5.10 SOCIOECONOMICS

This socioeconomic section describes the potential impact to the social and economic structure within the project vicinity and region resulting from construction and operation of Bullard Energy Center (BEC). This discussion considers issues in project-related impacts to population, housing, public services (fire protection, emergency response services, law enforcement, schools, and medical services) as well as utilities, county tax revenue, and economic benefits from the project. Additionally, this section discusses compliance with permits and laws, ordinances, regulations, and standards (LORS) relevant to socioeconomics.

5.10.1 Methodology

The criteria used in determining whether project-related socioeconomic impacts would be significant are presented in California Environmental Quality Act of 1970 (CEQA) Guidelines, Appendix G. Impacts attributable to the project are considered significant if they would:

- Induce substantial growth or reduction of population
- Induce substantial increase in demand for public services and utilities
- Displace a large number of people or existing housing
- Disrupt or divide the physical arrangement of an established community
- Result in substantial long-term disruptions to businesses

The specific methodology used to analyze the environmental justice aspects of the project is detailed in legislation and guidelines discussed in Section 5.10.4, Environmental Justice. If project-related impacts were significant, other indirect socioeconomic impacts could occur, such as changes in community interaction patterns, social organizations, social structures, or social institutions, and conflicts with community attitudes, values, or perceptions. This analysis will assess the potential occurrence and significance of socioeconomic impacts for the construction and operation of BEC.

5.10.2 Study Area

The project includes the construction and operation of a generating facility in the Herndon quadrangle of the City of Fresno, on 5829 North Golden State Boulevard. The site is in an industrial area of the city, approximately 0.5 mile east of Highway 99, approximately 6 miles west of Freeway 41, 8 miles north of the northern boundary of the Fresno downtown area, and about 9 miles southwest of the City of Clovis. The site is also approximately 2 miles south of the Madera County line, and about 25 miles southeast of the City of Madera. The major north-south transportation routes are Highways 41 and 145, which connect Fresno County to Madera County and Kings County. Interstate 5 runs through the western portion, connecting Fresno County to Kings County on the south and Merced to the north.

This section describes existing economic and demographic conditions at varying geographic resolutions. Information will be provided for Fresno County, the City of Fresno, and the project vicinity within a 6-mile radius (which are potentially affected by the project), as well as information concerning the neighboring Madera, Kings, and Tulare counties, which may

potentially provide labor forces to meet the construction needs for the project (see Figure 5.10-1, Population Density within 6-Mile Radius of Project Site, and Figure 5.10-2, Demographics within 6-Mile Radius of Project Site).

5.10.2.1 Region, Economic Base, and Employment

Fresno County

Fresno County is large, occupying about 6,000 square miles, and is bordered on the west by San Benito and Monterey counties, on the north by Merced and Madera counties, on the east by Mono and Inyo counties, and on the south by Tulare and Kings counties. Fresno County is located in California's Central Valley, which is about 400 miles long, typically 40 to 60 miles wide, and covers an area of about 20,000 square miles. The Central Valley contains all or part of 18 counties, with a total of over five million people. These statistics amount to approximately 17 percent of California's population spread over 40 percent of the land area.

Areas with seasonal economies, such as Fresno's agricultural industry, are typically characterized by higher rates of poverty, lower median household incomes, and unusually high unemployment rates, compared with California's average. While the general unemployment trend has improved in the last 10 years, like much of the Central Valley, Fresno County historically and currently has higher unemployment rates by an average of 5.5 points compared to the state, as shown in Table 5.10-1, Unemployment Percentage, City of Fresno, Fresno, Kings, Madera, and Tulure Counties and California.

TABLE 5.10-1
UNEMPLOYMENT PERCENTAGE
CITY OF FRESNO, FRESNO, KINGS, MADERA, AND TULARE COUNTIES AND CALIFORNIA

Region	1990	1995	2000	2006
California	5.8	7.9	5.0	4.6
Kings County	11.3	14.6	10.0	9.5[2]
Madera County	13.5	15.0	8.7	7.7[2]
Tulare County	12.4	16.7	10.4	9.2[2]
Fresno County	11.7	14.1	10.4	8.9[2]
City of Fresno	11.7	14.1	11.2[1]	7.7[2]

Source: State of California Employment Development Department (EDD), Labor Market Information Division, 2006.
Notes:
[1]U.S. Census Bureau, American Fact Finder, Census 2000, Fresno City, DP-3 Profile of Selected Economic Characteristics: 2000.
[2]2006 Jan-June Average, Labor Market Information Division of the State of California EDD.

Fresno County is ranked first in agricultural production value in California, with revenue of $4.6 billion in 2005. The leading commodities include grapes, cotton, tomatoes, almonds, and milk (California Department of Food & Agriculture 2006). However, because of Fresno County's comparative market diversity, the county also serves as the financial, trade, commercial, and educational center for the Central Valley. In 2006, the number of Fresno County's labor force participants (344,400) had increased by 1.3 percent per year since 1995. Fresno County's relative employment by industry is shown in Table 5.10-2, Fresno County Employment by Industry

Annual, by Percentage. The top industries by percentage employment are farming; government; and trade, transportation, and utilities. The non-farm industries are expected to grow nearly 2 percent annually between 2002 and 2012. This growth will add almost 58,000 new jobs and bring non-farm employment from 296,184 in 2006, to an estimated 369,400 people by 2012. Industries forecasted to grow faster than the region's annual rate include construction, which has shown the highest growth rate in the past 10 years, professional and business services, and education and health services (Employment Development Department [EDD] 2006).

TABLE 5.10-2
FRESNO COUNTY EMPLOYMENT BY INDUSTRY ANNUAL, BY PERCENTAGE

Industry	1990	1995	2000	2006
Farm	19.0	19.3	17.0	15.9
Construction	5.4	3.9	4.6	6.5
Education and Health Services	8.7	9.4	9.4	10.5
Financial Activities	4.6	4.3	4.1	4.2
Government	18.3	19.1	20.0	18.5
Information	1.6	1.5	1.5	1.3
Leisure and Hospitality	6.3	6.8	7.5	7.4
Manufacturing	8.8	8.2	8.5	8.3
Natural Resources and Mining	0.3	0.2	0.1	0.1
Professional and Business Services	6.1	7.2	7.8	8.2
Trade, Transportation, and Utilities	17.7	17.0	16.3	16.2
Other Services	3.3	3.3	3.2	3.1
Total Number of Positions	277,100	301,800	326,200	344,400

Source: State of California, Employment Development Department (EDD), Labor Market Information Division, Employment by Industry Data, Fresno County, 1990-2000, and August 2006 data.

According to the U.S. Census Bureau, the median household income in Fresno County in 2003 was $35,952, compared to a state average of $48,440. The percentage of the population earning below the poverty threshold was 20.6 percent, versus California's average of 13.8 percent (U.S. Census Bureau 2006).

City of Fresno and Project Vicinity

Fresno covers a total area of 109.8 square miles and is the sixth largest city in California. It is located about 60 miles south of Yosemite National Park. Fresno is the closest major city to the park and serves as a major gateway for visitors into Yosemite, Sequoia, and Kings Canyon national parks.

Fresno serves as the economic hub of Fresno County as well as the Central Valley; particularly in areas of education, healthcare, government, and professional services. Construction employment has also been rapidly increasing, as residential and commercial construction experienced a prolonged period of expansion. The city is also actively stimulating further economic and business development through various financial incentive and employment development programs. Such programs include the Enterprise Zone, where businesses in a designated area are eligible for tax benefits; the Empowerment Zone, which provides incentives for business, job development, and

training programs; and the Hub Zone, which is designed to stimulate economic development and create jobs by providing federal contracting preferences to small businesses.

As with the county and the surrounding Central Valley, the City of Fresno has high unemployment rates, shown in Table 5.10-1, Unemployment Percentage, City of Fresno, Fresno, Kings, Madera, and Tulure Counties and California, which is also part of the motivation for the previously mentioned economic programs.

According to the U.S. Census Bureau, the median household income in the City of Fresno in 2003 was $38,842, compared to a state average of $48,440. The percentage of the population earning below the poverty threshold was 26.2 percent in 2000 (U.S. Census Bureau 2006). In a Brookings Institution study in 2005 entitled, *Katrina's Window: Confronting Concentrated Poverty Across America*, the City of Fresno was ranked as the city with the highest concentrated level of poverty in the U.S., where nearly 44 percent of the Fresno's people in poverty live in extremely poor neighborhoods, located in the southern portion of the city. The study was prompted in the wake of Hurricane Katrina, in which the economic and racial divides of American cities became clearly visible.

The project vicinity consists of the area within a 6-mile radius around the BEC site. This area encompasses the northwest portion of the City of Fresno, a portion of an unincorporated area, and a southern portion of Madera County. Figure 5.10-3, Poverty Levels within 6-Mile Radius of Project Site, shows the percentage of the population in poverty within a 6-mile radius from the project site, while Figure 5.10-4, Poverty Levels within Fresno and Madera Counties, shows the pervasiveness of poverty within the county.

Kings County

Kings County occupies an area of 1,391 square miles. Kings County is connected to a vast product distribution network, moving agricultural and other goods to national and international markets. The county is located between the agriculturally-rich Kings River Valley and the petroleum-rich Kettleman Hills.

Kings County is ranked 10th in agricultural production value in California, with revenue of $1.4 billion in 2005. The leading commodities are dairy, cotton, cattle, and pistachios (California Department of Food & Agriculture 2006). Since 2001, Kings County's labor force has increased almost 8 percent, to a total of 54,400 in 2005 (EDD 2005 benchmark data). In the last 6 years, the county has increased industry employment by approximately 21 percent, or a gain of 8,100 jobs. The fastest growing industries in the last 5 years have been agriculture, construction, and education and health services. Kings County has the smallest industry force of the four counties in the study area, as shown in Table 5.10-3, Kings County Employment by Industry Annual, by Percentage.

