

Conservation Element

Thousand Oaks General Plan



City of Thousand Oaks

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PREFACE

This Conservation Element is based upon the premise that the existing natural environment possesses its own inherent values and qualities that should be protected. Most importantly, within these ecosystems lay the blueprints for different patterns of life that have evolved apart from the pervasive influences of man and modern technology.

In the context of local planning, conservation is a positive action to assure that as buildout of the community continues to occur as envisioned by the General Plan, related physiographic, hydrological, biological and cultural resources are not lost or permanently altered to the detriment of the natural environment that we all share and enjoy. While in principle, these practices imply a set of constraints with respect to human activities that affect these resources both directly and indirectly, they also recognize the capacity of the environment to tolerate or support urban land uses. Correspondingly, the role of the Conservation Element is to help identify these limitations and opportunities and define various policies and implementation measures by which these natural resources can be conserved within the Planning Area.

State Planning Law requires the Conservation Element to address "the conservation, development, and utilization of natural resources, including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources." Although no harbors, fisheries or significant mineral resources exist within the Planning Area, this Element inventories and describes several other equally important resources, including native plant and animal communities, natural landform features, scenic viewsheds, and archaeological and historic sites that are potentially affected by urban land uses and associated development.

The Conservation Element of the Thousand Oaks General Plan was adopted in 1972 and comprehensively amended and updated in 1996. This document is a further comprehensive update of the Conservation Element.

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Chapter 1

Introduction

CHAPTER 1: INTRODUCTION

The Thousand Oaks Planning Area encompasses a topographically diverse landscape of mountains, hills, valleys and canyons that supports a variety of natural vegetation types, including many sensitive plant and animal species. In addition, the Conejo Valley has a rich cultural heritage, including numerous archaeological and historic sites. In combination, these resources not only enhance the community's sense of spaciousness and semi-rural character, but significantly contribute to the overall quality of the environment.

While many of these resources have already been permanently protected as a part of the Planning Area's extensive natural open space system, others fall under the jurisdiction of other public agencies, or exist within remaining vacant parcels of land that are under private ownership. The purpose of this Element is to describe the general characteristics of these natural resources and identify appropriate policies and implementation measures that will be used to guide future development, as envisioned by the Land Use Element of the General Plan, in a sensitive manner that will afford the long term conservation and protection of these vital resources for future generations.

The Conservation Element includes figures that depict the local distribution of these resources, and the appendices contain a comprehensive listing of plant and animal species known to occur within the Planning Area.



Photo 1: Wildwood Mesa; Wildwood Park

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Chapter 2

Physiography

CHAPTER 2: PHYSIOGRAPHY

A. Scenic Resources

The scenic qualities of the Conejo Valley have been acknowledged by residents and visitors for many years. Framed by steeply sloping hillside terrain and major ridgelines of the Simi Hills, Conejo Peak and Santa Monica Mountains, the Valley is a distinctive and picturesque landscape, characterized by broad open vistas of natural open space, traversed by creeks, and dotted with prominent knolls and native oak woodlands. Protection of these natural viewshed features has been formally embodied in the City's General Plan, including its Open Space Element, Conservation Element, Scenic Highways Element, and in ordinances and resolutions concerning the preservation and enhancement of the Valley's unique scenic attributes.

Due to the community's regard for its natural setting, development in Thousand Oaks is widely visible, but usually does not dominate the major natural landscape features. Its general appearance is that of a community nestled within a ring of open space. Thousand Oaks is distinguished by its oak trees, and the prominence of knolls, ridges and hills in a largely natural state. There are relatively few visually prominent buildings. The City's image is of a self-sufficient, planned suburban community with a consciously maintained semi-rural character. This image is perpetuated by prudent land use practices that result in the conservation of open space while combining residential, commercial and industrial components within the fabric of the City's General Plan.

The City has been successful in protecting the scenic resources of the Conejo Valley in several ways. For example, environmental documents prepared for all major developments evaluate the project's visual impact from designated scenic highway corridors and parklands. This is accomplished by utilizing composite photo-overlay exhibits that depict how the finished project will appear from selected viewshed perspectives. Most importantly, the City has adopted specific site planning guidelines and development policies that effectively serve to minimize any potentially adverse visual impacts and help retain the semi-rural appearance of the community. These policies encourage the location of buildings on relatively flat land between knolls or on moderate slopes, blending with the natural surroundings, while avoiding the placement of structures on ridge lines, conspicuous hilltops or steep hillsides where silhouetting or extensive grading would be necessary.

B. Landform Features

The Conejo Valley, which encompasses most of the Thousand Oaks Planning Area, is flanked by two major east-west trending mountain ranges - the Santa Monica Mountains to the south and west and the Simi Hills to the north and east. Situated above the Oxnard Plain and separated by the Conejo grade, this upland area generally ranges in elevation from 600-900' above sea level, with Conejo Peak, Simi Peak and the Mountclef Ridge rising another 1,000-1,600' above the valley floor.

Other significant landform features include numerous prominent knolls, hills, rocky outcroppings and lower intervening ridgelines, and a system of deeply entrenched stream channels and barrancas. From a topographic standpoint, most notable among

these features is the Conejo Canyons area through which the bulk of stormwater generated within the watershed eventually flows. This area is characterized by very steep, rugged, hillside and mountainous terrain that descends rapidly northward toward the Santa Rosa Valley. Please refer to Figure 1.

An important goal of the City's General Plan is to "enhance and preserve the spaciousness and attractiveness of the Conejo Valley in accommodating future development." Because of this commitment, and with the strong support of the community, the City Council enacted a comprehensive set of local ordinances that have served to limit the height of manufactured cut and fill slopes, encourage the clustering of development in areas with less steeply sloping hillside terrain, and minimize significant modifications to prominent ridgelines and other related landform features. In addition, the Council has adopted specific policies recommended in the Conejo Canyons Study (1979), with respect to long term management and protection of the scenic qualities associated with this unique landform feature.

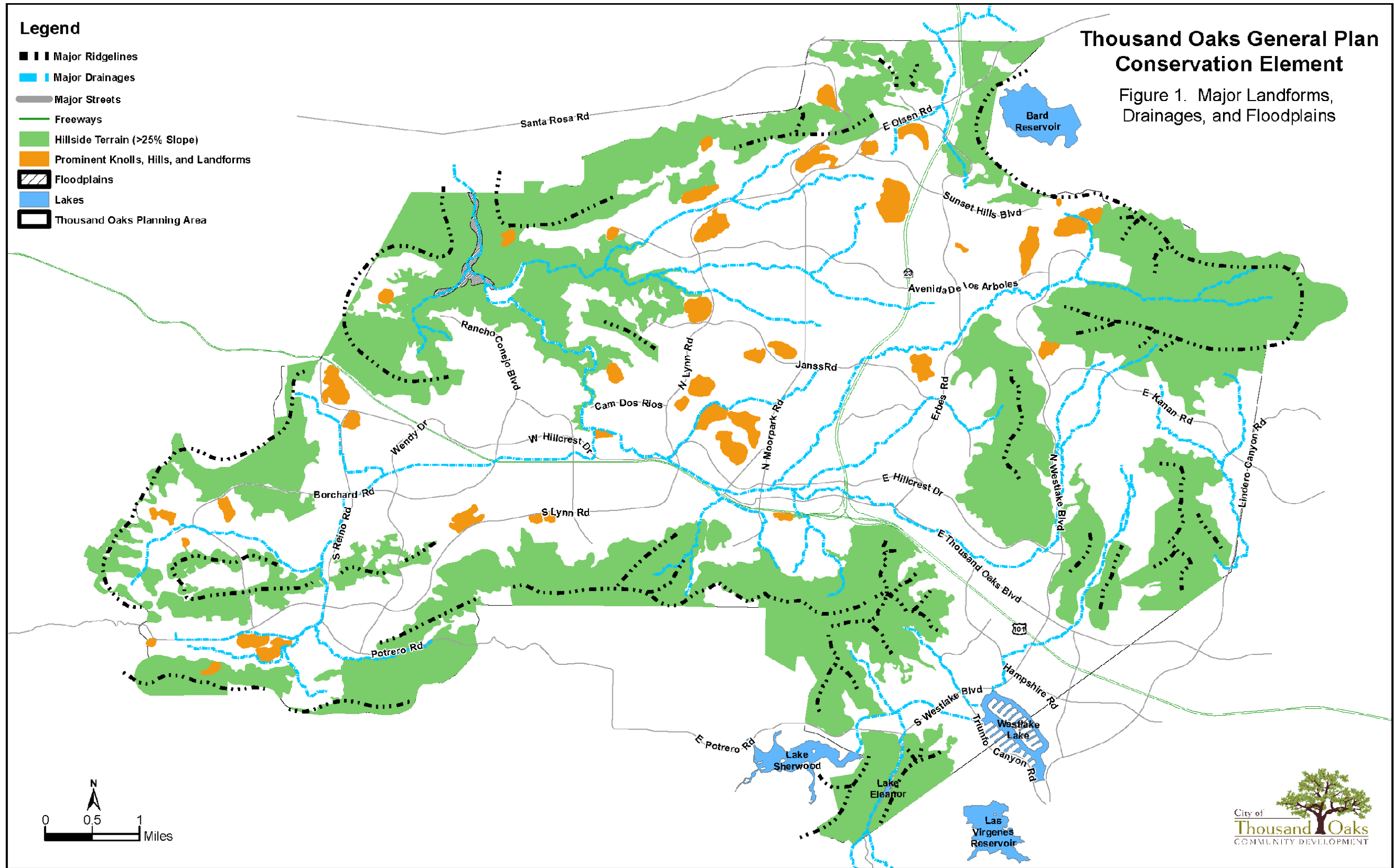
In keeping with these adopted policies and regulations, the following natural landform features have been classified in terms of their inherent suitability for development:

Flat Land: For the purpose of this Element, flat land is defined as land with a natural slope less than 10 percent. Approximately 28% of the 60-square mile Planning Area is classified as flat land. It is suited to many types of land uses ranging from the most intensive urban uses to recreation and agriculture. Natural limitations on the suitability of individual sites would be based upon soil characteristics such as shrink-swell (expansion) potential, load-bearing ability, susceptibility to erosion and seismic hazard. Such geologic problems potentially associated with construction on flat land can be avoided or mitigated by proper geologic and soils investigation before development. A more detailed examination of soils and geology in Thousand Oaks is included in the Safety Element of the General Plan.

Moderately Sloping Hillside: Moderately sloping hillsides are defined as land with natural slope between 10% and 25 percent. They are suited to less intensive land development patterns than those appropriate to flat land.

Steeply Sloping Hillside: Land over 25% natural slope is classified as steeply sloping for purposes of the General Plan. Approximately 42% of the Planning Area is so classified. It is intrinsically suited to few urban uses, primarily for reasons of soil erosion control and protection of the aesthetic quality of the landforms. Drainage is also more rapid and the role of ground cover in retaining the soil and slowing runoff is more critical. Landscaping is more difficult to maintain on steep slopes. Open space, certain recreation facilities such as trail systems, and very low density residential development are most appropriate for steep hillside terrain.

Ridgelines: The natural ridge lines within the Planning Area are perceived by residents as important assets worthy of protection. This has been reaffirmed over time in community attitude surveys, documented in the City's Ridgeline Study and embodied in the Protected Ridgeline (PR) Overlay Zone ordinance.



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Chapter 3

Hydrology

CHAPTER 3: HYDROLOGY

A. Lakes and Lakeshores

There are two man-made lakes in Thousand Oaks - Westlake Lake, which is privately owned and Lake Eleanor, which is owned by the Conejo Open Space Conservation Agency (COSCA). Lakes and their shores are suitable to a variety of uses, including natural habitat, resource conservation, recreation, and appropriate residential, commercial and institutional lakeshore development. The most important factors that determine the suitability of a particular land use for a lakefront location are: (1) the potential for water pollution and (2) the effect of the land use upon the scenic amenity of the lake. Sufficient building setbacks not only conserve significant landscape features and natural landforms associated with lakes, but also serve to minimize indirect impacts to resident and migratory wildlife that utilize these habitats.



Photo 2: Lake Eleanor; Lake Eleanor Open Space

In terms of controlling pollution, bio-filtration is a concept that utilizes various types of herbaceous vegetation planted in shallow earthen-bottomed basins to filter out contaminants normally found in urban runoff such as oil, grease, soap, fertilizers and pesticides. Once these chemical substances become trapped, they naturally break down over time into harmless organic compounds that actually stimulate plant growth. Since most of the pollution is carried by low flow nuisance water, biofiltration systems would be beneficial if incorporated in the landscape and drainage design of development projects that are tributary to both lakes.

B. Streams and Creeks

The Conejo Valley encompasses a drainage area of approximately 60 square miles. The major drainage course within the Planning Area is the Arroyo Conejo, including its principal tributary, the South Branch, which drains about 45 square miles, bounded by the ridgelines of the Santa Monica Mountains to the south, Mountclef Ridge to the north, Conejo Mountain to the west and the Simi Hills to the east. The Arroyo Conejo flows to the Santa Rosa Valley northwest of the Planning Area. From that point it continues across the Oxnard Plain via Conejo and Calleguas Creeks, ultimately emptying into Mugu Lagoon at the edge of the Pacific Ocean.



Photo 3: Arroyo Conejo Creek

Two other watercourses, Lindero and Potrero Creek, drain approximately 15 square miles of watershed in the southeastern quadrant of the Conejo Valley. Please refer to Figure 1. These creeks are tributary to Triunfo Creek and Malibu Creek, which empty into the Pacific Ocean about nine miles south of the Planning Area.

As the Planning Area has urbanized, many tributary drainages are retaining running water for longer periods of time, due to the additional nuisance water (e.g. irrigation) runoff.

Most of the stream drainages that traverse highly urbanized portions of the community have been extensively modified as a result of development. Although the City's General

Plan has always encouraged their conservation, many of these stream drainages are designated as "red-line" channels and come under the jurisdiction of the Ventura County Watershed Protection District that determines the appropriate design of any improvements needed to protect the public's health and safety. In the past, to accommodate urban growth, such drainages were typically converted to concrete-lined channels, and in other instances, large sections have been eliminated by diverting runoff into underground storm drains. More recently, the application of State and Federal regulations that afford protection to riparian and wetland vegetation commonly found in natural stream drainages has resulted in more environmentally sensitive development projects, including restoration and re-vegetation wherever feasible. Local examples include the restoration of the seasonal creek immediately south of the public equestrian center at Rancho Potrero (south side of Lynn Road opposite Via Andrea), and the removal of the non-native and highly invasive giant cane (*Arundo donax*) and fan palms (*Washingtonia robusta*) in Hill Canyon and along Wildwood Creek.

Besides accommodating storm water runoff and serving to recharge groundwater aquifers, streams and creeks also provide important foraging, nesting and breeding habitats for wildlife. Not only do animals depend on streams and creeks for water that is critical to their survival, but they often use them as "movement corridors" between adjacent open space areas since they afford excellent cover. Correspondingly, the biological diversity of the plant and animal communities that inhabit, or in some way utilize, the Arroyo Conejo and its major tributaries is quite extensive.

Because of a combination of factors, including biological sensitivity and susceptibility to erosion and flooding, streams and creeks are considered intrinsically unsuitable for urban development, particularly where they occur upstream of and within steep, narrow barrancas.

C. Floodplains

Natural floodplains are generally not suitable for urban land uses. As a result, development should be discouraged in these lowland areas that often contain significant wetland and riparian habitats. Land uses that are not affected by flooding and do not impede runoff are appropriate in floodplains. Such uses include passive use, parks, playfields, golf courses, hiking and riding trails, and natural open space. Within the Thousand Oaks Planning Area, the potential for flooding exists as the result of the encroachment of urban development into natural floodplains. These flood prone areas are graphically depicted in a series of flood hazard risk maps prepared by the Federal Emergency Management Agency (FEMA), which are kept on file in the Public Works Department. The only entirely natural floodplain remaining within the Planning Area is located adjacent to the lower Arroyo Conejo in the Hill Canyon area. This area is designated as natural open space. Please refer to Figure 1.

D. Stormwater Retention and Debris Basins

Stormwater retention and debris basins are often constructed in natural drainage channels and floodplains to effectively control runoff, reduce erosion and prevent

sedimentation further downstream, impacting the resources addressed in the two immediately preceding sub-chapters.

In Thousand Oaks, several large basins already exist on the Arroyo Conejo, Conejo Mountain, Lindero, Lang and Potrero Creek drainages. As urban development continues to occur, additional basins will likely be needed within these same tributary watersheds. Since the Ventura County Watershed Protection District has jurisdiction over the design and approval of such structures, it is important that the City work closely with this agency to minimize any potentially adverse environmental impacts wherever possible. In some cases, opportunities also exist for multi-use recreational activities where sufficient land area is available and conflicts with wildlife can be avoided.

E. Water Supply, Reclamation and Conservation

Water Supply

Thousand Oaks is dependent upon imported water for most of its domestic, commercial and industrial needs. Imported water is delivered to the City and other water purveyors by the Calleguas Municipal Water District (CMWD) from the Metropolitan Water District of Southern California (MWD). The three major water purveyors serving the Planning Area are California-American Water Company, California Water Service Company, and the City of Thousand Oaks Water Department.

Under normal water supply conditions, the MWD supplies water to the CMWD according to demand. The MWD's future water system demand is based on a population forecast provided by the Southern California Association of Governments (SCAG) in its Growth Management Plan, which incorporates local projections. The CMWD has a capital improvement program to enhance system reliability for existing users and to accommodate new growth. Through its capital improvement program, the CMWD is committed to constructing local storage and additional importation and reclaimed water facilities in an effort to drought-proof its service area and enhance the reliability of its service area's water supply.

In a joint venture, the CMWD and the MWD are working on a large-scale importation and subsurface water storage project in Ventura County, known as the "Las Posas Aquifer Storage and Recovery project which provides a measure of supply reliability for the entire CMWD service area. This project involves construction of a second MWD supply pipeline to the CMWD and storage of up to 300,000 acre feet of imported water in the North Las Posas Groundwater Basin. When available, excess imported water would be injected into the basin. Subsequently, if deliveries from the MWD are curtailed or interrupted by drought or pipeline outages, the water could be recovered from the groundwater basin. As a result, the Las Posas Aquifer Storage and Recovery project would insulate the service area from future supply problems by reducing the District's dependence upon imported state water.

Water Reclamation

In addition, CMWD is pursuing the construction of reclaimed water projects on the Oxnard Plain and in the Conejo and Simi Valleys. These ventures could ultimately yield a substantial portion of the District's current annual deliveries. The recycled water will be used primarily for irrigation purposes. As a result, an equivalent amount of potable water will become available for domestic, commercial and industrial usage, reducing the need to acquire additional imported potable water supplies.

One example of the use of reclaimed water is the Conejo Creek Diversion Project, a cooperative effort among the City of Thousand Oaks, CMWD, Camrosa Water District, and Pleasant Valley County Water District. It involves the diversion of reclaimed wastewater from the City's Hill Canyon Wastewater Treatment Plant discharged into Conejo Creek. The diverted water is transferred to Camrosa and Pleasant Valley County Water District for irrigation of farmland and other acceptable uses.

Water Conservation

The City has prepared an Urban Water Management Plan, pursuant to State Legislation (SB 7). The purpose of the plan, which is updated every five years, is to document water conservation efforts by the City, as well as assess water supply and demand. As a result, various water conservation measures have been implemented:

1. The City created a staff position to help manage water resources by developing water conservation programs.
2. The City has cooperated with CMWD and MWD, creating a unified effort to address water supply reliability in the County.
3. The City is a signatory to a Memorandum of Understanding regarding urban water conservation in California, and is a member of the California Urban Water Conservation Council.
4. Thousand Oaks Municipal Code (Title 10, Chapter 2, Article 11) includes mandatory water conservation provisions and is based on MWD's "Model Water Conservation Ordinance".

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Chapter 4

Biological Resources

CHAPTER 4: BIOLOGICAL RESOURCES

A. Native Plant Communities

Thousand Oaks enjoys a Mediterranean climate. Southern California is one of only 5 regions on earth that experience such climates. This regime of warm dry summers and cool, moist winters has resulted in the development of plants that have evolved to grow in the winter and early spring when water is plentiful and withstand the long dry summers by becoming dormant when water is unavailable.

Naturally occurring assemblages of plants, called native plant communities, tend to grow together as a response to several environmental factors such as soil type, slope, exposure and availability of sub-surface moisture, etc. While each individual plant species has unique requirements that account for its presence or absence within a general area, considerable overlap in plant distribution often occurs due to the variability of environmental factors and other related habitat conditions. As a result, these communities sometimes merge along relatively indiscreet borders to form mosaic patterns of different vegetation types and varying species composition.



