

# 6. Conservation & Open Space Element

## Introduction

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The Conservation and Open Space Element provides policy direction for the conservation, development, and use of natural resources and the preservation of lands and waters devoted to or managed for the protection of historic and prehistoric cultural sites, places, features or objects; outdoor recreation; the preservation of outstanding scenic values; and public health and safety.

Other general plan elements addressing conservation and open space-related issues are:

- **Public Facilities and Services Element:** Land accommodating floodwater for groundwater recharge; Areas required for groundwater basin recharge; Water and its hydraulic force
- **Resource Production Element:** Land and water reclamation; Location, quantity and quality of the rock, sand, and gravel resources; Areas containing major mineral deposits, including those in short supply; Land used for the managed production of resources, including forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber
- **Safety Element:** Open areas for public health and safety; soil conservation (e.g., protecting soil productivity through erosion prevention, control, and correction); Land accommodating floodwater for stormwater management
- **Land Use Element:** Open space lands classified as Resource Management (public and quasi-public land), and Resource Production (agriculture and timberland) as shown on the Land Use Map; Goals, policies and implementation programs intending to maintain open space and preserving the rural character of the county through clustering, infill, and designing new development to conserve natural, scenic, and cultural resources

Calaveras County does not sustain commercial fisheries and, therefore, these are not addressed in the General Plan.

Figure COS-1 identifies all of the existing open space lands in Calaveras County.

## Organization

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### **COS 1.1 Background and Setting, Associated Plans and Documents**

Water Resources/Water Quality  
Biological Resources  
Air Quality/Greenhouse Gases  
Scenic Resources  
Recreation Resources  
Cultural and Paleontological Resources

### **COS 1.2 Goals and Policies**

General  
Water Resources/Water Quality  
Biological Resources  
Air Quality/Greenhouse Gases  
Scenic Resources  
Recreation Resources  
Cultural and Paleontological Resources

### **COS 1.3 Implementation Programs**

General  
Water Resources/Water Quality

Biological Resources  
Air Quality/Greenhouse Gases  
Scenic Resources  
Recreation Resources  
Cultural and Paleontological Resources

## COS 1.1 Background and Setting, Associated Plans and Documents

### Water Resources/Water Quality

*Water supply is addressed in the Public Facilities and Services Element of the General Plan.*

#### Background and Setting:

##### **Surface Water**

Calaveras County topography varies from near sea level in the western County to 8,100± feet in the mountainous eastern County resulting in highly variable average levels of precipitation (20 inches per year in the west and 60 inches annually in the northeast) which comes in the form of both snow and rain generally between October and May.

The County's surface water resources include: The Mokelumne, Calaveras, and Stanislaus Rivers; numerous streams and diversion canals; large reservoirs (Pardee Reservoir, Camanche Reservoir, New Hogan Reservoir, Tulloch Reservoir, New Melones Reservoir, Salt Springs Reservoir) and many smaller lakes and reservoirs scattered countywide.

Surface water quality impairments in the County are associated with runoff during wet weather events, direct discharge associated with industrial/commercial activities, resource extraction activities, leaking sewer infrastructure, illegal dumping, historic waste disposal practices, agricultural chemicals, and landscape chemicals and fertilizers. Characteristic contaminants include sediment, hydrocarbons, metals, pesticides, nutrients, bacteria, and trash.

Mercury levels are a concern in the Upper Stanislaus Watershed at New Melones and Tulloch Reservoirs. Disinfection byproducts (DBPs) have been detected in treated water from the Stanislaus River Watershed at the Murphy's Water Treatment Plant (WTP). Littlejohn's Creek (Rock Creek French Camp Slough Watershed) is impaired by the presence of *E. coli* bacteria. The State Water Resources Control Board (SWRCB)<sup>1</sup> lists the Lower Stanislaus River<sup>2</sup> as impaired due to excessive levels of Diazinon, Group A pesticides, and mercury<sup>3</sup>.

In the Upper Mokelumne River watershed, water quality concerns include turbidity, alkalinity, aluminum, nitrate, and pathogens--each found in elevated levels throughout the watershed and associated with both natural conditions and man-made activities.<sup>4</sup>

##### **Groundwater**

<sup>1</sup> Clean Water Act, Section 303(d)

<sup>2</sup> Part of the Middle San Joaquin-Lower Merced-Lower Stanislaus Watershed

<sup>3</sup> Group A pesticides include chlordane, toxaphene, heptachlor, endosulfan, and several other pesticides. Diazinon and the Group A pesticides are normally associated agricultural applications. Mercury is generally associated with mining activities.

<sup>4</sup> Upper Mokelumne River Watershed Authority. *Technical Memorandum Number 9: Watershed Assessment. Upper Mokelumne River Watershed Assessment and Planning Project.* April 2007.

Most of the County's groundwater is found in fractured bedrock formations and is retrieved from fractured rock, faults, or changes in stratigraphy. Ongoing monitoring indicates a decline in groundwater levels over the past fifty years.

The western County encompasses a portion of the Eastern San Joaquin groundwater sub-basin, part of the larger San Joaquin Valley groundwater basin, which has been directly affected by severe overdrafting. This is the only identified groundwater basin in the County. As water levels in the sub-basin have declined, a saline front originating in the western portion of the basin has moved eastward (encroaching into Calaveras County). Salt-water bearing wells have been identified in the western portion of the County, primarily in the vicinity of Copperopolis.<sup>5</sup>

Other pollutants exceeding maximum contaminant levels (MCLs) in the sub-basin include inorganic and radiological pollutants, nitrates, pesticides, and volatile and semi-volatile organic compounds (VOCs and SVOCs). Wells in the Wallace Community Services District (WCSD) show iron and manganese concentrations above MCLs and require treatment to reduce contamination to acceptable levels.