TABLE 5.10-3
KINGS COUNTY EMPLOYMENT BY INDUSTRY ANNUAL, BY PERCENTAGE

Industry	1990	1995	2000	2006
Farm	19.7	23.4	20.4	23.6
Construction	3.3[1]	2.7[1]	2.9[1]	3.5[1]
Education and Health Services	5.4	9.0	7.4	8.5
Financial Activities	2.7	2.4	2.9	3.0
Government	18.8	26.6	33.2	32.2
Information	0.7	0.9	0.8	1.0
Leisure and Hospitality	6.4	6.6	5.8	5.9
Manufacturing	11.0	9.6	9.5	9.4
Natural Resources and Mining	--[1]	--[1]	--[1]	--[1]
Professional and Business Services	2.0	3.0	3.4	2.6
Trade, Transportation, and Utilities	18.7	14.4	12.7	12.9
Other Services	2.0	1.5	1.6	1.3
Total Number of Positions	29,900	33,400	37,700	45,800

Source: State of California, Employment Development Department (EDD), Labor Market Information Division, Employment by Industry Data, Kings County, 1990-2000, and August 2006 data.

Notes:
[1]Construction, Natural Resources, and Mining combined.

Table 5.10-1, Unemployment Percentage, City of Fresno, Fresno, Kings, Madera, and Tulure Counties and California, shows the historical and current unemployment rate for Kings County. Kings County averages 5.5 points higher than the state average.

According to the U.S. Census Bureau, the median household income in Kings County in 2003 was $36,105, which is the highest of the four counties in the study area. The percentage of the population earning below the poverty threshold was 18.2 percent, which is the lowest percentage of poverty in the four counties, but still higher than California's average (13.8 percent) by 4.6 points (U.S. Census Bureau 2006).

Madera County

Madera County is located in the geographic center of California, and occupies approximately 2,147 square miles within the Central Valley and the Central Sierras. The county is bordered on the north by Mariposa and Merced counties, Mono County on the east, and Fresno County on the south. Madera County consists of two major cities, Chowchilla and Madera, and the unincorporated communities of Ahwahnee, Bass Lake, Berenda, Coarsegold, Fairmead, Madera Ranchos, North Fork, Oakhurst, O'Neals, Raymond, and Rolling Hills. Madera County is projected to be one of the fastest growing counties in California.

Madera County is ranked 13th in agricultural production value in California, with revenue of $1.1 billion in 2005. The leading commodities include almonds, grapes, milk, and pistachios (California Department of Food & Agriculture 2006). However, Madera County has been exhibiting strong growth in other industries, in addition to agriculture, as shown on Table 5.10-4, Madera County Employment by Industry Annual, by Percentage. From 2000 to 2006, Madera

County's labor force grew by approximately 20.1 percent (from 39,200 to 47,100) revealing a 20.2 percent gain of 7,900 positions. Industries forecasted to grow faster than the region's annual rate include construction, which has shown the highest growth rate in the past 10 years, as well as education and health services (EDD 2006).

TABLE 5.10-4
MADERA COUNTY EMPLOYMENT BY INDUSTRY ANNUAL, BY PERCENTAGE

Industry	1990	1995	2000	2006
Farm	27.5	30.2	30.4	28.2
Construction	5.9[1]	3.6[1]	3.8[1]	6.4[1]
Education and Health Services	6.6	8.7	11.2	12.1
Financial Activities	2.3	1.8	1.8	1.7
Government	18.6	18.3	19.4	20.4
Information	2.3	2.4	1.5	1.5
Leisure and Hospitality	7.0	7.2	6.4	5.1
Manufacturing	12.4	8.4	7.4	7.0
Natural Resources and Mining	--[1]	--[1]	--[1]	--[1]
Professional and Business Services	2.7	4.2	5.6	5.1
Trade, Transportation, and Utilities	13.2	12.9	10.7	10.6
Other Services	2.3	2.1	2.0	1.9
Total Number of Positions	25,800	33,400	39,200	47,100

Source: State of California, Employment Development Department (EDD), Labor Market Information Division, Employment by Industry Data, Madera County, 1990-2000, and August 2006 data.

Notes:
[1]Construction, Natural Resources, and Mining combined.

While the general unemployment trend has improved in the last 10 years, Madera County averages 5.5 points higher unemployment than the state average, as shown in Table 5.10-1, Unemployment Percentage, City of Fresno, Fresno, Kings, Madera, and Tulure Counties and California.

According to the U.S. Census Bureau, the median household income in Madera County in 2003 was $36,018, compared to a state average of $48,440. The percentage of the population earning below the poverty threshold in 2003 was 18.9 percent (U.S. Census Bureau 2006).

Tulare County

Tulare County is a geographically diverse region, and includes an area of 4,863 square miles. The Sierra Nevada range, in the eastern half of the county rises to more than 14,000 feet, and is comprised primarily of public lands within Sequoia National Park, National Forest, and the Mineral King, Golden Trout, and Domelands wilderness areas. The western half of the county is a cultivated fertile valley floor, which is why Tulare County is the second leading producer of agricultural commodities in the U.S. In addition to substantial packing/shipping operations, light and medium manufacturing plants are increasing in number and becoming an important factor in the county's overall economic picture.

As mentioned above, Tulare County is ranked second in agricultural production value in California, with revenue of almost $4.4 billion in 2005. The top producing commodities are

dairy, oranges, cattle, grapes, hay and alfalfa, and grains (California Department of Food & Agriculture 2006). Despite a decline in jobs since 2000, agriculture remains the county's largest industry employer. Tulare County has increased industry employment by nearly 11 percent (14,500 jobs) since 2000, as shown in Table 5.10-5, Tulare County Employment by Industry Annual, by Percentage. Not including the farm industry, the three industries forecasted for the largest gain occur in the government sector, retail trade, and natural resources and mining, and construction (EDD 2006).

TABLE 5.10-5
TULARE COUNTY EMPLOYMENT BY INDUSTRY ANNUAL, BY PERCENTAGE

Industry	1990	1995	2000	2006
Farm	26.4	26.8	26.2	26.4
Construction	4.2	3.4	3.9	5.4[1]
Education and Health Services	5.8	6.2	5.7	6.6
Financial Activities	3.3	3.1	2.9	3.0
Government	21.2	19.7	21.3	20.2
Information	0.9	0.7	0.8	1.0
Leisure and Hospitality	5.6	5.9	5.6	5.8
Manufacturing	11.3	10.2	8.8	7.8
Natural Resources and Mining	0	0	0	--[1]
Professional and Business Services	3.9	5.5	6.4	6.2
Trade, Transportation, and Utilities	15.4	16.6	16.3	16.0
Other Services	2.1	2.0	2.1	2.0
Total Number of Positions	111,900	120,000	133,100	147,600

Source: State of California, Employment Development Department (EDD), Labor Market Information Division, Employment by Industry Data, Tulare County, 1990-2000, and August 2006 data.

While the general unemployment trend has improved in the last 10 years, Tulare County averages 6.4 points higher unemployment than the state average, as shown in Table 5.10-5, Tulare County Employment by Industry Annual, by Percentage. Tulare County has the highest unemployment average of the four counties in the study area.

According to the U.S. Census Bureau, the median household income in Tulare County in 2003 was $33,157. The percentage of the population earning below the poverty threshold in 2003 was 21.5 percent (U.S. Census Bureau 2006).

5.10.2.2 Employment During Construction

Consultation with the Building and Construction Trades Council of Fresno, Madera, Tulare, and Kings counties confirms that Fresno County has a large available workforce. Additionally, the Council has reviewed the estimated labor demands (Table 5.10-6, Labor Personnel Requirements by Month), and based on current and historical labor and employment trends, is confident that the workforce supply within a commuting distance is available for the project needs (Huston 2006). Note that construction begins once site preparation is complete. Site preparation will require a maximum of 10 workers over a period of 2 months, and is not expected to cause a significant impact to the local employment.

TABLE 5.10-6
LABOR PERSONNEL REQUIREMENTS BY MONTH

Plant Construction

Discipline	Months After Construction Notice-to-Proceed													Commissioning			Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Insulation Workers	0	0	0	0	0	0	0	8	8	8	17	4	3	0	0	0	48
Boilermakers	0	0	0	0	0	14	14	14	14	14	14	11	11	11	0	0	117
Carpenters/Cement Finishers	1	4	7	11	13	11	13	15	19	15	8	4	4	2	1	0	128
Electricians	1	3	4	5	7	8	15	28	34	37	38	43	17	10	5	5	260
Ironworkers	0	3	5	31	29	31	31	29	25	22	19	17	8	3	0	0	253
Laborers	3	3	4	11	15	31	31	31	31	15	7	4	4	3	2	2	197
Millwrights	0	0	0	7	8	13	28	41	41	41	30	9	9	1	1	1	230
Operating Engineers	1	3	7	7	7	13	13	11	9	4	1	1	1	1	1	0	80
Painters	0	0	0	0	0	4	9	9	9	4	4	2	2	2	0	0	45
Pipefitters	0	0	0	3	6	9	9	16	39	11	6	4	2	1	0	0	106
Sheetmetal workers	0	0	0	0	0	3	6	7	9	7	7	7	2	1	0	0	49
Surveyors	2	5	5	3	3	2	2	2	0	0	0	0	0	0	0	0	24
Teamsters	1	3	5	7	11	6	6	5	5	5	3	2	1	1	1	0	62
Commissioning Group	0	0	0	0	0	0	0	0	0	0	2	3	3	3	3	3	17
Management Staff	3	3	7	7	13	13	13	13	13	13	13	13	13	13	3	3	156
Total Workforce	**12**	**27**	**44**	**92**	**112**	**158**	**190**	**229**	**256**	**196**	**169**	**124**	**80**	**52**	**17**	**14**	**1772**

TABLE 5.10-6
LABOR PERSONNEL REQUIREMENTS BY MONTH
Linear Piping Construction (Gas Pipeline, Sewer Line, Supply Water Line)

Discipline	Months After Construction Notice-to-Proceed													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Laborers	78	72	60											210
Surveyors	4	3	2											9
Teamsters	28	25	18											71
Management Staff	10	8	6											24
Total Workforce	**120**	**108**	**86**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**314**

Initially, the Council will draw upon a labor pool within Fresno County. In the event that additional workers are required, for instance during the period of the project's peak worker demand, the Council will refer workers within the daily commute distance from nearby Madera, Kings, and Tulare counties (Hutson 2006). Given Fresno County's strong growth in the construction industry and the availability of workers, it is expected that the project will not encounter difficulties finding an available labor force within the daily commute distance to supply the work force associated with construction of the project.