**Photo 4: Southern Oak Woodland, California Sage,
and Grassland Communities; South Ranch Open Space**

In a very general sense, the Thousand Oaks Planning Area contains six native plant communities which are representative of the larger Santa Monica Mountains region. Refer to Biological Resources Map, Figure 2. These communities are briefly discussed below. A complete flora of the Thousand Oaks Planning Area is provided in Appendix A.

Grasslands: Grasslands are characterized by low annual herbs such as black mustard, wild oats and brome grass. In less disturbed areas native grasses, such as purple needle grass, and native bulbs, such as Catalina mariposa lily, may become quite common. This plant community is located primarily in heavy clay soils on gently rolling hills and valleys throughout the Planning Area. It should be noted that in many areas, grass species are not as common as other herbaceous plants in this community, leading some botanists to refer to it as California Prairie; however, we will continue to refer to these areas as "Grasslands" in the Conservation Element due to familiarity of use.

Grasslands have been subject to many man-made constraints and pressures including competition from introduced non-native species, agricultural conversion, increased frequency of wild-fires and urbanization. In areas where the grasslands have remained, this has resulted in the replacement of the native flora with introduced non-native plants. On the urban/wildland interface, many native grasslands have become completely dominated by weedy annual species such as ripgut brome (*Bromus diandrus*) and tocalote (*Centaurea melitensis*). This community in its natural form is becoming increasingly scarce in Southern California and this trend is likely to continue as a result of fluctuating weather patterns associated with climate change and an increase in the incidence of wild fires.

Chaparral: This is probably the most characteristic vegetation type of Southern California, and is typical of Mediterranean climates throughout the world. It is found mostly on steep slopes with shallow soils. This plant community consists of a variety of stiff, woody shrubs and usually occurs at higher elevation than the California sage scrub zone. Common chaparral plants include chamise, scrub oak, several species of ceanothus, laurel sumac and mountain mahogany. It is located in the foothills south of the Ventura Freeway and on north-facing slopes along the Mount Clef Ridge, Conejo Canyons, and Simi Hills. Although many plant species within the chaparral community have adapted to withstand periodic wild fires typical of Southern California, too frequent fires can result in the replacement of the chaparral shrubs by weedy annual grasslands. Chaparral shrubs provide cover for large animals, serve as a major component in the diet of the mule deer, and produce seeds for birds and small mammals.

California Sage Scrub: Along with chaparral, this is the most widespread plant community within undeveloped areas of the Planning Area. It is comprised of small semi-woody shrubs and is sometimes called "soft chaparral" due to the flexibility of the leaves and stems. Typical California sage scrub plants include California sagebrush, California sunflower, California buckwheat and purple sage. The California sage scrub community is usually found below 1000', where it is present as a band surrounding higher mountains below and often inter-grading with chaparral. Two forms of this plant community occur within the Conejo Valley - "inland," and "maritime." The inland form is by far the most abundant within the Planning Area and is often called inland sage scrub. The maritime form is present along the Conejo Grade and on south-facing slopes of the Broome Ranch where the penetration of fog provides additional moisture. Like chaparral, coastal sage scrub plants have adapted to periodic fires.

The cumulative loss of California sage scrub habitat throughout the state has been the focus of considerable concern among biologists. Many of Thousand Oaks' rarest endemic plants and animals are found within this plant community.

Southern Oak Woodland/Oak Savannah: Southern oak woodlands and savannahs primarily occur in gently rolling foothills and valleys. Valley oaks usually form a savannah comprised of large widely-spaced trees separated by extensive grasslands. This plant community is present within the Planning Area but in its undisturbed form is limited to small geographic areas. While the City's Oak Tree Ordinance has enabled many of the individual historic oaks to be protected as development took place, the only remaining examples of southern oak woodlands and savannahs with their associated plants are within public open space. Southern oak woodlands and savannahs support a wide variety of bird and animal species wherever they occur.

Riparian/Coast Live Oak Woodland: This plant community is restricted for the most part to perennial streams or springs where there is moisture at or near the surface much of the year. In valleys and canyons where riparian vegetation naturally occurs, this plant community provides important habitat for wildlife, yet it is diminishing throughout the Santa Monica Mountains region and comprises less than 3% of the Planning Area's remaining natural open space. In Southern California, the majority of remaining riparian woodlands are largely confined to remote inaccessible areas. Urban development and associated flood control projects have been the principal causes for its loss both locally and regionally. Within the Planning Area, riparian plant communities occur in two general forms: riparian woodland and herbaceous riparian. Riparian woodland consists of an overstory of large deciduous trees such as arroyo and red willow, coast live oak, California sycamore and Fremont cottonwood with an understory of shrubs such as California wild rose and mule fat. Herbaceous riparian comprises a dense growth of low perennial plants such as cattails, rushes, sedges and California loosestrife.

Freshwater Marsh: The most restricted plant community in the Planning Area, freshwater marsh comprises an accumulation of herbaceous perennial plants generally found wherever water ponds. The best example of freshwater marsh is found along the margins of Lake Eleanor, but it also occurs along slowly moving portions of streams and in the vicinity of livestock ponds. Common plants include cattails, tules and water plantain. Adding to their overall importance, freshwater marshes are utilized as breeding and foraging areas by waterfowl such as cinnamon teal and wading birds such as great blue heron. Locally, a wetland was successfully restored adjacent to the Hill Canyon Wastewater Treatment Plant that provides habitat for a variety of plant and wildlife species.

Biological Crusts: Hikers in the open space may notice in certain areas that the bare soil is covered with a low, plant-like growth. This is a biological crust. Not technically a plant community, biological crusts are a unique assemblage of organisms comprised of cyanobacteria, mosses, lichens and liverworts. They occur in most plant communities in the Planning Area, but are best represented in chaparral and California sage scrub. Research indicates that these biotic communities perform a number of critical functions in ecosystems. Belying their rather humble appearance, they provide soil stability by cementing soil particles together, thereby providing resistance to wind and water erosion. They also increase water infiltration by retarding run-off and suppressing weed

germination by forming a “crust” on the soil which weed seeds cannot penetrate. In areas where the crust has been removed by trampling, or movement of heavy equipment, weedy, introduced plants soon colonize the soil, crowding out native species.

B. Wildlife Resources

A variety of resident and migratory wildlife species that are representative of the Santa Monica Mountains region can be found within natural open space areas that have been permanently preserved, as well as remaining undeveloped areas. Not only are key habitat resources such as food, cover, and water plentiful throughout these areas on a year-round basis, but rocky outcrops, high peaks, steep hillside and canyon areas combine to provide important undisturbed nesting and breeding opportunities for wildlife. Along with an extensive network of movement corridors that serves to prevent habitat isolation and maintain unrestricted access to these resources, both the diversity and quality of this ecosystem are relatively high.

Examples of the range of wildlife found within the Thousand Oaks area are discussed below. A complete list of wildlife species known to inhabit, or otherwise make use of available habitats located within the Planning Area is included in Appendices B through E.

Native Pollinators

The City’s open space system as well as urban landscaping supports a great diversity of invertebrates. The importance of invertebrates as pollinators and essential building blocks of ecosystems cannot be overstated. For example, it makes no sense to conserve an endangered plant unless its pollinator is also conserved. In addition, many species of reptiles, amphibians, birds, bats and small mammals rely on insects as a principal or critical food source. Invertebrates, particularly insects, also serve as indicators of environmental health. The recent colony collapse disorder among honey bees, is an example of an environmental issue that may have ramifications throughout the ecosystem. The City can promote a healthy invertebrate fauna by the use of landscape plants which provide a nectar source, limiting use of insecticide and protecting intact ecosystems which provide nesting sites and foraging areas.

Fish

The Planning Area has several water bodies and drainages which support fish species. Under natural conditions, streams within the City were generally seasonal, meaning that they tended to dry up or experience very low flow during periodic droughts. As the City developed, these water courses began to conduct irrigation water and other urban water which ran into storm drains, resulting in an increase in stream water. Streams such as the Arroyo Conejo are therefore now considered perennial. The Hill Canyon Treatment plant also discharges tertiary treated water into the Arroyo Conejo, which has also increased stream flow. Today, these drainages and artificial water bodies such as Lake Eleanor provide suitable habitat for fish.

All of the fish which occur today in the Planning Area are introduced. Some of these are game fish such as largemouth bass, while others are aquarium fish such as goldfish which have been released by well-meaning people into these waterbodies. Introduced

fish such as bass can have a significant adverse effect on aquatic ecosystems because the introduced fish eat native animals such as amphibians and even young birds. Species such as goldfish and carp create sedimentation by churning up the substrate. However, it should be noted that the presence of fish does provide food for bird species such as kingfishers and herons, and mammals such as raccoons.

The only sensitive fish species found recently in the Planning Area is the arroyo chub. The arroyo chub is considered a "special animal" by the California Department of Fish and Wildlife (CDFW). This small (3-4") minnow is native to rivers of the Los Angeles Basin, Malibu and San Juan Creek and the Santa Margarita River drainage and it has been introduced in the Santa Clara and Cuyama Rivers in Ventura County. According to the CDFW, arroyo chub are adapted to survive in habitats with warm, fluctuating water and conditions ranging from high velocity, high sediment flows in winter months to clear, intermittent, warm water creeks during summer and fall.

The arroyo chub was found in the Arroyo Conejo by biologists conducting surveys for the southwest pond turtle in 2002. The species has not been documented since that time and is believed to be extirpated from the area.

A list of fish species found within the Planning Area is included in Appendix B. Additional species may be found due to continuing unauthorized introductions.

Reptiles and Amphibians

Reptiles occur throughout natural open space areas and commonly include side-blotched lizards, southern alligator lizards and western fence lizards. A variety of snakes are also present, including gopher snakes, striped racers, Southern Pacific rattlesnakes, common king snakes, ringneck snakes, and western aquatic garter snakes. The southwestern pond turtle is a State "species of special concern" and can be found in the Arroyo Conejo and its major tributary drainages. See Appendix C for a list of the reptiles and amphibians of the Thousand Oaks Planning Area.

Several species of amphibians are present in the cool, moist habitats afforded by woodlands and riparian communities. Amphibians expected to occur include slender salamanders, ensatina salamanders, western toads, and Pacific tree frogs. Toads and tree frogs utilize temporary pond and stream habitats for breeding, and do not require much water for the rest of the year. Fully aquatic forms such as the introduced bullfrog are present along perennial streams and ponds. Another State-listed "species of special concern," the red-legged frog, also listed as threatened by the Federal Government may also be present in riparian areas, but has not been found within the City in recent surveys.

Birds

The great diversity of bird species found within Thousand Oaks reflects the variety of habitat types available to resident and migratory populations. Local survey records have identified a total of 166 bird species here. These species include breeding birds that nest here but migrate to warmer climates during the winter months, resident species that are present year-round, and migrants that are here only during the fall and winter. Among the most commonly encountered birds within urbanized portions of the City are

house sparrows, house finches and Brewer's blackbirds, while several species of warblers, California and spotted towhees, plain titmice, acorn woodpeckers, California quail and red-tailed hawks are more typical of natural open space areas.

Particularly noteworthy are the 13 species of raptors, or "birds of prey" which can be found here. The following species are known to nest and breed locally: Cooper's hawk, American kestrel, prairie falcon, red-tailed hawk, red-shouldered hawk, great homed owl, barn owl and white-tailed kite. Other raptors that range through the area or become more numerous in the winter months include the turkey vulture, northern harrier, sharp-shinned hawk, merlin, and screech owl. As a whole, raptor population densities within the Santa Monica Mountains region, which includes the Conejo Valley, are considered to be some of the highest in the country. See Appendix D for a list of birds of the Thousand Oaks Planning Area.

Mammals

Mammals that have either been observed or are expected to occur locally include species ranging from small ground dwelling rodents to large carnivores. Resident populations of small to medium-sized mammals such as deer mouse, Pacific kangaroo rat, Audubon cottontail, long-tailed weasel, striped skunk and raccoon are encountered in and around urban areas, as well as open space. Larger mammals including coyote, grey fox, badger, bobcat, and mule deer tend to be more restricted in their distribution and primarily occupy larger natural undisturbed habitats. Although locally uncommon, mountain lions are occasionally seen by hikers or residents bordering the open space system. These large predators have extensive territories that include the Santa Monica Mountains, Simi Hills and the Santa Susana Mountains. See Appendix E for a list of mammals of the Thousand Oaks Planning Area.



**Photo 5: Coyote (*Canis latrans*); Rancho Sierra Vista/Satwiwa,
Santa Monica Mountains National Recreation Area**

C. Wildlife Movement Corridors

It is essential that natural open space not only be protected, but that these areas are linked together in a way that maintains biodiversity and prevents the loss of sensitive animal species. Commonly called wildlife "movement corridors," such linkages are generally described as routes or paths that can be utilized by animals to gain access to critical foraging, nesting and breeding habitats that are necessary to maintain healthy populations. As urbanization within the Conejo Valley and nearby communities continues to cause the isolation and fragmentation of habitat, both on a regional and local scale, the need to plan for, and accommodate, a viable network of movement corridors becomes increasingly important.

From a regional standpoint, the most important corridors are those linking the Santa Monica Mountains, Simi Hills and Santa Susana Mountains.

Approximately 15,000 acres (39%) of the Thousand Oaks Planning Area is natural open space. Except for a few remaining key parcels of land, most of the urbanized area is surrounded by an extensive inter-connected ring of natural open space that accommodates the unrestricted movements of wildlife. Please refer to Biological Resources Map, Figure 2.

According to a recent report entitled "South Coast Missing Linkages Project: A Linkage Design for the Santa Monica- Sierra Madre Connection" (Penrod, et al, 2006), the U.S. 101 and State Route 23 Freeways are the major barriers to regional wildlife movements between the Santa Susana Mountains, Simi Hills and the Santa Monica Mountains. Caltrans and other organizations are working to ensure that there is adequate access across both freeways by way of undercrossings in the form of large culverts.

D. Oak and Landmark Trees

Trees provide many benefits to our community. Not only do they provide abundant shade, lower temperatures, produce oxygen and filter the air we breathe, but they significantly enhance and beautify the urban landscape. In an open space setting they also provide valuable arboreal habitat for numerous bird species including hawks and owls, all of which increase both the diversity and quality of the natural environment.

Although early explorers noted that one could look across miles of oak studded inland coastal valleys that seemed to have been planted by some master gardener, urbanization of these desirable, easily developable, lowlands and foothills has resulted in major impacts to oak trees. As an example, the majestic Valley Oak, which once commonly existed as very large specimen trees throughout the rolling grasslands of Southern California, is now considered to be threatened within this portion of its range due to lack of regeneration. While a considerable effort has been made to protect Valley Oak Trees within the City, the lack of suitable Valley Oak habitat is the most significant reason for this lack of regeneration.

Oak trees have long been recognized for their historic and cultural significance to the Conejo Valley, and literally thousands of oak trees have been successfully planted locally since the City's incorporation in 1964. In addition, a comprehensive ordinance regulating the removal and development around oaks was also enacted by the City Council early on, in order to ensure protection of these valuable natural resources as the City developed. In addition to the City's Oak Tree Ordinance, the City Council has also enacted a Landmark Tree Ordinance which protects designated landmark trees including California sycamore, Southern California black walnut, California bay and toyon.



Photo 6: Coast live oaks (*Quercus agrifolia*); Los Padres Open Space

Oak Trees

The following species of oak trees are native to Thousand Oaks:

Valley Oak (*Quercus lobata*): The valley oak is considered the monarch of California oaks. It is the largest and usually lives longest, attaining heights of over one hundred feet and living 400-600 years. The valley oak is characterized by the deeply-lobed, large, gray-green leaves, with the distinctive shape usually associated with oaks. This oak is winter deciduous, which means it sheds its leaves in the fall and produces a new crop of bright green leaves in the spring. The trunk is dark and coarse. The valley oak, as its name implies, grows naturally in valleys where the soil is deep and rich, shading the undergrowth and creating the oak savannah.

Coast Live Oak (*Quercus agrifolia*): Coast live oaks are the most prevalent oak along the California coast and in coastal valleys, from Mendocino to Baja. These trees, with their dense evergreen canopy, grow in almost all conditions, from moist streamside to

dry hillside. The leaves are spiny and dark green, and the trunk is smooth and gray. Although they generally do not live as long as valley oaks, they commonly exceed 250 years in age and range from 40-60' in height. Due to its adaptability and hardiness, the coast live oak is grown by nurseries for use in the landscape and is a major factor in reforestation, especially in Thousand Oaks.

Scrub Oak (*Quercus berberidifolia*): Despite its name, the scrub oak is an attractive many-trunked large shrub or small tree growing primarily in the chaparral plant community. The leaves of the scrub oak are small, green and have spiny lobes. Trees grow 6-15' in height and as wide as they are tall. Characterized by a shrub-like appearance, the dense growth habit of this plant make it excellent for erosion control and wildlife habitat. Although protected by law, scrub oaks are often removed for fire clearance. Fire Protection District regulations allow for selective removal of chaparral plants between oaks resulting in protection of most of the scrub oaks.

Palmer's Oak (*Quercus palmeri*): In 2002, a new species of oak was found by City Staff in the Sunset Hills Open Space in the northeastern portion of the City. Palmer's oak is found in arid chaparral and has a discontinuous distribution from San Luis Obispo County to San Diego County. Palmer's oak usually takes the form of a large shrub or small tree. The population in our open space consists of about 6 trees approximately 20' in height. It has extremely spiny leaves and rigid spreading twigs. The acorn cup is unique in having a spreading fringe around the top.

Landmark Trees

In addition to the various species of oak trees for which the Planning Area is noted, several other types of native trees are valued as symbolic of the City's heritage, beauty, and image. These other trees include:

California sycamore (*Platanus racemosa*): California Sycamore is a large, strikingly beautiful tree which predominantly occurs in small groupings in open areas and canyons adjacent to stream channels. Because of this association, they often intergrade with other riparian trees such as willow, cottonwood and white alder. Sycamores typically range from 40-100' in height with short thick trunks and equally large irregular spreading branches. The deeply cleft leaves resemble maple leaves and are 5-11 inches long and light-yellow green in color. Flowers develop into 2-7 round, bristly fruit heads that are brown in color and are shed along with the leaves in late fall.

California bay (*Umbellularia californica*): California bay is an evergreen tree which locally occurs in moist shady canyons and barrancas of the Arroyo Conejo Creek and its tributary drainages. Often found in association with other riparian trees, bay laurels generally vary from 35-60' in height and are characterized by straight narrow trunks with wide, rounded, densely foliated canopies. Leaves are shiny, smooth, deep yellow-green, approximately 3-6 inches long. As a rule, the leaves persist on the branches for two seasons or more, after which they are shed allowing for new growth. The leaves are strongly aromatic and, although stronger, can be used in the same way as culinary

bay. The leaves produce fumes which were put to use by early entomologists in insect killing jars.

Southern California black walnut (*Juglans californica*): The Southern California black walnut is a small multi-trunked tree which occurs sporadically in California sage scrub, riparian woodland and southern oak woodland. The tree has long leaves which are divided into leaflets and smooth ashy white bark which becomes blackish brown and deeply furrowed with age. Black walnut trees are considered to be short-lived and generally do not exceed 150 years in age and range from 12-30' in height. The small, hard-shelled nuts are an important food source for wildlife and were utilized as food and gaming pieces by the Chumash people. Walnut trees brighten up the Conejo Valley when their leaves turn a beautiful golden yellow before they drop in the autumn.

Toyon (California holly) (*Heteromeles arbutifolia*): Actually a large evergreen shrub, toyon is famous for its bright red berries. Its supposed similarity to English holly has earned it the common name of California holly and its prevalence in the area gave the town Hollywood its name. It grows throughout California in chaparral and southern oak woodland. Although usually about 15' in height, exceptional specimens will reach 25' in height. Toyon is available in the horticultural trade and is valuable as a screen, bank planting or for erosion control.

E. Wetland and Riparian Areas

The word "riparian" means streamside and refers to the vegetation that grows along the edges of freshwater bodies such as streams, ponds and lakes. Riparian zones are typically characterized by moisture-dependent vegetation such as willows, cottonwoods and mule fat. Typically, riparian woodland is comprised of an overstory of large trees and an understory of shrubs and herbaceous perennials. Other types of riparian habitats may consist entirely of herbaceous perennials such as sedges and rushes and lack trees and shrubs.

In Thousand Oaks, larger perennial streams such as the Arroyo Conejo support good examples of Riparian Woodland. Smaller tributaries within these watersheds normally contain running water only part of the year and consequently are called intermittent streams. However, even these intermittent streams often retain significant soil moisture and may support riparian vegetation.

Wetland is a more inclusive term than riparian and refers to a vegetated zone that is seasonally or continuously submerged or has more saturated soil conditions. In Thousand Oaks, wetlands may have both riparian and aquatic components and principally occur along larger streams such as the Arroyo Conejo and bodies of water such as Lake Eleanor.