The quality of both hard-rock extracted and sub-basin groundwater sources may be affected by activities including Class V injection wells<sup>6</sup>, abandoned mines, abandoned wells, underground storage tanks, hazardous waste sites, on-site septic systems, failing septic systems, and solid waste sites. Contaminants released from these sources into groundwater may include fecal coliform, nitrate, nitrite, VOCs, and synthetic organic compounds

#### Associated Plans and Documents

The County maintains the following text, maps and diagrams identifying the location of ground and surface water resources (e.g., streams, creeks, rivers, riparian habitats, groundwater basins) and the quality of those resources. Information related to stormwater and flood corridors is found in the Safety Element. Information related to water supply is included in the Public Facilities Element. Text, maps and diagrams are updated on a regular basis. Current versions available at the Calaveras County Planning Department at 891 Mt. Ranch Road, San Andreas, CA 95249, include:

- Eastern San-Joaquin Ground Water Basin Maps (*General Plan Background Report*)
- Calaveras County Rivers, Reservoirs and Watersheds Map (*General Plan Background Report*)
- Major Calaveras County streams and creeks (*General Plan Background Report*)

Groundwater, groundwater recharge and management, watersheds and water quality are addressed in the following documents and are updated on a regular basis. Current versions are available at the Calaveras County Water District (CCWD) offices at 120 Toma Court, San Andreas, California 95249 and online at <http://www.ccwd.org/> unless otherwise noted:

Water Resources and Information Management Engineering, Inc. November, 2007. *Groundwater Management Plan 2007 Update*. Groundwater management plan addressing the Eastern San Joaquin Groundwater Basin.

Dunn Environmental, Inc. November 21, 2012. *Calaveras County Monitoring Plan Portions of the Eastern San Joaquin Ground Water Sub basin for the California Statewide Groundwater Elevation Monitoring Program (CASGEM)*.

Northeastern San Joaquin County Groundwater Banking Authority (SJ GBA). 2004. *Groundwater Management Plan for the Eastern San Joaquin Groundwater Basin*.

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<sup>5</sup> Calaveras County Environmental Health Department, 2004

<sup>6</sup> Class V wells include shallow disposal systems (e.g., storm water drainage wells, cesspools, and septic system leach fields); more complex and deeper wells often used at commercial or industrial facilities; sophisticated well types (e.g., aquifer storage and recovery wells, geothermal electric power wells)  
<http://water.epa.gov/type/groundwater/uic/class5/>

RMC, November 2006. *Mokelumne/Amador, Calaveras Integrated Regional Water Management Plan* (M/A/C IRWMP). The study is available at both CCWD and online through the Upper Mokelumne River Watershed Authority at: <http://www.umarwa.org/>

Tetra Tech EM Inc. for the Stockton East Water District and CCWD. 2001. *Draft Calaveras River Watershed Assessment and Management Plan*. This study is available at CCWD and online at: <http://www.ttclients.com/calaveras/>

Kennedy-Jenks for the Tuolumne Utilities District/ Regional Water Management Group of the Tuolumne-Stanislaus Integrated Regional Water Management Plan. August, 2013. *Tuolumne-Stanislaus Integrated Regional Water Management Plan* (T-S IRWMP). The plan addresses the Upper Stanislaus River watershed and Upper Rock Creek-French Camp Slough Watershed in Calaveras County. The plan is available through the Tuolumne County Resource Conservation District at their offices at 77 North Washington Street, Sonora, CA 95370 or online at <http://www.tcrwd.org/>

## Biological Resources

### Background and Setting:

A biological resources background report (*Biological Background Report*) was prepared in conjunction with the General Plan and provides detailed information related to the County's biological resources including wetlands and other waters<sup>7</sup>.

Monk & Associates, Inc. for Raney Planning & Management. July 25, 2013. *Biological Resources Background Document Calaveras County General Plan Update*.

An overview of that report follows.

### **Vegetation**

Multiple agencies have mapped baseline vegetation for various portions of the County and several different vegetation classification systems have been applied to describe County vegetation. However, some data gaps leave portions of the County with only broad-brush descriptions of vegetative cover. Per the *Biological Background Report*, vegetation types in Calaveras County generally are as summarized in the following table.

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<sup>7</sup> "Other waters" refers to "other waters of the United States" as that term is defined in Section 404 of the federal Clean Water Act.

## Calaveras County Generalized Plant Communities/Land Use Types

Plant Community/Land Use Type	Area (Acres)	% of County
Coniferous Forest Upper Montane mixed (above 5,900'±) Jeffery pine forest Jeffery pine-fir forest Red fir forest Lower Montane mixed Ponderosa pine forest Sierran mixed conifer forest Sierran white fir forest Big tree forest/a/	210,308	32%
Non-Native Annual Grasslands	151,975	23%
Woodland Communities Foothill Woodland (blue oak, live oak) Valley Oak Woodland Riparian Woodlands	121,080	18%
Chaparral Chamise chaparral Buckbrush chaparral Northern mixed chaparral lone chaparral	76,783	12%
Montane Hardwood Montane hardwood Montane hardwood-conifer	79,539	12%
Lakes & Rivers	14,303	2%
Developed/c/	7,313	1%
Drainages	57	< 1%
Seasonal Wetlands	87	< 1%
Anthropogenic/b/	2,008	< 1%
<b>Total</b>	<b>663,453</b>	<b>100%</b>

Source: *Biological Background Report*, 2013

/a/ North Calaveras Grove in Calaveras Big Trees State Park

/b/ Communities dominated by plants introduced, established and/or maintained by humans (e.g., row and field crops, orchards and vineyards, roadsides, small vacant or abandoned lots, disturbed ground).