BEC will provide about $18 million (in 2005 dollars) in construction payroll at an average salary of $65 per hour, including benefits.

5.10.2.3 Employment During Operation

To the extent possible, permanent employees will be hired locally from the community. Potentially, BEC can provide 9 employment positions during operations (shown in Table 5.10-7, BEC Estimated Staff During Operations). It is expected that the project will not encounter significant employee relocation effects during operation.

TABLE 5.10-7
BEC ESTIMATED STAFF DURING OPERATIONS

Department	Position	Number of Employees	Shift	Workdays
Operations	Operating Technicians	4	Two 2-person shifts per day; overtime as required.	7 days per week
	Environmental Technician	1	Standard 8-hour day	5 days per week
Maintenance	Maintenance Technician	2	Standard 8-hour day	5 days per week
Management	Secretary	1	Standard 8-hour day	5 days per week
	Plant Manager	1	Standard 8-hour day	5 days per week

The average salary per employee is expected to be $85,000 per year, including benefits. Combined, the annual operation payroll will be approximately $700,000 for the facility.

5.10.3 Population and Housing

5.10.3.1 Population and Housing in the Study Area

Fresno County

Fresno County has undergone overall population growth since the 1970s. According to studies, Fresno County had a total population of 865,620 in 2004, which reflects an approximate 1.1 percent increase from 799,407 in 2000. The majority of the growth takes place in the urbanized cities of Fresno and Clovis.

As of 2005, there were approximately 292,733 housing units in Fresno County, with an average vacancy rate of 6.4 percent (California Statistical Abstract 2005). Of the total housing units, 70 percent were in single-unit structures, 25 percent were in multi-unit structures, and 5 percent were mobile homes. Twenty-six percent of the housing units were built since 1990. The median monthly housing costs for mortgaged owners was $1,335, non-mortgaged owners $334, and renters $710. Thirty-nine percent of owners with mortgages, 15 percent of owners without mortgages, and 51 percent of renters in Fresno County spent 30 percent or more of household income on housing.

City of Fresno

As of the census of 2000, there are 427,652 people residing in the city. The population density is 4,097 people per square mile.

In 2005, Fresno city had a total of 163,000 housing units, 6 percent of which were vacant. Of the total housing units, 64 percent were in single-unit structures, 33 percent were in multi-unit structures, and 2 percent were mobile homes. Twenty-three percent of the housing units were built since 1990 (American Community Survey [via U.S. Census Bureau] 2005). The median monthly housing costs for mortgaged owners was $1,303, non-mortgaged owners $345, and renters $728. Forty-three percent of owners with mortgages, 20 percent of owners without mortgages, and 55 percent of renters in Fresno city spent 30 percent or more of household income on housing.

Project Vicinity

The population within the 6-mile radius of the project vicinity is approximately 156,183, according to the 2000 U.S. Census Blocks, shown on Figure 5.10-1, Population Density within 6-Mile Radius of Project Site. The highest density occurs in the southeast quadrant of the area encompassed by the 6-mile radius. Within this higher density area, the majority of the census blocks have a population density of between 1001 to 10,000 inhabitants per square mile. The remaining portion of the area is characterized by low population density, with the majority of the area having a density of 1 to 100 inhabitants per square mile.

Kings County

Kings County has shown a steady, high population growth in last several decades, and is projected to increase similarly into 2020, shown on Table 5.10-8, Historical and Projected Populations. From 1990 to 2000, the population increased from 101,469 to 129,461, reflecting a growth of 27.6 percent. In the recent 5 years, from 2000 to 2005, the population increased 10.8 percent to 143,420.

TABLE 5.10-8
HISTORICAL AND PROJECTED POPULATIONS

Area	1980[1]	1990[1]	2000[1]	2005[1]	2010[5]	2020[5]
California	23,667,764	29,760,021	33,871,648	36,132,147	39,246,767	43,851,741
Fresno County	514,621	673,608	799,407	877,584	949,961	1,114,654
Kings County	73,738	101,469	129,461	143,420	156,334	184,751
Madera County	89,300	89,090[1]	123,109	142,788	150,278	183,966
Tulare County	245,738	311,921	368,021	410,874	447,315	543,749
City of Fresno[2]	217,491	354,202	427,652	464,727	NA	NA
Project Vicinity[3]	NA	NA	156,183	NA	NA	NA

Notes:
[1]U.S. Census Bureau: State and County QuickFacts, 2000 Census of Population and Housing.
[2]City of Fresno Data: U.S. Census Bureau, Population Distribution Branch.
[3]Population within a 6-mile radius of the project site; data from 2000 U.S. Census Bureau census blocks.
[4]State of California, Employment Development Department, Labor Market Information Division.
[5]State of California, Department of Finance.

As of 2005, Kings County had 40,021 housing units with a 5.4 percent vacancy rate. Of the total housing units, 73 percent were in single-unit structures, 21 percent were in multi-unit structures, and 5 percent were mobile homes. Twenty-eight percent of the housing units were built since 1990. The median monthly housing costs for mortgaged owners was $1,236, non-mortgaged owners $332, and renters $687. Thirty-nine percent of owners with mortgages, 9 percent of owners without mortgages, and 46 percent of renters in Kings County spent 30 percent or more of household income on housing.

Madera County

Madera County has undergone rapid population growth since the 1970s. Between 1990 and 2000, Madera County's population increased by almost 40 percent, from 89,090 (1990) to 123,109 (2000), compared to a state average population growth of 13.6 percent for the same period. More recently, Madera County had a total population of 141,788 in 2005, which reflects an approximate 16 percent increase from 123,109 in 2000.

As of 2005, Madera County had 45,495 housing units, with an average vacancy rate of 9.1 percent. Of the total housing units, 79 percent were in single-unit structures, 12 percent were in multi-unit structures, and 9 percent were mobile homes. Thirty-three percent of the housing units were built since 1990. The median monthly housing costs for mortgaged owners was $1,328, non-mortgaged owners $391, and renters $661. Thirty-five percent of owners with mortgages, 11 percent of owners without mortgages, and 38 percent of renters in Madera County spent 30 percent or more of household income on housing.

Tulare County

Tulare County has consistently sustained rapid growth in the last 20 years, and is expected to continue its growth into the next several decades. Tulare is the second most populated county within the study area, shown on Table 5.10-8, Historical and Projected Populations. Between 1990 and 2000, the county's population increased by almost 21 percent, from 311,921 (1990) to 368,021 (2000). More recently, the estimated growth from 2000 to 2005 (410,874) is 11.6 percent.

According to 2005 estimates, Tulare County had 125,128 housing units, with an average vacancy rate of 7.4 percent. Of the total housing units, 78 percent were in single-unit structures, 14 percent were in multi-unit structures, and 8 percent were mobile homes. Twenty-four percent of the housing units were built since 1990. The median monthly housing costs for mortgaged owners was $1,163, non-mortgaged owners $298, and renters $607. Forty-one percent of owners with mortgages, 15 percent of owners without mortgages, and 44 percent of renters in Tulare County spent 30 percent or more of household income on housing.

5.10.3.2 Project Impacts to Population and Housing During Construction Phase

Estimated labor personnel requirements during the construction and commissioning phases of the project are shown in Table 5.10-3, Kings County Employment by Industry Annual, by Percentage. Note that construction begins once site preparation (clearing and grubbing) is complete. Site preparation will require a maximum of 10 workers over a period of 2 months, and is not expected to cause a significant impact to the population. As mentioned in Section 5.10.2, Study Area, labor workers within a commuting distance to the project site will be available to supply the workforce needed for the construction. It has been assumed for this analysis that manual labor staff would be comprised of local workers and contractor staff would be non-local workers temporarily working in the area. This analysis assumes that during an average workweek, non-local workers will lodge in local hotels and motels, and then return home for the weekend. Local workers for the project are expected to commute to the project, rather than relocate. In this way, the project is not expected to significantly impact the population in the study area during construction.

As of July 2006, Fresno city has about 400 hotel and motel lodgings, with a total of over 7,500 rooms.

5.10.3.3 Project Impacts to Population and Housing During Operations

As shown in Table 5.10-4, Madera County Employment by Industry Annual, by Percentage, the project will require approximately nine full-time employees during operations. Operation workers will commute as much as one hour to the facility site from their homes. It is anticipated that these employees would be hired from within Fresno County and would commute, rather than relocate. The operational impact of BEC on population in the study area is not expected to be significant.

In consideration of the available local workforce and the number of non-local contractor workers, the project does not anticipate significant impacts to housing in the project vicinity during project construction. Additionally, since the project expects to hire as many local workers to operate the facility as possible, the project concludes that the impact to local housing will also be insignificant.

5.10.4 Environmental Justice

In response to Executive Orders 12250 and 12898, the California Energy Commission (CEC) is required to consider environmental justice claims in the siting process. President Carter signed Executive Order 12250 in 1980, which directed federal agencies to adopt “disparate impact” regulations. “Disparate impacts” may be claimed if a minority community can demonstrate

unique, different, and negative effects on their population, as a result of the actions of a state's permitting agency (Scoll 2003).

Executive Order 12898 directs each federal agency and state agencies such as CEC, which receive federal assistance to "make environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high or adverse human health effects of its programs, policies, and activities on minority populations and low-income populations…" In this respect, CEC considers a "high and adverse" environmental or health effect disproportionately falling upon a minority or low-income population in its analysis of environmental justice.