Wetlands and riparian areas constitute an extremely valuable natural resource. They represent essential breeding and foraging habitat for many of the migratory and resident wildlife species found within the Planning Area. Although wetland areas account for only six percent of California's land area, they provide habitat for more than one-third of the

State's endangered species. Wetlands and riparian areas support unique plant associations, several of which have been designated as declining throughout the State by the Natural Diversity Data Base. Beyond providing floodwater retention, groundwater recharge, erosion control and water purification, they also provide attractive areas for passive recreation such as hiking, photography and nature study.

F. Rare, Threatened and Endangered Species

These are plant and animal species that are considered by State, Federal, or private agencies to exhibit unique biological significance, limited distribution, restricted habitat requirements, particular susceptibility to human disturbance, or a combination of these factors. Both State and Federal government agencies have developed a rating system to designate the status of sensitive species. These designations, in increasing order of sensitivity, are: "rare"; "threatened"; and "endangered." Official designation of a species in one of these categories affords these species an additional level of protection.

The California Department of Fish and Wildlife (CDFW) has also developed a listing of "species of special concern." Although this designation does not provide additional legal protection, it does indicate concern for the status of species that are experiencing a statewide decline. The known distribution of sensitive plant and animal species is recorded by the CDFW in the Natural Diversity Data Base. In addition to this key information, the CDFW has developed a similar system called the Wildlife Habitat Relationship Data Base to determine the potential for species occurrence based on habitat types.

In addition, the California Native Plant Society (CNPS) maintains an inventory of rare and endangered plants based on information provided by amateur and professional botanists throughout the state. This is the most comprehensive list in existence and it is considered to be authoritative by State and Federal Agencies. In 2010, CDFW changed the name of "CNPS List" or "CNPS Ranks" to "California Rare Plant Rank" (CRPR). The name was changed to reduce confusion over the origination of the list. CNPS and CDFW jointly manage the Rare Plant Status Review group. Nothing about the process of rare plant review or rank assignment has changed and the same committee of experts from many organizations in addition to CDFW and CNPS still review each change and ultimately assign the ranks.

The plants included in CRPR List 1B are rare and endangered throughout their range, are restricted to California and are eligible for State listing. CRPR List 2 includes plants that are rare, threatened, or endangered in California, but more common elsewhere. CRPR List 3 is a review list of plants about which we need more information. CRPR List 4 is a watch list of plants of limited distribution which, although not rare at present, are uncommon enough that they should be monitored regularly.



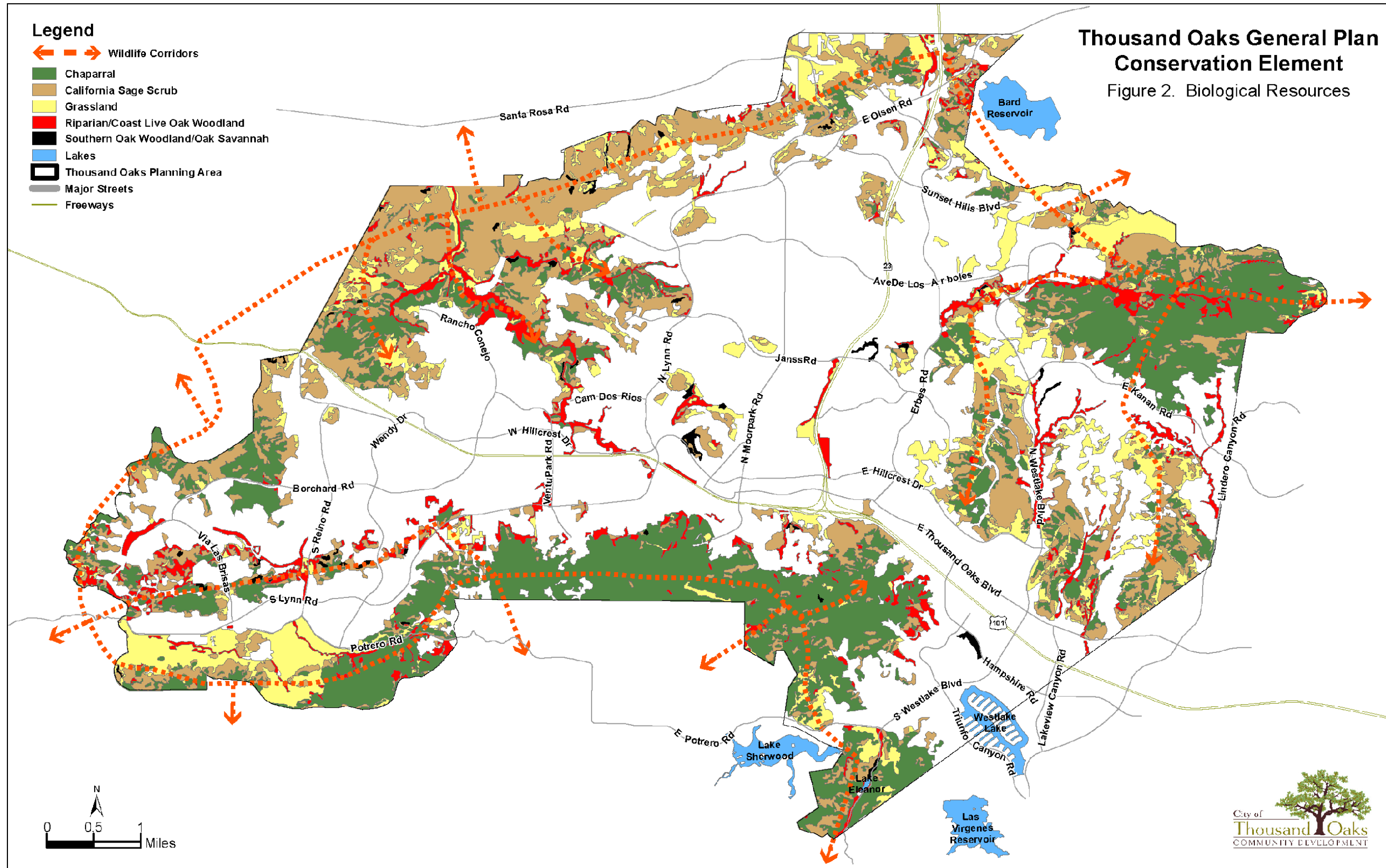
Photo 7: Lyon's pentachaeta (*Pentachaeta lyonii*)

Rare, Threatened and Endangered Plants

Thousand Oaks provides habitat for a number of Rare, Endangered or Sensitive plant species. Many of these are endemic to this area and found nowhere else on earth. One of the principal reasons for this proliferation of unique plants is the unusual geologic conditions in this area. In particular, Conejo Volcanic bedrock found in the Santa Monica Mountains and Mount Clef Ridge and the sandstone bedrock typical of the Simi Hills weather to produce unusual soils which are exploited by several sensitive species. Loss of habitat remains the single greatest threat to sensitive plant species. Luckily, the majority of this habitat is permanently protected in the City's Open Space system. A list of rare, threatened and endangered plant species is provided in Appendix F.

Threatened, Endangered and Sensitive Animal Species

Several State or Federally listed Rare, Endangered or Threatened animal species are found in the Conejo Valley. Undisturbed, native vegetation within the Open Space system provides essential habitat for these species, and will hopefully aid in their recovery. In addition, sensitive animal species are also known to occur within the Planning Area. These are listed as "species of special concern" by the California Department of Fish and Wildlife or are candidates for Federal listing. It should be noted that all migratory birds occurring in the United States, including all eagles, hawks and owls are protected by Federal laws. These species are discussed in Appendix G.



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Chapter 5

Cultural Resources

CHAPTER 5: CULTURAL RESOURCES

A. Archaeological Resources

Archaeological, historical and cultural resources are important, and their protection is appropriately addressed in the Conservation Element. These resources represent the history of Thousand Oaks and the Conejo Valley. Ensuring their proper management and protection will contribute to the City's aesthetics, its civic pride and will provide a valuable link between the past and future.

The Conejo Corridor, which includes significant portions of the Planning Area, holds a bountiful legacy of archaeological resources. For over 1,000 years prior to European occupation, the Conejo Corridor was an integral part of a much larger Chumash territory that extended well inland from the coast and channel islands to include all of Santa Barbara, most of Ventura and parts of San Luis Obispo, Kern and Los Angeles counties. Locally, sites related to Late Prehistoric period occupation dating from approximately AD. 500 to historic contact yield abundant evidence about the ecological equilibrium which characterized the lifeways of these indigenous native people before the arrival of foreign explorers.

The earliest known inhabitants of this general area of Southern California were transient hunters that arrived sometime around 12,000 B.C. Eventually, they would become the cultural ancestors of the modern Chumash who imprinted the Conejo Corridor with signs of continuous habitation for the past 7,000 years. In particular, the Millingstone (5,500 B.C.-1,500 B.C.) and Intermediate (1,500 B.C.-A.D. 500) periods witnessed year-round, multi-purpose use by a stable resident population estimated to be somewhere in the range of 400-600 people. During these ancient times a number of site types evolved, including permanent villages, semi-permanent seasonal stations, hunting camps and gathering localities focused on plant resources. Typically, people lived in largely open sites along watercourses and also in caves and rock shelters, some of which contained paintings and were used for ceremonial purposes.

As permanent Chumash villages gradually increased in size within the Conejo Corridor, extensive trade networks were established with areas located much further inland and with major coastal villages, especially Mugu and Malibu. This type of interaction not only augmented existing food supplies but provided access to locally unavailable stone and shell materials necessary for the production of durable tools and other implements. Many of these Conejo sites have been systematically investigated over the years and the well preserved artifacts recovered during these excavations have been analyzed by archaeologists in order to reconstruct many details of daily life, as well as the evolution of long term social patterns. Unusually noteworthy discoveries in recent years include bear bone whistles, flutes made of California condor bones and small stone bowls stained with traces of red pigment.



Photo 8: Chumash Interpretive Center; Oakbrook Regional Park

The City has always taken a pro-active role in the conservation and management of local archaeological resources. Working in cooperation with representatives of the local Native American Indian Council, as well as professional archaeological consultants and University staff, a significant number of previously recorded habitation and specialized activity sites have been permanently set aside within the Open Space System. Where protection has not been possible due to development, or increased susceptibility to vandalism, systematic testing and data recovery procedures have been implemented with the assistance of Native American monitors. Although the majority of cultural resources recovered during the earliest excavations continue to be kept in storage at UCLA, at the request of the local Native American Indian Council, several of the more recent artifact collections have been returned to the Conejo Valley for curation and display at the Stagecoach Inn Museum.

B. Historical Resources

The first Europeans to visit the Conejo Valley were Gaspar de Portola and his expedition in 1769. The Conejo Valley's colorful history of ranching and farming began in 1803, when most of the Valley was included in the Spanish land grant "Rancho el Conejo", after which the Conejo Valley received its name. Ranching included both cattle and sheep, and lasted until well into the 1900's. Farming began on a large scale in the Valley about 1872, when Rancho el Conejo was sold and smaller parcels were rented out for farming. Principal crops included wheat, hay, and barley, with occasional fruit and nut orchards. By 1875, the Conejo Valley was also an important stagecoach stop on the route between Los Angeles and Santa Barbara, with travelers stopping for lunch or overnight stays.

The history of Thousand Oaks is revealed in historical landmarks and interpretive sites. In the past, historical landmark designations were made by the Ventura County Cultural Heritage Board and approved by the City Council. Historic landmark designations are now approved by the City Council. Landmarks and interpretive centers located within the City's Planning Area boundaries are depicted on Figure 3 and include:

1. **Stagecoach Inn and Interpretive Center:** The original structure was built in 1876, and was a Monterey style structure of northern California redwood with a wrap-around porch and balcony. It served as a stagecoach stop, school, and post office. The Inn was destroyed by fire in the early 1970's. The building was reconstructed and moved to its present location at 51 South Ventu Park Road. The original site was closer to the Ventura Freeway, and is located by a historical marker. The Inn was placed on the National Register of Historic Places and designated as a State Historical Landmark (State Landmark #659) in December of 1975. In May 1976 it was designated as County Historical Landmark #30. It is owned by the Conejo Recreation and Park District and managed by the Conejo Valley Historical Society. Through living history and exhibits, this Center describes life in the Conejo Valley in the late 1800's. Permanent exhibits also describe Chumash culture. The Stagecoach Inn was designated as Local Historical Landmark #1 in November 1997.
2. **Sycamore Tree:** This large sycamore tree is estimated to be over 150 years old and one of the largest sycamores in the Conejo Valley. It was designated as County Landmark #44 in June 1978. It is located just north of the Stagecoach Inn, at 51 South Ventu Park Road. It is on land owned by the Conejo Recreation and Park District. The Sycamore Tree was designated as Local Historical Landmark #2 in November 1997.
3. **Pederson House and Water Tower:** This is a typical turn-of-the- century farm house and water tower that were built in 1913-14 for Lars and Karn Pederson, members of the Norwegian Colony that settled the northern end of the Conejo Valley in 1890. In 1967 the Pederson's son Richard gave the land to California Lutheran University and the buildings were restored. It was designated as County Landmark #45 in June 1978. It is located on Faculty Street at California Lutheran University, and shown by appointment. The Pederson House and Water Tower were designated as Local Historical Landmark #3 in November 1997.
4. **Hunt OliveTree:** This is the only surviving tree from an orchard planted by R.O. Hunt on the Salto Ranch, which he established in 1876. The tree was moved to its present location in 1993. It was designated as County Landmark #64 in January 1982, and located at the southwest corner of Hillcrest Drive and Lynn Road. The Hunt Olive Tree was designated as Local Historical Landmark #4 in November 1997.
5. **Oakbrook Regional Park Archaeological Area and Chumash Interpretive Center:** This 428-acre park contains areas of significance to the Chumash culture. It is on land owned by the Conejo Recreation and Park District, and managed by the Oakbrook Park Chumash Indian Corporation. It was designated as County Landmark #90 in February 1983. The interpretive center includes exhibits, special

events, and an interpretive trail that describe Chumash life. The Regional Park and Interpretive Center are owned by the Conejo Recreation and Park District. They are located on the south side of Lang Ranch Parkway, opposite Oak Valley Lane. The Oakbrook Regional Park Archaeological Area was designated as Local Historical Landmark #5 in November 1997.

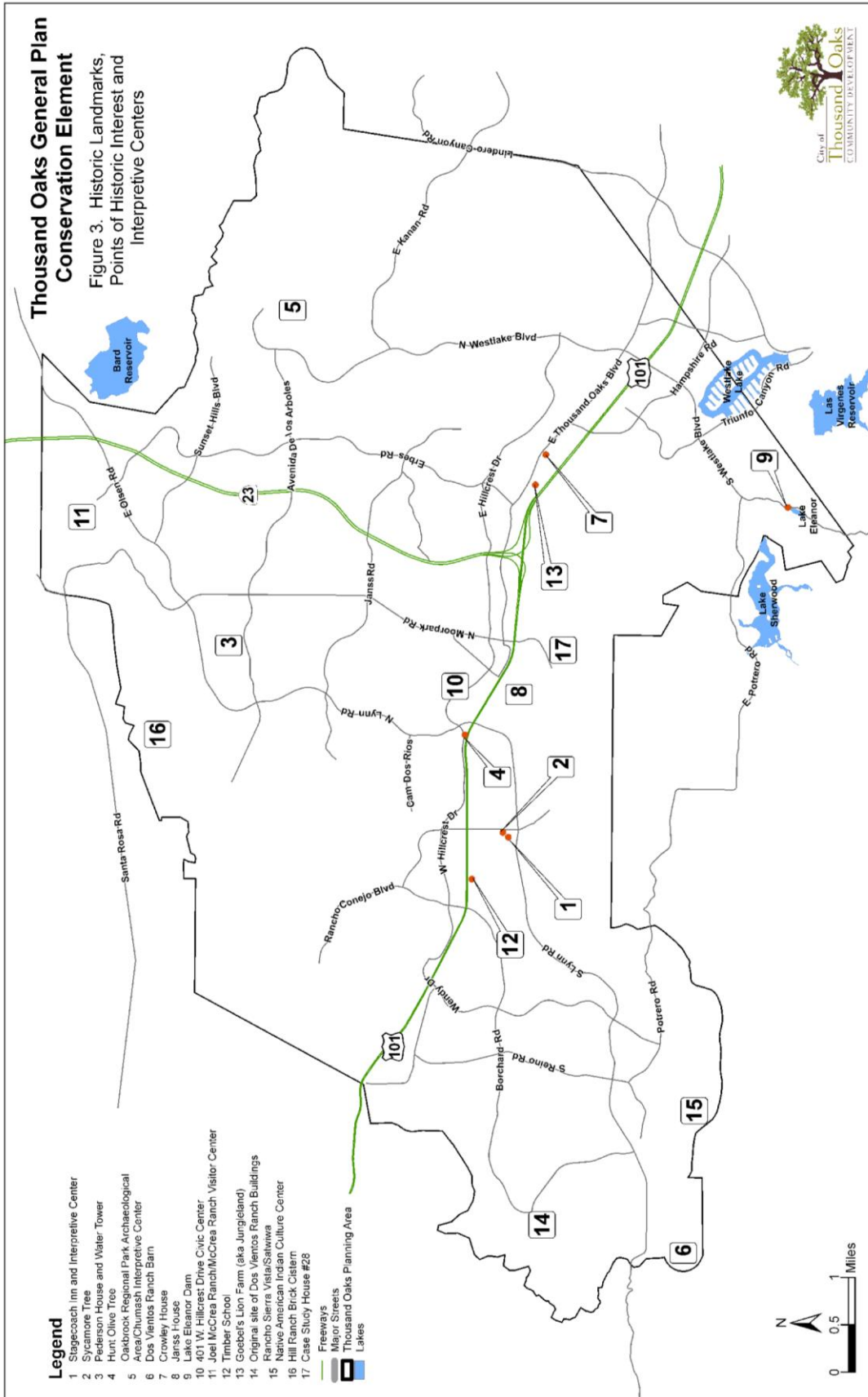
6. **Dos Vientos Ranch Barn:** The Dos Vientos Ranch barn, was built in 1930. The original site was near the intersection of Borchard Road and Via Las Brisas, and was previously part of the 30,593-acre Rancho Guadalupe. The barn and associated buildings were designated as County Landmark #99 in May 1986. The structures were disassembled in 1996 and stored at Rancho Potrero. The Dos Vientos Ranch Barn was designated as Local Historical Landmark #6 in November 1997.
7. **Crowley House:** This house was built in 1910 for Frank and Mae Casey Crowley and served as a real estate office for the first housing development in the Conejo Valley. It was later owned by Louis and Kathleen Goebel. The two-story, five-bedroom house still has its hardwood floors, mahogany beams and volcanic rock fireplace. The property is located at 2224 Pleasant Way (next to Parque de la Paz), and is owned by the Conejo Recreation and Park District. Designated as County Landmark #109 in May 1986 and Local Historical Landmark #7 in November 1997. Shown by appointment.
8. **Janss House:** This house was built for Peter Janss as a weekend retreat in 1931. Peter Janss moved to Los Angeles in 1893. In Los Angeles, he became a land developer and was joined in his business by his sons Harold and Edwin. The Janss Corporation planned and developed in Monterey Park, the San Fernando Valley and Westwood Village, donating the land on which UCLA is built. In 1943 the house became the principal home of Janss' younger son, Edwin Janss. Designated as County Landmark #112 in July 1987 and Local Historical Landmark #8 in November 1997. Located at 482 Greenmeadow Drive.
9. **Lake Eleanor Dam:** This dam, also known as Banning Dam, was built in 1889 and is considered one of the earliest concrete arch dams in California. Its 8-acre lake and adjacent 529 acres of natural open space provide habitat for wildlife. Designated as County Landmark #120 in May 1988. The property is owned by the Conejo Open Space Conservaction Agency and located on the west side of Westlake Boulevard, about ½ mile south of East Potrero Road. The Lake Eleanor Dam was designated as Local Historical Landmark #9 in November 1997.
10. **401 West Hillcrest Drive Civic Center:** The civic center was constructed in 1973 and was the site of the first permanent City Hall in Thousand Oaks. The building was designated as Local Historic Landmark #10 in May, 1997. The historical designation applies to the exterior walls (facades and architectural style) of the Civic Center buildings. Located at 401 West Hillcrest Drive.
11. **Joel McCrea Ranch and McCrea Ranch Visitor Center:** This former cattle ranch of approximately 220 acres is located at the bottom of the Norwegian Grade and at

the eastern end of the Santa Rosa Valley. Film actor and Western movie actor Joel McCrea, and his wife Frances Dee, also a movie star, raised their sons here. The McCreas donated their ranch and family home to the Conejo Recreation and Park District in 1995. The ranch home and outbuildings were listed on the National Register of Historic Places on April 18, 1997. The McCrea Ranch Visitors Center was completed in 2011 and provides a variety of interpretive, educational and cultural programs for the community, while preserving the unique history of this property. Public access to the visitor center is scheduled through the Conejo Recreation and Park District. The Joel McCrea Ranch was designated as Local Historical Landmark #11 in November 1997. Located at 4500 North Moorpark Road.