/c/ Altered by human disturbance to the extent that a natural vegetative community no longer predominates.

### *Sensitive Plant Communities*

Of these generalized plant communities, riparian woodlands, lone chaparral, and big tree forest are identified by the California Department of Fish and Wildlife as sensitive plant communities (i.e., rare enough to warrant monitoring).

### **Species**

Special-status species are plants and animals that are legally protected under the California and/or Federal Endangered Species Acts (CESA and FESA, respectively) or other regulations (e.g., Migratory Bird Treaty Act, California Environmental Quality Act), and species that are considered rare by the scientific community (e.g., the California Native Plant Society, California Fish and Wildlife Species of Special Concern). Non-listed special status plants and animals with the potential to occur in the County are detailed in the *Biological Background Report*. Listed species occurring, or potentially occurring, in Calaveras County include:

#### *Plants*

lone manzanita (*Arctostaphylos myrtifolia*) - federally listed threatened

Chinese Camp brodiaea (*Brodiaea pallida*) - federally listed threatened, state endangered  
Delta button-celery (*Eryngium racemosum*) - state-listed endangered

#### *Invertebrates*

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) - federally listed threatened<sup>8</sup>  
Vernal pool fairy shrimp (*Branchinecta lynchi*) - federally listed threatened

#### *Fish*

Central Valley steelhead (*Oncorhynchus mykiss irideus*), Central Valley Distinct Population Segment (DPS) - federally listed threatened.

#### *Amphibians*

California red-legged frog (*Rana draytonii*) - federally listed threatened  
Sierra Nevada yellow-legged frog (*Rana sierra*) Northern Distinct Population Segment (DPS) - federally listed endangered, state-listed threatened<sup>9</sup>.  
California tiger salamander (*Ambystoma californiense*) - state and federally listed threatened. The Central California Distinct Population Segment (DPS) of the CTS is federally listed as threatened.<sup>10</sup>

#### *Birds*

Bald Eagle (*Haliaeetus leucocephalus*) - state listed endangered<sup>11</sup>

#### *Mammals*

In addition to the preceding listed species, two candidates for listing under the state and/or federal endangered species acts that do or may occur in the County are:

Fisher (*Pekania pennant*) - candidate for federal listing, candidate for state listing as threatened<sup>12</sup>  
Townsend's big-eared bat (*Corynorhinus townsendii*) - candidate for state-listing as threatened

#### Associated Plans and Documents

The County relies on state and federal online resources for up-to-date information pertaining to the location and distribution of vegetation, common and special status species. Databases consulted include:

California Department of Fish and Wildlife (CDFW), California Native Plant Society (CNPS) and Aerial Information Systems (AIS). *Northern Sierra Nevada Foothills Vegetation Project: Vegetation Mapping Report (2011)*. Available online at [www.dfg.ca.gov/biogeodata/bios/](http://www.dfg.ca.gov/biogeodata/bios/)

California Department of Fish and Wildlife, California Native Plant Society (CNPS) and Aerial Information Systems (AIS). *Vegetation - Northern Sierra Nevada Foothills [ds566]*. Vegetation map provides one meter resolution digital color aerial imagery for the western half of Calaveras County (between 200± and 3100± feet amsl). Available online at [www.dfg.ca.gov/biogeodata/bios/](http://www.dfg.ca.gov/biogeodata/bios/)

California Department of Fish and Wildlife. *California Natural Diversity Database*. Available online at [www.dfg.ca.gov/biogeodata/cnddb/](http://www.dfg.ca.gov/biogeodata/cnddb/). Confidential information available by subscription only.

<sup>8</sup> Calaveras County is located outside the species' designated Critical Habitat.

<sup>9</sup> Designated Critical Habitat encompasses a tiny portion of Calaveras County in the extreme southeastern tip of the County at its common intersection with Alpine and Tuolumne Counties.

<sup>10</sup> Critical Habitat Units 5 and 6 for the Central California DPS are located in Calaveras County

<sup>11</sup> The listing status is under review for possible down or delisting. The raptor continues to be federally protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

<sup>12</sup> The likelihood of fishers occurring in the County is unknown per the State of California Natural Resources Agency Department of Fish and Game *Report to the Fish And Game Commission - A Status Review of the Fisher (Martes pennanti) in California*, February 2010

California Department of Fish and Wildlife. Biogeographic and Information Observation System.  
Available online at: [www.dfg.ca.gov/biogeodata/bios/](http://www.dfg.ca.gov/biogeodata/bios/)

United States Department of Agriculture Forest Service. *CalVeg*, Region 5. South Sierran Vegetation Maps. Available online at: <http://www.fs.usda.gov/> and at the Calaveras County Planning Department Geographic Information System Division at 891 Mt. Ranch Road, San Andreas, CA 95249.

## Air Quality/Greenhouse Gases

### Background and Setting:

Calaveras County is located in the Mountain Counties Air Basin (MCAB) and is under the jurisdiction of the Calaveras County Air Pollution Control District (CCAPCD), a special district governed by the Calaveras County Air Pollution Control Board. CCAPCD manages the County's air quality through education and enforcement of CCAPCD rules and California Air Resources Board (CARB) measures and regulations.

