red bat	<i>Lasiurus blossevillii</i>	SSC
hoary bat	<i>Lasiurus cinereus</i>	
western yellow bat	<i>Lasiurus xanthinus</i>	SSC
spotted bat	<i>Euderma maculatum</i>	SSC
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	SSC
pallid bat	<i>Antrozous pallidus</i>	SSC
Brazilian free-tailed bat	<i>Tadarida brasiliensis</i>	
pocketed free-tailed bat	<i>Nyctinomops femorosaccus</i>	SSC
western mastiff bat	<i>Eumops perotis</i>	SSC
brush rabbit	<i>Sylvilagus bachmani</i>	
desert cottontail	<i>Sylvilagus audubonii</i>	
black-tailed jackrabbit	<i>Lepus californicus</i>	
California ground squirrel	<i>Spermophilus beecheyi</i>	
western gray squirrel	<i>Sciurus griseus</i>	
Botta's pocket gopher	<i>Thomomys bottae</i>	
little pocket mouse	<i>Perognathus longimembris</i>	
San Diego pocket mouse	<i>Chaetodipus fallax</i>	
California pocket mouse	<i>Chaetodipus californicus</i>	
Pacific kangaroo rat	<i>Dipodomys agilis</i>	
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	
American beaver	<i>Castor canadensis</i>	
western harvest mouse	<i>Reithrodontomys megalotis</i>	
cactus mouse	<i>Peromyscus eremicus</i>	
California mouse	<i>Peromyscus californicus</i>	
deer mouse	<i>Peromyscus maniculatus</i>	
brush mouse	<i>Peromyscus boylii</i>	
pinyon mouse	<i>Peromyscus truei</i>	
Baja mouse	<i>Peromyscus fraterculus</i>	
southern grasshopper mouse	<i>Onychomys torridus</i>	
desert woodrat	<i>Neotoma lepida</i>	
large-eared woodrat	<i>Neotoma macrotis</i>	
California vole	<i>Microtus californicus</i>	

Common Name	Scientific Name	Status*
house mouse	<i>Mus musculus</i>	
coyote	<i>Canis latrans</i>	
gray fox	<i>Urocyon cinereoargenteus</i>	
black bear	<i>Ursus americanus</i>	
ringtail	<i>Bassariscus astutus</i>	
raccoon	<i>Procyon lotor</i>	
long-tailed weasel	<i>Mustela frenata</i>	
American badger	<i>Taxidea taxus</i>	SSC
western spotted skunk	<i>Spilogale gracilis</i>	
striped skunk	<i>Mephitis mephitis</i>	
mountain lion	<i>Puma concolor</i>	
bobcat	<i>Lynx rufus</i>	
mule deer	<i>Odocoileus hemionus</i>	
bighorn sheep	<i>Ovis canadensis</i>	FE, ST
opossum	<i>Didelphis virginiana</i>	

*Includes Sensitive species rankings as follows:

FT Federally Threatened
ST California State Threatened
SSC California Species of Special Concern

**Reptiles List for Cuyamaca Rancho State Park
(August 2014)**

Common Name	Scientific Name	Status*
California alligator lizard	<i>Elgaria multicarinata</i>	
California legless lizard	<i>Anniella pulchra</i>	SSC
western banded gecko	<i>Coleonyx variegatus</i>	FSC
coast horned lizard	<i>Phrynosoma blainvillii</i>	FSC, SSC
western fence lizard	<i>Sceloporus occidentalis</i>	
granite spiny lizard	<i>Sceloporus orcutti</i>	
southern sagebrush lizard	<i>Sceloporus graciosus</i>	
western side-blotched lizard	<i>Uta stansburiana</i>	
variegated skink	<i>Plestiodon gilberti</i>	
Skilton's skink	<i>Plestiodon skiltonianus</i>	
orange-throated whiptail ¹	<i>Aspidoscelis hyperythra</i> ¹	SSC
tiger whiptail	<i>Aspidoscelis tigris</i>	
granite night lizard	<i>Xantusia henshawi</i>	
northern three-lined boa	<i>Lichanura orcutti</i>	
western glossy snake	<i>Arizona elegans</i>	
ring-necked snake	<i>Diadophis punctatus</i>	
California nightsnake	<i>Hypsiglena ochrorhyncha</i>	
California kingsnake	<i>Lampropeltis californiae</i>	
California mountain kingsnake	<i>Lampropeltis zonata</i>	
red racer	<i>Masticophis (=Coluber) flagellum</i>	
Baja California coachwhip	<i>Masticophis (=Coluber) fuliginosus</i>	
California striped whipsnake	<i>Masticophis (=Coluber) lateralis</i>	
Pacific gopher snake	<i>Pituophis catenifer</i>	
long-nosed snake	<i>Rhinocheilus lecontei</i>	
patch-nosed snake	<i>Salvadora hexalepis</i>	SSC
western black-headed snake	<i>Tantilla planiceps</i>	
two-striped gartersnake	<i>Thamnophis hammondi</i>	SSC
Baja California lyre snake	<i>Trimorphodon lyrophanes</i>	
desert threadsnake	<i>Rena humilis</i>	
speckled rattlesnake	<i>Crotalus mitchellii</i>	
black diamond rattlesnake	<i>Crotalus oreganus</i>	
red diamond rattlesnake	<i>Crotalus ruber</i>	FSC, SSC
western pond turtle	<i>Actinemys marmorata</i>	FSC, SSC
Baja California ratsnake ¹	<i>Bogertophis rosaliae</i> ¹	SSC
Cope's leopard lizard ¹	<i>Gambelia copeii</i> ¹	

¹ Possible due to detections within proximity to CRSP, but not confirmed.

*Includes Sensitive species rankings as follows:

FSC Federal Species of Concern

SSC California Species of Special Concern.

**Amphibians List for Cuyamaca Rancho State Park
(August 2014)**

Common Name	Scientific Name	Status*
Western toad	<i>Anaxyrus boreas</i>	
arroyo toad	<i>Anaxyrus californicus</i>	FE, SSC
California treefrog	<i>Pseudacris cadaverina</i>	
northern Pacific treefrog ¹	<i>Pseudacris regilla</i> ¹	
Baja California treefrog	<i>Pseudacris hypochondriaca</i>	
American bullfrog	<i>Lithobates catesbeianus</i>	Non-Native
California red-legged frog	<i>Rana draytonii</i>	SSC
western spadefoot toad	<i>Spea hammondi</i>	SSC
arboreal salamander	<i>Aneides lugubris</i>	
garden slender salamander	<i>Batrachoseps major</i>	
common ensatina	<i>Ensatina eschscholtzii</i>	
California newt	<i>Taricha torosa</i>	SSC

¹ Possible due to detections within proximity to CRSP, but not confirmed.

*Includes Sensitive species rankings as follows:

FE Federally Endangered
 FT Federally Threatened
 SSC California Species of Special Concern
 Extirpated No longer known to occur in region