Woodlake General Plan
Draft Environmental Impact Report

ENVIRONMENTAL SETTING

3.01 Climate

Tulare County has a Mediterranean climate - hot, dry summers and cool, moist winters. Temperatures recorded in Woodlake indicate that the average temperature in July is 81 degrees Fahrenheit and in January, 45 degrees Fahrenheit. It is not uncommon for maximum temperatures in the summer months to exceed 100 degrees F and drop below 32 degrees F in the winter months. The prevailing winds are from the northwest, usually less than 10 miles per hour.

A unique phenomenon to the San Joaquin Valley is "tule fog". This low lying ground fog is prevalent throughout the Valley during the months of November through February.

Approximately 90 percent of the county's rainfall occurs between the months of November and April. The average annual rainfall for the Woodlake area is approximately 10 to 11 inches.

3.02 Topography

The planning area is situated on relatively level terrain that slopes slightly from northeast to southwest. Elevations in the planning area from 800 to 420 feet above mean sea level. Major topographic features in the planning area include Antelope Mountain, located at the northeast corner of the planning area; St. Johns River, which forms the southern boundary of the planning area; Bravo Lake, a 350-acre lake that is used to store water for irrigation; Antelope Creek; Wutchumna Ditch; and the Friant Kern Canal (see Exhibit No. 5).

3.03 Soils

There are many soils that exist in the planning area ranging from Porterville clay to San Joaquin loam to Tujunga sand (see Exhibit No. 6). A list of the soil types that exist in the planning area and their physical characteristics are provided in Table No. 3 .

All of the soils in the planning area have a class III agricultural capability. The Department of Conservation classifies most of the farmland in the Woodlake planning

area as "prime" or "unique" farmland. Almost all the farmland within the planning area is irrigated, using either ground or surface water or a combination of both. Crops grown on these soils include olives, citrus, deciduous tree fruit and some grazing land.

Development on some of the planning area's soils is difficult. For example, building or road construction on Porterville or Seville clays is difficult because of their shrink-swell characteristics while drainage on some soils is poor because of underlying hardpan.

Table No. 3
Development Constraints for Woodlake Soils

	dwellings	roads	drainage	playgrounds
Exeter loam	moderate	severe	hardpan	moderate
Porterville clay, 0-2 percent	severe	severe	slow percs	severe
Porterville clay, 2 -9 percent	severe	severe	slow percs	severe
San Emigdio loam	slight	moderate	favorable	moderate
San Joaquin loam, 0-2 percent	severe	severe	hardpan	moderate
San Joaquin loam, 2-9 percent	severe	severe	hardpan	moderate
Seville clay	severe	severe	hardpan	severe
Tujunga sand	slight	slight	good	severe

3.04 Hydrology

There are three surface water systems in the Woodlake area - St. Johns River, Antelope Creek and the Bravo Lake/Wutchumna Ditch system. These surface water systems insure that the water table underlying Woodlake is relatively shallow compared to other parts of Tulare County. In 2000, the water table depth in Woodlake ranged from 30 to 50 feet while Tulare and Visalia had water table depths that were 60 to 90 feet.

Woodlake's five domestic wells draw water from depths that range from 210 feet to 250 feet. These well are located near the St. Johns River, which forms the southern boundary of Woodlake. Any water quality problems associated with these domestic wells is usually associated with nitrate pollution. To date, all five wells meet the Safe Drinking Water Standards established by the State Health Department.

3.05 Flooding

According to FEMA's (Federal Emergency Management Agency) Flood Insurance Rate Maps for the Woodlake area, there are areas within the planning area that are within the 100-year floodplain (see Exhibit No. 7). The major floodplains in the Woodlake area

parallel the St. Johns River, Antelope Creek and the Antelope Creek overflow channels. Construction can occur within the flood prone areas along Antelope Creek and its secondary channels subject to raising the floor elevation of the buildings above a established flood elevation contour line, detailed on the FEMA maps.