Relative to air quality, Calaveras County exceeds (i.e., is classified as non-attainment for) state and federal standards for ozone and state standards for particulate matter (PM<sub>10</sub>). Populations more sensitive to poor air quality than others include children, the elderly, the acutely ill, and the chronically ill. Facilities occupied by these sensitive populations are considered sensitive receptors. In Calaveras County, sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics distributed throughout the County.

In Calaveras County, temperature increases associated with greenhouse gas emissions are expected to result in a reduced snowpack resulting in changes to the existing water resources (e.g., decreased water supply), increased risk of wildfires, changing weather expectations for farmers and ranchers, decreased timber production, and public health hazards associated with higher peak temperatures, heat waves, decreased air quality and an accompanying decrease in the tourism industry.

### Associated Plans and Documents

The County maintains the following data and plans regarding the status of air quality in Calaveras County. Data and plans are updated on a regular basis. Data used in preparing the general plan and available at the Calaveras County Planning Department (for *General Plan Background Report*) or the Calaveras County Air Pollution Control District of the Environmental Management Agency at 891 Mt. Ranch Road, San Andreas, CA 95249, unless otherwise are:

Air Quality Data Summary for San Andreas-Goldstrike Road Air Quality Monitoring Station (*General Plan Background Report*)

California Air Resources Board – Air Quality Conformance, Calaveras County.  
<http://www.arb.ca.gov/desig/adm/adm.htm> and the *General Plan Background Report*.

United States Environmental Protection Agency. Air Quality performance per national primary or secondary ambient air quality standards for various pollutants.  
<http://www.epa.gov/oaqps001/greenbk/define.html> and the *General Plan Background Report*

Environmental Management Agency Calaveras County Air Pollution Control District. CCAPCD Rules and California Air Resources Control Board - Air Toxic Control Measures

## Scenic Resources

### Background and Setting:

Residents and visitors identify Calaveras County's scenic resources as one of its most valued assets. Forests, rolling hills, ranches, agricultural land, mining landscapes, oak woodlands, rock formations and other unique topographical features, river corridors, lakes, and streams are just a few of the County's exceptional scenic resources that contribute to the County's characteristic scenic beauty and unique sense of place.

Ebbetts Pass was designated as a California State Scenic Highway in 1971 and was granted a national designation as the Ebbetts Pass National Scenic Byway by the U.S. Department of Transportation in 2005. The federal designation is meant to preserve the unique scenic, natural, historical, cultural, archaeological, and recreational resources along the scenic byway which encompasses a 58-mile stretch of SR 4 and 89 including 24 miles of road within Calaveras County from east of Arnold to the Alpine County line, between Arnold and Markleeville.

Portions of SR 4 and SR 49 are listed as Eligible State Scenic Highways by Caltrans.

### Associated Plans and Documents

The County maintains the following data and plans regarding officially designated scenic resources in Calaveras County. Data and plans are updated on a regular basis and are available at the Calaveras County Planning Department at 891 Mt. Ranch Road, San Andreas, CA 95249, unless otherwise noted:

California Department of Transportation. Designated and Eligible State Scenic Highways, Calaveras County. [http://www.dot.ca.gov/hq/LandArch/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm)

David L. Dahlquist Associates, LLC for the Ebbetts Pass Scenic Byway Association and Calaveras Council of Governments. *2013 Corridor Management Plan Ebbetts Pass National Scenic Byway*. Also available online at <http://scenic4.org/>

## Recreation Resources

### Background and Setting:

Calaveras County benefits from a wide variety of local, state and federal, public and privately owned park and recreational facilities ranging from regional hiking, biking and equestrian trails in the wilderness to individual playgrounds for local students. The ownership, type and distribution of recreational facilities are detailed in the *General Plan Background Report* and summarized as follows:

#### *Public and Quasi-Public Park and Recreation Facilities, Providers and Districts*

Recreational opportunities available to residents and visitors are provided by the U.S. Bureau of Land Management, U.S. Bureau of Reclamation (New Melones Reservoir), U.S. Department of Agriculture - Stanislaus National Forest, U.S. Army Corps of Engineers (New Hogan Reservoir), State of California (Calaveras Big Trees State Park, Frogtown/County Fairgrounds), East Bay Municipal Utility District (Pardee Reservoir, Camanche Reservoir), Tri-Dam Authority (Tulloch Reservoir), Pacific Gas and Electric (Salt Springs Reservoir), Calaveras County Water District (Spicer Reservoir), and Calaveras County (Murphys Park). Other publicly accessible recreation facilities are provided by private foundations, clubs, veteran's districts, commercial enterprises and others. Elementary, middle, and high school play fields and playgrounds throughout the County also contribute to the local recreational network. The San Andreas Recreation and Parks District serves the area in and around the community of San Andreas and is the only parks and recreation district in the County.

#### *Private Park and Recreation Facilities*

Many private developments throughout the County provide on-site park and recreational facilities to serve project residents. The County encourages placement of such facilities in private developments as well as integrated pathways located and designed to be near adjacent projects, shopping areas, and other public facilities.

Other privately owned recreational facilities include Salt Springs Valley Reservoir and limestone caves (Mercer Caverns, Moaning Cave, California Caverns, and the Crystal Palace Cave). Local clubs and commercial endeavors also support the County's rock climbing, cross country skiing, river rafting, snow play and other recreational activities.

### *Trails*

Numerous hiking, biking, and horseback riding trails are located throughout the County. Major regional trail systems include: the Mokelumne Coast to Crest Trail (MCCT), Arnold Rim Trail (ART), and New Melones Reservoir Trails.<sup>13</sup> Shorter trail systems may be found along portions of the County's historic miner's ditches. Many miles of multiple use trails exist on National Forest lands.

