4.13 POPULATION, HOUSING, AND EMPLOYMENT

1. Environmental Issues

The Population, Housing and Employment section addresses the relationship of the project to City's population, employment and housing projections and goals, and thus the potential effects of the project on the local economy.

2. Existing Setting

Population

The City of Merced currently has approximately 59,800 residents. There are approximately 62,500 residents within the Merced Sphere of Influence. The City has been experiencing a steady growth rate of 4 to 5 percent per year for the last 20 years. The City is expected to double in population by the year 2005.

Table 4.13-1, below, depicts the projected population growth of the City. Two different population growth forecasts have been made. The first assumes reuse of Castle Air Force Base starting in 1995 and a total civilian employment for the base of 5,000 by the year 2000. The base which is scheduled for closure currently employs approximately 8,500 people. This is the scenario adopted by the Merced County Association of Governments (MCAG). The second forecast assumes both base reuse and the location of a new University of California Campus in the Merced area by the year 2000. Projected population growth for the County, the SUDP, the expanded Planning Area, and the City's Sphere of Influence through the year 2010 is shown in Table 4.13-1 based on the adopted scenario. Information on growth under the second scenario, for the City's Sphere of Influence, is also provided in Table 4.13-1 for comparison purposes.

Table 4.13-1
POPULATION PROJECTIONS FOR MERCED

	COUNTY WITH REUSE OF CASTLE AIR FORCE BASE /2/	SUDP AREA WITH REUSE OF CASTLE AIR FORCE BASE /1/	PLANNING AREA WITH REUSE OF CASTLE AIR FORCE BASE /1/	SPHERE OF INFLUENCE WITH REUSE OF CASTLE AIR FORCE BASE /2/	SPHERE OF INFLUENCE WITH A U.C. CAMPUS AND AIR FORCE BASE /2/
1990 /3/	178,403	66,419	70,855	56,216	56,216
1995	200,370	76,797	81,927	76,797	76,797
2000	261,654	95,604	101,990	95,604	99,474
2005	306,028	114,765	122,431	114,765	122,893
2010	362,078	137,590	146,781	137,590	149,831
Total Increase 1990-2010	183,675	71,171	75,926	81,374	93,615
Percent Increase 1990 - 2010	103%	107%	107%	148%	167%

/1/ City of Merced.
/2/ Merced County Association of Governments
/3/ Population within city limit from 1990 Census is 56,216; Population within city limit from Department of Finance, January 1991 is 57,645; Population within city limit from Department of Finance, May 1993 is 59,800.

As shown in the Table, population growth for the City is anticipated to significantly outpace growth in the County as a whole. In 1990, the population within the Merced Sphere of Influence represented approximately 32 percent of the County's total population. The share of County population captured within the Merced Sphere of Influence is anticipated to increase to 44 percent by the year 2010.

Employment

The traditional economic base for the City of Merced and surrounding areas (Merced County) consists of governmental, agricultural, retail, services, and manufacturing jobs. The largest employer in the Merced area since 1983 and currently has been the government. Governmental employers include local school districts, the County of Merced, City of Merced, and Castle Air Force Base.

The majority of non-governmental jobs includes retail and related services, manufacturing, and agriculture. The agricultural industry was the largest employer in the Merced area until 1983, when the number of governmental jobs exceeded the number of agricultural related jobs.

Table 4.13-2 summarizes the employment forecasts for the Merced area by sector. As shown in the Table, manufacturing, retail, and service jobs are anticipated to represent an increasingly larger share of the County's jobs, significantly exceeding agricultural employment, which is anticipated to remain constant, by 2010. By 2010 retail and service sector employment is also projected to exceed government sector employment. To support this expansion, a significant increase in the square footage of retail and service related facilities will be required.

Table 4.13-2
EMPLOYMENT FORECAST FOR MERCED COUNTY

INDUSTRY	1990	% WAGE & SALARY /1/	1995	2000	2005	2010	% WAGE & SALARY /1/
Agriculture	11,700	15.63	11,700	11,700	11,700	11,700	7.84
Mining	13	.01	13	13	13	13	.00
Construction	2,260	3.02	3,285	3,905	4,706	5,658	3.79
Manufacturing	9,675	12.93	11,352	13,367	16,098	19,524	13.08
Transportation and Public Utilities	1,775	2.37	2,688	3,402	4,272	5,340	3.58
Wholesale Trade	2,100	2.81	2,820	3,352	4,074	4,980	3.34
Retail Trade	8,725	11.66	12,205	15,362	19,277	24,096	16.15
Finance, Insurance & Real Estate	2,125	2.88	2,446	3,006	3,639	4,383	2.94
Services	7,050	9.42	11,084	13,772	17,264	21,580	14.46
Federal Government	1,325	1.77	1,035	1,186	1,391	1,621	1.09
State & Local Government	10,275	13.73	11,661	14,301	16,940	20,475	13.72
Military (Castle AFB)	5,349	7.15	0	0	0	0	0.00
Castle Replacement	0	0	500	3,000	4,000	5,000	3.35
Potential U.C. Campus Jobs	0		0	625	1,875	3,124	0.00
Total Wage & Salary Employment Without U.C.	62,372	83.33	70789	86,366	103,374	124,370	83.33
Out-Commuters (11% Wage & Salary) Without U.C	6,861	9.17	7,787	9,500	11,371	13,681	9.17
Self-Employed (9% Wage & Salary)	5,613	7.50	6,371	7,773	9,304	11,193	7.50

INDUSTRY	1990	% WAGE & SALARY /1/	1995	2000	2005	2010	% WAGE & SALARY /1/
TOTAL EMPLOYMENT WITHOUT UC	74,846	100	84,947	103,639	124,049	149,244	100
Total Wage & Salary Employment With U.C.	62,372		70,789	87,569	106,982	130,386	
Out-Commuters (11% Wage & Salary) With U.C	6,861		7,787	9,633	11,768	14,343	
Self -Employed (9% Wage & Salary)	5,613		6,371	7,881	9,628	11,735	
TOTAL EMPLOYMENT WITH U.C.	74,846		84,947	105,083	128,379	156,464	

/1/ Without U.C.

Based on projected employment growth, and the average number of employees per acre of retail, office, and industrial development, the City has projected the number of acres of each type of land use needed to provide the projected employment. Table 4.13.-3 shows projected employment development need for the Planning Area and for the portion of the Planning Area located north of Bear Creek.

Table 4.13-3
PROJECTED ACRES OF ADDITIONAL DEVELOPMENT NEEDED TO SUPPORT ANTICIPATED EMPLOYMENT GROWTH

DEVELOPMENT TYPE	BY 2000		2000-2005		2005-2010	
	PLANNING AREA	NORTH OF BEAR CREEK	PLANNING AREA	NORTH OF BEAR CREEK	PLANNING AREA	NORTH OF BEAR CREEK
Retail /1/	324	162	188	113	157	94
Office /2/	260	130	140	84	172	103
Industrial /3/	214	107	113	68	140	84

Source: City of Merced

/1/ Based on 8 employees per acre.
/2/ Based on 18.8 employees per acre.
/3/ Based on 11.2 employees per acre.

A key problem in the Merced area, which is partially the result of the seasonal nature of agricultural employment, is the unemployment rate in the County. As of November, 1992, the County EDD reported an unemployment rate of 19.0% for the County area. This compares with a statewide unemployment figure of 9.5%. Unemployment in the County has historically run above the statewide figure.

Housing

The number of housing units in Merced increased 28 percent in the 1980's to a total of 18,848 units in 1990. City-wide, the largest increase was in the number of renter-occupied units. From 1980 to 1990, the number of renter-occupied units grew from 6,623 to 9,877, a 49 percent increase. Owner-occupied units increased 22 percent.

By area, the largest increase in the number of units was in North Merced, where more than 3,000 new units were added (a 57 percent increase). The smallest increase was in Central Merced (300 unit increase) while in South Merced the number of units increased 29 percent (630 units) to a total of 3,700 units.

Growth in Merced, like many other communities, has not been evenly distributed in the City. Most of the growth in the last decade (approximately 65 percent) has occurred in North Merced. North Merced also has a higher number of white residents and a low number of Mexican-Americans and black residents. More than two-thirds of the racial and ethnic minorities live in South Merced. Just as North Merced can be distinguished from South Merced on the basis of racial composition, the two areas can also be distinguished on an

economic level. North Merced is significantly above the City's median income level, while the median income level of households in South Merced is relatively low.

One of the most interesting trends during the 1980s was the dramatic decrease in the vacancy rate citywide (9 percent in 1980 to 4 percent in 1990). This trend was particularly significant in South Merced where the vacancy rate dropped from 9 percent in 1980 to 2 percent in 1990.

San Joaquin, Stanislaus and Merced counties are expected to generate a new housing demand averaging 8,300 units annually during the 1990's. This, combined with the projected commuter demand of 5,600 units annually, will exert an extremely strong future housing demand throughout the three-county area.

Merced County has been increasingly influenced by changes that have been taking place in both the Modesto and Fresno areas. Modesto has become a popular commuter target for individuals seeking more affordable housing outside of the Bay Area. Although Merced's housing market remains outside of the influence of Bay Area demands, it has become a target housing area for Central Valley natives. As Fresno continues to expand and become an urban center for the Central Valley region, Merced's economy and housing market will be increasingly linked and influenced at a regional level.

According to the projections of MCAG, there will be a total need for approximately 8,500 new dwelling units in the City of Merced's SUDP between 1990 and 1997. Approximately 5,400 units will be needed to house low and moderate income households. The breakdown of units needed is given in Table 4.13-4. However, projections made since the closure of Castle Air Force Base was announced are significantly lower, indicating that approximately 3,250 new units will be needed by 1997, with approximately 2,000 of these households falling in the lower and moderate income categories.

Table 4.13-4
ANTICIPATED NEED FOR NEW UNITS, 1990-1997
CITY OF MERCED

BASED ON MCAG PROJECTIONS	VERY LOW INCOME	LOW INCOME	MODERATE INCOME	ABOVE MODERATE	TOTAL NEED
Number	2,038	1,614	1,784	3,058	8,494
Percentage	24%	19%	21%	36%	100%
BASED ON BASE CLOSURE PROJECTIONS					
Number	784	621	686	1,176	3,267
Percentage	24%	19%	21%	36%	100%

Source: Revised Draft City of Merced Housing Element 1992-1997. Pages 42-43.

In addition, the City has produced forecasts of dwelling unit growth for the Planning Area and the portion of the Planning Area north of Bear Creek. These forecasts are detailed in Table 4.13-5.

Table 4.13-5
FORECAST OF NEEDED DWELLING UNIT GROWTH

	PLANNING AREA		AREA NORTH OF BEAR CREEK	
	Dwelling Units	Increase	Dwelling Units	Increase
1990	23,618		10,982	
1995	27,309	3,691	12,791	1,809
2000	33,997	6,688	14,450	1,659
2005	40,810	6,813	18,538	4,088
2010	48,927	8,117	23,408	4,870

Source: City of Merced

General Plan Goals and Policies

The City's General Plan contains the following "urban expansion" related goals and policies.

- *The City should strive to achieve as compact an urban form as possible while designating areas for new urban development which reflect the physical characteristics and environmental constraints of the planning area.*

- *To preserve agriculturally significant areas, the City must try to accommodate urban development pressures on non-prime soils.*

- *The City should strive to achieve a highly efficient form of urban expansion. The City should control the timing, density and location of new land uses through the following policies:*

  a. *The City should attempt to annex unincorporated urban areas within the urban expansion boundaries which cause a duplication of public services and hinder the extension of city services to new development.*

  b. *The City should require that all new development be contiguous to existing urban areas and have reasonable access to public services and facilities.*

  c. *The City should adequately plan for public improvements/services to support the designated land uses for all areas as they become suited for new development. The city should also create the means to swiftly evaluate the cost of providing various services to new development and establish a clear policy for meeting the costs of new development.*

  d. *The planning for land uses in newly developing areas should reflect a mixture of land uses which will support a neighborhood, including a variety of residential densities and price ranges, as well as neighborhood and convenience shopping facilities, schools, parks, and other uses necessary at the neighborhood level.*

  e. *Plans for new development should stress energy efficiency through both the land uses designated and the distribution of these uses.*

The General Plan includes the following applicable commercial policies:

- *The City should continue to show a commitment to the economic growth of the City through provision for all categories of commercial development in the City.*

- *Future commercial development in the City should first use the City's existing major commercial locations, the Westgate area, and the Merced Mall area. No new community or regional commercial centers should be designated or zoned without proof of the economic necessity for such facilities and clear demonstration that such facilities would not create unreasonable economic impacts on the existing economic environment of the City. The burden of proof in such cases should be the applicant.*

- *Neighborhood commercial centers should be provided for in proportion to residential expansion in the City. Such facilities should be adequately spaced throughout the City to ensure that they retain their function of providing personal goods and services to the immediate neighborhood, and do not become "strip commercial" areas or community centers because of being located too closely together.*

- *A major emphasis in commercial land use decisions by the City during the next planning period should be directed toward the enhancement and improvement of existing commercial facilities, and the efficient development of existing commercially zoned areas in the City.*

The General Plan includes the following housing related goals and policies:

- *Promote adequate housing for low income families, senior citizens, and other groups.*

- *Encourage a variety of housing types, densities, and price ranges, to include low and moderate income units, while preserving the character of individual neighborhoods. To encourage this, the City will continue efforts which enable developers to include low and moderate income housing units in their development proposals.*

- *Encourage the conservation and rehabilitation of the housing stock in the city through a balanced program of code enforcement and complementary programs designed to assist property improvement by neighborhood residents.*

- *Recognize the importance of innovative housing construction techniques and support the development of mobile home parks, modular homes, and condominium developments in suitable locations subject to the appropriate review considerations.*

- *Encourage a variety of low income housing in the community and should, where feasible, be located in small projects evenly distributed throughout the community.*

- *Consider rental units to be an integral part of the low and moderate income housing needs, and approval of higher density complexes should consider adequate design for families with children.*

- *Provide decent housing in a satisfactory environment for all persons, regardless of age, race, sex, marital status, ethnic background, income or other arbitrary factors.*

Housing Element Goals include:

- *Increase the stock of affordable housing for very low, low and moderate income households.*
- *Encourage a mix of housing throughout the city to meet the needs of different income groups.*
- *Encourage the construction of housing and facilities to meet special needs, including farm workers, homeless, large families, seniors, and people with physical or mental disabilities.*
- *Increase home ownership opportunities for low and moderate income groups.*
- *Provide financial assistance as needed to very low and low income renter households.*
- *Coordinate innovative housing efforts with private and nonprofit developers as well as other jurisdictions and city departments.*
- *Ensure that the City of Merced provides its fair-share of affordable housing.*

The Housing Element contains the following Quantified Objectives regarding the number of units by income category expected to be constructed, rehabilitated, or conserved during the 1992-1997 time period:

Table 4.13-6
QUANTIFIED HOUSING OBJECTIVES
1992-1997
(Number/Percent)

INCOME CATEGORY	NEW CONSTRUCTION	REHABILITATION	CONSERVATION	TOTAL
Very Low Income	160 (4.33%)	125 (45.45%)	525 (64.81%)	810 (16.93%)
Low Income	245 (6.63%)	100 (36.36%)	235 (29.01%)	580 (12.13%)
Moderate Income	235 (6.35%)	50 (18.18%)	50 (06.17%)	335 (07.00%)
Above Moderate Income	3,058 (82.69%)	0 (00.00%)	0 (00.00%)	3,058 (63.93%)
TOTAL	3,698 (100%)	275 (100%)	810 (100%)	4,783 (100%)

Source: City of Merced Draft Housing Element, p. 110

3. Project Impacts

Standards of Significance

Population, housing and employment impacts are considered to be significant if the proposed projections:

- do not provide consistency with City-wide and local area population projects,
- are inconsistent with housing goals, housing targets and special housing needs, and/or,
- adversely impact the region due to jobs and employment centers created by the proposed project.

Specific Impacts

Merced 2030

The proposed project represents approximately 1,365 acres or 17% of the 8,000 acre area designated for village style development. The proposed project includes the construction of two of the three M Street village centers: a Community Center just south of Bellevue Road, and a Neighborhood Center to the south of Old Lake Road. The proposed project also includes a mix of residential uses (single family detached standard homes, single family detached patio homes and multi-family), commercial, office, parks and open space, and public service uses (high school, two elementary schools, and a fire station).

The proposed project is conceptually consistent with the intentions of the Merced 2030 plan and the villages concept. The proposed project would thus have a **beneficial impact** on City's implementation of its desired land use pattern, as explained in the Merced Village Concept.

Population

The proposed project would result in the construction of between 4,181 and 6,894 new dwelling units. This would accommodate between 12,335 and 21,371 new residents. This represents accommodation of between 16.25% and 28.15 % of the population increase anticipated to occur in the Planning Area between 1990 and 2010. This would be a **beneficial impact** of the proposed project.

The target density of village residential is a minimum of 10 units per acre, which is consistent with the range of densities outlined in the Villages Design Guidelines. The proposed project would result in construction of 99 percent of Conceptual Plan commercial, 54.89 percent of office, and none of the light industrial. These percentages are not significant inconsistencies, however, as explained in the employment and jobs/housing balance discussions below.

Employment

Table 4.13-7 below compares the proposed project's acres of retail, office, and industrial development with the City's projection's of needed development for the area north of Bear Creek through the year 2010.

Table 4.13-7
PROJECT SHARE OF PROJECTED EMPLOYMENT DEVELOPMENT NEED (1990 to 2010)

DEVELOPMENT TYPE	ACRES DEVELOPMENT REQUIRED NORTH OF BEAR CREEK	ACRES INCLUDED IN PROPOSED PROJECT	PROJECT SHARE OF NEED	ACRES IN CONCEPTUAL PLAN	CONCEPTUAL PLAN SHARE OF NEED
Retail	394	89.1	22.61 %	90	22.84 %
Office	317	24.7	7.79 %	45	14.20 %
Industrial	259	0	0.00 %	110	42.47%
TOTAL	970	113.8	11.73 %	245	25.26%

Source: City of Merced. See Table 4.13-3.

The proposed project represents 17 percent of the development area, but would provide only 11.73 percent of the needed acreage of employment generating uses.

Based on the employment generation rates used by the City in calculating needed employment acreage, the proposed project would generate approximately 715 retail jobs and 465 office jobs, for a total of 1,180 jobs. As shown in Table 4.13-2, not counting out-commuters and self-employed workers, an additional 61,998 jobs are projected to be needed in the County between 1990 and 2010. As shown in Table 4.13-1, the planning area is anticipated to represent approximately 38 percent of the County's population by 2010. Assuming the Planning Area north of Bear Creek also represents 38% of the County's jobs shown in Table 4.13-2, the Planning Area would need to achieve total wage and salary employment of 47,260 by 2010. The Planning Area's share of needed job growth would be 23,560 jobs. The proposed project (1,180 jobs) represents 5 percent of anticipated job need, based on this calculation.

An alternative method of calculating job creation is calculation using generation rates for employees per 1,000 gross square feet of development. Based on this calculation method, the proposed project would accommodate between 1,125 and 1,755 retail employees and between 515 and 1,000 office employees. Using this calculation method, the proposed project would generate between 1,640 and 2,755 employees. This represents between 7 percent and 12 percent of the projected 1990 to 2010 job growth for the Planning Area.

Based on these calculations, the proposed project would result in the development of approximately 17% of the area north of the city scheduled for development, while providing somewhere between 7 and 12 percent of anticipated job growth. While the anticipated number of jobs appears deficient, it should be acknowledged that this portion of the 8,000 acre Villages

Concept will focus upon residential uses. The future base land use plan provides for a concentration of commercial, office, and light industrial uses along Highway 59 which will offset concentrations of residential uses in other portions of the Plan area. Impacts associated with employment generation rates for the Project are therefore **less-than-significant.**

Housing

The proposed project would result in the construction of between 4,181 and 6,894 new dwelling units. This would accommodate between 12,335 and 21,371 new residents. This represents accommodation of between 16.25% and 28.15 % of the population increase anticipated to occur in the Planning Area between 1990 and 2010. This would be a **beneficial impact** of the proposed project.

The proposed project description does not include any affordable housing targets. To the degree that the proposed project results in the development of additional housing, without contributing to the City's ability to meet its quantified objectives regarding the production of affordable housing (see Table 4.13-6), the proposed project would have a **significant impact** on achieving affordability goals.

Jobs/Housing Balance

As detailed above, the proposed project would result in the development of between 4,181 and 6,894 new housing units and the generation of between 1,640 and 2755 jobs. The jobs/housing balance for the proposed project would thus be approximately 0.40, indicating an extremely housing rich area. This would indicate that a large number of village residents would need to seek employment outside the village area, resulting in significant traffic outside the villages area.

While the jobs/housing ratio for this project appears directed toward housing, the intent of the Merced Villages Concept suggests that this portion of the entire 8,000 acre area is to focus on residential uses. In this regard, the Villages Concept provides for light industrial and office uses to offset the impacts of residential uses within other portions of the Plan area. When combined with employment opportunities from the potential reuse of Castle Air Base and the potential University of California campus at Lake Yosemite, the project's impact is **less-than-significant.**

General Plan Goals and Policies

The Villages concept has been developed as part of the City 's planning efforts. The proposed project is conceptually consistent with the Village Concept and is thus conceptually consistent with the General Plan

4. Mitigation Measures

MM 4.13.1 The project applicant shall insure that the project contributes proportionally to the City's affordable housing goals, and demonstrate compliance with this requirement prior to approval of tentative maps. Compliance with this mitigation measure can be satisfied by setting aside the appropriate share of project housing for very low, low, and moderate income households, or through rehabilitation or conservation of the appropriate number of very low, low, or moderate income housing units elsewhere in the City, or some combination thereof. In no case shall the share of very low income housing provided be below 4.33%, the share of low income housing be below 6.63%, or the share of moderate income housing be below 6.35% of total project housing.

4.14 HUMAN HEALTH

1. Environmental Issues

This section addresses the topic of human health, assessing the potential risk of locating housing and human activities in close proximity to hazardous materials, buried cattle, or high voltage transmission lines. The discussion of hazardous materials and buried cattle is based on the Phase I Site Assessment of the project site prepared by Herzog Associates, Inc. The full text of the Phase I Site Assessment is contained in the Technical Appendices.

2. Existing Setting

Area History and Related Human Health Concerns

Methodology

A Phase I Site Assessment of the project site was prepared by Herzog Associates, Inc. The findings of the Assessment are based on research on the historic usage of the property which included interviews with the property owner, past owners and regulatory agencies, and review of historical aerial photographs of the site. In addition, Herzog Associates reviewed the available background information, including site groundwater hydrology and soil types, and regulatory files on the property and on surrounding properties; and performed a site reconnaissance.

Groundwater

According to Julio Guerra at the City of Merced and Keith Isozaki of Merced County, Department of Environmental Health, groundwater is located beneath the site at a depth of approximately 40 to 50 feet below the ground surface. The groundwater table elevation fluctuates only slightly with seasonal rainfall. Groundwater flows from the northwest to the southwest, across Bellevue Ranch and towards Fahrens Creek and Cottonwood Creek, located within .25 miles south and southeast of the site.

Yosemite Lake, located northeast of the site is a reservoir used for surface water collection. A series of ditches and canals supply irrigation water to the ranch lands southwest of the reservoir.

Adjacent Uses

Yosemite Lake is located approximately 1.5 miles to the northeast of the project site. The County landfill is located approximately 2.5 miles northwest of the project site. The landfill is up gradient from the project site both in terms of topography and groundwater flow. The project site is bordered to the southeast by Merced Community College and to the east and west by farm and graze land.

A record search for known contaminated sites and hazardous materials generators located on or near the project site was conducted. Table 4.15.1 gives the lists consulted. The record search revealed no contaminated sites within one-half mile of the project site and 13 within one-half to one mile of the site. These sites are located to the southeast of the proposed project site, and are down gradient in relationship to groundwater flow. Groundwater quality is further discussed in Section 4.7.

Table 4.14.1
LIST OF RECORDS SEARCHED

DATABASE	TYPE OF RECORDS	AGENCY
CERCLIS	Contaminated Sites Under CERCLA (1980)	U. S. EPA
NPL	Federal Superfund Sites	U.S. EPA
LIENS	Filed Notices of Superfund Liens	U. S. EPA
CORTESE	Hazardous Waste & Substances Site List	California Governor's Office of Planning & Research
CAL-SITES/AWP	Contaminated sites listed on the Annual Work Plan and cleanup sites under the Bond Expenditure Plan	California EPA
BZP	Sites designated as Border Zone Properties (Deed Restrictions)	California EPA
CAL-SITES/ASPIS	Actually or potentially contaminated sites under the Abandoned Site Program	California EPA
HWIS	Hazardous Waste Generators, Treatment, Storage & Disposal Facilities	California EPA
SWIS	Active & Inactive Sanitary Landfills and Disposal Facilities	California Waste Management Board
LUST	Leaking Underground Storage Tanks	California Regional Water Resources Control Board

On-Site Concerns

Based on the Phase I Site Assessment, historical uses on the proposed project site pose the following human health concerns: potential for disease associated with buried cattle; human health risks associated with the presence of the contaminants including, pesticides and herbicides, lead based paint, building materials containing asbestos, polychlorinated biphenyls,

dumped materials, septic sludge, and substances used for vehicle maintenance; health risks associated with the possible presence of Radon Gas; and Electromagnetic fields associated with utility lines crossing the proposed project site. Each of these potential human health concerns and associated site history are described below.