12. **Timber School:** The Timber School House was constructed in 1924, and the Timber School Auditorium was built in 1948. Timber School is the oldest original school in the Conejo Valley, and was attended by the children of early Conejo Valley ranchers, including the Borchard, Haigh, Hays, Kelley, Janss, and Olsen families. The structures were designated as a Local Historic Landmark #12 in July 2004. The property is located at 1872 Newbury Road and owned by the Conejo Valley Unified School District.
13. **Goebel's Lion Farm Site (aka Jungleland):** Louis Goebel established an exotic animal farm at this location in 1927 so that he could import, raise, and maintain exotic animals for rental to movie studios. His animals included the MGM lion. The popular tourist attraction "Jungeland" developed from the animal farm. The original buildings and animal compound were built in the 1920's and later demolished in the mid 1970's. This site is now occupied by the Thousand Oaks Civic Arts Plaza. Designated as County Landmark #63 in March 1981. Located at 2100 East Thousand Boulevard, it was designated as Local Point of Historical Interest #1 in November 1997.
14. **Original Site of Dos Vientos Ranch Buildings:** The Dos Vientos Ranch buildings were constructed in 1930. The original site was near the intersection of Borchard Road and Via Las Brisas, and was previously part of the 30,593-acre Rancho Guadaluasca. The barn and associated buildings were designated as County Landmark #99 in May 1986. The structures were disassembled in 1996 and stored at Rancho Potrero. The site of the Dos Vientos Ranch Buildings was designated as Local Point of Historical Interest #2 in November 1997.
15. **Rancho Sierra Vista and Satwiwa Native American Indian Culture Center:** This site includes special events and exhibits that describe Native American culture and ranching activities in the local area. The site is operated by the National Park Service and is part of the Santa Monica Mountains National Recreation Area. The entrance is located on the south side of Lynn Road, just east of Via Andrea.
16. **Hill Ranch Brick Cistern:** This large brick cistern is located near a natural spring on what was once Hill Ranch. It is believed to have been constructed in 1880 and probably held water for livestock. The cistern was designated as Ventura County Historical Landmark #43 in June 1978, however, its exact location was unknown.

Staff recently determined the location of the cistern in the northerly part of Wildwood Park, near the Santa Rosa Valley.

17. **Case Study House #28:** Case Study Houses were built as part of an experimental housing program between 1945 and 1966 in southern California. Built in 1966, Case Study House #28 was designed by architects Conrad Buff and Donald Hensman and was the program's last single family home and the only one in Ventura County. Because of its significance as an important example of modern architecture, this house was been placed on the National Register of Historic Places in July 2013. It is located in a gated community on Inverness Road, near the southern terminus of Moorpark Road.



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Chapter 6

Paleontology

CHAPTER 6: PALEONTOLOGY

Paleontology is the study of prehistoric life as shown by fossil remains. Fossils are mineralized or petrified impressions of plants and animals from past geologic ages. In order to understand the distribution of fossils within the City, we must know about the geology of the City, because not all geologic formations are fossil-bearing.

The City of Thousand Oaks lies in the Transverse Range Geologic Province of Southern California. Geologic conditions within the City generally consist of a mantle of soil over bedrock. Bedrock within much of the southern and western parts of the City consists of Miocene Age Conejo Volcanics. These igneous rocks are hard and resistant to weathering and are evident in such prominent City landmarks as Mount Clef Ridge which forms the backdrop to Wildwood Park and California Lutheran University. In general, igneous rocks do not contain fossils, although fossil wood has been found in some outcrops of Conejo Volcanics.

Virtually all the fossils within the City are contained in sedimentary rocks due to the depositional nature of their origin. These rocks consist of shales, sandstones, siltstones and conglomerate, and date from ancient times when the area was submerged under shallow seas or when swampy terrestrial environments were more frequent. In these kinds of environments hard parts of once living organisms can fall into the substrate and become covered by sediment, gradually becoming mineralized and eventually forming a fossil. The principal sedimentary bedrocks in the City include the Miocene age Topanga and Monterey formations in the eastern and southern areas of the City and the Sespe, Llajas, Santa Susana and Chatsworth formations of Oligocene to Cretaceous age found near the northeast part of the City.

The types of fossils, whether marine or terrestrial, can be correlated with the depositional history of the rocks in which they are found, however the following generalizations can be drawn.

During the Pliocene Epoch (12-2 million years ago) much of what is now the Conejo Valley was covered by shallow seas. Evidence of this period is found in fossils of marine life such as brachiopods, bivalve molluscs and fish, most of which are found in Miocene age rocks. Other marine organisms found later in the Miocene include dolphin, ancestral sea lions, whales and sea cows. Later, during the Pleistocene Epoch (1.8 million to 10,000 years ago), as seas dried up exposing more terrestrial habitats, large mammals migrated into Southern California, attracted by the newly available resources and fleeing the ice sheet encroaching from the north. This group included large herbivores like North American native horses, camels, and mastodon plus Eurasian immigrants like mammoth and bison. They were joined by immigrants from South America including ground sloths and llama. The herbivores were pursued by predators such as the short-faced bear, dire wolf, saber-toothed cat and American lion. Most of these large animals became extinct at the end of the Ice Age. Evidence of their existence can be found in fossil-bearing sedimentary formations.

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Chapter 7

Climate Change

CHAPTER 7: CLIMATE CHANGE

Climate change refers to significant and long-term changes in weather patterns, which may result in a change in average conditions, i.e. average temperatures, or affect variation from typical conditions, such as extreme heat events.

Assembly Bill 32 (AB 32), the California Global Warming Solutions Act, was signed into law by Governor Schwarzenegger in 2006. This legislation seeks to address global climate change from the perspective of greenhouse gas reduction. Greenhouse gases (GHGs) are those that trap heat in the atmosphere that would otherwise radiate into space. Some GHGs occur naturally in the atmosphere, while others result from or are concentrated by activities including the burning of fossil fuels such as oil, natural gas, and coal. Since the industrial revolution, there has been a steady increase in the quantity of GHGs being discharged into the air, accompanied by a gradual increase in average world temperature. Carbon dioxide and water vapor are the primary GHG components, and carbon dioxide is the primary target for reducing GHGs and addressing global climate change as this is more effectively regulated than some of the other GHGs.

The State of California has coordinated the preparation of three assessments of climate change in the State, the most recent entitled "Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California". This study predicts two key trends:

- A significant rise in temperatures in California during this century: 2.7°F above 2000 averages by 2050, and up to 4.1°F-8.6°F by 2100, depending on emission levels.
- Drying trend due to reduced precipitation by the mid-to-late 21st century.

These trends are likely to result in a variety of impacts. Effects most relevant to Thousand Oaks include:

- Increases in extreme precipitation and runoff from periodic storms. These fluctuations in normal winter rainfall are caused by warmer storms and narrow bands of clouds over the Pacific Ocean that carry large amounts of moisture called "atmospheric rivers".
- Decreased water supplies statewide. Climate change effects on water supplies and stream flows are expected to increase competition between urban and agricultural water users and environmental needs.
- Increased energy demand. Increases in average temperature and higher frequency of extreme heat events combined with additional residential development across the state will drive up the demand for air-conditioning in the summertime.
- Critical importance of wildlife corridors. Migration corridors may allow wildlife to reach more suitable habitat as climatic conditions change.

- Increased likelihood and extent of wildfires. Wildfire risk will increase as a result of climate change which can lead to conversion of native plant communities to weedy, more flammable vegetation.

Developing an effective response to the challenge of climate change will require new strategies. One of the ways in which the City has begun this process is through the Energy Action Plan (EAP) for City facilities, which was adopted in 2012.

The EAP was initiated by the City's participation in Southern California Edison's 2010 – 2012 Energy Leadership Partnership program. The program identifies levels of achievement through the implementation of energy-saving measures and outreach activities. The objective of the EAP is to develop energy efficiency, renewable energy, and carbon emission reductions at City facilities. The overall goal of the EAP is to reduce carbon emissions by two percent annually over the next five years and the plan includes specific objectives to accomplish this through reducing energy usage. City departments and facilities will employ a range of strategies to reduce energy demand, improve efficiency, and transition to renewable energy sources.

With respect to climate change and its effect on natural resources, the most important strategy that can be implemented is to maintain the health and viability of our local ecosystems. The Nature Conservancy has commissioned research on climate change and its effects on wildlife. More than a decade of research has determined that wildlife diversity is directly related to diverse landscapes and plant communities. Healthy ecosystems provide a refuge for an array of plants and animals. Although we do not know how species and habitats will respond to climate change, the city's extensive open space system, which provides more than 15,000 acres of natural habitat, provides the best opportunity for species affected by climate change.



Chapter 8

Policies

CHAPTER 8: POLICIES

This chapter identifies the City's policies and implementation measures for the conservation of natural and cultural resources. A policy is a specific statement that guides decision-making. It indicates a clear commitment of the City Council. Implementation measures are fundamental rules and specific actions related to and guided by the policies. These measures are based on community values, generally-accepted planning practice, and current technology.

A. Scenic Resources

Policy

CO-1 *Future development and redevelopment of the existing built environment within Thousand Oaks should reflect sensitivity to its physical setting and natural scenic resources.*

Implementation Measures

- Ensure that development occurring within the view corridors of the Route 101 and 23 Freeways conform to the Freeway Corridor Design Guidelines (Res. 91-172).
- Ensure that development adjacent to designated scenic highways is consistent with the Scenic Highways Element of the General Plan.
- Ensure that development proposed within defined gateway areas (Res. 93-152), conforms with the City's planning policies and guidelines for City Gateways.
- Work toward the installation of landscaping within the Route 101 and Route 23 Freeway medians and parkways.
- Utilize the City's Protected Ridgeline Overlay zone, Open Space zone, Hillside Planned Development zone and Grading Ordinance to protect hillsides and ridgelines.
- Continue to implement the City's Architectural Design Review Guidelines to ensure that the special scenic resources and identity of Thousand Oaks are retained and enhanced.

B. Landform Features

Policies

CO-2 *General Plan policies, zoning, development guidelines, architectural review standards and other regulations are appropriate for controlling development on flat land.*

- CO-3 *The steeper the slope, the greater the proportion of the land that should remain in an undisturbed, undeveloped state, as provided by the City's Hillside Planned Development (HPD) Ordinance.*
- CO-4 *The most suitable forms of development for steeply sloping terrain are passive recreation areas, open space and very low density residential which can be developed in natural pockets of land less than 25% slope.*
- CO-5 *Hillside development criteria should promote high standards and encourage site design, grading and architecture appropriate to hillside terrain.*
- CO-6 *There should be no grading in slopes over 25% natural grade and the vertical height of manufactured slopes should be no higher than 25 feet.*

Implementation Measures

- The City's Grading Ordinance provides standards for the height of manufactured slopes and limitations on grading in areas of 25% natural grade. Waivers may only be granted by the Planning Commission or City Council.
- The City has reviewed most properties located in areas greater than 10% slope for HPD zoning, as required by the HPD Ordinance. Further review involving remnant isolated parcels should be conducted as time permits.

C. Lakes and Lakeshores

Policies

- CO-7 *Regulate development activities in the watershed areas of Westlake Lake and Lake Eleanor within the Thousand Oaks Planning Area, in order to avoid or minimize pollution of the lakes, and provide comments on all development proposals outside of the City's Planning Area that may affect these lakes.*
- CO-8 *Continue to maintain access to Lake Eleanor and its shoreline for migratory or resident wildlife.*
- CO-9 *Conserve identified sensitive plant and animal communities, archaeological sites and natural/scenic features of Lake Eleanor, its shoreline and surrounding environment.*

Implementation Measures

- Low flow, biofiltration basins, or other mitigation measures that are consistent with the City's National Pollutant Discharge Elimination System (NPDES) standards for new development and redevelopment, should be integrated in the design of all industrial, commercial and residential projects that contribute runoff to either Westlake Lake or Lake Eleanor.

- Future use of Lake Eleanor and its surrounding environment should be primarily oriented toward passive recreational use, such as hiking, picnicking, and nature study.
- To retard siltation and extend the life of Lake Eleanor, desiltation basins should be considered as part of any new development located upstream from the lake.
- In the event that any modifications to State Highway 23 (Westlake Boulevard) south of Potrero Road, are proposed, the City should work with CalTrans to avoid any significant impacts to Lake Eleanor.

D. Streams and Creeks

Policies

- CO-10 *Streams and creeks should be protected as open space and maintained in as natural a state as possible, and appropriate measures taken to manage urban runoff, in order to protect the City's and other downstream communities' water quality, wildlife diversity, native vegetation, and aesthetic value. This will contribute to the regional effort to improve the quality of Calleguas Creek, Malibu Creek and Mugu Lagoon.*
- CO-11 *Degraded sections of streams and creeks should be restored or enhanced as opportunities arise and financial resources become available.*
- CO-12 *Major barrancas should be protected in a natural state. Appropriate land uses for these natural features include recreation trails and open space.*
- CO-13 *Use of concrete for flood control improvements in natural drainage courses should occur only when no reasonable alternatives can be found that would maintain natural hydrological and ecological functions.*

Implementation Measures

- All development projects should be reviewed to ensure protection of streams and creeks onsite, as long as there is no threat to public safety.
- All new developments and redevelopment of built areas shall comply with standards adopted by the City for minimizing storm water pollution, excess runoff, and siltation.
- Erosion and pollution from construction sites will be reduced as the City implements NPDES standards for construction sites.
- Continue monitoring and enforcement of pollution standards for existing commercial and industrial uses, pursuant to the countywide NPDES permit, to reduce storm water pollution.

- Continue public outreach and education programs to help reduce stormwater pollution.
- Any development proposed over, under, adjacent, or within the boundaries of a Ventura County Watershed Protection District jurisdictional red line channel shall obtain a permit from the District prior to any site disturbance.

E. Floodplains

Policies

CO-14 Protect remaining floodplains in order to help retain stormwater runoff from tributary watersheds and reduce the potential for erosion and periodic flooding within downstream reaches of the Arroyo Conejo and Calleguas Creek.

Implementation Measure

- Natural floodplains have been acquired and conserved as open space with limited recreational uses that are compatible with public safety considerations. Any remaining undeveloped areas within a 100-year flood plain should also be considered for open space or recreational use.
- Existing developed floodplains located immediately adjacent to floodplains in the unincorporated areas of Ventura County should be coordinated with the Ventura County Floodplain Manager to ensure no adverse or cumulative impacts within the unincorporated area.

F. Stormwater Retention and Debris Basins

Policies

CO-15 Every effort shall be made to design and construct stormwater retention and debris basins to minimize any potentially adverse impacts to significant landform features, aquatic resources, and associated native plant and animal communities.

CO-16 Wherever appropriate, consideration shall also be given to allowing trailhead access and other passive and active recreational uses, including playfields.

Implementation Measures

- Contour grading and landscaping with native plant species shall be utilized in stormwater retention design.
- Biologically significant plant and animal habitats should be protected wherever feasible.

- Where avoidance of mature specimen trees is not feasible, such trees should be considered candidates for transplanting or replacement.
- Whenever such basins are located adjacent to or near natural open space, access by wildlife should be incorporated in the project design, wherever possible.
- All proposed storm water retention and debris basin projects shall continue to be reviewed by the City, the Conejo Recreation and Park District and the Conejo Open Space Conservation Agency in order to determine the potential for passive or active recreational uses that could be incorporated in the overall design.

G. Water Supply, Reclamation and Conservation

Policies

- CO-17 *Continue to ensure the provision of water in quantities sufficient to satisfy current and projected demand.*
- CO-18 *Continue to encourage water conservation measures in new and existing developments.*
- CO-19 *Encourage the use of reclaimed water for irrigation purposes.*
- CO-20 *Continue to develop and utilize groundwater resources to reduce the Planning Area's dependence upon imported water.*

Implementation Measures

- Continue to implement and periodically update the City's Urban Water Management Plan that contains measures to reduce water use under normal and short term deficiency conditions.
- Continue to implement the City's Landscape Review Criteria, which require the use of low-maintenance, drought-tolerant landscaping in all public and private developments.
- Apply standard water conservation conditions of approval to new developments.
- Encourage the use of pervious materials wherever paving is proposed, to promote and facilitate groundwater recharge.

H. Native Plant and Wildlife Resources

Policies

- CO-21 *The City shall encourage the proper management, conservation and protection of native plant communities throughout the City's Planning Area, including developed areas and undeveloped open space lands.*

- CO-22 *Consumptive practices such as off-road vehicle use, hunting, and trapping are incompatible with the long-term survival and viability of resident and migratory wildlife populations shall be prohibited.*
- CO-23 *Critical wildlife habitat resources such as movement corridors, surface water impoundments, streams and springs should be given special consideration for protection, restoration or enhancement, in order to maintain biodiversity, biological productivity and ecological integrity of natural open space areas.*
- CO-24 *In order to reduce the potential for devastating wildfires and the resulting damage they cause to both natural ecosystems and urban environments, appropriate, science-based fuel management programs should be conducted on a selective basis, and include the periodic monitoring of any potentially adverse effects on animal habitats and air quality.*
- CO-25 *The City should foster an holistic approach to conservation of wildlife resources including consideration of biological crusts and pollinator species in recognition of the many important functions they perform in a healthy ecosystem.*

Implementation Measures

- The City should support local and regional conservation projects that will have beneficial effects on vegetation and wildlife including the restoration and enhancement of critical habitat resources that have either been degraded or disturbed.
- As part of the environmental review process, continue to review the impact of proposed developments, both within the Planning Area and regionally, on vegetation and wildlife.
- The City and COSCA should work cooperatively with the Ventura County Fire Protection District to develop innovative, science-based fuel management programs that conserve wildlife habitat to the greatest degree possible while protecting public safety.
- The City should promote a healthy pollinator fauna through the use of native, pollinator-friendly plants in City projects and in proposed private development proposals.
- The City should protect habitats which support biological crusts and which provide nesting sites and foraging areas for native pollinators.

I. Wildlife Movement Corridors

Policies

- CO-26 *Isolation and fragmentation of natural open space areas should be prevented wherever possible.*
- CO-27 *Since natural stream drainages often serve as important movement corridors for wildlife, they should be preserved wherever it is feasible to do so.*
- CO-28 *Urban land uses adjoining natural open space areas should be designed in a manner that is sensitive to the needs of wildlife and avoids or minimizes any potentially adverse impacts to movement corridors.*

Implementation Measures

- Acquire additional land identified by the Open Space Element of the General Plan, in order to complete vital habitat linkages and provide access by wildlife to these resources.
- Continue to cooperate with and assist other public agencies, the Nature Conservancy, and other interested parties to help solve the regional problem of habitat isolation and fragmentation caused by the U.S. 101 and State Route 23 Freeways.
- Where urban land uses are proposed adjacent to natural open space areas, appropriate shielding shall be implemented to avoid light spillage which can disrupt wildlife movement.

J. Oak and Landmark Trees

Policy

- CO-29 *Continue to protect oak and landmark trees and their habitat in recognition of their historic, aesthetic and environmental value to the citizens of Thousand Oaks, in particular Valley Oak habitat.*

Implementation Measures

- To ensure protection of oak trees, continue to implement the City's Oak Tree Ordinance (Section 5-14.01 et. seq. of the Thousand Oaks Municipal Code) and Oak Tree Preservation and Protection Guidelines (Res. 2010-014).
- Continue to implement the City's Landmark Tree Ordinance (Section 5-24.01 et. seq. of the Thousand Oaks Municipal Code).
- Where certain species of declining oaks are scheduled for removal, every effort should be made to replace with like trees when possible. In order to offset the

continuing decline of Valley Oaks within southern California, the City shall increase the planting ratio of these trees wherever it is determined to be feasible.

K. Wetland and Riparian Areas

Policies

CO-30 *Preserve wetlands and associated wetland buffers as open space and maintain these areas in a natural state to protect the community's water quality, biodiversity and aesthetic value.*

CO-31 *Encourage the restoration and enhancement of degraded wetland and riparian habitats in order to conserve and protect native plant and animal species, increase biological diversity and productivity, and maintain permanent access for wildlife to surrounding open space.*

Implementation Measures

- Coordinate with appropriate local, State and Federal agencies that protect and enhance wetland resources when designing and reviewing developments that may impact a wetland.
- Educate the public about the importance of keeping pollutants and toxic chemicals out of storm drains that ultimately end up in wetlands.

L. Rare, Threatened or Endangered Species

Policies

CO-32 *The City shall encourage and promote the conservation and protection of all rare, threatened, endangered or sensitive species listed by State and Federal agencies (United States Fish and Wildlife Service and California Department of Fish and Wildlife), the California Native Plant Society (CNPS), the County of Ventura and the City of Thousand Oaks.*

Implementation Measures

- As urban development occurs, ensure the protection of populations of rare and endangered species through avoidance as a first priority, utilizing other forms of mitigation only as a last resort.
- Wherever possible, complete ecosystems should be conserved as natural open space in order to avoid the loss of sensitive plant and animal species.
- The Conservation Element includes the official City list of species listed as rare, threatened, endangered or sensitive by State and Federal Agencies, the California

Native Plant Society (CNPS) or other knowledgeable experts. This list should be updated periodically.

