

## **Open Space and Recreation Element**

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## Introduction

The State of California General Plan Guidelines require that a General Plan include an Open Space Element. This element is addressed in the Capay Valley General Plan's Open Space and Recreation Element. The Open Space Element requires that policies be developed for the identification and preservation of valuable open space, and for discouraging the premature and unnecessary conversion of open space land to urban uses, and non-contiguous development patterns:

### THE OPEN SPACE ELEMENT (GOVERNMENT CODE SECTION 65560):

(a) "Local open space plan" is the open space element of a county or city general plan adopted by the board or council, either as the local open space plan or as the interim local open space plan adopted pursuant to Section 65563.

(b) "Open space land" is any parcel or area of land or water that is essentially unimproved and devoted to an open space use as defined in this section, and that is designated on a local, regional, or state open space plan as any of the following:

- (1) Open space for the preservation of natural resources including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.
- (2) Open space used for the managed production of resources, including, but not limited to, forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber; areas required for recharge of groundwater basins; bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries; and areas containing major mineral deposits, including those in short supply.
- (3) Open space for outdoor recreation, including, but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and areas which serve as links between major recreation and open space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.
- (4) Open space for public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.

Yolo County adopted a Countywide Open Space and Recreation Element in 1972. The purpose of addressing the issue of Open Space in the Capay Valley General Plan is to fine-tune goals and policies within the framework of the existing County elements for a specific area based on the input and desires of the local residents of the study area. The following chapter describes the environmental setting and reflects the perceptions and knowledge of the local citizenry.

### THE RECREATION ELEMENT

Recreation is an optional General Plan element, not one of the mandatory elements required by the California Government Code. State law offers counties, cities, and other planning areas considerable flexibility to adopt “any other element or address any other subjects, which, in the judgment of the legislative body, relate to the physical development of the county or city.” Rather than adopting a separate Recreation Element, the Capay Valley General Plan incorporates Recreation as part of the Open Space element.

## Open Space

The agrarian character of the Capay Valley depends on the maintenance of large areas of “open space,” principally tracts of rangeland or ridgetop areas reserved as natural habitat for wildlife, both flora and fauna. The policies are to be tailored to the specific geography of the study area based on the following definitions:

- Steep Mountain Slope and High Basins— Blue Ridge and the spur of the Vaca mountains running from Capay to approximately three miles north of Rumsey is largely land held in agricultural preserve or land owned and managed by Bureau of Land Management.
- Foothills, Lower Slopes— The Capay Hills on the eastern border of the Valley, and the lower slopes of the Vaca chain to the west, are a crucial buffer zone between the intensively farmed Valley floor and the rugged mountainous regions or upland grazing lands.
- Valley Floor— Most of the flatland along Cache Creek is devoted to agriculture, primarily orchards, hayfields, grain, row crops, and livestock. The Valley Floor is defined by the following characteristics: all townsites and most existing housing units are located on the Valley Floor; the Valley Floor contains the largest amount of irrigated farmland in the study area; the Valley possesses Cache Creek, the primary creek and drainage channel for the study area; and the Valley contains the only year-round access (State Route 16) and utility corridor to serve the study area.

## PUBLIC LANDS

The lower park site of Cache Creek Canyon Regional Park is adjacent to 50,000 acres of Bureau of Land Management property that supports recreational opportunities such as hiking, biking, fishing, and horseback riding.

## CACHE CREEK NATURE PRESERVE

The Cache Creek Nature Preserve is a 130-acre property that includes a former mining pit that has been turned into a wetlands area, a portion of Cache Creek, and forest. The preserve is managed by Cache Creek Conservancy. The site represents one of the least-disturbed areas along Lower Cache Creek. The Preserve also includes the Cache Creek Ag History Center.

The stated mission of the Cache Creek Nature Preserve is to provide a natural environment where children and adults can explore and discover the relationships between humans and the historical, natural, agricultural, and industrial uses of the area. The Cache Creek Conservancy is funded in part by a fee from four aggregate companies based on tons of gravel sold. This funding source is secured for 30 years through development agreements with Yolo County.

**OPEN SPACE FOR FLOOD CONTROL**

According to the *Cache Creek Area Plan*, Cache Creek is a violent watercourse, subject to severe flood events. The technical studies performed for the Plan estimate that the creek might overrun its typical boundaries as much as 700 feet in a single flood event. Although restricted by flood easements, lands reserved for flood control can be used for agriculture, wildlife management, recreation (including hunting and fishing), and other compatible uses at non-flood season times. These open spaces along the waterways in Capay Valley work as buffer areas to prevent flooding from endangering the public.

Please refer to Figure PHS-5 of the Public Health and Safety Element of this document for a map of the 100 and 500-year flood plains within the Capay Valley area.

**Regulatory Setting****FEDERAL REGULATIONS**

Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers has authority over placement of dredge or fill material or excavation in waters of the United States. The Army Corps has authority over “water of the U.S.” including wetlands, streams, creeks, rivers, and any channels that convey natural runoff, including intermittent or seasonal streams, even if they have been straightened or realigned. A Section 404 permit is always needed for any discharge activity below the “ordinary high water” level, which is the water level at a flow equal to the mean annual flood event. The term “discharge activity” includes any activity that would affect the surface water conveyance or capacity of the channel.

The National Environmental Policy Act (NEPA) requires agencies, (e.g. Natural Resources Conservation Service (NRCS), U.S. Fish and Wildlife Service, Army) the overall environmental effects of their activities. These activities the work of the NRCS when it provides technical or cost share through recommendation of best management practices.

**STATE REGULATIONS**

The State and Regional Water Resources Control Board (SWQCB and RWQCB) review all Section 404 permit applications for compliance with Section 401 of Clean Water Act (Water Quality Certification or Waiver). Section 401 primarily concerns water quality compliance.

Section 1600 of the Fish and Game Code requires the California Department of Fish and Game (DFG) be consulted when a project or activity will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake and/or use materials from a streambed. Consulting with this agency is important for any project or activity that will take place in or in the vicinity of a river, stream, lake, or tributary. Consultation should occur with lakes, rivers or streams that flow seasonally or permanently through a bed or channel with banks that support fish or other aquatic life. Section 1600 also covers watercourses having a surface or subsurface flow that support or has supported riparian vegetation. A Streambed Alteration Agreement issued by the Department of Fish and Game covers these types of project impacts.

**LOCAL**

Yolo County Flood Damage Prevention Ordinance requires that a development permit be obtained from the Yolo County Community Development Agency for all construction in special flood hazard areas as mapped on the Flood Insurance Rate maps for Yolo County.

~~Development is interpreted to include grading and any alteration or relocation of a watercourse.~~

### ~~Responsible Agencies~~

~~The Yolo County Flood Control and Water Conservation District (YFCWCD) uses portions of sloughs in Yolo County as irrigation water conveyance canals.~~

~~The Yolo County Resource Conservation District (RCD) and the NRCS Woodland Field Office provide technical assistance for initiating riparian restoration and enhancement projects.~~

## Recreation

As a component of the Land Use Map, a Recreation general plan designation has been proposed to be placed on the Guinda Nichols Park and the Cache Canyon Regional Park. The Recreation designation was originally proposed and adopted in 1958 and has not been officially placed on these two areas. The 1982 Capay Valley General Plan proposed these areas for Recreation as part of the major heading of Agricultural as stated in 1958. Recreation was one of three Agricultural divisions, the other two being Agricultural Intensive and Agricultural General. Since 1982, the major change in recreation facilities in the Capay Valley is the expansion of Cache Creek Casino.

### CACHE CREEK CASINO RESORT

Cache Creek Casino Resort is owned and operated by the Rumsey Band of Wintun Indians, located in Brooks, California. The casino first started as a bingo hall in 1985, but now encompasses 66,000 square feet of casino space with 1,762 slot machines and over 120 table games. The 415,000 square foot property also includes a 200-room hotel, health spa, eight restaurants, live entertainment facility, a 20,000 square foot event center, outdoor swimming pool, casino gift shop and tribal-operated Mini Mart, Gas Station and Fire Station. The casino is now considered to be among the largest in California, and is arguably the most significant tourism attraction in Yolo County.

### CAPAY HILLS GOLF CLUB (YOCHA-DE-HE)

The Capay Hills Golf Club project (since named the Yocha De He Golf Course) has been approved by Yolo County. The Golf Club project proposes the development of a golf course recently been constructed on the approximately 314-acre Schilling Ranch property. The property consists of two parcels totaling approximately 79 acres held in federal trust for the Rumsey Band of Wintun Indians (i.e., exempt from Yolo County regulations) and four parcels totaling approximately 235 acres owned by the Tribe in simple fee title. The project includes the construction of an 18-hole golf course includes two ponds; golf course facilities, a clubhouse, golf cart barn, driving range, maintenance building, comfort station and parking lots; and associated utilities to support the project, including water supply and wastewater treatment.

### PARK FACILITIES AND PROGRAMS

Four park facilities are owned by the County of Yolo within the Study Area: the Cache Creek Regional Park consisting of approximately 752 acres, Guinda Park, the Vernon A. Nichols Park located near Guinda on Cache Creek covering 22 acres, and Camp Haswell Park located just north of Rumsey along State Route 16 (see Figure OSR 1, Capay Valley Parks and Tribal Lands and Figure OSR 2, Parks and Open Spaces of the Capay Valley).

#### Cache Creek Regional Park

Cache Creek Regional Park (Canyon Park) was acquired in the early 1970's by the County of Yolo for the development of a park facility that could provide a variety of services to the residents of Yolo County. Located north of Rumsey along State Route 16, Canyon Park is the largest park in Yolo County. Although the total acreage is large, 500 acres serve as buffer land, with only approximately 60 acres considered developed.