3.06 Agricultural Preserves

There are properties both inside and outside of the planning area that are in an agricultural preserve, under a Williamson Act contract (see Exhibit No. 8). There are not any agricultural preserves within the Woodlake city limits. These contracts insure that property will remain in agricultural production for at least 10 years. If an agricultural preserve was protested by the City of Woodlake when it was placed under contract by the County of Tulare, the land that is under contract can be removed from a preserve upon annexation into the City of Woodlake. The dissolution of an agricultural preserve occurs from time to time when property is being annexed into Woodlake.

3.07 Biotic Resources

An inquiry of the California Natural Diversity Database (CNDDB) in 1996, indicated that special-status plants and animals did exist within the Woodlake U.S.G.S. 7.5 minute quad sheet but not necessarily within the Woodlake planning area. Three biotic surveys have been conducted within the planning area since 1996, two by Live Oak and Associates and one by Kirkpatrick and Associates.

In 2003, Live Oak Associates, Inc. conducted a biological resources evaluation on the Woodlake Airport, containing approximately 80 acres. Live Oak focused on the riparian woodland plant community located along the St. Johns River and six very small vernal pools situated just north of the River. The findings of this report are attached to this draft EIR as Appendix A .

Live Oak Associates conducted a biotic survey on Woodlake's wastewater treatment plant site (30 acres) and surrounding properties containing approximately 160 acres in 2004. The Survey concluded that no special status species existed on the 160 acres of land surrounding the treatment plant but that there was possible habitat for burrowing owl on the 30-acre wastewater treatment plant site. Prior to construction, grading or other types of site modification on the treatment plant site, a pre-construction survey for burrowing owls will be required as a condition of approval.

Live Oak Associates also surveyed land east of the 30-acre wastewater treatment plant site, called the reclamation area and owned and managed by its current owners, Sentinel Butte Water Company. The Survey found that other special status species

could exist within the reclamation area, including Greene's tuctoria and Hoover's spurge, California tiger salamander, western spadefoot toads, Valley elderberry longhorn beetle, and San Joaquin kit fox. Any development on this site will require a pre-construction survey as a condition of approval.

Kirkpatrick and Associates conducted a biological survey on 4.64 acres at the southwest corner of Sierra and Castle Rock Avenues (Parcel 1), and a parcel of approximately 4.14 acres east of Pomegranate Street and south of Willow Court Park (Parcel 2) in 1996. This report is attached to this draft EIR as Appendix B .

The review evaluated the potential presence of any rare, threatened, or endangered species or habitats within this general area and consists of a review of the California Natural Diversity Database (a computerized inventory available through the California Department of Fish and Game, Natural Heritage Division) and a field survey of the project site. A preliminary wetland evaluation of the property was also performed to assess the need for a full wetland delineation or consultation with the U.S. Army, Corps of Engineers.

On 2 February 1996, the Natural Diversity Database (NDDB) was consulted for a report of occurrences of any rare, threatened, endangered, or sensitive plants, animals or natural communities within the Woodlake quadrangle. A walking field survey of the project site was performed by Gregory and Karen Kirkpatrick on February 4, 1996.

Kirkpatrick and Associates concluded that the presence of facultative and obligate wetland plants on significant portions of the subject properties indicates that jurisdictional wetlands subject to Section 404 permits from the U.S Army Corps of Engineers. Parcel 1 appears to contain between 2.5 and 3.5 acres of wetland and Parcel 2 may contain up to 1.0 acres of wetland. A wetland delineation according to the 1987 Corps of Engineers Wetlands Delineation Manual would be required to determine the exact extent of jurisdictional wetlands.

The Corps of Engineers has issued a nationwide general permit (Nationwide Permit 26) which authorizes discharges of dredged and filled material into headwaters and isolated waters where the discharge does not cause a loss of more than 10 acres of "waters of the United States". Notification of the District Engineer is required if the project would cause the loss of more than one acre of waters of the United States. Since the project appears to impact between 2.5 to 4.5 acres of jurisdictional wetlands, the Corps should be notified and it is likely that a wetland delineation would be required before a Section 404 permit could be issued for this project.

Though no rare, threatened, or endangered species were observed on the project sites, the presence of suitable habitat for San Joaquin kit fox warrants consideration. A pre-

construction survey for the species is recommended due to the project site's proximity to the nearby foothills and orchard properties. This survey would consist of daytime walking transects to determine presence or absence of potential dens.