M. Cultural Resources

Policies

- CO-33 *All information or maps on file with the City pertaining to the location of previously recorded archaeological sites within the Thousand Oaks Planning Area shall remain confidential unless specifically authorized to be released to the public by local Native American organizations.*
- CO-34 *Management of cultural resources such as archaeological sites, historic structures or places shall emphasize resource protection and preservation.*
- CO-35 *The preferred method for protecting any previously recorded archeological site shall be by deed restriction as permanent "open space", in order to prevent any future development or use that might otherwise adversely impact these resources.*
- CO-36 *Decisions pertaining to the disposition of archaeological, historical and cultural resources shall be made in concert with recognized public agencies, groups or individuals having jurisdiction, expertise or interest in these matters, including but not limited to the State Office of Historic Preservation, Thousand Oaks Cultural Heritage Board and local Native American organizations, including other designated representatives and affected property owners.*

Implementation Measures

- Continue to conduct archaeological field surveys as deemed to be necessary, while utilizing comprehensive resource management procedures to test, salvage, stabilize and store locally excavated artifacts.
- Support the efforts of local citizens, appointed committees or other designated public agencies and private institutions that are working to conserve archaeological and historic resources. Full public discussion is encouraged prior to any action being taken.

N. Paleontology

Policies

- CO-37 *Management of paleontological resources such as significant fossil beds, or fossils of regional significance shall emphasize resource protection and conservation unless excavation and salvage is deemed appropriate by scientific authorities.*

CO-38 *Decisions pertaining to the disposition of paleontological resources shall be made in concert with recognized public agencies, groups or individuals having jurisdiction, expertise or interest in these matters, including but not limited to the Stagecoach Inn Museum, local natural history museums, colleges and universities.*

Implementation Measures

- In areas considered to have a high likelihood of harboring paleontological resources, the City shall require the preparation of a Paleontological Resource survey as part of the environmental review process for proposed development projects.
- Support the efforts of local citizens, appointed committees or other public agencies and private institutions that are working to conserve and curate paleontological resources. Full public discussion shall be encouraged prior to any action being taken.

O. Climate Change

Policies

CO-39 *Support efforts to reduce greenhouse gas emissions, consistent with the intent of the State of California's California Global Warming Solutions Act of 2006 (Assembly Bill 32).*

Implementation Measures

- Prepare Greenhouse Gas Analyses for development projects which require the preparation of Environmental Impact Reports or Mitigated Negative Declarations.
- Reduce energy use and utilize sustainable energy sources at City facilities where feasible, in accordance with City-adopted Energy Action Plan.



Chapter 9

Appendices

APPENDIX A: FLORA OF THE THOUSAND OAKS PLANNING AREA

The following list incorporates nomenclature changes from The Jepson Manual, Second Edition, and utilizes these status codes:

State and Federal Status Codes

- CE** – State-listed, endangered
- CR** – State-listed, rare
- SP** – State-listed, special plant
- FE** – Federally-listed, endangered
- FT** – Federally-listed, threatened

California Rare Plant Ranks

- List 1B** – Plants Rare, Threatened, or Endangered in California and Elsewhere
- List 2** – Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
- List 3** – Plants about Which We Need More Information – A Review List
- List 4** – Plants of Limited Distribution – A Watch List

Threat Code Extensions:

- .1 Seriously endangered in California
- .2 Fairly endangered in California
- .3 Not very endangered in California

Local Status

- LS** – Locally sensitive: Plants considered by the City of Thousand Oaks or the County of Ventura to be uncommon or rare.

Cryptogams - Ferns and Fern Allies

- Dryopteridaceae - Wood Fern Family
 - Dryopteris arguta* / wood fern
- Equisetaceae -Horsetail Family
 - Equisetum laevigatum* / smooth scouring rush
- Polypodiaceae - Polypody Family
 - Polypodium californicum* / California polypody
- Pteridaceae - Brake Family
 - Adiantum capillus-veneris* / southern maidenhair
 - Adiantum jordanii* / California maidenhair
 - Aspidotis californica* / California lace fern
 - Cheilanthes newberryi* / Newberry's lip fern **LS**
 - Notholaena californica* / California cloak fern
 - Pellaea andromedifolia* / coffee fern
 - Pellaea mucronata* var. *mucronata* / bird's foot fern
 - Pentagramma triangularis* ssp. *triangularis* [*Pityrogramma t.*] / goldback fern
- Selaginellaceae - Spike-Moss Family
 - Selaginella bigelovii* / Bigelow's spike-moss

Appendix A

Class Dicotyledones (Dicots)

- Aidoxaceae – Muskroot Family
 - Sambucus nigra (mexicana) ssp. caerulea* / blue elderberry
- Aizoaceae – Fig-Marigold Family
 - Aptenia cordifolia* / baby sun rose
 - Carpobrotus edulis* / Hottentot fig
 - Tetragonia tetragonioides* / New Zealand spinach
- Amaranthaceae – Amaranth Family
 - Amaranthus albus* / tumbleweed
 - Amaranthus blitoides* / prostrate pigweed
 - Amaranthus deflexus* / low amaranth
 - Amaranthus hybridus* / hybrid amaranth
 - Amaranthus retroflexus* / redroot pigweed
- Anacardiaceae – Sumac Family
 - Malosma laurina* / laurel sumac
 - Rhus aromatica (trilobata)* / basket bush
 - Rhus integrifolia* / lemonadeberry
 - Rhus lancea* / African sumac
 - Rhus ovata* / sugar bush
 - Schinus molle* / Peruvian pepper tree
 - Toxicodendron diversilobum* / western poison oak
- Apiaceae – Carrot Family
 - Ammi majus* / Bishop's weed
 - Anthriscus caucalis* / bur-chervil
 - Apiastrum angustifolium* / wild celery
 - Apium graveolens* / celery
 - Berula erecta* / water parsnip
 - Bowlesia incana* / bowlesia
 - Conium maculatum* / poison hemlock
 - Daucus pusillus* / rattlesnake weed
 - Foeniculum vulgare* / fennel
 - Lomatium dasycarpum* / woolly lomatium
 - Lomatium lucidum* / shiny lomatium
 - Lomatium utriculatum* / hog fennel
 - Sanicula arguta* / snake root
 - Sanicula crassicaulis* / Pacific sanicle
 - Sanicula tuberosa* / turkey pea
 - Tauschia arguta* / southern tauschia
 - Yabea microcarpa* / California hedge-parsley
- Apocynaceae (includes Asclepiadaceae) – Dogbane Family
 - Asclepias californica* / California milkweed
 - Asclepias eriocarpa* / Indian milkweed
 - Asclepias fascicularis* / narrow-leaf milkweed
 - Nerium oleander* / common oleander
 - Vinca major* / greater periwinkle
- Araliaceae – Ginseng Family
 - Hedera helix* / English ivy
 - Hydrocotyle umbellata* / many-flowered marsh pennywort
- Asclepiadaceae – See Apocynaceae

Asteraceae – Sunflower Family

- Achillea millefolium* / white yarrow
- Achyrachaena mollis* / blow-wives
- Acourtia microcephala* / sacapellote
- Acroptilon repens* / Russian knapweed
- Agoseris grandiflora* / mountain dandelion
- Ambrosia artemisiifolia* / common ragweed
- Ambrosia psilostachya* / western ragweed
- Ancistrocarphus filagineus* [*Stylocline* f.] / woolly fishhooks
- Anthemis cotula* / mayweed
- Artemisia californica* / California sagebrush
- Artemisia douglasiana* / mugwort
- Artemisia dracuncululus* / tarragon
- Baccharis malibuensis* / Malibu baccharis **SP; 1B.1**
- Baccharis pilularis* / coyote brush
- Baccharis salicifolia* ssp. *salicifolia* [*B. glutinosa*] / mule fat
- Baccharis sarothroides* / broom baccharis
- Bahiopsis laciniata* [*Viguiera laciniata*] / San Diego viguiera
- Bellis perennis* / English daisy
- Bidens laevis* / bur marigold
- Bidens pilosa* var. *pilosa* / common beggar-ticks
- Brickellia californica* / California brickellbush
- Brickellia nevinii* / Nevin's brickellbush **LS**
- Carduus pycnocephalus* ssp. *pycnocephalus* / Italian thistle
- Centaurea (Cnicus) benedicta* / blessed thistle
- Centaurea calcitrapa* / purple star thistle
- Centaurea melitensis* / tocalote
- Centaurea solstitialis* / yellow star thistle
- Centromadia [Hemizonia] parryi* ssp. *australis* / southern tarplant **SP; 1B.1; LS**
- Chaenactis artemisiifolia* / white pincushion
- Chaenactis glabriuscula* var. *glabriuscula* / yellow pincushion
- Cichorium intybus* / chicory
- Cirsium occidentale* var. *californicum* / California thistle
- Cirsium occidentale* var. *occidentale* / cobweb thistle
- Cirsium vulgare* / bull thistle
- Corethrogyne (Lessingia) filaginifolia* (var. *filaginifolia*) / California-aster
- Cotula australis* / southern cotula
- Cotula coronopifolia* / brass-buttons
- Cynara cardunculus* / cardoon
- Deinandra (Hemizonia) fasciculata* / fascicled tarplant
- Deinandra (Hemizonia) minthornii* / Santa Susana tarplant **SR; 1B.2**
- Dimorphotheca sinuata* / African daisy
- Encelia californica* / California sunflower
- Encelia farinosa* / brittle bush
- Ericameria ericoides* [*Haplopappus e.* ssp. *blakei*] / mock heather
- Ericameria linearifolia* [*Haplopappus l.*] / interior goldenbush
- Ericameria (Chrysothamnus) nauseosa* var. *mohavensis* / rabbitbrush
- Ericameria palmeri* var. *pachylepis* / Palmer's goldenbush **LS**
- Ericameria pinifolia* / pine-bush
- Erigeron (Conyza) bonariensis* / flax-leaved horseweed
- Erigeron (Conyza) canadensis* / horseweed

Erigeron foliosus var. *foliosus* / fleabane aster
Eriophyllum confertiflorum var. *confertiflorum* / golden-yarrow
Euthamia occidentalis / western goldenrod
Gnaphalium palustre / lowland cudweed
Grindelia camporum (var. *bracteosum*) / gumplant
Grindelia hirsutula / hirsute gumplant
Hazardia squarrosa [*Haplopappus* s.] var. *grindelioides* / saw-toothed goldenbush
Hazardia squarrosa [*Haplopappus* s.] var. *obtusa* / saw-toothed goldenbush
Hedypnois cretica / Cretian hedypnois
Helenium puberulum / sneezeweed
Helianthus annuus / annual sunflower
Helianthus gracilentus / slender sunflower
Helminthotheca echioides (*Picris echioides*) / bristly ox-tongue
Hesperevax sparsiflora var. *sparsiflora* / hesperevax **LS**
Heterotheca grandiflora / telegraph weed
Heterotheca sessiliflora ssp. *fastigiata* / hairy golden aster
Hypochaeris glabra / smooth cat's ear
Hypochaeris radicata / rough cat's ear
Isocoma menziesii var. *menziesii* / coast goldenbush
Isocoma menziesii var. *vernonioides* / coast goldenbush
Iva hayesiana / San Diego marsh elder
Lactuca saligna / willow lettuce
Lactuca serriola / prickly lettuce
Lagophylla ramosissima ssp. *ramosissima* / hareleaf
Lasthenia coronaria / crowned goldfields **LS**
Lasthenia gracilis (*californica*) / common goldfields
Layia platyglossa / tidy-tips
Lepidospartum squamatum / scale-broom
Leptosyne (*Coreopsis*) *bigelovii* / annual coreopsis **LS**
Leptosyne (*Coreopsis*) *gigantea* / giant coreopsis
Logfia depressa (*Filago depressa*) / hierba limpia
Logfia filaginoides (*Filago californica*) / California cottonrose
Logfia gallica (*Filago gallica*) / daggerleaf cottonrose
Madia elegans (ssp. *densifolia*) / common madia
Madia exigua / small tarweed
Madia gracilis / sticky madia
Madia sativa / coast tarweed **LS**
Malacothrix saxatilis / cliff-aster
Matricaria discoidea (*Chamomilla suaveolens* [*Matricaria matricarioides*]) /
 pineapple weed
Micropus californicus var. *californicus* / slender cottonweed
Microseris douglasii ssp. *douglasii* / Douglas' microseris
Microseris douglasii ssp. *platycarpa* / small-flowered microseris **SP; 4.2**
Microseris douglasii ssp. *tenella* / Douglas' microseris
Pentachaeta lyonii / Lyon's pentachaeta **FE; SE; SP; 1B.1**
Pseudognaphalium beneolens (*Gnaphalium canescens* ssp. *beneolens*) /
 fragrant everlasting
Pseudognaphalium biolettii (*Gnaphalium bicolor*) / two-tone everlasting
Pseudognaphalium californicum (*Gnaphalium californicum*) / California
 everlasting

- Pseudognaphalium microcephalum* (*Gnaphalium canescens* ssp. *microcephalum*) / white everlasting
Psilocarphus tenellus Nutt. var. *tenellus* / woolly heads
Rafinesquia californica / California chicory
Senecio aphanactis / rayless ragwort **SP; 2.2**
Senecio flaccidus var. *douglasii* [*S. douglasii* var. *d.*] / Douglas butterbush
Senecio vulgaris / common groundsel
Silybum marianum / milk thistle
Solidago velutina ssp. *californica* (*Solidago californica*) / California goldenrod
Sonchus asper / prickly sow thistle
Sonchus oleraceus / common sow thistle
Stebbinsoseris heterocarpa / grassland silverpuffs
Stephanomeria exigua / wraith flower
Stephanomeria virgata ssp. *pleurocarpa* / wand stephanomeria
Stylocline gnaphalioides / everlasting bedstraw
Symphotrichum (*Aster*) *subulatum* (*subulatus* var. *ligulatus* [*A. exilis*]) / annual saltmarsh aster
Taraxacum officinale / dandelion
Tetradymia comosa / cotton-thorn **LS**
Tragopogon porrifolius / oyster plant
Uropappus lindleyi [*Microseris linearifolia*] / silver puffs
Venegasia carpesioides / canyon sunflower
Xanthium spinosum / spiny clotbur
Xanthium strumarium / cocklebur
- Betulaceae – Birch Family
Alnus rhombifolia / white alder
- Boraginaceae – Borage Family
Amsinckia (*menziesii* var.) *intermedia* [*A. i.*] / common fiddleneck
Amsinckia menziesii (var. *menziesii*) / small-flowered fiddleneck
Cryptantha clevelandii / Cleveland cryptantha
Cryptantha intermedia var. *intermedia* / large-flowered popcornflower
Cryptantha micromeres / minute-flowered popcornflower
Cryptantha microstachys / Tejon cryptantha
Cryptantha muricata / prickly popcornflower
Emmenanthe penduliflora var. *penduliflora* / whispering bells
Eriodictyon crassifolium var. *nigrescens* / yerba santa
Eucrypta chrysanthemifolia var. *chrysanthemifolia* / eucrypta
Heliotropium curassavicum var. *oculatum* / wild heliotrope
Nemophila menziesii var. *integrifolia* / baby blue-eyes
Pectocarya linearis ssp. *ferocula* / slender pectocarya
Pectocarya penicillata / winged pectocarya
Phacelia cicutaria / caterpillar phacelia
Phacelia distans / fern-leaf phacelia
Phacelia grandiflora / giant phacelia
Phacelia parryi / Parry's phacelia
Phacelia ramosissima var. *ramosissima* / branching phacelia
Phacelia viscida var. *viscida* / sticky phacelia
Pholistoma auritum var. *auritum* / fiesta flower
Plagiobothrys acanthocarpus / adobe popcornflower
Plagiobothrys canescens var. *canescens* / valley popcornflower
Plagiobothrys collinus var. *fulvescens* / popcornflower

- Plagiobothrys collinus* var. *gracilis* / popcornflower
Plagiobothrys nothofulvus / popcornflower
- Brassicaceae – Mustard Family
- Athysanus pusillus* / dwarf athysanus
Brassica nigra / black mustard
Brassica rapa / field mustard
Capsella bursa-pastoris / shepherd's purse
Cardamine californica / milk maids
Caulanthus lasiophyllus (*Thelypodium lasiophyllum*) / California mustard
Desurainia pinnata ssp. *menziesii* / tansy mustard
Draba cuneifolia / draba **LS**
Erysimum capitatum var. *capitatum* / western wallflower
Hirschfeldia incana [*Brassica geniculata*] / Mediterranean mustard
Lepidium didymum (*Coronopus didymus*) / lesser swine cress
Lepidium latifolium / peppergrass
Lepidium nitidum var. *nitidum* / shiny peppergrass
Lepidium oblongum var. *oblongum* / peppergrass
Lepidium virginicum ssp. *menziesii* (var. *robinsonii*) / peppergrass
Lobularia maritima / sweet alyssum
Nasturtium officinale (*Rorippa nasturtium-aquaticum*) / water cress
Raphanus sativus / wild radish
Sinapis arvensis / charlock
Sisymbrium officinale / hedge mustard
Thysanocarpus curvipes / lacepod
Thysanocarpus laciniatus / fringedpod
Turritis (*Arabis*) *glabra* / tower mustard
- Cactaceae – Cactus Family
- Cylindropuntia* (*Opuntia*) *prolifera* / coast cholla
Opuntia basilaris var. *basilaris* / beavertail cactus **LS**
Opuntia littoralis / coastal prickly-pear
Opuntia oricola / prickly pear
- Campanulaceae – Bellflower Family
- Githopsis diffusa* ssp. *diffusa* / Southern bluecup **LS**
Nemacladus ramosissimus / thread stem **LS**
Triodanis biflora / Venus' looking glass **LS**
- Caprifoliaceae – Honeysuckle Family
- Lonicera subspicata* var. *denudata* [*L. s. var. johnstonii*] / chaparral honeysuckle
Symphoricarpos mollis / snowberry
- Caryophyllaceae – Pink Family
- Cardionema ramosissimum* / sand mat
Cerastium glomeratum / mouse-ear chickweed
Herniaria hirsuta ssp. *cinerea* / herniaria
Herniaria hirsuta ssp. *hirsute* / herniaria
Minuartia douglasii [*Arenaria d.*] / Douglas sandwort
Petrorhagia dubia / petrorhagia
Polycarpon depressum / California polycarp
Polycarpon tetraphyllum var. *tetraphyllum* / four-leaved allseed
Silene coniflora (*multinervia*) / many-nerved catchfly
Silene gallica / windmill pink
Silene laciniata ssp. *laciniata* (*major*) / Indian pink
Silene verecunda ssp. *platyota* / Dolores campion

- Spergularia bocconii* / sand spurrey
- Spergularia marina* / annual sand spurrey
- Stellaria media* / common chickweed
- Stellaria nitens* / shining chickweed
- Stellaria pallida* / lesser chickweed
- Chenopodiaceae – Goosefoot Family
 - Atriplex lentiformis* / quail bush
 - Atriplex lindleyi* / saltbush
 - Atriplex nummularia* / saltbush
 - Atriplex semibaccata* / Australian saltbush
 - Chenopodium album* / lamb's quarters
 - Chenopodium berlandieri* / Berlander's goosefoot
 - Chenopodium californicum* / California goosefoot
 - Chenopodium murale* / nettle-leaf goosefoot
 - Chenopodium strictum* / goosefoot
 - Dysphania (Chenopodium) ambrosioides* / Mexican tea
 - Kochia scoparia* ssp. *scoparia* / Kochia
 - Salsola tragus [Salsola iberica]* / Russian thistle
- Cistaceae – Rock-rose Family
 - Cistus purpureus* / orchid rock rose
 - Helianthemum scoparium* / peak rush-rose
- Cleomaceae – Spiderflower Family
 - Peritoma arborea* var. *arborea (Isomeris arborea)* / bladderpod
- Convolvulaceae – Morning-glory Family
 - Calystegia macrostegia* ssp. *intermedia* / chaparral morning-glory
 - Calystegia purpurata* ssp. *purpurata* / western morning-glory
 - Convolvulus arvensis* / bindweed
 - Convolvulus simulans* / small-flowered morning-glory **SP; 4.2**
 - Cressa truxillensis* / alkali weed
 - Cuscuta californica* var. *californica* / chaparral dodder
 - Cuscuta subinclusa* / dodder
- Cornaceae – Dogwood Family
 - Cornus glabrata* / brown dogwood **LS**
- Crassulaceae – Stonecrop Family
 - Crassula connata [Tillaea erecta]* / pygmy-weed
 - Dudleya blochmaniae* ssp. *blochmaniae* / Blochman's dudleya **SP; 1B.1**
 - Dudleya cymosa* ssp. *agouensis* / Santa Monica Mountains dudleya **FT; SP; 1B.2**
 - Dudleya lanceolata* / lance-leaf dudleya
 - Dudleya parva* / Conejo dudleya **FT; SP; 1B.2**
 - Dudleya pulverulenta* ssp. *pulverulenta* / chalk dudleya
- Cucurbitaceae – Gourd Family
 - Cucurbita foetidissima* / calabazilla
 - Marah fabacea* / California manroot
 - Marah macrocarpa* / manroot
- Datisceae – Datisca Family
 - Datisca glomerata* / Durango root
- Ericaceae – Heath Family
 - Arctostaphylos glandulosa* ssp. *mollis* / Eastwood manzanita
 - Arctostaphylos glauca* / bigberry manzanita
- Euphorbiaceae – Spurge Family