**Figure OSR-1  
Capay Valley Parks and Tribal Lands**

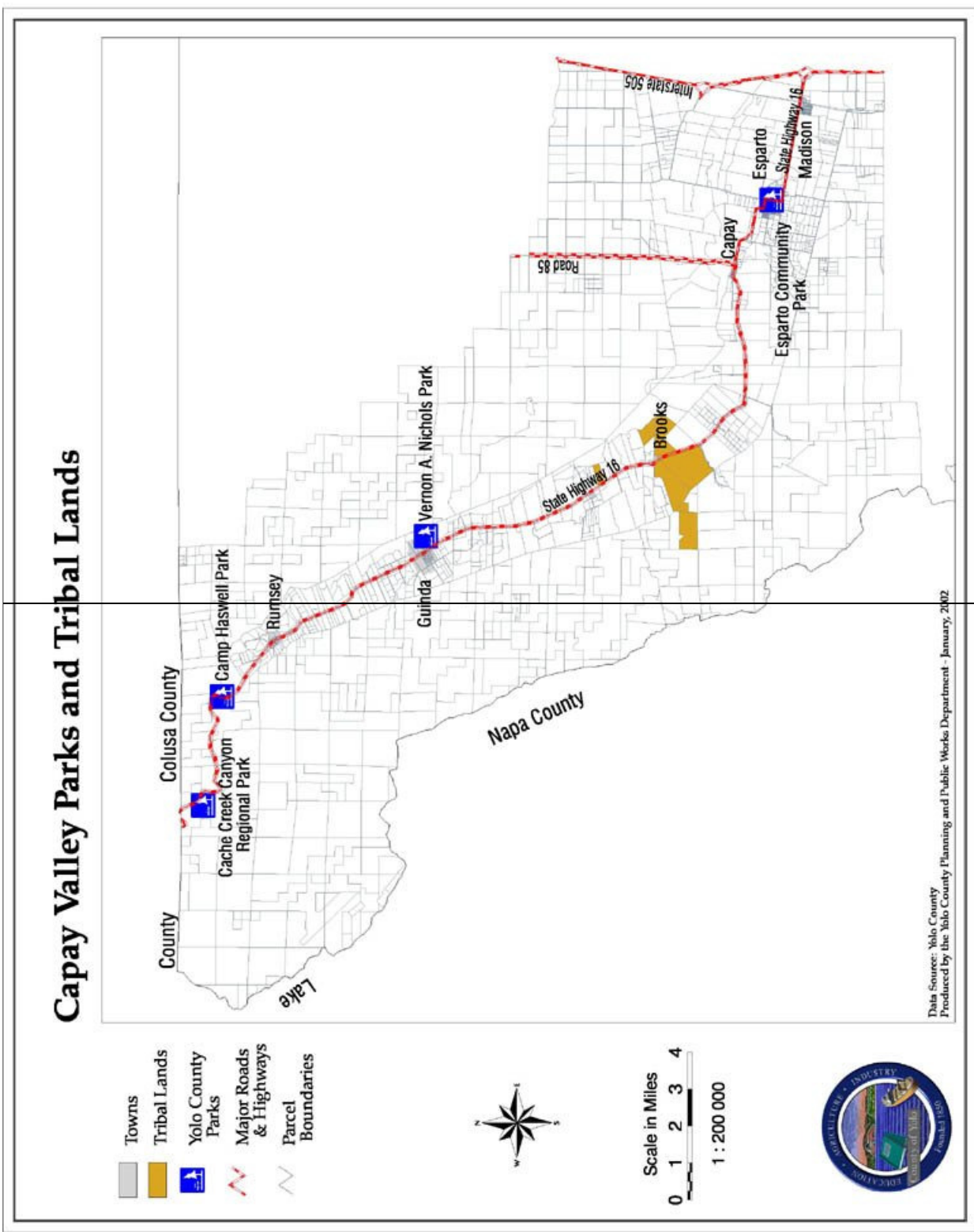
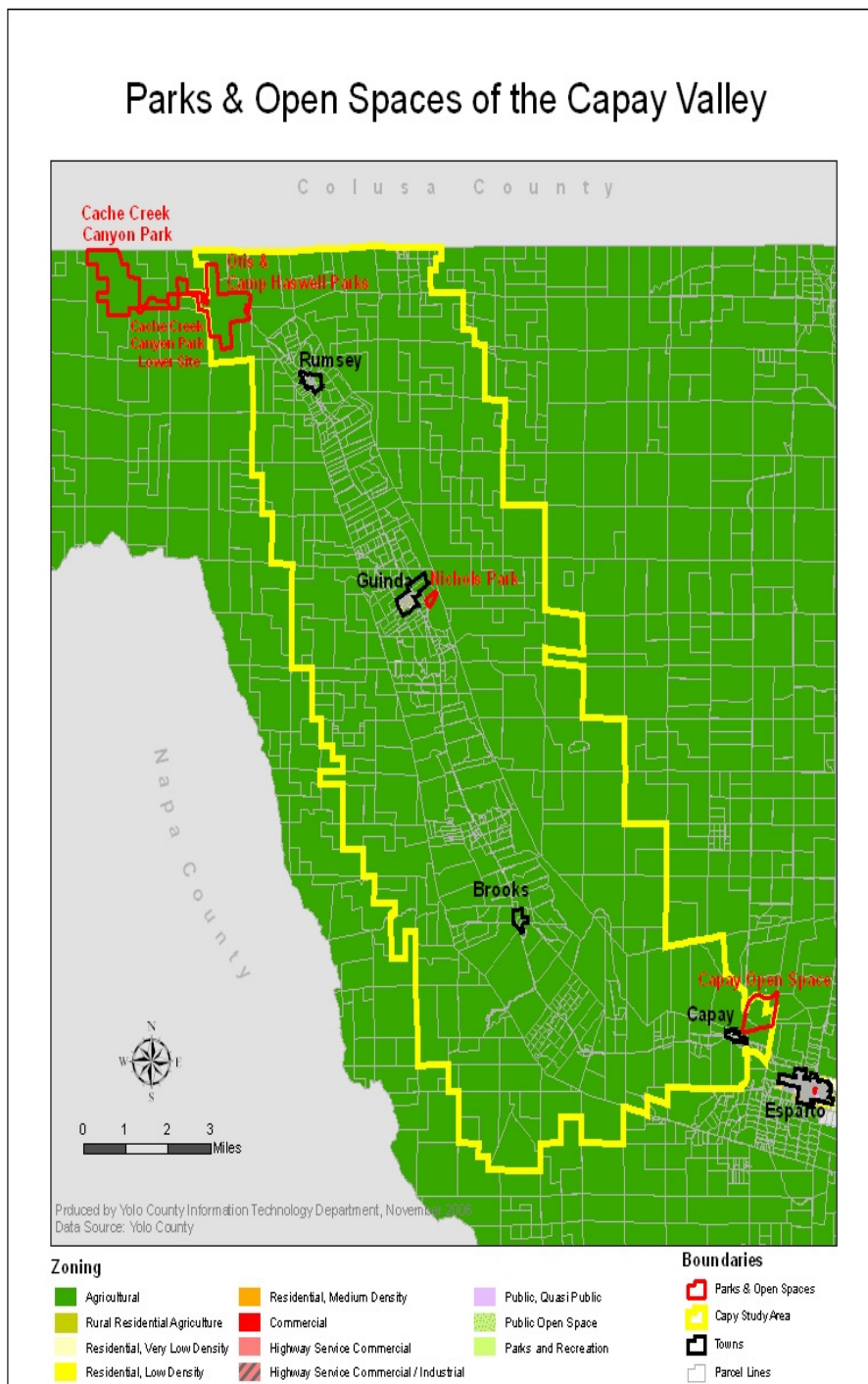


Figure OSR-2





The park is divided into three developed sites: the Upper Park, Middle Park, and Lower Park. The Upper Park site contains a parking area, a public beach, and a put-in point for rafters. The Middle Park site is the main center of recreational activity for the entire Yolo County park system. This site consists of 48 campsites, a mobile home for parks hosts, public beaches, a parking lot, a recreational meadow area, and a playground and picnic area. The Middle Park site is heavily used for cycling, hiking, and birding, in addition to overnight camping.

The Lower Park site contains a parking area, two picnic areas, and a public beach. The Lower Park is used for rafting, hiking, biking, fishing, and horseback riding. Additional land for many of these activities is also provided by the adjacent 50,000 acres of Bureau of Land Management (BLM) property, County trails, and Frog Pond (via County Road 40). The County has a cooperative Memorandum of Understanding with the BLM in which both agencies work to expand recreation and interpretive experiences of the area. In addition, an equestrian facility is located approximately 200 yards south of the low water bridge that stages rafting concession operations during the summer months. Adjacent to the equestrian facility is the Blue Ridge Trail, which leads to spectacular views of four neighboring counties. In 1995, estimated annual visitor days were 61,000. Rafting activities have dominated recreational usage.

#### Guinda Park

The Yolo County Parks, Recreation, and Wildlife Committee has recognized Guinda Park, which is dedicated to the County of Yolo, as a local park. A local park is defined as a park of 50 acres or less. The Parks, Recreation, and Wildlife Committee has stated that for improvements to occur to Guinda Park, local area residents would be encouraged to provide funds or energy and time into improving the park. The County also owns a former landfill site just south of Guinda park site which is the potential for expansion of recreational activities. Fishing opportunities exist in the area near the bridge.

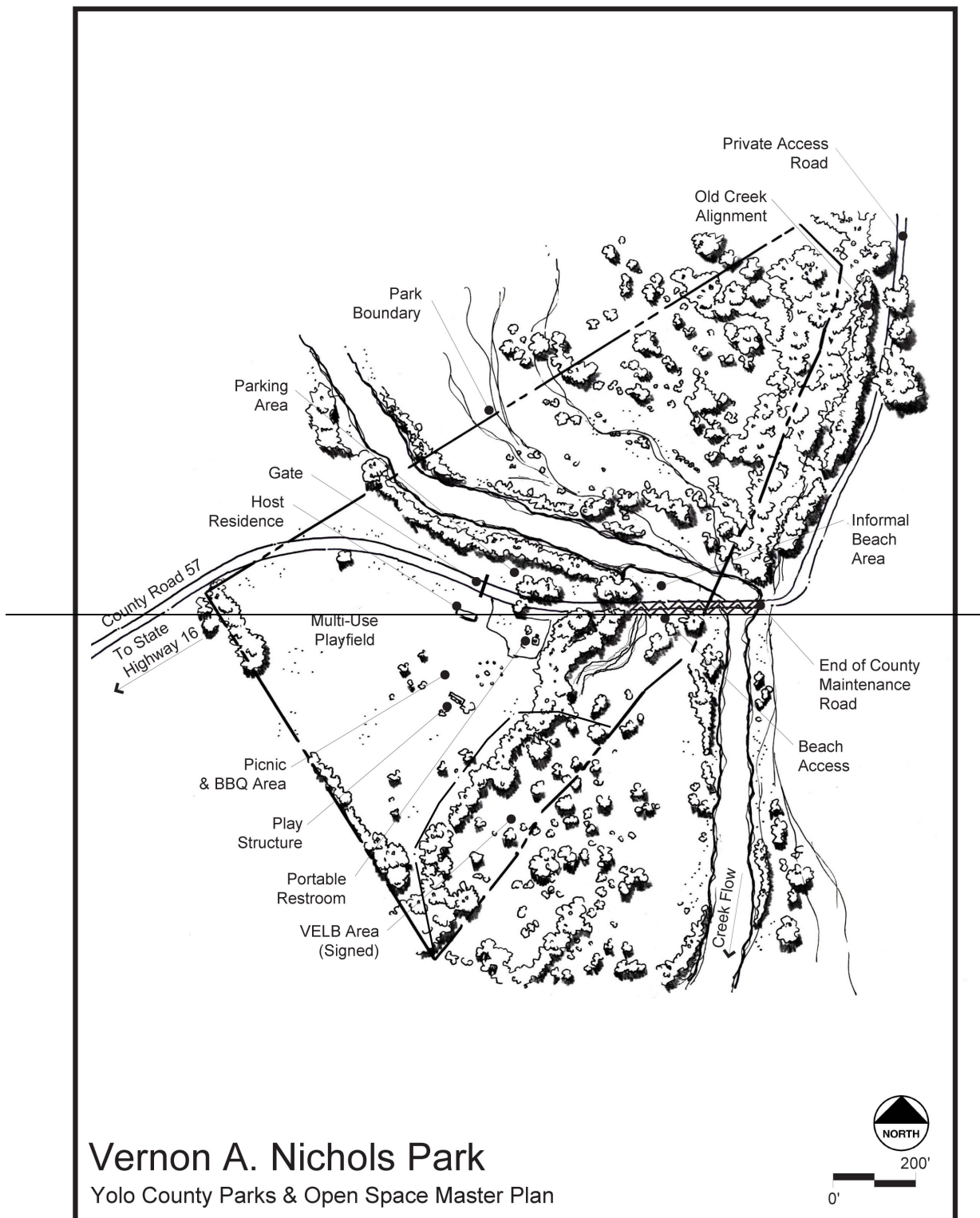
#### Vernon A. Nichols Park

Located just east of the community of Guinda, adjacent to Cache Creek and County Road 57, Vernon A. Nichols Park (see Figure OSR-3) has been identified as a riparian area, but much of the native vegetation was removed by storm events in the 1990's. This 22-acre park provides picnic tables, barbecues, a play area, a beach area, swimming, fishing, playground equipment. The park is also used as a mitigation site for the elderberry shrub (*Sambucus mexicana*). Annual visitor days are estimated at 7,200.

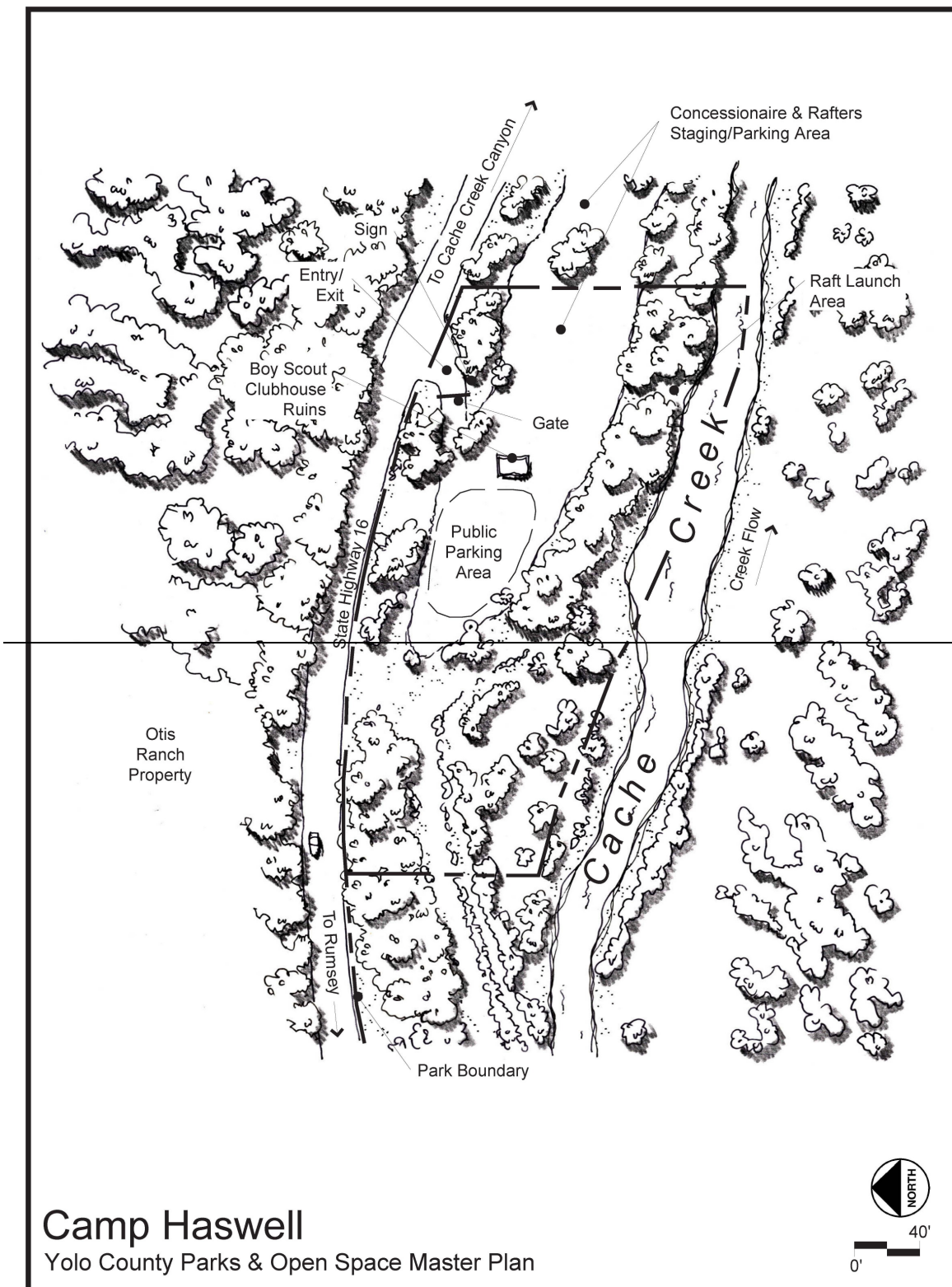
#### Camp Haswell Park

Located adjacent to Cache Creek, just north of the community of Rumsey along Highway 16, Camp Haswell Park (see Figure OSR-4) is basically unimproved, with the exception of a 1,100 square foot building shell. The park is used as a camping site for the Boy Scouts of America, a picnicking and day use activities site for the general public, and a put in and take-out site for rafters and kayakers. During the summer months, rafting use is the predominant activity. Approximately one acre of beachfront land with various trees is available. The center of the property is free of vegetation.

