

6.0 OPEN SPACE AND CONSERVATION

6.1 INTRODUCTION

LEGAL BASIS AND REQUIREMENTS

The Open Space and Conservation Element of the General Plan addresses a combination of issues including agricultural lands, timber resources, water quality, water resources, wildlife resources, mineral production, natural land resources, and historic and archeological resources. Government Code Sections 65302(d) and 65302(e) require that the General Plan include the following:

“A conservation element for 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.”

“An open-space element as provided in Article 10.5 (commencing with Government Code Section 65560).”

The General Plan is required to focus various open space and conservation issues including: the preservation of natural resources (fish and wildlife habitat); the managed production of resources (food, fiber, timber, and mineral production); outdoor recreation including areas of scenic, historic, or cultural value; and open space for health and safety.

Within the Tehama County General Plan, the Open Space and Conservation Elements are combined to address the required issues as well as issues that are especially relevant to the County.

6.2 OVERVIEW

WATER

Water is critical for supplying domestic needs for over 36.5 million people now living in the state (California Department of Finance, 2005). It allows the state to have the largest agricultural output in the country, with nearly \$29.4 billion of gross output in 2003 (Economic Research Service, 2005). This output is bigger than most countries. Water also provides for high-quality recreational opportunities and unique environmental attributes, such as anadromous fish.

Water is as important in Tehama County as it is in the rest of the state. Storage and transmission of water allows approximately 140,000 acres of the County to be in cropland in areas generally receiving less than 20-inches of annual precipitation (NASS, 2004). The County's agriculture production exceeded \$125 million in value for commodities (Tehama County, 2003). Regardless of the historical importance of agriculture to Tehama County, urbanization is increasingly taking agricultural land out of production (Department of Conservation, 2002). As this trend continues, acquiring high-quality domestic water will increasingly be a challenge the County.

AIR QUALITY

Tehama County is located in the northern area of the Sacramento Valley, approximately midway between Sacramento and the Oregon border. The Northern Sacramento Valley Air Basin (NSVAB) of the Sacramento Valley is about 200 miles long in a





north-south direction, and has a maximum width of about 150 miles, although the width of the valley floor only averages about 50 miles. The basin contains the following counties within its area: Butte, Colusa, Glenn, Shasta, Sutter, Tehama and Yuba and is generally bounded on the east by the Cascade and Sierra Nevada Mountain Ranges, on the north and west by the California Coastal Range.

Tehama County is divided into numerous smaller air sub-basins of the broader Sacramento Valley air basin and includes a portion of the Lassen Volcanic National Park Class I mandatory federal air basin area. The Lassen Volcanic National Park sub-basin was designated as a Federal Class I mandatory air basin by the Clean Air Act (CAA) of 1977 and within this area, any new emissions source generators are required to undergo additional analysis pursuant to the Federal Clean Air Act.

Pursuant to the 2000 Air Quality Attainment Plan for the Northern Sacramento Valley Air Basin, the Basin is in a status of non-compliance for State PM₁₀ Standards and State O₃ (Ozone) Standards.

The Tehama County Air Pollution Control District (TCAPCD) is the regional agency that regulates stationary sources of air pollution within the County. The District's boundaries are the same as the County's.

BIOLOGICAL RESOURCES

Tehama County has a very wide range of biological communities. The biological communities and common plant and wildlife species occurring or expected to occur within these habitats, as described by the California Natural Diversity Data Base and the California Native Plant Society, are addressed in more detail in the following sections.

Sensitive Habitats

Sensitive habitats in Tehama County include serpentine soils, rock outcrops, wetlands, lakes, rivers, vernal pools, and old growth forests. These habitats are likely to harbor special-status plant and animal species, or provide the potential for these species.

Jurisdictional Waters of the U.S.

A wide range of jurisdictional "Waters of the U.S.", including wetlands, are located within the County. Many, if not most, of these water features have not been delineated. Consequently, a wetland determination must be made and, if necessary, a wetland delineation conducted and verified by the Army Corps of Engineers (ACOE) prior to the development of any project that would encroach upon such Waters of the U.S.

Wildlife Movement Corridors

Wildlife movement corridors are essential to the distribution of a variety of wildlife species, providing a means of movement throughout ranges that have often been encroached upon by human development. Timberland and open space throughout the County often provides significant movement corridors for wildlife such as mule deer.

Riparian Habitat

Riparian habitats support numerous plant, fish, and wildlife species and are considered to be a sensitive resource. Riparian vegetation provides shade, bank stabilization, sedi-

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ment control, organic litter, large woody debris, nutrient control, microclimate and wild-life habitat. Riparian zones also act as a flood buffer during high water events. All of these are required for a healthy, functioning ecosystem.

NATURAL GAS AND MINERAL RESOURCES

Natural gas fields are found to the west of Interstate 5, south of the City of Corning, in the Kirkwood Area. Geothermal springs are located in the Eastern and Western Planning Areas and in the Lassen National Forest (which includes portions of the Eastern Planning Area of Tehama County, as well as portions of Plumas, Lassen and Shasta Counties.) The thermal springs in Lassen National Park are of a moderate surface temperature ranging from 66°C to 129°C (150°F to 264°F).

The majority of Tehama County's mineral wealth is derived from the extraction of non-metallic sand, gravel, and volcanic cinder, which are used primarily by local paving and construction industries. Other mineral resources found in the County include aragonite, borax, chalcopyrite, chromite, copper, cristobalite, galena, garnet, opal, pectolite, penninite, sassolite, and Wallstonite.

NATURAL RESOURCE AND RECREATION

Tehama County is rich in recreational resources and lands. Hiking, fishing and boating opportunities abound, as well as the opportunity for more passive recreation. The Tehama County valleys and mountains have diverse and unique scenic resources including rivers, lakes, wetlands, large expanses of grassland, spectacular forests and high mountains. Included in this inventory are: USDA Forest Service lands; National Park Service lands (under the US Department of the Interior); Bureau of Land Management (BLM) properties; California State Parks facilities and areas; US Army Corps of Engineers lakes and parks; and County regional parks.

