
EAST SAN GABRIEL VALLEY SIGNIFICANT ECOLOGICAL AREA

General

The East San Gabriel Valley SEA is located in the easternmost portion of the San Gabriel Valley. For the purpose of delineating an area-wide ecological unit with interacting component habitat areas, this SEA includes incorporated as well as unincorporated lands. The area represents several ridgelines and hilltops and a major drainage at the eastern end of the San Jose Hills which have been surrounded by urban development over the past four decades. The largest component of this SEA is Frank G. Bonelli Regional County Park (Bonelli Park) and a portion of Walnut Creek Park, both of which are unincorporated. Other component parts are South Hills Park and surrounding undeveloped land in the City of Glendora, Buzzard Peak and undeveloped hillsides to the southwest within the cities of West Covina and Walnut, undeveloped slopes to the west of Bonelli Park and Interstate 210 (I-210) in the City of San Dimas, and Elephant Hill and an adjoining ridgeline in the City of Pomona.

Description

The East San Gabriel Valley SEA is comprised of five component parts. The location and configuration of this SEA and its parts are primarily defined by the urbanization of the eastern San Gabriel Valley which has occurred over the more developable valley floor and lower slopes of the San Jose Hills. As a consequence, the SEA resembles an "archipelago" encompassing portions, or islands, of undeveloped ridgelines, hilltops and drainages between the San Gabriel Mountains to the north and the Puente Hills to the south.

Generally, the topography within this SEA consists of moderate to steep hillsides with north, south, east and west slope aspects. Ridgelines vary in width from narrow to broad with well defined drainages in between. One major drainage, Walnut Creek, and a man-made reservoir, Puddingstone Reservoir, are found within this SEA. Elevations range from a low of approximately 560 feet above Mean Sea Level (MSL) in the Walnut Creek drainage to a high of approximately 1,375 feet above MSL at Buzzard Peak.

The biological communities found in this SEA vary according to physical habitat conditions (i.e., slope exposure, soil type and depth, and the availability of water) and the area's history of grazing practices. Elevation plays almost no role in defining habitat types. Many slopes support oak and walnut woodland which often intergrade with prevalent stands of mixed chaparral. Coastal sage scrub is also found on slopes with shallower, drier soils. Drainages are typically vegetated with oak riparian woodlands and forests, with stands of western sycamore

and willow woodland. More moderate slopes and broader ridgelines have been subjected to livestock grazing. In these areas, the dominant vegetation consists of open non-native grassland. Oftentimes, grassland exists as the understory ground cover for wooded areas creating oak and walnut savannahs. Small isolated areas of freshwater marsh are also found around Puddingstone Reservoir.

Vegetation

The variety of topography, soil types, slope aspects and water availability within this SEA create a range of physical habitats which support numerous plant species. Sensitive plant species occurring within the SEA are discussed below in the Sensitive Biological Resources section. Many species, although often different in their growth form, prefer similar habitat characteristics and are often found in recurring assemblages to form plant communities. Eight major plant communities are found within the East San Gabriel Valley 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 and/or commonly used terminology. Brief descriptions and general locations of each plant community present within the SEA are provided below, including oak woodland, oak riparian forest, walnut woodland, willow woodland, chaparral, coastal sage scrub, freshwater marsh, and non-native grassland.

Oak woodland is a plant community dominated by species of the genus *Quercus*. Within this SEA the dominant species is the coast live oak, which typically grows to heights of 20 to 40 feet and forms either closed or open canopies. Understory vegetation varies from grassland in areas subject to grazing to shrubs where topography is steeper and/or grazing has been relaxed. This vegetation may also intergrade with shrub communities. Within this SEA, oak woodland is scattered throughout all components where it is most prevalent on north-facing slopes and in drainage bottoms.

A highly related community found in the SEA includes **oak riparian forest**. It is also dominated by coast live oak. The primary difference between oak woodland and oak riparian forest is the greater availability of water in riparian situations which is expressed in a dense tree canopy cover and tree clusters. A greater number of hydrophytic (water favoring) plant species are also found in the understory. Typical riparian trees such as western sycamore and willow occasionally occur as well. Oak riparian forest is most well developed within Walnut Creek. Riparian trees are also scattered in other drainages throughout the Buzzard Peak component of this SEA.

Often intergrading with oak dominated woodlands or developed as a distinct community is **walnut woodland**. This community is dominated by the California walnut which grows 10 to

30 feet high. More often than not, the California walnut grows in open stands; however, closed tree canopies are not uncommon. In similar fashion to oak woodlands its understory varies from grasses to shrubs. Thus, it forms stands ranging from savannahs to forests throughout the East San Gabriel Valley SEA. It is most common within the Bonelli/Walnut Parks, South Hills, and Buzzard Peak components.

A well developed **southern willow scrub** community is found along Live Oak Creek upstream and at the point where the creek flows into Puddingstone Reservoir in the Bonelli/Walnut Parks component. Smaller patches of this community are also found scattered along drainages in the Buzzard Peak component. This community is dominated by species of willow which form nearly monotypic stands due to their dense growth. These stands generally reach 10 to 20 feet in height with little understory vegetation.

Mixed **chaparral** is a shrub community composed of robust species. Within this SEA these species include laurel sumac, toyon, lemonadeberry and Mexican elderberry. Along with other shrub species, chaparral forms dense vegetation covers growing five to ten feet in height. The development of chaparral is most pronounced within the South Hills, Bonelli/Walnut Parks, and Buzzard Peak components.