### Associated Plans and Documents

The County maintains the plans regarding recreational resources in Calaveras County. Plans and reports are updated on a regular basis and are available at the Calaveras County Planning Department at 891 Mt. Ranch Road, San Andreas, CA 95249.

Calaveras County Code Chapter 16.24 (sets forth park dedication requirements for new residential projects within the County)

Local Agency Formation Commission of Calaveras County (LAFCO). November 2005. *Municipal Service Review (MSR) and Sphere of Influence (SOI) Plan Veteran Memorial Districts and Park and Recreation Districts*. Also available online at: <http://www.calaveraslafco.org/service-reviews.html>

Calaveras Council of Governments. *Calaveras County Pedestrian Master Plan*. Also available online at <http://calacog.org/>

Calaveras Council of Governments. *Calaveras County Bikeway Plan/Bicycle Master Plan*. Also available online at <http://calacog.org/>

## **Cultural & Paleontological Resources**

### **Cultural Resources**

#### Background and Setting:

A detailed history of Calaveras County, provided courtesy of Judith Marvin, Foothill Resources, Ltd., is included in the *General Plan Background Report*. Based on that study, the County's cultural resources are generally representative of the County's history relative to: Mining, Agriculture, Water, Transportation and Communications, Ethnicity and Social Systems; Industry, Commerce, and Tourism. Evidence of these contextual themes in County history include:

- Historic artifact features and buried deposits of historic debris and artifacts
- Building foundations and associated deposits (homes, businesses, barns, mines, mills, etc.)
- Mining remains (shafts, adits, waste rock, tailings)
- Ranching and Agriculture (terracing, fences, corrals, water troughs)
- Water related (ditches, dams, reservoirs, penstocks)

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<sup>13</sup> The U.S. Bureau of Land Management manages 12 miles of trails around New Melones Reservoir in Calaveras County.

- Transportation (roads, trails, railways)

Historically and architecturally significant buildings in Calaveras are diverse in style, as well as in method and period of construction. They are built of adobe, stone, brick, wood, or concrete and have sidings of brick, wood, stucco, and plaster. The architectural styles represented are Neoclassical, Greek Revival, Gothic Revival, Italianate, Queen Anne, Eastlake, Mission Revival, False-front commercial, Craftsman, Spanish Eclectic, Tudor Revival, Art Moderne, and various vernacular adaptations of all of these.

Cultural resources formally recognized by the National Park Service and/or the State of California in Calaveras County include:

*National Register of Historic Places*

The National Park Service identifies 15 structures in Calaveras County listed on the National Register of Historic Places (2014): Calaveras County Courthouse (San Andreas), Copperopolis Armory, Copperopolis Congregational Church, Douglas Flat School, Honigsberger Store (Copperopolis), Murphys Grammar School, Sperry-Perry/Mitchler/Murphys Hotel, Reed's Store (Copperopolis), John J. Synder House (San Andreas), and the Thorn House (San Andreas). Five of the listed resources are located in Angels Camp (Angels Hotel, "Red Brick" Altaville Grammar School, Utica Mansion, Calaveras County Bank, Sam Choy brick store).

*California Register of Historic Resources, Historical Landmarks, Points of Historical Interest*

In addition to federally-recognized buildings, structures recognized by the state include: A.W. Clifton House/Compton Mansion, Dorrington Hotel and Restaurant, Europa/De France/Leger Hotel (Mokelumne Hill), Avery Hotel-Halfway House, Congregational Church (Mokelumne Hill), I.O.O.F. Hall (Mokelumne Hill), Peter L. Traver Building (Murphys), Pioneer Cemetery, Prince-Garibaldi Building (Altaville), Stone Corral (Valley Springs), and the Vallecito Bell Monument.

Communities and places recognized by the state include: Big Bar, Calaveritas, Camanche, Campo Seco, Carson Hill, Chili Gulch, Double Springs, Copperopolis, Douglas Flat, El Dorado (Mountain Ranch), Fourth Crossing, Glencoe, Jenny Lind, Jesus Maria, Milton, Mokelumne Hill, O'Byrnes Ferry, Old Mining Camp of Brownsville, Paloma, Railroad Flat, Robinson's Ferry, San Andreas, Sandy Gulch, Vallecito, Valley Springs, West Point, the birthplace of Archie Stevenot (SR 4, south of Angels Camp), California Caverns at Cave City, Angels Camp, and Altaville.

*Local Registers*

Calaveras County currently does not have a local (County) register of historical properties.

*Native American Resources*

The Native American people occupying the County at the time of contact with non-Native American peoples (e.g., explorers, settlers) are called Mi-Wuk.<sup>14</sup> The Mi-Wuk was a well-established society of hunters, fishermen, and plant-food gatherers whose territory stretched from the edge of the San Joaquin Valley to the high elevations of the Sierra Nevada. In Calaveras County, the old Mi-Wuk villages known to anthropologists were clustered along the Mokelumne, Calaveras, and Stanislaus River drainages. Traditional Mi-Wuk houses reportedly were made of thatching, tule matting, or slabs of bark over a conical framework of poles (Levy 1978:408). Other important structure types were the sweat lodge and the dance house, both of which are still in use today. Remains of some of these large structures have been found at archaeological sites in the central Sierra foothills. The archaeological record also contains remnants of a rich material culture, including: flaked stone hunting and butchering tools; plant-processing implements; cooking, eating, and storage vessels (including beautifully made stone bowls); and beads and ornaments made of shell, animal bone, and stone.