U.S. Environmental Protection Agency's (USEPA's) published guidelines for addressing environmental justice concerns, *Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* (1998), emphasizes the importance of selecting an analytical approach that is appropriate to the unique circumstances of the community potentially affected by a project. The guidance also encourages the analyst to apply best judgment when drawing conclusions on whether or not the project may disproportionately affect a low-income community.

5.10.4.1 Environmental Consequences

Air Quality

As evaluated in detail in this Application for Certification (AFC) Section 5.2, Air Quality, the project will not emit significant emissions of criteria pollutants that could lead to health effects in the project vicinity. Also, the project will not result in significant emissions of toxic air contaminants that could increase the ambient cancer risk or result in non-cancer health effects above established thresholds (Section 5.16, Public Health).

Water Quality

The project will not involve wastewater discharges that could affect drinking water supplies (Section 5.5, Water Resources).

Noise

The BEC will be designed to include noise mitigation measures such that there will be no significant noise or health impacts due to the project. These mitigation measures are discussed in Section 5.12, Noise.

Electromagnetic Field Effects

The project includes construction of a 300-foot transmission line. The line is constructed to mitigate field effects, and will result in no significant impacts to sensitive receptors (Section 3.0, Facility Description and Location).

5.10.4.2 Environmental Justice Screening Analysis

The environmental justice screening analysis assesses whether "the potentially affected community includes minority and/or low income populations." The CEC uses 50 percent minority or low-income as a threshold for identifying areas that are "minority" or "low-income." Additionally, the screening analysis includes comparing the characteristics of the population residing near the project versus the population located within the county area surrounding the project.

The population within the 6-mile affected project area is approximately 156,183, according to the U.S. Census tract information (2000), as shown on Figure 5.10-2, Demographics within 6-Mile Radius of Project Site, and in Table 5.10-8, Historical and Projected Populations. Figure 5.10-2, Demographics within 6-Mile Radius of Project Site, maps the census tract data showing the percentage of minorities. Within the 6-mile radius of the project vicinity, the majority of minority concentrations in the census tracts, appear in the 0 to 24 percent and 25 to 49 percent minority ranges. The percentage breakdown by census block of minorities found within the project vicinity is appears in Table 5.10-9, Number of People by Race and Poverty Level within a 6-Mile Radius of Project Site, which shows specific demographic breakdown in the project vicinity. The census data shows that the percentage of minority population residing in the project vicinity falls below the threshold of 50 percent.

Figure 5.10-3, Poverty Levels within 6-Mile Radius of Project Site, maps the census block data for levels of poverty. The large majority of the area within the project vicinity contains poverty levels of 0 to 24 percent. The nearest area with poverty levels greater than 50 percent occurs outside of the project vicinity. Figure 5.10-4, Poverty Levels within Fresno and Madera County, shows the levels of poverty at a county scale for both Fresno and Madera counties. Additionally, percentages of poverty levels within each census block are shown in Table 5.10-9, Number of People by Race and Poverty Level within a 6-Mile Radius of Project Site. Figures 5.10-3 and 5.10-4 along with data in Table 5.10-9, show that the percentage of the population residing in the project vicinity falls below the threshold of 50 percent poverty levels.

The environmental justice screening process analyzes the project effects for a "high and adverse" environmental or health effect falling disproportionately upon a minority or low-income population. The analysis for environmental or health effects (Section 5.10.4, Environmental Justice) has determined that the BEC will result in no significant environmental consequences. Additionally, demographic data shows that the project is not located in an area of high minority density or low-income levels. In this way, no environmental justice issues arise with respect to BEC.

TABLE 5.10-9
NUMBER OF PEOPLE BY RACE AND POVERTY LEVEL WITHIN A 6-MILE RADIUS OF PROJECT SITE

County and Tract Number	2000 Census	White (%)	Black (%)	American Indian & Alaskan Native (%)	Asian & Pacific Islander (%)	Other Races (%)	Latino Origin[8] (%)	Percent Population Below Poverty Level (%)
Madera County								
Census Tract 10	6325	58.7	0.6	1.5	2.3	29.6	54.4	15.7
Fresno County								
Census Tract 19	2645	48.7	7.5	1.8	11.0	30.8	48.4	25.3
Census Tract 20	5950	44.0	6.5	3.2	12.8	28.4	48.3	42.5
Census Tract 21	5590	49.7	4.5	2.1	5.8	32.8	52.4	29.2
Census Tract 36	4030	69.3	4.4	1.3	3.2	16.0	28.6	15.4
Census Tract 37	7938	48.8	6.8	1.6	11.8	25.3	45.0	26.5
Census Tract 38[1]	27903	52.5	8.0	1.4	10.8	22.6	39.6	14.4
Census Tract 39	5503	51.4	0.4	1.6	2.7	39.8	59.0	27.8
Census Tract 41	2687	47.2	0.2	1.6	4.4	42.9	54.4	17.6
Census Tract 42[2]	41643	65.7	7.2	1.0	8.7	12.4	26.6	10.0
Census Tract 43[c]	12834	86.2	2.0	0.3	6.4	2.3	8.0	3.2
Census Tract 44[4]	10998	60.7	4.4	1.4	10.9	17.2	29.2	18.5
Census Tract 45[5]	16162	76.4	4.9	1.0	6.0	9.5	19.7	14.5
Census Tract 46[6]	5117	84.1	0.02	1.0	3.0	6.5	14.8	3.1
Census Tract 47[7]	15580	48.9	11.8	1.7	0.06	25.5	44.1	29.0
Census Tract 48	8502	49.1	8.9	2.1	5.8	28.4	46.3	28.3
Census Tract 49	5807	59.4	5.3	1.8	7.7	20.8	35.9	22.7
Census Tract 50	3995	64.9	4.4	1.7	10.5	14.6	30.1	15.7

Notes:
[1]Consists of Census Tracts 38.01, 38.03, 38.04, 38.05, 38.06
[2]Consists of Census Tracts 42.05, 42.06, 42.07, 42.08, 42.09, 42.10, 42.11, 42.12
[3]Consists of Census Tracts 43.01, 43.02, 43.03
[4]Consists of Census Tracts 44.04, 44.07
[5]Consists of Census Tracts 45.03, 45.04, 45.05, 45.06
[6]Consists of Census Tracts 46.01, 46.02
[7]Consists of Census Tracts 47.01, 47.03, 47.04
[8]According to the U.S. Census Bureau, people who identify their origin as Spanish, Hispanic, or Latino, may be of any race.
% = percent

5.10.5 Public Services and Utilities

5.10.5.1 Fire Protection and Emergency Response

The project site is served by the Fresno City Fire Department (FCFD), Station 14. The station is equipped with one truck and one engine, with at least six firefighters on duty at any time of the day. Station 14 is located less than 1 mile northeast of the project site. In addition to firefighting, all firefighters are trained emergency medical technicians (EMTs), hazardous materials (hazmat) responders, and certified to perform confined space rescue. The fire response time to the project site will be less than 4 minutes. If needed, Station 14 may dispatch units from adjoining fire stations for additional support. In the event that additional resources are needed at the BEC site, the fire stations at the La Ventana (Station 18), Brix (Station 16), and Acacia (Station 12) stations, as well as other nearby stations, will be available for support.

During facility operations, fire protection will be provided at the facility through a firewater supply and pumping system described in Section 3.0, Facility Description and Location.

5.10.5.2 Medical Facilities

Fresno County contracts paramedic services to a private emergency medical service (EMS) provider, American Ambulance. American Ambulance provides basic and advanced life support services, and has at least a paramedic and EMT unit available at all times. The project site is covered under the Tulare station, which is located 11 miles from the site. Once a unit is dispatched, American Ambulance follows an automatic protocol to supply additional units from neighboring stations, in order to provide for continuous coverage for all areas. Services are sufficient to respond to emergencies at the project site within an appropriate response time (Escobebo 2006).

Additionally, American Ambulance is partnered with Skylife, which provides rapid air transportation for the critically injured trauma and medical patient. The helicopter is based at Fresno Yosemite International Airport in Fresno, and is staffed 24 hours per day with a flight nurse, flight paramedic, and EMS-trained pilot.

During the facility construction and operation, American Ambulance and Skylife will transport injured personnel to the Fresno University Trauma Center (City of Fresno), which is located approximately 12 miles from the project site. The Fresno University Trauma Center is a Level 1 trauma center for the Central Valley. Additionally, first aid kits and fire extinguishers will be located throughout the construction areas, and foremen and supervisors will be trained in first aid. First-aid trained safety personnel will comprise part of the construction staff. During project operation, the facility will implement proper worker safety programs to minimize potential unsafe work conditions (Section 5.17, Worker Safety).

5.10.5.3 Law Enforcement

The Fresno Police Department northwest station provides patrol and security services for the project area. The northwest station is located approximately 5 miles from the project site. The Fresno Police Department is considered an elite force, as demonstrated with its receiving the Commission on Accreditation for Law Enforcement Agencies (CALEA) accreditation in 2005.

Fewer than 4 percent of law enforcement agencies nationwide have been accredited through CALEA, which involves complying with 388 internationally accepted standards for the operation of police organizations, and maintaining strict standards in policies and procedures, management, operations, and support services. The accreditation assures the citizens of Fresno that their police department is among the best in the nation. Additionally, the Department must now maintain compliance with the identified standards and report annually to CALEA.

The northwest station services include a sophisticated array of security and protection capabilities, including a 24-hour K-9 unit; mounted patrol; two District Crime Suppression Teams, for proactive patrolling service addressing immediate criminal activity; Skywatch, which provides aerial support to patrol, investigations, and special units; an on-call Explosive Ordnance Disposal Unit (EOD), to handle any threat of biological, chemical, and radiological and other hazardous devices; Special Weapons and Tactics (S.W.A.T.) Team to manage critical incidents.