HISTORIC, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

Prehistoric

A variety of Native American tribes have settled in what is now Tehama County. For example, prior to Euro-American settlement, Wintun Indian Tribes populated the upper Sacramento Valley and the foothill areas to its east. The Yana and Yahi tribes also lived most of the year along creeks to the west of Lassen Peak. Cultural resources have been found at major archaeological sites such as the "Los Molinos Vicinity – Ishi Site" in Deer Creek Canyon, and the "Sulphur Creek Archaeological District" in the Mill Creek vicinity. Both areas are listed on the Federal Register of Historic Places. In addition, excavations have uncovered several hundred prehistoric sites, including burial sites, west of the Sacramento River where the Nome Lackee Tribe is known to have settled. Additionally, over 250 settlement sites have been identified along the Sacramento River and along river tributaries in the foothill regions of the County.

Archeological Resources

In contrast to historic resources, the archaeological resources of Tehama County are not presented to be accessible to the general public. This is primarily due to the sensitive nature of prehistoric sites and artifacts, but also to the lack of areas where public access can be controlled to prevent artifact damage. However, sites in Tehama County with visible surface indications of past cultural activity could possibly be utilized for inter-





pretive displays. These would include rock shelters, midden sites in association with pre-historic dwellings, rock walls/circles, and petroglyph or pictograph sites.

Historic

Several historic sites in Tehama County are under the protection and management of the state or federal government. Plaques designate the location and describe the significance of sites identified by the State Historic Landmarks program and the Federal Register of Historic Places. In Tehama County, two of these California Registered Historic Landmarks have been further utilized. The Residence of General William B. Ide, with support from the State Department of Parks and Recreation, has been designated as a Historical/Cultural Area Park and provides picnicking facilities as well as historic information. Other locally significant historic sites in Tehama County include the original Masonic Lodge, the original Tehama County Jail in the City of Tehama, and the former Leland Stanford Ranch in Vina. Additionally, Mineral Headquarters is designated and managed by the National Park Service as a historic district.

PARKS AND FORESTS

Three National Forests manage lands within Tehama County: Mendocino, Lassen, and the Shasta-Trinity National Forest. Many recreation resources occur on these public lands, most of which are found at higher elevations throughout the County. Recreation resources are discussed for each of the forests and parks in the County.

Mendocino National Forest

The Mendocino National Forest straddles the eastern spur of the Coastal Mountain Range in northwestern California, covering a total of 894,399 acres that span portions of seven counties: Butte, Colusa, Glenn, Lake, Mendocino, Tehama, and Trinity. The Mendocino National Forest extends from the Yolla Bay Mountains in the north (just west of the City of Red Bluff), to Clear Lake in the south. This includes 137,787 acres of designated wilderness and over 40 campgrounds, with a total of 514 recreation sites. Elevations range from approximately 1,000 feet to over 8,000 feet, providing a variety of vegetation and wildlife.

The Mendocino National Forest offers an array of recreation opportunities to the visitor, including fishing in lakes and streams, camping, picnicking, boating, hiking, horseback riding, wildlife viewing, hang-gliding, a large off-road vehicle trail system, winter snow play, hunting, wilderness experiences and mountain biking. The Mendocino National Forest is divided into three ranger districts: Grindstone (formerly Corning and Stonyford), Covelo, and Upper Lake.

The Mendocino National Forest Red Bluff Recreation Area encompasses 488 acres of diversified habitat adjacent to the Sacramento River, two miles south of Red Bluff. The Recreation Area includes the Sacramento River Discovery Center, Lake Red Bluff, two campgrounds, boat launches, a salmon viewing area, interpretive opportunities and a unique birding experience.

Lassen National Forest

The Lassen National Forest lies at the southern extent of the Cascade Mountain Range and the northern extent of the Sierra Nevada Mountain Range in northern California. The National Forest covers 1,200,000 acres that span portions of seven counties: Lassen,

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Shasta, Tehama, Butte, Plumas, Siskiyou and Modoc. This includes 77,881 acres of designated wilderness and over 40 campgrounds. A variety of vegetation and wildlife is provided with elevations that range from about 500 feet to over 8,000 feet.

Three wilderness areas are located in the Lassen National Forest including the Ishi, Caribou and Thousand Lakes Wilderness. The Ishi Wilderness lies within Tehama County. Approximately 20 miles east of Red Bluff, the Ishi Wilderness encompasses approximately 41,000 acres of low-elevation wilderness. In addition to providing for hiking, camping, fishing and swimming, this wilderness area provides an extensive array of wildlife habitat and wildlife viewing.

Lassen National Forest has an abundance of recreational opportunities to the visitor. Activities include fishing, camping, picnicking, boating, hiking, horseback riding, wildlife viewing, a large off-road vehicle trail system, winter snow sports, hunting, wilderness experiences, rock climbing and mountain biking. The Lassen National Forest is divided into three ranger districts: Hat Creek, Almanor and Eagle Lake.

Shasta Trinity National Forest

The Shasta Trinity National Forest lies at the northern extent of California and is the largest National Forest in California. Approximately 2,100,000 acres of diverse landscape stretch from the Trinity Alps to the Cascade Range, and the Yolla Bolly Wilderness to the Oregon Border.

The Shasta Trinity National Forest also has an abundance of recreational opportunities for the visitor. Activities include fishing, camping, picnicking, boating, hiking, horseback riding, wildlife viewing, winter snow sports, hunting, wilderness experiences, rock climbing, mountain biking and mountaineering. Only a small portion of this National Forest lies within Tehama County, including the Yolla Bolly Wilderness area.

Lassen Volcanic National Park

Lassen Volcanic National Park, managed by the National Park Service, lies at the southern terminus of the Cascade Mountain Range at the crossroads of three great biological provinces: the Cascades range to the north, the Sierra Nevada Mountains to the south and the Great Basin to the east. The Park preserves and protects 106,000 acres of forests, lakes, hydrothermal areas, and geologic formations. Established in 1916, Lassen National Park is an active volcanic landscape with elevations ranging from 5,000 to 10,454 feet.