**Figure OSR-3**  
**Vernon A. Nichols Park**



**Figure OSR-4  
Camp Haswell**



## Annual Recreational Activities in the Valley

### ALMOND FESTIVAL

The Almond Festival occurs annually and is sponsored by the local Esparto Chamber of Commerce organizations and citizens. The first Almond Festival originated in Rumsey in 1919, celebrating the large, bountiful harvest at the time. The Almond Festival was discontinued during World War II, and during the 1960s was again sponsored by the local Chamber of Commerce with the help of local citizens and organizations. The Almond Festival has been a major attraction of the Capay Valley during the weekend in February when it occurs.

### DOUBLE CENTURY BIKE RACE

The Double Century Bike Race is the second activity which occupies only one weekend but has substantial impacts on the local residents. The California Highway Patrol, the Sheriff's Department, and the local fire district are all involved in monitoring and assisting in maintaining safety along the course route for those participants.

### PUBLIC LAND AND PRIVATE HUNTING CLUBS

The Bureau of Land Management (BLM) is an agency within the United States Department of the Interior that administers America's public lands, most of which are located in western states. The BLM has a wide range of responsibilities including collecting geographic information, maintaining records of land ownership and mineral rights, conserving wilderness areas while allocating other areas for grazing and agriculture, and protecting cultural heritage sites on public land.

The Yolo Sportsmen's Club and its members of the local hunting and fishing organizations also have an interest in the Capay Valley with regard to hunting and fishing in the area. Fishing is monitored through the Department of Fish and Game and the practices associated with the water releases by the Yolo County Flood Control and Water Conservation District. Deer hunting has been reflective of the amount of area suitable for forage for deer. When long periods of time have passed without a fire or removal of large amounts of brush in the hill area, the deer numbers tend to decrease due to the lack of suitable forage. When a fire has passed through, or portions have been cleared, the forage and new shoots are plentiful and the deer herds tend to increase. The State Department of Fish and Game has expressed a wish to see a program of systematic removal of specific area vegetation so that forage would be able to grow and the herds locate in that area. The burning of 40 to 60 acres at specific site locations throughout the entire western portion of Yolo County would occur so that the deer herds would be able to locate and forage. The location of these burn areas in relation to existing farms would be a criteria that Fish and Game would consider, if the program were established.

## Locally Recognized Issues

### RAFTING

The most sensitive issue for which property owners adjacent to Cache Creek have expressed concern is the use of the creek by rafters and weekenders who utilize the creek. Conflicts

have arisen with the adjacent landowners south of Camp Haswell on Cache Creek when rafters disembark onto private lands.

The Yolo County Parks, Recreation, and Wildlife Committee, the Boy Scouts of America, who own Camp Haswell, local property owners, and the local elected representatives, arrived at an agreement for the establishment of a take-out point for all rafters at Camp Haswell before entering the Capay Valley. With the creation of a termination point at Camp Haswell, trespassing and blockage of the Rumsey Bridge, and other points south, have been reduced.

#### PUBLIC ACCESS

Areas opened for equestrian trails, hiking trails, or other avenues for ingress or egress into fairly remote areas might result in inadequate emergency medical services. In the past, discussions of creating a ridge-top trail beginning in Napa County near Lake Berryessa and heading north along the rim of the west Capay hills occurred. This trail would primarily go through BLM lands. However, local emergency agencies determined that opening these areas to greater access would result in greater responsibility with regard to the provision of emergency services. Those areas of restricted access were therefore not opened to further access to the public.

#### DOUBLE CENTURY BIKE RACE

The Double Century Bike race begins in Davis, California, and covers over 200 miles, part of which passes through the Capay Valley. Injuries for the bicyclists passing through Cache Canyon where the road is narrow and lacks a shoulder have been reported. Local residents feel a concern for the safety of individuals who take this trip and desire to see further safeguards implemented with regard to personal safety. In 1981, over 1,500 bicyclists entered. Because the race operates during the early morning, runs through the entire day, and some riders do not complete it until late evening, many people have expressed concern that more safeguards should be implemented in the timing of the race.

#### RECREATION OUTSIDE THE PARK

The extension of recreational activities associated with Cache Creek Regional Park to the public lands outside the boundaries of the park has also been a concern of landowners in Capay Valley. The development of equestrian trails within the Regional Park with the desire for the extension of those trails beyond the boundaries of the park into the BLM lands is one example. Should an emergency arise, additional demands would be placed upon the fire district and the Sheriff's Department as a result of the intrusion of people into the fairly remote and inaccessible areas of the BLM lands. The possibility also exists that rafting and other water-oriented services would be extended from the park boundaries to other points along Cache Creek both into the Lake and Colusa Counties and south toward Rumsey. If appropriate safeguards are not taken, these facilities could impact local law enforcement and fire protection and place demands on water and sewer provisions and access into the sites.

#### HUNTING

Hunting clubs have traditionally utilized the hills in the Capay Valley for hunting, and the Department of Fish and Game, the Yolo County Fish and Game Advisory Committee, and local landowners, specifically the cattle ranchers, have cooperated to allow the hunting of deer in the area during the hunting season. Fish and Game has attempted to encourage the annual removal of certain vegetation to allow deer habitat to expand; however, conflict has arisen in the past with farmers who raise walnuts, almonds or other crops the deer forage in

~~during the harvest season. Deer normally occupying the wildland and foothill areas and in the evenings come down to the Valley floor to browse through the almond and walnut orchards.~~

## Regulatory Setting

### YOLO COUNTY CODE

~~Title 9, Parks and Recreation, of the Yolo County Code includes regulations regarding boats and water skiing, public boating facilities, park regulations. The Board finds that the public health, welfare, and safety require that the public use of all of the County park and recreation sites and facilities be regulated and controlled in accordance with the provisions of this chapter. (§ 1, Ord. 732, eff. October 8, 1975) The Parks Director sets park rules, park hours, determines park closures and evictions of persons from parks, and has the power to issue and revoke permits related to park use.~~

### PLANNING DOCUMENTS

#### Yolo County Parks and Open Space Master Plan

~~A master plan has been being prepared for Yolo County parks, open space areas, and other properties. This countywide master plan provides guidance for management, uses, and future development at County park properties—individually and system-wide. The plan has been prepared under the supervision of the Yolo County Parks and Resources Management Division staff; the Yolo County Parks, Recreation, and Wildlife Advisory Committee; and the County Board of Supervisors with consultant assistance.~~

#### Yolo County Open Space and Recreation Element

~~The Yolo County General Plan Open Space and Recreation Element Policy Document was adopted in November 2002. The primary purpose of the document is to as a foundation policy document enabling the County to further establish and preserve open space areas, develop further opportunities for recreation tourism, and active and passive open space and recreation areas.~~

## Responsible Agencies

### FEDERAL AGENCIES

#### Bureau of Land Management

~~The Bureau of Land Management (BLM) is an agency within the United States Department of the Interior that administers America's public lands, totaling 262 million acres (1,060,000 km<sup>2</sup>) or one-eighth of the landmass of the country. Most public lands are located in western states. BLM was officially established in 1946, when the U.S. Grazing Service merged with the government's General Land Office (a product of the country's territorial expansion and the federal government's 19th-century homesteading policies). The BLM has a wide range of responsibilities including collecting geographic information, maintaining records of land ownership and mineral rights, conserving wilderness areas while allocating other areas for grazing and agriculture, and protecting cultural heritage sites on public land. The BLM operates the National Landscape Conservation System that protects some U.S. National Monuments, some National Wild and Scenic Rivers, and some designated wildernesses among other types of areas.~~

## LOCAL AGENCIES

### ~~Yolo County Parks and Resources Management~~

~~The Department of Parks and Resources Management is a recently created Yolo County Department. The Department is responsible for the management of Yolo County's many natural resources, including sand and gravel. In addition, the Department is responsible for the maintenance and improvement of County parks, including a campground, several boat launches and fishing accesses, and the Gibson Historical Museum. The Parks and Resources Director oversees staff who fulfill administrative responsibilities, including project development, grant applications, accounting tasks and park passes. A Parks Maintenance Crew is responsible for countywide parks and facilities maintenance.~~

### ~~Yolo County Parks, Recreation, and Wildlife Advisory Committee~~

~~The Parks, Recreation, and Wildlife Advisory Committee (PRWAC) was formed to act in an advisory capacity to County staff and the Board of Supervisors regarding County Park and open space matters. The Committee's duties are to consider the needs of the County with respect to activities that include: development of a regional park system; review of plans and programs for the long-range development of a county park master plan; consideration of proposals or requests submitted by individual citizens or groups; and to make recommendations to the County Parks and Resources Manager, Director of Planning and Public Works, County Administrative Officer, Planning Commission, and Board of Supervisors. The Committee is comprised of ten members of the public who are appointed by the Board of Supervisors to four-year terms.~~



**Noise Element**

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## Introduction

~~The California State Government Code Section 65302(f) requires a noise element in all general plans. The Section states, "A noise element [shall be required] which shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels."~~

~~Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and hence are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, called Hertz (Hz).~~

~~Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel (dB) scale was devised. The decibel scale uses the hearing threshold (20 micropascals) as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB and changes in dB levels correspond closely to human perception of relative loudness.~~

## Noise Descriptors

~~Noise in our daily environment fluctuates over time. Some fluctuations are minor, but some are substantial. Some noise levels occur in regular patterns, but others are random. Some noise levels fluctuate rapidly, but others slowly. Some noise levels vary widely, but others are relatively constant. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors most commonly used in noise analyses. The difference between these descriptors is how or whether sound is averaged over the time it is measured.~~

### EQUIVALENT SOUND LEVEL (LEQ)

~~Leq represents an average of the sound energy occurring over a specified period. In effect, Leq is the steady-state sound level that in a stated period would contain the same acoustical energy as the time-varying sound that actually occurs during the same period.~~

### DAY-NIGHT LEVEL (LDN)

~~Ldn is the energy average of the A-weighted sound levels occurring during a 24-hour period with 10 dB added to the A-weighted nighttime a greater weight in the average than noise during the day, reflecting the greater sensitivity of people to night time noise.~~

### COMMUNITY NOISE EQUIVALENT LEVEL (CNEL)

~~CNEL is the energy average of the A-weighted sound levels occurring during a 24-hour period with 10 dB added to the A-weighted sound levels occurring between 10 p.m. and 7 a.m. and 5 dB added to the A-weighted sound levels occurring between 7 p.m. and 10 p.m. This gives noise in the nighttime and the evening a greater weight in the average than noise during the day, reflecting the greater sensitivity of people to nighttime noise.~~

**Human Response to Noise**

In general, noise can result in the following effects on people:

- Annoyance;
- Interference with activities such as speech, sleep, learning; and
- Physiological effects, such as hearing loss.

Annoyance and interference with activities can typically result from the everyday environment that we live in. Physiological effects such as hearing loss are typically limited to high noise environments such as industrial workplaces. Levels of noise exposure that can result in hearing loss are generally well defined and are incorporated in workplace hearing damage criteria. Criteria for evaluating the more subjective effects of noise such as annoyance and interference with activities are more difficult to define. However, environmental noise criteria developed by the Environmental Protection Agency (EPA 1974) are based on the effects of activity interference and annoyance. These criteria form the basis for land use compatibility standards recommended by the California Office of Planning and Research. The standards are commonly used in general plan noise elements in California.

Under controlled conditions in an acoustics laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency (“pure-tone”) signals in the midfrequency range. Outside such controlled conditions, the trained ear can detect 2-dB changes in normal environmental noise. However, it is widely accepted that the average healthy ear can barely perceive 3-dB noise level changes. A 5-dB change is readily perceptible, and a 10-dB change is perceived as being twice as loud. Doubling sound energy results in a 3-dB increase in sound; therefore, doubling sound energy (e.g., doubling the volume of traffic on a highway) would result in a barely perceptible change in sound level.

Table N-1 identifies typical noise levels associated with common indoor and outdoor activities.

**Table N-1 Typical Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet fly-over at 300 meters (1000 feet)	110	Rock band
Gas lawn mower at 1 meter (3 feet)	100	
Diesel truck at 15 meters (50 feet) at 80 kph (50 mph)	90	Food blender at 1 meter (3 feet)
Noisy urban area, daytime	80	Garbage disposal at 1 meter (3 feet)
Gas lawn mower, 30 meters (100 feet)	70	Vacuum cleaner at 3 meters (10 feet)
Commercial area		Normal speech at 1 meter (3 feet)
Heavy traffic at 90 meters (300 feet)	60	Large business office
Quiet urban daytime	50	Dishwasher next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime		Library
Quiet rural nighttime	30	Bedroom at night, concert
	20	

		Broadcast/recording studio
	-10-	
Lowest threshold of human hearing	-0-	Lowest threshold of human hearing

Source: Caltrans 1998b.

