5.10 Socioeconomics

5.10.1 Introduction

This section discusses the environmental setting, consequences, regional and local impacts, and mitigation measures associated with the socioeconomic aspects of the Turlock Irrigation District (TID) Almond 2 Power Plant (A2PP) project. Environmental justice issues are also summarized in this section. A screening-level environmental justice analysis is provided in Appendix 5.10A.

5.10.2 Affected Environment

The facility will be located off Crows Landing Road in Ceres, Stanislaus County, California on approximately 4.6 acres adjacent to the existing TID Almond Power Plant to the south, a WinCo distribution warehouse to the east, a farm supply facility to the north, and a modular building distributor and driller equipment storage facility to the west.

5.10.2.1 Population

Stanislaus County is bordered by Calaveras County to the north, Tuolumne County to the northeast, Mariposa County to the southeast, Merced County to the south, Santa Clara County to the southwest, and San Joaquin and Alameda counties to the northwest. There are nine incorporated cities in Stanislaus County: Ceres, Hughson, Modesto, Newman, Oakdale, Patterson, Riverbank, Turlock, and Waterford.

Ceres, with an estimated January 1, 2008, population of 42,813, is the third largest city in the county after Modesto and Turlock (California Department of Finance [DOF], 2009a). Historical, current and projected population for Ceres, Stanislaus County, and the State of California are summarized in Table 5.10-1. Annual average compounded population growth rates are summarized in Table 5.10-2. During the 1990s, Stanislaus County's population increased at an average annual rate of about 1.89 percent, while that of Ceres increased by 2.74 percent (DOF, 2009b). The average annual growth rate so far for the current decade (2000 to 2008) was 2.69 percent for the city and 2.05 percent for the county. Ceres' growth rate during this period was substantially higher than the county growth rate, and almost double the growth rate of the state of California (1.46 percent). Stanislaus County and California are expected to have their greatest population growth from 2000 to 2010. Population projections for Ceres were unavailable.

TABLE 5.10-1
Historical, Current, and Projected Populations*

Area	1990	2000	2008	2010(p)	2020(p)	2030(p)
City of Ceres	26,413	34,609	42,813	NA	NA	NA
Stanislaus County	370,522	446,997	525,903	559,708	699,144	857,893
California	29,758,210	33,873,090	38,049,460	39,246,770	43,851,740	48,110,670

Source: DOF, 2009a; 2009b; 2009c.
* Population projections rounded to nearest 100.
(p) = projected
NA = Not Available

TABLE 5.10-2
Historical and Projected Annual Average Compounded Population Growth Rates

Area	1990–2000 Percent	2000–2008 Percent	2000–2010 Percent	2010–2020 Percent	2020–2030 Percent
City of Ceres	2.74	2.69	N/A	N/A	N/A
Stanislaus County	1.89	2.05	2.27	2.25	2.07
California	1.30	1.46	1.48	1.12	0.93