Lassen National Park provides an abundance of recreational opportunities, including: 150 miles of hiking trails (including 17 miles of the Pacific Crest Trail), camping, mountaineering, rock climbing, winter snow sports, sightseeing, wildlife viewing and interpretive resources.

Bureau of Land Management

A number of Bureau of Land Management lands lie along the Sacramento River within Tehama County. Foster Island, Todd Island, Iron Canyon, Bald Hill, Paynes Creek, Perry Rifle, Massacre Flat, Inks Creek and Jelly's Ferry Area provide over 400 acres of public lands that can be utilized for recreational purposes. Access to many of these locations is





via river only, while others are accessible via public roads. Recreation opportunities include birding, wildlife viewing, fishing, hiking and camping.

California State Parks

Two properties within Tehama County are designated as California State Parks. Woodson Bridge State Recreation Area and William B. Ide Adobe State Historic Park, both located along the Sacramento River, offer recreation opportunities to residents and visitors of Tehama County.

Black Butte Lake/US Army Corps of Engineers

The U.S. Army Corps of Engineers operates the Black Butte Lake recreation area, which spans the county line of Tehama and Glenn Counties. Black Butte Lake is located on Stony Creek southwest of Corning. The 4,460-acre lake is seven miles long and has a shoreline of 40 miles. The area provides numerous recreational opportunities including camping, boating, fishing, hiking, horseback riding, a large off-road vehicle area and interpretative opportunities.

Tehama County Parks

The Tehama County Parks system is operated and maintained by the Tehama County Parks and Recreation Department. The Parks system consists of nine parks and two public access areas, all of which are maintained by County Parks and Recreation staff. These parks include the Tehama County River Park, Mill Creek Park and Boat Launch, North Mill Creek Fishing Access, Bend Bridge Park and Public Access, Antelope Park, Brokenshire Meadow County Park, Camp Tehama, Cone Grove County Park, Gerber Park, Ridgeway Park, and the Simpson-Finnell Park.

SIGNIFICANT VISUAL FEATURES

The County has a broad range of landscapes that change with the gradual increase in elevation. Elevations range from the fertile floor of the Sacramento River Valley (elevation at Red Bluff is 341 feet) to more than 8,200 feet in the southern Cascades. The diverse environments of the region are represented by distinct natural communities and landforms that display different development patterns and historical features. This diversity is an important element of Tehama County's visual heritage and one that many residents value as part of their overall quality of life.

Rolling hills dotted with mature oaks and oak woodlands, agricultural land, walnut orchards, evergreen forests and snow-capped mountains, scenic rivers, alpine lakes, and historic structures all contribute to the visual character found in the County. These visual resources contribute to the county's economy through tourism and recreational opportunities.

County Designated Scenic Highways

State Route 89: The Tehama County General Plan has classified State Route 89 as a County scenic highway. This route in eastern Tehama County has been designated as part of the Volcanic Legacy Scenic Byway All American Road. It is also eligible to be, but has not been, classified as a California state scenic highway.

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State Route 172: Route 172, located in eastern Tehama County in the area of Mill Creek, has been designated a County scenic highway in the General Plan Update.

State Route 36: State Route 36 from Manton Road eastward to the county line has been designated a County scenic highway in the General Plan Update. Additionally, State Route 36 from Bowman Road westward to the county line has been designated a County scenic highway in the General Plan Update.

State Route 32: Route 32 is located in eastern Tehama County. This highway traverses portions of Lassen National Forest. The Tehama County General Plan Update has classified this highway as a County scenic highway.

GEOLOGIC RESOURCES

Tehama County is located within the Great Valley Geomorphic province. The province includes that area known as the Great Central Valley of California and extends 400 miles north to south and 60 miles east to west. It is encompassed by the Coast Ranges (metamorphic), the Cascade Range (volcanic) and the Sierra Nevada (granitic and metamorphic).

The majority of rocks and deposits found within the province are sedimentary. The age of these rocks and deposits range from Upper Jurassic to Recent.

The Tehama Formation is a Plio-Pleistocene occurrence that is composed of fluvial sedimentary deposits of semi-consolidated pale-green, gray and tan sand, tuffaceous sand, silt, and clay. This material ranges in depth from 5-40 feet within the formation.

The rocks of the Coast Ranges present in the area consist of oceanic crustal rocks that are somewhat similar litho logically to those of the Klamath Mountains but are Early Jurassic to Cretaceous in age. The Great Valley province includes a thick deposit of moderately deformed Jurassic and Cretaceous marine strata that consist of detrital materials derived from uplifted basement rocks of the Klamath Mountains and the Sierra Nevada.

SOIL RESOURCES

Farmland Classifications and Rating System

Two classification programs are generally used to determine a soil's potential agricultural productivity. The USDA Soil and Conservation Service (USDA-SCS) Soil Capability Classification System takes into consideration soil limitations, the risk of damage when the soils are used, and the way in which soils respond to treatment. The Farmland Mapping and Monitoring Program (FMMP) administered by the California Department of Conservation, maps out agricultural areas based on soil quality and land use. These programs are described below.

Soil Capability Classification System

The Soil Capability Classification System designed by the USDA takes into consideration soil limitations, the risk of damage when the soils are used, and the way in which soils respond to treatment. Capability classes range from Class I soils, which have few limitations for agriculture, to Class VIII soils, which are deemed unsuitable for agriculture. Generally, as the ratings of the capability classification system increase, the yields and



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profits are more difficult to obtain. A general description of soil classification, as defined by the National Resource Conservation Service (NRCS), is provided in **Table 6-1**.