Chamaesyce albomarginata [*Euphorbia a.*] / rattlesnake weed
Chamaesyce melanadenia / squaw spurge
Chamaesyce polycarpa var. *hirtella* / golondrina
Croton californicus / California croton
Croton (Eremocarpus) setigerus / dove weed
Euphorbia crenulata / Chinese caps
Euphorbia peplus / petty spurge
Euphorbia spathulata / wart spurge
Ricinus communis/ castor bean

Fabaceae – Legume Family

Acemisson americanus var. *americanus* (*Lotus purshianus*) / Spanish clover
Acemisson (Lotus) argophyllus var. *argophyllus* / silver lotus
Acemisson glaber var. *glaber* (*Lotus scoparius*) / deer weed
Acemisson maritimus var. *maritimus* (*Lotus salsuginosus* var. *salsuginosus*) / coastal lotus
Acemisson micranthus (*Lotus hamatus*) / San Diego lotus
Acemisson (Lotus) strigosus / strigose lotus
Acemisson (Lotus) wrangelianus / Chilean lotus
Amorpha californica var. *californica* / false indigo
Astragalus brauntonii / Braunton's milkvetch **FE; SP; 1B.1**
Astragalus gambelians / Gambel's milkvetch
Astragalus trichopodus var. *phoxus* / Santa Barbara milkvetch
Glycyrrhiza lepidota / wild licorice **LS**
Hoita macrostachya [*Psoralea m.*] / leather root
Lathyrus latifolius / perennial sweet pea
Lathyrus vestitus var. *vestitus* / chaparral sweet pea
Lotus corniculatus / birdfoot trefoil
Lupinus bicolor / miniature lupine
Lupinus concinnus / bajada lupine
Lupinus hirsutissimus / stinging lupine
Lupinus longifolius / bush lupine
Lupinus sparsiflorus / Coulter's lupine
Lupinus succulentus / arroyo lupine
Lupinus truncatus / collar lupine
Medicago polymorpha / California burclover
Melilotus albus / white sweetclover
Melilotus indicus / yellow sweetclover
Spartium junceum / Spanish broom
Trifolium ciliolatum / tree clover
Trifolium depauperatum var. *amplectens* / bladder clover
Trifolium depauperatum var. *truncatum* / bladder clover
Trifolium gracilentum / pinpoint clover
Trifolium microcephalum / small-headed clover
Trifolium obtusiflorum / creek clover
Trifolium willdenovii [*T. tridentatum*] / tomcat clover
Vicia sativa ssp. *sativa* / common vetch
Vicia sativa ssp. *nigra* / narrow-leaved vetch
Vicia villosa ssp. *varia* / winter vetch
Vicia villosa ssp. *villosa* / hairy winter vetch

Fagaceae – Oak Family

Quercus agrifolia var. *agrifolia* / coast live oak

- Quercus berberidifolia* / scrub oak
- Quercus douglasii* / blue oak
- Quercus lobata* / valley oak
- Quercus palmeri* / Palmer's oak **LS**
- Gentianaceae – Gentian Family
 - Zeltnera exaltata* / desert centaury **LS**
 - Zeltnera venusta* (*Centaurium venustum*) / canchalagua
- Geraniaceae – Geranium Family
 - California [Erodium macrophyllum] macrophylla* / California macrophylla **SP; 1B.1**
 - Erodium botrys* / long-beaked filaree
 - Erodium cicutarium* / red-stemmed filaree
 - Erodium moschatum* / greenstem filaree
 - Geranium carolinianum* / Carolina geranium
 - Geranium molle* / dove's foot geranium
- Grossulariaceae – Gooseberry Family
 - Ribes indecorum* / white flowering currant
 - Ribes malvaceum* / chaparral currant
 - Ribes speciosum* / fuchsia-flowered gooseberry
- Hydrophyllaceae – Waterleaf Family See Boraginaceae
- Juglandaceae – Walnut Family
 - Juglans californica* (*var. californica*) / Southern California black walnut **SP; 4.2**
- Lamiaceae – Mint Family
 - Lamium amplexicaule* / henbit
 - Marrubium vulgare* / horehound
 - Mentha spicata* / spearmint
 - Salvia apiana* / white sage
 - Salvia columbariae* / chia sage
 - Salvia leucophylla* / purple sage
 - Salvia mellifera* / black sage
 - Salvia spathacea* / hummingbird sage
 - Scutellaria tuberosa* / scullcap
 - Stachys albens* / white hedge nettle
 - Stachys bullata* / hedge nettle
 - Trichostema lanatum* / woolly bluecurls
 - Trichostema lanceolatum* / vinegar weed
- Lauraceae – Laurel Family
 - Umbellularia californica* / California bay
- Linaceae – Flax Family
 - Hesperolinon micranthum* / dwarf flax **LS**
 - Linum grandiflorum* / red-flowered flax
- Loasaceae – Loasa Family
 - Mentzelia micrantha* / blazing star
- Lythraceae – Loosestrife Family
 - Lythrum californicum* / California loosestrife
 - Lythrum hyssopifolia* / hyssop loosestrife
- Malvaceae – Mallow Family
 - Malacothamnus fasciculatus* *var. fasciculatus* / chaparral mallow
 - Malva nicaeensis* / bull mallow
 - Malva parviflora* / cheeseweed
 - Malva sylvestris* / high mallow
 - Sidalcea* (*malvaeflora* *ssp.*) *sparsifolia* / Southern checkerbloom

- Montiaceae – Miner’s Lettuce Family
Calandrinia breweri / Brewer’s red maids **SP; 4.2**
Calandrinia ciliata / red maids
Calyptridium monandrum / sand cress
Claytonia parviflora ssp. *parviflora* / claytonia
Claytonia perfoliata ssp. *perfoliata* / miner’s lettuce
Lewisia rediviva var. *rediviva* / bitterroot **LS**
- Myrsinaceae – Myrsine Family
Anagallis arvensis / scarlet pimpernell
- Myrtaceae – Myrtle Family
Eucalyptus camaldulensis / red gum
Eucalyptus globulus / blue gum
- Nyctaginaceae – Four O’clock Family
Mirabilis (californica) laevis var. *crassifolia* / wishbone bush
- Oleaceae – Olive Family
Fraxinus velutina / Arizona ash
Olea europaea / olive
- Onagraceae – Evening Primrose Family
Camissoniopsis (Camissonia) bistorta / California sun-cup
Camissoniopsis (Camissonia) hirtella / evening primrose
Camissoniopsis (Camissonia) intermedia / evening primrose
Camissoniopsis (Camissonia) micrantha / small evening primrose
Clarkia bottae / punch-bowl godetia
Clarkia cylindrica ssp. *cylindrica* / speckled clarkia
Clarkia epilobioides / willow-herb clarkia
Clarkia purpurea ssp. *quadrivulnera* / purple clarkia
Clarkia unguiculata / elegant clarkia
Epilobium canum ssp. *canum* [*Zauschneria californica*] / California fuchsia
Epilobium ciliatum ssp. *ciliatum* [*E. adenocaulon*] / willow-herb
Eulobus californicus (Camissonia californica) / mustard primrose
Ludwigia peploides ssp. *peploides* / yellow water-weed
Oenothera californica ssp. *californica* / California evening primrose **LS**
Oenothera elata ssp. *hirsutissima* / Hooker’s evening primrose
Oenothera sinuosa (Gaura sinuata) / wavy-leaved gaura
Oenothera suffrutescens (Gaura coccinea) / wild honeysuckle
Oenothera xenogaura (Gaura drummondii) / scented gaura
- Orobanchaceae – Broom-rape Family
Castilleja affinis ssp. *affinis* / coast paintbrush
Castilleja applegatei ssp. *martini* / Indian paintbrush
Castilleja exserta ssp. *exserta* / purple owl’s clover
Castilleja foliolosa / woolly Indian paintbrush
Cordylanthus rigidus ssp. *setigerus* / bird’s beak
Orobanche bulbosa / chaparral broomrape
Orobanche fasciculata / clustered broomrape
Pedicularis densiflora / Indian warrior **LS**
- Oxalidaceae – Oxalis Family
Oxalis (albicans ssp. p) pilosa / oxalis
Oxalis pes-caprae / Bermuda buttercup
- Paeoniaceae – Peony Family
Paeonia californica / California peony

Papaveraceae – Poppy Family

- Argemone munita* / prickly poppy
- Dendromecon rigida* / bush poppy
- Ehrendorferia (Dicentra) ochroleuca* / crème-flowered ear-drops
- Eschscholzia californica* / California poppy
- Papaver californicum* / fire poppy **LS**
- Papaver heterophyllum (Stylomecon heterophyllum)* / wind poppy

Phrymaceae – Lopseed Family

- Mimulus aurantiacus* var. *aurantiacus* / sticky monkeyflower
- Mimulus aurantiacus* var. *pubescens* / pubescent sticky monkeyflower
- Mimulus brevipes* / yellow monkeyflower
- Mimulus cardinalis* / scarlet monkeyflower
- Mimulus floribundus* / slimy monkeyflower
- Mimulus guttatus* / common monkeyflower
- Mimulus longiflorus* var. *rutilus* / red-flowered monkeyflower **LS**

Plantaginaceae – Plantain Family

- Antirrhinum coulterianum* / white snapdragon
- Antirrhinum kelloggii* / climbing snapdragon
- Antirrhinum multiflorum* / chaparral snapdragon
- Antirrhinum nuttallianum* ssp. *subsessile* / violet snapdragon
- Collinsia heterophylla* / Chinese houses
- Keckiella cordifolia* / heartleaf penstemon
- Nuttallanthus texanus (Linaria canadensis)* / blue toadflax **LS**
- Penstemon centranthifolius* / scarlet bugler
- Penstemon heterophyllus* var. *australis* / foothill penstemon
- Penstemon spectabilis* var. *subviscosus* / showy penstemon
- Plantago erecta* / California plantain
- Plantago lanceolata* / English plantain
- Plantago major* / common plantain
- Plantago ovata* / ovate plantain
- Veronica anagallis-aquatica* / water speedwell
- Veronica peregrina* ssp. *xalapensis* / purslane speedwell

Platanaceae – Sycamore Family

- Platanus racemosa* / western sycamore

Polemoniaceae – Phlox Family

- Allophyllum glutinosum* / stinky gilia
- Eriastrum sapphirinum* / sapphire wool-star
- Gilia achilleifolia* ssp. *achilleifolia* / globe gilia
- Gilia achilleifolia* ssp. *multicaulis* / globe gilia
- Gilia angelensis* / angel's gilia
- Gilia capitata* ssp. *abrontanifolia* / bluehead gilia
- Gilia clivorum* / purplespot gilia
- Leptosiphon (Linanthus) liniflorus* / flax-flowered linanthus
- Leptosiphon (Linanthus) parviflorus [L. androsaceus]* / linanthus
- Linanthus californicus (Leptodactylon californicum)* / prickly phlox
- Linanthus dianthiflorus* / ground pink
- Microsteris (Phlox) gracilis* / slender phlox
- Navarretia atractyloides* / holly leaved navarretia
- Navarretia hamata* ssp. *hamata* / hooked navarretia
- Navarretia hamata* ssp. *leptantha* / hooked navarretia
- Navarretia ojaiensis* / Ojai navarretia **SP; 1B.1**

- Navarretia pubescens* / downy navarretia
Saltugilia (Gilia) splendens ssp. *splendens* / elegant gilia
- Polygonaceae – Buckwheat Family
Chorizanthe staticoides / Turkish rugging
Chorizanthe xanti var. *xanti* / Xantu's spine-flower
Eriogonum cinereum / ashyleaf buckwheat
Eriogonum crocatum / Conejo buckwheat **SR; SP; 1B.2; LS**
Eriogonum elongatum var. *elongatum* / wand eriogonum
Eriogonum fasciculatum var. *foliolosum* / California buckwheat
Eriogonum giganteum var. *giganteum* / Santa Catalina Island buckwheat
Eriogonum gracile var. *gracile* / slender woolly wild buckwheat
Eriogonum wrightii var. *membranaceum* / Wright's buckwheat **LS**
Persicaria lapathifolia (Polygonum lapathifolium) / willow smartweed
Persicaria punctata (Polygonum punctatum) / water smartweed
Polygonum argyrocoleon / Persian knotweed
Polygonum aviculare (arenastrum) ssp. *depressum* / common knotweed
Pterostegia drymarioides / fairy mist
Rumex conglomerata / dock
Rumex crispus / curly dock
Rumex fueginus (maritimus) / golden dock
Rumex salicifolius / willow dock
- Portulacaceae – Purslane Family
Portulaca oleracea / common purslane
- Primulaceae – Primrose Family
Dodecatheon clevelandii ssp. *sanctarum* / shooting star
- Ranunculaceae – Buttercup Family
Clematis lasiantha / pipestems
Clematis ligusticifolia / western virgin's bower
Delphinium cardinalis / scarlet larkspur
Delphinium parryi ssp. *maritimum* / maritime larkspur
Delphinium parryi ssp. *parryi* / Parry's larkspur
Delphinium patens / spreading larkspur
Ranunculus californicus var. *californicus* / California buttercup
Ranunculus hebecarpus / hairy fruited buttercup
Thalictrum fendleri var. *polycarpum [T. polycarpum]* / meadow-rue
- Rhamnaceae – Buckthorn Family
Ceanothus crassifolius var. *crassifolius* / hoaryleaf ceanothus
Ceanothus megacarpus var. *megacarpus* / bigpod ceanothus
Ceanothus oliganthus / hairy-leaved ceanothus
Ceanothus spinosus / greenbark ceanothus
Frangula (Rhamnus) californica ssp. *californica* / California coffeeberry
Rhamnus crocea / spiny redberry
Rhamnus ilicifolia / holly-leaf redberry
- Rosaceae – Rose Family
Adenostoma fasciculatum var. *fasciculatum* / chamise
Adenostoma sparsifolium / red shank
Aphanes occidentalis / lady's mantle
Cercocarpus betuloides var. *betuloides* / birch-leaf mountain mahogany
Cercocarpus betuloides var. *blancheae* / island mountain mahogany **SP; 4.3**
Drymocallis (Potentilla) glandulosa ssp. *glandulosa* / cinquefoil
Heteromeles arbutifolia / toyon

- Holodiscus discolor* var. *discolor* / oceanspray
Prunus ilicifolia ssp. *ilicifolia* / holly-leaved cherry
Rosa californica / California rose
Rubus ursinus / California blackberry
- Rubiaceae – Madder Family
Galium andrewsii ssp. *andrewsii* / phlox-leaved bedstraw
Galium angustifolium ssp. *angustifolium* / narrow-leaved bedstraw
Galium aparine / goose grass
Galium nutallii ssp. *nutallii* / San Diego bedstraw
Galium parisiense / wall bedstraw
Galium porrigens var. *porrigens* / climbing bedstraw
Sherardia arvensis / field madder
- Salicaceae – Willow Family
Populus fremontii ssp. *fremontii* / Fremont cottonwood
Populus (balsamifera) trichocarpa / black cottonwood
Salix exigua var. *hindsiana* / narrow-leaved willow
Salix laevigata / red willow
Salix lasiandra var. *lasiandra* / Pacific willow
Salix lasiolepis / arroyo willow
- Saururaceae – Lizard’s-Tail Family
Anemopsis californica / yerba mansa
- Saxifragaceae - Saxifrage Family
Lithophragma cymbalaria / woodland star
Micranthes (Saxifraga) californica / California saxifrage
- Scrophulariaceae – Figwort Family
Myoporum laetum / myoporum
Scrophularia californica ssp. *floribunda* / California figwort
Verbascum blattaria / moth mullein
- Solanaceae – Nightshade Family
Datura wrightii [*D. meteloides*] / Jimson weed
Lycopersicon esculentum / tomato
Nicotiana clevelandii / Indian tobacco
Nicotiana glauca / tree tobacco
Nicotiana quadrivalvis / large-flowered Indian tobacco
Solanum americanum [*S. nodiflorum*] / little white nightshade
Solanum douglasii / Douglas nightshade
Solanum elaeagnifolium / white horse-nettle
Solanum xanti / chaparral nightshade
- Tamaricaceae – Tamarix Family
Tamarix ramosissima / Mediterranean tamarix
- Tropaeolaceae – Nasturtium Family
Tropaeolum majus / garden nasturtium
- Urticaceae – Nettle Family
Hesperocnide tenella / western nettle
Parietaria hespera var. *californica* / California pellitory
Parietaria hespera var. *hespera* [*P. floridana*] / pellitory
Urtica dioica ssp. *holosericea* [*U. holosericea*] / stinging nettle
Urtica urens / dwarf nettle
- Verbenaceae – Verbena Family
Phyla lanceolata [*Lippia l.*] / frog fruit
Phyla nodiflora var. *nodiflora* [*Lippia n.* var. *rosea*] / garden lippia

- Verbena lasiostachys* / Western verbena
- Violaceae – Violet Family
 - Viola pedunculata* / johnny-jump-up
- Viscaceae – Mistletoe Family
 - Phoradendron serotinum* ssp. *macrophyllum* / sycamore mistletoe
 - Phoradendron serotinum* ssp. *tomentosum* / oak mistletoe
- Vitaceae – Grape Family
 - Parthenocissus inserta* / Virginia creeper
- Zygophyllaceae – Caltrop Family
 - Tribulus terrestris* / puncture vine

Class Monocotyledones (Monocots)

- Agavaceae – Century Plant Family
 - Chlorogalum pomeridianum* / soap plant
 - Hesperoyucca whipplei* / chaparral yucca
- Alismataceae – Water-Plantain Family
 - Alisma triviale* (*plantago-aquatica*) / water plantain **LS**
 - Echinodorus berteroi* / burhead
- Alliaceae – Onion Family
 - Allium haematochiton* / red-skinned onion
 - Allium peninsulare* var. *peninsulare* / peninsular onion
- Araceae – Arum Family
 - Lemna minuscula* / duckweed
- Arecaceae – Palm Family
 - Washingtonia robusta* / Mexican fan palm
- Asparagaceae – Asparagus Family
 - Asparagus asparagoides* / asparagus vine
- Asphodelaceae – Asphodel Family
 - Asphodelus fistulosus* / asphodel
- Cyperaceae – Sedge Family
 - Bolboschoenus* (*Scirpus*) *maritimus* / prairie bulrush
 - Carex barbarae* / Santa Barbara sedge
 - Carex praegracilis* / sedge
 - Carex senta* / rough sedge
 - Cyperus eragrostis* / umbrella sedge
 - Cyperus erythrorhizos* / umbrella-sedge
 - Cyperus involucratus* [*C. alternifolius*] / umbrella-sedge
 - Cyperus odoratus* / umbrella sedge
 - Eleocharis acicularis* var. *acicularis* / spike rush
 - Eleocharis macrostachya* / common spike rush
 - Eleocharis montevidensis* / spike rush
 - Schoenoplectus* (*Scirpus acutus*) var. *occidentalis* / tule
 - Schoenoplectus* (*Scirpus*) *americanus* [*S. olneyi*] / three square
 - Schoenoplectus* (*Scirpus*) *californicus* / California bulrush
- Hydrocharitaceae – Waterweed Family
 - Najas marina* / holly-leaved water-nymph
- Iridaceae – Iris Family
 - Sisyrinchium bellum* / blue-eyed grass
- Juncaceae – Rush Family
 - Juncus balticus* / wire rush

Juncus bufonius var. *bufonius* / toad rush
Juncus macrophyllus / long-leaved rush
Juncus mexicanus / Mexican rush
Juncus phaeocephalus var. *paniculatus* / paniculate brown-headed rush
Juncus phaeocephalus var. *phaeocephalus* / brown-headed rush
Juncus textilis / basket rush
Juncus xiphioides / iris-leaved rush

Liliaceae – Lily Family

Calochortus albus / fairy lantern
Calochortus catalinae / Catalina mariposa lily **SP; 4.2**
Calochortus clavatus var. *pallidus* / yellow mariposa lily
Calochortus plummerae / Plummer's mariposa lily **SP; 4.2; LS**
Calochortus venustus / butterfly mariposa lily
Fritillaria biflora var. *biflora* / chocolate lily