Buried Cattle

Prior to the 1960's, Bellevue Ranch was operated as a cattle ranch by the Crocker-Huffman Company. Crocker-Huffman Company suffered cattle losses in 1924 due to an epidemic of Foot-in-Mouth Disease (FMD). Farm Bureau reports, dated March through July 1924, indicated that the County of Merced lost over 12,000 cattle, 13,000 sheep, and 600 hogs to FMD. According to Mrs. Murchie, wife of the former ranch foreman, 6,000 cattle were destroyed at the Crocker-Huffman Company ranch. According to Mrs. Murchie, ten-foot deep trenches were constructed and cattle suffering from FMD were herded into these trenches and destroyed. After the cattle were slaughtered, lime was poured over the dead cattle and the trenches backfilled. Mrs. Murchie could not recall the location of these disposal trenches on the property.

In the early 1930's another cattle disease known as skin blistering occurred. No cattle destruction was reported and the blistering was cured with a crank case oil moisturizer applied topically. (Farm Bureau Report 1931-32).

During the site reconnaissance, two areas in the northern portion of the site were identified, based on significant surface cattle bone deposits, as the possible cattle carcass burial areas. However, there is no documented confirmation between the reported burial trenches as described by Mrs. Murchie and the bones observed on the surface in two areas of the site during the site reconnaissance. Data obtained during the record search and site reconnaissance was not sufficient to confirm the location of the reported burial trenches.

Hazardous Materials

Ranch Lands - Current use of the site is for farm crops, cattle grazeland, and residential use. The current use of open lands at the site are divided into three categories including cotton fields, cattle grazeland, and non-utilized lands.

Ranch Complex - Prior to its current residential use, Bellevue Ranch was reportedly used as a detox center for the County of Merced. Today farm workers and single families live in the ranch housing complexes.

The visual reconnaissance of the ranch quarters revealed a maintenance garage, a warehouse, several barns, residential structures, pump houses and other miscellaneous outbuildings. The residential structures are currently occupied.

During the site reconnaissance, several domestic water supply wells and associated pump houses and pressure tanks were observed within the ranch complex. Based on conversations with Julio Guerra of the City of Merced, farms and ranches in this area use groundwater as their primary drinking water source.

Since the ranch complex is reportedly not connected to the sanitary sewer system, each dwelling occupied on the ranch most likely has its own septic system. However, no visual evidence was observed during the site reconnaissance to indicate the locations of septic systems.

There are a number of potential human health issues associated with the ranch's historic and current agricultural uses.

Pesticide and Herbicide Use - Based on the record review and site reconnaissance conducted by Herzog Associates, pesticides and herbicides appear to have been used at the site. The Merced County Department of Agriculture records pesticide and herbicide use in Merced County. However, records are maintained for only a period five years at this department. Due to the five year cycle of record keeping at the Merced County Department of Agriculture, pesticides and herbicides that have been banned for more than five years are not listed on this table. Thus the potential for contamination from toxic and/or hazardous chemicals used prior to five years ago could not be assessed.

Open Dumping - Herzog's site reconnaissance revealed several areas of above ground open dumping. Based on the site reconnaissance several areas across the entire ranch headquarters complex were observed to be used as refuse and debris dumps. Debris material observed within these dump areas included 55-gallon drums, broken asbestos pipes, piles of old tires and other miscellaneous ranch debris. Additionally, several old cars, ranch vehicles and tractors were noted abandoned throughout the entire complex. Herzog's site reconnaissance also revealed several areas of surface oil staining. The surface oil staining may be related to numerous abandoned automobiles and various mechanical maintenance practices observed throughout the ranch complex.

Vehicle Maintenance Activities - During the site reconnaissance, a maintenance facility containing a below ground, concrete-lined access trench was observed. Significant oil staining and used oil filters were observed within the work pit and service garage.

Asbestos Containing Building Materials and Lead Based Paint - Based on the age of the structures at the site and Herzog's understanding of the Lead Based Paint (LBP) concerns, it is Herzog's belief that the buildings constructed prior to 1974 may contain various amounts of LBP. Any building constructed after 1980 should not contain Asbestos Containing Building Materials (ACBMS's) in a quantity or form that would trigger environmental regulations or public health concerns. However, the on-site structures were constructed prior to 1980, and therefore they may contain ACBMs.

Septic System Sludge Disposal - Based on conversations with Dave Block, Merced County Environmental Health Department, Bellevue Ranch previously received septic system sludge from surrounding properties and disposed of the material as nutrient additives to site soils. Past site location(s) for this activity are unknown. David Block indicated that this practice was discontinued at the site approximately seven years ago.

Radon Gas - Radon is a naturally occurring, odorless, colorless gas which is generated from the natural radioactive decay of radium and uranium. The uranium concentration of underlying geologic material is a fundamental variable that determines the rate of underground radon gas production. Geologic materials that contain greater amounts of uranium, such as granites and shales, produce greater amounts of radon gas. Based on the results of the California State Wide Radon Survey Interim results dated 1990 and published by the Department of Public Health Services, California has been rated as the third lowest radon producing state.

Electrical Transformers - Several pole-mounted electrical transformers were observed during the site reconnaissance which could potentially contain polychlorinated biphenyls (PCBs). However, the transformers observed at Bellevue Ranch during the site visit could not be positively identified as containing PCBs.

High Voltage Transmission Lines

There are two high voltage power line easements presently passing through the Bellevue Ranch project area. One is a 75 foot wide easement for a 230 kV transmission line. This easement crosses diagonally through the Bellevue Ranch site from the northwest corner, south to the southeast corner at Black Rascal Creek. The other is a 75 foot wide easement for a 115 kV transmission line which joins the first above Cardella Road to the east of the Bellevue Ranch Property. It crosses through the study area to the southwest along Cottonwood Creek and through the Transmeridian Property. A smaller 70 kV transmission line also runs parallel to the project's east property line along G Street. These three easements are the property of PG&E, and are shown on Figure 4.15.1.

Electric and Magnetic Fields - Since the early 1970's, the public has become increasingly aware of potential hazards associated with long-term exposure to electromagnetic fields (EMF) created by electrical transmission lines. Electric transmission and distributions lines are characterized in terms of their "voltage" and "current" capacities. "Voltage" refers to the electrical pressure of a line. Raising the voltage of a line increases the capacity of the line to deliver energy. Voltage causes electrical fields around the electric facility. "Current" describes the rate of flow of electricity through a line. When electric current is flowing through a line, the current sets up a magnetic field around itself. When there is a flow of electricity in utility transmission lines, distribution lines, and typical home appliances, both electric and magnetic field are created.

The electric field intensity (strength), expressed in kV/m, describes how the voltage changes with distance from the conductor. Under a transmission line, the electric field intensity depends on the voltage applied to the line, the distance from the line, as well as other factors. Electric field intensity decreases rapidly with increasing distance from a transmission line. In addition, electric fields are effectively shielded by larger objects such as trees and houses.

Magnetic field strength is reported in milligauss (mg) measured one meter above ground. Magnetic field strength is the number of lines of magnetic inductions per unit area. Unlike electric fields, magnetic fields do not decrease as rapidly as distance increases from a transmission line, and are generally unaffected (i.e. perturbed or shielded) by large objects. Research has been conducted nationally on the potential effects of electric and magnetic fields on reproduction and development, cancer development, cell biology and neurobiology and behavior. Based on initial studies, researchers have become less concerned about the health effects of electrical fields and shifted their focus to the possible effects of magnetic fields.

Relationship Between Distance From Transmission Lines and Magnetic Field Exposure - In a study conducted by the Department of Energy, Bonneville Power Administration, magnetic field intensities were measured at increased distances from the transmission source. In the study, average field strengths were measured at increased distances below a typical 115 kV transmission line. Average readings taken at 50 feet from centerline of the line measured 5 milligauss; at 100 feet were 1 milligauss; at 200 feet were 0.3 milligauss; and at 300 feet were 0.1 milligauss. It was statically shown that magnetic field strengths decreased with increasing distance from the transmission source.

Pacific Gas and Electric (PG&E) have conducted similar studies to determine average milligauss readings at certain distances from transmission lines. Although the site specific reading will depend on a variety of factors, the average milligauss (m) readings assumed by PG&E are as follows:

Typical 115 kV double circuit design (639 amps maximum)
Right-of-way (ROW) of 80 feet = 17 m at the edge of the ROW
Right-of-way (ROW) of 110 feet = 10 m at the edge of the ROW
Right-of-way (ROW) of 210 feet = 2 m at the edge of the ROW
Right-of-way (ROW) of 260 feet = 1 m at the edge of the ROW

Typical 230 kV double circuit design (823 amps maximum)
Right-of-way (ROW) of 100 feet = 31 m at the edge of the ROW
Right-of-way (ROW) of 170 feet = 10 m at the edge of the ROW
Right-of-way (ROW) of 320 feet = 2 m at the edge of the ROW
Right-of-way (ROW) of 400 feet = 1 m at the edge of the ROW

Ordinary every day use of electricity produces magnetic and electric fields. These 60 hertz (Hz) fields (fields which go bach and forth 60 times a second) are associated with all electrical appliances, with power lines, and with wiring in all buildings. Recent studies have found that

about half the houses in Denver, Colorado had an average below 0.47 milligauss (the milligauss is a unit commonly used to measure the strength of magnetic fields in most environments) and 90% of the houses fell below 1.82 milligauss. To develop these numbers, the average was taken from readings in the bedroom, the kitchen and the living room of each house. Measurements in the San Francisco Bay Area were somewhat higher, with about half the homes below 1.05 milligauss instead of the 0.47 milligauss found in Denver.

Research On The Health Risks - Potential exposure to magnetic fields is of concern due to studies which appear to show a relationship between the risk of cancer and the strength of the electromagnetic field to which people were exposed. However, at this time, these studies are far from conclusive.

Although laboratory experiments show that electromagnetic fields (EMFs) can cause biological changes in living cells, researchers are not sure whether there is any risk to human health associated with exposure to EMFs. Some, but not all, health studies of workers and children have suggested that increased cases of cancer may occur in locations thought to have high EMFs. One of these studies found a 50% increase in the cancer rate of children living in the 6% of homes with the highest measured magnetic fields, but this was not statistically significant. In this study the usual rate of 1 case was increased to 1.5 to 2 cases per 10,000 children per year.

Department of Energy (DOE), the Electric Power Research Institute (EPRI), the New York Power Lines Project and other utility companies have conducted studies in the possible effects of magnetic fields. This research to date has been unable to establish a cause and effect relationship between exposure to electric and magnetic fields and biological abnormalities. These results were reached despite statistical evidence that showed a higher risk of childhood cancer in children in Denver, Colorado who lived near high-tension lines. The Denver study was conducted by Dr. Nancy Wertheimer and Dr. Ed Leeper in 1979.

A recent Swedish study provides the most conclusive evidence so far of a link between electricity and cancer. This study was led by epidemiologists of Stockholm's Karolinska Institute. The study looked at everyone who lived within 328 yards of a high-tension line in Sweden from 1960 to 1985. Although the investigation could find no evidence of an increased cancer threat for adults, they did detect a higher risk of leukemia in children. Although the research did not prove a cause and effect, it did show an unmistakable correlation between the degree of exposure and the risk of childhood leukemia. This study explored the effects on residents and their inhabitants only, and did not discuss EMF effects on other land uses.

What makes the Karolinska study particularly noteworthy is the investigation encompassed nearly 500,000 people. By restricting their analysis to high-power transmission lines, the researchers could easily calculate the field strength for each household studied and be assured that the lines were the dominant source of electromagnetic radiation. Since field strength drops off dramatically with distance and all the houses were in the same corridor, investigators

could also be fairly certain that the only difference between exposed and unexposed homes was proximity to the lines, not other environmental factors.

One of the most telling results was the cancer risks grew in proportion to the strength of the electromagnetic field. Children with constant exposure to the weakest fields, calculated at less than 1 milligauss (about the same that a coffee maker generates when it is brewing), had the lowest incidents of cancer. Those exposed to fields of 2 milligauss showed a threefold increased in their risk, while children exposed to 3 milligauss showed a fourfold increase of leukemia. However, childhood cancer is so rare that even in such a large study, only 142 cases were discovered. In the highest exposure group, the calculations for leukemia risk was based on as few as seven cases. The study concluded that the risk of leukemia is very small - 1 out of 20,000 children a year.

In California, research on this issue is funded under SB 2519, Chapter 1551, Statutes of 1988. Under this bill the California Public Utilities Commission and the State Department of Health Services are required to study the risks associated with exposure to electromagnetic fields produced by electric utilities facilities. The first phase study consists of a review of the existing literature and a report to the Legislature. The report recommends no regulation of electric and magnetic fields, based on the literature review. A second report, released on September 15, 1989, recommends additional research in identifying health effects and a State-wide exposure assessment program. Additional research is continuing and a new study will be completed by the California Department of Health Services, Special Epidermological Studies Program.

A number of other field studies are now under way to determine with greater certainty if magnetic fields do indeed pose any health risk and, if so, what aspect of the field is harmful. At this time, for example, no one knows the relative importance of average long term exposure, exposure to sudden high intensities, exposure to different frequencies, or various combinations of all these with other factors.

According to the California Department of Health Services, with the scientific information now available it is not possible to set a standard or say that any given level is "safe" or "dangerous". A reasonable policy, at this time, is to inform the people about what is known and unknown about this matter. With public support of research, the necessary knowledge can be obtained; then society will be able to adopt well-reasoned policies based on sound scientific information.

Established Standards In Other Jurisdictions - At the present time, seven states have established standards for regulating the intensities on transmission line rights of way: Montana requires a 1 kV/m at the edge of right-of-way in a residential area; Minnesota requires an 8 kV/m maximum in the right of way; New Jersey requires a 3 kV/m at the edge of the right of way; New York requires a 1.6 kV/m at the edge of the right of way; North Dakota requires a 9 kV/m in the right of way; Oregon requires a 9 kV/m maximum in the right of way; and Florida has set a variety of standards for different kV lines.

California does not have any similar proposed limits for magnetic fields. As discussed, PG&E has easement requirements for access, however, they do not have required or recommended buffer zones for electric or magnetic fields.

The cities of Fremont, Daly City, Concord and San Luis Obispo, CA have "required that disclosure statements regarding the potential health effects associated with magnetic fields be included in specific residential development proposals." In San Luis Obispo, the County Planning Commission has approved a land use ordinance that requires estimates of magnetic field levels be provided with application for new or upgraded electric transmission facilities, substations, or communication facilities.

As an additional note, the California State Department of Education has adopted guidelines for establishing school property line distances from the edge of respective power line easements. This includes: 100 feet for 100 to 110 kV lines; 150 feet for 220 to 230 kV lines; and 350 feet for 500 to 550 kV lines.

3. Project Impacts

Standards of Significance

The potential impacts of the proposed project may be considered significant if the project results in one or more of the following; a) unsafe exposure of people to mass cattle or circus animal graves created as a result of historic uses, b) exposure of people to hazardous or potentially hazardous materials including explosives, gases, industrial products, pesticides, herbicides and similar chemical products and/or c) exposure of people to high voltage transmission lines.

According to the California Department of Health Services, it is presently not possible to set a standard or to define what is a "safe" or "dangerous" electromagnetic exposure due to proximity to a high-voltage transmission line. Studies found that houses typically have low milligauss readings, averaging below 0.47 and 90% below 1.82 milligauss. The recent Swedish electromagnetic hazard study concluded that cancer risks grew in proportion to the strength of the electromagnetic field. Children with constant exposure to the weakest fields, calculated at less than 1 milligauss, had the lowest incidents of cancer.

Since there is no standard of significance for electromagnetic hazard, defining a "significant impact" is open to interpretation and debate. However, given that most homes appear to have an average milligauss reading of below 1.0, and since the recent Swedish study indicates that children with constant exposure calculated at less than 1 milligauss had the lowest incidents of cancer, it is the assumption of this EIR that an average residential reading of 1.0 milligauss or less is desirable. Therefore, for purposes of this analysis, a potentially significant electromagnetic hazard will be identified if the average reading adjacent to a transmission line easement exceeds 1.0 milligauss.

Specific Impacts

Adjacent Uses

With the exception of the County Landfill, no recorded source of soil of groundwater contamination has been reported which would impact residents of the proposed project. Sites identified through the government records search are located down gradient from the project site. Therefore **no significant impact** is anticipated to result from the introduction of residential and commercial uses on the proposed site, in proximity to these hazardous materials generators.

The proposed project would result in the location of additional commercial and residential development in the vicinity of the County Landfill. The Merced County landfill is located approximately 2.5 miles to the northwest of the proposed project site and is up gradient from the proposed project site both topographically and in terms of groundwater flow. The landfill is scheduled for expansion and new cell development. However, since the distance of the landfill from the site is approximately 2.5 miles, it is Herzog Associates' judgement that there will be **no significant impacts** to project site ground waste due to landfill activities.

On-Site Concerns

Buried Cattle - According to Dr. Bob Tarbell, the Merced County District Veterinarian, FMD cannot survive outside of host cattle and the disease can not be transmitted to humans. Dr. Tarbell also reported that FMD would die in soil and, after 70 years, would not pose a threat to human health. Thus **no significant impact** associated with the introduction of residential and commercial uses in proximity to buried cattle is anticipated.

Even though these burial trenches are not a human health concern, these bone-filled burial trenches may not be geotechnically suitable for construction. Thus, construction of structures on burial trenches may result in a **significant impact**.

Hazardous Materials

- Pesticide and Herbicide Use - Based on the identified chemicals that have been used at the site, shallow soils, in the cultivated areas, may have potentially been impacted by applications of herbicides and pesticides. Additionally, storage and/or formulation areas in the ranch headquarters complex may have potentially impacted shallow soils with pesticides and herbicides. The proposed project would result in the construction of residential and commercial facilities in these areas. Thus, there is a **significant impact** associated with the possible exposure of project inhabitants to contaminants.

- Open Dumping - Based on the significant amount of open dumping and soil staining observed throughout the ranch headquarters complex, there may be a

Aesthetics/Light and Glare

The aesthetic character of the site would remain basically the same as current conditions under Alternative 1. Compared to the development intensity proposed by the preferred alternative, Alternative 1 not significantly change the visual character of the project site. As discussed in Section 4.3, however, this does not result in fewer impacts because of the lack of significant visual features on site. Impacts associated with an increase in urban light under Alternative 1 will occur but would be minimal.

Parks, Recreation, and Open Space

As the northern planning area develops under current designations, it is assumed that parks would be provided as required. The City of Merced Parks Master Plan and the preferred project anticipate park and open space uses along Fahrens Creek.

Landform/Topography

Impacts to the site due to grading and earth moving activities would be fewer with Alternative 1 than with the preferred alternative. Erosion impacts and geotechnical hazards associated with the more intensive preferred alternative would be minimized.

Cultural Resources

Should the Bellevue Ranch Complex be found to contain structures of historic significance, Alternative 1 would have comparatively fewer historic resource impacts than the preferred alternative.

Surface Hydrology and Water Quality

Alternative 1 does not propose large areas of impervious surface, as does the preferred alternative. Storm water runoff and impacts associated with surface contaminants would therefore be fewer under Alternative 1. Under this alternative, however, there is a potential for the area's ground water quality to be compromised due to an increased use of septic systems for future rural residential development.

Biology

Alternative 1 impacts on biological resources and habitat areas within the project site would generally be less severe than the preferred alternative due to a lack of urban development. Vernal pool wetlands would not require mitigation and existing creek channels would not require flood control improvements beyond the Merced Streams Group Project.

potential for shallow soil and possibly groundwater impacts from past site activities. Chemicals that may have potentially impacted site soils and/or groundwater from these dump areas include oil and grease, chlorinated solvents, gasoline, and diesel fuel. Other potential contaminants that may be found in shallow soils include metals, thinners, and semi-volatile organic compounds. The proposed project would result in the construction of residential and commercial facilities in these areas. Thus, there is a **significant impact** of exposure of project occupants to contaminants.

- Vehicle Maintenance Activities - Due to the improper handling practices of waste oil products observed in this building, subsurface soil and possibly groundwater in the vicinity of this building may have been impacted by releases of potentially toxic and/or hazardous materials. Chemicals that may have potentially impacted site soils and/or groundwater due to past activities in the vehicle maintenance building include oil and grease, gasoline, diesel, volatile organic compounds (solvents) and semi-volatile organic compounds. The proposed project would result in the construction of residential and commercial facilities in these areas. Thus, there is a **significant impact** of exposure to potential contaminants associated with the proposed project.

- Asbestos Containing Building Materials and Lead Based Paint - ACBM and LBP may be present in existing structures scheduled for demolition as part of project construction. **Significant impacts** from the presence of ACBMs and LBP in site buildings would include the short term exposure to workers during the demolition of structures and transport of demolition debris. Short term exposure of workers would not likely result in long term effects, nevertheless, appropriate precautions and personal protection equipment should be utilized during demolition if these materials are present.

- Septic System Sludge Disposal - Long-term health effects from on-site disposal of septic system sludge would most likely be negligible due to the long period of time since this disposal method has been conducted at the site. In addition, due to the 40 to 50 foot groundwater depth, the potential impact to groundwater is also considered negligible. Therefore **no significant impacts** associated with project construction in these areas is anticipated.

- Radon Gas - Based on the results of the California State Wide Radon Survey Interim results dated 1990 and published by the Department of Public Health Services, California has been rated as the third lowest radon producing state. Based on the results of this survey, Region 4, which encompasses Merced County, had an average radon reading of 0.9 pico curies per liter (pCi/L). A pico curry is the radiation given off by a trillionth of a gram of radon. Based on risk assessment data published by the California Department of Health Services, constant exposure at 4 pCi/L is a level at which radon is considered

a long-term health hazard. Published data on health risks due to short-term exposure was not available for review during this PSA. Based on these results, **no significant impacts** associated with project construction is anticipated.

- Electrical Transformers - Herzog's site reconnaissance revealed no soil staining associated with the observed transformers. Based on the results of the site reconnaissance, potential impacts to site soils from leaking PCB containing transformers could not be identified. The proposed project would result in the construction of residential and commercial facilities in these areas. Thus, there is a **potential significant impact** of exposure to potential contaminants associated with the proposed project if PCBs are present in the transformers.

- Electromagnetic Fields - A 75 foot wide easement for a 230 kV transmission line crosses diagonally through the Bellevue Ranch site from the northwest corner, south to the southeast corner at Black Rascal Creek. The proposed project will result in placement of homes, parks and open space corridors in immediate proximity to overhead transmission lines which emit electric and magnetic fields. The milligauss reading at the edge of the easement would be over 31 milligauss at the edge of the right-of-way (the average is 31 milligauss at the edge of a 100 foot wide right-of-way). This is substantially greater than a 1.0 milligauss reading, and therefore, for purposes of this analysis, this will result in a **potentially significant impact.**

  A 75 foot wide easement for a 115 kV transmission line crosses through the study area to the southwest along Cottonwood Creek. The proposed project will result in placement of homes, parks and open space corridors in immediate proximity to overhead transmission lines which emit electric and magnetic fields. The milligauss reading at the edge of the easement would be higher than 17 milligauss (assuming a 17 milligauss reading at the edge of a 80 feet wide right-of-way). This is substantially greater than 1.0 milligauss. Therefore, for purposes of this analysis, this will result in a **potentially significant impact.**

4. Mitigation Measures

Buried Cattle

Implementation of this mitigation measure will reduce buried cattle related project impacts to a level which is **less-than-significant.**

MM 4.14.1 Exploration trenching or other adequate excavation methods shall be conducted prior to the issuance of any project building permits to identify the location of the bone-filled burial trenches. Following delineation of the burial trenches, the trenches shall be excavated, backfilled with select import fill, and compacted to appropriate construction standards.

Hazardous Materials

Implementation of these mitigation measure will reduce hazardous materials related project impacts to a level which is **not significant.**

MM 4.14.2 Abandoned automobiles, ranch equipment, tires and other miscellaneous farm refuse shall be removed to an appropriate disposal facility prior to issuance of project grading permits for these affected areas.