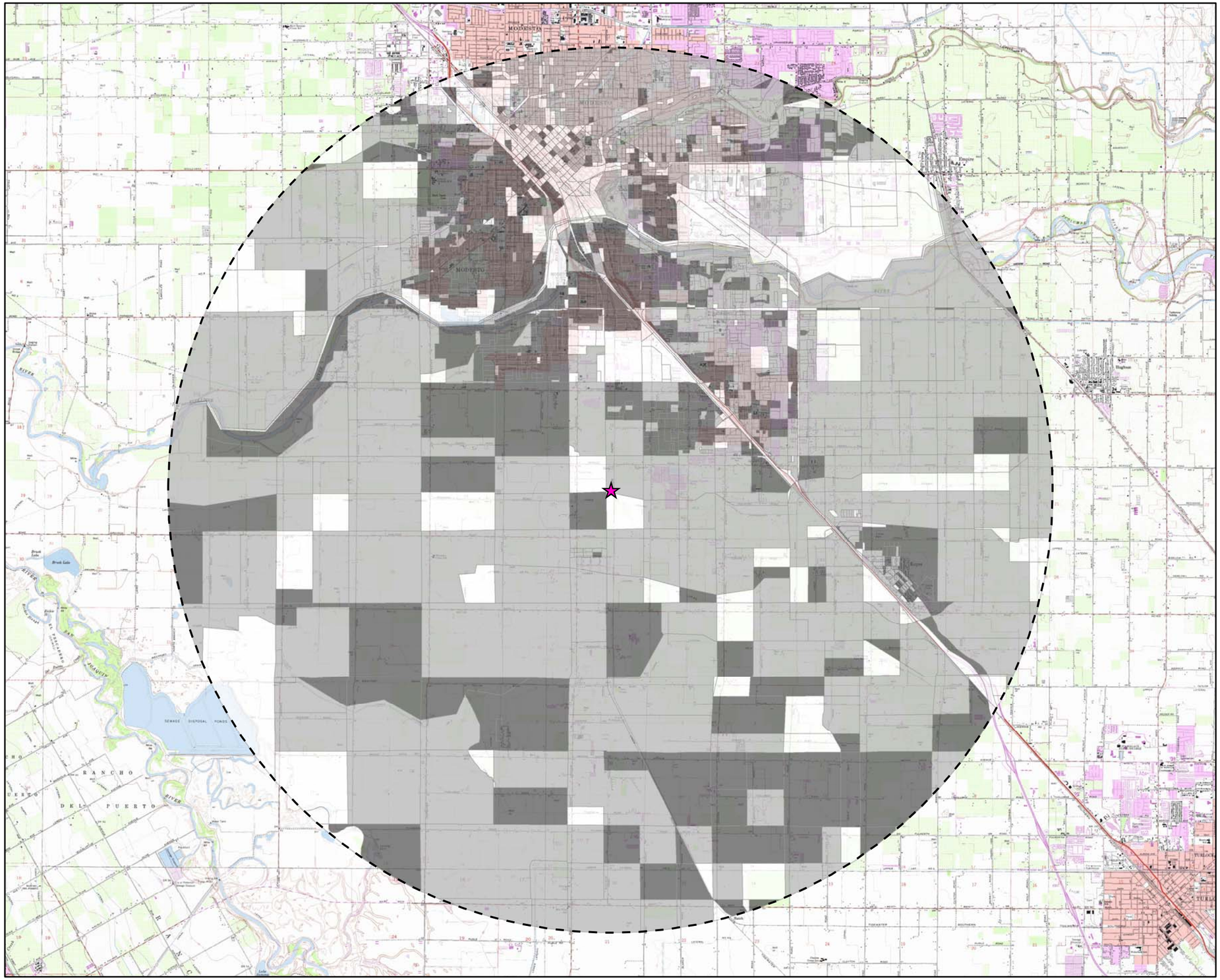
Appendix Tables 5.10A-1 and 5.10A-2 (provided in Appendix 5.10A) show the minority (both racial and ethnic) as well as the low-income population distribution for the census block groups that are within a 6-mile radius of A2PP. The minority and income data are from the 2000 U.S. Census data. Of the overall total population in the census block groups within the 6-mile radius (i.e., 179,678 persons), approximately 37 percent are racial minority while the ethnic minority (as represented by individuals of Hispanic origin[1]) account for almost 38 percent (see Appendix 5.10A, Table 5.10A-1). The distribution of low-income population in the census block groups within the 6-mile radius is 19.8 percent (see Appendix 5.10A Table 5.10A-2). This estimate is based on a total population for whom poverty status is determined of about 176,876 persons. According to the 2000 U.S. Census, the population of Ceres is 37 percent racial minority, 38 percent Hispanic, and 13 percent low-income. Stanislaus County's population is 31 percent racial minority, 32 percent Hispanic, and 16 percent low-income.

Figures 5.10-1 and 5.10-2 show the percent distribution of minority and low-income populations by 2000 census block groups within a 6-mile radius of the proposed A2PP site.