Consultation with the northwest station confirms that law enforcement will be able to respond accordingly to emergency situations without a negative impact to the sheriff's services to the community (Alvarado 2006). Additionally, the project will take steps during construction to minimize the potential for law enforcement, including the installation of secured fencing around the entire project site (including laydown area) with controlled access, and 24-hour on-site security guards. During operation, the facility will have permanent fencing, and installation of electronic sensor and alarm system.

5.10.5.4 Schools

The project resides within the Central Unified School District. As of 2005, the district is made up of 17 schools; 12 elementary, 2 junior highs, and 3 high schools. Based on the report issued by the Fresno County School District, *The School District Organization in Fresno County* (January 2006), Central Unified School District experienced a rapid growth in enrollment during 2004 (12,375 enrolled), and from 1993-1994 (7,000). Despite this growth the schools have not experienced overcrowding. The district is continuing plans for further growth and expects to build 20 to 25 schools in the next 15 to 18 years.

Because a sufficient labor pool exists within the commuting distance of the project, it is anticipated that construction and operation workers will commute to the project site rather than relocate. In this way, the schools are not expected to experience a significant impact during construction, as any population increase will be small and temporary, and will not likely involve school-age children.

Up to eight permanent employees will staff the facility during operations. It is expected that the Central Unified School District could accommodate this number of families, if employees are hired from outside the county.

5.10.5.5 Utilities

The following sub-sections summarize the project's approach to evaluate impacts to public utilities. The project will result in no significant impact to the project vicinity.

Electricity

When the facility is shut down, electricity for the project site will be provided by Pacific Gas and Electric (PG&E) by backfeeding from the PG&E transmission system through the new on-site sub-station which will interconnect with the Herndon-Kearney 230 kV transmission lines. When the facility generation is in operation, balance-of-plant (BOP) will be supplied internally.

Natural Gas

Natural gas will be delivered to BEC from a connection to a PG&E trunk line, and will require the construction of approximately 9,500 feet of off-site pipeline. The primary and alternative routes for the pipeline are shown in Figure 3.2-1, Proposed Linear Routes. The natural gas will be delivered to an underground pipeline up to 12-inches in diameter, capable of supporting an adequate supply for the facility operation.

Potable Water

The project facility will use city potable water to supply facility drinking water, showers, sinks, toilets, eyewash station, and safety showers in hazardous chemical areas. The potable water connection point will be located on North Golden State Boulevard at the south end of the site. The potable water needs are not anticipated to significantly impact the potable water supply.

Sewage System

During construction, the project will provide portable restrooms for personnel. During operation, the facility sanitary system will consist of a city sewer connection sufficient to accommodate the sanitary flow from the administration, control building, and any other restroom facilities located on the site.

5.10.6 Fiscal Resources

The total property tax revenue for Fresno County for 2006 was approximately $560.4 million. All secured property (land and structures) in California is taxed at a base factor of 1.0 percent of the total assessed value, not including bonds and special assessments. The disbursement for this 1.0 percent is shown in Table 5.10-10, Base Factor Property Tax Disbursement.

The project will be located on 12.3 acres. The parcel is privately owned, and committed by lease option to Bullard Energy Center, LLC. This site is located within the County's Tax Rate Area 005-568, and during the 2005 fiscal year, the site tax rate was the 1.0 percent base rate plus special bonds and assessments, for a total of 1.1281880 percent (Cheek 2006). The annual property tax for the parcel was $9,596.86. The allocation of the base rate is shown in Table 5.10-10, Base Factor Property Tax Disbursement.

TABLE 5.10-10
BASE FACTOR PROPERTY TAX DISBURSEMENT

Beneficiary Agency	Property Tax Allocation Percentage of Base Factor
Fresno County Library	0.01953
Fresno Metropolitan Flood District	0.04262
Fresno Mosquito Abatement	0.01151
Central Unified School District	0.28013
State Center Community College District	0.05772
School Equalization for Fresno County Schools	0.06003
City of Fresno	0.27479
Fresno County	0.25367

Source: County of Fresno Assessor's Office 2006.

5.10.6.1 Project Construction

The BEC's initial capital cost is estimated to be between $150 and $200 million. Of this, materials and supplies are estimated at approximately $100 million. To the extent possible, the project will purchase materials locally. Currently the estimated value of materials and supplies purchased within Fresno County during the construction phase is between $1 and $2 million.

Indirect and Induced Effects

Construction activity would result in secondary economic and employment impacts (indirect and induced impacts) that would occur within Fresno County. The affected area, Fresno County, was determined based on (1) confirmation with the Building and Construction Trades Council of Fresno, Madera, Tulare, and Kings counties that an adequate and available labor force exists in Fresno County to supply the construction needs of the project, and (2) goods and services that are expected to be purchased locally are available and will be purchased within Fresno County.

Indirect and induced income and spending effects occur due to purchase of goods and services by firms involved with construction. Indirect employment effects and induced employment result from construction workers spending their income in their local area, and typically lag behind direct effects by 6 to 12 months. The modeling input was based on estimated initial capital cost of $175 million for project construction (averaged from the estimated $150 to $200 million mentioned above), estimated expenditures of $1.5 million for locally (Fresno County) purchased materials (averaged from the estimated $1 to $2 million, above), and an average of 111 construction workers with a combined payroll of $18 million. The resulting indirect and induced effects of construction occurring within Fresno County would be an additional 158 jobs, approximately $5.3 million in labor income, and approximately $16 million in output. IMPLAN Pro Sector 41[1] (Other New Construction, Power Plants) was used for this analysis, and economic estimates were based on 2005 dollars.

[1] Sector 41, Other Construction is considered the most appropriate modeling matrix, based on consultation with the Minnesota IMPLAN Group (MIG), Inc.

5.10.6.2 Project Operation

Following the completion of construction, BEC will be reassessed for its property value and tax rate. California property tax assessments on electric generation facilities larger than 50 megawatts (MW) are performed at the state level through the California Board of Equalization (BOE). The BOE staff confirmed that the BOE will determine the Unitary Market Value (UMV) of the facility, based upon the project's cost, revenue, expenses, and land value, and then communicate the UMV to Fresno County. Fresno County is then responsible for assessing and collecting the property tax as a percentage of the UMV. According to the Fresno County Assessors' Office, the county will apply the 1.0 percent property tax rate to the BEC UMV (Coronado 2006).

While the UMV determination is an extensive assessment process, the BOE considers the initial capital cost of the project may be conservatively estimated to be $150 million (BOE Staff 2006) in 2009. Based on this estimate, property tax for BEC for 2009 is expected to be approximately $1.5 million.

Indirect and Induced Effects

Similar to the construction phase, the BEC operation phase would result in indirect and induced economic impacts occurring within the project region. In modeling for BEC operation, it was determined that while the permanent workers are expected to be hired from within Fresno County, normal operation and maintenance (O&M) expenditures may be made within Fresno, Madera, Tulare, and Kings counties. As result, the economic modeling was based upon a region consisting of these counties. Also, unlike construction indirect and induced impacts, operational indirect and induced impacts represent *permanent* increases in area jobs, income, and spending. However, similar to the construction impacts, these impacts would lag behind direct effects by 6 to 12 months.

The modeling input was based on estimated annual O&M budget of $15 million: $645,000 for locally purchased materials, and the employment of eight permanent employees averaging approximately $85,000 per year. The resulting indirect and induced effects of the BEC operation occurring in Fresno County would be an additional six jobs, and approximately $120,000 in labor income and $662,000 in output within the four county areas. Fuel costs were not included in the IMPLAN modeling, since natural gas prices are variable and unknown, and the effects of the purchase would not likely occur within the Fresno County area. IMPLAN Pro Sector 30 (Power Generation and Supply) was used for this analysis, and economic estimates were based on 2005 dollars.

5.10.7 Cumulative Impacts

The potential for cumulative socioeconomic impacts exists where other projects are proposed in the region, construction schedules overlap, and employment opportunities are created. This project area and the surrounding area have not had any major development projects in the past 18 months, though three potential projects may be considered in the foreseeable future. Refer to Section 5.18, Cumulative Impacts, for information on these potential projects.

5.10.8 Applicable Laws, Ordinances, Regulations, and Standards

Table 5.10-11, LORS Applicable to Socioeconomics, summarizes the LORS applicable to the socioeconomic impacts of BEC.

TABLE 5.10-11
LORS APPLICABLE TO SOCIOECONOMICS

LORS	Applicability	Conformance (Section)
Federal		
Executive Order 12250	Federal agencies to adopt disparate impact regulations, where a minority community may claim a "disparate impact" when it can demonstrate unique, different, and negative effects resulting from the state's permitting agency.	5.10.4
Executive Order 12898	Agencies are required to identify and address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low income populations.	5.10.4
State		
Government Code Sections 65302 et seq.	Each city and county is required to develop a General Plan to guide planning and development within a jurisdiction.	5.10.7.2
Government Code Sections 65995-65997 (Education Code Section 17620)	Includes provisions for levies against development projects in school districts.	5.10.7.2
City		
	None identified.	
Local		
	None identified.	

5.10.8.1 Federal

Executive Order 12250

As discussed in Section 5.10.4, Environmental Justice, Executive Order 12250 requires federal agencies to adopt disparate impact regulations, where a minority community may claim a "disparate impact" when it can demonstrate unique, different, and negative effects resulting from the state's permitting agency. Refer to Section 5.10.4 for environmental justice concerns related to BEC.

Executive Order 12898

Also discussed in Section 5.10.4, Environmental Justice, Executive Order 12898 *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* (1994) requires

federal government agencies to identify and address disproportionately high and adverse effects of federal action on the health and environment of minority and low-income populations. The USEPA has adopted the Order, and the California Environmental Protection Agency has established a working group for environmental justice concerns. The CEC receives federal funding and therefore must address environmental justice concerns associated with projects under its permitting jurisdiction. Refer to Section 5.10.4 for environmental justice concerns related to the BEC.

5.10.8.2 State

Government Code Sections 65995-65997 and Education Code Sections 17620-17626.