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<sup>14</sup> Also spelled Miwok or Me-Wuk

## Paleontological Resources

Per the University of California Museum of Paleontology database, Calaveras County has yielded paleontological (fossil) resources. Based on past finds and the age of various geological formations in the County, it is likely that such resources will continue to be encountered in the County, especially in association with caves, limestone formations, and the Mehrten (geological) formation,

### Associated Plans and Documents

The County maintains confidential maps of identified cultural resources and cultural resource reports completed for individual projects. Most of these are considered confidential and are unavailable to the public pursuant to state and federal regulations<sup>15</sup>.

The primary resource consulted for the location and nature of identified cultural resources are representatives from the local Native American community and the Central California Information System at California State University, Stanislaus. Similarly, information pertaining to paleontological resources is maintained by the University of California Museum of Paleontology and other state and federal agencies. The locations of many of these resources are also protected.<sup>16</sup>

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<sup>15</sup> California Government Code Section 6254.10, National Historic Preservation Act of 1966 [16United States Code (USC), Section 470w-3]), Archaeological Resources Protection Act of 1979 [16 USC Section 470hh]), Federal Cave Resources Protection Act of 1988 [16 USC Section 4304].

<sup>16</sup> Federal Cave Resources Protection Act of 1988 [16 USC Section 4304] and the Paleontological Resources Preservation Act (16 U.S.C. 470aaa *et seq.*)

## **COS 1.2 Goals and Policies**

### **Goal and Policies: Water Resources / Water Quality**

#### **Goal**

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**COS-1** High quality and abundant water resources.

#### **Policies**

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**COS 1.1** Participate in regional, watershed-level and integrated resources management planning efforts to improve watershed health and water quality.

**COS 1.2** Protect the County's surface and ground water resources and watersheds from incompatible uses.

**COS 1.3** Prohibit new septic systems in areas where sewage treatment and disposal systems are reasonably available and have the capacity to serve new connections.

### **Goal and Policies: Biological Resources**

#### **Goal**

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**COS-2** A diversity of native plants, fish, and wildlife species and their habitats.

#### **Policies**

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**COS 2.1** New development shall use site planning techniques including buffers, setbacks and clustering of development to protect sensitive biological resources.

**COS 2.2** Avoid impacts to special status and sensitive biological resources to the maximum extent feasible and, where infeasible, mitigate impacts consistent with state and federal policies.

**COS 2.3** Protect aquatic, wetland, and riparian habitats from the effects of erosion, siltation, encroachment, and alteration.

**COS 2.4** Require new development to identify and mitigate impacts to wetlands, riparian habitats and other aquatic resources consistent with state and federal regulations.

## Goals and Policies: Air Quality/Greenhouse Gases

### Goals

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- COS-3A** Air quality in compliance with applicable state and federal standards that ensures the health and safety and maintains the quality of life of the County's residents and visitors.
- COS-3B** Greenhouse gas emissions associated with vehicular travel, electric power generation, and energy use in compliance with applicable state goals and standards.

### Policies

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- COS 3.1** Coordinate local air quality programs with regional programs aimed at improving air quality.
- COS 3.2** New development shall separate and/or buffer sensitive receptors from harmful air emission sources.
- COS 3.3** Continue to work with state and federal agencies to acknowledge, and reflect in air quality regulations, that air pollutant movement from the Valley to mountain counties is the primary contributor to degraded air quality in Calaveras County.
- COS 3.4** Develop and adopt a comprehensive strategy to reduce GHGs within Calaveras County to achieve year 1990 emission levels by the year 2020 and, in the interim, pursue a Greenhouse Gas reduction target of 15 percent in accordance with State law.
- COS 3.5** Encourage retention and expansion of vegetative cover with new development to facilitate carbon sequestration.
- COS 3.6** Encourage alternatives to open burning of yard debris and construction clearing.

## Goal and Policy: Scenic Resources

### Goal

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- COS-4** A County with abundant scenic resources that preserves rural character, quality of life, and tourism-based economic development, while acknowledging private property rights.

### Policies

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- COS 4.1** Conserve forestlands, ranchlands, oak woodlands, scenic byways, rivers, lakes, reservoirs, hillsides, hilltops, landmarks, natural and historic landscapes as scenic resources important to the County's rural character, scenic beauty and tourism-based economic development.
- COS 4.2** Maintain scenic resources that are visible from designated scenic highways in the County.

## Goal and Policies: Recreation Resources

### Goal

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**COS-5** A high-quality system of recreational facilities enhancing the quality of life and health of residents and visitors and contributing to the County's economic development.

### Policies

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**COS 5.1** Work with community organizations and special districts to develop park and recreation facilities in every community, striving to provide a minimum of 3 acres of local park land for every 1,000 County residents.

**COS 5.2** Establish recreational facility development standards for new development.

**COS 5.3** Pursue partnerships with public and private entities to make the most of limited funding, share maintenance costs, provide important linkages between recreational facilities and generally expand the quality and quantity of recreational opportunities countywide.

**COS 5.4** Facilitate the provision of and access to local and regional trail systems.

**COS 5.5** Design and locate recreational facilities to minimize ongoing maintenance costs.

## Goal and Policies: Cultural and Paleontological Resources

### Goal

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**COS-6** Preserve prehistoric, archaeological, cultural, historical, and paleontological resources.

### Policies

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**COS 6.1** New development shall be designed to avoid significant cultural and paleontological resources to the maximum extent feasible.