3.08 Cultural and Historical Resources

Dr. James Kus conducted a cultural and historical resources survey on May 22 and May 23, 2004, on the city's 30-acre wastewater treatment plant and 86 acres of olives adjacent to the treatment plant. The Consultant noted that the sites had been extensively modified and that no archaeological or historic resources were noted within the areas surveyed.

A Cultural Resources Records Search carried out by the Southern San Joaquin Valley Archaeological Information Center did report four known archaeological resources within the planning area. These sites were located on the St. Johns River and near Antelope Hill, where the city has its water tank.

As a condition of approval, the Consultant has recommended that if cultural materials are unearthed during the course of any construction work associated with this project, then that work must be halted in the vicinity of the find until a qualified archaeologist can assess its significance. Most importantly, if human remains are unearthed during construction, State Health and Safety Code Section 7050.5 demands that no further disturbance shall occur until the Tulare County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code section 5097.98. If such remains are Native American, the Corner must notify the Native American Heritage Commission (NAHC) within 24 hours; the most likely descendants then have 24 hours to recommend proper treatment or disposition of the remains, following NAHC guidelines.

3.09 Geological Hazards

In 1973, five counties in the southern San Joaquin Valley jointly completed the Five County Seismic Safety Element. Tulare County was one of the five counties. The Element identified existing seismic and geologic hazards within the County.

Seismic hazards, such as earthquakes, can cause loss of human life and property damage, disrupt the local economy, and undermine the fiscal condition of a community. Secondary seismic hazards, including subsidence and liquefaction, can cause building and infrastructure damage.

The Five County Seismic Safety Element, adopted by the County of Tulare in 1974, indicates that the planning area is in the V1 Seismic Zone. This zone has a relatively thin

layer of sedimentary rock overlaying a granitic basement. The potential for ground shaking in this zone is "high" but due to the underlying geology and the distance from active faults, the potential for loss of life or property damage is "minimal".

The nearest active faults are the San Andreas, 65 miles west; the Owens Valley, 75 miles east; and the White Wolf; 75 miles south. Recent earthquakes have occurred along all three faults. On May 2, 1983, an earthquake measuring 6.7 on the Richter Scale occurred along the San Andreas Fault. This earthquake caused extensive damage in Coalinga, just 55 miles to the east; minimal damage was recorded in the project area.

The project area is situated in a region where strong ground shaking can occur. However, the effects of this ground shaking will only have a minimal impact on buildings and infrastructure within the project area, according to the Five County Seismic Safety Element and recent experiences with the 1983 Coalinga earthquake. Construction of new and renovation of existing buildings are required to conform to the Uniform Building Code (1997 Edition), Earthquake Regulations - Zone 3.

Construction in the planning area will be performed consistent with the 1997 Uniform Building Code, Chapter 16: Structural Forces, Division IV, Earthquake Design. These building code regulations and standards will insure that potential seismic and geologic hazards are reduced to an insignificant level.