In the event that new development impacts schools to the extent of requiring new construction or reconstruction, Government Code sections 65995-65997 and Education Code sections 17620-17626 give governing boards the authority to collect developer fees for residential, commercial, and industrial development within a school district. In order to assess a fee, the district must conduct a Fee Justification Study that reasonably demonstrates a relationship between the fee and the type of development to be assessed. The study includes consideration for the number of employees increased as a result of that development and the housing provided for those employees.

Government Code Sections 65300-65303.4

California State Planning Law (Government Code Sections 65300-65303.4) requires that each city and county adopt a General Plan, consisting of seven mandatory elements, to guide planning and development within the jurisdiction. As with most jurisdictions, the Fresno County General Plan does not have LORS specifically addressing the socioeconomic aspects of a project such as the BEC.

5.10.8.3 Municipal Code

There are no LORS in the Fresno Municipal Code that are considered to be directly applicable to socioeconomic issues for BEC.

5.10.8.4 Local

There are no LORS that are considered to be directly applicable to socioeconomic issues for BEC.

5.10.8.5 Involved Agencies and Agency Contacts

Various public service agencies were contacted in the course of the socioeconomics investigation to check on levels of activity and expected impacts of the project. Table 5.10-12, Involved Agencies and Contacts, lists those agencies.

TABLE 5.10-12
INVOLVED AGENCIES AND CONTACTS

Subject	Agency	Contact/Title	Telephone
Fiscal Resources	Assessor's Office	Ruben Coronado, Chief Audit Appraiser	559-488-3514
Fiscal Resources	Fresno Auditor' Office	Kim Lamanuzzi	559-488-3496
Education	Central Unified School District	David Deel, Community and Facilities Planning	559-274-4700
Fire Protection Services	Fresno City Fire Department, Station 14	Joel Aranaz, Operation Chief	559-621-4000
Law Enforcement	Fresno County Sheriff's Department, Area 2 Station	Lieutenant Louis Hernandez	559-292-1104
Labor	Building and Construction Trades Council of Fresno, Madera, Tulare, and Kings County	John Hutson, Financial Secretary	55-.457-0894
Planning	Department of Public Works and Planning, Fresno County	Bernard Jimenez	559-262-4078

5.10.8.6 Applicable Permits, Permit Schedule, and Fees

Table 5.10-13, Applicable Socioeconomic Permits and Fees, summarizes the socioeconomic permits and fees applicable to BEC. As shown, there are no applicable permits related to socioeconomic resources.

TABLE 5.10-13
APPLICABLE SOCIOECONOMIC PERMITS AND FEES

Jurisdiction	Potential Permit and Fee Requirements
Federal	No permits or fees have been identified
State	No permits or fees have been identified
Local	
Central Unified School District	Developer fees assessed once project plans have been submitted

However, the project will be reviewed by the Central Unified School District and assessed a developer fee. This fee is independent of the government and education code stated above , and applies to all developments located within the Central Unified School District. The fee for commercial and industrial developments is calculated by applying $0.42 per square foot of covered and enclosed space development, which shall be determined by the Fresno County Building Department. Based on preliminary assessment of the current structural dimensions shown on Figure 3.1-3, Site Arrangement Plan with the District, BEC expects to pay a developer fee of approximately $13,200.00 (Deel 2006).

5.10.9 References

Alvarez. Lieutenant. City of Fresno Police Department, Northwest Station. 2006. Personal communication with J. Wu (URS Corporation).

Berube, Alan, and Bruce Katz. 2005. *Katrina's Window: Confronting Concentrated Poverty Across America.* The Brookings Institution Metropolitan Policy Program. October.

Bureau of Economic Analysis (BEA): Regional Economic Accounts. 2006. Website: http://www.bea.gov.

_____. 2004. *Bearfacts, 1994-2004.*

California Board of Equalization (BOE), BOE Staff. 2006. Personal communication with J. Wu (URS Corporation).

California Department of Finance (DOF), Research Unit. 2002. *Population and Housing Estimates, Fresno County and its Cities, Other San Joaquin Valley Counties, and California.* Website: www.dof.ca.gov.

California Department of Food & Agriculture, and USDA, National Agricultural Statistics Service, California Field Office. *Summary of California County Agricultural Commissioner's Reports, 2004-2005.* August 2006.

California State Employment Development Department, Labor Market Division. 2006. Website: http://www.labormarketinfo.edd.ca.gov/

State of California, Employment Development Department, Labor Market Information Division, Employment by Industry Data, Current County Press Release. August 2006. http://www.labormarketinfo.edd.ca.gov/.

_____. 2003. *County Snapshot, Fresno County. 2003.*

California Energy Commission. 2001. *Environmental Performance Report.* Chapter 4: Socioeconomic Impacts of Power Plants. July.

Central Unified School District. http://www.centralusd.k12.ca.us.

Cheek, Ancilla. Special Accounting. 2006. Fresno County Auditor-Controller Office. Personal communication with J. Wu (URS Corporation).

City of Fresno. *City of Fresno Municipal Law Guidebook.* February 2006.

Coronado, Ruben. Chief Audit Appraiser. 2006. Fresno County Office of the Assessor. Personal communication with J. Wu (URS Corporation).

Council of Fresno County Governments, Regional Data Center. Website: www.fresnocog.org.

Deel, David. Communities and Facilities Planning. 2006. Central Unified School District. Personal communication with J.Wu (URS Corporation).

Department of Finance. *California Statistical Abstract.* 2005. http://www.dof.ca.gov.

Employment Development Department. *Tulare County Projection Highlights.* 2006.

Electric Power Research Institute (EPRI). *Socioeconomic Impacts of Power Plants, Electric Power Research Institute*. EA-2228. February 1982.

Escobebo, Edgar. Director of Business Development. American Ambulance. Personal communication with J. Wu (URS Corporation). October 17, 2006.

Fresno Convention and Visitor's Bureau. 2006. Fresno County Accommodations. Website: http://www.fresnocvb.org.

Fresno County Office of Education. 2006. Website: www.fcoe.k12.ca.us.

Fresno County School District. *The School District Organization in Fresno County*. January 2006.

Huston, John. 2006. Financial Secretary. Building and construction Trades Council of Fresno, Madera, Tulare, and Kings County. Personal communication with J. Wu (URS Corporation).

Management, Analyses, & Planning. *School District Organization in Fresno County.* 2006. Volume 1. January.

Scoll, J.P. 2003. Environmental Justice in California Power Plant Siting. *Environmental Law News,* Vol. 12, Number 3.

State of California, Department of Finance. 2006. *California Statistical Abstract, 2005.* Issued January. Website: www.dof.ca.gov.

State of California, Department of Finance, *Population Projections by Race/Ethnicity, Gender and Age for California and Its Counties 2000-2050. Website: http://www.dof.ca.gov/html/demograp/ReportsPapers/Projections/P3/P3.asp*

Umbach, Kenneth W 1998. *A Statistical Tour of California's Great Central Valley – 1998.* California Research Bureau, California State Library. CRB-98-xxx. August.

U.S. Census Tract Information. 2000.

U.S. Census Bureau. 2004. American Fact Finder. http://factfinder.census.gov.

U.S. Census Bureau. 2005 American Community Survey, Fresno City Selected Housing Characteristics. http://factfinder.census.gov/servlet/ADPTable?_bm=y&-geo_id=16000US0627000&-qr_name=ACS_2005_EST_G00_DP4&-context=adp&-ds_name=&-tree_id=305&-redoLog=false&-format=

U.S. Census Bureau. 2006. State and County QuickFacts. Website: http://quickfacts.census.gov/qfd/states/06000.html.

U.S. Census Bureau, Population Distribution Branch, *Table 1. 1980 and 1990 Census Counts for Cities with 1990 Population Greater than 100,000.* September 2006. http://www.census.gov/population/censusdata/c1008090.txt

U.S. Department of Agriculture. 2006. *Summary of California County Agricultural Commissioners' Reports, 2004-2005.*

U.S. Environmental Protection Agency (USEPA). 1998. *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses.*

Adequacy Issue: Adequate ____ Inadequate ____ **DATA ADEQUACY WORKSHEET** Revision No. ____ Date ____

Technical Area: **Socioeconomics** Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	- Existing Site Conditions: 5.10.2, 5.10.3, 5.10.5. 5.10.6 - Direct Impacts: 5.10.2.2, 5.10.2.3, 5.10.3.2, 5.10.3.3, 5.10.4.1 - Indirect Impacts: 5.10.6.1, 5.10.6.2 - Cumulative Impacts: 5.10.7, Section 5.18		
Appendix B (g) (7) (A)	A description of the socioeconomic circumstances of the vicinity and region affected by construction and operation of the project. Include:	- Socioeconomic Circumstances: 5.10.2.1, 5.10.3.2, 5.10.4.2		
Appendix B (g) (7) (A) (i)	The economic characteristics, including the economic base, fiscal resources, and a list of the applicable local agencies with taxing powers and their most recent and projected revenues;	- Economic Base: 5.10.2.1 - Fiscal Resources & Revenues: 5.10.6 - Local Agencies: Table 5.10-11		
Appendix B (g) (7) (A) (ii)	The social characteristics, including population and demographic and community trends;	- Population: 5.10.3.1 - Demographics: 5.10.4.2		
Appendix B (g) (7) (A) (iii)	Existing and projected unemployment rates;	- Section 5.10.2.1		
Appendix B (g) (7) (A) (iv)	Availability of skilled workers by craft required for construction and operation of the project;	- Construction: 5.10.2.2 - Operation: 5.10.2.3		
Appendix B (g) (7) (A) (v)	Availability of temporary and permanent housing; and	- Permanent: 5.10.3.1 - Temporary: 5.10.3.2		

Adequacy Issue: Adequate ____ Inadequate ____ **DATA ADEQUACY WORKSHEET** Revision No. ____ Date ____