TABLE 6-1
SOIL CAPABILITY CLASSIFICATION

CLASS	DEFINITION
I	Soils have few limitations that restrict their use.
II	Soils have moderate limitations that reduce the choice of plants, or that require special conservation practices.
III	Soils have severe limitations that reduce the choice of plants, require conservation practices, or both.
IV	Soils have very severe limitations that reduce the choice of plants, require very careful management, or both.
V	Soils are not likely to erode but have other limitations; impractical to remove that limits their use largely to pasture or range, woodland, or wildlife habitat.
VI	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture, or range, woodland, or wildlife habitat.
VII	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife habitat.
VIII	Soils and landforms have limitation that preclude their use for commercial plant production and restrict their use to recreation, wildlife habitat, or water supply, or to aesthetic purposes.

Source: USDA Soil Conservation Service.

Farmland Mapping and Monitoring Program

The Farmland Mitigation Monitoring Program (FMMP) was established in 1982 to continue the important Farmland mapping efforts begun in 1975 by the USDA-SCS. The intent of the USDA-SCS was to produce agricultural resource maps based on soil quality and land use across the nation. As part of the nationwide agricultural land use mapping effort, the USDA-SCS developed a series of definitions known as Land Inventory and Monitoring (LIM) criteria. The LIM criteria classified land's suitability for agricultural production; suitability included both the physical and chemical characteristics of soils and the actual land use. Important Farmland Maps are derived from the USDA-SCS soil survey maps using the LIM criteria.

Since 1980, the State of California has assisted the USDA-SCS with completing its mapping in the state. The FMMP was created within the California Department of Conservation (DOC) to carry on the mapping activity on a continuing basis, and with a greater level of detail. The DOC applied a greater level of detail by modifying the LIM criteria for use in California. The LIM criteria in California utilize the SCS and Storie Index Rating Systems, but also consider physical conditions such as a dependable water supply for agricultural production, soil temperature range, depth to the ground water table, flooding potential, rock fragment content, and rooting depth.

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Important Farmland Maps for California are compiled using the modified LIM criteria (as described below) and current land use information. The minimum mapping unit is 10 acres unless otherwise specified. Units of land smaller than 10 acres are incorporated into the surrounding classification. The Important Farmland Maps identify five agriculture-related categories: prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, and grazing land. Each is summarized below, based on *A Guide to the Farmland Mapping and Monitoring Program (1994)*, prepared by the Department of Conservation. The FMMP data is updated and released every two years. The most current information available from the FMMP is from 2004. This information is presented below. Farmland data for 2006 is currently being gathered and is not yet available. Descriptions and information on each farmland classification are presented below. As defined in Public Resources Code Section 21060.1 and State CEQA Guidelines Appendix G, "agricultural land" that is of concern under environmental review includes designated Prime Farmland, Unique Farmland and Farmland of Statewide Importance. Class I and II soils in the USDA-SDS are considered to be generally equal to Prime Farmland in the FMMP.

Prime Farmland

Prime Farmland is land that has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. Prime Farmland must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.

Farmland of Statewide Importance

Farmland of Statewide Importance is land other than Prime Farmland that has a good combination of physical and chemical characteristics for the production of crops. It must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.

Unique Farmland

Unique Farmland is land which does not meet the criteria for Prime Farmland or Farmland of Statewide Importance, that has been used for the production of specific high economic value crops at some time during the two update cycles prior to the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality and/or high yields of a specific crop when treated and managed according to current farming methods. Examples of such crops may include oranges, olives, avocados, rice, grapes, and cut flowers. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.

Farmland of Local Importance

As defined by the state, Farmland of Local Importance is either currently producing crops, has the capability of production, or is used for the production of confined livestock. Farmland of Local Importance is land other than Prime Farmland, Farmland of Statewide Importance or Unique Farmland. This land may be important to the local





economy due to its productivity or value. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use. In a few counties the local advisory committee has elected to additionally define areas of Local Potential (LP) farmland. This land includes soils that qualify for Prime Farmland or Farmland of State-wide Importance, but generally are not cultivated or irrigated. However, the Board of Supervisors in each County within the state has the authority to adopt or recommend changes to the category of Farmland of Local Importance.

In Tehama County, Farmland of Local Importance includes areas of soils that meet all the characteristics of Prime Farmland or of additional Farmland of Statewide Importance with the exception of irrigation. These farmlands include dry-land grains, hay-lands, and dry-land pasture.

Urban and Built-up Land

Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

Other Land

Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

Water

Perennial water bodies with an extent of at least 40 acres.

Tehama County Soil Characteristics

Soil types and their characteristics in Tehama County are controlled in part by location, i.e., valley or hillside. The principal soil series in Tehama County is the Tehama Series. Soils of this series have formed on the nearly level to gently sloping, deep alluvium of the Valley. The soils are well drained to somewhat poorly drained loams, silt loams, and clay loams on flood plains, alluvial fans and terraces. These soils are among the most agriculturally productive in the County. Along the alluvial plains of the Sacramento River and its tributaries, and generally between State Highway 99 and Interstate Highway 5 between Red Bluff and the southern County boundary, these soils are considered Class I-III soils in the USDA-SDS, and Prime Farmland, Farmland of Statewide Importance, and Farmland of Local Importance in the FMMP.

Soils present on the ridge systems to either side of the Valley have formed from a wide range of parent materials under varying conditions of slope steepness and stability, slope aspect, time, and annual rainfall. Therefore, the properties of these soils, including their hazards, are more variable than those formed on the more uniformly flat Valley floor (stable geomorphic surface), with its more homogeneous parent materials (alluvium). Soils in the foothills and ranges of Tehama County on the eastern and western

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sides of the valley are considered Class IV and below soils in the USDA-SDS and mostly Grazing Land in the FMMP.

6.3 GOALS, POLICIES, AND IMPLEMENTATION MEASURES

WATER AND WATER QUALITY

GOAL OS-1

To ensure that water supplies of sufficient quality and quantity will be available to serve the needs of the Tehama County, now and into the future.

Policy OS-1.1

The County shall protect and conserve water resources and supply systems through sound watershed management.

Implementation Measure OS-1.1a

The County will maintain local water ordinances to protect the integrity of water supplies in Tehama County.