MM 4.14.3 A Phase II site reconnaissance and sampling investigation of those portions of the project site where areas of potential environmental contamination have been identified shall be conducted and submitted for City review prior to final map recordation. The Phase II investigation shall be conducted following removal of all on-site refuse material. Paint storage and cleaning areas at the site shall be identified during the Phase II investigation and sampled for lead and other compounds, if deemed necessary. Screening analysis of randomly selected shallow soil samples from the cropland areas shall be analyzed during the Phase II investigation to assess if cropland soils contain residual concentrations of pesticides and/or herbicides. During the Phase II investigation, sampling of site building materials shall be conducted to assess if ACBMs and LBP are present at the site. As part of the Phase II investigation, P.G.&E. shall be contacted for on-site inspection of transformers to determine if they contain PCBs. Based on the results of the Phase II site reconnaissance, areas of potential impacted site soils shall be identified for soil sampling and possibly groundwater sampling. Soil sampling results shall be used to quantify the types and concentrations of possible contaminants present in site soils and to identify areas that require excavation and appropriate off-site disposal of affected soils. Results of Phase II samples shall be used to assess the need to conduct a risk assessment to evaluate potential health impacts from residual chemical concentrations in the soils, to determine proper health and safety requirements necessary during demolition, and to evaluate proper disposal requirements for the demolition debris. The Phase II Assessment shall be conducted by a qualified firm approved by the City. The Phase II Hazardous Materials Site Assessment firm shall report to the City whether a risk assessment is required. The project sponsor shall comply with, or bond for, all mitigations specified in the resulting report(s) and risk assessment prior to issuance of any project grading or construction related permits. Mitigations specified in the report(s) shall be included in the Mitigation Monitoring Program for the proposed project as required by the California Environmental Quality Act. Should the report(s) identify the need for substantial changes in the project, if it reveals significant new information about potential project impacts, if any required remediation will result in additional project impacts, or if impacts are identified which will

remain significant after mitigation, the EIR for the proposed project shall be recirculated or a supplemental or subsequent EIR shall be prepared.

MM 4.14.4 Soil samples shall be collected during the demolition of the vehicle maintenance building from beneath the floor slab and the concrete-lined work pit to assess if subsurface soils have been impacted. The analytical results of the collected soils samples shall be used to identify the types and concentrations of possible chemicals present in site soils and to assess if excavation and off-site disposal of site soils from this area is required. Testing shall be conducted by a qualified firm approved by the City. The project sponsor shall comply with, or bond for, all mitigations specified in the resulting report prior to issuance of any project construction related permits. Mitigations specified in the report shall be included in the Mitigation Monitoring Program for the proposed project as required by the California Environmental Quality Act. Should the report result in the need for substantial changes in the project, if it reveals significant new information about potential project impacts, if remediation will result in additional project impacts, or if impacts which will remain significant after mitigation are identified, the EIR for the proposed project shall be recirculated or a subsequent or supplemental EIR shall be prepared.

MM 4.14.5 Appropriate precautions and personal protection equipment shall be utilized during demolition of structures if building materials contain asbestos of lead based paint, in keeping with OSHA and other applicable regulations.

Electromagnetic Radiation

Implementation of these mitigation measures will potentially reduce electromagnetic radiation related project impacts to a level which is **less-than-significant.**

MM 4.14.6 Until such time as it can be demonstrated to City satisfaction that the health risks associated with transmission lines are non-significant and prior to the approval of a final map for areas involving the above noted transmission lines:

A 400 foot wide right-of-way shall be established for the site's 230 kV transmission line, prohibiting residential units from within 200 feet from the centerline of the transmission easement, to ensure that no house receives an electromagnetic exposure higher than 1.0 milligauss. Alternative land uses, such as parks, open space, trails, or other non-residential uses should be considered within this right-of-way at the discretion of the City.

or,

The project applicant shall demonstrate that residences located closer than 200 feet from the centerline of the transmission line easement will not achieve an

Public Facilities

Additional levels police, fire, water, sewer, schools, and other public services and utilities would not be required under Alternative 1, or only required commensurate with existing development patterns.

Traffic and Circulation

Traffic generated during the planning period under existing zoning would only total 25% to 30% of traffic volumes generated for the northern planning area village concept. Alternative 1 would have substantially fewer impacts on Merced streets and require less road construction in the north. Under this alternative, some improvements may be necessary on existing streets to mitigate the additional traffic accessing employment and shopping opportunities in the City of Merced that are not available in the northern planning area.

Air Quality

Alternative 1 will not require construction activities and therefore will not generate particulate dust, nor concentrate vehicle generated emissions in the vicinity of the project site. In this regard, air quality impacts for the immediate area will be less severe. Regional impacts to the air basin, however, will be greater under Alternative 1 than with the proposed project due to widely dispersed future development patterns and less efficient automobile trips.

Noise

Noise impacts to existing residences in the vicinity of the project site would generally be less severe than under the preferred alternative, due to the dispersement of traffic and subsequent noise.

Population, Housing and Employment

Alternative 1 will not create a need for general funds and resources beyond what is expected pursuant to MCAG population projections. This alternative will create more housing opportunities than job opportunities, thus contributing to a jobs/housing imbalance.

Human Health

The risks to human health under Alternative 1 are generally the same as under the preferred alternative. Human exposure to potential hazardous substances on site would

Cultural Resources

The general disturbance of the site under both scenarios would result in similar impacts to any identified cultural or historic resources on site.

Surface Hydrology and Water Quality

Storm water runoff and water quality impacts would be similar for either the preferred alternative or Alternative 2 scenarios due to similar increases in the amount of impervious surfaces.

Biology

Alternative 2 impacts to biological resources would be similar to those of the preferred project. Both scenarios will disturb on-site biological resources to an equal degree.

Public Facilities

Alternative 2 would require approximately the same level of additional public services and facilities as the preferred alternative, with the exception that a village concept plan by nature consolidates infrastructure requirements to create a more efficient system. In this regard, Alternative 2 impacts would be greater.

Traffic and Circulation

Traffic impacts will be worse with the Alternative 2 plan than with the preferred alternative or Merced Villages Plan because of higher traffic volumes (9% to 10%). With fewer employment opportunities, this alternative will experience a higher out-commute, resulting in greater impacts to the state highway system. Alternative 2 may cause as significant impacts to S.R. 59 as the villages plan, R and G Streets may experience many similar or greater impacts under Alternative 2, and M Street will probably experience much greater impacts because it will be the central arterial into downtown. Overall, both scenarios will cause severe impacts to the existing arterial system.

Air Quality

Air quality impacts for Alternative 2 will generally be greater than for the preferred alternative due to Alternative 2's reliance on the automobile as the primary source of transportation. Although Alternative 2 traffic volumes are 9% to 10% higher than the preferred alternative, village concept plans have the potential to reduce trip generation by up to 26%.

5.0 ALTERNATIVES TO THE PROJECT

5.0 ALTERNATIVES TO THE PROJECT

Purpose and Methodology

CEQA Guidelines state that alternatives to the preferred project should describe and qualitatively analyze a range of reasonable alternatives or an alternative location. The key issue is whether the selection and discussion of the alternatives provides information to decision-makers and the public regarding development options (Guidelines, 15126 (d)).

In that regard, this section identifies and examines feasible alternatives to the project as identified by the City. Environmental impacts associated with each of these alternatives are compared with those resulting from the preferred project and are summarized in the matrix table (Table 5.1) at the conclusion of this section.

For comparison purposes, the "preferred project" is the proposed Bellevue Ranch Master Plan which has been analyzed in the preceding sections of the EIR. The "Merced Villages Plan" refers to the 8,000 acre village plan area north of the City limits. In some instances the alternatives have been analyzed for the project site only. Where appropriate, however, the analysis addresses the entire planning area north of the City.

Description of Alternatives

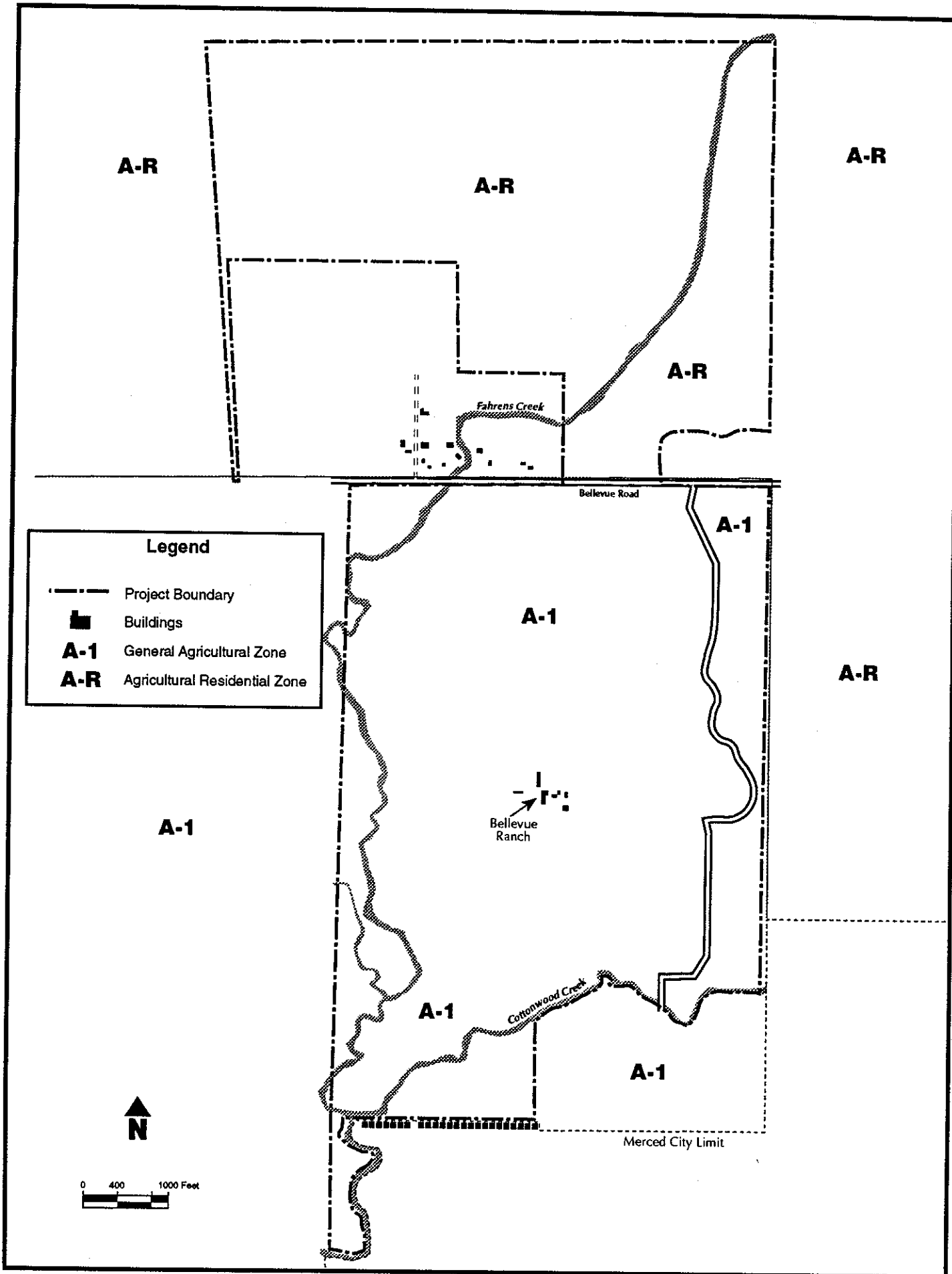
The alternatives discussed in this section represent realistic alternate uses for the project site, based upon plausible growth scenarios for the northern planning area of the City. Alternatives addressed in this for the purposes of this EIR include:

Alternative 1: No Project

This alternative (Figure 5.1) addresses environmental impacts assuming that there is no annexation effort for the project area and no revisions made to the current County Zoning Ordinance or other City or County plans over the same time frame as the preferred alternative (to the year 2010). Land use for the project site would be regulated by the County General Plan and Zoning Ordinance. The No Project alternative consists of one acre or twenty acre rural residential parcels with a few small pockets of existing commercial and industrial development.

Alternative 2: Traditional Subdivision Alternative (TS-1)

This alternative (Figure 5.2) represents a land use plan based upon traditional residential subdivision development. The TS-1 plan consists of a high proportion of low-density residential land uses, modelled after actual projects that have been submitted to the City or the County for preliminary review. Because the project area is within the



WILLDAN ASSOCIATES
ENGINEERS & PLANNERS

Figure 5.1
No Project Alternative

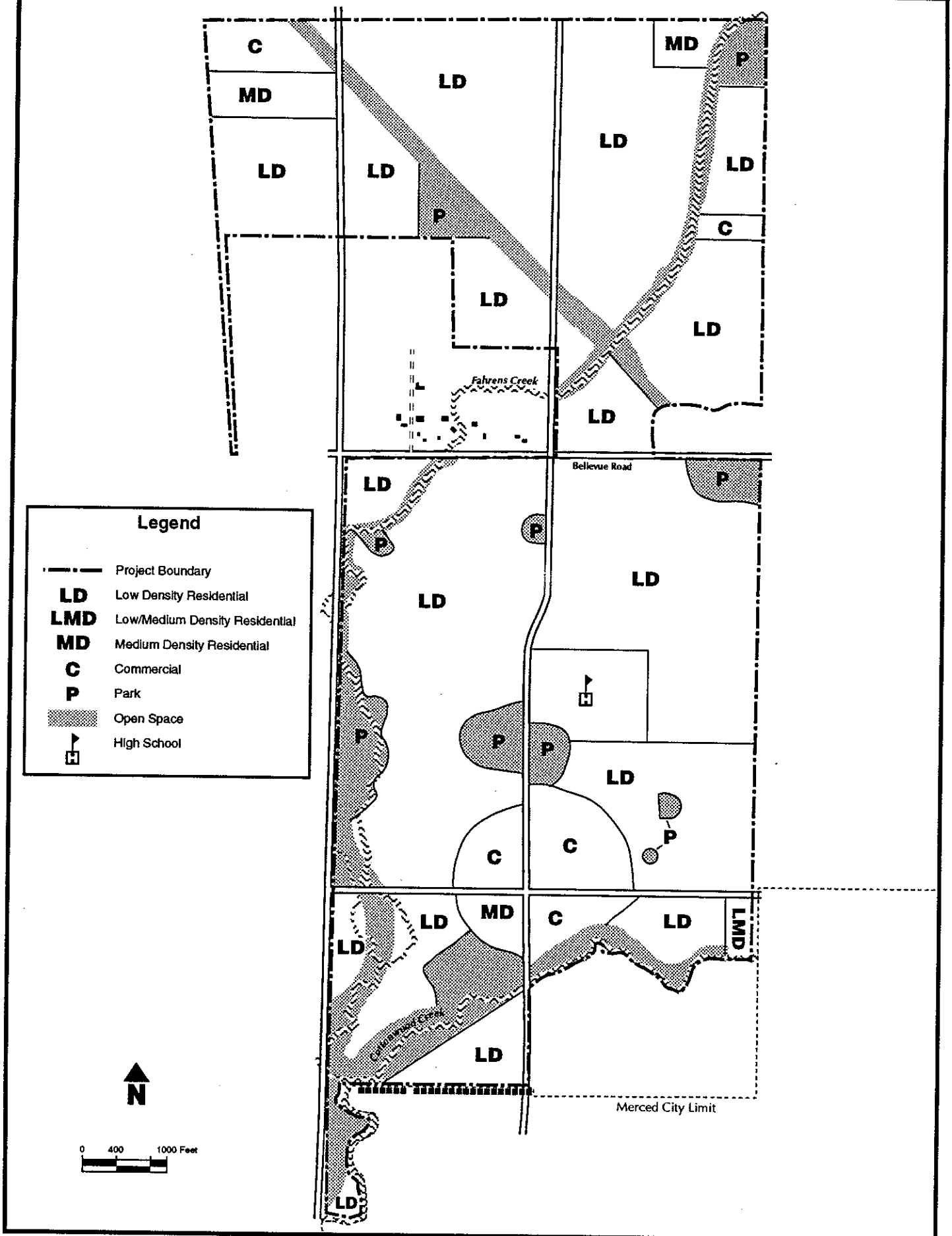
electromagnetic exposure level greater than 1.0 milligauss prior to approval of final maps. Due to the State of California's lack of a setback standard for electromagnetic fields, final determination for land uses or setbacks within power line corridors will be at the discretion of the City.

MM 4.14.7 Until such time as it can be demonstrated to City satisfaction that health risks associated with transmission lines are non-significant prior to the approval of a final map for areas involving the above noted transmission lines:

A 260 foot wide right-of-way shall be established for the site's 115 kV transmission line, prohibiting residential units from within 130 feet from the centerline of the transmission easement, to ensure that no house receives an electromagnetic exposure higher than 1.0 milligauss. Alternative land uses, such as parks, open space, trails, or other non-residential uses should be considered within this right-of-way at the discretion of the City.

or,

The project applicant shall demonstrate that residences located closer than 130 feet from the centerline of the transmission line easement will not achieve an electromagnetic exposure level greater than 1.0 milligauss. Due to the State of California's lack of a setback standard for electromagnetic fields, final determination for land uses or setbacks within power line corridors will be at the discretion of the City.



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ENGINEERS & PLANNERS

Figure 5.2
Traditional Subdivision (TS) Alternative

Noise

Noise impacts will be similar for either the preferred alternative or Alternative 2 scenarios due to a general increase in traffic volumes.

Population, Housing, and Employment

Alternative 2 contains only 58% of the employment opportunities than the Merced Villages Plan has north of Yosemite Avenue, thus resulting in greater impacts relative to a jobs/housing balance.

Human Health

Impacts and issues regarding human health issues would be the same for either the preferred alternative or Alternative 2.

Summary

On a site-to-site comparison, Alternative 1 appears to be an environmentally superior alternative to the preferred project (Bellevue Ranch) and Alternative 2 (Traditional Subdivision). When a comparison between land use effectiveness is made, however, it is apparent that the efficiency of the preferred project is "**environmentally superior**" to either Alternative 1 or Alternative 2. This is especially true in a regional context, as described below.

County rural residential development capable of accommodating MCAG populations for the northern planning area (15,000 dwelling units) would result in a number of negative environmental impacts. In terms of accommodating new residents, it is an inefficient use of land resources since current designations would require a more wide-spread conversion of agricultural lands. Rural residential development could also potentially contribute to the degradation of local aquifers with the increased use of septic systems.

Alternatives 1 and 2 would also contribute to the "sprawl" of urban development to varying degrees, making public services more costly and less efficient, and requiring more frequent and longer motor vehicle trips. This in turn would contribute to more severe air quality problems than would the preferred alternative.

Finally, the preferred alternative is generally consistent with the land use goals and policies of the City General Plan and the Merced Villages Concept Plan. The stated objectives of these plans is to guide future development in an efficient, compact manner which avoids the region's physical constraints.

6.0 GROWTH INDUCING IMPACTS

6.0 GROWTH INDUCING IMPACTS

Overview

The California Environmental Quality Act (CEQA) requires all Environmental Impact Reports (EIR) to discuss the growth-inducing impacts of proposed projects. The discussion involves the ways in which a project could, "foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment" [1992 CEQA Guidelines, Section 15126 (g)].

A project could induce growth by lowering or removing barriers to growth, or by creating an amenity that attracts new population or economic activity. The growth inducing potential of a project would generally be considered to have a significant impact if the project either induced growth or created the capacity for growth above and beyond the levels permitted by public planning policies. The extension of urban services into previously unserved areas or the introduction of a major facility such as a sewer treatment plant, for example, can be growth inducing factors.

Analysis

The 1,365 acre Bellevue Ranch proposal is the first project within the 8,000 acre Villages Concept Plan area, and is located along the northern periphery of the Merced SUDP area. Village concept development activity is planned for the areas immediately north, east and west of the project site.

Bellevue Ranch would ultimately add approximately 6,700 dwelling units (18,000 persons) to the Villages Concept Plan area over a 15 year period. Although an ultimate population of 74,000 persons are planned for this area, the additional demand for public services, utilities and market goods created by the project may test the limits of the urban expansion boundary. This would definitely be the case if the University of California selects the Lake Yosemite site for the newest UC campus. Located northeast of the project site, a UC campus would greatly increase development pressure on the SUDP.

To avoid inducing growth or creating the capacity for growth above and beyond the levels permitted by the public planning policies, the Merced planning effort intends to proactively accommodate anticipated growth by establishing specific parameters for growth.

Development of the Bellevue Ranch site is expected to have a growth-inducing effect within the SUDP and Villages Concept Plan areas. This growth is anticipated by the City's Merced 2030 and Villages Concept planning efforts, however, and is not anticipated to have adverse effects beyond the SUDP, such as leap-frog development.
This is an issue of concern, however, and should be closely monitored by the City and County as growth pressures increase.

TABLE 5.1
ALTERNATIVES IMPACT COMPARISON MATRIX

	ALTERNATIVE 1 - NO PROJECT		ALTERNATIVE 2 - TRADITIONAL SUBDIVISION	
Environmental Topics	Site Impacts	Northern Planning Area Impacts	Site Impacts	Northern Planning Area Impacts
Land Use	+	+	○	○
Agricultural Land Use	-	+	○	○
Aesthetics/Light and Glare	-	-	+	○
Parks/Recreation/ Open Space	○	○	○	○
Landform/ Topography	-	-	○	○
Cultural Resources	-	○	○	○
Hydrology/Water Quality	-	+	○	○
Biology	-	-	○	○
Public Facilities	-	○	+	+
Traffic	-	-	+	+
Air Quality	-	+	+	+
Noise	-	-	○	○
Population/ Housing/ Employment	–	+	+	+
Human Health	○	○	○	○

Key: - impact of alternative is less than impact of preferred project.
+ impact of alternative is greater than impact of preferred project.
○ impact of alternative is the same as the preferred project.

City's Specific Urban Development Plan (SUDP), this alternative assumes annexation by the City.

This analysis does not include an "alternate site" option. Alternate site options are typically applied to public projects (schools, prisons, utility facilities, etc.) where there is more flexibility in locating and securing a range of potential sites. Private development projects such as Bellevue Ranch generally do not have that flexibility due to site specific ownership and limited influence on land holdings.

Assumptions for Project Alternatives

The following assumptions apply to both alternatives:

1. There is no University of California campus within the planning period.
2. The northern planning area of Merced will require approximately 15,000 additional dwelling units, based upon MCAG's population projections for 2010.
3. Land use within Merced's city limits are the same as the Village Plan.
4. Reuse of Castle AFB will ultimately support 5,000 employees.

Comparative Analysis

ALTERNATIVE 1: NO PROJECT

The CEQA Guidelines require that all environmental impact reports include a comparative evaluation of the No Project alternative [Guidelines, 15126 (d) (4)]. A comparative analysis of the anticipated environmental impacts of implementing the No Project alternative includes:

Land Use

The No Project alternative involves no changes to the current County General Plan or Zoning Ordinance, or revisions to other City or County plans through the year 2010. Land use patterns for the project site would generally follow the existing "grid" pattern, with residential development occurring on one acre to 20 acre parcels.

Agricultural Land Use

During the planning period, agricultural uses under Alternative 1 would probably continue on the project site for some time, to be eventually phased out by rural residential uses as development pressure builds (based on MCAG projections).

be minimal under Alternative 1 due to the small number of people exposed, and minimal under the preferred alternative due to any necessary mitigation.

ALTERNATIVE 2: TRADITIONAL SUBDIVISION ALTERNATIVE

The following is a comparative analysis of the anticipated environmental impacts of implementing Alternative 2, a traditional residential subdivision.

Land Use

Land use impacts for Alternative 2 would generally be the same as for the preferred alternative. Both Alternative 2 and the preferred project would result in changes to land use patterns from rural to urban, although in different configurations. Alternative 2 consists of a higher proportion of low density residential than does the preferred project.

Agricultural Land Use

Alternative 2 impacts for the project site regarding agricultural land conversion would be the same as the preferred project. Both scenarios would convert all agricultural lands on site to urban uses. In a regional context Alternative 2 would have a similarly "controlled" impact, assuming that development is contained within the SUDP.

Aesthetics/Light and Glare

The preferred alternative incorporates specific design guidelines with regard to building scale, landscaping, use of space, and other design elements which are intended to heighten the aesthetic appeal of urban development. Without the use of such a framework, Alternative 2 would have a greater aesthetic impact to area residents than would the preferred alternative.

Parks, Recreation, and Open Space

Additional parks, open space, and facilities under Alternative 2 would be provided pursuant to jurisdictional standards. Although facilities would be provided in different acreage configurations than the preferred alternative, impacts would generally be the same.

Landform and Topography

The project site would be converted to urban uses by implementation of the preferred project or Alternative 2, and would result in similar impacts.