Technical Area: **Socioeconomics** Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (A) (vi)	Capacities, existing and expected use levels, and planned expansion of utilities (gas, water and waste) and public services, including fire protection, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. For projects outside metropolitan areas with a population of 500,000 or more, information for each school district shall include current enrollment and yearly expected enrollment by grade level groupings, excluding project-related changes, for the duration of the project construction schedule.	- Utilities: 5.10.5.5 - Public Services: 5.10.5.1 (Fire Protection & Emergency Response) , 5.10.5.2 (Medical Facilities), 5.10.5.3 (Law Enforcement), 5.10.5.4 (Schools)		
Appendix B (g) (7) (B)	A discussion of the socioeconomic impacts caused by the construction and operation of the project, including:	- Construction: 5.10.2.2, 5.10.3.2, 5.10.4.1, 5.10.6.1, - Operation: 5.10.2.3, 5.10.4.1, 5.10.3.3, 5.10.6.2,		
Appendix B (g) (7) (B) (i)	The number of workers to be employed each month by craft during construction and operation;	- Construction Employment: 5.10.2.2, Table 5.10-6 - Operation Employment: 5.10.2.3, Table 5.10-7		
Appendix B (g) (7) (B) (ii)	An estimate of the number and percentage of workers who will commute daily, commute weekly, or relocate in order to work on the project;	- Construction: 5.10.2.2, 5.10.3.2 - Operation: 5.10.2.3, 5.10.3.3		
Appendix B (g) (7) (B) (iii)	An estimate of the potential population increase caused directly and indirectly by the project;	- Construction: 5.10.3.2 - Operation: 5.10.3.3		
Appendix B (g) (7) (B) (iv)	The potential impact of population increase on housing during the construction and operations phases;	- Construction: 5.10.3.2 - Operation: 5.10.3.3		

Adequacy Issue: Adequate ____ Inadequate ____ **DATA ADEQUACY WORKSHEET** Revision No. ____ Date ____

Technical Area: **Socioeconomics** Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (v)	The potential impacts, including additional costs, on utilities (gas, water and waste) and public services, including fire, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. For projects outside metropolitan areas with a population of 500,000 or more, information on schools shall include project-related enrollment changes by grade level groupings and associated facility and staffing impacts by school district during the construction and operation phases;	- Public Services: • Fire Protection & Emergency Response: 5.10.5.1 • Medical Facilities: 5.10.5.2 • Law Enforcement: 5.10.5.3 • Schools: 5.10.5.4, 5.10.8.5 - Utilities: 5.10.5.5		
Appendix B (g) (7) (B) (vi)	An estimate of applicable school impact fees;	- Section 5.10.8.6		
Appendix B (g) (7) (B) (vii)	An estimate of the total construction payroll and an estimate of the total operation payroll;	- Construction: 5.10.2.2 - Operation: 5.10.2.3		
Appendix B (g) (7) (B) (viii)	An estimate of the expenditures for locally purchased materials for the construction and operation phases of the project; and	- Construction: 5.10.6.1 - Operation: 5.10.6.2		
Appendix B (g) (7) (B) (ix)	An estimate of the capital cost of the project of the potential impacts on tax revenues from construction and operation of the project.	- Construction: 5.10.6.1 - Operation: 5.10.6.2		

Adequacy Issue: Adequate ____ Inadequate ____ **DATA ADEQUACY WORKSHEET** Revision No. ____ Date ____

Technical Area: **Socioeconomics** Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	- Existing Site Conditions: 5.10.2, 5.10.3, 5.10.5. 5.10.6 - Direct Impacts: 5.10.2.2, 5.10.2.3, 5.10.3.2, 5.10.3.3, 5.10.4.1 - Indirect Impacts: 5.10.6.1, 5.10.6.2 - Cumulative Impacts: 5.10.7, Section 5.18		
Appendix B (g) (7) (A)	A description of the socioeconomic circumstances of the vicinity and region affected by construction and operation of the project. Include:	- Socioeconomic Circumstances: 5.10.2.1, 5.10.3.2, 5.10.4.2		
Appendix B (g) (7) (A) (i)	The economic characteristics, including the economic base, fiscal resources, and a list of the applicable local agencies with taxing powers and their most recent and projected revenues;	- Economic Base: 5.10.2.1 - Fiscal Resources & Revenues: 5.10.6 - Local Agencies: Table 5.10-11		
Appendix B (g) (7) (A) (ii)	The social characteristics, including population and demographic and community trends;	- Population: 5.10.3.1 - Demographics: 5.10.4.2		
Appendix B (g) (7) (A) (iii)	Existing and projected unemployment rates;	- Section 5.10.2.1		
Appendix B (g) (7) (A) (iv)	Availability of skilled workers by craft required for construction and operation of the project;	- Construction: 5.10.2.2 - Operation: 5.10.2.3		
Appendix B (g) (7) (A) (v)	Availability of temporary and permanent housing; and	- Permanent: 5.10.3.1 - Temporary: 5.10.3.2		

Adequacy Issue: Adequate ____ Inadequate ____ **DATA ADEQUACY WORKSHEET** Revision No. ____ Date ____

Technical Area: **Socioeconomics** Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (v)	The potential impacts, including additional costs, on utilities (gas, water and waste) and public services, including fire, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. For projects outside metropolitan areas with a population of 500,000 or more, information on schools shall include project-related enrollment changes by grade level groupings and associated facility and staffing impacts by school district during the construction and operation phases;	- Public Services: • Fire Protection & Emergency Response: 5.10.5.1 • Medical Facilities: 5.10.5.2 • Law Enforcement: 5.10.5.3 • Schools: 5.10.5.4, 5.10.8.5 - Utilities: 5.10.5.5		
Appendix B (g) (7) (B) (vi)	An estimate of applicable school impact fees;	- Section 5.10.8.6		
Appendix B (g) (7) (B) (vii)	An estimate of the total construction payroll and an estimate of the total operation payroll;	- Construction: 5.10.2.2 - Operation: 5.10.2.3		
Appendix B (g) (7) (B) (viii)	An estimate of the expenditures for locally purchased materials for the construction and operation phases of the project; and	- Construction: 5.10.6.1 - Operation: 5.10.6.2		
Appendix B (g) (7) (B) (ix)	An estimate of the capital cost of the project of the potential impacts on tax revenues from construction and operation of the project.	- Construction: 5.10.6.1 - Operation: 5.10.6.2		

Adequacy Issue: Adequate ____ Inadequate ____ **DATA ADEQUACY WORKSHEET** Revision No. ____ Date ____

Technical Area: **Socioeconomics** Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

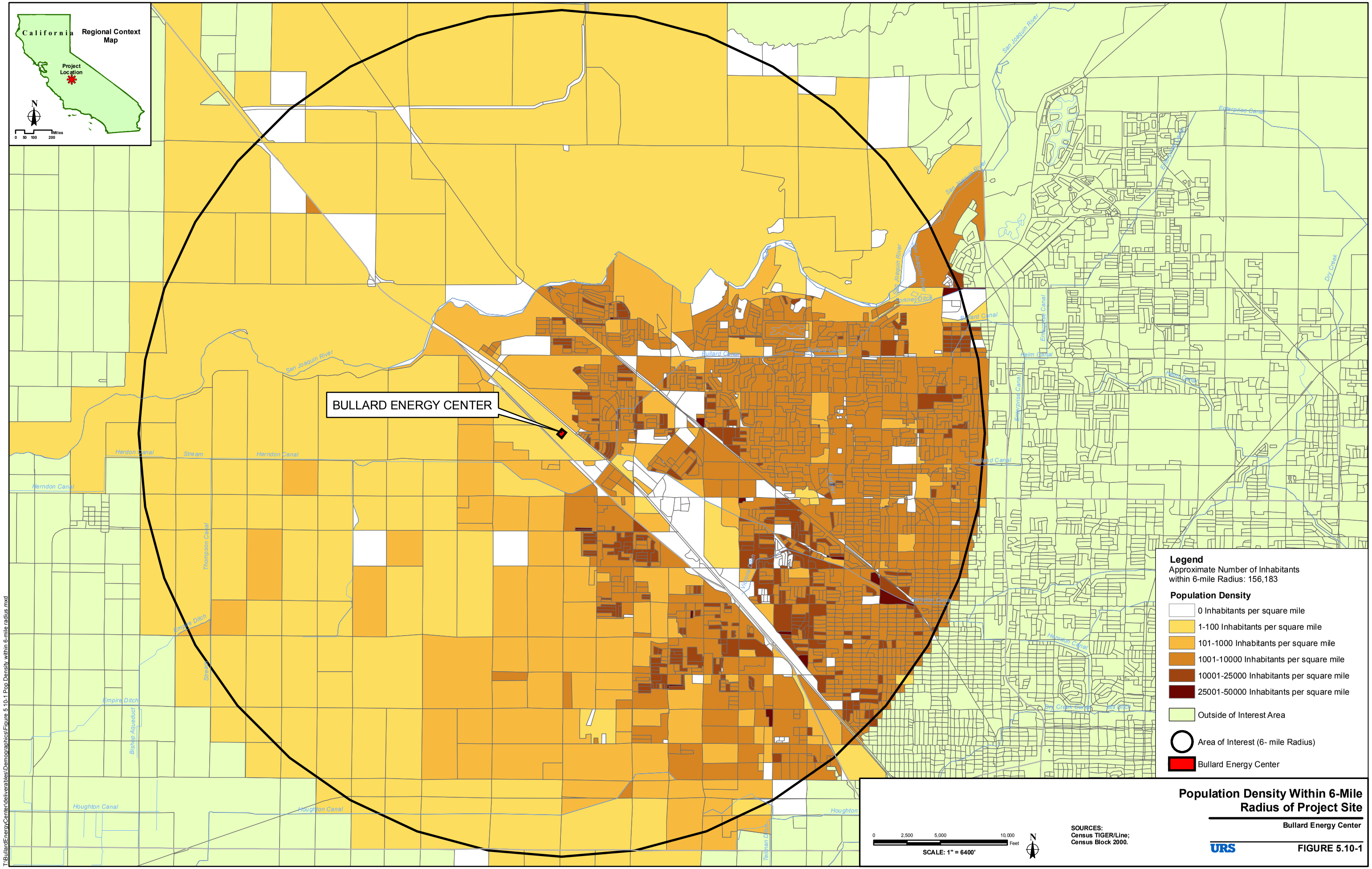
SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	- Section 5.10.8, Table 5.10-11		
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	- Section 5.10.8.5, Table 5.10-12		
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	- Federal: 5.10.8.1 - State: 5.10.8.2 - City: 5.10.8.3 - Local: 5.10.8.4		
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 5.10-12		
Appendix (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.10.8.6		