~~Noise Sensitive Land Uses~~

~~Noise sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Places where people live, sleep, recreate, worship, and study are generally considered to be sensitive to noise because intrusive noise can be disruptive to these activities. These areas in the County are identified and discussed in the following sections. Figure N-1 identifies the noise levels considered acceptable or unacceptable relative to certain land uses; and Figure N-2 identifies sensitive noise receptors.~~

~~Specific areas considered sensitive to noise include:~~

- ~~• Residences,~~
- ~~• Hospitals or healthcare facilities,~~
- ~~• Parks and wildlife areas,~~
- ~~• Places of worship,~~
- ~~• Libraries, and~~
- ~~• Schools.~~

RESIDENCES

~~Capay Valley is a rural area with most of the population concentrated in the areas around Brooks, Guinda, and Rumsey. Scattered individual dwellings are located outside these communities.~~

HOSPITALS AND HEALTHCARE FACILITIES

~~Hospitals are not located in Capay Valley.~~

PARKS, WILDLIFE AREAS, AND RECREATION AREAS

~~The following public parks, wildlife areas, and other recreation areas, including campgrounds and picnic areas, in Yolo County are considered noise sensitive land uses:~~

- ~~• Cache Creek Canyon,~~
- ~~• Camp Haswell Park,~~
- ~~• Vernon A. Nichols Park, and~~
- ~~• Capay Open Space Park Site.~~

PLACES OF WORSHIP

~~The Town of Guinda includes one place of worship, and the rest of Capay Valley does not include places of worship.~~

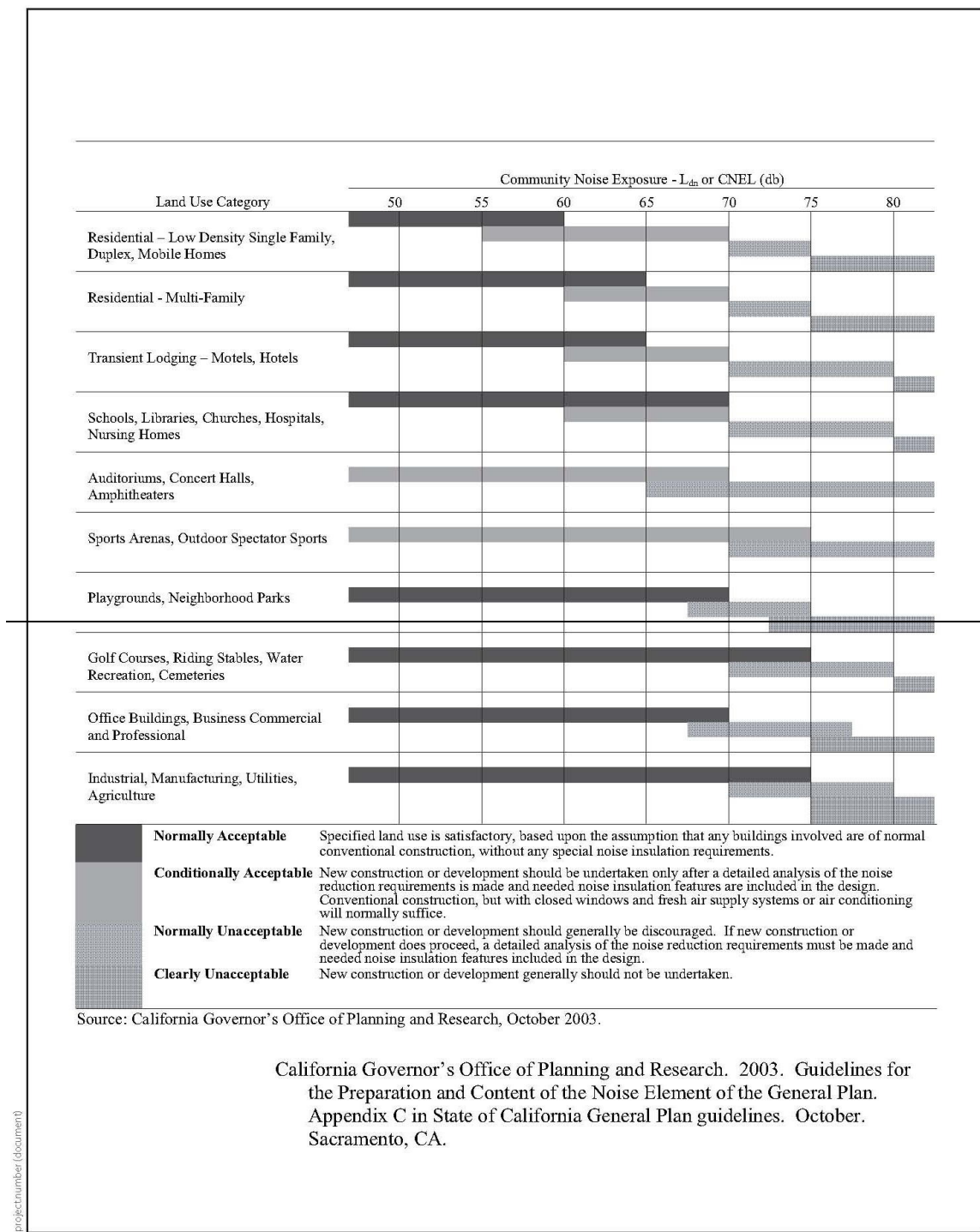
LIBRARIES

~~The Capay Valley study area does not include any libraries.~~

**SCHOOLS**

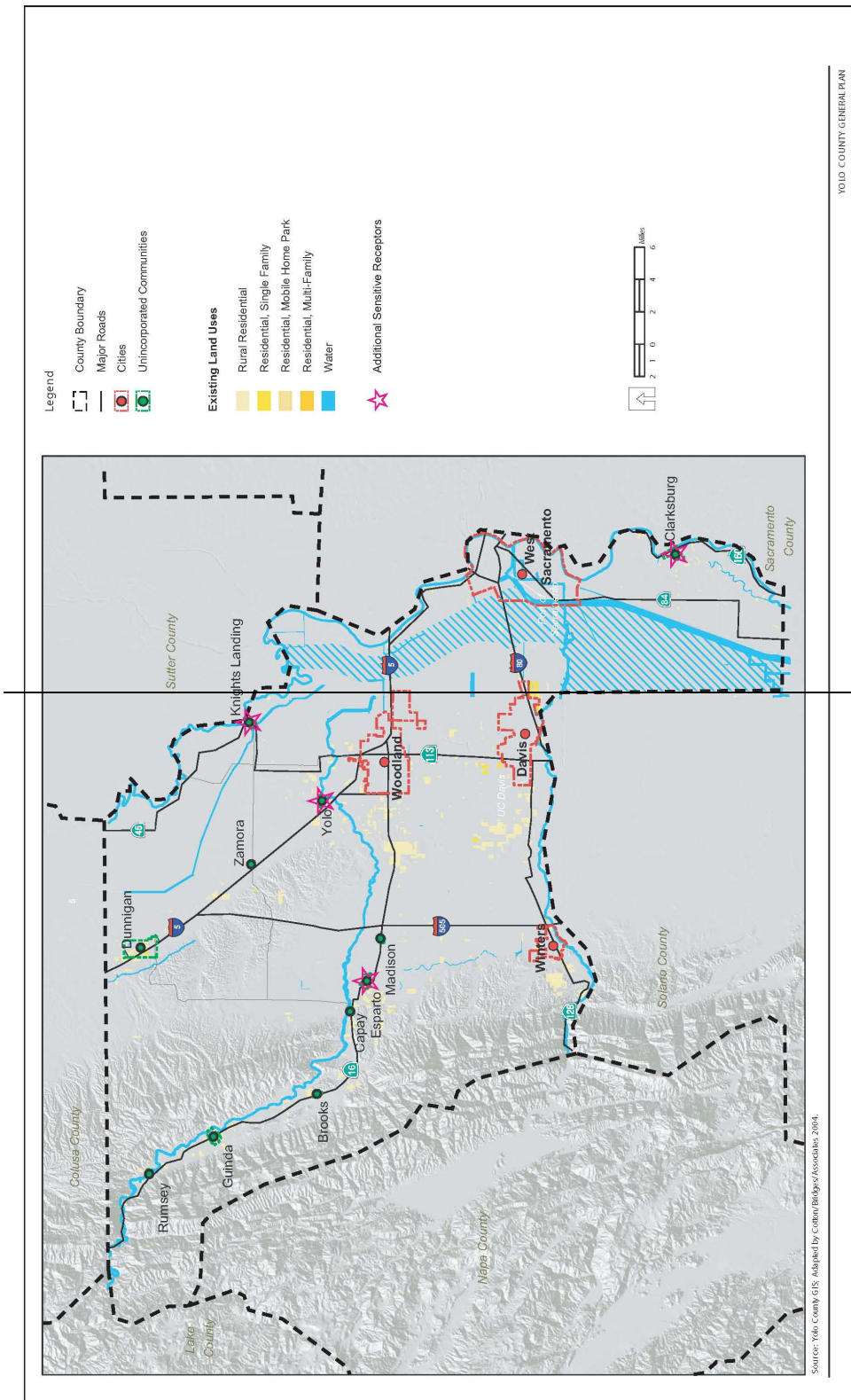
The Capay Valley study area does not include any schools.

**Figure N-1  
State Land Use Compatibility Standards**



project number (document)

**Figure N-2**  
**Sensitive Noise Receptors**



Source: Yolo County GIS, adapted by Collier Rediger Associates 2004.

**Existing Noise Conflicts**

In general, very few noise conflicts exist in Capay Valley. A key indicator of noise conflicts is the number of complaints registered with the County, which does not track noise complaints separately from other violations. Generally, noise complaints are few in number but typically are associated with mining, airports, and/or SR 16 traffic and agricultural operations.

**Existing Noise Conditions**

Existing noise conditions in the Capay Valley are described by identifying noise sources and, to the extent possible, quantifying noise from these sources. The dominant sources of noise in Capay Valley are related to transportation and include automobile and truck traffic. Stationary sources in the planning area include construction sites, mining activities, and farming activities, and SR 16 traffic.

**EXISTING FIXED-POINT NOISE SOURCES**

**Roadway Traffic**

State Route (SR) 16 is the dominant source of traffic noise in the planning area. Truck traffic has been observed as being the most significant contributor to noise in the planning area. Agricultural operations are not seen as major problems generating noises.

Existing traffic noise levels in Yolo County were calculated using the FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108) and existing traffic volumes. The FHWA model is the standard model recommended by the FHWA and Caltrans for traffic noise prediction.

The last noise studies to be undertaken in the Capay Valley area occurred in 1976 in conjunction with the preparation of the Countywide Noise Element of the General Plan. Noise contours were established for SR 16 as it passes through the Valley.

Based on the 1976 road noise survey, SR 16 is recorded as having 60-70 decibels or less of noise volume at a distance of 100 feet from the roadway. According to Table V of the 1977 Noise Element, the Rumsey and Guinda noise monitoring stations recorded a computed Ldn of 51 and 52, respectively. The Ldn number given allows for the compilation of sound levels weighted for their frequency and time of occurrence.

The following table provides existing noise levels for roadway segments within the Capay Valley.

**Table N-2  
State Route 16 Noise**

Roadway	Segment	Existing Daily Traffic Volumes	Ldn (100 feet from roadway centerline)
State Route 16	West of casino	4,607	64
State Route 16	East of Mossy Creek Bridge to west of CR 85B	17,292	70

~~Source: Capay Hills Golf Club Draft Environmental Impact Report (2004)~~



**INTERMITTENT NOISE SOURCES**

**Aircraft**

Airports do not occur within the planning area, nor is the planning area within the noise contours for any Yolo County airports. However, commercial and military aircraft flying at low levels at or near the speed of sound occasionally fly over the planning area.

**Mining Activities**

Mining sites in Capay Valley are generally isolated from population areas and are located along the Cache Creek corridor. Mining activities in the County are primarily for sand and gravel extraction. Primary noise sources associated with mining activities include heavy equipment operations associated with material extraction, processing activities, and material trucking. Noise generated from mining activities is variable depending on the type and intensity of the operations. Site-specific information on noise levels generated by mines in the County is available. However, Table N-3 summarizes noise level produced by typical mining operations:

Table N-3 Typical Noise Produced by Typical Mining Operations at 500 Feet	
Distance from Source (feet)	Calculated Noise Level (dBA)
50	84
100	78
200	72
400	66
800	60
1,600	54

Notes: Noise performance standards in the Aggregate Resource Element of the Draft Off-Channel Mining Plan (OCMP) for the Lower Cache Creek limits noise to the following levels:  
 80 dBA-Leq at property boundaries (6:00 a.m. to 6:00 p.m.)  
 60 dBA-Leq at offsite residences or noise-sensitive uses (6:00 a.m. to 6:00 p.m.)  
 65 dBA-Leq at property boundaries (6:00 p.m. to 6:00 a.m.)  
 Source: Giroux 1998.

Homestake Mining activities may generate a need for future noise control guidelines for their operations in Napa and Yolo County. Because local noise standards do not exist for the proposed Homestake Mine, State and federal guidelines will be reviewed in establishing the parameters for noise control. The Yolo County Noise Element, adopted in 1977, does not focus on mining-related noises, but identifies noise sensitive land uses and proposes methods of buffering these noise sensitive land uses.

At the present time, noise activities associated with mining activity are very remote because the proposed Homestake Mine is over 10 miles from Guinda. The site is removed from homesites and is considered to have very minimal noise impacts on area residents.