Implementation Measure OS-1.1b

The County should consider and evaluate the need for a Water Conservation Ordinance.

Implementation Measure OS-1.1c

The County shall ensure that projects adhere to the regulations of the State of California Reclamation Board, California Department of Fish and Game, Regional Water Quality Control Board, and U.S. Government.

Implementation Measure OS-1.1d

The County shall work with local water providers and water conservation agencies to create an incentive program that encourages retrofitting existing development with low-flow water fixtures.

Implementation Measure OS 1.1e

The County shall continue to maintain and implement the Adopted AB3030 Groundwater Management Plan to protect and preserve water supplies and water quality in Tehama County.

Implementation Measure OS 1.1f

The County shall encourage continued involvement in Local, Regional, and Statewide Water Resource coordination, cooperation and collaboration to protect and preserve water supplies and water quality in Tehama County.

Implementation Measure OS 1.1g

The County shall encourage water supply and wastewater plans to be developed in a regional master plan basis where appropriate.



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Implementation Measure OS 1.1h

The export of groundwater from Tehama County shall be discouraged.

Policy OS-1.2

The County shall work to ensure continued reasonable alternate water supplies.

Implementation Measure OS-1.2a

The County shall encourage water supply agencies and companies in the County to identify and develop water supply sources, other than groundwater, where feasible.

Implementation Measure OS-1.2b

The County shall require development project approvals to include a finding that all feasible and cost-effective options for conservation and water reuse are incorporated into project design.

Implementation Measure OS-1.2c

The County shall encourage the use of treated wastewater to irrigate parks, golf courses, and landscaping.

Implementation Measure OS-1.2d

The County shall promote the installation of sufficient groundwater monitoring wells and data collection facilities to assure non-injury to surrounding areas in the development of community and specific plan projects.

Policy OS-1.3

Surface water quality and stream flows for water supply, water recharge, recreation, and aquatic ecosystem maintenance shall be protected while respecting adjudicated and appropriated (California recognized water rights) rights of use.

Implementation Measure OS-1.3a

The County shall protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.

Implementation Measure OS-1.3b

The County shall restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.

Implementation Measure OS-1.3c

The County shall educate the community on laws governing the proper handling of hazardous materials, especially those laws which pertain to discharging materials into creeks.

Implementation Measure OS-1.3d

The County shall require clean-up of contaminated ground and surface water by current and/or past owners or polluters.

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Implementation Measure OS-1.3e

The County shall require community and specific plan areas to contain urban runoff control strategies.

Implementation Measure OS-1.3f

The County shall require development to incorporate runoff control measures into their site design or to participate in an area-wide runoff control management effort consistent with standards developed by the Public Works Department.

Implementation Measure OS-1.3g

The County shall establish and require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff.

Policy OS-1.4

Development of land for the purposes of improving groundwater recharge shall be encouraged.

Implementation Measure OS-1.4a

Consistent with the General Plan development pattern and where deemed a reasonable on- or off-site improvement by the advisory agency, division of lands within all water district or County service area boundaries shall be conditioned based on the following:

- Provision of right-of-way access to irrigation infrastructure in order to facilitate their maintenance.
- Open irrigation ditches appropriately piped and sited to permit their continued use.

Policy OS-1.5

The County shall ensure the high quality of groundwater by emphasizing programs that minimize erosion and prevent the intrusion of municipal and agricultural wastes into water supplies.

Implementation Measure OS-1.5a

Significant River or Creekside Corridor land use subcategories shall be used to indicate areas essential to the recharge of groundwater and to afford protection from stream bank erosion.

Implementation Measure OS-1.5b

The Regional Water Quality Control Board shall monitor irrigation runoff to prevent infiltration of herbicides/fertilizers/pesticides and municipal wastes into streams, rivers of the groundwater basin. The County shall also encourage irrigation water recycling.

Implementation Measure OS-1.5c

As appropriate and feasible, the County shall install water-conserving landscaping and irrigation on County-owned facilities.





Policy OS-1.6

The County shall explore and encourage new water storage projects that are of local benefit.

Implementation Measure OS-1.6a

The County shall work with local, regional, and state water suppliers to determine the necessary water storage required for projected growth in the County. Investigate potential federal and state funding opportunities related to water infrastructure. Apply for funding to establish water storage facilities.

Policy OS-1.7

The County shall encourage new development to incorporate water conservation measures.

Implementation Measure OS-1.7a

The County shall require development project approvals to include a finding that all feasible and cost-effective options for conservation and water reuse are incorporated into project design.

Implementation Measure OS-1.7b

The County shall implement standards that require low-flow appliances and fixtures in all new development.

Implementation Measure OS-1.7c

The County shall require new development to utilize state-of-the-art irrigation systems that reduce water consumption (e.g., drip irrigation, gray-water systems).

AIR QUALITY

GOAL OS-2

To maintain, protect, and improve the air quality in Tehama County at acceptable levels as defined by state and federal standards.

Policy OS-2.1

The County shall require new development projects to incorporate appropriate measures to reduce impacts to air quality.

Implementation Measure OS-2.1a

The County shall require project proponents to coordinate with Tehama County Air Pollution Control District (TCAPCD) on appropriate methodologies for evaluating project emissions and air quality impacts (e.g., emissions modeling software, TCAPCD's thresholds of significance, etc.).

Implementation Measure OS-2.1b

The County shall require all new development projects that exceed TCAPCD's thresholds of significance to incorporate design, construction, and/or operational features that will result in a reduction in emissions when compared to an "unmitigated baseline" project. The measures should consider cost-effectiveness, maximum cost, and the

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provision of credits for emissions reductions already in place.

Implementation Measure OS-2.1c

The County shall monitor all new development required air quality mitigations. If mitigations are not being managed properly, take the appropriate steps to correct the situation.

Implementation Measure OS-2.1d

The County shall require dust-free, all-weather sealed surface roads in all new subdivisions and new commercial developments.