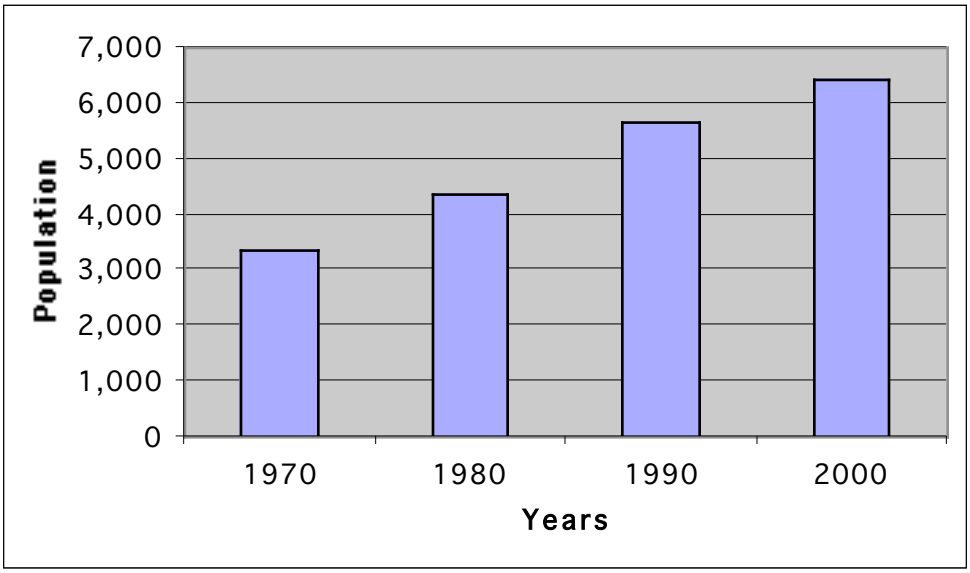
3.10 Socioeconomic Conditions

Population

Woodlake's 2000 population was 6,651 (U.S. Census), up from the 1990 census figure of 5,678. The State Department of Finance, which provides population projections for cities and counties in California, estimated Woodlake's population to be 7,524 on January 1, 2008.

Between 1980 and 1990, Woodlake's average annual growth rate was approximately 3.0 percent, from 1990 and 2000, 1.7 percent, and from 2000 and 2007, Woodlake grew at an average annual rate of 1.86 percent.

Figure No. 1
Population Trends
1970 - 2000



Age

The median age of residents in Woodlake is 25.3 years. The greatest percentage of the city's population in selected 10-year age groups are those that occupy the 0-9 years age category. This age category represents 20.9 percent of the city's population. The next largest age groups are the 10-19 years age category, representing 20.7 percent of the population, and the 25-34 years category, representing 14.3 percent of the population.

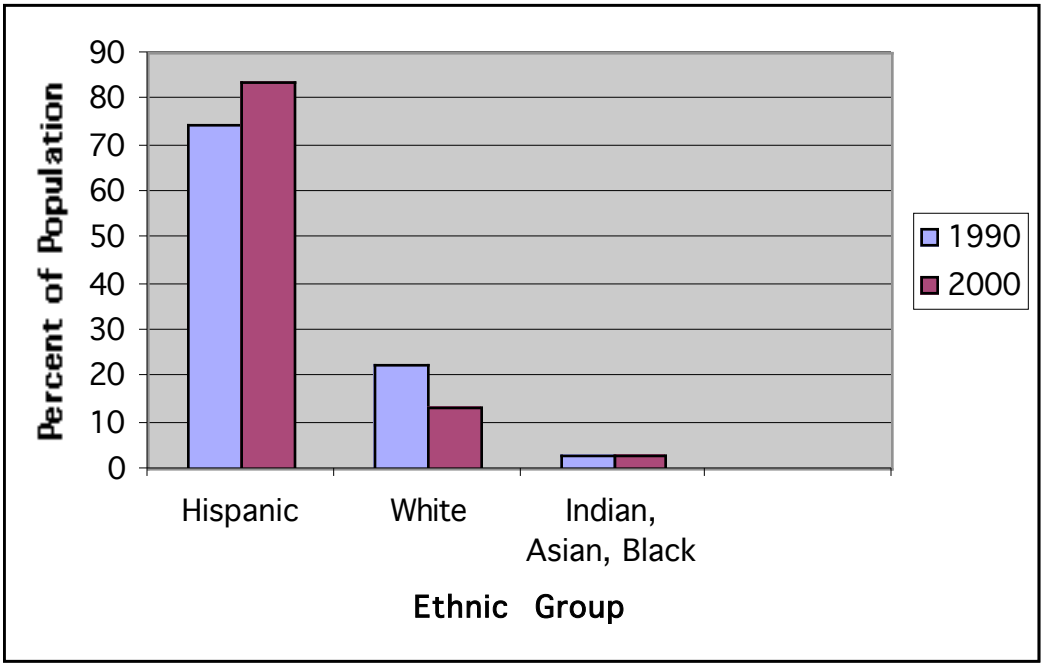
The above age data can be used to forecast certain trends in the community - 1) that the city's schools could be impacted by incoming school-aged children, especially at the lower grades and 2) that there exists a large population of persons in the labor force who are younger, ages 25 to 34 who could could endure strenuous labor in the fields. Many persons in this age category are most likely young, male fieldworkers, which might explain why 51.5 percent of the population is male and 48.5 percent is female.