5.10.2.2 Housing

As shown in Table 5.10-3, housing stock for Stanislaus County as of January 1, 2008, was about 176,622 units. Single-family homes accounted for about 139,712 units, multiple-family dwellings accounted for 27,579 units, and mobile homes accounted for 9,331 units (DOF, 2009a). New housing authorizations for Stanislaus County in 2007 totaled about 1,767 units; about 70 percent were single-family units and 30 percent were multi-family units. These authorizations were valued at $347.7 million (DOF, 2009d). The median home price in Stanislaus County in November 2007 was $285,000. As of November 2008, the median home price in Stanislaus was down almost 44 percent to $160,000 (DataQuick, 2009). The median home price in Ceres in November 2008 was $163,500, down from $310,000 in November 2007 (DataQuick, 2009). This is a decrease in median home price of about 47 percent during the 12-month period.

[1] Hispanics or Latinos are those people who classified themselves in one of the specific Spanish, Hispanic, or Latino categories listed on the Census 2000 questionnaire—"Mexican, Mexican Am., Chicano," "Puerto Rican," or "Cuban"—as well as those who indicate that they are "other Spanish/Hispanic/Latino." People who identify their origin as "other Spanish/Hispanic/Latino" may be of any race. Thus, the percent Hispanic should not be added to percentages for racial (i.e., minority) categories.



LEGEND

Project Site

Six Mile Buffer

Percentage of Minority Population

No Minority

0-50%

50-100%

Notes:

1. Source: American Fact Finder, Census 2000 Summary File 1 (SF 3) 100-Percent Data, U.S. Census Bureau, 2008

This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.