Melanthiaceae – False-Hellebore Family

Toxicoscordion (Zigadenus) fremontii / chaparral star lily

Poaceae – Grass Family

Agrostis exarata / spike bent grass
Agrostis stolonifera / creeping bent
Aristida adscensionis / six weeks three-awn
Arundo donax / giant reed
Avena barbata / slender wild oat
Avena fatua / wild oat
Bouteloua gracilis / blue grama
Briza minor / little quaking grass
Bromus berterioanus / Chilean brome
Bromus carinatus / California brome
Bromus catharticus / rescue grass
Bromus diandrus / ripgut brome
Bromus hordaceus [*B. mollis*] / soft chess
Bromus madritensis ssp. *rubens* / red brome
Bromus pseudolaevipes / brome grass
Cortaderia selloana / pampas grass
Crypsis schoenoides / swamp grass
Cynodon dactylon / Bermuda grass
Dactylis glomerata / orchard grass
Dactyloctenium aegyptium / crowfoot grass
Digitaria sanguinalis / hairy crab grass
Distichlis spicata / salt grass
Echinochloa colona / small barnyard grass
Ehrharta calycina / Veldt grass
Elymus (Leymus) condensatus / giant wild rye
Elymus glaucus / blue wildrye
Elymus trachycaulus ssp. *trachycaulus (subsecundus)* / slender wheat grass
Eragrostis barrelieri / lovegrass
Eragrostis pectinacea var. *pectinacea* / lovegrass
Eragrostis pectinacea var. *miserrima* / lovegrass
Festuca (Vulpia) bromoides / brome fescue
Festuca (Vulpia) microstachys (var. *pauciflora*) / Nuttall's fescue
Festuca (Vulpia) myuros (var. *hirsuta*) / hirsute rattail fescue
Festuca perennis (*Lolium multiflorum*, *L. perennis*) / rye grass

- Gastridium phleoides* (*ventricosum*) / nit grass
Hordeum intercedens / little barley **SP; 3.2**
Hordeum marinum ssp. *gussoneanum* / Mediterranean barley
Hordeum murinum ssp. *leporinum* [*H. leporinum*] / Mediterranean barley
Koeleria macrantha / june grass
Lamarckia aurea / goldentop
Leptochloa fusca ssp. *uninervia* / Mexican sprangletop
Melica californica / California melic
Melica imperfecta / coast range melic
Muhlenbergia microsperma / small-flowered muhly
Muhlenbergia rigens / deergrass
Panicum capillare / witch grass
Pennisetum clandestinum / Kikuyu grass
Pennisetum setaceum / fountain grass
Pennisetum villosum / feather top
Phalaris aquatica / Harding grass
Phalaris minor / Mediterranean canary grass
Phalaris paradoxa / hood canarygrass
Poa annua / annual bluegrass
Poa secunda ssp. *secunda* / one-sided bluegrass
Polypogon interruptus / ditch beard grass
Polypogon monspeliensis / rabbitsfoot grass
Polypogon (Agrostis) viridis / water beard grass
Schismus arabicus / Arabian grass
Schismus barbatus / Mediterranean grass
Setaria pumila ssp. *pumila* / yellow bristle grass
Stenotaphrum secundatum / Saint Augustine grass
Stipa (Nassella) cernua / nodding needlegrass
Stipa (Achnatherum) coronatum / giant needlegrass
Stipa (Nassella) lepida / foothill needlegrass
Stipa (Piptatherum) miliacea [*Oryzopsis m.*] / smilo grass
Stipa (Nassella) pulchra / purple needlegrass
- Ruscaceae – Butcher’s-broom Family
Nolina cismontana / chaparral beargrass **SP; 1B.2**
- Themidaceae – Brodiaea Family
Bloomeria crocea / golden stars
Brodiaea terrestris ssp. *kernensis* / harvest brodiaea **LS**
Dichelostemma capitatum ssp. *capitatum* [*D. pulchella*] / blue dicks
Muilla maritima / common muilla
- Typhaceae – Cattail Family
Typha domingensis / Southern cattail
Typha latifolia / broad-leaved cattail
- Zannichelliaceae – Horned pondweed Family
Zannichellia palustris / grass-wrack

APPENDIX B: FISHES OF THE THOUSAND OAKS PLANNING AREA

The following list uses this State Status Code:

SSC: Species of Special Concern – Species whose declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

Family Salmonidae

Rainbow trout / *Oncorhynchus mykiss*

Cyprinidae

Goldfish / *Carassium auratus*

Carp / *Cyprinus carpo*

Arroyo chub / *Gila orcuttii* **SSC**

Ictaluridae

Black bullhead / *Ameiurus melas*

Poeciliidae

Mosquitofish / *Gambusia affinis*

Centrarchidae

Green sunfish / *Lepomis cyanellus*

Bluegill / *Lepomis macrochirus*

Largemouth bass / *Micropterus salmoides*

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**APPENDIX C: REPTILES AND AMPHIBIANS
OF THE THOUSAND OAKS PLANNING AREA**

The following list uses these State and Federal Status Codes:

- FT:** Federally – listed threatened
SSC: Species of Special Concern – Species whose declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction

Amphibians

Family Plethodontidae – Lungless Salamanders

- arboreal salamander / *Aneides lugubris*
- black-bellied slender salamander / *Batrachoseps nigriventris*
- Monterey ensatina / *Ensatina eschscholtzii* ssp. *eschscholtzii*

Salamandridae – Newts

- California newt / *Taricha torosa* **SSC**

Bufoidea – True Toads

- California toad / *Anaxyrus* [*Bufo*] *boreus* ssp. *halophilus*
- Arroyo toad / *Anaxyrus* [*Bufo*] *californicus* **SSC**

Hylidae – Treefrogs

- California treefrog / *Pseudacris* [*Hyla*] *cadaverina*
- Pacific treefrog / *Pseudacris hypochondriaca* [*Hyla regilla*]

Ranidae – True Frogs

- American bullfrog / *Lithobates catesbeianus* [*Rana catesbeiana*]
- California red-legged frog / *Rana draytonii* **FT, SSC**

Reptiles

Family Emydidae – Water and Box Turtles

- Pacific pond turtle / *Actinemys* [*Clemmys*] *marmorata* **SSC**
- Red-eared slider / *Trachemys* [*Pseudemys*] *scripta* ssp. *elegans*

Anguillidae – Alligator Lizards and Allies

- San Diego alligator lizard / *Elgaria multicarinata* [*Gerrhonotus multicarinatus*]

Anniellidae – North American Legless Lizards

- California legless lizard / *Anniella pulchra* **SSC**

Phrynosomatidae – Spiny, Side-blotched and Horned Lizards

- Blainville's horned lizard / *Phrynosoma blainvillii* [*coronatum*] **SSC**
- Great Basin fence lizard / *Sceloporus occidentalis* ssp. *longipes*
- Western side-blotched lizard / *Uta stansburiana* ssp. *elegans*

Scincidae – Skinks

- Skilton's skink / *Plestiodon* [*Eumeces*] *skiltonianus* ssp. *skiltonianus*

Teiidae – Whiptails and Racers

- Coastal whiptail / *Aspidoscelis* [*Cnemidophorus*] *tigris* ssp. *stejnegeri* **SSC**

Colubridae – Colubrid Snakes

- Western yellow-bellied racer / *Coluber constrictor* ssp. *mormon*
- Red racer / *Coluber* [*Masticophis*] *flagellum* ssp. *piceus*
- California striped racer / *Coluber* [*Masticophis*] *lateralis* ssp. *lateralis*
- San Bernardino ring-necked snake / *Diadophis punctatus* ssp. *modestus*
- San Diego night snake / *Hysiglena ochrorhyncha* [*torquata*] ssp. *klauberi*

California kingsnake / *Lampropeltis getula* ssp. *californiae*
California mountain kingsnake / *Lampropeltis zonata* ssp. *pulchra* **SSC**
San Diego gopher snake / *Pituophis catenifer* [*melanoluecus*] ssp. *annectens*
Coast patch-nosed snake / *Salvadora hexalepis* ssp. *virgultea* **SSC**
Western black-headed snake / *Tantilla planiceps*
Two-striped gartersnake / *Thamnophis hammondi* **SSC**
Baja California lyresnake / *Trimorphodon bicuscutus* ssp. *lyrophanes*
Viperidae – Vipers
Southern Pacific rattlesnake / *Crotalus oreganus* ssp. *helleri*

APPENDIX D: BIRDS OF THE THOUSAND OAKS PLANNING AREA

The following list uses these State and Federal Status Codes:

FE – Listed as Endangered by U.S. Fish and Wildlife Service

FT – Listed as Threatened by the U. S. Fish and Wildlife Service

CE – Listed as Endangered by the California Department of Fish and Wildlife

ST – Listed as Threatened by the California Department of Fish and Wildlife

WL – Watch List: Species considered by the California Department of Fish and Wildlife (CDFW) to be declining but are not yet on the Species of Special Concern list.

FP – California Fully Protected: Enacted on a species-by-species basis by the state legislature prior to the adoption of the California Endangered Species Act of 1984.

SSC – California Species of Special Concern: Animals whose breeding populations in California are considered by the California Department of Fish and Wildlife (CDFW) to have declined to the point that they may face extirpation without proper management and recognition in planning.

BCC – Birds of Conservation Concern: Birds considered by the U.S. Fish and Wildlife Service to be in need of conservation action, particularly in regard to protection of the habitats and ecological communities upon which these species depend.

Family Anatidae – Ducks, Geese, and Swans

Canada goose (*Branta canadensis*)

Wood duck (*Aix sponsa*)

Gadwall (*Anas strepera*)

American widgeon (*Anas americana*)

Mallard (*Anas platyrhynchos*)

Blue-winged teal (*Anas discors*)

Cinnamon teal (*Anas cyanoptera*)

Northern shoveler (*Anas clypeata*)

Northern pintail (*Anas acuta*)

Green-winged teal (*Anas crecca*)

Canvasback (*Aythya valisineria*)

Redhead (*Aythya americana*) **SSC**

Ring-necked duck (*Aythya collaris*)

Lesser scaup (*Aythya affinis*)

Bufflehead (*Bucephala albeola*)

Ruddy duck (*Oxyura jamaicensis*)

Odontophoridae – New World Quail

California quail (*Callipepla californica*)

Podicipedidae – Grebes

Pied-billed grebe (*Podilymbus podiceps*)

Eared-grebe (*Podiceps nigricollis*)

Phalacrocoracidae – Cormorants

Double-crested cormorant (*Phalacrocorax auritus*)

- Ardeidae – Herons, Bitterns and Allies
American bittern (*Botaurus lentiginosus*)
Great blue heron (*Ardea herodias*)
Great egret (*Ardea alba*)
Snowy egret (*Egretta thula*)
Green heron (*Butorides virescens*)
Black-crowned night heron (*Nycticorax nycticorax*)
- Cathartidae – New World Vultures
Turkey vulture (*Cathartes aura*)
- Pandionidae – Ospreys
Osprey – (*Pandion haliaetus*) **WL**
- Accipitridae – Hawks, Kites, Eagles, and Allies
White-tailed kite (*Elanus leucurus*) **FP**
Northern harrier (*Circus cyaneus*)
Sharp-shinned hawk (*Accipiter striatus*)
Cooper's hawk (*Accipiter cooperii*) **WL**
Red-shouldered hawk (*Buteo lineatus*)
Red-tailed hawk (*Buteo jamaicensis*)
- Falconidae – Falcons
American kestrel (*Falco sparverius*)
Merlin (*Falco columbarius*) **WL**
Peregrine falcon (*Falco peregrinus*)
Prairie falcon (*Falco mexicanus*) **WL; BCC**
- Rallidae – Rails, Gallinules, and Coots
Virginia rail (*Rallus limicola*)
Sora (*Porzana carolina*)
Common gallinule (*Gallinula galeata*)
American coot (*Fulica americana*)
- Charadriidae – Lapwings and Plovers
Killdeer (*Charadrius vociferous*)
- Scolopacidae – Sandpipers, Phalaropes, and Allies
Spotted sandpiper (*Actitis macularius*)
Greater yellowlegs (*Tringa melanoleuca*)
Long-billed dowitcher (*Limnodromus scolopaceus*)
Wilson's snipe (*Gallinago delicata*)
- Laridae – Gulls, Terns, and Skimmers
Ring-billed gull (*Larus delawarensis*)
Western gull (*Larus occidentalis*)
California gull (*Larus californicus*)
- Columbidae – Pigeons, Doves
Rock pigeon (*Columba livia*)
Band-tailed pigeon (*Patagioenas fasciata*)
Eurasian collared dove (*Streptopelia orientalis*)
Spotted dove (*Streptopelia chinensis*)
Mourning dove (*Zenaida macroura*)
Common ground dove (*Columbina passerina*)
- Cuculidae – Cuckoos, Roadrunners, and Anis
Greater roadrunner (*Geococcyx californianus*)
- Tytonidae – Barn Owls
Barn owl (*Tyto alba*)

- Strigidae – Typical Owls
 - Western screech owl (*Megascops kennicottii*)
 - Great-horned owl (*Bubo virginianus*)
 - Burrowing owl (*Athene cunicularia*) **SSC; BCC**
- Caprimulgidae – Goatsuckers
 - Common poorwill (*Phalaenoptilus nuttallii*)
- Apodidae – Swifts
 - Vaux's swift (*Chaetura vauxi*)
 - White-throated swift (*Aeronautes saxatalis*) **SSC ; BCC**
- Trochilidae – Hummingbirds
 - Black-chinned hummingbird (*Archilochus alexandri*)
 - Anna's hummingbird (*Calypte anna*)
 - Costa's hummingbird (*Calypte costae*)
 - Rufous hummingbird (*Selasphorus rufus*)
 - Allen's hummingbird (*Selasphorus sasin*) **BCC**
- Alcedinidae – Kingfishers
 - Belted kingfisher – (*Ceryle alcyon*)
- Picidae – Woodpeckers and Allies
 - Lewis's woodpecker (*Melanerpes lewis*)
 - Acorn woodpecker (*Melanerpes formicivorus*)
 - Red-breasted sapsucker (*Sphyrapicus ruber*)
 - Nuttall's woodpecker (*Picoides nuttallii*) **BCC**
 - Downy woodpecker (*Picoides pubescens*)
 - Hairy woodpecker (*Picoides villosus*)
 - Northern flicker (*Colaptes auratus*)
- Tyrannidae – Tyrant Flycatchers
 - Western wood pewee (*Contopus sordidulus*)
 - Willow flycatcher (*Empidonax traillii*) **FE, BCC**
 - Pacific-slope flycatcher (*Empidonax difficilis*)
 - black phoebe (*Sayornis nigricans*)
 - Say's phoebe (*Sayornis saya*)
 - Ash-throated flycatcher (*Myiarchus cinerascens*)
 - Cassin's kingbird (*Tyrannus vociferans*)
 - Western kingbird (*Tyrannus verticalis*)
- Laniidae – Shrikes
 - Loggerhead shrike (*Lanius ludovicianus*) **SSC; BCC**
- Vireonidae – Vireos
 - Bell's vireo (*Vireo bellii*) **FE, CE**
 - Cassin's vireo (*Vireo cassinii*)
 - Hutton's vireo (*Vireo huttoni*)
 - Warbling vireo (*Vireo gilvus*)
- Corvidae – Crows and Jays
 - Western scrub jay (*Aphelocoma californica*)
 - American crow (*Corvus brachyrhynchos*)
 - Common raven (*Corvus corax*)
- Alaudidae – Larks
 - Horned lark (*Eremophila alpestris*) **WL**
- Hirundinidae – Swallows
 - Tree swallow (*Tachycineta thalassina*)
 - Violet-green swallow (*Tachycineta thalassina*)

- Northern rough-winged swallow (*Stelgidopteryx serripennis*)
- Cliff swallow (*Petrochelidon pyrrhonota*)
- Barn swallow (*Hirundo rustica*)
- Paridae – Chickadees and Titmice
 - Oak titmouse (*Baeolophus inornatus*) **BCC**
- Aegithalidae – Bushtits
 - Bushtit (*Psaltriparus minimus*)
- Sittidae – Nuthatches
 - White-breasted nuthatch (*Sitta carolinensis*)
- Certhiidae – creepers
 - Brown creeper (*Certhia americana*)
- Troglodytidae – Wrens
 - Cactus wren (*Campylorhynchus brunneicapillus*)
 - Rock wren (*Salpinctes obsoletus*)
 - Canyon wren (*Catherpes mexicanus*)
 - Bewick’s wren (*Thryomanes bewickii*)
 - House wren (*Troglodytes aedon*)
 - Pacific wren (*Troglodytes pacificus*)
 - Marsh wren (*Cistothorus palustris*)
- Poliophtilidae – Gnatcatchers
 - Blue-gray gnatcatcher (*Poliophtila caerulea*)
 - California gnatcatcher (*Poliophtila californica*) **FT; SSC**
- Regulidae – Kinglets
 - Golden-crowned kinglet (*Regulus satrapa*)
 - Ruby-crowned kinglet (*Regulus calendula*)
- Sylviidae – Sylviid Warblers
 - Wrentit (*Chamaea fasciata*)
- Turdidae – Thrushes
 - Western bluebird (*Sialia mexicana*)
 - Hermit thrush (*Catharus guttatus*)
 - American robin (*Turdus migratorius*)
- Mimidae – Mockingbirds and Thrashers
 - Northern mockingbird (*Mimus polyglottos*)
 - California thrasher (*Toxostoma redivivum*)
- Sturnidae – Starlings
 - European starling (*Sturnus vulgaris*)
- Motacillidae – Wagtails and Pipits
 - American pipit (*Anthus rubescens*)
- Bombycillidae – Waxwings
 - Cedar waxwing (*Bombycilla cedrorum*)
- Ptilonotidae – Silky-flycatchers
 - Phainopepla (*Phainopepla nitens*)
- Parulidae – Wood-warblers
 - Orange-crowned warbler (*Oreothlypis celata*)
 - Nashville warbler (*Oreothlypis ruficapilla*)
 - MacGillivray’s warbler (*Geothlypis tolmiei*)
 - Common yellowthroat (*Geothlypis trichas*)
 - Yellow warbler (*Setophaga petechia*) **BCC; SSC**
 - Yellow-rumped warbler (*Setophaga coronata*)
 - Black-throated gray warbler (*Setophaga nigrescens*)

- Townsend's warbler (*Setophaga townsendi*)
- Wilson's warbler (*Cardellina pusilla*)
- Yellow-breasted chat (*Icteria virens*) **SSC**
- Emberizidae – Sparrows
 - Spotted towhee (*Pipilo maculatus*)
 - Rufous-crowned sparrow (*Aimophila ruficeps*) **WL**
 - California towhee (*Melospiza crissalis*)
 - Chipping sparrow (*Spizella passerina*)
 - Lark sparrow (*Chondestes grammacus*)
 - Sage sparrow (*Amphispiza belli*) **BCC; WL**
 - Savannah sparrow (*Passerculus sandwichensis*)
 - Grasshopper sparrow (*Ammodramus savannarum*) **SSC**
 - Fox sparrow (*Passerella iliaca*)
 - Song sparrow (*Melospiza melodia*)
 - Lincoln's sparrow (*Melospiza lincolni*)
 - White-crowned sparrow (*Zonotrichia albicollis*)
 - Golden-crowned sparrow (*Zonotrichia atricapilla*)
 - Dark-eyed junco (*Junco hyemalis*)
- Cardinalidae – Grosbeaks and Allies
 - Western tanager (*Piranga ludoviciana*)
 - Black-headed grosbeak (*Pheucticus melanocephalus*)
 - Blue grosbeak (*Passerina caerulea*)
 - Lazuli bunting (*Passerina amoena*)
- Icteridae – Blackbirds
 - Red-winged blackbird (*Agelaius phoeniceus*)
 - Western meadowlark (*Sturnella neglecta*)
 - Brewer's blackbird (*Euphagus cyanocephalus*)
 - Brown-headed cowbird (*Molothrus ater*)
 - Hooded oriole (*Icterus cucullatus*)
 - Bullock's oriole (*Icterus bullockii*)
- Fringillidae – Finches
 - Purple finch (*Carpodacus purpureus*)
 - House finch (*Carpodacus mexicanus*)
 - Pine siskin (*Spinus pinus*)
 - Lesser goldfinch (*Spinus psaltria*)
 - Lawrence's goldfinch (*Spinus lawrencei*)
 - American goldfinch (*Spinus tristis*)
- Passeridae – Old World Sparrows
 - House sparrow (*Passer domesticus*)

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APPENDIX E: MAMMALS OF THE THOUSAND OAKS PLANNING AREA

The following list uses this State Status Code:

SSC – Species of Special Concern – Species whose declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

Order Marsupialia

Family Didelphidae: Opossums

Virginia opossum (*Didelphis [marsupialis] virginiana*)