Ethnicity

Woodlake's ethnic composition in 2000 was 83.8 percent Hispanic, 13.4 percent White,

and 2.8 percent Other (American Indian, Asian, and Black). The Hispanic population has steadily risen since 1980 when it was 65 percent of the population.

Figure No. 2
Ethnicity



Housing

Woodlake's median home value was $81,800 in 2000, up from $56,700 in 1990. This value is well below county and state values of $97,800 and $211,500, respectively. Woodlake's median home value is one of the lowest among Tulare County's eight cities.

In Woodlake, in the median mortgage rate was $722; twenty-six percent of these households did not have a mortgage. In Tulare County the median mortgage rate was $943 and 24 percent of these households did not have a mortgage payment. In California, the median mortgage statewide jumps to $1,478 with only 21 percent of the households not paying a mortgage.

The median gross rent in Woodlake in 2000 was $375. Tulare County's median gross rent was $516 and the state was $747. Rents in Woodlake are very low for two reasons:

(1) there is a significant number of subsidized housing units in Woodlake and (2) household incomes in Woodlake are low and can not support high rents.

Income

Woodlake's median household income in 2000 was inordinately low - $23,653 annually. It was $17,839 in 1990. This compares to $33,983 for the County of Tulare and $ 47,493 for the State.

Employment

In 1990, agriculture was the dominant employer in Woodlake, employing 39 percent of Woodlake's labor force. By 2000, this figure had dropped to 23 percent; the Tulare County figure was 15.2 percent. Other sectors such as wholesale and retail trade and educational, health and social services has increased. Some employment sectors have remained relatively unchanged, including construction, manufacturing and public administration.

Woodlake's diversification from agriculture has been a positive trend in that traditionally agricultural employment is seasonal and low-paying. The five major employers in Woodlake in 2000 were Woodlake School District, Golden State Packers, Dryvit, City of Woodlake, and Fruit Growers Supply. In 2003, Copeland Lumber closed its Woodlake yard but reopened in 2005 as High Sierra Lumber. It currently employes approximately 15 persons. Monrovia Nursery, located six miles southwest of Woodlake, employes over 500 persons. This employment figure has been increasing annually as they develop more of their ground for nursery stock. Three other notable local employers that have experienced increases in their workforce include U.S. Tower (manufactures towers for military and telecommunication companies), Bradford Steel (metal fabrication company), and Pacific Distributing (sales and service of wind machines).