Implementation Measure OS-2.1e

The County shall require all new wood burning fireplaces and stoves meet the requirements of TCAPCD Rule 4:27; Fireplace and Solid Fuel Heating Device Usage.

Policy OS-2.2

The County shall avoid siting sensitive land uses in the vicinity of agricultural processing, industrial, or other uses where odors or emissions could adversely affect the sensitive use.

Implementation Measure OS-2.2a

The County shall implement measures identified under Policy LU-2.1.

Implementation Measure OS-2.2b

Through the development review process, the County shall work to minimize potential adverse effects of emissions and odors generated by industrial uses on a community.

Policy OS-2.3

The County shall encourage and support a compact and efficient land development pattern.

Implementation Measure OS-2.3a

The County shall encourage mixed-use developments that put residences in close proximity to services, employment, transit, schools, and civic facilities/services.

Policy OS-2.4

The County shall encourage and support the use of alternative modes of transportation by incorporating public transit, bicycle, and pedestrian modes into the County planning processes.

Implementation Measure OS-2.4a

The County shall encourage where feasible and where necessary for future connections, new developments to provide pedestrian and bicycle facilities, trails, and connections.

Policy OS-2.5

The County shall encourage and support the Tehama County Air Pollution Control District in their efforts to enforce local, state, and federal air quality laws, rules, and regulations in order to meet Ambient Air Quality Standards (AAQS).



6.0 OPEN SPACE AND CONSERVATION



Implementation Measure OS-2.5a

The County shall coordinate with TCAPCD through the environmental review process to ensure that proposed projects would not significantly affect the region's ability to meet State and federal air quality standards.

Implementation Measure OS-2.5b

The County shall use the emissions guidelines produced by the California Air Resources Board and TCAPCD to ensure that County facilities and operations comply with mandated measures.

Policy OS-2.6

The County shall promote improved air quality benefits through energy conservation measures for new and existing development.

Implementation Measure OS-2.6a

The County shall require energy-conserving features in the design and construction of new development. Many options exist for reducing pollution from energy-producing systems, including the following:

- Requiring the use of the best available technologies to reduce air pollution standards.
- Using building materials and methods that reduce emissions.
- Requiring that development projects be located and designed in a way that minimizes direct and indirect emission of air contaminants.
- Installing efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, and boiler units.
- Utilizing automated time clocks or occupant sensors to control heating systems.

Implementation Measure OS-2.6b

The County shall encourage the use of cost-effective and innovative emission-reduction technologies in building components and design. Such technologies may include the use of solar equipment, LED and compact florescent lighting, and the use of external electric outlets to allow for the use of non-gasoline powered lawn equipment.

Implementation Measure O-2.6c

The County shall support the use of building materials and methods that increase efficiency beyond State Title 24 standards.

Implementation Measure OS-2.6d

The County shall encourage the use of "EPA Energy Star"-certified appliances.

6.0 OPEN SPACE AND CONSERVATION

Implementation Measure OS-2.6e

The County shall promote the implementation of sustainable design strategies for “cool communities,” such as installing solar equipment, light-colored paving, the use in increased amounts of insulation, dual-pane windows, and the planting of shade trees along south and west building exposures.

Implementation Measure OS-2.6f

The County shall promote the incorporation of energy-conserving design and construction techniques in all facilities.

Implementation Measure OS-2.6g

The County shall support vehicle improvements and the use of clean vehicles that reduce emissions and improve air quality.

Implementation Measure OS-2.6h

The County shall replace the County’s fleet vehicles with new vehicles that utilize the lowest emission technology available, whenever economically feasible.

Implementation Measure OS-2.6i

The County shall adopt a policy that provides a preferential treatment to contractors using reduced emission equipment for County construction projects and for County contracts for services (e.g., garbage collection).

Implementation Measure OS-2.6j

The County shall encourage lowest emission technology buses and vehicles in public transit fleets.

Implementation Measure OS-2.6k

The County shall consider adoption of an ordinance that limits the amount of time diesel-powered trucks, buses, and other heavy vehicles may idle.

Implementation Measure OS-2.6l

Upon tree removal, the County shall encourage the replanting of an equal or greater number of trees. The placement of new trees shall be located on the site so that they provide shade to south-facing windows in order to minimize heat gain.

FISH AND WILDLIFE RESOURCES

GOAL OS-3

To protect, preserve, and enhance fish and wildlife species by maintaining healthy ecosystems.

Policy OS-3.1

The County shall preserve and protect environmentally sensitive and significant lands and water valuable for their plant and wildlife habitat, natural appearance, and character.



6.0 OPEN SPACE AND CONSERVATION



Implementation Measure OS-3.1a

Significant wildlife and wildlife habitats shall be protected through designations under the Natural Resource Conservation Land Use Classifications as shown in **Table 6-2** below.

TABLE 6-2
NATURAL RESOURCE CONSERVATION LAND USE CLASSIFICATIONS

SUBCATEGORY	PURPOSE AND USE	CRITERIA	PLANNING CONDITIONS
Significant River or Creek-side Corridor	To identify and afford protection to riparian habitats	Identified riparian habitat, significant river/ creek side natural area (CDFG, CNDDDB) ¹	Regulation of land use Regulation of vegetation removal, and Use of setbacks or natural buffers
Habitat Resource	To protect and maintain documented, significant wildlife habitats for their aesthetic and ecological values. These areas are defined as supporting habitat for sensitive animal and plant species. These lands should remain in their natural states, yet may allow wilderness study, grazing and passive recreational activities (hiking, nature study) if these activities do not threaten the integrity of the habitat.	Identified as a significant natural by CNDDDB, CNPS, and/or CDFG ¹	Regulation of land use, Regulation of vegetation removal, and Regulation of the siting of structures.

Notes: 1) CNDDDB – California Natural Diversity Data Base

CNPS – California Native Plant Society

CDFG – California Department of Fish and Game

Implementation Measure OS-3.1b

The County shall continue to refer to all new land division applications to the Department of Fish & Game for review and comment.