Adequacy Issue: Adequate ____ Inadequate ____ **DATA ADEQUACY WORKSHEET** Revision No. ____ Date ____

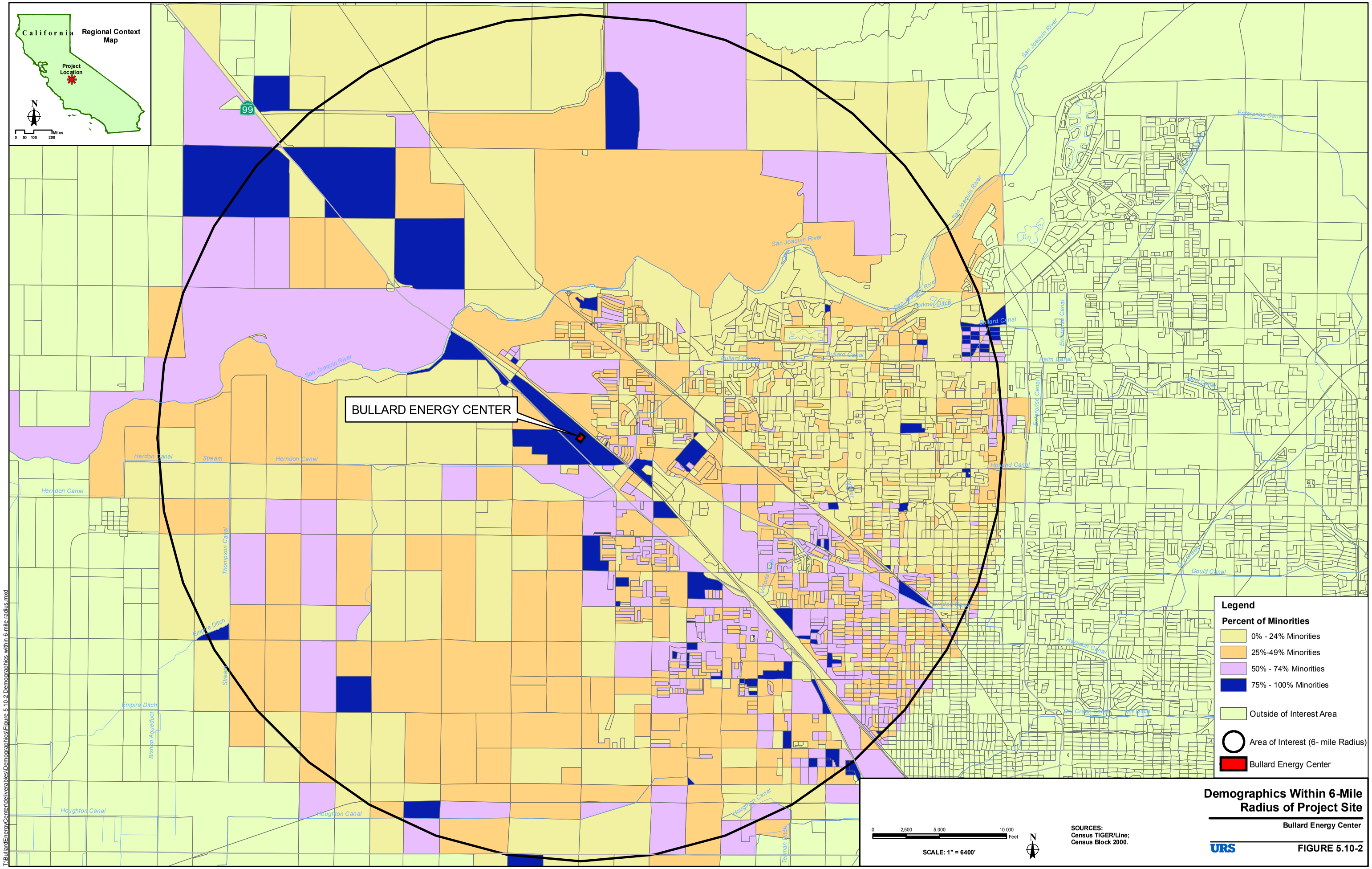
Technical Area: **Socioeconomics** Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	- Section 5.10.8, Table 5.10-11		
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	- Section 5.10.8.5, Table 5.10-12		
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	- Federal: 5.10.8.1 - State: 5.10.8.2 - City: 5.10.8.3 - Local: 5.10.8.4		
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 5.10-12		
Appendix (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.10.8.6		

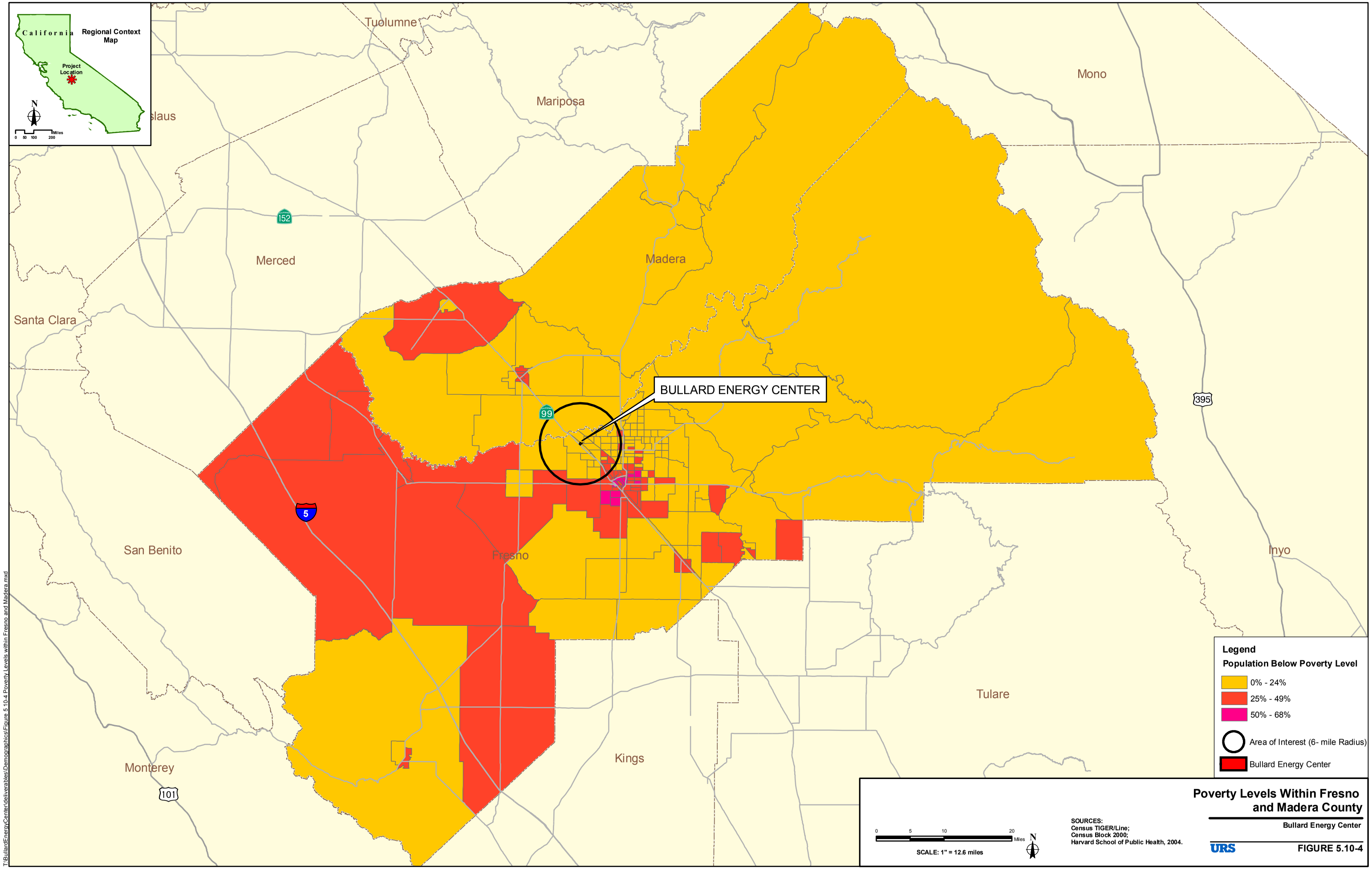


T:\Bullard\Energy Center\deliverables\Demographics\Figure 5.10-1 Pop Density within 6-mile radius.mxd



T:\Bullard\EnergyCenter\deliverables\Demographics\Figure 5.10-2 Demographics within 6-mile radius.mxd

T:\Bullard\Energy Center\deliverables\Demographics\Figure 5.10-3 Poverty Levels within 6-mile radius.mxd


California
Regional Context Map
Project Location
N
0 50 100 200
Miles
Tuolumne
Mariposa
Mono
Merced
Madera
Santa Clara
BULLARD ENERGY CENTER
152
99
395
5
San Benito
Fresno
Inyo
Tulare
Kings
Monterey
101
Legend
Population Below Poverty Level
0% - 24%
25% - 49%
50% - 68%
Area of Interest (6- mile Radius)
Bullard Energy Center
0 5 10 20
Miles
N
SCALE: 1" = 12.6 miles
SOURCES:
Census TIGER/Line;
Census Block 2000;
Harvard School of Public Health, 2004.
Poverty Levels Within Fresno and Madera County
Bullard Energy Center
URS
FIGURE 5.10-4
T:\Bullard\EnergyCenter\deliverables\Demographics\Figure 5.10-4 Poverty Levels within Fresno and Madera.mxd