**AGRICULTURAL ACTIVITIES**

The primary sources of noise related to agricultural activities include farm equipment. Farming activities are tractors, harvesters, and crop dusting aircraft. Typical noise levels from tractors as measured at a distance of 50 feet range from about 75 dBA to 95 dBA with an average of about 84 dBA. These noise levels should be reasonably representative of noise levels from other wheeled and tracked farm equipment. Using a source level of 84 dBA at 50 feet, and assuming nominal point source attenuation of 6 dB per doubling of distance, the distance to 70-, 60-, and 50-dBA contours are as follows:

Distance from Source (feet)	Calculated Noise Level (dBA)
50	84
100	78
200	72
400	66
800	60
1,600	54

**Regulatory Setting**

A discussion of federal, state, and local noise regulations and guidelines that apply in Capay Valley follows below. This information is intended to provide the regulatory context against which existing noise conditions can be compared.

**FEDERAL GUIDELINES**

The federal Noise Control Act of 1972 (Public Law 92-574) established a requirement that all federal agencies administer their programs to promote an environment free of noise that would jeopardize public health or welfare. The U.S. Environmental Protection Agency (EPA) was given the responsibility for:

- Providing information to the public regarding identifiable effects of noise on public health and welfare;
- Publishing information on the levels of environmental noise that will protect the public health and welfare with an adequate margin of safety;
- Coordinating federal research and activities related to noise control, and
- Establishing federal noise emission standards for selected products distributed in interstate commerce.

The Noise Control Act also directed that all federal agencies comply with applicable federal, state, interstate, and local noise control regulations. Although the EPA was given a major role in disseminating information to the public and coordinating federal agencies, each federal agency retains authority to adopt noise regulations pertaining to agency programs. The EPA can, however, require other federal agencies to justify their noise regulations in terms of Noise Control Act policy requirements.

### U.S. Environmental Protection Agency

In 1974, in response to the requirements of the federal Noise Control Act, EPA identified indoor and outdoor noise limits to protect public health and welfare (communication disruption, sleep disturbance, and hearing damage). Outdoor Ldn limits of 55 dB and indoor Ldn limits of 45 dB are identified as desirable to protect against speech interference and sleep disturbance for residential, educational, and healthcare areas. Sound-level criteria to protect against hearing damage in commercial and industrial areas are identified as 24-hour Leq values of 70 dB (both outdoors and indoors).

### U.S. Department Of Housing And Urban Development

The U.S. Department of Housing and Urban Development has established guidelines for evaluating noise impacts on residential projects seeking financial support under various grant programs (44 FR 135:40860-40866, January 23, 1979). Sites are generally considered acceptable for residential use if they are exposed to outdoor Ldn values of 65 dB or less. Sites are considered “normally unacceptable” if they are exposed to outdoor Ldn values of 65-75 dB. Sites are considered unacceptable if they are exposed to outdoor Ldn values above 75 dB. The HUD goal for the interior noise level in residences is that noise levels should not exceed 45-dB Ldn.

### Federal Aviation Administration

“Airport Noise Compatibility Planning,” 14 CFR Part 150, prescribes the procedures, standards, and methodology to be applied to airport noise compatibility planning activities. Noise levels below 65 Ldn are normally considered to be acceptable for noise sensitive land uses.

### Federal Highway Administration

FHWA regulations (23 CFR 772) specify procedures for evaluating noise impacts associated with federally funded highway projects and for determining whether these impacts are sufficient to justify funding noise abatement actions. The FHWA noise abatement criteria are based on worst hourly Leq sound levels, not Ldn or CNEL values. The worst-hour 1-hour Leq criteria for residential, educational, and healthcare facilities are 67 dB outdoors and 52 dB indoors. The worst-hour 1-hour Leq criterion for commercial and industrial areas is 72 dB (outdoors).

### Federal Transit Administration

Federal Transit Administration (FTA) procedures for the evaluation of noise from transit projects are specified in the document titled, “Transit Noise and Vibration Impact Assessment” (Federal Transit Administration (FTA) 1995). The FTA Noise Impact Criteria categorizes noise sensitive land uses into the following:

Category 1: Buildings or parks where quiet is an essential element of their purpose.

Category 2: Residences and buildings where people normally sleep. This includes residences, hospitals, and hotels where nighttime sensitivity is assumed to be of utmost importance.

Category 3: Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, churches, and active parks. Ldn is used to

characterize noise exposure for residential areas (Category 2). For other noise sensitive land uses, such as outdoor amphitheaters and school buildings (Categories 1 and 3), the maximum 1-hour Leq during the facility's operating period is used. Noise impacts are identified based on absolute predicted noise levels and increases in noise associated with the project.

#### Federal Railroad Administration

Federal Railroad Administration (FRA) noise standards are the same as those specified by FTA.

### STATE GUIDELINES

#### State of California General Plan Guidelines

The State of California General Plan Guidelines (OPR 2003) identify guidelines for the noise elements of local general plans, including a sound level/land use compatibility chart that categorizes, by land use, outdoor Ldn ranges in up to four categories (normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable). For many land uses, the chart shows overlapping Ldn ranges for two or more compatibility categories. The noise element guidelines chart (Figure N-1) identifies the normally acceptable range for low-density residential uses as less than 60 dB, and the conditionally acceptable range as 55–70 dB. The normally acceptable range for high-density residential uses is identified as Ldn values below 65 dB, and the conditionally acceptable range is identified as 60–70 dB. For educational and medical facilities, Ldn values below 70 dB are considered normally acceptable, and Ldn values of 60–70 dB are considered conditionally acceptable. For office and commercial land uses, Ldn values below 70 dB are considered normally acceptable, and Ldn values of 67.5–77.5 are categorized as conditionally acceptable. These overlapping Ldn ranges are intended to indicate that local conditions (existing sound levels and community attitudes toward dominant sound sources) should be considered in evaluating land use compatibility at specific locations.

#### California Noise Insulation Standards

Part 2 Title 24 of the California Code of Regulations "California Noise Insulation Standards" establishes minimum noise insulation standards to protect persons within new hotels, motels, dormitories, long-term care facilities, apartment houses, and dwellings other than single-family residences. Under this regulation interior noise levels attributable to exterior noise sources cannot exceed 45 Ldn in any habitable room. Where such residences are located in an environment where exterior noise is 60 Ldn or greater, an acoustical analysis is required to ensure that interior levels do not exceed the 45 Ldn interior standard.

#### Division of Aeronautics Noise Standards

Title 21 Chapter 5000 of the California Code of Regulations identifies noise compatibility standards for airport operations. Section 5014 of the code states that the standard for the acceptable level of aircraft noise for persons living in the vicinity of airports is established to be a community noise equivalent level of 65 decibels. Land uses such as residences, schools, hospitals, or places of worship exposed to aircraft noise exceeding 65 dB CNEL are deemed to be in a noise impact area. This standard forms the basis for the limitation that no airport proprietor of an airport shall operate an airport with a noise impact area based on the standard of 65 dB CNEL unless the operator has applied for or received a variance.

## LOCAL GUIDELINES

### Yolo County General Plan

~~The Yolo County General Plan Noise Element (originally adopted in 1976) identifies noise sources such as roadways, rails, and airports within the County. Noise land use compatibility guidelines listed by the U.S. Department of Housing and Urban Development are included in the Noise Element. The 1983 revision of the General Plan Noise Elements provides general policies but does not establish any noise level standards. Yolo County does not have a noise ordinance or other noise enforcement code at the present time.~~

### Off Channel Mining Plan (OCMP) and Implementing Ordinances

~~The Aggregate Resource Element of the Draft Off Channel Mining Plan (OCMP) for the Lower Cache Creek includes the following performance standards (PS):~~

~~PS 2.5-11: From 6:00 a.m. to 6:00 p.m., noise levels shall not exceed an average noise Leq of 80 dBA measured at the property boundaries of the site. However, noise levels may not exceed an Leq of 60 dBA for any nearby off-site residences or other noise sensitive land uses. From 6:00 p.m. to 6:00 a.m., noise levels shall not exceed an Leq of 65 dBA measured at the property boundaries of the site. OCPM also required vegetated buffers between restored habitat areas and adjoining farmland to minimize impact from noise, dust, and spraying generated by agricultural operations. The OCMP EIR proposes, as a mitigation measure, that the applicable criterion for residential land uses be changed from 60 dBA Leq to 60 dBA CNEL. The CNEL is a 24-hour average noise metric. This implies that the duration and specific hours of operation must be included in the impact calculations.~~

**Public Health and Safety and Services Element**

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## Introduction

The purpose of the ~~Public Health and Safety and Services Element~~ **chapter** is to address the protection of life and property from natural and man-made hazards, and to identify public services. The chapter is designed to identify areas where public and private decision-making need to be sensitive to potentially hazardous conditions which may be caused by soil limitations, geology, water quality, fire, and flooding. In addition, the services related to public health and safety, such as law enforcement and health services, will also be discussed.

~~The Public Health and Safety Element contains the state mandated discussion of safety elements of the General Plan. The identification of locally recognized problems and tentative solutions to those problems are discussed.~~

~~The following excerpts from the Government Code were used in establishing a base from which to prepare the Public Health and Safety Element:~~

- ~~1. Section 65302(f) requires preparation of a seismic safety element consisting of an identification and appraisal of seismic hazards.~~
- ~~2. Section 654302(i) requires the preparation of a Safety Element that includes provisions for protection of the community from fires and geologic hazards.~~

~~This section of the plan is designed to support and enhance the goals and policies in the Yolo County Safety Element of the General Plan. There is no Community Services District providing the Capay Valley Study Area with water or sewer services.~~

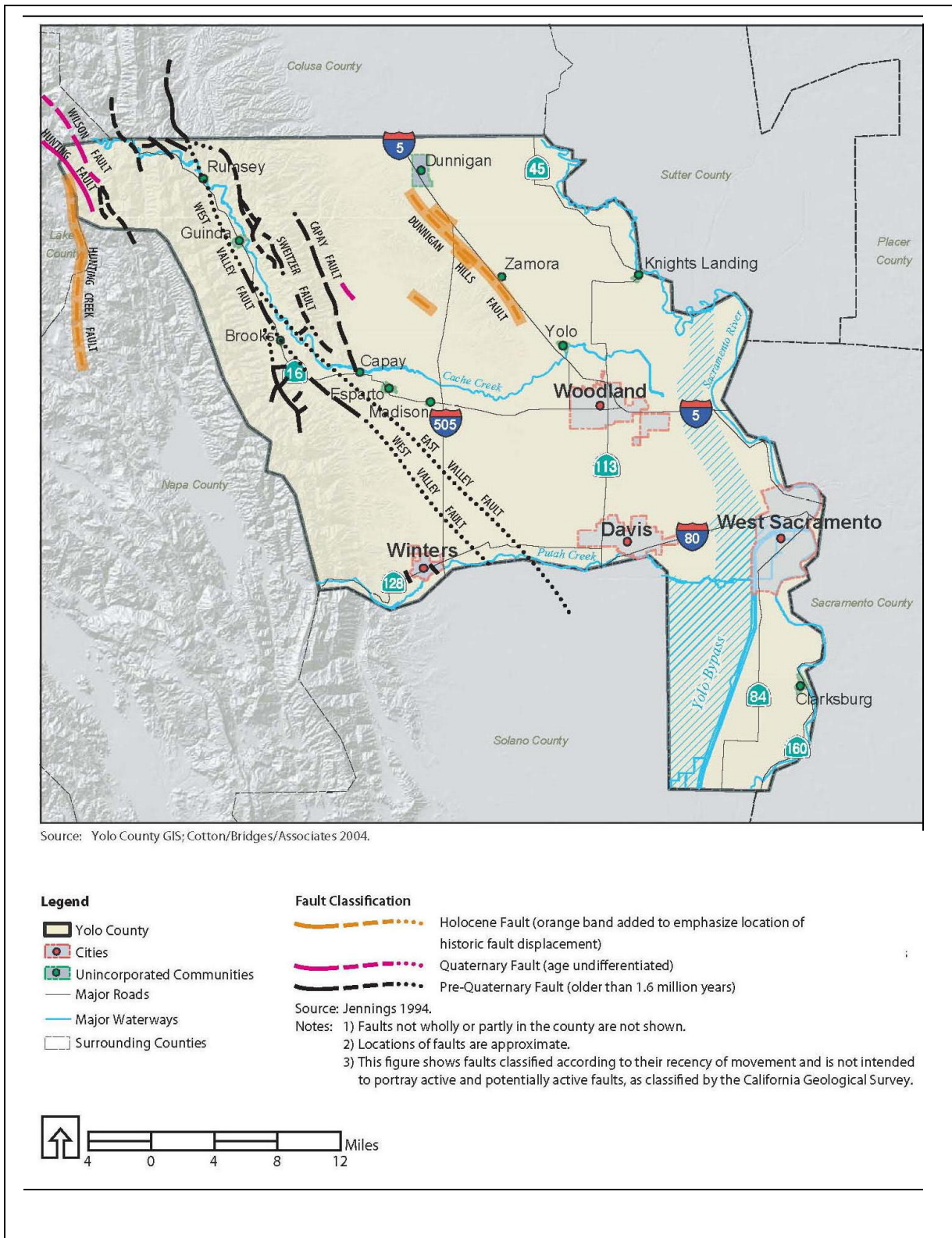
## Seismic And Geologic Hazards

### EARTHQUAKE FAULTS

Within the General Plan Study Area, seismic activity has been evident and is traced through numerous escarpments and slippages in the earth's crust (see Figure **SS-1**). The two common faults with surface displacements and ruptures most evident are the Switzer and Eisner faults that run along the eastern hills of the Capay Valley due east of the Rumsey and Guinda areas. The most recent active faulting activity has occurred north of the Winters area.