Figure No. 3
2000 Woodlake Employment by Industry

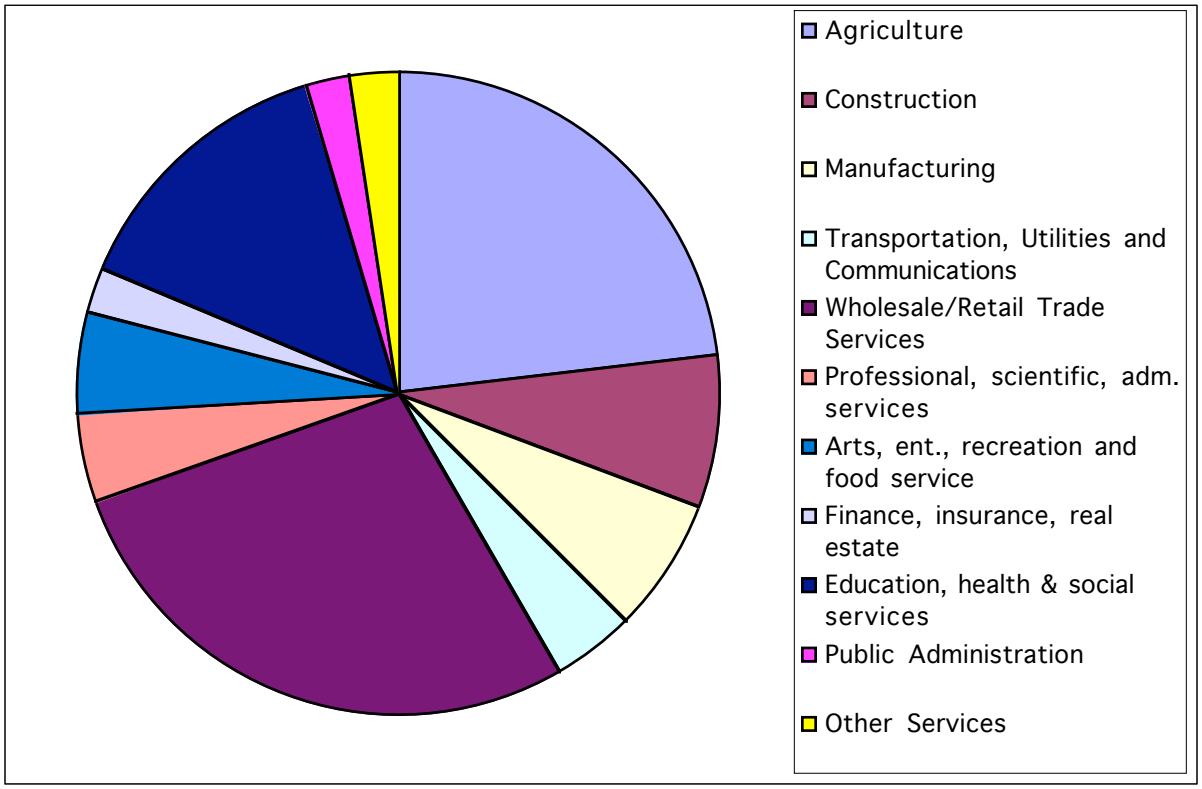


Figure No. 3 shows the distribution of persons, 16 years and older, employed by each industrial sector in 2000. Note that agriculture employs a significant portion of the City's workforce but it has fallen off since 1990 when almost 40 percent of the workforce was employed in agriculture. Conversely, the wholesale/retail trade sectors have jumped from 16 percent of the workforce to 28 percent.

Table No. 4
Woodlake Employment by Industry*

Industry	1980	% of total	1990	% of total	2000	%
Agriculture	577	36.5	765	38.7	474	23.1
Construction	103	6.5	147	7.4	156	7.6
Manufacturing	172	10.9	190	9.6	138	6.7
Transportation, Utilities and Communications	50	3.1	69	3.6	86	4.2
Wholesale/Retail Trade	298	18.9	325	16.4	570	27.8
Services: Business, repair, personal, recreational, and entertainment	128	8.1	123	1.1		
Professional, scientific, adm. and waste man. services					89	4.3
Professional & related services	216	13.7	317	16.0		
Arts, ent., recreation and food service					110	5.4
Finance, insurance, real estate					46	2.2
Education, health & social Services					283	13.8
Public Administration	35	2.2	39	1.9	46	2.2
Other Services					53	2.6
Total Employed	1,579	100%	1,975	100%	2051	100%

Source: U.S. Bureau of Census, 1980. 1990, and 2000

Retail Sales

Taxable sales are an indicator of a city's economic vitality. A common means of measuring this indicator is the per capita taxable sales figure. This is the amount of taxable sales generated by a city divided by the city's population. A city with a high per capita taxable sales figure generally reflects a community with numerous retail and/or durable goods commercial establishments or citizens with higher purchasing power. Table 6 shows per capita taxable sales for Woodlake and other cities in Tulare County in 2001. The table also shows that Woodlake's per capita taxable sales figure is the lowest of Tulare County's eight cities, an indicator that Woodlake has a serious fiscal condition, particularly given the fact that most cities are increasingly reliant on sales tax revenues as a major portion of the city's general fund.

Table No. 5
Per Capita Taxable Sales, 2001

City	Population	Taxable Transactions	Per Capita Sales Tax
Dinuba	17,503	119,228,000	$6811.00 per person
Exeter	9,456	50,831,000	$ 5376.00
F'ville	9,022	26,336,000	$ 2919.00
Lindsay	10,384	33,066,000	$ 3184.00
P'Ville	41,009	379,114,000	$ 9245.00
Tulare	45,295	453,401,000	$ 10,010.00
Visalia	95,812	1,438,582,000	$ 15,015.00
Woodlake	6,843	16,749,000	$ 2,448.00

Source: California State Board of Equalization, 2002