Communities of **coastal sage scrub** exhibit less robust structure within this SEA. This plant community is dominated by California sagebrush, California encelia, white sage, black sage, and California buckwheat. Coastal sage scrub 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 communities are primarily located in the South Hills, Bonelli/Walnut Parks, Via Verde, and Buzzard Peak components.

Non-native grassland consists of 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. In the process native vegetation is removed, sometimes by mechanical means, and replaced by more adventitious species. Non-native grassland is found throughout all components of this SEA.

Small areas supporting **freshwater marsh** are found at scattered locations along the shoreline of Puddingstone Reservoir. This community may also exist at other locations, in or adjacent to artificially created impoundments used to water livestock. Freshwater marsh requires perennially shallow water or saturated soils. Dominant plants are comprised of emergent species including cattails and bulrushes.

Wildlife

Wildlife populations within the East San Gabriel Valley SEA are generally expected to reflect lower diversity and abundance. This is due to the influences of surrounding development and location of recreational uses over relatively large areas of the SEA components which tends to compromise habitat quality and value. Analysis of invertebrates on any given site generally is limited by a lack of specific data; however, the SEA is considered sufficient to encompass moderately healthy populations of common invertebrate species. Fair numbers of amphibians are expected to be present primarily due to the aquatic and semi-aquatic habitats provided by Puddingstone Reservoir, and riparian habitats along Live Oak Channel and Walnut Creek. Diversity and evenness among these populations, however, is likely to be degraded due to history of urbanization resulting in few species adaptable to this sort of environment.

Similar effects would be anticipated for reptiles. Reptilian species typically found in suburban and rural areas are expected in relatively high numbers. Less common, and perhaps, locally extinct would be those species that are more secretive in their habitats and/or are not as prolific.

A surprisingly high diversity of birds are documented within this SEA including a population of California gnatcatcher, a federally threatened species. For numerous upland, raptorial, and water associated birds the East San Gabriel Valley SEA provides a mosaic of habitats. Between woodland, shrubland, grassland and wetlands, diverse populations of birds are able to meet nesting, foraging, and migratory requirements.

Mammal populations also reflect the suburban environs imparting this SEA. Small mammals are expected to be uneven in their diversity with more adaptive, introduced European species in greater numbers compared to others species. Medium sized mammal populations are expected to exhibit the same characteristics. Large mammals are largely absent on a resident basis. Sensitive wildlife species occurring or potentially occurring within the SEA are discussed below in the Sensitive Biological Resources section.

Wildlife Movement

The East San Gabriel Valley SEA represents the only regional wildlife linkage between the San Gabriel Mountains and the Puente Hills/Chino Hills complex. Unlike the commonly held concept of a corridor, however, this SEA contains a series of discontinuous habitat blocks and patches rather than an unbroken corridor for movement. As such, this SEA facilitates movement and exchange between larger habitat areas by permitting terrestrial "island-hopping" between the SEA components.

Using birds as an example, movement may be initiated by an individual or group of birds in either the San Gabriel Mountains or the Puente Hills. Larger species, with the capacity to cover long distances, may make the passage as one segment of its journey. Smaller species, however, lacking physical or behavioral capacity may not be able to attain this movement under normal circumstances. By utilizing various component parts of the SEA, the same species can cover this journey in several smaller trips. The same example may also apply to winged insects and wind-borne plant pollen. Interaction between, not just through the components can occur as well.

This same function probably does not apply to other taxonomic groups. It is highly doubtful that amphibian, reptile and most mammal populations use this corridor as effectively as birds, if at all. Mule deer, for example, do not occur within Bonelli Park but are common in the San Gabriel Mountains and the Puente Hills. However, some mammals which tolerate urban environments; such as Virginia opossum, raccoon, and striped skunk, use the corridor in the manner described. Even mountain lions periodically enter Bonelli Park and Walnut Creek Park from the outside by way of travel routes related to SEA components.

The manner in which the East San Gabriel Valley SEA allows wildlife populations in different areas to interact is less than ideal. However, exchange in the manner described above is dictated by the widespread urbanization of the region; it is the only remaining way regional interaction can occur and contribute to the maintenance of genetic variability and health of regional wildlife populations.

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 East San Gabriel Valley 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, due to scarcity and serving as habitat for a number of state and federally listed endangered, threatened, and rare vascular plants, bird and reptile species.

Vegetation communities include: **oak riparian woodland, walnut woodland, southern willow scrub, coastal sage scrub, and freshwater marsh** which occur throughout the area. These communities, or closely related designations, are considered highest-inventory priority by the CDFG, indicating that they are experiencing a decline throughout their range. The distribution and floral composition of these communities is discussed above.

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, Braunton's milk vetch, Mexican flannelbrush, thread-leaved brodiaea, California brown pelican, bald eagle, southwestern willow flycatcher, California gnatcatcher, and least Bell's vireo. In addition, the SEA identifies other species observed, recorded in the CNDDDB, or reported in previous documentation as observed within or in the immediate vicinity of the SEA.

Ecological Transition Areas (ETAs)

ETAs represent relatively minor components of this SEA. ETAs are scattered within and around Bonelli Park where they are designated to encompass various parklands and a golf course.