7.0 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSAL IS IMPLEMENTED

7.0 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSAL IS IMPLEMENTED

Overview

The California Environmental Quality Act (CEQA) requires all EIRs to discuss unavoidable significant environmental effects. Also, the discussion should include the implications and reasons why the project is being proposed notwithstanding their unavoidable significant environmental effects [1992 CEQA Guidelines Section 15126(b)].

Analysis

Air Quality

An increase in urban uses, automobiles, and associated air pollution generators will result in an incremental degradation of regional air quality. This is a cumulative and unavoidable impact if the project is to be implemented.

Although this EIR recognizes that a village concept development will produce fewer emissions than traditional development patterns, the proposed project will still unavoidably contribute to air quality problems. This project is being proposed notwithstanding this significant impact in order to facilitate the managed growth goals of the City of Merced.

Agricultural Land Conversion

As noted previously, the conversion of prime and important farmlands is a significant impact that cannot be mitigated or avoided. The discussion contained in this report indicates that both the City and County anticipate the area north of the existing City boundary to convert to urban uses in lieu of other areas to the east and west that have higher concentrations of prime and important farmlands. In this regard, the conversion of the Bellevue Ranch to urban uses will have an incremental effect on farming activity in Merced County.

8.0 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY

8.0 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY

Overview

CEQA mandates that all Environmental Impact Reports discuss the relationship between short term uses of resources, such as land use for development purposes, versus the long term benefits of not developing the project and leaving the land in agricultural production or open space. The relationship between short-term productivity is often one of trade-offs, or of balancing social, economic, environmental and similar concerns over time,. In some instances, a relatively short-term benefit may have adverse cumulative effects, with the possibility that future generations and the future economy may be burdened with unwarranted social or environmental costs. The opposite situation, in which long-term benefits occur at the expense of short term impacts, is also possible. Decisions that influence the balancing of such impacts for this project are the responsibility of the City of Merced Planning Commission and City Council.

Analysis

The "short term" use of the project site for urban development, versus keeping the land in agricultural production, is a calculated policy decision based upon the Merced 2030 planning effort. By designating an urban growth corridor based on an opportunities and constraints analysis, urban expansion (short-term benefits) will be consolidated so that large tracts of prime agricultural land (long-term maintenance) may be preserved. In this sense the 2030 planning effort builds in "controlled impacts", or trade-offs, at an early stage in order to minimize uncontrolled impacts in the future.

Development of the site as a mixed-use community is, in terms of its physical lifespan, a short-term use of man's environment. However, implementation of the project would represent a relatively long-term commitment to urbanization since it is unlikely that the land would revert back to open space or agriculture. It is logical to assume that the various components of the project will gradually be replaced by more productive urban activities as redevelopment of the land occurs in response to future human needs.

Major advantages to near-term development include greater economic productivity from the land and an increased revenue base for the City of Merced. The urban expansion of this portion of the County is an economic and social goal outlined in City and County policy plans. The designation of the Specific Urban Development Plan area (SUDP) is intended to allow for continued urban growth while minimizing future environmental costs.

9.0 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES AND IRRETRIEVABLE COMMITMENT OF RESOURCES

10.0 CUMULATIVE IMPACTS

10.0 CUMULATIVE IMPACTS

Overview

The 1992 CEQA Guidelines (Section 15130) requires a discussion of potential cumulative impacts that could result from a proposed project in conjunction with other projects in the vicinity. Cumulative impacts are those impacts that may be minor when examined individually, but when combined with similar impacts associated with existing development, proposed and planned projects, have the potential to become significant. CEQA states that the discussion of cumulative impacts does not need t provide the same level of analysis as provided for the project alone. As such, the discussion of cumulative impacts generally relates to the following:

- Use of past, present and reasonably anticipated future projects producing related or cumulative impacts, or

- A summary of projections contained in an adopted General Plan or related planning document which is designed to evaluate regional or area-wide conditions.

For the purposes of this EIR, the second method was chosen to address cumulative impacts. The following is a summary of those impacts.

Land Use

Individually, Bellevue Ranch does not suffer impacts due to incompatible surrounding land uses. As other development projects are built and the Villages Concept Plan area reaches buildout, however, urban uses may be competing with active agricultural lands on the fringes of the urban expansion area.

Agricultural Land Use

The proposed project converts a small number of prime farmland acres from agricultural uses to urban uses. Although the Merced planning effort intends to preserve larger tracts of agricultural and prime farmland, this conversion remains a cumulative impact in that it contributes to the decrease in total prime farmland acres statewide.

Aesthetics

This project, in addition to other development projects in the vicinity, will result in a cumulative shift from open spaces to a more urbanized setting. While this impact is not

considered significant, it does constitute a cumulative change to the general character of the region.

Cultural Resources

The proposed project would result in the loss of an example of a ranch complex containing architecture dating from the 1870's to 1940. The project's contribution to the cumulative loss of examples of early twentieth century ranch complexes constitutes a significant cumulative impact associated with the project.

Biology

The proposed project, and cumulative development, will result in the loss of naturally occurring wetlands habitat, including the habitat of fairy and tadpole shrimp. Federal Section 404 and 7 regulatory policies require mitigation to insure no net loss of either wetland habitat values or acreage. Projects must comply with these regulations. Compliance may take the form of wetlands preservation, restoration or construction. Wetlands restoration or construction, however, may arguably result in an intangible intrinsic impact associated with the cumulative loss of naturally occurring habitat.

Public Facilities and Services

The two recent Michael Paoli reports analyze future cumulative conditions relating to growth of school-age children. For the Merced City Elementary District, one report noted that future enrollments between the years 1999 and 2009 are expected to range from 16, 727 to a high of 18,449. By the year 2009-2010, assuming normal growth rates, elementary enrollment could range from a high of 20,691 to a high of 23,860 students. Based upon these projections, the City School District is estimated to need between one new K-5 and 0.7 of a 6-8 school by 1994 to a maximum of 11 new K-5 and 4.7 6-8 schools by the school year 2009.

In October, 1989, District enrollment was 6,954 students, excluding continuation and independent study students. Projected enrollments, completed by Michael Paoli and Associates and based upon anticipated growth rates within the District, anticipate an enrollment range between 11,253 and 12,437 students by the school year 1999-2010. By the school year 2009-2010, enrollments are may reach between 13,538 to 17,127 students within the District. Based on these projections, the District will need one new high school by 1994, at least two new high schools by 1999, between three and four new high schools by 2004 and between four and five new high schools by 2009. The above assumes that a year round schedule will be in place for at least a portion of these facilities.

Hydrology

Development in addition to Bellevue Ranch will cumulatively increase storm water run off, by increasing the quantity of paved, impervious surfaces. However, as each development project is reviewed by the City, development applicants will be required to incorporate drainage improvements within each within each project so as to not over-burden local and region drainage facilities. Other potential cumulative impacts to hydrology include the potential for increasing erosion and sedimentation in local creeks, reservoirs and bodies of water as well as increasing run-off pollutants associated with urban development.

Transportation and Circulation

The cumulative effect of Bellevue Ranch and other projects in the vicinity will directly affect the level of vehicle traffic in the Merced area. Section 4.10 of the EIR addresses cumulative traffic impacts on highways and local roads and concludes that even with new roadways and improvements, cumulative level of service impacts will be significant.

Air Quality

Growth accommodated by the proposed project would result in substantial new regional emission, and a much greater emission would result from cumulative development in the area. These new emissions are a significant cumulative impact and could cause a deterioration in regional air quality and delay eventual attainment of the air quality standards for ozone and PM-10 in the San Joaquin Valley air basin.

Noise

Predictions of future noise levels indicate that traffic noise along major arterials in the vicinity of the project will increase significantly with the development of the area. Appropriate land uses along roadways, building setbacks, and sound barriers will be required to keep noise levels below acceptable levels.

Population, Housing, and Employment

The proposed project and cumulative development planned for the Merced area will help to meet anticipated housing demand in the region. The project's employment creation and cumulative employment creation in the County will not result in a significant cumulative growth inducing impact, as it is the stated intention of General Plan to expand urban land uses (which includes employment opportunities) to this area.

Human Health

The proposed project may require the removal and transport of contaminated soil or building materials to a Class I - Hazardous Waste Facility. Although the amount of contaminated material which is anticipated to require disposal is not anticipated to significantly impact hazardous materials disposal facility capacity, the proposed project result in a potential significant cumulative impact on hazardous materials disposal facility capacity.

11.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

11.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

Overview

The California Environmental Quality Act (CEQA) requires Environmental Impact Reports to contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR (1992 CEQA Guidelines Section 15128).

Analysis

Based upon the environmental review process conducted prior to the preparation of the Administrative Draft EIR, responses to the Notice of Preparation, and public input from the public scoping meeting, the City determined that the following environmental issues did not require in depth analysis pursuant to CEQA:

Natural Resources

This EIR does not contain a specific Natural Resources section primarily because the site contains no stands of timber, mining deposits, or other "natural resources".

12.0 PREPARERS OF THIS REPORT

12.0 PREPARERS OF THIS REPORT

This report was prepared by Willdan Associates. Willdan has no financial interest whatsoever in the approval or disapproval of the proposed project, and assumes no financial responsibility for damages incurred by any party due to information or statements contained herein.

Philip O. Carter, M.P.A., B.A., Vice President

Jeff Pemstein, M.R.P., B.A., Director of Planning Services

Tad Stearn, B.A., Associate Planner

Susan O'Carroll, PhD, M.A., Senior Planner

Jerry Haag, M.P.A., B.A., Project Planner

Scott Galati, J.D., B.S., Project Planner

Scott Pfaendler, B.A., Planning Technician

Alan Inouye, B.S., Planning Technician

This report was prepared with assistance from the City of Merced, with a special thanks to Phil Block, John Hofmann, Dave Daly, Kim Espinosa, and Steve Stroud. Traffic consulting services were provided by Fehr & Peers Associates under the direction of James M. Daisa. Air quality consulting services were supplied by Don Ballanti. Biological resource and wetland consulting was provided by Sugnet & Associates under the direction of Ken Whitney. Noise analysis was conducted by Charles M. Salter Associates under the direction of Michael Toy. The geotechnical investigation was conducted by Herzog Associates, Inc. under the direction of Craig S. Benson. Cultural and archeological studies were conducted by Basin Research Associates, Inc. under the direction of James Bard.

APPENDIX

COMMUNITY DEVELOPMENT DEPARTMENT

678 W. 18TH STREET MERCED, CA 95340 (209) 385-6858

NOTICE OF PREPARATION

TO: (See Attached List)

FROM: Lead Agency
City of Merced
678 W. 18th Street
Merced, CA 95340

SUBJECT: NOTICE OF PREPARATION OF A PROJECT ENVIRONMENTAL IMPACT REPORT PURSUANT TO PUB. RES. CODE SEC. 21080.4 AND CAL. ADMIN. CODE TITLE 14, SEC. 15082(a).

The City of Merced will be the Lead Agency and will prepare a Project Environmental Impact Report (Project EIR) for the project identified below. We need to know the views of your agency's statutory responsibilities in connection with the proposed project.

The project description, location, and the probable environmental effects are contained in the attached materials.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but no later than 30 days after receipt of this notice. We respectfully request that you return your comments to the above noted Lead Agency address by 11-6-92. If no comments are received by the date indicated, it will be assumed that the document is acceptable.

If you have any questions regarding this master, please contact John Hofmann at (209) 385-6858, or Jeff Pemstein, Project Manager, Willdan Associates at (916) 924-7000.

EIR FILE #: 92-01 APPLICANT: D.R. STEPHENS & CO.

PROJECT DESCRIPTION: City of Merced, Bellevue Ranch Environmental Impact Report.

JOHN HOFMANN, PRINCIPAL PLANNER
COMMUNITY DEVELOPMENT DEPARTMENT

By: John Hofmann by JZ Date: 10-7-92
John Hofmann

AFFIDAVIT OF MAILING AND POSTING

I declare that on 10-7-92, I deposited in the United States mail facilities in the City of Merced, State of California, a true copy of the above Notice of Preparation (NOP) with any attachments, with the postage thereon prepaid, addressed to each public agency and other interested parties on the attached distribution list. A copy of the NOP has also been mailed or derived to the Merced County Clerk who is required to post said NOP for a period of 30 days in accordance with Public Resources Code Section 21092.3.

Signature

Asst. Planner
Title

COMMUNITY DEVELOPMENT DEPARTMENT

678 W. 18TH STREET MERCED, CA 95340 (209) 385-6858

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PROJECT DESCRIPTION: City of Merced, Bellevue Ranch Environmental Impact Report.

JOHN HOFMANN, PRINCIPAL PLANNER
COMMUNITY DEVELOPMENT DEPARTMENT

By: _____ Date: October 8 1992
John Hofmann

AFFIDAVIT OF MAILING AND POSTING

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_____ Asst. Planner
Signature Title

NOTICE OF PREPARATION
BELLEVUE RANCH
ENVIRONMENTAL IMPACT REPORT

PROJECT DESCRIPTION AND OBJECTIVES

1. Project Description

o Project Description

Under the direction of the Merced City Community Development Department, the project applicant (D.R. Stephens and Company) has prepared a Site Plan for the development of the Bellevue Ranch property. The project and surrounding area have been identified through both the Merced Villages Concept Plan and Merced 2030 Growth Plan as the logical areas for growth relative to City expansion.

As a result of these planning efforts, the City of Merced has considered options for future development in the area north of the City. The pattern of development for the Bellevue Ranch area is expected to reflect the "villages concept" of land use and design. The Village Concept used in the Bellevue Ranch Conceptual Plan provides for compact and efficient development patterns and a diversity of housing types while distributing public facilities throughout the project to serve all residents and create a sense of community by providing retail and public facilities at the Village Centers. The Community Development Department commissioned Calthorpe Associates to prepare a document which provides a template for future development. This document, the Merced Villages Design Guidelines, is intended to pattern growth in this area for the next 20 years and beyond.

Using the villages concept, the Specific Plan provides for the integration of housing (at various densities), retail commercial uses, public facilities, and office uses in compact neighborhood settings. Proposed land uses include standard single family, single family detached patio homes, multi-family, commercial, office, public facilities and open space. At total buildout, Bellevue Ranch will generate approximately 5,971-6,894 dwelling units in a range of lot sizes and types. Standard single family will account for approximately 2,384-2,981 units on 590± acres, single family detached patio type homes will account for approximately 1,790-2,116 units on 325 acres and multi-family will account for approximately 1,797 units on 82± acres of land. Other uses included 89± acres of commercial, 20± acres for elementary schools, 14.7± acres for park and ride/transit facilities, 51.3± acres of parks, 122.2± acres of open space, 40± acres for a high school, 1.6± acres for a fire station and 23.1± acres for office development. The implementation of this concept will allow for a range of opportunities which include:

- Pedestrian oriented neighborhoods with less reliance on single occupant vehicle trips

- Techniques which will be utilized in the siting and construction of buildings for a high level of energy conservation

- A balanced ratio of jobs and housing

- Public transportation and transit options which allow for better air quality and reduced street pavement requirements

The effect of this design concept will be a community that is balanced and self-sufficient, while providing a variety of environmental, social, and cultural benefits to the residents of the project and the City.

Bellevue Ranch will have two Villages situated along major thoroughfares to facilitate public transit. The northern Village is adjacent to Old Lake Road and the southern Village is adjacent to Bellevue Ranch Road. The Village Cores will provide a mix of commercial, and multi-family residential uses surrounding the central park and an area reserved for a future transit station. The surrounding area adjacent to the Village Cores will consist of primarily standard single family, patio homes and public facilities, such as parks and schools.

Bellevue Ranch will provide an open space network using an existing powerline easement and stream corridors. Fahrens Creek, Cottonwood Creek, and the powerline easement which all traverse the property are an integral part of the project design. They are designed as open space corridors that will provide safe and convenient access to a wide range of recreational opportunities, employment, parks and schools.

2. Objectives

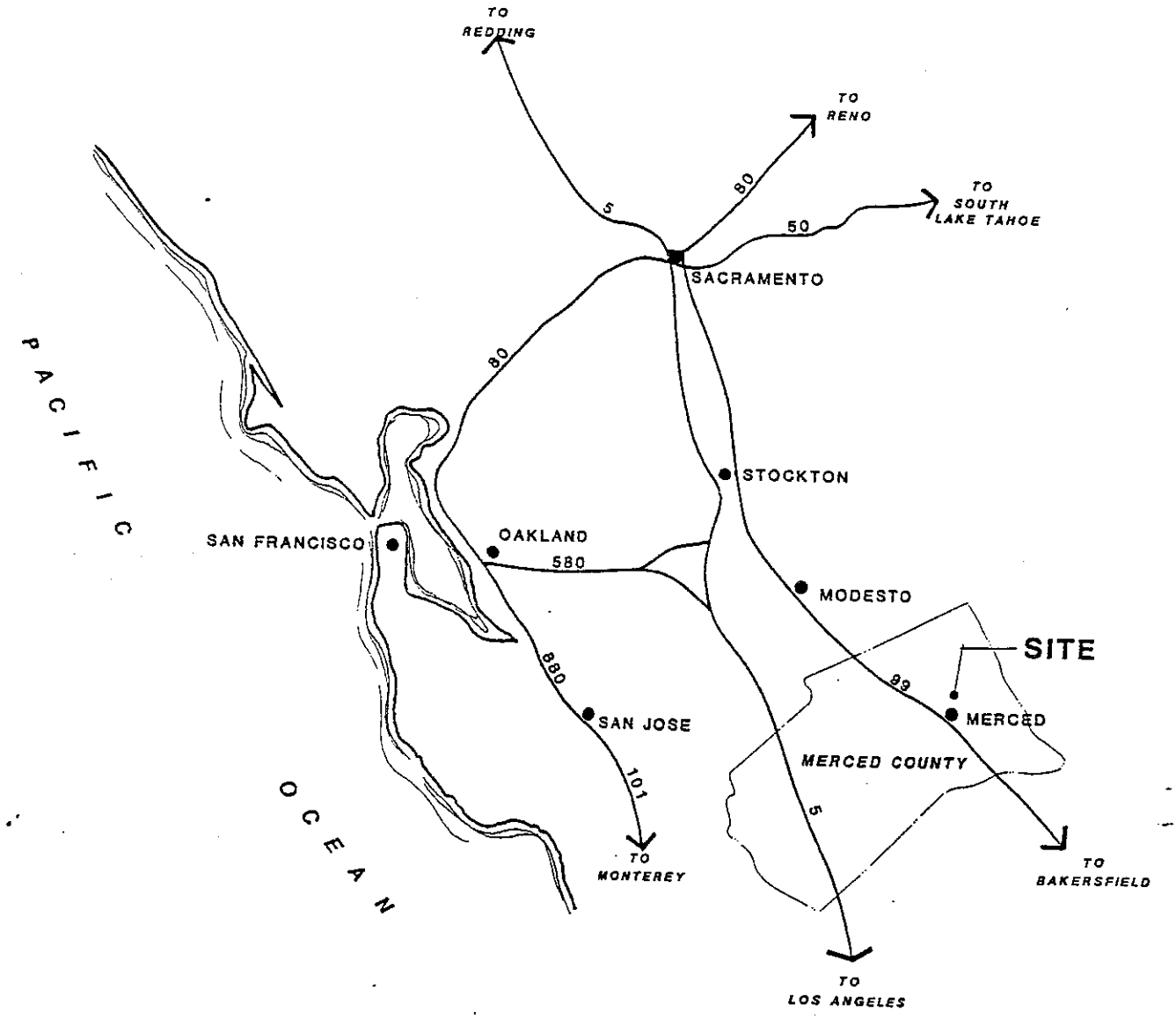
o Project Purpose

The purpose of the proposed project is to allow for the development of the 1,365.5 acre site in accordance with the "villages concept" of urban design. This design concept allows for the integration of residential, commercial, office, open space and public facility uses within the framework of a transit-oriented circulation system. The design of the project incorporates a variety of environmentally-oriented amenities while attempting to achieve a balanced land use pattern that includes job-generating uses in proximity to housing. The combination of these elements is expected to create an overall sense of community that is consistent with the growth patterns envisioned by the Merced 2030 Growth Plan and the Merced Villages Concept Plan.

3. Project Background

On October 2, 1992 the City of Merced completed an Initial Study on the proposed project. Based upon the Initial Study, the City has determined the need to prepare an EIR which is expected to consider the following topics (as detailed in the attached Initial Study):

- Earth/Topography
- Geology and Soils
- Air Quality
- Hydrology/Flood Control
- Biological Resources
- Noise
- Light and Glare
- Land Use
- Natural Resources
- Housing/Population
- Transportation/Circulation
- Public Facilities and Services
- Energy
- Utilities
- Human Health
- Aesthetics
- Recreation/Open Space
- Cultural Resources



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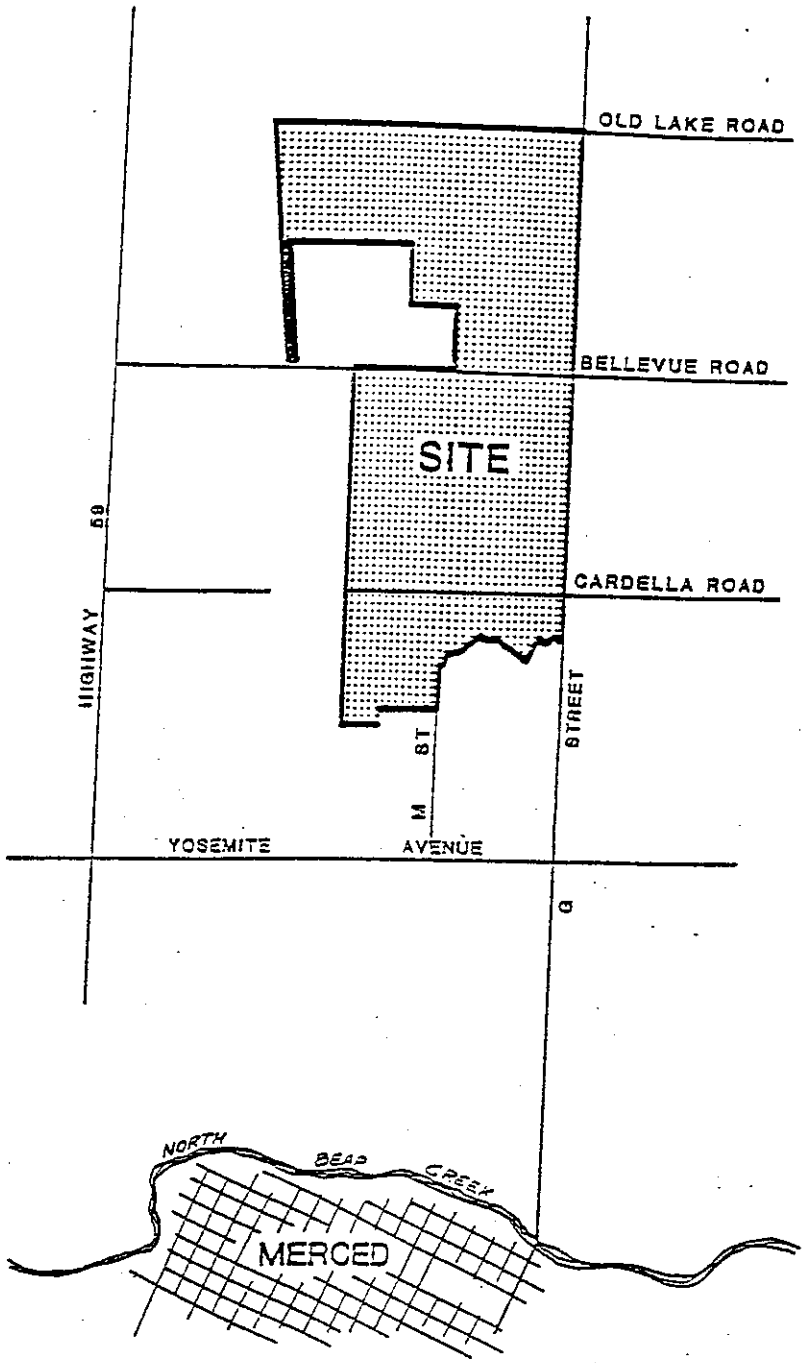

LOCATION MAP

NO SCALE

WILLDAN ASSOCIATES
ENGINEERS & PLANNERS

Merced County
Planning Dept.