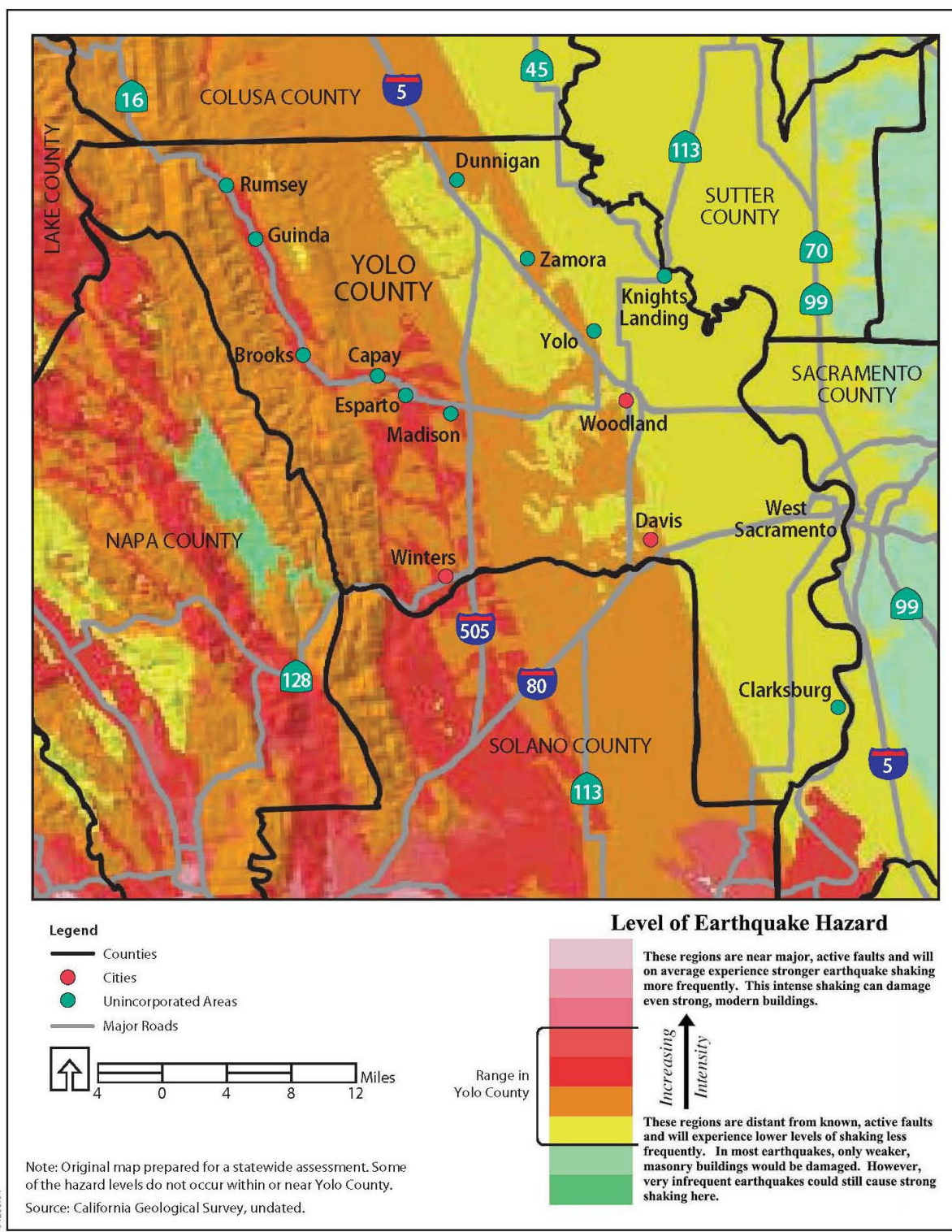
The Capay Valley is formed over an offset synclinal fault. Between the synclinal offset, a fault is mapped parallel to the syncline and Salt Canyon Fault. The Valley is considered to be an area of seismic activity with most historic shocks originating in the Winters-Vacaville region. Two mapped faults pass through the eastern portion of the Valley. These faults are the Eisner and Switzer faults, and are present on the surface through displacement and landslide expressions. Figure **SS-2** depicts the relative earthquake groundshaking hazard levels.

**Figure SS-1  
Earthquake Faults in Yolo County**





**Figure SS-2  
Relative Earthquake Groundshaking Hazard Levels**



DAM FAILURE

The construction of the Indian Valley Reservoir in 1974 places the Capay Valley in the dam inundation flow should the dam break. The State of California Office of Emergency Preparedness required that the Yolo County Flood Control and Water Conservation District prepare a dam failure inundation map showing all those areas that would be inundated if the dam were to break. Figure ~~SS-3~~ portrays the dam inundation area for Yolo County, which includes the Capay Valley area. As shown in the figure, the area around Cache Creek within the Capay Valley would be inundated in the case of a dam failure. The Yolo County Office of Emergency Services is in the process of preparing emergency evacuation plans and contingency plans for the advents of a dam failure at Indian Valley. The Clear Lake Dam and Reservoir, located on the main branch of Cache Creek, does not pose a potential disaster since the outlet characteristics of a three-mile narrow channel would restrict flows substantially. The Clear Lake Reservoir has been part of the locally controlled water system since 1912 and the small concrete dam structure, which blocks the reservoir, is only 40 feet high.

The precautions taken in the construction of Indian Valley Reservoir from potential seismic safety or settling constraints include the placement of gauges for the measurement of water within the soils of the earth-filled dam. Stress gauges have also been placed in strategic locations along the Dam. In the event of an emergency, a caretaker and a portable radio unit are situated at the dam location, 24 hours a day, throughout the year. Information could be relayed to the Communications Center of Yolo County should there be a potential for dam breakage. From the Communications Center, information would be relayed to the ~~Capay Valley local~~ fire districts within the Capay Valley. ~~and to local law enforcement agencies so individuals could remain informed.~~

~~According to the Engineering Geology Report for the proposed Palmer Canyon Dam site prepared by the Soil Conservation Service in August of 1975, a Richter 7 on the Midland Fault resulting in peak accelerations of about 0.30 g, was recommended as the design earthquake for the dam. The report observed that until more is known about the Switzer Fault and Salt Canyon Fault, the above event will also be somewhat conservative for planning purposes. Refer to Figure PHIS 4 showing the Epicenter Map for the proposed Palmer Canyon Dam site.~~



**Figure PHS-4  
Epicenter Map—Palmer Canyon Dam Site**

LIQUEFACTION AND SUBSIDENCE

The Capay Valley General Plan Study Area has a large number of unstable slopes in areas composed of gravels, siltstones, sands, and clays. Where there is such a combination of slope and loosely unconsolidated materials, potential for subsidence and liquefaction exists. Most of these areas are in the watershed or foothill areas and are free from development at this time. ~~The potential for Development on unstable slopes for areas subject to liquefaction and subsidence would be mitigated through restrictions on any should be highly restricted by disallowing future road construction or new building construction in those areas.~~

REGULATORY SETTING

**Federal Regulations**

~~Federal regulations do not exist that apply to geologic and seismic hazards.~~

**State Regulations**

**~~Alquist Priolo Earthquake Fault Zoning Act~~**

~~The Alquist Priolo Earthquake Fault Zoning Act, which was signed into law by the California State Legislature in 1972, requires the State Geologist to delineate all active fault traces in the state, and to delineate appropriately wide Earthquake Fault Zones around these fault traces. The purpose of this and other requirements of the Alquist-Priolo Act is to prevent the construction of habitable structures near active faults without first conducting detailed fault rupture hazard investigations (Hart and Bryant 1997). In the event that a site contains a known active fault, habitable structures must be set back a minimum of 50 feet from the trace (California Department of Mines and Geology 1997).~~

**~~Seismic Hazards Mapping Act~~**

~~Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC Sec. 2690–2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong groundshaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act: the state is charged with identifying and mapping areas at risk of strong groundshaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites within Seismic Hazard Zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.~~

**~~California Building Standards Code~~**

~~The State of California's minimum standards for structural design and construction are given in the California Building Standards Code (CBSC) (California Code of Regulations, Title 24). The CBSC is based on the UBC, which is used widely throughout~~

~~United States (generally adopted on a state-by-state or district-by-district basis), and has been modified for California conditions with numerous, more detailed and/or more stringent regulations. The CBSC requires that “classification of the soil at each building site ... be determined when required by the building official” and that “the classification ... be based on observation and any necessary test of the materials disclosed by borings or excavations.” In addition, the CBSC states that “the soil classification and design-bearing capacity shall be shown on the (building) plans, unless the foundation conforms to specified requirements.” The CBSC provides standards for various aspects of construction, including but not limited to excavation, grading, and earthwork construction; fill placement and embankment construction; construction on expansive soils; foundation investigations; and liquefaction potential and soil strength loss.~~

#### **Dam Inundation Mapping Requirement**

~~The California Code of Regulations, Section 8589.5, requires that dam owners submit flood routing information, land surveys to delineate the floodplain, and a technical report to support a dam failure inundation map to the Office of Emergency Services. The technical study must contain information about dam specifications, physical conditions affected by the dam, including downstream areas and floodwater routing, and the cities, towns, and county areas which could be affected by a dam failure. The requirements of the technical study can also include modeling of worst-case breaching parameters and identification of the downstream hazard potential from partial or complete failure of the dam. The technical study and dam inundation map must be updated when a dam is enlarged.~~

## **Flooding**

Flooding is a normal process of rivers, but considered a hazard when it threatens human life or damages property. Damage associated with flood events is magnified when natural river floodplains are developed and inhabited. The Capay Valley is susceptible to flooding by Cache Creek (see Figure [SS-4](#), Capay Valley Flood Zones and Waterways).

### SHEETFLOW

The Capay Valley Study Area is subject to sheetflow, which occurs when a large amount of rain falls over a short period of time onto the ground, which is either saturated or impervious to water. The watershed and foothill areas of the Capay Valley have a very thin soil mantle and absorb very little water before runoff begins. Runoff is extremely severe after wildland fires have passed through the area. The combination of rocky soils and sparse scrub vegetation makes the watershed areas very sensitive to any changes.

### CACHE CREEK

The lower portion of the Cache Creek system is an integral component of the Sacramento River Flood Control System. The capacity in the lower reach of Cache Creek is approximately 36,000 cubic foot per second (cfs) (Yolo County WRA 2004). The Cache Creek Settling Basin, located east of the City of Woodland, is essential to preserving the integrity of the flood control function of the Yolo Bypass. The Settling Basin traps a large portion of the sediment load from Cache Creek that otherwise would be deposited in the Yolo Bypass, and reduce its flood carrying capacity. A levee system extends upstream from the Settling Basin to the communities of Yolo and Woodland. These levees are significantly inadequate at providing the flood protection from the 100-year storm event. The current design capacity of the levee is 30,000 cfs, while modeled 100-year flows at Capay are estimated to be 61,000 cfs (Yolo County WRA 2004).



Prior to the construction of Indian Valley Reservoir, Cache Creek experienced several severe floods, some of which altered the stream course dramatically. The Yolo County Flood Control and Water Conservation District has stated the likelihood of a flood like the 1955 or 1964 floods is very remote because the Indian Valley Reservoir captures over 30 percent of the water that flows into Cache Creek.

Flooding along the lower reach of Cache Creek, the portion within the County, occurs along the main channel and from tributary areas to the north of the channel. The area within the 100-year floodplain of lower Cache Creek is not protected because the State intended to build dams in the upper watershed to provide flood storage for the Cache Creek watershed. These dams were never built; thus, the area is under-protected. A levee system does exist, from Cache Creek's mouth at the Sacramento River to three miles upstream of the Town of Yolo. This levee system was designed to convey 30,000 cfs flows from Cache Creek to the Cache Creek Settling Basin, which prevents sediment and debris from entering the Yolo Bypass. Capay Valley communities partly located within the 100-year floodplain of Cache Creek include Capay, Brooks, Rumsey and Guinda. The ACOE is actively investigating opportunities to increase flood protection in the County.