N

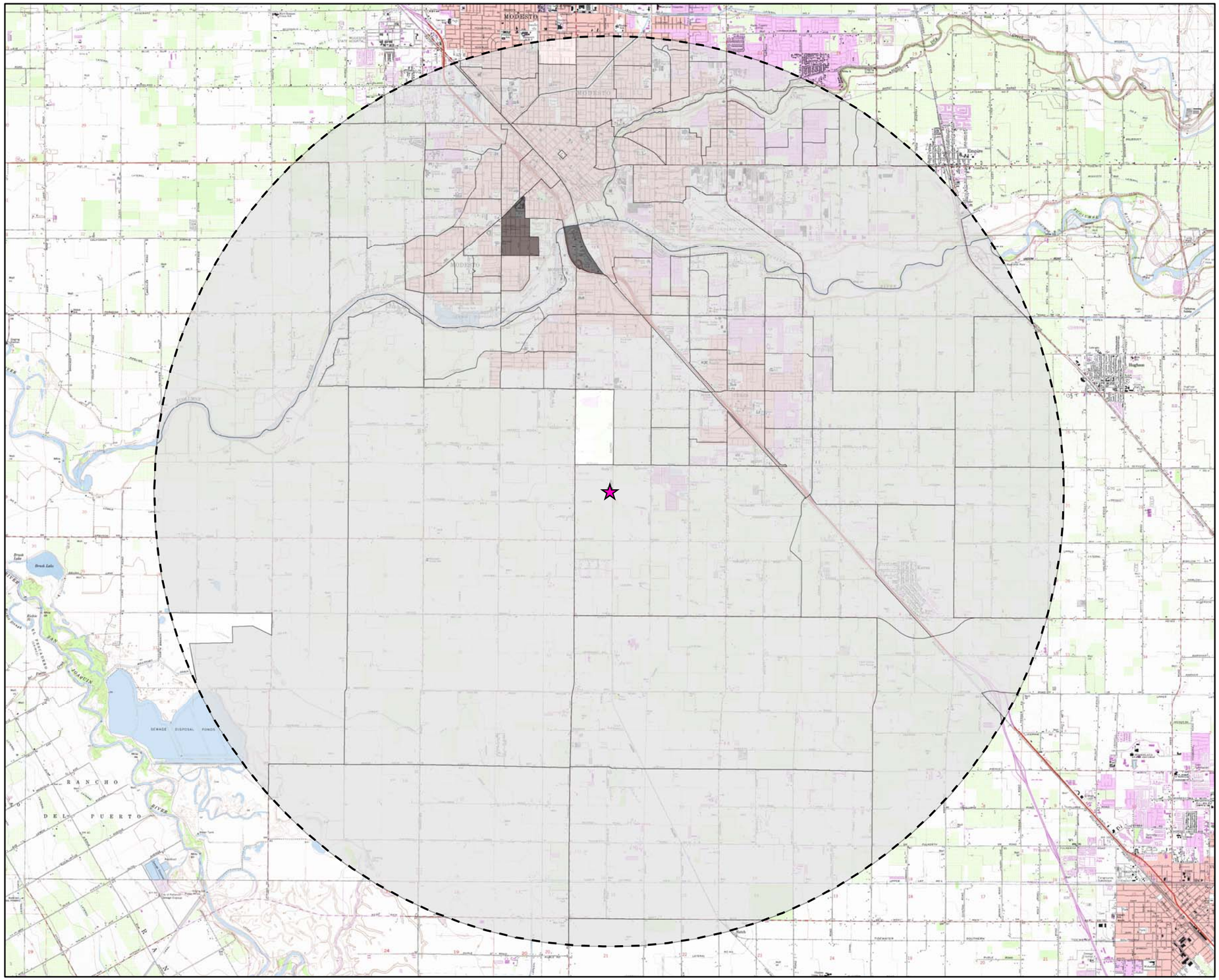
0 3,500 7,000

Feet

FIGURE 5.10-1
MINORITY POPULATION DISTRIBUTION BY CENSUS BLOCKS WITHIN SIX MILES

ALMOND 2 POWER PLANT

CERES, CALIFORNIA



LEGEND

Project Site

Six Mile Buffer

Percentage of Low Income Population

No Low Income

0 - 50 Percent Low Income

50 - 100 Percent Low Income

Notes:

1. Source: American Fact Finder, Census 2000 Summary File 1 (SF 3) 100-Percent Data, U.S. Census Bureau, 2008

This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.

N

0 3,500 7,000

Feet

FIGURE 5.10-2
LOW INCOME POPULATION DISTRIBUTION BY CENSUS BLOCKS WITHIN SIX MILES

ALMOND 2 POWER PLANT

CERES, CALIFORNIA

CH2MHILL

SAC\\ZION\SACGIS\PROJ\TURLOCKIRRIGATIONDIS\383194\MAPFILES\TID_CENSUS_LOWINCOME.MXD MHASKELL 2/25/2009 08:44:38

TABLE 5.10-3
Housing Estimates by City, County, and State, January 1, 2008

Area	Total Units	Single-Family	Multi-Family	Mobile Homes	Percent Vacant
City of Ceres	13,279	10,753	1,814	712	3.13%
Stanislaus County	176,622	139,712	27,579	9,331	3.73%
California	13,444,455	8,678,120	4,171,373	594,962	5.88%

Source: DOF, 2009a.

Stanislaus County has maintained a consistent vacancy rate through this decade, fluctuating between 3.75 to its current (January 2008) rate of 3.73 percent. Ceres' vacancy rate has also held steady, remaining at either 3.14 or its current (January 2008) rate of 3.13 percent. As such, housing supply is limited in the city and county based on the federal standard vacancy rate of 5 percent.

5.10.2.3 Economy and Employment

Between 2002 and 2007, employment in Stanislaus County (Modesto Metropolitan Statistical Area [MSA]) increased by 8,200 jobs, or about 5 percent. This 5 percent increase is equal to California's net increase (5 percent) during the 2002 to 2007 period (California Employment Development Department [CEDD], 2009a). As shown in Table 5.10-4, on a percent increase basis, the Transportation, Warehousing and Utilities sector experienced the largest increase in employment, followed by the Financial Activities sector. Although the percentage increase in the Transportation, Warehousing and Utilities sector was the highest between 2002 and 2007, the contribution of this sector to the Modesto MSA economy remained small (2.7 to 3.2 percent). The largest gains, from a percentage aspect, were seen in the Transportation, Warehousing and Utilities sector, which experienced a 24.4 percent growth. The Financial Activities sector also saw a double-digit increase over this 5-year period. Employment losses were only experienced in the agriculture sector.