LABELS FOR EIR DISTRIBUTION
(Per Frank Quintero)

UA Cablesystems
1335 West 18th Street
Merced, CA 95340

Merced County Department
of Public Works
715 J Street
Merced, CA 95340

Merced County Environmental
Health Department
P.O. Box 471
Merced, CA 95341

Merced County Schools
632 West 13th Street
Merced, CA 95340

Merced Union High School
District
P.O. Box 2147
Merced, CA 95344

Merced City School
District
444 West 23rd Street
Merced, CA 95340

Merced College
3600 "M" Street
Merced, CA 95340

Merced College Library
Reference Desk
3600 "M" Street
Merced, CA 95340

Merced Irrigation District
P.O. Box 2288
Merced, CA 95344

PG & E, District Manager
3185 "M" Street
Merced, CA 95341

Pacific Telephone Co.
General Manager
P.O. Box 432
Merced, CA 95341

Pacific Telephone
Forecasting Assistant
Staff Manager
2700 Watt Ave., #3395
Sacramento, CA 95821

Sierra Club
Ron Stock, Chairman
P.O. Box 186
Mariposa, CA 95338-0186

Merced Ecology Action
435 East 13th Street
Merced, CA 95340

City Manager

Director of Public
Works

Planning Staff

Police Chief

Fire Chief

Assistant Director of
Public Works

LAFCO
c/o Merced County Planning

Executive Officer

Merced County Association
of Governments

Merced Co. Administrator

Merced County Assessor

AT & SF Railway Company
P.O. Box 7931
San Francisco, CA 94120

State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

State Clearinghouse
Dr. Lewis Napton
800 Monte Vista Avenue
Turlock, CA 95380

Pacific Bell
410 South Tully Road
Turlock, CA 95380

Steven G. Randall
Base Community Planner
2768 Fifth Street
Atwater, CA 95301

U.S. Soil Conservation
Service
2135 West Wardrobe Avenue
Merced, CA 95340

BELLEVUE RANCH SPECIFIC PLAN
INITIAL STUDY

PREPARED BY:
WILLDAN ASSOCIATES
2495 NATOMAS PARK DRIVE, SUITE 500
SACRAMENTO, CA 95833

FOR:
CITY OF MERCED COMMUNITY DEVELOPMENT DEPARTMENT
678 WEST 18TH STREET
MERCED, CA 95340

OCTOBER, 1992

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BELLEVUE RANCH SPECIFIC PLAN
INITIAL STUDY

INTRODUCTION

The following Initial Study is intended to evaluate the activities associated with the implementation of the Bellevue Ranch Specific Plan. The proposed Specific Plan area encompasses 1,365.5 acres located to the north of the existing corporate boundary of the City of Merced, within the City's Sphere of Influence (Specific Urban Development Plan Boundary). The Specific Plan provides for the development of this area with a mixture of residential, commercial, office, open space and public facility uses in a "villages concept" design. The proposed project area is being considered for annexation by the City of Merced as part of the Merced 2030 Growth Plan and the Merced Villages Concept Plan.

The lead agency for this project is the Merced City Community Development Department. D.R. Stephens and Company is the project applicant.

BACKGROUND

Project Name:	Bellevue Ranch Specific Plan
Name of Applicant:	D.R. Stephens and Company
Address of Applicant:	550 Montgomery Street, San Francisco, CA
Phone Number:	(415) 781-8000
Parcel Numbers:	

Date Checklist Completed:	September 8, 1992
Agency Requiring Checklist:	Merced City Community Development Department

GENERAL PROJECT INFORMATION

Project Purpose

The purpose of the proposed project is to allow for the development of the 1,365.5 acre site in accordance with the "villages concept" of urban design. This design concept allows for the integration of residential, commercial, office, open space and public facility uses within the framework of a transit-oriented circulation system. The design of the project incorporates a variety of environmentally-oriented amenities while attempting to achieve a balanced land use pattern that includes job-generating uses in proximity to housing. The combination of these elements is expected to create an overall sense of community that is consistent with the growth patterns envisioned by the Merced 2030 Growth Plan and the Merced Villages Concept Plan.

Project Location and Project Site Description

The 1,365.5 acre Bellevue Ranch Specific Plan is the first project proposed within the 8,000 acre Merced Villages Concept and the Merced 2030 Growth Plan areas. The project is located in the primary growth area envisioned under Scenario IV (the "Northern City") of the Merced 2030 Growth Plan.

Regionally, the project site is located east of State Route 99 in central Merced County. More specifically, the project site is bounded by Old Lake Road on the north, "G" Street on the east, Merced College on the south, and generally "R" Street on the west. As discussed previously, the project site lies within the City's Sphere of Influence (Specific Urban Development Plan Boundary) and is expected to be annexed to the City of Merced.

The project site is relatively unimproved and has historically been used for grazing and dry farming. The existing terrain is relatively flat with a knoll located near the center of the property. Two creeks traverse the site: Fahrens Creek, which transects the site from northeast to southwest, and Cottonwood Creek, which flows along the southerly portion of the site from east to west. Cottonwood Creek converges with Fahrens Creek at the southwest corner of the project site.

Project Description

Under the direction of the Merced City Community Development Department, the project applicant (D.R. Stephens and Company) has prepared a Site Plan for the development of the Bellevue Ranch property. The project and surrounding area have been identified through both the Merced Villages Concept Plan and Merced 2030 Growth Plan as the logical areas for growth relative to City expansion.

As a result of these planning efforts, the City of Merced has considered options for future development in the area north of the City. The pattern of development for the Bellevue Ranch area is expected to reflect the "villages concept" of land use and design. The Village Concept used in the Bellevue Ranch Conceptual Plan provides for compact and efficient development patterns and a diversity of housing types while distributing public facilities throughout the project to serve all residents and create a sense of community by providing retail and public facilities at the Village Centers. The Community Development Department commissioned Calthorpe Associates to prepare a document which provides a template for future development. This document, the Merced Villages Design Guidelines, is intended to pattern growth in this area for the next 20 years and beyond.

Using the villages concept, the Specific Plan provides for the integration of housing (at various densities), retail commercial uses, public facilities, and office uses in compact neighborhood settings. Proposed land uses include standard single family, single family detached patio homes, multi-family, commercial, office, public facilities and open space. At total buildout, Bellevue Ranch will generate approximately 5,971-6,894 dwelling units in a range of lot sizes and types. Standard single family will account for approximately 2,384-2,981 units on 590± acres, single family detached patio type homes will account for approximately 1,790-2,116 units on 325 acres and multi-family will account for approximately 1,797 units on 82± acres of land. Other uses included 89± acres of commercial, 20± acres for elementary schools, 14.7± acres for park and ride/transit facilities, 51.3± acres of parks, 122.2± acres of open space, 40± acres for a high school, 1.6± acres for a fire station and

23.1± acres for office development. The implementation of this concept will allow for a range of opportunities which include:

- Pedestrian oriented neighborhoods with less reliance on single occupant vehicle trips
- Techniques which will be utilized in the siting and construction of buildings for a high level of energy conservation
- A balanced ratio of jobs and housing
- Public transportation and transit options which allow for better air quality and reduced street pavement requirements

The effect of this design concept will be a community that is balanced and self-sufficient, while providing a variety of environmental, social, and cultural benefits to the residents of the project and the City.

Bellevue Ranch will have two Villages situated along major thoroughfares to facilitate public transit. The northern Village is adjacent to Old Lake Road and the southern Village is adjacent to Bellevue Ranch Road. The Village Cores will provide a mix of commercial, and multi-family residential uses surrounding the central park and an area reserved for a future transit station. The surrounding area adjacent to the Village Cores will consist of primarily standard single family, patio homes and public facilities, such as parks and schools.

Bellevue Ranch will provide an open space network using an existing powerline easement and stream corridors. Fahrens Creek, Cottonwood Creek, and the powerline easement which all traverse the property are an integral part of the project design. They are designed as open space corridors that will provide safe and convenient access to a wide range of recreational opportunities, employment, parks and schools.

Land Use and Planning

The General Plan designation for the project site is Urban Expansion Area and the current (County) zoning is a combination of A-1 (General Agriculture, 20 acre minimum lot size) and A-R (Agricultural-Residential, one acre minimum lot size). Pending annexation of the project area, the intended zoning designation is Specific Plan Area. The proposed land uses, by acreage, and number of dwelling units are as follows:

LAND USE	ACRES	DWELLING UNITS
Single Family Detached Standard Homes	596.3	2,384-2,981
Single Family Detached Patio Homes	325.6	1,790-2,116
Multi-Family	81.7	1,797
Commercial	89.1	
Office	23.1	
Elementary School	19.9	
Park and Transit Station	14.7	
Park	51.3	
Open Space / Creeks / Easements / Corridors	122.2	
High School	40.0	
Fire Station	1.6	
Total	1,365.5	5,971-6,894

Permits and Approvals Required

The proposed project will require annexation approval from the Local Agency Formation Commission (LAFCo). In addition, the City will need to rezone (i.e., prezone) the property and approve the Specific Plan. The City will also require a General Plan Amendment. The EIR that is to be prepared is expected to provide environmental clearance for all of these entitlements.

REF:_____

_____

MERCED CITY
COMMUNITY DEVELOPMENT DEPARTMENT
(To Be Completed By Project Planner)

TYPE OF PROPOSAL: 1,365.5 Acre Specific Plan & Annexation Request

INITIAL STUDY NO.:_____-_____

DATE RECEIVED:_____

LOCATION: Bounded by Old Lake Road & Merced College generally between "G" & "R" streets.

ASSESSOR'S PARCEL NUMBER(S):

_____

_____

(SEE ATTACHED PUBLIC HEARING NOTICE & MAP.)

I. INITIAL FINDINGS

A. The proposal is a project as defined by CEQA guidelines. Section 15378.

B. The project is not a ministerial or emergency project as defined under CEQA guidelines. Sections 15369 and 15369.

C. The project is therefore discretionary and subject to CEQA. Section 15357.

D. The project is not Categorically Exempt.

E. The project is not Statutorily Exempt.

F. Therefore, an Environmental Checklist has been required and filed.

G. Environmental review has previously been done on this site for a related project and:

1. The current project is similar enough that the previous review remains pertinent (reference none).

2. The current project contains changes sufficient in nature to require a modification of previous review (reference none_____).

II. CHECKLIST FINDINGS

A. The checklist, as prepared by the applicant, is rated as follows: Unsatisfactory 1 2 3 4 5 6 7 8 9 10 Excellent (If less than 5, reject for resubmittal).

B. An on-site inspection was made by this reviewer on _____ _____.

C. The checklist was reviewed on _____.

III. ENVIRONMENTAL IMPACTS: Will the proposed project result in significant impacts in any of the listed categories? Significant impacts are those which are substantial, or potentially substantial, changes that may adversely affect the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant. (Section 15372, State CEQA Guidelines. Appendix G of the Guidelines contains examples of possible significant effects.)

(A narrative description of all "yes" and "maybe" answers is provided on attached sheets).

	Yes	Maybe	No
A. Earth. Will the proposal result in:			
1. Unstable earth conditions or in changes in geologic substructures?		✓	
2. Significant disruption, displacement, compaction or overcovering of the soil?	✓		
3. Significant change in topography or ground surface relief features?		✓	
4. Any destruction, covering or modification of any unique geologic or physical features?			✓

	Yes	Maybe	No
5. Any increase in wind or water erosion of soils, either on or off the site?		✓	
6. Any changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?		✓	
7. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?		✓	
B. Air. Will the proposal result in:			
1. Substantial emissions or deterioration of ambient air quality?		✓	
2. The creation of objectionable odors?			✓
3. Substantial alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?		✓	
C. Water. Will the proposal result in:			
1. Any changes in the course or direction or rate of water movement of fresh waters?	✓		
2. Significant changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	✓		
3. Substantial alterations to the course of low flood waters?	✓		

	Yes	Maybe	No
4. Any change in the amount of surface water in any water body?		✓	
5. Any discharge into surface waters, or any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity.		✓	
6. Any alteration of the direction or rate of flow of ground waters.		✓	
7. Substantial change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?		✓	
8. Substantial reduction in the amount of water otherwise available for public water supplies?		✓	
9. Any exposure of people or property to water related hazards such as flooding or tidal waves?		✓	

CHECK THE CITY'S FEDERAL FLOOD MAPS. THE SITE IS LOCATED IN ZONE(S) A, AO, X AND AE.

D. Plant Life. Will the proposal result in:

	Yes	Maybe	No
1. Any change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	✓		
2. Any reduction of the numbers of any unique, rare or endangered species of plants?	✓		
3. Any introduction of new species of plants into the Merced urban area, or in a barrier to the normal replenishment of existing species?	✓		

		Yes	Maybe	No
4.	Substantial reduction in acreage of any agricultural crop?	✓		
E.	Animal Life. Will the proposal result in:			
1.	Any change in the diversity of species, or number of any species of animals (including birds, land animals, including reptiles, fish, or insects)?	✓		
2.	Any reduction of the numbers of any unique, rare or endangered species of animals?		✓	
3.	Any introduction of new species of animals into an area, or in a barrier to the normal replenishment of existing species?		✓	
4.	Significant deterioration to existing fish or wildlife habitat?		✓	
F.	Noise. Will the proposal result in a significant increase in:			
1.	Existing noise levels?	✓		
2.	Exposure of people to severe noise level?		✓	
	WHICH NOISE AREA(S) IS THE PROJECT LOCATED IN ON THE CASTLE AIR FORCE BASE NOISES CONTOUR MAP? COMPATIBLE USE DISTRICTS 12 AND 13.			
G.	Light and Glare. Will the proposal produce substantial new light or glare?	✓		
H.	Land Use. Will the proposal result in a significant alteration of the present or planned land use of an area?	✓		

	Yes	Maybe	No
I. Natural Resources. Will the proposal result in any increase in the rate of use of any natural resources?	✓		
WHAT TYPE(S) OF SOIL EXISTS IN THE PROJECT AREA (REFER TO CALIFORNIA DEPARTMENT OF CONSERVATION USDA SOIL CONSERVATION WORKING MAP): THE SITE IS MADE UP OF A VARIETY OF CLAYS AND LOAMS, DOMINATED BY THE ALAMO, LANDLOW, SAN JOAQUIN, WYMAN AND YOKOHL SERIES.			
J. Risk of Upset. Will the proposal involve:			
1. A risk of an explosion or release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident)?		✓	
2. Possible interference with an emergency response plan or an emergency evacuation plan?		✓	
K. Population. Will the proposal significantly alter the location, distribution, density, or growth rate of the human population of an area?	✓		
L. Housing. Will the proposal significantly affect existing or create a demand for additional housing?	✓		
M. Transportation/Circulation. Will the proposal result in:			
1. Generation of substantial additional vehicular movement?	✓		
2. Substantial effects on existing parking facilities, or demand for new parking?	✓		

	Yes	Maybe	No
3. Substantial impact upon existing transportation systems?	✓		
4. Significant alterations to present patterns of circulation or movement of people and/or goods, or to waterborne, rail or air traffic?	✓		
5. Significant increase in traffic hazards to motor vehicles, bicyclists or pedestrians?			✓
N. Public Services. Will the proposal have any significant effect upon, or result in a substantial need for new or altered governmental services in any of the following areas?			
1. Fire services, police services, schools, libraries or other governmental services?	✓		
2. Parks or other recreational facilities?	✓		
3. Maintenance of public facilities, including roads?	✓		
O. Energy. Will the proposal result in:			
1. Significantly increased use of substantial amounts of fuel or energy?	✓		
2. A substantial increase in demand upon existing sources of energy?	✓		
3. The required development of new energy sources?		✓	
P. Utilities. Will the proposal result in a need for new systems, or substantial alterations to the following utilities:			
1. Gas.	✓		
2. Water	✓		
3. Electricity.	✓		

	Yes	Maybe	No
4. Telephone.	✓		
5. Other(s): Cable Television.	✓		
Q. Human Health. Will the proposal result in the creation of any health hazard or exposure of people to potential health hazards (excluding mental health)?		✓	
R. Aesthetics.			
1. The obstruction of any scenic vista or view open to the public?		✓	
2. The creation of an aesthetically offensive site open to public view?			✓
S. Recreation. Will the proposal result in:			
1. A significant impact upon the quality or quantity of existing recreational opportunities?	✓		
2. A significant level of use (or overuse) of existing recreational facilities?		✓	
T. Cultural Resources. Will the proposal result in:			
1. Alteration of, or the destruction of, a pre-historic or historic archaeological site?		✓	
2. Adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?		✓	
U. Mandatory Findings of Significance.			
1. Does the project have the potential to:			
a. Significantly degrade the quality of the environment?		✓	
b. Substantially reduce the habitat of a fish or wildlife species?		✓	

	Yes	Maybe	No
c. Cause a fish or wildlife population to drop below self-sustaining levels?		✓	
d. Threaten to eliminate a plant or animal?		✓	
e. Reduce the number or restrict the range of a rare or endangered plant or animal?		✓	
f. Eliminate important examples of the major periods of California history or prehistory?		✓	
2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future).		✓	
3. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)		✓	
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		✓	

9.0 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES AND IRREVERSIBLE COMMITMENT OF RESOURCES

Overview

The California Environmental Quality Act (CEQA) requires the discussion of irreversible environmental changes [1992 CEQA Guidelines Section 15126(f)]. Irreversible changes include the uses of nonrenewable resources and the commitment of future generation to similar uses.

Analysis

Implementation of the proposed project will result in an increased intensity of development with the conversion of existing rural and agricultural land to a mixed-use community. A variety of resources, including land, energy, water, construction materials, and human resources will be irretrievably committed for the project's initial construction and its continued maintenance.

Development of the site to support a community may be regarded as a permanent and irreversible change from agricultural and vacant land. Grading and development will permanently alter the site's existing visual character and will eliminate a small percentage of the County's active agricultural land. The loss of agricultural land, however, is in part offset by the long-term preservation of land tracts outside of the SUDP.

An increase in the intensity of land use on the site will result in an increase in regional energy consumption. Fossil fuels are the principal source of energy and the project will increase consumption of available supplies including natural gas and gasoline. These energy resource demands relate to initial project construction, lighting, heating and cooling of buildings, and the transport of people and goods.

Construction of the project will require the commitment of a variety of other non-renewable or slowly renewable natural resources such as lumber and other forest products, sand and gravel, asphalt, petrochemicals and metals. This commitment will be commensurate with that of other projects of similar magnitude. Increased long-term commitment of social services and public maintenance facilities would also be required, establishing an increased demand for such services throughout the life of the project.

IV. DISCUSSION OF ENVIRONMENTAL EVALUATION

Narrative description of environmental impacts to follow: (Attach additional sheets if necessary).

A. Earth

1. Maybe. The Bellevue Ranch project proposes landform modifications which may have the potential to result in unstable earth conditions. However, given the level of grading information available to date, this issue will need to be further evaluated and appropriate mitigation measures suggested (if required) in order to render a final determination.

2. Yes. The proposed development is anticipated to involve the disruption, displacement, compaction and/or overcovering of existing on-site soils. Prior to rendering a precise determination regarding grading impacts, additional information needs to be generated in order to determine the quantities of earth to be moved as the project develops, and the measures to be incorporated into the project to ensure the stability of the finished grades.

3. Maybe. Topography and ground surface relief features may need to be modified, however, the property is generally characterized as having limited topographical variation. In this regard, no significant changes are expected because the maximum relief on the site is approximately 20 feet.

4. No Based upon the limited amount of topographical variation on the project site, no impacts to unique geologic or physical features are anticipated.

5. Maybe. Wind and water erosion of soils may increase during the construction phases of project. Adequate erosion control measures will need to be identified relative to soil retention, and to offset any short term impacts of construction related grading operations.

6. Maybe. Fahrens and Cottonwood Creeks could be affected by siltation during the construction phases of the project. At build-out, these creeks will be enhanced and are anticipated to be utilized as open space and habitat areas as a result of the project design concept.

However, given the level of grading information available to date, this issue will need to be further evaluated and appropriate mitigation measures identified (if required) in order to render a final determination.

7. Maybe. The City of Merced General Plan Public Safety Element identifies the Bear Mountain Fault north and east of the City as having the potential to expose people and property to geologic hazards. In addition, a matrix included in the City's Public Safety Element identifies the relative effect recent earthquakes have had on the City of Merced. Further evaluation by a registered geotechnical engineer is necessary to assess the impact any documented or undocumented geologic hazards may have on development of the site, and to recommend measures to reduce or eliminate geologic hazards (if necessary).

B. Air

1. Maybe. The project proposes the conversion of vacant land to urban uses, which will result in an increase of air pollutants from automobiles, construction equipment, and other urban activities. The project, however, incorporates the "villages concept" of urban design which encourages the use of alternative modes of transportation and compact neighborhood enclaves. The potential to reduce reliance on automobiles may result in the project having a lesser impact on air quality than traditional developments of this size. Further evaluation will be necessary to document the benefits of balancing growth, in terms of reduced air emissions, and the resulting potential air quality impacts. The project will need to be reviewed relative to the 1991 Air Quality Attainment Plan and the thresholds of significance established by the San Joaquin Valley Unified Air Pollution Control District.

2. No. As proposed, the project does not involve any uses which could create objectionable odors.

3. Maybe. As noted previously, the project proposes to convert vacant land to urban uses, which may locally change the movement of air as the result of placing structures over open areas. However, given the level of information currently available, additional documentation regarding the orientation of proposed uses will be necessary to

render a final determination.

C. Water

1. Yes. The project site is traversed by both Fahrens and Cottonwood Creeks, which will be affected by the proposed development. Both creeks are identified as part of the Merced County Streams Group Project, and are under the working jurisdiction of the US Army Corps of Engineers. The proposed development plans for Bellevue Ranch utilize the creeks alternatively for wildlife habitat, flood control, and as a recreational/visual amenity. The impact of this multiple usage will need to be examined as well as the requirements of any agencies having jurisdiction over streambed alteration. The rate and flow of groundwater may be affected by changes to absorption patterns which will be caused by the physical development of the site.

2. Yes. This development will increase the amount of impervious surface on-site, thus having the potential to increase surface runoff, and alter drainage patterns. Given the level of information currently available, standards of significance will need to be established relative to project impacts on absorption rates and area drainage patterns. In conjunction with the "villages concept", options such as reducing the amount of impervious surfaces, preserving natural drainage ways and retaining runoff on-site for local aquifer recharge will need to be considered to render a final determination.

3. Yes. Alterations, which may be considered significant, will be made to the course of low flood waters as a direct result of the conversion of the property to urban uses. Additional information will be needed to evaluate the relationship between the proposed development and projects proposed by the US Army Corps of Engineers which are intended to reduce the potential for flooding and direct drainage to improved channels.

4. Maybe. The proposed project has the potential to alter the amount of surface flows in both Fahrens and Cottonwood Creeks. The project is not anticipated, however, to change the surface elevations of any lakes or other water bodies. Additional information will be necessary in order to render a final determination

regarding the project's potential impacts on surface water conditions.

5. Maybe. As proposed, the project has the potential to alter the quality of water discharged into the above noted creeks through an increase in urban runoff, and construction related runoff. This issue will need to be addressed in more detail, with measures to ensure that any water discharges are consistent with State water quality standards.

6. Maybe. The project will result in an increase in impervious surface area, which may affect the rate of flow for groundwater in the area.

7. Maybe. The project proposes to use groundwater wells as the method for domestic water supply. In this regard, the project has the potential to change the quantity of groundwater in the area. In order to render a final determination, additional information will need to be generated regarding the availability of groundwater, and safe yield estimates for the local groundwater reservoir.

8. Maybe. This project may have the potential to impact public water supplies because it will increase the demand for water in relation to existing residential and commercial demand. Additional information will be needed to evaluate existing supply versus future demand in order to ensure adequate supply levels.

9. Maybe. The Public Safety Element of the City's General Plan indicates that portions of the proposed project lie within a 100 year flood plain and are subject to inundation due to failure of the Lake Yosemite Dam. These issues will need to be further evaluated relative to the City's hazard response plans for flooding, Federal Emergency Management Authority (FEMA) criteria, California Division of Mines and Geology Dam Safety Division requirements and to the improvements proposed under the Merced County Stream Group Project Plan, the Merced County Critical Area Flooding and Drainage Plan, and the improvement plans of the Army Corps of Engineers.

D. Plant Life

1. Yes. Based on the information contained in the Merced Villages Concept Plan-Opportunities and Constraints Analysis (dated February 1991), the project site is anticipated to contain areas of wetland, riparian, vernal pool and grassland features as well as low value crop production. The proposed project will affect these plant communities, thereby requiring a more detailed evaluation of the habitat value of the existing vegetative cover and the identification of appropriate mitigation measures (if required) in accordance with all State and Federal regulations.

2. Yes. As noted above, the project site does contain a variety of plant species which will be affected by the proposed development. A formal systematic biological assessment of the site should be conducted to determine whether any unique, rare, or endangered plant species may be impacted by the proposed project. Impacts to any rare or endangered species, as determined through field surveys by a qualified biologist and a review of the California Department of Fish and Game Data Base, will need to be identified and appropriate mitigation measures provided (if necessary) consistent with all State and Federal regulations.