## **REGULATORY SETTING**

### **Federal Regulations**

#### **Federal Flood Insurance Program**

~~Alarmed by increasing costs of disaster relief, Congress passed the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The intent of these acts was to reduce the need for large, publicly funded flood control structures and disaster relief by restricting development on floodplains. FEMA administers the National Flood Insurance Program to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA issues Flood Insurance Rate Maps (FIRMs) for communities participating in the National Flood Insurance Program. These maps delineate flood hazard zones in the community.~~

### **State Regulations**

#### **Dam Inundation Mapping Requirement**

~~Refer to the discussion of the Dam Inundation Mapping Requirement under the Geologic and Seismic Hazards – Regulatory Setting section of this chapter.~~

### **Local Regulations**

#### **Yolo County Code**

~~According to Title 8 Land Development and Zoning, Chapter 3 Flood Damage Protection of the Yolo County Code, a Flood Hazard Development Permit is required before construction or other development begins within any area of special flood hazards, as designated by FEMA. Flood Hazard Development Permits are approved under the conditions that the proposed development does not adversely affect, including cumulatively, the carrying capacity of areas where base flood elevations have been determined but a floodway has not been designated. Permits for construction within the boundaries of the Cache Creek Resources Management Plan require additional review, permits from State and Federal agencies, and the project must meet the objectives of the Resources Management Plan.~~

## Air Quality

~~The Yolo-Solano Air Pollution Control District is concerned with agricultural process emissions of pollutants as well as those commonly associated with industrial operations. Specific control activities of the District staff include the issuance of operating permits and construction permits, supervision of agricultural burn permits (fire agencies within the District annually issue the agricultural burning permits), and ambient air testing. The District monitors for particulate matter including ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and hydrocarbons at different locations in the District.~~

~~Please refer to the Conservation and Natural Resources Element of the Capay Valley General Plan for a full discussion of air pollutants within the Capay Valley.~~

### REGULATORY SETTING

~~Capay Valley air quality is monitored through the Yolo-Solano Air Quality Management District. The bi-county district includes all of Yolo County and the northeastern part of Solano County. The Air Quality Management Board is comprised of the members of both the Yolo County Board of Supervisors and the Solano County Board of Supervisors.~~

## Groundwater Quality And Supply

~~The Capay Valley drains into the Sacramento River Basin and is considered part of the Sacramento Drainage Shed.~~

~~A record of the water levels has been compiled over the years and is used to compare to present water table levels. Recent increases in the groundwater elevation indicate recharging taking place after the 1976-77 drought years.~~

~~Private wells are inspected when the wells are initially drilled. The private wells are not inspected on a routine basis, but will be inspected upon the owner's request.~~

~~Please refer to the Conservation and Natural Resources Element for a detailed discussion of groundwater quality and supply in the Capay Valley.~~

### REGULATORY SETTING

~~Additional state regulations that affect hazardous waste management include the following:~~

- ~~• The Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65), which requires labeling of substances known or suspected by the state to cause cancer; and~~
- ~~• California Government Code Section 65962.5, which requires the Office of Permit Assistance to compile a list of potentially contaminated sites in the state.~~

### RESPONSIBLE AGENCIES

~~Two agencies are responsible for the monitoring of the water quality: The Yolo County Public Health Department and the State Department of Water Resources. The County Health Department tests for the coliform bacteria levels in the water supply. The State Department of Water Resources tests for the influx of chemicals into the public water supply. This analysis includes the testing of nitrogen, pesticides, herbicides, fumigants, and other toxic chemical that might have entered residents' water supply. Under the Water Resources~~



~~Agency, the State Regional Water Quality Control Board, Central Valley Region, has established guidelines for the quality of pesticide rinse water for the Sacramento River Basin (5-A). The Yolo County Flood Control and Water Conservation District measure the actual level of the water tables.~~

### **Existing Noise Conflicts**

In general, very few noise conflicts exist in Capay Valley. A key indicator of noise conflicts is the number of complaints registered with the County, which does not track noise complaints separately from other violations. Generally, noise complaints are few in number but typically are associated with mining, airports, and/or SR 16 traffic and agricultural operations.

#### Roadway Traffic

State Route (SR) 16 is the dominant source of traffic noise in the planning area. Truck traffic has been observed as being the most significant contributor to noise in the planning area. Agricultural operations are not seen as major problems generating noises.

### **Public Safety Services**

#### FIRE PROTECTION

#### **Capay Valley Volunteer Fire Department**

Two County Fire Districts and the State of California Department of Forestry provide fire protection for the Capay Valley. Figure PHS-6 portrays the boundaries of the Capay Valley Fire District. The following discussion will outline the services and equipment of the Capay Valley Fire District. For information on the Esparto Fire District, please refer to the Esparto Area General Plan. The Esparto Fire District includes that area west of the Town of Capay to County Road 82B.

The Capay Valley Fire District is responsible for the prevention and control of fires to structures. The District was formed in 1927 and covers approximately 175 square miles of area (see Figure SS-5). Approximately 27 square miles occupy the valley floor, 125 square miles of private hill ranches, and 30 square miles of public land under the control of the Bureau of Land Management. The District has access to the majority of the area through the Valley. However, the East Capay Hills are accessible year-round only through County Road 85 through the Dunnigan Hills and Hungry Hollow areas or via the Arbuckle grade, which is closed during the winter months. Emergency services provided by the Fire District include basic fire protection and first responder-level medical assistant services. Advanced life support services are provided by ground ambulance from the City of Woodland. Air ambulance services respond from Sacramento to Vacaville.

The District is ~~manned~~ staffed by 20 volunteers who receive minimal reimbursements while on duty. The District has a fire chief and two assistant fire chiefs. The fire District is governed by a five-member Board of Commissioners that meets monthly.

As shown in Figure SS-6, most of the Capay Valley planning area lies within a fire hazard area.

~~Equipment is listed in Table PHS-1. Communications are centrally dispatched from the Yolo County Communications Center located in Woodland.~~

**Table PHS-1  
Capay Valley Fire District Equipment and Location**

Item	Location	Description
Truck 1	Brooks	1967 International Pumper; 1,000 gal. Cap*; 750 gpm**
Truck 2	Rumsey	1953 GMC; 250 gal. cap; 90 gpm
Jeep #3	Brooks	Jeep 4x4; 100 gal cap. 30 gpm
Truck 6	Guinda	1974 International; 1,000 gal.cap; 300 gpm
Tanker 4	Guinda	GL6x6 GMC; 2,000 gal.cap; 300 gpm
Tanker 10	Guinda	GMC; 5,000 gal.cap; 600 gpm
Notes: gal.cap. = gallon capacity gpm = gallons per minute		
Source: Capay Valley General Plan, 1982.		

All trucks are equipped with either stationary or portable emergency band radios. Trucks are equipped with various lengths of 2½, 1½, or 1 inch diameter hose. Resuscitators, self-contained air packs, and a high expansion foam generator are available on specific trucks.

The 20 volunteers have a program of continuous training and education not only in fire prevention techniques but the latest in first aid and emergency medical care. The District personnel are often the first at the scene of an accident or a call to a residence for first aid.

**Figure PHS-6 Capay Valley Fire District**

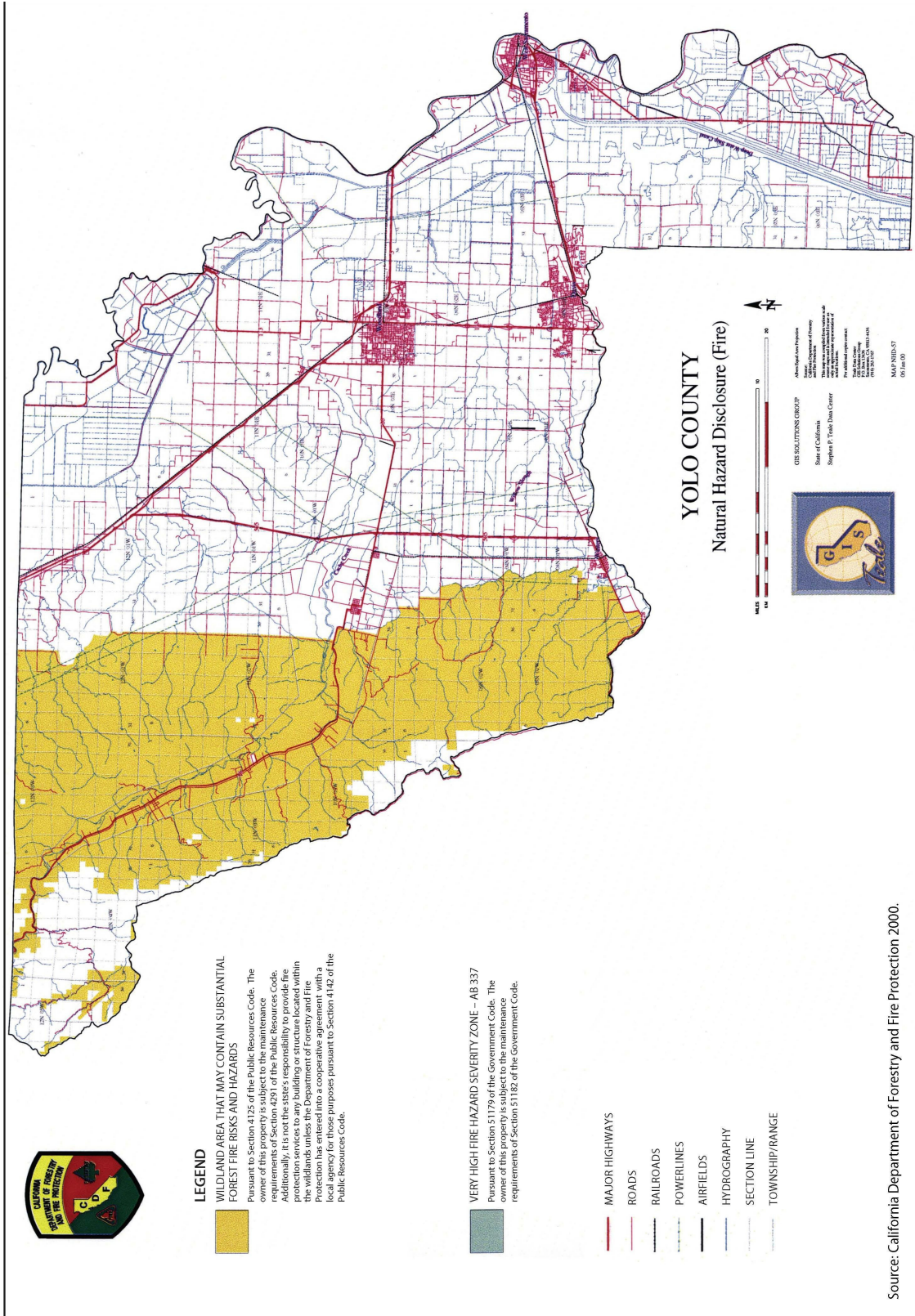
Every fire district in the United States is given a rating by the Insurance Services Office. This rating determines the fire insurance rates of the residences and businesses within that particular agency’s jurisdiction. The ratings range from 10, meaning very limited fire protection, to 1, which is the best fire protection possible. In the Capay Valley Fire District, the entire District has an I.S.O. rating of Rural 8, and was last evaluated approximately 10 years ago. According to Capay Valley Fire Department staff, the construction of the on-site fire station at the casino and the placement of hydrants and other facilities will greatly reduce the current ISO rating.

The Capay Valley Fire District is funded through the General Fund of the County in the post-Proposition 13 and AB 8 financial allocation program.

Among the many services performed by the Fire District are the following: (1) responding to all fires and emergencies; (2) control burns during the permissible burn season of the year; (3) issuance of permits for burns to farmers and monitoring of burn activities when necessary; (4) control burning of brush and stubble in the foothill areas where required and ditches used for irrigation; (5) assistance in rescuing individuals rafting on Cache Creek, including resuscitation from drowning accidents and other mishaps along the Creek; (6) first responder-level medical assistance; (7) advising persons of appropriate safeguards to prevent structures from fire such as the maintenance of clear zones around dwellings or structures where fire may spread; and (8) responding to complaints of possible fire hazards within the confines of the District boundary.

The District operates 365 days a year and has been viewed as one of the main services upon which the Capay Valley relies. The communications system that ties the volunteers together consists of pocket receivers and mutual aid with all other Yolo County Fire Departments. This communications system is augmented by key individuals having pocket receivers that monitor the appropriate channels for fire calls.

Figure SS-6  
Fire Hazard Areas



Source: California Department of Forestry and Fire Protection 2000.

In light of the reduction of revenues from traditional sources of funding for the special districts in the State of California, the fire district has been augmenting its budget through the charging of fees for various services rendered, such as for the cost of firefighters and trucks during control burns. This rental fee is not substantial in that it pays for the cost of the man and the wear and tear of diesel fuel for the truck, and no more. The District has a strong desire to augment and expand its financial resources in light of the studies being conducted by Yolo County.

### **Rumsey Rancheria Fire Department**

The Rumsey Rancheria Fire Department began operations on April 1, 2004. The Department is a full-service career fire department that has jurisdiction over the Rumsey Wintun Tribal Trust Lands. In addition to traditional fire services, the Department also provides emergency medical services at the paramedic level. The Tribal Trust Lands consist of three parcels totaling approximately 257 acres and containing Cache Creek Casino, the Capay Hills Golf Club area, and tribal housing. In addition, the Department has entered into an automatic aid agreement with Esparto and Capay Valley Fire Districts to assist as needed. The Department is governed by a seven-member Fire Commission Board that meets monthly, comprised of five tribal members and two community members.

The Department is staffed with a Fire Chief, an Assistant Chief, and administrative assistant, as well as three rotating firefighting shifts which currently include one battalion chief, one captain (who splits time among all three shifts), one engineer, and two firefighter paramedics. Final staffing will have each shift staffed with one battalion chief, two captains, two engineers, and three firefighter paramedics. Communications are centrally dispatched from the Yolo County Communications Center located in Woodland.