Implementation Measure OS-3.1c

For purposes of public access, the County shall work with non-profit and conservation entities to encourage the purchase and /or acquisition of access rights on private lands fronting along the Sacramento River. The County should also support easement donations from private property owners for similar purposes.

Policy OS-3.2

The County shall protect areas identified by the California Department of Fish and Game and the California Natural Diversity Data Base as critical riparian zones.

6.0 OPEN SPACE AND CONSERVATION

Implementation Measure OS-3.2a

The Significant River and Creekside Corridors shall be designated on zoning maps using the subcategories shown in **Table 6-2**.

Implementation Measure OS-3.2b

The natural habitat resources shall be designated on General Plan Land Use Diagram using the subcategories shown in **Table 6-2**.

Policy OS-3.3

The County shall support and coordinate County plans with inter-jurisdictional programs for Best Management Practices of riparian resources in the County.

Implementation Measure OS-3.3a

Work with state and federal agencies on County plans to any areas with riparian resources, identify and implement Best Management Practices for the plans.

Policy OS-3.4

The County shall endeavor to provide for wildlife circulation in and around new development projects, major transportation facilities, roads, railroads, and canals.

Implementation Measure OS-3.4a

The County shall review projects through the entitlement process and CEQA analysis to ensure that they comply with this policy if the site contains unique habitat, creeks and/or wooded corridors.

Implementation Measure OS-3.4b

The effect on wildlife movement shall be analyzed prior to the approval of proposed development that encroaches upon vital corridors. The analysis shall include consultation with the CDFG to properly evaluate current wildlife movement and migration.

Policy OS-3.5

The County shall work with State and Federal agencies to control and eliminate invasive plants from the County.

Implementation Measure OS-3.5a

The County shall contact the appropriate state and federal agencies to determine potential assistance and obtain information for the control of invasive plant species.

Implementation Measure OS-3.5b

The County shall create an educational leaflet that identifies common invasive species and recommends the planting of non-invasive species.

Policy OS-3.6

The County shall explore options for the establishment of a County owned wetland bank.



6.0 OPEN SPACE AND CONSERVATION



Implementation Measure OS-3.6a

During the environmental review process, the County shall evaluate feasible on-site alternatives that will reduce impacts to wetland resources and effectively preserve these resources.

Implementation Measure OS-3.6b

The County shall encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for maximum visibility and, as appropriate, access.

Implementation Measure OS-3.6c

The County shall investigate the feasibility of a County-owned mitigation bank for wetland loss.

Policy OS-3.7

Promote best management practices of natural resources that will enhance wildlife habitat.

Implementation Measure OS-3.7a

Water diversions/dams constructed along anadromous fish streams shall be designed to protect fish populations and to ensure adequate flow levels for spawning activity during migratory seasons in accordance with State and Federal regulations.

NATURAL GAS AND MINERAL RESOURCES

GOAL OS-4

To encourage commercial resource development of Tehama County's natural resources in locations where environmental, aesthetic and adjacent land use compatibility impacts can be adequately mitigated.

Policy OS-4.1

The County shall require that development of natural gas and mineral resources be designed and conducted in a manner that minimizes incompatibility with nearby and adjacent land uses and minimizes impacts to local residents roadways, services, and facilities.

Implementation Measure OS-4.1a

The County will require all new oil and natural gas wells to meet the standards established by the State of California for land use compatibility and buffering.

Implementation Measure OS-4.1b

The County shall coordinate mining operations and urban development to minimize conflicts between residents and mining, particularly where mining is required before urbanization.

6.0 OPEN SPACE AND CONSERVATION

Implementation Measure OS-4.1c

Future mineral mining in the more densely populated areas of the County shall be protected through the requirement of mitigation measures and reclamation plans which reduce or eliminate impacts from adjacent land uses on mining operations and, conversely, the impacts of mining operations on adjacent land uses. These mitigation measures and plans shall be prepared in compliance with the State Surface Mining and Reclamation Act of 1975, as amended.

Implementation Measure OS-4.1d

Mineral extraction operations and accessory uses including but not limited to, crushing, screening, asphalt and concrete batching and stock piling, shall be conditionally permitted in areas inherently compatible with mining. Inherently compatible lands can be characterized by their low economic value in both lands and improvements.

Implementation Measure OS-4.1e

The County shall encourage and support inter-agency cooperation to protect mineral resources in Tehama County.

Policy OS-4.2

The County shall require all new gas and mining operations prepare and implement reclamation plans pursuant to the State Surface Mining and Reclamation Act of 1975, as amended, and provide adequate monetary security to guarantee reclamation.

Implementation Measure OS-4.2a

The County shall regulate surface mining operations as required by California's Surface Mining and Reclamation Act of 1975, as amended, ("SMARA"), Public Resources Code Section 2207 (relating to annual reporting requirements), and State Mining and Geology Board regulations for surface mining and reclamation practice.

Implementation Measure OS-4.2b

Where legally permitted, the County shall require inactive mined lands to be reclaimed to a usable condition that is readily adaptable to the future, anticipated land uses.

Policy OS-4.3

The County shall explore the need for the creation of special mining zones.

Implementation Measure OS-4.3a

Should such zones be determined to be necessary, the County should identify areas of significant mineral, gas, and oil resources, and develop an overlay zone to protect these resources for mining.





NATURAL RESOURCE LAND AND RECREATION

GOAL OS-5

To protect and enhance resource lands in the County for the continued benefit of agriculture, timber, grazing, recreation, wildlife habitat, and quality of life.

Policy OS-5.1

The County shall strive for the protection and enhancement of resource lands for the continued benefit of agriculture, timber, grazing, recreation, waterfowl, wildlife habitat, watersheds, and quality of life.

Implementation Measure OS-5.1a

Resource lands shall be protected by the provisions outlined in the Resource Lands, Habitat Resource, Open Space, and Commercial Recreation land use designation of this General Plan.