3. Yes. The project has the potential to introduce new plant species into the area in the form of urban landscaping.

4. Yes. The proposed project will reduce the acreage available in the area for agricultural use. However, the City of Merced 2030 "How Should We Grow" Report (dated March 1990) indicated that development under Scenario IV (i.e., the "Northern City" encompassing the Bellevue Ranch area) was desirable due to the absence of prime agricultural soils in this area. Although development of this area is anticipated, additional information regarding the conversion of agricultural lands to urban uses is needed in order to adequately determine the regional significance of this conversion.

E. Animal Life

1. Yes. The proposed project has the potential to reduce the numbers and habitat of existing wildlife on site, although limited information is currently available regarding the types of species which are present. The proposed

project will attempt to preserve habitat wherever possible, but especially along creeks. As previously discussed, a systematic biological assessment of the site should be conducted to evaluate the potential for the existence of any unique, rare, or endangered species on-site, and to explore opportunities to incorporate a habitat conservation program into the project's design.

2. Maybe — See comment noted above.

3. Maybe. — The proposed project will result in the conversion of vacant/agricultural land to urban uses. Correspondingly, there will be an increase in the number of domestic animals associated with proposed residential uses.

4. Maybe. — As noted previously, the project site contains areas which have been preliminarily identified as wetland and grassland habitat areas. However, until a more detailed biological assessment is completed for the project site, a final determination regarding the significance of project impacts to any existing fish and wildlife habitat cannot be made. In this regard, a detailed assessment of both existing and post-development conditions should be conducted, and appropriate mitigation measures suggested prior to rendering a final determination on the project's impact.

F. Noise

1. Yes. — The project will result in the urbanization of land that is currently devoted to low noise producing uses (i.e., vacant/grazing land). Additional information will be needed to render a final determination regarding the noise impacts resulting from the development of the property, as well as to identify methods to buffer noise-sensitive land uses from unacceptable noise levels (if required).

2. Maybe. — The proposed project is located within the influence area of Castle Air Force Base. At present, the project area is within 65 and 70 Ldn noise contours. A noise analysis should be conducted to assess potential impacts and provide mitigation measures to reduce any noise impacts related to the continued and future use of the Air Base which is scheduled for closure, as well as the future traffic on streets.

G. Light and Glare

1. Yes. The proposal will increase the amount of light and glare in the area as the result of the introduction of urban uses to the site. However, given the level of information available regarding street lighting and building types, additional analysis will be necessary in order to render a final determination.

H. Land Use

1. Yes. The proposed project will result in the implementation of the Merced Villages Concept and the preferred growth scenario (Scenario IV) under the Merced 2030 growth report. The project lies within the City of Merced Specific Urban Development Plan (SUDP) and is consistent with the anticipated growth within the City's Sphere of Influence. Approval of the Bellevue Ranch Specific Plan would result in a pre-zoning of the property to facilitate annexation pursuant to the County of Merced Local Agency Formation Commission (LAFCo) procedures. Additional documentation will be necessary in order to demonstrate consistency with the mandatory LAFCo findings for annexation.

I. Natural Resources

1. Yes. Development of the proposed project will require the use of lumber, gas and related construction materials which are incidental to project implementation. The site is not known to contain any significant mineral or other natural resources. As previously indicated, the soils on the project site are not considered to be prime agricultural soils.

J. Risk of Upset

1. Maybe. Neither the site nor any adjacent properties are developed with uses that may result in exposing future residents to hazardous or explosive materials. However, it is anticipated that water wells located within Phases I and II will be super chlorinated at the well-head by chlorine gas injection. Potential exposure of said gas to future residents will be examined. The impact is not anticipated to be significant.

2. Maybe. The Public Safety Element of the City of Merced

General Plan makes references to emergency response, disaster, and evacuation plans. These plans will need to be evaluated relative to the proposed project to ensure that the proposed circulation system is adequate for emergency response needs.

K. Population

1. Yes. This project proposes to provide a variety of housing and employment opportunities. Further evaluation of the projected population resulting from project build-out will need to be conducted to ensure that both existing and future residents of the City are provided with adequate public services. The project's impact on the local jobs/housing balance also needs to be assessed.

L. Housing

1. Yes. The proposed project will substantially increase the supply of housing in the Merced area. The project involves the construction of approximately 6,000 new dwelling units. However, this expansion of the local housing stock, and the population growth associated therewith, is consistent with the projections that underlie the Merced 2030 Growth Plan.

M. Transportation/Circulation

1. Yes. Due to size of the property, the proposed project is anticipated to generate a substantial amount of additional vehicular traffic. However, the proposed project intends to incorporate design criteria and methods associated with the Merced Villages Concept Plan which may substantially reduce the amount of vehicular movement typically associated with development of this scale. In order to adequately address the impact of project generated traffic, a comprehensive traffic study will need to be prepared that evaluates vehicular trips and movements associated with this project, and assesses the resulting levels of service at key intersections. This study should take into account the various transit opportunities posed by the project, and evaluate the circulation benefits of the "villages concept".

2. Yes. The proposed project is anticipated to impact existing parking facilities through use of existing facilities by new

residents, and to create a demand for new parking facilities associated with proposed commercial, office and residential uses. Given, however, that the project will provide various transit opportunities for future residents, parking impacts (both on- and off-site) should be evaluated as part of a comprehensive traffic study for the project.

3. Yes.

The proposed project will impact the existing transportation systems in the Merced Region. As outlined in the Merced Village Concept Plan - Opportunities and Constraints Analysis (dated February 1991), development of the Bellevue Ranch (and the larger Concept Plan area) is anticipated to blend in with the existing circulation facilities, and integrate with the planned expansion of the City's circulation system. The Analysis outlined existing and possible future circulation facilities including freeways (State Route 99), expressways (State Route 59), the western portions of West Olive and Yosemite Avenues, G,M and R Streets and a connector between Yosemite Avenue and State Route 59), arterial streets (Yosemite Avenue, Olive Avenue, portions of G,M, and R Streets, Old Lake Road, Cardella Road, Bellevue Road, and Gardner Road), scenic roads (Lake Road and portions of M Street), bike paths, pedestrian ways, and public transportation.

The proposed project will need to be evaluated in terms of how it responds to the above transportation opportunities in order to render a final determination regarding ultimate effects of the proposed "villages concept".

4. Yes.

The proposed project has the potential to alter present circulation patterns. As noted previously, a comprehensive traffic study should be prepared to assess issues relative to transportation and traffic circulation. In addition, the pending closure of Castle Air Base should be assessed relative to any tentative reuse plans which may affect the Bellevue Ranch project.

5. No.

The proposed project is not anticipated to create any significant traffic hazards to motor vehicles, bicyclists or pedestrians. The project will, however, provide various transit opportunities which are intended to be functionally separated to increase efficiency and reduce

any potential conflicts between transportation facilities.

N. Public Services

1. Yes. The proposed project will have a significant effect upon governmental services such as fire, police, schools and libraries.

a. Fire Services
An evaluation of fire protection services should be conducted to determine the ability to adequately serve the project site. The provision of related emergency services by the City's Fire Department, including both hazardous materials and emergency medical response, should also be examined.

The project, as well as cumulative development, should be evaluated for their potential impact on fire protection and related emergency services.

b. Police Services
An evaluation of police protection services should be conducted that describes the existing conditions relative to the provision of police services in the project vicinity, including the location of police stations, response times, and officer to resident ratios. The assessment of impacts on police services should be based on projected population increases from both the project and cumulative development.

c. Schools
Existing conditions relative to the Merced High School and Merced Junior/Elementary School Districts serving the site should be evaluated in detail. Emphasis should be placed on describing the overall and remaining capacity of existing facilities, and any existing or projected capacity deficits. Projections for the number of school age children generated by the proposed project and cumulative development should be based upon the student generation factors and total student projections provided by the School Districts. The impact of this increased demand on the School District(s), and the off-setting effect of additional schools proposed in the Villages Plan for Cardella Road and M Street (potential high school site), Old Lake Road and R Street (junior high school site), and elsewhere (two elementary school sites) should be evaluated.

d. Libraries

The usage of existing library facilities in the City of Merced relative to total current population should be evaluated. These ratio should then be applied to the expected project generated population to assess the adequacy of existing and proposed library facilities.

2. Yes. The proposed project has the potential to impact parks and other recreation facilities in the vicinity of Merced.

As an expansion of the land use analysis of the proposed project, the existing parks, open space and other recreational resources in the project vicinity should be inventoried. Policies of the City's General Plan and Villages Concept Plan relative to the provision of bike paths (especially within power line easements), active parkland, and the width of open space corridors along creeks should be examined for consistency with all other City land use controls.

As proposed, the project includes the provision of approximately 190 acres of parks, open space, corridors and easements. Because of the unique nature of the existing setting and the opportunities afforded by the villages concept, the standards established by the General Plan and Merced Villages Concept Design Guidelines should be used as the criteria for evaluating the benefits of linking recreational uses with a functional bike path system. The parks, open space and other recreational amenities provided by the project should be considered in assessing the project's impact on the demand for public recreational open space.

3. Yes. The proposed project will increase the need for the maintenance of public facilities such as roads, sewers, drainage systems and parks/open space. Additional information is needed in order to render a final determination regarding the impact that the maintenance of facilities associated with the proposed project will have on the City.

O. Energy

1. Yes. The proposed project will substantially increase the use of energy and fuel in conjunction with construction of the project. This use of energy related resources is

incidental with construction activities, and will be somewhat offset by opportunities to reduce fuel consumption through the orientation of dwelling units to maximize cooling/heating efficiency, the use of solar energy systems, and other energy efficient technologies where feasible.

2. Yes. Development of the Bellevue Ranch project will increase the demand on existing energy sources (i.e. electricity and gas). The precise demand, and corresponding availability, needs to be determined and appropriate mitigation measures developed in order to ensure adequate service delivery in accordance with the Pacific Gas and Electric standards.

3. Maybe. The development of new energy sources to serve the proposed project is not anticipated; however, until precise energy demands are determined and compared to available supplies, a final determination cannot be rendered.

P. Utilities

1. to 5. Yes. The proposed project will impact utilities such as gas, water, electricity, telephone, sewer, solid waste and cable service as described below.

Gas, Electricity, Cable and Telephone Service

The purveyors of gas, electricity, cable and telephone service to the project area will be need to be consulted to document the existing and planned distribution systems within the area. This will include discussing any newly proposed technological advancements which may be applied to the project.

Impacts regarding the provision of the above noted services and opportunities to provide for advanced technology, such as solar technology or INFOTECH systems, should be evaluated, as well as the ability to locate a PG&E substation on-site. The ability of the existing and proposed distribution systems to adequately serve cumulative development within the project needs to be evaluated. The total demand for energy consumption will need to be estimated and compared to existing energy consumption regulations (Title 24 of the California Administrative Code).

Sewer

The proposed project should be evaluated in terms of the location and capacity of existing interceptors and local service lines, as well as the existing capacity at the City's Wastewater Treatment Plant (during both dry and wet weather flows) and any anticipated improvements thereto. The flow generation rates for each use that are utilized in performing this analysis need to be coordinated with the City's Public Works Department.

The potential impacts on the City's sewer system need to be evaluated based on the estimated future wastewater generated by the project. The evaluation should assess the capacity of the local sewer system to accommodate increased flows from the project alone, and cumulatively for other nearby projects. The capacity of the City's Wastewater Treatment Plant to accommodate sewage flows from the project and cumulative development also needs to be evaluated to ensure adequate service delivery for both existing and future residents.

Water

Existing and proposed water supply and distribution systems that serve the project site and surrounding area will need to be evaluated. The increase in water demand resulting from the project and cumulative development should be determined and then compared with the anticipated water supply to ensure adequate service delivery.

Solid Waste

Existing solid waste generation from the site (if any), and the City as a whole, should be documented along with the capacity of existing landfills or other solid waste disposal facilities that serve the City.

The solid waste that could be generated by the project should be estimated and compared to the remaining capacity at the landfill serving the City. Opportunities to reduce solid waste generation through recycling efforts in conjunction with AB 939 should also be examined and discussed as part of the implementation of the proposed project.

Q. Human Health

1. Maybe. The proposed project may have the potential to affect human health in terms of possible hazards associated with the high voltage transmission lines (i.e. electromagnetic fields) which traverse the Bellevue Ranch. The location and width of utility easements containing transmission lines and towers should be identified and mapped. This would include defining the electric transmission and distribution line characteristics in terms of voltage, current capacity and magnetic fields.

The number of structures and outdoor human activities (i.e. planned bike paths) within the proximity of the overhead transmission lines should be identified, and appropriate mitigation measures suggested to reduce any associated hazards.

R. Aesthetics

1. Maybe. The project will alter the existing visual setting of the project area. The existing visual setting should be described, focusing on any prominent visual features, and the impacts of the proposed project on the appearance of the site and community should be evaluated. The evaluation should generally address issues such as the height, bulk, and massing of structures, visual form, landscaping, lighting and building materials as provided by the project applicant. Conformance with design related policies established by the Merced Villages Concept Plan should be reviewed to ensure that the visual transformation of the site occurs as envisioned by the City.

S. Recreation

1. & 2. Yes. The proposed project will impact the supply of existing recreational facilities, as well as the usage of those facilities. The project will require the provision of additional recreational facilities to serve project residents. Conversely, new residents will contribute to the usage of regional recreational facilities such as Lake Yosemite. In this regard, the project proposes to provide a variety of park, open space and other recreational amenities. These park and recreational amenities should be evaluated in relation to the parkland requirements established by the City to ensure that there will be ample recreational opportunities for

both existing and future residents.

T. Cultural Resources

1. and 2. Maybe. The proposed project has the potential to result in impacts to existing archaeological sites and/or prehistoric or historic buildings, structures or objects. The City of Merced is located in an area of high archaeologic and historic sensitivity as noted in the EIR for the Northeast Specific Plan Modification.

With respect to the project site, the Bellevue Ranch, which may have been part of the large Crocker-Huffman holdings, was in operation by at least 1911 and featured cattle ranching, grain farming and meat packing operations. In 1924, when hoof-and-mouth disease struck, some 4000 head of Crocker-Huffman cattle had to be destroyed.

A field survey of the site should be conducted which may result in the discovery of locations where some of these diseased cattle were buried (e.g., evidence of disturbed, slumping ground or cattle bone brought to surface from rodent burrowing, etc.). In addition, evidence of early modern (1930's) staging areas for traveling circus troupes may be found (trash pits or debris piles, historic "artifacts", etc.).

With the anticipated high archaeological and cultural sensitivity of the Bellevue Ranch area, additional cultural resource surveys should be conducted prior to actual development of the property.

U. Mandatory Findings of Significance

1. a. Maybe. A project of this scale has the potential to degrade the quality of the environment. However, implementation of the village concept of development is intended to provide a wide range of housing and employment opportunities, combined with a variety of transit options. Although the project will convert vacant/agricultural land to urban uses, the proposal presents a viable alternative to the traditional form of urban development. Additional evaluation needs to be conducted to examine the individual and cumulative effects on the environment posed by this project.

b.to e. Maybe. The project has the potential to reduce the habitat of a fish or wildlife species based upon prior studies of the project area. However, as noted previously, until a biological assessment of the site is prepared, a precise determination regarding the extent of the project's impacts on plant and animal life cannot be made.

f. Maybe. The proposed project may have the potential to eliminate important examples of California history or prehistory. However, as noted previously, until a site specific cultural resources survey is conducted, a precise determination regarding the existence of and impacts to such resources cannot be determined.

2. Maybe. A project of this scale could have the potential to achieve short term, to the disadvantage of long-term goals. However, as a result of the utilization of the "villages concept" of urban design, the Merced region should realize benefits from this type of development well into the future. Additional analysis should be conducted to evaluate the likelihood and possible occurrence of deleterious long-term effects, as well as the short and long-term benefits this project is likely to produce for the City of Merced and the Merced region.

3. Maybe. The proposed project may have the potential to create impacts which are individually limited but cumulatively considerable. Subsequent documentation should be prepared for the project to evaluate all potential impacts and corresponding levels of relative significance. If necessary, mitigation measures should be developed, implemented and monitored that will reduce any impacts to levels of non-significance.

4. Maybe. As noted previously, the proposed project may have the potential to create environmental impacts which are either directly or indirectly adverse to human beings. Impacts which may be adverse to human health should be identified through subsequent documentation, and (where necessary) mitigation measures should be adopted to reduce impacts to a level of non-significance.

V. DRAFT ENVIRONMENTAL DETERMINATION OF MERCED CITY COMMUNITY DEVELOPMENT DEPARTMENT

Based upon the evaluation of the Initial Study and environmental information provided by the project proponent, the Merced City Community Development Department finds:

☐ The proposed project COULD NOT have a significant effect on the environment, and a DRAFT NEGATIVE DECLARATION has been prepared for public review (see attached).

☐ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures and/or modifications described in the attached DRAFT MITIGATED NEGATIVE DECLARATION FORM will cause the impacts identified to drop to an insignificant threshold.

☑ I find the proposed project may have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

10-7-92
Date Sent Out for Public Review

D. Daly
Signature of Project Planner

John Holmann by JT
Signature of Environmental Coordinator

REMINDER:

ALL INITIAL STUDIES MUST BE ACCOMPANIED BY THE MAP AND PHN THAT WENT "OUT" FOR THE RELATED FILE. THEY ARE TO BE ATTACHED AT THE END OF THE INITIAL STUDY.

CENTRAL CALIFORNIA INFORMATION CENTER

(209) 667-33
Department of Anthropology
California State University
Turlock, Cal

ALPINE
CALAVERAS
MARIPOSA
MERCED
SAN JOAQUIN
STANISLAUS
TUOLUMNE

TO: Merced County
Planning Department

DATE: 10/14/92

CULTURAL RESOURCE REVIEW 92-56

RE: 92-01 D.R. Stephens & Co., Bellevue Ranch EIR

Records at the Central California Information Center of the California Archaeological Inventory have been reviewed to determine if this project would adversely affect prehistoric or historic cultural resources:

— The proposed project area has not been surveyed for cultural resources and contains or is adjacent to known cultural resource(s). A Phase I study is recommended.

X Based upon existing data the proposed project area has the potential for containing cultural resources. A Phase I study is recommended.

— A Phase I cultural resource study identified one or more cultural resources.

— The project area contains, or has the possibility of containing, cultural resources. However, due to the nature of the project or prior data recovery studies, an adverse effect on cultural resources is not anticipated. Further study is not recommended.

— A Phase I cultural resource study identified no cultural resources. Further study is not recommended.

— There is a low probability of cultural resources. Further study is not recommended.

X If, during construction, cultural resources are encountered, work should be halted or diverted in the immediate area while a qualified archaeologist evaluates the finds and makes recommendations.

X The submission of a cultural resource management report is recommended following guidelines for Archaeological Resource Management Reports prepared by the California Office of Historic Preservation, Preservation Planning Bulletin 4(a), December 1989

X Phase I - Survey.
— Phase II - Testing [Evaluate resource significance and integrity of known resources and/or resources identified from a field survey.]
— Phase III - [Propose additional investigations if required, evaluate project impacts, and propose measures to mitigate potential adverse effects.]

COMMENTS: The project area is in the vicinity of Fahrens Creek, a potential resource-gathering and occupation area for the Native American Yokuts tribe. The project area may contain unrecorded cultural resources.

If you have any questions, please give us a call.

Sincerely,

Alice A. Lawrence, Assistant Coordinator
Central California Information Center

DEPARTMENT OF PUBLIC WORKS
ROAD DIVISION

715 "J" STREET
TELEPHONE (AREA CODE 209) 385-7601
MERCED, CALIFORNIA 95340
FAX # 722-7690

PAUL A. FILLEBROWN
Director
LINCOLN CLENDENIN
Assistant Director
STEPHEN J. HAMILTON
Deputy Director

October 15, 1992

Mr. David Daly
Assistant Planner
City of Merced
678 W. 18th Street
Merced, CA 95340

SUBJECT: BELLEVUE RANCH EIR

Dear Mr. Daly:

Thank you for supplying us with a copy of the Notice of Preparation and the Initial Study issued by the City of Merced relative to the Environmental Impact Report (EIR) for Bellevue Ranch. As this project will definitely impact County facilities, we would appreciate receiving a copy of, and having the opportunity to comment on the Draft EIR.

If we can be of any assistance in the preparation of this document, please do not hesitate to call us at (209) 385-7601.

Sincerely,

PAUL A. FILLEBROWN
DIRECTOR OF PUBLIC WORKS

By _____
Stephen E. Lyon
Engineer Associate III

SEL:jlw

CITY OF MERCED
INTER-OFFICE MEMORANDUM

TO: Kenneth W. Mitten, Fire Chief
DATE: 10-21-92

FROM: Leonard Franco, Division Chief
FILE:

SUBJECT: Bellevue Ranch Environmental Impact Report

The proposed development of the Bellevue Ranch property has the potential to generate the following impacts on the Fire Department.

EMERGENCY CALLS: The proposed development will generate approximately 310 additional runs yearly upon completion of Phase-1, and another 236 runs with Phase-2 for a total annual increase of 546 calls.

FIRE PREVENTION: To conduct current fire prevention programs including business inspections, public education, fire investigations and nuisance abatement an additional impact of 230 manhours will be required for Phase-1 and 98 manhours for Phase-2 for a yearly increase of 328 manhours.

HYDRANTS: To complete flow tests, painting and maintenance of weeds an additional 600 manhours will be required each year. An additional 350 manhours for Phase-1 and 250 for Phase-2.

RESPONSE TIMES/DISTANCES: Phase-1 of the proposal is located approximately 2.3 - 3.4 miles from Company 3 , 3.7-4.8 miles from Company 1. Phase-2 is 3.4 - 4.4 miles from Company 3 and 4.8 - 5.8 miles from Company 1. The initial response times for Company 3 comply with current standards for Phase-1, however response times for Phase-2 and for Company one units E-1 & S-1 exceed current response times.

FIREFIGHTER/ POPULATION RATIO: Currently there is a ratio of approximately 1076 persons to each firefighter in the city. It is estimated that the Bellevue Proposal will support a population of approximately 21,000 when completed. To maintain the current manning ratio and additional 19-20

CITY OF MERCED

INTER-OFFICE MEMORANDUM

TO: David Daly, Assistant Planner DATE: October 23, 1992

FROM: Kenneth W. Mitten, Fire Chief FILE:

SUBJECT: Bellevue Ranch Environmental Impact Report

As per my comments at the study session on the 22nd, impacts on fire protection from this project are as follows:

(1) Size of Area

A. Upon annexation problems would include the ability to service the rural setting. This would include the need to provide additional resources and enforcement of our weed/nuisance program.

B. New stations and additional apparatus and equipment would be needed to service the rural/open area with water tankers and brush pumper. Upon infill one or two new structural engines plus a ladder unit is projected.

C. One and possibly two stations would be needed due to the size upon fill out. One will definitely be needed north of Bellevue road and depending upon current planning with Merced Junior College, a second station may or may not be needed south at Cardella Road.

D. Radio problems are anticipated since currently we are having trouble in fringe areas already.

(2) Impact Numbers

See attached memo

Kenneth W. Mitten

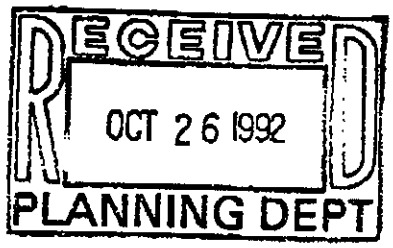
Kenneth W. Mitten, Fire Chief
Merced City Fire Department

KWM/tlrmkm108

Attachment

Public Works Coordination
420 West Sierra Avenue
Fresno, California 93762

PACIFIC BELL.
A Pacific Telesis Company



October 21, 1992

City of Merced
Planning Department
678 West 18th Street
Merced, California 95340

Attention: David Daly, Assistant Planner

Subject: E.I.R. for Bellevue Ranch Development

Pacific Bell has reviewed the information received with your letter dated October 7, 1992, concerning the E.I.R. for the development of this property.

Pacific Bell has no objection or major concerns with the E.I.R. report for this project. We are and will be concerned with the fact that new service demands will be needed and new facilities will be required.

We will need time to provide service to this area according to our Tariffs and State Rules and Regulations. Please, contact us as soon as the preliminary plans are developed.

If you have questions please contact me at (209) 261-3426.

Yours truly,

J. A. "Pete" Caldwell
Public Works Coordinator

cc: D. Tatum

10PCLET.26

MERCED UNION HIGH SCHOOL DISTRICT

P.O. BOX 2147
MERCED, CALIFORNIA 95344

PHONE: (209) 385-6400
FAX: (209) 385-6442

Superintendent
BILL K. TILLEY, Ph. D.
Assistant Superintendents
GALEN CHASTAIN
Business Services
MICHAEL E. CRASS
Instructional Services

October 26, 1992

Philip O. Carter, Vice President
Wildan Associates
2495 Natomas Park Drive, Suite 550
Sacramento, CA 95833

Dear Mr. Carter:

As mentioned at the Bellevue Ranch General Plan amendment scoping session on October 22, 1992, I am sending you information that may be relevant for EIR preparation.