Order Insectivora

Soricidae: Shrews

ornate shrew (*Sorex ornatus*)

Talpidae: Moles

broad-handed mole (*Scapanus latimanus*)

Order Chiroptera

Vespertilionidae: Evening bats

fringed myotis (*Myotis thysanodes*)

California myotis (*Myotis californicus*)

Yuma myotis (*Myotis yumanensis*)

western pipistrelle (*Pipistrellus hesperus*)

western red bat (*Lasiurus blossevillii*) **SSC**

hoary bat (*Lasiurus cinereus*)

big brown bat (*Eptesicus fuscus*)

Townsend's big-eared bat (*Corynorhinus townsendii*) **SSC**

pallid bat (*Antrozous pallidus*) **SSC**

Molossidae: Free-tailed bats

Brazilian free-tailed bat (*Tadarida brasiliensis*)

Western mastiff bat (*Eumops perotis*) **SSC**

Order Lagomorpha

Leporidae: Rabbits

Desert cottontail (*Sylvilagus auduboni*)

Brush rabbit (*Sylvilagus bachmani*)

Order Rodentia

Sciuridae: Squirrels

California ground squirrel (*Spermophilus beecheyi*)

Western gray squirrel (*Sciurus griseus*)

Fox squirrel (*Sciurus niger*)

Geomyidae: Gophers

Botta's pocket gopher (*Thomomys bottae*)

Heteromyidae: Pocket mice

California pocket mouse (*Chaetodipus californicus*)

Pacific kangaroo rat (*Dipodomys agilis*)

Cricetidae: Mice

Western harvest mouse (*Reithrodontomys megalotis*)

Deer mouse (*Peromyscus maniculatus*)

Dusky-footed woodrat (*Neotoma fuscipes* ssp. *macrotis*)

San Diego Desert woodrat (*Neotoma lepida* ssp. *intermedia*)

California meadow mouse (*Microtus californicus*)

- Muridae: Rats
 - Norway rat (*Rattus norvegicus*)
 - Black rat (*Rattus rattus*)
 - House mouse (*Mus musculus*)
- Order Carnivora
 - Canidae: Dogs and relatives
 - Coyote (*Canis latrans*)
 - Gray fox (*Urocyon cinereoargenteus*)
 - Procyonidae: Raccoons and relatives
 - Ringtail (*Bassariscus astutus*)
 - Raccoon (*Procyon lotor*)
 - Mustelidae: Weasels and relatives
 - Long-tailed weasel (*Mustela frenata*)
 - Striped skunk (*Mephitis mephitis*)
 - American Badger (*Taxidea taxus*) **SSC**
 - Felidae: Cats
 - Mountain lion (*Felis concolor*)
 - Bobcat (*Lynx rufus*)
- Order Artiodactyla
 - Cervidae: Deer
 - Mule deer (*Odocoileus hemionus ssp. hemionus*)

**APPENDIX F: RARE, THREATENED, AND ENDANGERED PLANTS
IN THE THOUSAND OAKS PLANNING AREA**

The following list utilizes these status codes:

State and Federal Status Codes

- CE** – State-listed, endangered
- CR** – State-listed, rare
- SP** – State-listed, special plant
- FE** – Federally-listed, endangered
- FT** – Federally-listed, threatened

California Rare Plant Ranks

- List 1B** – Plants Rare, Threatened, or Endangered in California and Elsewhere
- List 2** – Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
- List 3** – Plants about Which We Need More Information – A Review List.
- List 4** – Plants of Limited Distribution – A Watch List.

Threat Code Extensions:

- .1 Seriously endangered in California
- .2 Fairly endangered in California
- .3 Not very endangered in California

Local Status

- LS** – Locally sensitive: Plants considered by the City of Thousand Oaks or the County of Ventura to be uncommon or rare.

Braunton's milk-vetch (*Astragalus brauntonii*) is a short-lived perennial shrub with lilac flowers. In Thousand Oaks, it is associated with sedimentary soils in the North Ranch Open Space, in the vicinity of the Simi Hills. This plant exists as a seed bank in the soil until a wildfire or some other disturbance causes it to germinate. It is listed as endangered by the Federal Government, and has a Rare Plant Rank of 1B.1.

Malibu baccharis (*Baccharis malibuensis*) is a rounded shrub in the sunflower family. Recently described, it was thought to occur only in the Malibu area until a small population was discovered by a local botanist in the Simi Hills above Oakbrook Regional Park. Due to its extreme rarity, it has a Rare Plant Rank of 1B.1

California macrophylla (*California (Erodium macrophyllum) macrophylla*). A native form of the common garden weed, filaree, this plant is found in vernal moist grassland. One population, of the three known in Ventura County, is found on an approved residential project on the south side of Olsen Road just west of California Lutheran University. As mitigation, seed from these plants were collected and deposited at the Center for Plant Conservation at the Santa Barbara Botanic Garden. This species has a Rare Plan Rank of 1B.1.

Catalina mariposa lily (*Calochortus catalinae*) it has been given a Rare Plant Rank of 4.2. This plant is restricted to heavy soils in grassland throughout the Conejo Valley. Although it is arguably the most common mariposa lily in the Santa Monica Mountains, it is threatened by habitat loss due to urbanization.

Plummer's mariposa lily (*Calochortus plummerae*) is an attractive pink and yellow lily that grows in inland sage scrub and chaparral. In Thousand Oaks, it occurs in the Los Robles Open Space, the North Ranch Open Space and other similar habitats in other areas of the City. Plummer's mariposa lily has been given a Rare Plant Rank of 4.2.

Southern tarplant (*Centromadia (Hemizonia) parryi ssp. australis*) is a spiny, annual member of the sunflower family which is found in vernal moist saline wetlands. There is one population of this plant in the City in a vacant field adjacent to the U.S. 101, northwest of the intersection of Borchard Road and Michael Drive in Newbury Park. This plant has been given a Rare Plant Rank of 1B.1.

Island mountain mahogany (*Cercocarpus betuloides var. blanchae*) has larger leaves than the typical mainland form of this shrub. It is found sparingly in open space south of the Ventura Freeway in the vicinity of the Lake Eleanor Open Space and has been given a Rare Plant Rank of 4.3.

Small-flowered morning-glory (*Convolvulus simulans*) has small, white flowers and does not look like a typical morning glory. It is found on vernal moist clay exposures in grassland and has been found at Wildwood Park and the Sunset Hills Open Space. It has a Rare Plant Rank of 4.2.

Conejo dudleya (*Dudleya parva*) is a small yellow-flowered succulent which is restricted to north-facing volcanic slopes within the Conejo Valley. It is most common in the vicinity of Mount Clef Ridge. It is a Ventura County endemic and is found nowhere else on earth. Conejo dudleya is listed as threatened by the Federal Government and has a Rare Plant Rank of 1B.2.

Blochman's dudleya (*Dudleya blochmaniae ssp. blochmaniae*) is a small white-flowered succulent which grows on rocky slopes with sparse vegetation. Although its overall distribution is greater than the previous species, it is more restricted in the Conejo Valley and is limited to open space on the western side of the Planning Area. Blochman's dudleya has a Rare Plant Rank of 1B.1.

Santa Monica Mountains dudleya (*Dudleya cymosa ssp. ovatifolia*) is a small succulent with bright yellow flowers which grows on north facing volcanic cliffs. It is closely related to a similar species that grows in the vicinity of Agoura Hills. Within the Conejo Valley it is restricted to the Lake Eleanor Open Space. Santa Monica Mountains dudleya is listed as threatened by the Federal Government and has a Rare Plant Rank of 1B.2.

Conejo buckwheat (*Eriogonum crocatum*) is a distinctive yellow flowered shrub with white woolly leaves. It is found on steep north-facing volcanic slopes throughout the Conejo Valley and the western side of Conejo Mountain, but nowhere else on earth. By virtue of its restricted distribution, the City Council has designated it as the official City flower. This species is listed as rare by the State Government and has a Rare Plant Rank of 1B.2.

Santa Susana tarplant (*Deinandra (Hemizonia) minthornii*) is a yellow flowered shrub which grows on sandstone bluffs and rocks in the Simi Hills and Santa Susana Mountains. Its occurrence in Thousand Oaks is limited to several small populations in the North Ranch Open Space. Santa Susana tarplant is listed as rare by the State Government and has a Rare Plant Rank of 1B.2.

Southern California black walnut (*Juglans californica* var. *californica*) is found scattered throughout the Conejo Valley in inland sage scrub and oak woodlands. Although relatively common locally, with outstanding examples in the North Ranch Open Space, this small tree has a Rare Plant Rank of 4.2 because of its rapid disappearance due to urbanization further south.

Lyon's Pentachaeta (*Pentachaeta lyonii*) is a small yellow-flowered member of the sunflower family which is limited to several populations in and around the City of Thousand Oaks. It usually inhabits sparsely vegetated grasslands in association with Conejo volcanic soils, but is absent from large areas of seemingly suitable habitat. Large populations of this plant are protected within Wildwood Park and the Lake Eleanor Open Space. Lyon's Pentachaeta is listed as endangered by the State and endangered by the Federal Government and has a Rare Plant Rank of 1B.1.

Chaparral beargrass (*Nolina cismontana*). The Conejo Valley distribution of this yucca-like plant is limited to the Simi Hills area where it is found in colonial populations in the North Ranch Open Space, often in association with Braunton's milkvetch. It has a Rare Plant Rank of 1B.2.

Rayless ragwort (*Senecio aphanactis*). This diminutive yellow sunflower is found in vernal moist, sparsely vegetated grasslands in association with Conejo Volcanic soil. It occurs sparingly in the Conejo Canyons Open Space and Wildwood Park in the northwestern portion of the City. It has a Rare Plant Rank of 2.2.

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APPENDIX G: THREATENED, ENDANGERED AND SENSITIVE ANIMAL SPECIES IN THE THOUSAND OAKS PLANNING AREA

The following list utilizes these status codes:

FE – Listed as Endangered by U.S. Fish and Wildlife Service

FT – Listed as Threatened by the U. S. Fish and Wildlife Service

SE – Listed as Endangered by the California Department of Fish and Wildlife

ST – Listed as Threatened by the California Department of Fish and Wildlife

WL – Watch List: Species considered by the California Department of Fish and Wildlife (CDFW) to be declining but are not yet on the Species of Special Concern list.

FP – California Fully Protected: Enacted on a species-by-species basis by the state legislature prior to the adoption of the California Endangered Species Act of 1984.

SSC – California Species of Special Concern: Animals whose breeding populations in California are considered by the California Department of Fish and Wildlife (CDFW) to have declined to the point that they may face extirpation without proper management and recognition in planning.

BCC – Birds of Conservation Concern: Birds considered by the U.S. Fish and Wildlife Service to be in need of conservation action, particularly in regard to protection of the habitats and ecological communities upon which these species depend.

California Newt (*Taricha torosa*) SSC: The California newt lives in mesic chaparral, California sage scrub and riparian woodland generally in close proximity to aquatic habitats. Adults spend the summer in gopher holes, under bark or in other protected locations coming to breed in quiet ponds after the winter rains. Larvae are aquatic, as are the adults during breeding season. It is considered a “species of special concern” by the CDFW because it has suffered declines due to urbanization, stream alteration and flood control activities

California red-legged frog (*Rana draytonii*) FT; SSC: The red-legged frog occurs in lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Although the species had not been recently observed within the Planning Area, suitable habitat exists along the Arroyo Conejo and its perennial tributaries. The red-legged frog has undergone significant declines due to urbanization and predation by the introduced bull frog; consequently, it is considered threatened by the Federal government and is a California “species of special concern”.

Southwestern pond turtle (*Actinemys [Clemmys] marmorata ssp. pallida*) SSC: The southwestern pond turtle is found in the Arroyo Conejo and its perennial tributaries. This thoroughly aquatic turtle requires dense aquatic vegetation and may be seen basking on logs and mud banks. Populations of this species have undergone significant declines due to urbanization and flood control activities and, consequently, it is a California “species of special concern”.

Blainville’s horned lizard (*Phrynosoma blainvillii [coronatum] ssp. frontale*) SSC: This species is relatively common in the Open Space System wherever its habitat requirements of loose,

sandy soil, open areas for sunning and a good supply of its favorite food, harvester ants, are to be found. Within the Planning Area, it is encountered principally in coastal sage scrub and chaparral. It is considered a "species of special concern" by CDFW because it has been reduced in numbers due to destruction of habitat and displacement of native harvester ants by introduced Argentine ants.

Silvery legless lizard (*Anniella pulchra pulchra*) **SSC**: The silvery legless lizard is found in coastal sage scrub, oak woodlands and chaparral. In general, the species requires moist alluvial soils with plenty of surface litter and does not occur in heavy clay soil. It is considered a State "species of special concern" because it has been reduced in numbers due to habitat destruction.

(Coastal) Western whiptail (*Aspidoscelis* [*Cnemidophorus*] *tigris* ssp. *stejnegeri*) **SSC**: Within Thousand Oaks, this species is infrequently encountered in chaparral and coastal sage scrub. The coastal race of the western whiptail is considered uncommon over most of its range and consequently it is a State "species of special concern"

Coast patchnose snake (*Salvadora hexalepis* ssp. *virgultea*) **SSC**: The patchnose snake is widely distributed, but uncommon, throughout California in predominately arid habitats. It has not been confirmed within the Planning Area but there is suitable habitat in chaparral and canyon bottoms. It has been designated a State "species of Special Concern".

California mountain kingsnake (*Lampropeltis zonata* ssp. *pulchra*) **SSC**: This beautiful striped snake is most common in the vicinity of rocks and boulders near streams or lake shores. It is expected in mesic chaparral, riparian and oak woodland. It is a State "species of special concern" due to habitat destruction and capture for the pet trade.

Two-striped gartersnake (*Thamnophis hammondi*) **SSC**: Sometimes called the aquatic gartersnake, this species is associated with permanent or semi-permanent bodies of water where it consumes tadpoles and other aquatic life. It is found along perennial portions of the Arroyo Conejo. It is considered a "species of special concern" due to the destruction of its aquatic habitat.

Cooper's hawk (*Accipiter cooperi*) **WL**: The Cooper's hawk is an uncommon year-round resident and fairly common fall transient. It has nested in the Los Robles Open Space and is most often encountered in riparian and oak woodland. Reductions of breeding populations over the last several decades have resulted in its being placed on the State Watch List.

White-tailed kite (*Elanus leucurus*) **FP**: The white-tailed kite is an uncommon year round resident which frequents open grasslands with scattered trees for perching. This species has undergone major population fluctuations with very low population levels in the earlier part of this century to a peak in the early and mid 1970's. At this point, populations seem to be declining somewhat. This graceful raptor is a California fully protected species.

Prairie falcon (*Falco mexicanus*) **BCC; WL**: This powerful raptor of open country is a rare winter and casual summer visitor to the Thousand Oaks area. Nesting has been recorded on rocky cliffs in the nearby Santa Monica Mountains and there is suitable potential nesting habitat within the open space system. Recent population declines on the coastal slope have resulted in the prairie falcon being designated a Federal "bird of conservation concern" and being placed on the State watch list.

Merlin (*Falco columbarius*) WL: This small falcon is an uncommon fall transient and rare winter visitor which frequents open woodlands and riparian areas. In the Conejo Valley, merlins are seen occasionally in the winter or as transients in migration. Because of its uncommon status, the merlin has been placed on the State watch list.

Burrowing owl (*Athene cunicularia*) BCC; SSC: The burrowing owl is a rare resident in grassland and coastal sage scrub where it utilizes ground squirrel burrows. Although there are several recent records within the open space system, these birds were probably in migration and it is doubtful that they breed in the Planning Area. Because of their scarce and decreasing status in coastal areas of California, the burrowing owl has been designated a Federal “bird of conservation concern” and State “species of special concern”.

Southwestern willow flycatcher (*Empidonax traillii extimus*) BCC; SE: The southwestern willow flycatcher is a rare summer resident which must have dense willow thickets along perennial streams for nesting. Over the past couple of decades, this species has been virtually extirpated as a breeder in Southern California due to destruction of riparian woodlands and brood parasitism by brown-headed cowbirds. However, suitable breeding habitat is present along the Arroyo Conejo in the Conejo Canyons Open Space. The southwestern willow flycatcher is listed as Endangered by the California Department of Fish and Wildlife and a Federal “bird of conservation concern”.

Loggerhead shrike (*Lanius ludovicianus*) BCC; SSC: The loggerhead shrike is an uncommon year-round resident of open grasslands and sparse coastal sage scrub. There is some influx of birds into the area during winter months. Shrikes have declined worldwide due to loss of grassland habitat and consequently it is a State "species of special concern" as well as a Federal “bird of conservation concern”.

Least Bell’s vireo (*Vireo bellii pusillus*) SE; FE: This small song-bird nests in willow thickets and other low shrubs along perennial or intermittent streams. Like the previous species, brood parasitism by brown-headed cowbirds and destruction of riparian woodlands have led to significant declines, however, the species has been observed along the Arroyo Conejo. The least Bell’s vireo is listed as Endangered by both the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service.

Oak titmouse (*Baeolophus inornatus*) BCC: This obligate inhabitant of oak and riparian woodlands is closely associated with coast live oaks (*Quercus agrifolia*). The oak titmouse has declined as a breeder in Southern California due to destruction of its oak woodland habitat, consequently it is a Federal “bird of conservation concern”. It should be noted, however, that it is common within the City’s open space system.

Coastal California gnatcatcher (*Polioptila californica californica*) FT; SSC: This obligate resident of dense California sage scrub has recently been noted in several areas of the City. Favored habitats include arid sage scrub with patches of prickly pear cactus. Declines have resulted from the destruction of California sage scrub and undoubtedly brood parasitism by brown-headed cowbirds. The coastal California gnatcatcher is listed as Threatened by the U.S. Fish and Wildlife Service.

Yellow warbler (*Dendroica petechia brewsteri*) BCC; SSC: This small songbird is an occasional summer resident and regular spring and fall transient in the Conejo Valley. This species requires tall riparian growth of cottonwoods, alders and willows for breeding. It has undergone significant population declines due to destruction of riparian vegetation as well as

brown cowbird brood parasitism and as a result has been designated a Federal "bird of conservation concern" and a State "species of special concern".

Yellow-breasted chat (*Icteria virens*) **SSC**: This large warbler is an uncommon inhabitant of dense riparian vegetation and may occur along the Arroyo Conejo and its principal tributaries. Like the yellow warbler, there has been a notable decline in the number of breeding pairs as a result of destruction of habitat and cowbird brood parasitism. It is a State "species of special concern".

Grasshopper sparrow (*Ammodramus savannarum*) **SSC**: This small sparrow is a summer resident in grassland in the western side of the City. Due to its small size and secretive habits it is usually detected by its insect-like call. Its numbers have declined due to development of its grassland habitat and it is on the State "species of special concern" list.

Bell's sage sparrow (*Amphispiza belli ssp. belli*) **BCC; WL**: Bell's sage sparrow is an uncommon, local resident of dry chaparral and coastal sage scrub. The species seems to prefer rather monotypic vegetation such as low dense chamise or dry coastal sage scrub for breeding. Because of its uncommon status and limited distribution, the coastal subspecies is a Federal "bird of conservation concern" and is on the State watch list.

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) **WL**: The Southern California rufous-crowned sparrow is a fairly common resident in sparse coastal sage scrub within the Open Space System. It is most frequently encountered on slopes where there is intergrading coastal sage scrub and grassland with rocky outcrops. Because of its uncommon status throughout much of Southern California and its limited distribution, this subspecies is on the State watch list.

Bats – Order Chiroptera: Several species of bats which have been designated as State "species of special concern" may occur within the Planning Area. These are designated as such in the Mammal List, Appendix D. However, the distribution of these species is poorly known, and there is no available information on which to base conclusions about their occurrence locally.

(San Diego) black-tailed hare (*Lepus californicus ssp. bennettii*) **SSC**: If present, the black-tailed hare is expected to occur in ecotones between shrub habitats and grasslands. However, there have been few reliable sightings of black-tailed hares within the Conejo Valley in recent years and it may already be extirpated from the area. Because of its diminishing numbers due to habitat destruction and hunting, the black-tailed hare is a State "species of special concern".

(San Diego) desert woodrat (*Neotoma lepida ssp. intermedia*) **SSC**: The Conejo Valley is within the range of the desert woodrat which has undergone population reductions due to habitat destruction. This species inhabits a variety of habitats from arid scrub to chaparral, particularly in the vicinity of cliffs and rocky outcrops. The desert woodrat is a State "species of special concern".

American badger (*Taxidea taxus*) **SSC**: This large member of the weasel family has been extirpated from many areas of Southern California as a result of habitat loss, deliberate killing, and secondary poisoning. There appears to be a small but stable population of this species within the open space system. Suitable habitat includes grassland, savannah and meadow areas where they prey on gophers, ground squirrels and kangaroo rats. The American badger is a State "species of special concern".

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