SAN DIMAS CANYON/SAN ANTONIO WASH SIGNIFICANT ECOLOGICAL AREA

General

The San Dimas Canyon/San Antonio Wash Significant Ecological Area (SEA) is located along the cismontane foothills of the eastern San Gabriel Mountains. Generally, the SEA is centered on the mouths of four major canyons which flow from the mountains and interconnecting terrain. From east to west these canyons include: San Antonio Canyon above the City of Claremont as one component; and Live Oak, Marshall, and San Dimas Canyons above the cities of La Verne and San Dimas as a second component.

Description

The San Dimas Canyon/San Antonio Wash SEA is comprised of two component parts. The San Dimas Canyon component includes portions of Live Oak, Marshall, and San Dimas Canyons. The smaller component, San Antonio Canyon, encompasses the San Antonio Canyon alluvial outwash.

In general, the topography of the SEA is severe, consisting of steep-walled canyons and narrow ridgelines. Elevations range from a high of approximately 3,000 feet above mean sea level (MSL) along the ridges of San Dimas Canyon, to a low of approximately 451 feet above MSL in San Antonio Wash. Several major drainages and numerous tributaries exit the San Gabriel Mountains through this SEA.

The wide range of elevation, topography, slope aspect, and geology represent a wide array of physical habitats within this SEA. Consequently, a number of plant communities exist, including grasslands, riparian, shrublands, woodlands, and forests. Within these major community types, there are many subcommunities which vary according to plant species dominance. Of particular note, this area contains the last remaining relatively well-developed lower montane riparian habitats in the eastern county and dammed drainages have created significant reservoirs or flood control basins in San Antonio and San Dimas.

Vegetation

The variety of topography, soil types, slope aspects and water availability within the San Dimas Canyon/San Antonio Wash SEA creates a range of physical habitats which support numerous plant species. Sensitive plant species occurring or potentially occurring within the

SEA are discussed below in the Sensitive Biological Resources section. Many of these species, although often different in their growth form, prefer similar habitat characteristics and are often found in recurring assemblages to form plant communities. Ten major plant communities are found within the San Dimas Canyon/San Antonio Wash SEA. Plant communities within the SEA were classified using standard methodology and terminology. Most of the communities discussed correspond directly with those listed in Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986 and 1992 update). Other communities are named based on dominant species within them and/or commonly used terminology. Brief descriptions and general locations of each major plant community present within the SEA are provided below, including bigcone spruce-canyon oak forest, white alder riparian forest, alluvial fan scrub, oak woodland, oak riparian forest, walnut woodland, southern willow scrub, chaparral, coastal sage scrub, and non-native grassland.

Bigcone spruce-canyon oak forest is an open to dense forest dominated by bigcone spruce 50 to 80 feet tall over a dense canopy of canyon live oak. It is found scattered throughout the San Dimas Canyon component of this SEA on canyon sides at elevations generally above 2,500 feet where it occupies rocky substrates. It commonly occurs in fairly small enclaves within chaparral.

Along the lower reaches of San Dimas Canyon, **white alder riparian forest** is found. This community is dominated by white alder which grow 30 to 40 feet high over a shrub understory. It typically grows along streams in bedrock-constrained, steep-sided canyons, resulting in a fairly narrow riparian corridor.

Alluvial fan scrub is a shrub community characterized by harsh substrates subject to episodic flooding and scouring. It is generally restricted to broad canyon outwashes, or alluvial washes. It is found in this SEA at the San Antonio Canyon mouth, where it forms an open shrub vegetation within areas of bare, scoured ground in between.

Oak woodland is a plant community dominated by species of the genus *Quercus*. Within this SEA this community includes coast live oak which typically grows to heights of 20 to 40 feet and the somewhat smaller interior live oak and canyon oak, and forms either closed or open tree canopies. Understory vegetation varies from grassland in level areas to shrubs where topography is steeper. It may also intergrade with shrub communities. This community is scattered throughout the SEA and most prevalent on north-facing slopes and in drainage bottoms.

A highly related community found in the San Dimas Canyon/San Antonio Wash SEA is **oak riparian forest**. This community is also dominated by coast live oak (canyon oaks at higher elevations). The primary difference between oak woodland and oak riparian forest is the greater availability of water in riparian situations which is expressed in a denser tree canopy cover and higher density of trees. There are also a greater number of hydrophytic (moister favoring) plant

species in the understory. Typical riparian trees such as western sycamore and willow occasionally occur as well. Oak riparian forest is best developed within broader, more level gradient drainages of this SEA.

Walnut woodland often intergrades with oak dominated woodlands or develops as a distinct community. This community is dominated by the California walnut which grows 10 to 30 feet high. More often than not, walnut woodland in this SEA is highly intermixed with oak woodland and chaparral and large monotypic stands are uncommon.

Southern willow scrub is found along widely scattered reaches of several drainages throughout this SEA. This community is dominated by species of willow which form nearly monotypic stands due to their dense growth with an occasional cottonwood. These stands generally reach 10 to 20 feet in height with little understory vegetation.