Enclosed is the 1990 "Development Fee Justification Study" by Paoli & Associates which explains survey methods used to determine student yield factors for housing development, and makes enrollment projections to the year 2009. The impact of new housing on schools should be addressed in the EIR.

Also, enclosed is the April 1991 "Analysis of Need for School Facilities in Merced Union High School District" with an addendum regarding the effects of the closure of Castle Air Force Base. This document is the best source on need for school facilities, their cost, and timing. The cost and methods of mitigating the need for school facilities created by new development should be addressed in the EIR.

Third, the contractual agreement between Bellevue Ranch Company, the Merced City Elementary School District, and the Merced Union High School District is included in this correspondence to inform you of Bellevue Ranches commitment to mitigating the impacts of development on schools.

The company has recently approached the district to form a Mello-Roos District for such school funding. The EIR should provide the detailed school impact analysis acknowledged in the agreement.

Finally, a recent staff report regarding the proposed location of a high school site on the northwest corner of Cardella and 'M' Street is included. The obstacle to the district agreeing to that location is the flood potential and uncertainty regarding funding, effects, and timing of flood plain improvements by Bellevue Ranch. This issue should be discussed in the EIR.

If you need more information, please contact me at (209) 385-6558.

Respectfully,

Michael Belluomini

Michael Belluomini
Director of Facilities Planning

MB:bh
c: John Hofmann, Merced City Planning
Suzanne Burrows
Galen Chastain

Encs.

MERCED UNION HIGH SCHOOL DISTRICT

BOARD REFERENCE MATERIAL

Subject: Location of School Site on Bellevue Ranch

Submitted by Business Office Date Submitted August 19, 1992

Background

On April 29, 1992, the board replied to the City of Merced by indicating a preference for two high school locations in north Merced to be incorporated into the Merced Village Plan. The sites are centrally located to the students served and free of significant obstructions to development. They are sites five and one on the attached land use plan.

Discussion

The district has received the attached request by the City of Merced planning staff to move the preferred site on the southern portion of Bellevue Ranch west across 'M' Street for reasons explained in the letter. Attached is a tabular evaluation for the new site plus the previously considered five sites. During discussions with the developer and city staff it was determined that serious consideration is being given to making 'M' Street north of Cardella accessible to public buses only. This would present traffic problems for the school.

Alternatives/Identified Opposition

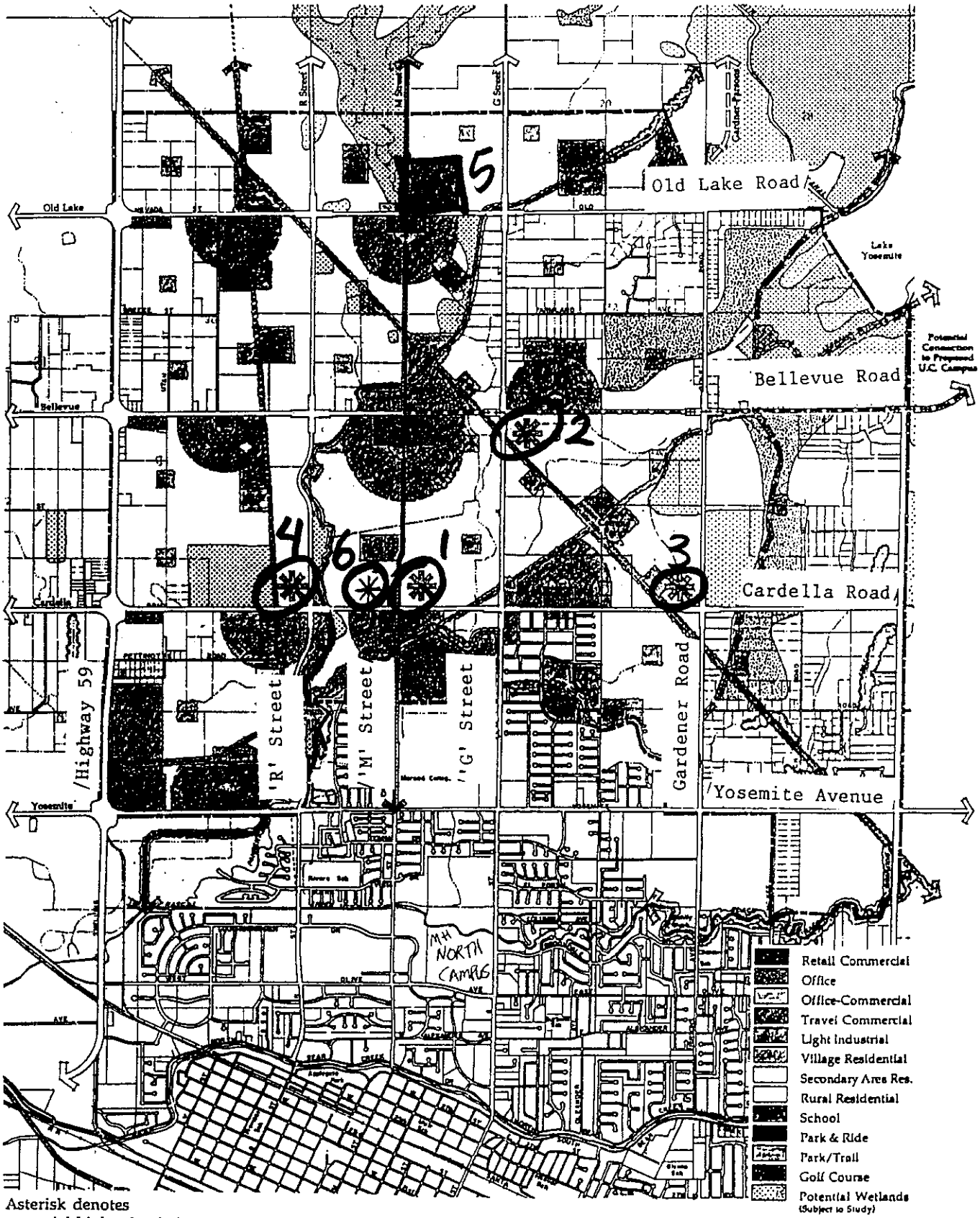
The two alternatives on either side of 'M' Street are similar except for the proximity of the new site, No. 6, to Fahrens Creek and the resulting increase floodplain associated with the creek. Currently the site has a 100 year flood level of two to three feet, i.e., all buildings must have a floor which is three feet above grade. Congress has approved the Corps of Engineers Merced Streams Flood Control Project which proposes reconfiguring Fahrens Creek to eliminate this floodplain. Bellevue Ranch has proposed more flood control measures to eliminate this floodplain. Specifically it proposes to enlarge Fahrens Creek to contain the 100 year flood. See the attached correspondence.

Financial Implication

Increased foundation due to the floodplain would add significant costs. Delay in constructing the school while awaiting floodway modifications could result in costs and inefficiencies for the district.

Recommendation

The Superintendent recommends that the district maintain its current preferred location until more assurance can be given regarding the timing and funding of modifications to the floodplain in which the alternate site lies.



Asterisk denotes
potential high school sites

CONCEPTUAL LAND USE PLAN

Figure 1

Calthorpe Associates
San Francisco, California

Economic and Planning Systems

Fehr and Peers

MERCED VILLAGE CONCEPT
PHASE ONE PLANNING
CITY OF MERCED, CALIFORNIA

MERCED UNION HIGH SCHOOL DISTRICT
ALTERNATIVE HIGH SCHOOL SITE EVALUATION

Physical Characteristics	Site #1	Site #2	Site #3
Depth to Water Table	9'	18'	9'
Drainage	Drains slowly	3' to hardpan, well drained till saturated	Slowly permeable
Soil	YbA + WnA Class IV + II	YbA + RsA + ScB Class IV	ReB + RbA Class IV + VI
Flood Plain	20% Zone AO 1' depth	No Flood Plain	No Flood Plain
Vegetation	Hay/Cultivated pasture	Grazing/pasture	Grazing/pasture
Street Frontage	South and West	North and West	South and East
Shape	1365 x 1365	triangle 1930 x 2730 x 1930	Triangle 1930 x 2730 x 1930
Topography	0-3% slope	0-3% slope	0-3% slope
Parcel size	283.7 ac	115 ac	132.9 ac
Ownership			
Number of parcels	One	One	One
Number of structures	Vacant	Vacant	Vacant
Environmental concerns			
Noise (Castle, S.P., 99)	CUD 13 (65-70dBA)	CUD 13 (65-70dBA)	50% CUD 13 (65-70dBA)
Vernal pools	None	None	Potential
Power Lines	None	Adjacent	Adjacent
Seismic Safety	Moderate damage	Moderate damage	Moderate damage

MERCED UNION HIGH SCHOOL DISTRICT
ALTERNATIVE HIGH SCHOOL SITE EVALUATION

Environmental Concerns	Site #1	Site #2	Site #3
Airport Safety	Outside approach zone	Outside approach zone	Outside approach zone
Traffic Impacts	'M' Street & Cardella	'G' Street & Bellevue	Gardener & future Cardella
Transportation			
Accessibility	Inaccessible	Paved road two sides	Dead end of Gardener
Proximity to Collectors	Adjacent to future	Adjacent	Adjacent to future
Cost			
Land	$60,000/acre	$60,000/acre	$60,000/acre
Political acceptability			
City	In Bellevue Ranch Annex.	In Merced Village Plan	In Merced Village Plan
Neighborhood	college and farming	Farming	Rural residential/farming
County	Merced City Sudp.	Merced City Sudp.	Merced City Sudp.
Zoning			
County zoning	Agriculture	Agriculture	Agriculture
City zoning	Future residential/across from commercial	Future residential across from commercial	Future residential across from rural residential
Utilities			
Water & Sewer	within 1/2 mile	None	None

MERCED UNION HIGH SCHOOL DISTRICT
ALTERNATIVE HIGH SCHOOL SITE EVALUATION

Physical Characteristics	Site #4	Site #5	Site #6
Depth to Water Table	9'	30'	9'
Drainage	18" to hardpan, well drained till saturated	Well drained	Drains well/slowly
Soil	SdA + ScB Class IV	BaA + ReB Class III + IV	YbA + WnA + BaA, II, III, IV
Flood Plain	No flood plain	Zone A, No base flood determined	80% in Fahrens Creek Floodplain 2-3 ft. depth
Vegetation	Hay/Cultivated pasture	Row crops/cultivated pasture	Hay, cultivated pasture
Street Frontage	South and East	South and West	At southeast corner
Shape	Rectangle 600' x 3,100'	Square 1365' x 1365'	Square 1365' X 1365'
Topography	3-8% slope	0-8% slope	0-3% slope
Parcel size	400 ac.	151 ac.	257 ac
Ownership			
Number of parcels	One	One	One
Number of structures	Vacant	Vacant	Vacant
Environmental concerns			
Noise (Castle, S.P., 99)	CUD 13 (65-70dBA)	CUD 13 (65-70dBA)	CUD 13 (65-70 dBA)
Vernal pools	Potential - now cultivated	Potential - now cultivated	None East of Fahrens Creek
Power Lines	None	Adjacent	None
Seismic Safety	Moderate damage	Moderate damage	Moderate Damage

MERCED UNION HIGH SCHOOL DISTRICT
ALTERNATIVE HIGH SCHOOL SITE EVALUATION

Environmental Concerns	Site #4	Site #5	Site #6
Airport Safety	Outside approach zone	Outside approach zone	Outside approach zone
Traffic Impacts	Cardella & future 'R' Street	Future Nevada & future 'M'	'M' & Cardella
Transportation			
Accessibility	Dead end of Cardella	Inaccessible	Inaccessible
Proximity to Collectors	Adjacent to future	Adjacent to future	Adjacent to future
Cost			
Land	$60,000/acre	$60,000/acre	$60,000/acre
Political acceptability			
City	In Merced Village Plan	In Merced Village Plan	In Merced Village Plan
Neighborhood	Farming/rural residential	Farming	Farming
County	Merced City Sudp	Outside Sudp in Agric area	Merced SUDP
Zoning			
County zoning	Agriculture	Agriculture	Agriculture
City zoning	Future residential/across from commercial	Future residential across from commercial	Future residential
Utilities			
Water & Sewer	Within 1/2 mile	None	Within 1/2 mile

Spink

September 1, 1992

Mr. Michael Belluomini
Merced Union High School District
P.O. Box 2147
Merced CA 95344

BELLEVUE RANCH HIGH SCHOOL DISTRICT SITE

Dear Michael:

The Spink Corporation is a Multidiciplinary Consulting Engineering and Architectural firm located in Sacramento, California. We have been retained by the D.R. Stephens Company to provide Land Planning and Civil Engineering services for the development of the Bellevue Ranch in Merced, California. This letter has been prepared in response to your letter dated August 19, 1992, to Phil Block, Planning Director of the City of Merced.

The proposed school site and a large portion of the Bellevue Ranch project is within the currently adopted Fahren's Creek floodplain. The current maps do indicate that much of the school site will be under one to three feet of water during a 100-year storm and that the storm waters could be controlled with levees, as indicated by the Corps of Engineer's Streams Project. Recent studies prepared by our office have focused on this issue and we have developed an alternative design solution. We propose to construct a channel that will be able to transport the expected 100-year storm event and thereby lower the flood waters to a point that will allow the school site as well as surrounding proposed residential development to be removed from the floodplain limits. Regardless of the results of these reviews, a flood control facility will be developed to remove the school site and the rest of Bellevue Ranch from the floodplain and will be developed as part of the project.

The current proposal calls for the M Street Corridor adjacent to the high school site to be designated for mass transit. It's initial use would be for bus service only. Private automobiles would not be permitted to use the street. Under this scenario, we anticipate that students would access the school site from Cardella Road as well as the North South residential collector along the west boundary of the proposed high school site. Since both "R" Street and "G" Street will ultimately be extended to Cardella and since Cardella itself will be improved, the school site will be readily accessible for the student body. The extent of the required improvements is currently being developed as part of the traffic study for the project and will be constructed as part of the Bellevue development.

The sanitary sewer, storm drainage, domestic water supply as well as the roadway improvements are being designed to serve the overall Bellevue Ranch. Appropriate facility sizing will be done to accommodate development of the high school site.

MERCED UNION HIGH SCHOOL DISTRICT

P.O. BOX 2147
MERCED, CALIFORNIA 95344

PHONE: (209) 385-6400
FAX: (209) 385-6442

August 19, 1992

Phil Block
Planning Director
City of Merced
678 West 18th Street
Merced, CA 95340

Dear Phil:

On behalf of the City of Merced, David Daly has requested the high school district to agree to the relocation of the preferred site for the high school site on Bellevue Ranch. David and I have talked and the following issues need addressing.

Floodplain: The alternate site proposed for the high school on the west side of 'M' Street extension is near Fahrens Creek and in the Fahrens Creek floodplain.

1. Federal Emergency Management Administration maps indicate the 100 year flood elevation to be approximately 173 feet compared to actual ground elevation of 170 feet.
2. The Merced County Streams Project by the Army Corps of Engineers indicates reconfigured channelization of Fahrens Creek to a point near the midpoint of the proposed school site with a six foot high levee extending across the school site, and adjacent subdivision.
3. Tim McCullough, Water Resources Specialist with Merced County Association of Governments, indicates that the Spink Corporation and Dunmore Development have been working with Steve Stroud and the Corps of Engineers to alter the Streams Project flood control plan to eliminate the floodplain entirely on the proposed high school site.

<u>Which is it?!</u>

Will the specific plan and public improvement plan for Bellevue Ranch and in particular for the proposed alternate high school site on the northwest corner of 'M' Street extension and Cardella Road eliminate the floodplain? If yes, then when? (Recall that construction of this high school is planned to begin in 2000.) Who will finance the floodplain improvements and how will that funding be secured? In the event that Bellevue Ranch is slow in developing, then would the construction of the floodplain improvements be delayed past the date of school construction?

Access: Glen Matsuhara, Senior Project Manager for Bellevue Ranch, informed me that the city has agreed to allow the Specific Plan for Bellevue Ranch being prepared by Spink Corporation to illustrate 'M' Street as an unimproved transit corridor right of way.

He also explained that the initial phase of Bellevue Ranch development will be along Cardella Road from 'G' Street to 'M' Street. This appears to place the proposed alternate site for the high school on the northwest corner of 'M' Street and Cardella Road at the end of a dead-end road, with limited access from Cardella Road. This is problematic.

Under the Specific Plan, to what extent will 'M' Street be developed to allow regular use by students driving their own automobiles to school? If it will be developed for private automobile use, then when will that occur? Who will finance the signalization and extensions of 'M' Street and Cardella Road, and how will that funding be secured? In the event that Bellevue Ranch is slow in developing, would the construction of the roads be delayed past the date of school construction (2000)?

Sewer and Water Service: In a similar vein to the preceding questions, will the specific plan and public improvement plan for Bellevue Ranch, in particular the alternate high school site, provide sewer trunks and water lines to service the high school? If yes, then when will such pipelines be extended? Who will finance such utility extensions and how will that funding be secured? In the event that Bellevue Ranch is slow in developing, then would the construction of utility extensions be delayed past the date of school construction (2000)?

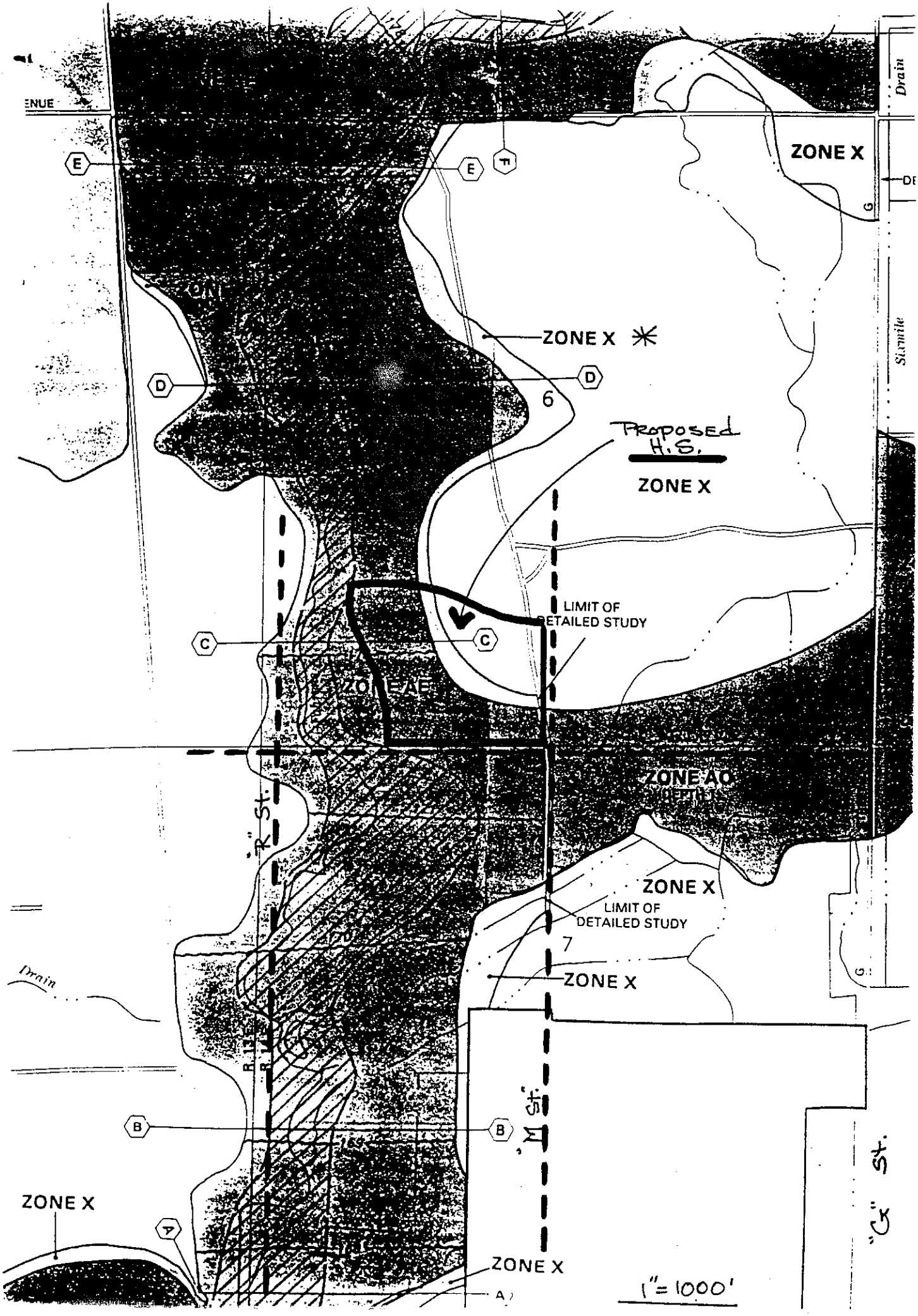
I have completed an analysis of the proposed alternate high school site for presentation to the board of trustees but lack the answers to the issues raised above. The district wishes to cooperate with the city and Bellevue Ranch regarding the location of the high school, however, we need more information. In order to forward this information to the district board for their September 9 meeting, I need a reply by August 31, 1992.

Respectfully,

Michael Belluomini

Michael Belluomini
Director, Facilities Planning

cc: Glen Matsuhara, D.R. Stephens Company
Suzanne Burrows
Galen Chastain


ZONE X
ZONE X
Proposed H.S.
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LIMIT OF DETAILED STUDY
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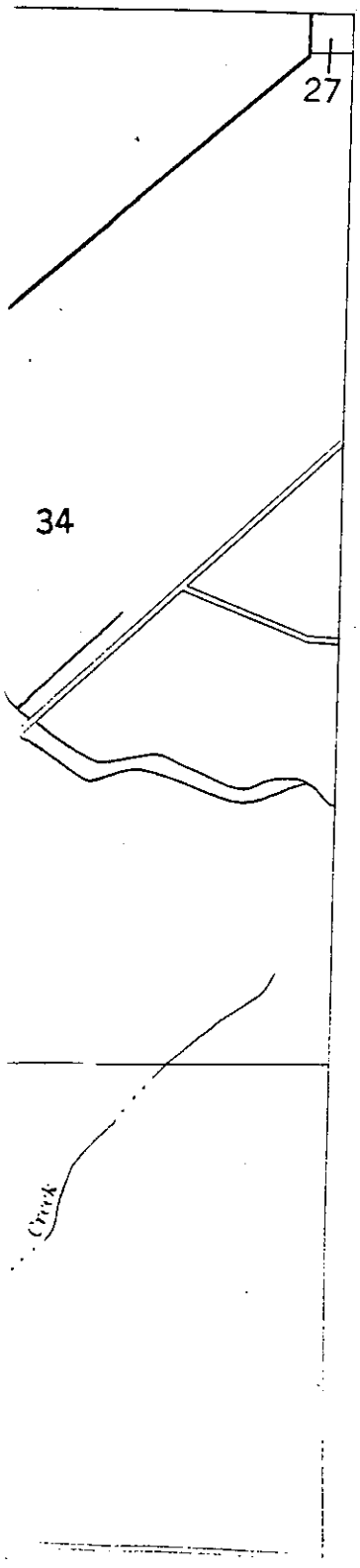
Drain
1" = 1000'



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

ZONE A No base flood elevations determined.

ZONE AE Base flood elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE A99 To be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.

ZONE V Coastal flood with velocity hazard (wave action); no base flood elevations determined.

ZONE VE Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

ZONE X Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

ZONE X Areas determined to be outside 500-year flood plain.

ZONE D Areas in which flood hazards are undetermined.