Policy OS-5.2

The County shall encourage protection of reasonable access to resource land areas when neither the integrity of the natural resource nor private property rights will be adversely affected. Closure shall not unreasonably deprive public and private enjoyment of previously accessible natural resources.

Implementation Measure OS-5.2a

The County shall monitor the potential closures to the public of natural resource lands within the County. Encourage reasonable access be maintained, if at all possible, to these lands.

Policy OS-5.3

The County shall seek inter-jurisdictional cooperation and coordination on natural resources practices and recreation plans with an emphasis on economic impacts.

Policy OS-5.4

Actively promote outdoor recreation opportunities such as agri-tourism, nature-tourism, and environmental learning tourism.

Implementation Measure OS-5.4a

Identify opportunities for outdoor recreation within the County and work with the Chamber of Commerce, Tehama Local Development Corporation, Tri-County Economic Development Corporation, and local businesses to market and attract visitors.

6.0 OPEN SPACE AND CONSERVATION

HISTORIC, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

GOAL OS-6

To preserve the historic and archaeological resources of the County for their scientific, educational, aesthetic, recreational, and cultural values.

Policy OS-6.1

The County should protect and preserve significant archaeological and cultural resources.

Implementation Measure OS-6.1a

The County shall refer all new development proposals on undisturbed land to the Northwest Information Center at Chico State for an evaluation of potential impacts to archaeological and cultural resources.

Implementation Measure OS-6.1b

The County shall encourage the nomination and registration of significant historic, archaeological, and cultural sites, resources, and buildings to the National Register of Historic Places and inclusion in the California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest.

Implementation Measure OS-6.1c

The County shall encourage public and private agencies and organizations to develop interpretive and educational programs in order to safely utilize historic and prehistoric sites for community benefit.

Implementation Measure OS-6.1d

The County shall require appropriate surveys and site investigations when needed as part of the initial environmental assessment for development projects in accordance with the California Environmental Quality Act (CEQA). Surveys and investigations shall be performed under the supervision of a professional archaeologist or other person qualified in the appropriate field, and approved by the County.

It is recognized that Timber Harvest Plans have been declared by the State to be functionally equivalent to environmental assessments required by CEQA.

Policy OS-6.2

Encourage the rehabilitation, preservation, and utilization of historic buildings that are representative examples of the County's heritage.

Implementation Measure OS-6.2a

The County should work with local historical societies and interested parties to support the inventory of the historic resources in Tehama County. The State Office of Historic Preservation has determined that buildings or structures 45 years or older have the potential to be historically significant and should be evaluated for historical significance.



6.0 OPEN SPACE AND CONSERVATION



Implementation Measure OS-6.2b

The County shall encourage property owners to register structures determined to be of federal, state, local historic significance in the National Register of Historic Places and/or the California Inventory of Historic Resources.

Policy OS-6.3

The County shall provide incentive programs and encourage cooperation to the private sector for the preservation, protection, or enhancement of historic, archaeological, and cultural resources.

Implementation Measure OS-6.3a

The County shall provide information on potential private, state, and federal grants to the public and provide incentive programs to the private sector to preserve Historical and Cultural Resources.

Policy OS-6.4

The County shall encourage and support inter-agency cooperation to protect historic, archaeological, and cultural resources.

Implementation Measure OS-6.4a

The County shall consult with local, State, and federal agencies as well as local Native American communities in cases where new development may result in disturbance to historic, archaeological, and/or cultural resources.

AESTHETIC AND VISUAL RESOURCES

GOAL OS-7

To protect the scenic views and aesthetic qualities of Tehama County.

Policy OS-7.1

The County shall identify significant scenic viewsheds for public viewing areas in the County designated scenic highways, such as views of Mt. Shasta, Mt. Lassen, the Sacramento River, and the Coastal Range, and protect the visual integrity of the view shed.

Implementation Measure OS-7.1a

The County shall identify public viewing areas and corresponding scenic viewsheds on the County's designated scenic highways (State Routes 89, 172, 36, 32). Protect these areas from visually intrusive development that would alter the qualities of the view shed by establishing guidelines regulating development heights and lighting.

Policy OS-7.2

The aesthetic and scenic beauty of the County's regional locations shall be protected.

6.0 OPEN SPACE AND CONSERVATION

Implementation Measure OS-7.2a

The County shall develop view shed preservation standards. Require that new development be designed to integrate building design, natural landforms, and vegetation in order to minimize alteration of scenic vistas.

Implementation Measure OS-7.2b

To the extent feasible, new development will be required to retain existing trees and vegetation and ensure that these resources are incorporated into project design wherever feasible.

Implementation Measure OS-7.2c

The County shall require that cellular towers be designed and located in order to minimize visual impacts of the tower and protect the scenic views for surrounding existing uses.

Implementation Measure OS-7.2d

The County may develop design standards regulating the appearance and design of hilltop and side-slope development.

Policy OS-7.3

The County shall consider the visual impacts of development within areas of significant topography, and shall work to minimize the visual impacts resulting from development of ridgelines.

Implementation Measure OS-7.3a

The County shall consider the development of ridgeline and hillside development guidelines.

GEOLOGIC AND SOIL RESOURCES

GOAL OS-8

To protect and maximize the present and future productive, economic, and environmental values of the County's soil resources.

Policy OS-8.1

The County shall recognize the need to protect and conserve areas where soils have high resource values, especially in terms of potential agricultural productivity.

Policy OS-8.2

The County shall exercise an appropriate degree of regulation designed to minimize soil erosion, including the administration of standards for grading and site clearance related to development projects.

Implementation Measure OS-8.2a

The County should consider adoption of a grading ordinance to establish standards and permitting processes in addition to enforcement of the Excavation and Grading provisions of the Uniform Building Code to regulate grading projects which could cause or aggravate conditions for soil erosion related to development projects.



6.0 OPEN SPACE AND CONSERVATION



Policy OS-8.3

The County encourages sound soil management and erosion prevention and control programs and projects, including the use of windbreaks, minimum tillage practices, grazing management, and riparian area rehabilitation.