**COS 6.2** Develop and maintain strong working relationships and effective intergovernmental review procedures with local Native American tribes and representatives to identify, evaluate, and, where necessary, preserve unique Native American archaeological and significant Native American historical resources, including significant tribal cultural resources.

## COS 1.3 Implementation Programs

### Programs: General

- COS-A**      **Open Space Zoning District**  
Create an Open Space Zoning District, or equivalent, as a tool for preserving and/or managing unique, important, or significant natural and cultural resources. The district should be separate from zoning or combining districts intended to protect the public's health, safety and general welfare.

### Programs: Water Resources/Water Quality

*See the General Plan Public Facilities and Services Element for programs related to water supply.*

- COS-1A**      **Stormwater Management Standards**  
Update existing standards for new development to offset cumulative direct and indirect impacts of runoff from individual projects and their subsequent contribution to increased stormwater, flood hazards and County drainage systems.
- COS-1B**      **Grading, Drainage and Erosion Control**  
Amend the County Code to incorporate portions of the County's *Grading, Drainage and Erosion Control Manual*<sup>17</sup> into the County's Grading Ordinance to implement and maintain erosion and sediment control measures, reduce offsite sediment discharge, control drainage and runoff, reduce the entry of non-point source pollutants into surface and groundwater supplies, and provide consistent procedures and standards to safeguard public health, safety, and welfare.
- COS-1C**      **Stream Setback Guidelines**  
Adopt standard building and/or clearing setbacks for intermittent and perennial streams (as identified on USGS topographic maps and verified by field survey). The standards may contain a provision for reduction of the setback based on a qualified biologist's recommendation.
- COS-1D**      **Wetland Setback Guidelines**  
Adopt standard building and/or clearing setbacks for wetlands meeting US Army Corp of Engineers' standards. The standards may contain a provision for reduction of the setback based on a qualified biologist's recommendation.
- COS-1E**      **Integrated Regional Water Management (IRWM) Planning Efforts**  
Continue to participate in and keep apprised of Integrated Regional Water Management (IRWM) planning efforts in Calaveras County and identified mutually beneficial solutions for regional water management including efforts to protect water quality.

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<sup>17</sup> December, 2012, as may be amended

## Programs: Biological Resources

- COS-2A**      **Database of Biological Resources**  
Create and maintain an up-to-date database of biological resources to assist planners in assessing the potential biological sensitivity of project sites and their surroundings, including data from local, state and federal databases and addressing special use areas (corridors, wintering habitat, nesting sites). As feasible, support efforts to fill in unmapped vegetation data gaps.
- COS-2B**      **Mitigation Options for Biological Resources**  
Adopt written guidelines establishing mitigation measures acceptable to Calaveras County for mitigating impacts to sensitive biological resources. Applicants may apply these mitigation options or hire a qualified professional biologist to identify alternative mitigation.
- COS-2C**      **Habitat Conservation Plan for Amphibians**  
Subject to available funding and in cooperation with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife, pursue a countywide habitat conservation plan to allow incidental take of California tiger salamander and California red-legged frog habitat. Consider expanding the plan to include special status species occupying similar habitats. Consider coordinating the effort with neighboring counties to assist in sharing the costs of preparing the plan and to expand mitigation opportunities.
- COS-2D**      **Oak Woodlands**  
Prepare and implement an oak woodlands conservation and management program in accordance with the Oak Woodlands Preservation Act<sup>18</sup> to facilitate the environmental review process relative to mitigating significant direct and cumulative impacts to oak woodlands in conjunction with discretionary project approval. In the interim, the County will continue to apply a replacement standard of 3:1 for lost oak canopy discretionary projects.
- COS-2E**      **Wildlife Corridors/Crossings**  
Coordinate with the California Department of Fish and Wildlife to establish guidelines for protecting important deer movement corridors (e.g., road crossings, site distance, setbacks, recommended parcel sizes, fencing) to be applied in conjunction with environmental reviews for discretionary projects.
- COS-2F**      **Voluntary Biological Resource Conservation Activities**  
Support efforts to identify and acquire high value biological resource areas from willing sellers on private lands.
- COS-2G**      **Wetland and Riparian Habitat Buffers**  
Require new development to identify wetlands and riparian habitat areas. Where feasible, the developer shall designate a buffer around each area sufficient to protect them from degradation, encroachment, or loss or shall develop a mitigation compensation plan consistent with state and federal policies.

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<sup>18</sup> Public Resources Code Section 21083.4

## Programs: Air Quality/Greenhouse Gases

- COS-3A**      **Regional Air Quality Planning Efforts**  
Provide representation from Calaveras County at regional planning events that address the issues and opportunities available for effective air quality management [e.g., preparing a regional Air Quality Plan or State Implementation Plan (SIP)] and implement those components applicable to Calaveras County as prescribed by state and federal regulations, as feasible, and continue to comply with the rules set forth by the CCAPCD and CARB.
- COS-3B**      **GHG Baseline for Calaveras County**  
Undertake a greenhouse gas (GHG) emissions inventory to establish baseline levels of GHGs generated from all major emission sources in the County consistent with the requirements of Assembly Bill 32 (California Global Warming Solutions Act of 2006).
- COS-3C**      **GHG Reduction Target Goal**  
Based on the results of the GHG baseline inventory (**Program COS-3B**), establish target reductions in GHG emissions to achieve year 1990 emission levels by the year 2020. In the interim, apply a GHG reduction target of 15% below emissions expected under a “business as usual” scenario pursuant to guidance provided in the state’s AB 32 Scoping Plan.
- COS-3D**      **Develop a GHG Reduction Plan**  
Development of a GHG reduction plan outlining the strategies, goals, and actions for reducing municipal and community-wide greenhouse gas (GHG) emissions as necessary to meet the mandates of California’s Global Warming Solutions Act of 2006 (AB 32).
- COS-3E**      **Vegetation Retention**  
Adopt an ordinance discouraging the removal of native vegetation in anticipation of new development requiring a discretionary entitlement that has not yet undergone environmental review (i.e., the removal of native oak trees preceding the submittal of an application for a discretionary entitlement).