TABLE 5.10-4
Employment Distribution in Modesto MSA, 2002 to 2007

	2002		2007		2002–2007	
Industry	Number of Employees	Employment Share (%)	Number of Employees	Employment Share (%)	Percentage Change (%)	Average Annual Compound Growth Rate (%)
Agriculture	13,900	8.4	12,800	7.4	-7.9	-1.6
Natural Resources, Mining and Construction	10,700	6.5	11,400	6.6	6.5	1.3
Manufacturing	22,500	13.7	22,700	13.1	0.9	0.2
Wholesale Trade	5,600	3.4	6,000	3.5	7.1	1.4
Retail Trade	21,700	13.2	22,200	12.8	2.3	0.5
Transportation, Warehousing and Utilities	4,500	2.7	5,600	3.2	24.4	4.5

TABLE 5.10-4
Employment Distribution in Modesto MSA, 2002 to 2007

Industry	2002 Number of Employees	2002 Employment Share (%)	2007 Number of Employees	2007 Employment Share (%)	2002–2007 Percentage Change (%)	2002–2007 Average Annual Compound Growth Rate (%)
Information	2,100	1.3	2,300	1.3	9.5	1.8
Financial Activities	5,600	3.4	6,200	3.6	10.7	2.06
Services	52,900	32.1	57,400	33.2	8.5	1.65
Government	25,300	15.4	26,300	15.2	4.0	0.78
Total Employment	164,600	100.0	172,800	100.0	5.0	1.0

Source: CEDD, 2009a

Table 5.10-5 provides detail on the characteristics of the county labor force. It shows 2007 employment data for Stanislaus County and the City of Ceres compared to California. The City of Ceres' unemployment rate is more than twice as high as the state average. Stanislaus County's unemployment rate is also higher than the state average. CEDD does not project future unemployment rates.

TABLE 5.10-5
Employment Data, 2007

Area	Labor Force	Employment	Unemployment	Unemployment Rate (%)
City of Ceres	17,900	15,900	2,000	11.1
Stanislaus County	231,200	210,900	20,300	8.8
California	18,188,100	17,208,900	979,200	5.4

Source: CEDD, 2009b.

5.10.2.4 Fiscal Resources

Local agencies with taxing power include Stanislaus County and the City of Ceres. Stanislaus County's expenditures and revenues are presented in Table 5.10-6. The County's revenues increased by about 5 percent from fiscal year (FY) 2006–07 to FY 2007–08 and are expected to decrease by about 2 percent during the current fiscal year (FY 2008–09). About 18 percent of the total revenues in FY 2008–09 are from taxes.

TABLE 5.10-6
Stanislaus County Revenues and Expenditures ($ Million)

	FY 2006–07 Actual	FY 2007–08 Estimated	FY 2008–09 Adopted
Expenditures:			
General Government	$112.0	$113.5	$94.3
Public Protection	$191.2	$199.0	$203.6
Public Ways & Facilities	$28.5	$33.9	$50.6
Health and Sanitation	$123.1	$124.3	$138.6
Public Assistance	$237.9	$262.3	$270.1
Education	$12.8	$14.1	$14.0
Recreation and Cultural Services	$6.5	$7.5	$5.6
Debt Service	$10.6	$9.9	$10.0
Total Expenditures	$772.9	$765.0	$889.2
Revenues:			
Taxes	$142.2	$145.9	$138.8
Licenses, Permits & Franchises	$5.6	$4.8	$4.7
Fines, Forfeitures, and Penalties	$13.3	$16.5	$10.6
Revenue from Use of Money and Property	$13.6	$12.3	$8.2
Intergovernmental Revenues	$398.6	$421.3	$427.1
Charges for Service	$90.6	$94.4	$95.8
Miscellaneous Revenues	$8.1	$4.8	$5.8
Other Financing Sources	$62.1	$72.3	$65.2
Total Revenue	$734.3	$772.4	$756.4

Source: Stanislaus County, 2009
Numbers may not add up due to independent rounding.