Flood Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

513 — Base Flood Elevation Line; Elevation in Feet*

D — D — Cross Section Line

(EL 987) — Base Flood Elevation in Feet Where Uniform Within Zone*

$RM7_X$ — Elevation Reference Mark

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

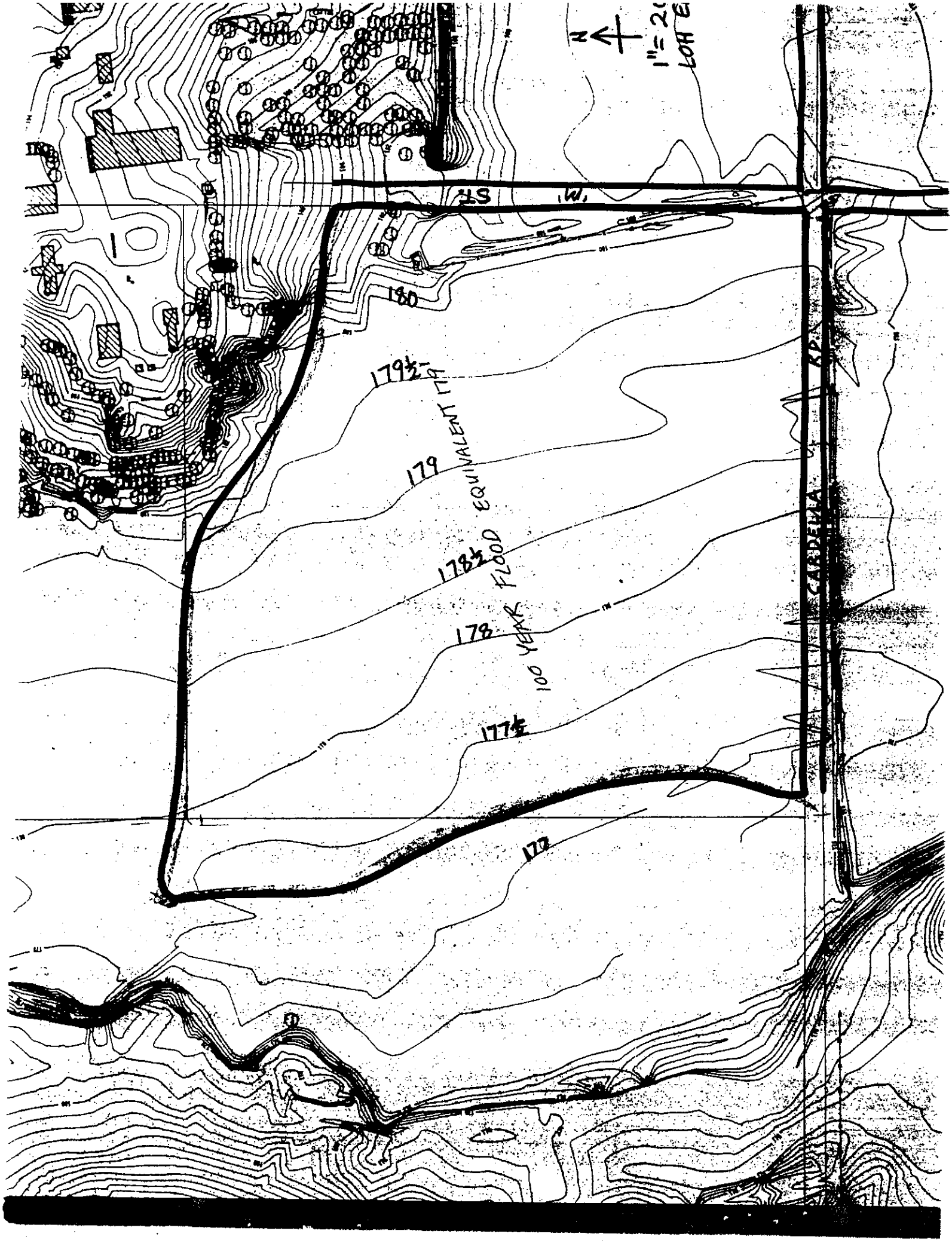
Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

Coastal base flood elevations apply only landward of the shoreline.

Elevation reference marks are described in the Flood Insurance Study Report.

For adjoining map panels see separately printed Map Index.

MAP REPOSITORY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100 YEAR FLOOD EQUIVALENT 179
CAMDEN
RD.

Merced City School District
444 West 23rd St., Merced, CA 95340
Phone (209) 385-6600
FAX (209) 385-6746

Superintendent: Donald V. De Long, Ed. D.
Board of Education: Della George, President, Justin Brink, Clerk, Ron Cortez, Kathryn Hansen, Leo Hernandez

Diversity our strength
Children our promise

November 5, 1992

Jeff Pemstein, Planning Division
Willdan Associates
2495 Natomas Park Drive, Suite 550
Sacramento, CA 95833

SUBJECT: Bellevue Ranch Specific Plan

Dear Jeff:

There seems to be two separate areas of concern relative to the development of the Bellevue Ranch Specific Plan EIR:

1. The need to mitigate the impact of this development on schools;
2. The location of the school sites within the specific plan.

With regard to impact mitigation, a contractual agreement has been reached between Bellevue Ranch Associates, D. R. Stephens & Co., the Merced City School District and the Merced Union High School District. (A copy of this agreement has been provided by Michael Belluomini.) As the EIR on this development project is being prepared prior to or without benefit of City adoption of a school impact fee, it is of paramount importance that the environmental impacts of the project on the districts, the cumulative impacts of this project and other planned and reasonably foreseeable future developments, and feasible mitigation measures and reasonable alternatives available to reduce such impacts, be examined and addressed in detail.

In July, Bellevue Ranch Associates proposed formation of a Mello Roos District. While the districts may approve this concept as a means of mitigating the impact, there has been no agreement in the matter providing school facilities simultaneous with the need to house students generated by the project.

I understand you have received the April 1991 "Analysis of Need for School Facilities..." including the effects of closure of Castle Air Force Base from Michael Belluomini. As the Merced City School District is within the Merced Union High School District's boundaries, this document is applicable to this District and is the best source on the need for school facilities, their cost, and timing.

I am enclosing a copy of the 1990 "Development Fee Justification Study" and the 1992 "Developer Fee Study Update" by Paoli and Associates. These documents explain the methodology used to determine student yield factors

and enrollment projections to the year 2009. In combination, the above materials address the impact of new housing on schools in Merced City School District, and the costs and methods of mitigating the need for new facilities created by new development. All of these factors should be addressed in the environmental impact report.

Further, regarding the location of school sites within the specific plan... As I reported at the EIR Scoping Session, the Board of Education, after reviewing the specific plan of the area, recommended that the elementary and high school sites be located in separate areas and that the elementary site be located away from M Street. They also requested that the elementary school site in Phase II be located further from the commercial center than shown.

In addition, the Board expressed concern about the following:

1. Safe access for walkers, bicycles, cars, and buses.
2. Environmental factors which might require mitigation, and the cost of mitigation
   a. soil quality
   b. toxics
   c. flood plain
   d. high tension wires
   e. canals, creeks
   f. other potential hazards
3. Availability of water, sewer, all other utilities, and roadways necessary to accommodate and operate a year round school facility.
4. Timeline for development of surrounding area.

As you requested, I have included excerpts from two manuals pertinent to school site selection for your information and review. Thank you for your consideration of our requests. If I can be of further assistance to you, please contact me at (209) 385-6660.

Sincerely,

Suzanne Burrows

Suzanne Burrows, Ed. D.
Special Assistant to the Superintendent
Planning/Policy Development

SB:cj

enclosures

c: D. De Long
M. Belluomini
John Hofmann (enclosures)

PLANNING DEPARTMENT

2222 "M" STREET
TELEPHONE (209) 385-7654
FAX (209) 725-3535
MERCED, CALIFORNIA 95340

ROBERT E. SMITH
Director
WILLIAM NICHOLSON
Assistant Director

November 3, 1992

David Daly, Assistant Planner
City of Merced
Community Development Department
678 West 18th Street
Merced, CA 95340

RE: Notice of Preparation on the Proposed Bellevue Ranch Specific Plan

Dear Mr. Daly:

Thank you for referring the Notice of Preparation (NOP) and Initial Study on the proposed Bellevue Ranch project to this office. Our comments are as follows:

County General Plan policy gives Merced County trustee-agency responsibility over farmland conversion within the County (Goal 2, Agricultural Chapter). Lands within the project site have been identified on the California Department of Conservation's Important Farmland Map for Merced County as Prime, Farmland of Statewide Importance, Unique, Farmland of Local Importance, and Grazing Land. Even though the present property owner may not manage the land to its fullest agricultural potential, the loss of any Prime agricultural land to a non-agricultural use is considered a significant effect (Appendix G, California Environmental Quality Act Guidelines). The Environmental Impact Report (EIR) should quantify the Prime soils, and other productive agricultural lands on-site which will be converted. The EIR should also address the potential for conflict between proposed urban uses and ongoing adjacent farm practices and continued productivity. The EIR should earnestly investigate mitigation alternatives before concluding the need for a Statement of Overriding Considerations.

The Initial Study narrative refers in several places to the project site as being "vacant." This term discounts the legitimacy of agricultural uses and the importance of farming to the local economy. Use of such terms should be avoided in the EIR, since they suggest that urbanization is the only possible use of the property, and may bias the document's findings. The EIR should provide an analysis of the site's historic agricultural productivity current uses, including cotton and corn, and future agricultural potential, and how the loss of this farmland will affect the economy.

The Initial Study states that development within the 1,366-acre Specific Plan area will utilize groundwater for domestic supplies. The supply versus future demand analysis should also provide a comparison between existing on-site surface and groundwater use and proposed urban uses. The project's contribution to the continued overdraft of the regional aquifer, and potential effects on local agriculture due to groundwater depletion, should be addressed.

The Public Services section of the Initial Study correctly suggests that the project may result in an increased shortfall in library facilities. The EIR should formulate mitigation for appropriate cost-sharing measures.

The existing Highway 59 landfill site, and planned 200-acre expansion, is approximately two miles northwest of the project site. The EIR should consider land use compatibility (odor, dust, noise, birds, etc.).

Lastly, the cumulative analyses should include the Yosemite Lake General Plan Amendment project now being processed by Merced County.

Thank you for the opportunity to comment.

Sincerely,

Desmond Johnston

Desmond Johnston
Environmental Coordinator

DJ:jb

LAFCO
OF MERCED COUNTY CALIFORNIA

Local Agency Formation Commission
2222 "M" Street
Merced, CA 95340
Phone (209)385-7654
FAX (209)725-3535

November 9, 1992

David Daly, Assistant Planner
Community Development Department
City of Merced
678 W. 18th Street
Merced, CA 95340

Re: Notice of Preparation for the Bellevue Ranch EIR

Dear Mr. Daly,

Thank you for providing an opportunity for us to comment on the Notice of Preparation for this major planning project by the City of Merced. As a "Responsible Agency" under the California Environmental Quality Act, LAFCO will be relying on the Environmental Impact Report (EIR) for any future annexation requests in the Bellevue Ranch territory. LAFCO staff fully supports the City's intent to comprehensively address the environmental considerations for the Specific Plan at this stage in the process which will facilitate subsequent discretionary actions such as prezoning and annexation. A few comments are presented in this letter to inform the City of environmental issues that will be important for LAFCO to consider when an annexation is processed.

In the Initial Study checklist, Item D.4 "Plant Life", the focus of study seems appropriate where the regional significance of agricultural land conversion will be investigated. For LAFCO's role as a responsible agency, it should be recognized that the Cortese/Knox Act has a specific definition of prime farmland which may not be recognized in the City's "How Should We Grow" report. Refer to Government Code Section 56064 for a definition of "prime agricultural land" which appears to include some areas within the Bellevue Ranch Specific Plan.

Another aspect of the EIR that is important for future LAFCO consideration of annexations concerns the factors to be considered under Government Code Section 56841. While not all of these factors are relevant for the EIR, a few specific issues should be fully addressed. Because the Bellevue Ranch Specific Plan covers a large area that will require extensive new City services and utilities, the EIR and/or Specific Plan should document what "plan for services" is proposed for this project. This would include a description of present service and facility capacities of the City, what additional levels of services and new facilities will be needed, their cost, and method of funding or financing. In this regard, the Initial Study does appropriately recognize that cumulative impacts of growth in the City should also be taken into consideration in this evaluation.

Finally, since LAFCO is required to look at the appropriateness of the proposed annexation boundaries as well as alternatives, the alternatives section of the EIR should include consideration of including the area north of Bellevue Road which will become partially surrounded by the City if the project is approved. If any relevant phasing for implementation of the Specific Plan is identified which may reflect logical components for annexation, this could also be analyzed as an alternative.

Please contact me if you have any questions.

Sincerely,

William R. Nicholson

William R. Nicholson
Assistant Executive Officer

WRN/ah

a district of limited powers by the merger of that district with a city as a result of proceedings taken pursuant to this division.

"Next equalized assessment roll"

56057. 'Next equalized assessment roll' means the next assessment roll or book to be equalized and used by a city, county, or district for the purpose of the annual levy and collection of any taxes or assessments imposed by the city, county, or district.

"Notice"

56058. 'Notice' means any matter authorized or required by this division to be published, posted, or mailed.

"Open space"

56059. 'Open space' means any parcel or area of land or water which is substantially unimproved and devoted to an open-space use, as defined in Section 65560.

"Open space use"

56060. 'Open-space use' means any use as defined in Section 65560.

"Overlap" or "overlapping territory"

56061. 'Overlap' or 'overlapping territory' means territory which is included within the boundaries of two or more districts or within one or more districts and a city or cities.

"Parent district"

56062. 'Parent district' means any district, a metropolitan water district, or any of the entities enumerated in subdivision (c) of Section 56036, which includes all or any part of another district, the first-mentioned district or entity being obligated, under the provisions of the principal act of the first-mentioned district or entity, to provide and furnish any governmental or proprietary service or commodity to the second-mentioned district.

"Plan of reorganization"

56063. 'Plan of reorganization' means a plan or program for effecting a reorganization and which contains a description of all changes of organization included in the reorganization and setting forth all terms, conditions, and matters necessary or incidental to the effectuation of that reorganization.

"Prime agricultural land"

56064. 'Prime agricultural land' means an area of land, whether a single parcel or contiguous parcels, which has not been developed for a use other than an agricultural

use and which meets any of the following qualifications:

(a) Land which qualifies for rating as class I or class II in the Soil Conservation Service land use capability classification.

(b) Land which qualifies for rating 80 through 100 Storie Index Rating.

(c) Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture in the National Handbook on Range and Related Grazing Lands, July, 1967, developed pursuant to Public Law 46, December 1935.

(d) Land planted with fruit or nut-bearing trees, vines, bushes, or crops which have a nonbearing period of less than five years and which will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars ($200) per acre.

(e) Land which has returned from the production of unprocessed agricultural plant products an annual gross value of not less than two hundred dollars ($200) per acre for three of the previous five calendar years.

(f) Land which is used to maintain livestock for commercial purposes.

"Principal act"

56065. 'Principal act' means, in the case of a district, the law under which the district was formed and, in the case of a city, the general laws or a charter, as the case may be.

"Principal county"

56066. 'Principal county' has the meaning contained in any definition of 'principal county,' as set forth in the principal act. If the principal act has no definition of 'principal county,' or if there is any inconsistency between the definitions contained in two or more applicable principal acts, 'principal county' means the county having all or the greater portion of the entire assessed value, as shown on the last equalized assessment roll of the county or counties, of all taxable property within a district or districts for which a change of organization or reorganization is proposed.

"Proceeding"

56067. 'Proceeding,' 'proceeding for a change of organization,' or 'proceeding for a

commission shall authorize the board of supervisors to order the consolidation or reorganization without an election, except as otherwise provided in subdivision (b) of Section 57081.

(b) Before ordering any material change in the provisions or the terms and conditions of the consolidation or reorganization, as set forth in the proposals of the districts, the commission shall direct the executive officer to give each district mailed notice of that change. The commission shall not, without the written consent of all districts, take any further action on the consolidation or reorganization for 30 days following that mailing. Upon written demand by any of the districts, filed with the executive officer during that 30-day period, the commission shall make determinations upon the proposals only after notice and hearing proposals. If no written demand is filed, the commission may make those determinations without notice and hearing.

Commission hearing

56840. (a) The hearing shall be held by the commission upon the date and at the time and place specified. The hearing may be continued from time to time but not to exceed 70 days from the date specified in the original notice.

(b) At the hearing, the commission shall hear and receive any oral or written protests, objections, or evidence which shall be made, presented, or filed, and consider the report of the executive officer and the plan for providing services to the territory prepared pursuant to Section 56653.

Factors to be considered in review of proposal

[redacted]

56841. Factors to be considered in the review of a proposal shall include, but not be limited to, all of the following:

(a) Population, population density; land area and land use; per capita assessed valuation; topography, natural boundaries, and drainage basins; proximity to other populated areas; the likelihood of significant growth in the area, and in adjacent incorporated and unincorporated areas, during the next 10 years.

(b) Need for organized community services; the present cost and adequacy of governmental services and controls in the area; probable future needs for those services and controls; probable effect of the proposed incorporation,

formation, annexation, or exclusion and of alternative courses of action on the cost and adequacy of services and controls in the area and adjacent areas.

'Services,' as used in this subdivision, refers to governmental services whether or not the services are services which would be provided by local agencies subject to this division, and includes the public facilities necessary to provide those services.

(c) The effect of the proposed action and of alternative actions, on adjacent areas, on mutual social and economic interests, and on the local governmental structure of the county.

(d) The conformity of both the proposal and its anticipated effects with both the adopted commission policies on providing planned, orderly, efficient patterns of urban development, and the policies and priorities set forth in Section 56377.

(e) The effect of the proposal on maintaining the physical and economic integrity of agricultural lands, as defined by Section 56016.

(f) The definiteness and certainty of the boundaries of the territory, the nonconformance of proposed boundaries with lines of assessment or ownership, the creation of islands or corridors of unincorporated territory, and other similar matters affecting the proposed boundaries.

(g) Consistency with city or county general and specific plans.

(h) The sphere of influence of any local agency which may be applicable to the proposal being reviewed.

(i) The comments of any affected local agency.

Property tax exchange for incorporation or district formation

56842. (a) If the proposal includes the incorporation of a city, as defined in Section 56043, or the formation of a district, as defined in Section 2215 of the Revenue and Taxation Code, the commission shall, pursuant to the provisions of subdivision (b), determine the amount of property tax revenue to be exchanged by the affected local agency.

(b) In making its determination as required by subdivision (a), the commission shall do all of the following:

(1) Request the county auditor to determine the proportion that the amount of property tax revenue derived by each affected local agency

STATE OF CALIFORNIA
PETE WILSON, Governor
DEPARTMENT OF FOOD AND AGRICULTURE

November 20, 1992

John Hoffman
City of Merced
678 W. 18th Street
Merced, CA 95340

Dear Mr. Hoffman:

The California Department of Food and Agriculture appreciates receiving the Notice of Preparation of an EIR for the Bellevue Ranch project.

It is noted that the site lies within the city's sphere of influence and is expected to be annexed but there is no information provided on the current productivity of the 1365.5 acres except that it has "historically been used for grazing and dry farming."

We hope the subsequent document will address:

1. Current land productivity and its loss when land use changes.

2. Surrounding land use and the effect the project will have on adjoining lands and their ability to produce.

3. Problems of urban lands interface with agricultural land and the possible mitigation measures such as buffer zones, a right-to-farm ordinance with deed notification and integration of open space with surrounding agricultural land use.

We look forward to the next step in this process.

Sincerely,

Ray Borton
Senior Agricultural Economist

cc: OPR SCH

STATE OF CALIFORNIA -- BUSINESS, TRANSPORTATION AND HOUSING AGENCY
PETE WILSON, Governor

DEPARTMENT OF TRANSPORTATION
P.O. BOX 2048 (1976 E. CHARTER WAY)
STOCKTON, CA 95201

(209) 948-7906

December 4, 1992

10-Mer-59-P.M. 19.00
City of Merced
Bellevue Ranch
NOP of a DEIR
SCH #92102055

Mr. John Hoffman
City of Merced
678 West 18th Street
Merced, CA 95340

Dear Mr. Hoffman:

Caltrans has reviewed the City of Merced's Notice of Preparation of a Draft Environmental Impact Report (DEIR) for Bellevue Ranch, a project of approximately 6,000 dwelling units. This is a large project located north of the current City of Merced's city limits, in Merced, on "G" Street and Bellevue Road. It will house 20,000 ± people, plus commercial, and generate at least 68,000 ADT.

Traffic generated by the proposed development will likely affect State Routes 59 and 99. In order to adequately assess the impacts, a traffic analysis will need to be prepared. The analysis should include, but not be limited to, the following:

- An analysis of the project's total trip generation using recognized trip generation factors and the appropriate model.
- An analysis of existing traffic, the existing plus project related traffic and cumulative traffic including all known proposals. These analyses should be expressed in terms of ADT and AM/PM peak hours, and include turning movements at all major intersections.
- An estimation of the directional distribution and networking of the project trips.
- An evaluation of the project's impact on the degradation of Level of Service (LOS), operational integrity, and safety on all transportation facilities in the vicinity of the project. Caltrans is specifically interested in the impacts that will occur at State Route 59 and the intersections of Old Lake Road, Bellevue Road, Cardella Road, and "G" Street.
- A discussion which recommends and conceptualizes the roadway improvements necessary to mitigate the project's impacts. This discussion should include funding responsibilities and mechanisms for ensuring completion of necessary improvements. A phasing strategy is also necessary to ensure that roadway improvements are in place prior to degradation of LOS and safety to an unacceptable level.

Commute management proposals should be provided. The project will no doubt, provide various transit opportunities for future residents; therefore, parking impacts (both on and off site) should be evaluated as part of the comprehensive traffic study for the project.

Again, we appreciate the opportunity to comment on the NOP of the DEIR for the project. We look forward to working with you as the EIR work progresses on this project. If you have any questions regarding this review, please call Georgia Tindall at (209) 948-3962.

Sincerely,

DANA COWELL
Chief, Transportation
Planning Branch "B"

cc: J Brown/MCAG

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San Joaquin Valley
Unified Air Pollution Control District

October 30, 1992

John Hofmann
Principal Planner
City of Merced
Community Development Department
678 W. 18th Street
Merced, CA 95340

SUBJECT: NOP FOR THE BELLEVUE RANCH PROJECT EIR 92-01

The San Joaquin Valley Unified Air Pollution Control District has reviewed the document file no. EIR 92-01.

The District has the following comments and recommendations:

1. San Joaquin Valley's air quality relative to National and State Ambient Air Quality Standards has been designated as a non-attainment area by the California Air Resources Board as follows:

PM-10 - Non-attainment
Ozone - Non-attainment

The California Clean Air Act, AB 2595, requires counties which are designated non-attainment to achieve a 5% annual reduction in emissions until the standards are met.

2. This expanded initial study has identified that there may be significant air quality impacts associated with this project. The District concurs with this statement. As a result, the District supports the recommendation for the preparation of an environmental impact report for this project. The EIR shall address the following issues:

A. The impact on air quality due to this proposed project,

David L. Crow - Executive Director/APCO
4230 Kiernan Ave., Suite 130, Modesto, CA 95356 - (209) 545-7000 - FAX (209) 545-8652

B. The overall evaluation of the current and future air quality in Merced County,

C. The cumulative effect on the air quality on present and future developments, if any, close to the project, a list of projects and their resulting air quality impacts should be listed,

D. The impact on air quality this project will have on the entire air basin as well as Merced County due to the transporting of pollutants,

E. The impact on air quality due to the attraction of mobile sources from outside of the city or the county (long-distance commuters),

F. Pursuant to AB 3180, the project should be specific in listing all proposed mitigation measures and the responsible agency to ensure implementation,

G. Any potential CO hotspots that may result from this project,

3. The District uses the URBEMIS3 modeling program (as developed by the California Air Resources Board) to calculate the pollutant emissions resulting from various land uses due to motor vehicle trips. Emissions are calculated for total organic gases (TOG), carbon monoxide (CO), nitrogen oxide (NOx), and particulate matter of size 10 microns (PM10) or less in size. For the purpose of estimating ozone precursor emissions, TOG should be converted to reactive organic compounds (ROG) by multiplying the TOG emissions by 0.9178. We recommend that URBEMIS3 be used in the EIR. The results from Urbemis3 should be expressed in pounds per day. The variables used in the analysis for Urbemis3 should be listed. Various types of land uses that are identified as future developments should utilize the ITE handbook which should produce the emissions factors necessary in calculating the pollutant emissions from the various types of land uses.

4. The ITE Handbook authored by the Institute of Transportation Engineers is a guide by which the amount of trip generations derived from the various land uses can be determined. This guide is a method of determining the emissions factors that results from various types of land uses associated with the proposed project.

5. The use of the Caline 4 (available from the California Air Resources Board) computer program should be used for predicting carbon monoxide, nitrogen dioxide, particulate matter or other inert gaseous pollutant concentrations near a roadway.

6. The District foresees a problem with Carbon Monoxide and fine particular matter (PM-10) if the Project includes the burning of wood in fireplaces and stoves. The new EPA certified fireplace inserts have been shown in laboratory with emissions of particulate matter ranging from 70% to 90% less than conventional stoves. Installation of EPA certified fireplace inserts and stoves is recommended as a mitigation measure for Carbon Monoxide and PM-10.

7. Project applicants should be aware of the PM-10 Fugitive Dust Rule and the Indirect Source Review Rule, both of which are currently proposed by the District for adoption in the near future. Both of these rules may affect project applicants. A copy of these rules is available upon written request to the District.

The District appreciates the opportunity to comment. If you have any questions, please do not hesitate to contact David Kwong at (209) 545-7000.

Robert C. Dowell
Unified Air Pollution Control District
District Manager of Environmental Planning

David W. Kwong

BY: David W. Kwong
Environmental Planner
Unified Air Pollution Control District
Northern Region