## Programs: Scenic Resources

- COS-5A**      **Flexible Development Standards**  
Review and amend, as applicable, the County Code to incorporate flexible development standards that encourage the retention of scenic resources, landmarks and the natural landscape (e.g., clustering).
- COS-5B**      **Local Scenic Highways, Roadways, and Corridors**  
Consider designating local scenic roadways and corridors and establishing criteria for designating others.
- COS-5C**      **Views from Scenic Highways, and Designated Local Roadways and Corridors**  
Adopt standards for development to maintain and enhance the viewshed from State Routes 4 and 49 and other locally designated scenic corridors or roadways.
- COS-5D**      **Hillside and Hilltop Construction Guidelines**  
Formulate guidelines for hillside and hilltop development facilitating landscape compatible project design. Guidelines should address minimizing grading and the topographical

alteration it necessitates, firesafe construction techniques, vegetation retention, retaining wall enhancement, alternative road construction techniques to reduce cuts and fills, reduced standards for bicycle and pedestrian facilities, and illustrate techniques for blending new construction with the surrounding hillsides and hilltops.

## Programs: Recreation Resources

- COS-6A**      **Recreational Facilities**  
Revise Calaveras Code Chapter 16.24 to reflect a minimum standard of 3 acres of recreational facilities per 1000 residents unless a higher standard, not exceeding 5 acres/1000 residents, can be demonstrated. In addition, continue to maintain an inventory of existing recreational facilities. Support the preparation of a recreation master plan.
- COS-6B**      **Parkland Dedication**  
Continue to implement Government Code 66477 et. seq. (i.e., Quimby Act) to require new residential development to participate in the provision of recreational facilities for residents.
- COS-6C**      **Bicycle and Pedestrian Facilities**  
Establish standards for when and how new residential subdivisions shall provide bicycle and pedestrian facilities and amend the Calaveras County Code accordingly.
- COS-6D**      **Develop a Program to Identify and Provide Access to Public Waterways**  
Develop a program to identify public waterways, lakes and reservoirs that do not already provide reasonable public access, but which are required to provide such access pursuant to state statutes.<sup>19</sup>
- COS-6E**      **Coordinated Recreation and Parks Planning**  
Pursue partnerships and coordinate mutually beneficial recreation planning efforts with schools, utility agencies, community groups, Angels Camp, state and federal agencies, private, non-profit agencies and others to promote shared use, expand the variety and quantity of available facilities, and to distribute costs and manpower to acquire, construct and maintain facilities. Link or incorporate recreational facilities from other entities with County facilities whenever feasible.
- COS-6F**      **Local and Regional Trail Systems**  
Support and participate in efforts to prepare a consolidated, comprehensive master plan for biking, walking, riding and hiking/Non-Motorized Transportation map identifying existing and proposed non-motorized facilities to assist in integrating future development into a regional trail network, tie trail systems to commercial centers and tourist destinations, identify locations for new trailheads and trail access points, connect trail heads with public transportation systems, and related planning activities.
- COS-6G**      **Corridor Plans**  
Participate in comprehensive and regional highway, roadway, creek, river and other linear corridor planning efforts in cooperation with neighboring jurisdictions to identify opportunities for creating new and integrating existing recreational facilities and achieving other General Plan goals and policies (e.g., facilitating economic development, conserving scenic vistas, preserving water quality).

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<sup>19</sup> Public Resources Code/State Subdivision Map Act Section 66478.1 -66478.14

## Programs: Cultural Resources

- COS-6A**      **Identify Native American Resource Sensitivity Areas**  
Update the County's Native American Resource Sensitivity Map in cooperation with local Native American representatives to assist planners in determining when cultural resource surveys shall be required in conjunction with the environmental review process.
- COS-6B**      **Central California Information Center**  
Consider establishing a Memorandum of Agreement (MOA) with the Central California Information Center (CCIC) at California State University, Stanislaus, to allow staff to directly request cultural resource data from the CCIC in conjunction with discretionary project reviews at the applicant's expense. Evaluate the feasibility of including CCIC records search costs in application fees.
- COS-6C**      **Professional Qualification Standards for Cultural Resource Investigations**  
Adopt standards for and require that cultural resource studies be conducted by qualified professionals with experience appropriate to the study being conducted. Establish and maintain a Calaveras County Consultants list with only certified professionals meeting these qualifications. The Secretary of the Interior Qualifications Standards shall provide the primary guidance for establishing qualifications.
- COS-6D**      **Subsurface/Unanticipated Cultural Resources**  
Adopt standardized language for, and apply as a condition of discretionary entitlements, provisions for addressing the discovery of "accidental," subsurface, and/or "unanticipated" cultural resources encountered during the construction process.
- COS-6E**      **Support Cultural Resource Education and Stewardship**  
Support efforts to improve recognition of the County's cultural and historic heritage and promote community appreciation for Calaveras County's cultural resources through education, events, and activities that promote public and private stewardship of cultural resources.
- COS-6F**      **Treatment of Archaeological Resources**  
Adopt, apply and incorporate in the Calaveras County Code standards for the treatment of archaeological resources.

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