Current equipment includes the following:

- (2) Engine 25 (Type I/II engine for structure fires. Has off-road capability)
- (1) Brush 25 (Type III apparatus for wildland fires. 4 wheel drive capability)
- (3) Command vehicles
- (1) Utility vehicle (Ford F550 with flatbed)

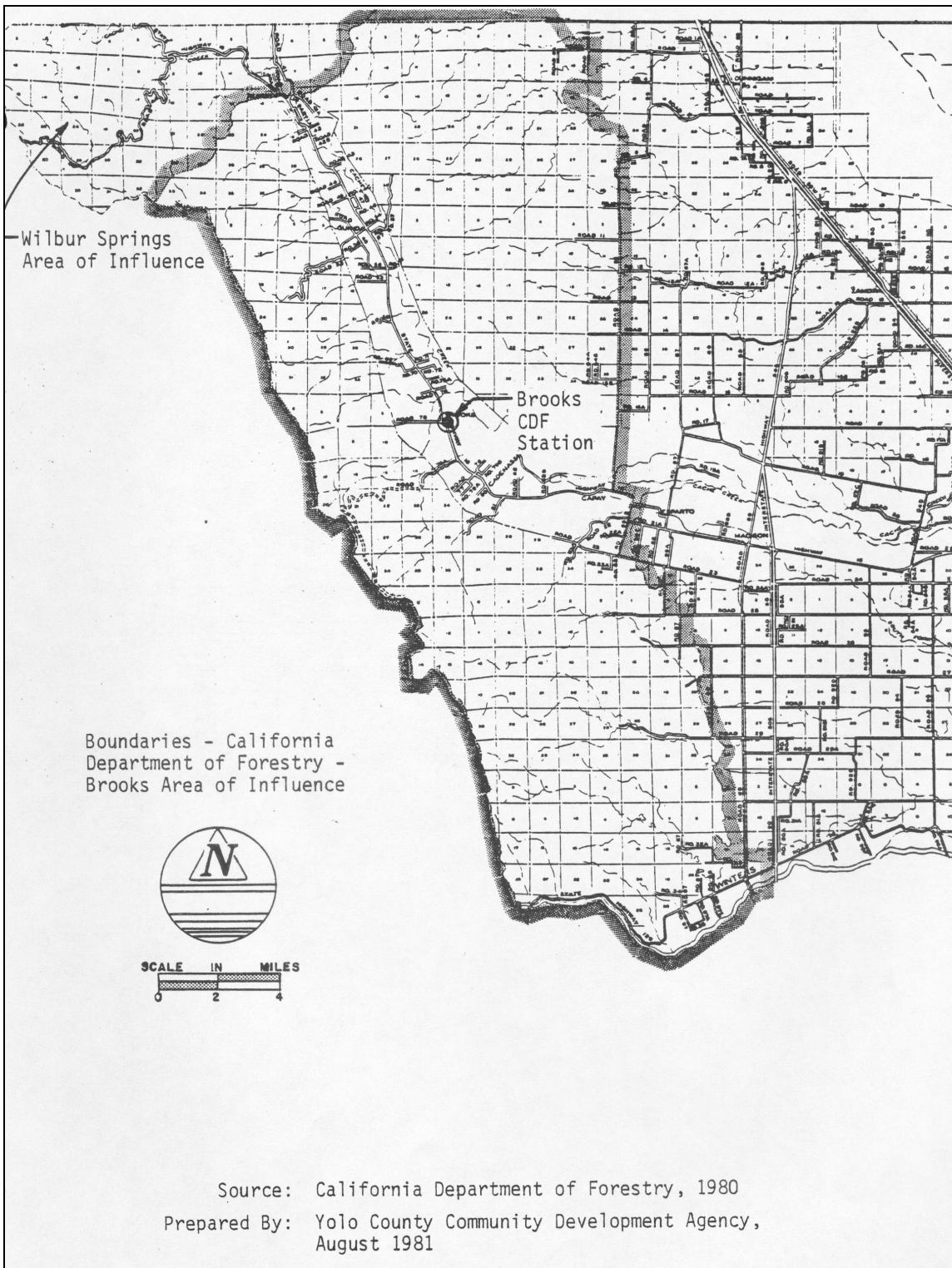
~~In addition, the Rumsey Rancheria Fire Department anticipates obtaining one rescue apparatus for incidents such as vehicle accidents and swift water rescues. This rescue unit, an R-25 apparatus, is anticipated to be in service in August or September of 2005. All pieces of equipment are year 2004 or 2005 models.~~

### **The California Department of Forestry – Brooks Station**

The California Department of Forestry (CDF) maintains a seasonal forest station in the Capay Valley located at Brooks. Figure **SS-7** identifies the location of the Brooks station and the CDF area of jurisdiction.

The primary area of responsibility for the California Department of Forestry is the control of wildland fires. Mutual aid agreements exist between the Capay Valley, Esparto, Madison, Dunnigan, and Winters Volunteer Fire Districts for additional support in those areas. The Department has unlimited resources with regard to manpower and equipment should the size and severity of a fire warrant it. It should be noted that the Wilbur Springs Forestry Station services the northwestern portion of Yolo County. The response time from both these stations to most points within the boundaries is approximately 30 minutes at the most. By air, the time is greatly reduced. Diammonium phosphate spraying airplanes and helicopters can be dispatched and in the area within one hour from the point of departure.

Figure SS-7  
Brooks Station – CDF Area of Influence



The relationship between the Department of Forestry and the Bureau of Land Management is one of cooperation and assistance. Because the Bureau of Land Management oversees over 25,000 acres of land in the Capay Hills, the department has contracted with the Bureau of Land Management to protect the watershed and wildland for that area, not only in the Capay Valley, but statewide.

~~Mining operations that may occur in the Capay Hills create no potential for fire hazard from the perspective of the California Department of Forestry, since CDF has the option to annually review any operation that may be a source of potential fire that would spread to the wildlands.~~

The Department also has a program of control burning in sparsely populated, remote areas similar to the watershed areas in the Capay Valley. ~~One program consists of helitorching areas where 50 to 100 gallons of napalm can be sprayed on a ridge during the winter and burned during the wet season. This program is an experimental one at this stage. Programs also exist whereby Chaparral and underbrush is removed as part of a range management program through the use of caterpillar tractors and large lengths of chain being dragged over areas where the brush could accumulate.~~

The Department also issues burn permits to local residents and farmers in the Valley and report those permits to Fire Control for Yolo County.

Regarding the future of the maintenance of the Brooks Forestry Station, with budget cutbacks at the State level affecting all forms of local services provided through State agencies, the Brooks Station will likely be maintained at the present level of activity, open seasonally from May 1 to November 1 for the fire season. Should further reductions in various branches of the State government occur, the District may be merged with the Wilbur Springs District or the Berryessa District for response.

Historically, the station in Brooks was established in 1948 through an act and sponsorship of the local Assemblyman from the area. Since that time, three major fires have occurred in the hills which have done substantial amounts of damage to both the watershed and property. The largest and most severe fire occurred in the hills which have done substantial amounts of damage to both the watershed and property. The largest and most severe fire occurred in 1964, the Hanley fire, which began in Santa Rosa and burned over 100,000 acres of the hills. In 1979, the area between Lake Berryessa and Winters, over 2,400 acres of watershed burned. The area will continue to be a high source potential combustible fire material, since within the chaparral and woodland habitat of California, the scrub native vegetation provides a high fuel source if not cleared on a regular basis.

## Law Enforcement

Law enforcement in the Capay Valley is provided primarily through the Yolo County Sheriff's Department. Because State Route 16 passes through the area, the California highway patrol also provides limited services to the area.

The current philosophy of the Sheriff's Department is to decentralize the provisions of services in the rural area of the County. The Resident Deputy program was designed to provide a local law enforcement official who would live in his district and work. ~~Two Resident Deputies are assigned to the Esparto-Madison area, one to the Capay Valley area, and one to the Winters area. As the density of population and number of buildings increase, a review of the effectiveness of the resident deputy program may be necessary. With the low density in the rural areas and the existing county policies of protecting agricultural lands, it appears unlikely dramatic increases in either population or buildings would occur in the rural areas.~~

Currently, all calls for services are routed to the central dispatch station in Woodland. From this point, deputies are assigned to respond. Should the population increase in the Valley and town of

Esparto, establishing a sub-station in the town of Esparto may be necessary. In order to justify the staffing of a 24-hour substation, a dramatic increase in population and building activity would be necessary.

In order to plan for future demands on the Sheriffs' Department, the standard of 1.5 officers per 1,000 population is being used. As increases in population occur, this standard will be used in review of development projects.

Among major calls received by the deputies are thefts and burglaries of ranches and farm equipment, the theft of switches on pumps, trespassing, enforcement of speed limit laws, and responding to complaints registered by property owners. During the Almond Festival in February and the Double Century Bicycle Ride, additional deputies are assigned to the area and are usually supplemented by the California Highway Patrol.

### **Health Services**

The Capay Valley has limited medical health services provided through the Esparto Clinic. Health services must be sought in Woodland or Davis for any complicated or extensive medical treatment. Woodland is over 30 minutes from the Valley and requires an ambulance from the Woodland area to drive to the Valley and return. Many people choose to drive the injured or ill into Woodland rather than rely on an ambulance.

The local clinic is named the Esparto Family Practice Center and is run by the Regional Rural Health Program, Inc., a non-profit organization. The clinic's staff includes a full-time physician and full-time family nurse practitioner, as well as additional part-time physicians and nursing staff.

The Regional Rural Health clinic provides home visits, is available 40 hours per week, and on call 24 hours, seven days a week. Patients pay based on their financial ability. The clinic has been of benefit to a few residents who take advantage of the home visits that are provided through the program.

The service does not require residency in Yolo County so that migrant workers can seek immediate medical attention, although the actual number of migrant workers seeking this service has decreased along with the decline in the number of migrant workers employed in the area.

Funding comes from the local, state, and federal level. The amount from each source varies depending on availability of funds. At the present time, the Regional Rural Health Program, Inc. receives about 90 percent of its funds from the Federal government and the remaining 10 percent is supplied through State applications.

The Regional Rural Health Program also offers a Woman Infant Children Program (W.I.C.) that is similar to a service provided by the Yolo County Health Department. The program tries to relieve any nutritional problems or questions that might arise. A family planning clinic is also available for birth control information.

Another provider for the health needs of the Capay Valley is the Yolo County Department of Public Health. The Department works at three levels of prevention: (1) preventing those health problems that are preventable; (2) arresting or terminating those health problems that do exist; and (3) reducing disability resulting from the long-term effects of personal illness. These items are accomplished through direct services and through support of the community and individuals concerned with health practices and the health needs of the people of Yolo County, which includes the Capay Valley.

With the exception of some limited visits by County nurses for follow-ups, general health promotion and counseling, the remaining services are offered only in Woodland. The services offered in Woodland by the County Health Department are quite extensive and include:

- Tuberculosis Skin Testing: pre-school and general.
- Well Baby Clinics: one per month.
- Crippled Children Services.
- Communicable Disease check-ups and treatments.
- Women, Infants, and Children Program; nutritional assistance.
- Alcohol and Drug Abuse, Detoxification, and Counseling
  - a. Residential treatment
  - b. Classes
  - c. Walk-in treatment
- Mental Health Counseling
  - a. Older adult programs
  - b. After care programs

## Community Services and Facilities

### SCHOOLS

~~In 2001-2002, the Esparto Unified School District had a total student enrollment of 916, with 623 in K-8 and 293 in high school. More than 50 percent of the district's students are from Hispanic-Latino backgrounds. About 42 percent of Esparto high school graduates went on to higher education in the year 2001.~~

The Esparto Unified School District has three schools within its 550 square mile jurisdiction. A combined elementary/middle school and the high school are in Esparto. A continuation school is located in Madison. The district also rents a bus yard facility in Esparto, owns land in the town of Guinda, and houses the district office at the high school in Esparto.

Esparto High School currently has approximately 303 students, 15 full and part-time teachers, and one counselor. Esparto High currently exceeds its capacity by 33 students. EUSD's long-range school facility plans include constructing a new high school to accommodate all of the District's current and projected high school students.

Esparto Middle School has approximately 200 students and 10 teachers, and currently exceeds its capacity by 168 students. After the new high school is constructed and Esparto High vacates its current facilities, EUSD plans to move all of the middle school students to the current high school site. As enrollment grows beyond this site's capacity, EUSD will eventually construct an additional middle school.

Esparto Elementary School has approximately 405 students and 22 teachers. In addition to the 405 current students, the facilities and staff at Esparto Elementary can accommodate approximately 120 new students. After Esparto Middle is moved to Esparto High's current facilities, EUSD plans to create a second elementary school at the middle school site. Additionally, projected enrollment growth over the next 25 years is sufficient to justify eventually constructing a third elementary school.

~~The Esparto Unified School District provides education to all children from grades K-12. Two schools are located in Esparto: Esparto Elementary for grades K through 8, and serving~~



~~student in of 2004, and the Esparto High School for grades 9 through 12, serving students. The school district is governed by a five member Board of Trustees and managed by a superintendent who also serves as principal of the High School. All members of the Board of Trustees service for four-year terms and must reside within the 445 square miles served by the District.~~

Busing the students to Esparto from the Capay Valley or Dunnigan Hills areas accommodates approximately 74 percent of the students' needs for transportation for both schools. The six District buses travel approximately 461 miles daily.

Enrollment in the schools fluctuates seasonally during the 175 days of instruction. From May to October each year, the Madison Farm Labor Camp contributes students to the school system. Assistance in teaching these seasonal students comes from the Migrant Education program administered through Butte County as part of a Federal grant program. Also, a certain proportion of funds for are allocated for bilingual education through the Yolo County Office of Education.

~~Regarding class size and the number of teachers, approximately teachers and instructional aides serve in the Elementary School. Class size for both schools is maintained near 30 students per class. For the High School, teachers are assigned. According to the District Superintendent in September of 2004, the Elementary School could handle 125 more students and the High School between to more students on the existing campus facilities. The District recognizes the standard of one teacher and classroom for every 30 students in planning for future facilities.~~

#### LIBRARY

There are no library facilities in the Capay Valley, **although there is a county library nearby in Esparto, just outside the planning area.**

#### CHURCHES

The Guinda Community Church is the only active church with facilities located in the Capay Valley Study Area. There are three churches located in Esparto serving the Capay Valley. The Esparto Baptist Mission is on Madison Street, and the Countryside Community Church, and St. Martin's Catholic Church are both located on Grafton Street.