Table 5.10-7 shows the 2006–2007 actual expenditures and revenues for the City of Ceres. Taxes are the major contributor to the City's revenues. Tax revenues account for close to 75 percent of the City's General Fund revenues during the 2006–20007 fiscal year. Information for fiscal years 2007–2008 and 2008–2009 are not available at this time.

TABLE 5.10-7
City of Ceres General Fund Revenues and Expenditures

	FY 2006–07 Actual
Expenditures:	
General government	$1,798,419
Public Safety	$12,476,841
Public Works	$805,465
Community Services	$1,831,137
Capital Outlay	$291,974
Total Expenditures	**$17,193,836**

TABLE 5.10-7
City of Ceres General Fund Revenues and Expenditures

	FY 2006–07 Actual
Revenues:	
Property and other taxes	$13,560,452
Licenses & Permits	$1,367,981
Fines, Forfeitures, and Penalties	$260,257
Charges for Services	$753,007
Intergovernmental	$891,909
Use of Money and Property	$834,087
Other	$82,630
Total Revenues	**$17,750,393**

Source: City of Ceres, 2008.

5.10.2.5 Education

There are 26 school districts listed by the Stanislaus County Board of Education. The A2PP site is in the Ceres Unified School District. Current and historical enrollment figures for the Ceres Unified School District are presented in Table 5.10-8. Projected enrollment figures are not available. School enrollment peaked in the 2007–08 school year. The 2008–09 enrollment shows declines in almost every grade.

TABLE 5.10-8
Historical and Current Enrollment by Grade

Grade Level	Ceres Unified School District			
	2005–06	2006–07	2007–08	2008–09
Kindergarten	814	916	963	919
First	873	961	1,016	986
Second	817	943	963	948
Third	814	910	987	937
Fourth	859	897	921	925
Fifth	793	951	945	892
Sixth	797	917	1,030	913
Seventh	835	921	1,018	991
Eighth	799	908	929	915
Ninth	913	861	906	913
Tenth	834	917	874	888
Eleventh	700	787	910	881
Twelfth	633	689	783	1,119
Total	**10,896**	**11,885**	**12,476**	**12,245**

Source: CDE, 2008.

5.10.2.6 Public Services and Facilities

This section describes public services in the project area.

5.10.2.6.1 Law Enforcement

The A2PP site comes under the jurisdiction of the Ceres Public Safety Department – Police Division (CPD), which has jurisdiction over the City of Ceres. The CPD has one station, which also serves as the headquarters, located at 2727 Third Street, Ceres, California. The A2PP is a 4.2-mile drive from the headquarters, and is 2.1 miles away "as the crow flies." There are approximately 57 full-time officers. The CPD's response time would be 6 to 12 minutes for more serious incidents and 26 to 27 minutes for less serious incidents. Mutual aid response would come from the Stanislaus County Sheriff (Borges, 2008).

The California Highway Patrol is the primary law enforcement agency for state highways and roads. Services include law enforcement, traffic control, accident investigation, and the management of hazardous materials spill incidents.

5.10.2.6.2 Fire Protection

The A2PP site is within the Ceres Emergency Services – Fire Division (CFD) jurisdiction. The CFD has a staff of 30 full-time staff. The CFD has a total of four stations. The closest station to the A2PP site is Station No. 3, located at 420 East Service Road. Station No. 3 is approximately 0.3 mile away from the A2PP. The response time to an emergency at the project site from Station No. 3 is approximately 2 to 3 minutes during the day and 2 to 4 minutes at night (Wheeler, 2008).

5.10.2.6.3 Emergency Response

The Environmental Resources Department, Hazardous Materials Division acts as the Certified Unified Program Agency (CUPA) for Stanislaus County. (Beniamine, 2008; Riess, 2008). In the event of a chemical emergency, plant personnel will defer to the Stanislaus County Environmental Resources Hazardous Materials Division and the CFD. For emergency spills and hazardous materials, the CFD and the City of Modesto fire departments have firefighters who have completed formal training in hazardous materials incident response. These firefighters are members of a countywide hazardous materials (Haz Mat) team, managed by the Stanislaus County Environmental Resources Hazardous Materials Division.