Chaparral is a shrub community composed of robust species. Within this SEA a number of chaparral subcommunities are found according to their dominant plant species. These include chamise, buck brush, ceanothus, scrub oak, interior live oak and even mosaics of these depending on mixes of species and elevation. These and other shrub species form dense vegetation covers growing five to ten feet in height. The development of chaparral is pronounced over large hillside areas throughout both components of the SEA.

A shrubland community exhibiting less robust structure found in this SEA is **coastal sage scrub**. This plant community is dominated by California sagebrush, California encelia, white sage, black sage, and California buckwheat. It also forms dense stands which grow three to four feet in height. Within this SEA it is generally found in scattered patches which are highly integrated with mixed chaparral. These are primarily located in the lower elevation hillsides of both SEA components.

Non-native grassland is dominated by non-native annual grasses and forbs. These opportunistically growing species include brome grasses, wild oats and mustards. Characteristic of other parts of Southern California, this community became established as a result of livestock grazing and agriculture, as native vegetation is removed, sometimes by mechanical means, and replaced by more adventitious species. Non-native grassland is found throughout the SEA.

Wildlife

Wildlife populations within the San Dimas Canyon/San Antonio Wash SEA are diverse and abundant due to the region's physiographic diversity, its relative isolation, and its location within and adjacent to the Angeles National Forest. Analysis of invertebrates on any given site generally is limited by a lack of specific data; however, the size of the SEA and diversity of

habitats present is considered sufficient to encompass healthy populations of a large number of invertebrate species. Fair numbers of amphibians are expected to be present primarily due to the aquatic and semi-aquatic habitats provided within the numerous drainages and several reservoirs. Reptile abundance and diversity are expected to be characteristic for the habitats present, although areas closer to urban development along the southern boundaries of this SEA are likely to be suppressed due to edge effect.

Bird use, diversity, and abundance within the San Dimas Canyon/San Antonio Wash SEA are expected to be high for several reasons. In general, this SEA provides habitat for a wide range of shrubland, woodland, forest, and riparian species that occur at varying elevations. In particular, the riparian habitats found in drainages throughout this SEA provide essential habitat for riparian-obligate and riparian-favoring species. In addition, a number of migratory birds no doubt use this area to move across the northern portion of the Los Angeles Basin. These include a wide spectrum of birds including songbird, waterfowl, and raptorial species.

Similarly, the mammalian fauna is expected to be very diverse and abundant. Perhaps, more influential on this taxa than the diversity of habitats is the inclusion of this SEA within and adjacent to the vast open space of the Angeles National Forest. Virtually all mammalian species found in the forest (with the exception of bighorn sheep) are expected to be found in this SEA. Frequent observations of black bear and mountain lion in foothill communities attest to the range of species expected.

Wildlife Movement

Wildlife movement within the San Dimas Canyon/San Antonio Wash SEA takes on two major forms. First, due to the extreme intervening topography it is logical to expect considerable movement of wildlife up and down the many sizeable drainages which course through this SEA and connect the forest interior with foothill areas. In large part, the larger the watershed of the drainages, the greater the volume of movement. Consequently, this type of movement occurs on a seasonal and more frequent basis, particularly for large mobile mammals whose full range of habitat needs are typically met over broad areas.

The second major type of movement occurs across the flanks of the foothills and lower mountains, in an east-west direction. Particularly for riparian-favoring migratory birds, a corridor linking lower elevational riparian habitats in the San Dimas Canyon/San Antonio Wash SEA is expected to be of high use and importance. In addition to providing essential habitat for resident riparian birds, this SEA contains some of the best developed riparian habitat for birds which are seasonal visitors to cismontane foothills.

Sensitive Biological Resources

Sensitive biological resources are habitats or individual species that have been given special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, rare, or otherwise sensitive. This is principally due to the species' declining or limited distribution or population sizes, usually resulting from habitat loss. Watch lists of such resources are maintained by the California Department of Fish and Game (CDFG), the United States Fish and Wildlife Service (USFWS), and special groups such as the California Native Plant Society (CNPS). The following sections indicate the habitats as well as plant and animal species present, or potentially present within the San Dimas Canyon/San Antonio Wash SEA, that have been afforded special recognition.

Sensitive Plant Communities/Habitats

This report/description supports several habitat types considered sensitive by resource agencies, namely the CDFG [California Natural Diversity Database (CNDDB)], because of their scarcity and provision of habitat for a number of state and federally listed endangered, threatened, and rare vascular plants, as well as several sensitive bird and reptile species. These communities include oak riparian woodland, walnut woodland, southern willow scrub, coastal sage scrub and alluvial fan scrub which occur throughout the area. These communities, or closely related designations, are considered highest-inventory priority communities by the CDFG, indicating that they are experiencing a decline throughout their range.

Sensitive Species

Sensitive species include those listed, or candidates for listing by the USFWS, CDFG, and CNPS. These species include, but are not limited to, Nevin's barberry, San Gabriel River dudleya, San Gabriel Mountains dudleya, Braunton's milk vetch, San Gabriel bedstraw, thread-leaved brodiaea, lemon lily, Santa Ana sucker, southwestern pond turtle, two-striped garter snake, and yellow warbler. In addition, the SEA identifies other species observed, recorded in the CNDDB, or reported in previous documentation as observed within or in the immediate vicinity of the SEA.

Ecological Transition Areas (ETAs)

There are no ETAs designated within this SEA.