5.10.2.6.4 Hospitals

The nearest hospital that has an emergency room is Memorial Medical Center in Modesto, which is approximately 8 miles from the A2PP project site. The Memorial Medical Center, located at 1700 Coffee Road, is a not-for-profit tertiary hospital with a Level II trauma center that is owned by Memorial Hospital Association, an affiliate of Sutter Health. It has 423 beds, 362 active physicians, and 2,958 staff. The trauma center is equipped to handle industrial incidents and has a full helipad should the incident require transfer to another hospital. Serious burns are the most likely situation to require transfer, with the Bay Area and Sacramento as the likely destinations (Lilley, 2008).

5.10.2.7 Utilities

This section describes utilities in the area.

5.10.2.7.1 Electricity and Gas

The project will connect to the TID electrical transmission system via two separate 115-kV transmission line corridors that will be constructed, and the reconductoring of a 69-kV sub-transmission line.

A new natural gas supply will be provided via one of two routes: an approximately 9.1-mile-long gas line that runs south along Crows Landing Road (Alternate A), or an approximately 11.1-mile-long gas line that runs south along Carpenter Road (Alternate B).[2]

5.10.2.7.2 Process Water

The A2PP will use water that is currently delivered to the Almond Power Plant via an existing process water line from the City of Ceres Wastewater Treatment Plant to the Almond Power Plant. The water is withdrawn from beneath the percolation ponds (approximately 35 to 65 feet below ground surface) and sent to the existing Almond Power Plant. Wastewater generated at the A2PP will be sent back to the Ceres Wastewater Treatment Plant via the existing pipeline between the Almond Power Plant and the wastewater treatment plant.

5.10.2.7.3 Potable Water and Sanitary Waste

A2PP's potable water will be delivered via an outside contractor, identical to the practice currently in place at the existing Almond Power Plant. Sanitary waste will not be generated at the A2PP because all sanitary waste connections are at the existing Almond Power Plant. Sanitary waste from the existing Almond Power Plant is disposed of through an onsite septic system and leach field.

5.10.3 Environmental Analysis

This section assesses the potential environmental impacts of the project and linear corridors.

5.10.3.1 Potential Environmental Impacts

Local environmental impacts were determined by comparing project demands during construction and operation with the socioeconomic resources of the region of influence (i.e., Stanislaus County). A proposed power-generating facility could impact employment, population, housing, public services and utilities, and/or schools. Impacts could be local and/or regional, though most impacts would tend to be more local (city/county) than regional (outside the county).

[2] Pacific Gas & Electric Company (PG&E) is currently examining the relative strengths of the two alignments. In order to allow the AFC to proceed, the two possible alternatives are presented in this AFC with same level of detail to allow complete evaluation of both alternatives. TID anticipates that PG&E will select a preferred route in late spring or early summer 2009. At that time, the route not selected will provide information for the California Energy Commission's Alternatives analysis.

5.10.3.2 Significance Criteria

The criteria used to determine the significance of project-related socioeconomic impacts are suggested in the California Environmental Quality Act Checklist. Project-related impacts from construction are determined to be significant if they:

- Induce substantial growth or concentration of population
- Displace a large number of people or impact existing housing
- Result in substantial adverse impacts to the local economy and employment
- Create adverse fiscal impacts to the community
- Result in substantial adverse impacts to educational facilities
- Result in substantial adverse impacts to the provision of utility services
- Result in substantial adverse impacts associated with the provision of public services

Other impacts may be significant if they cause substantial change in community interaction patterns, social organization, social structures, or social institutions; substantial conflict with community attitudes, values, or perceptions; or substantial inequities in the distribution of project cost and benefit.

5.10.3.3 Construction Impacts

The economic impacts from construction activities are considered in this section.

Actual construction will take place over 12 months, from third quarter 2010 to third quarter 2011. Personnel requirements will be minimal during the mobilization and site grading period (the first 3 months of the construction period) and during the startup and testing period (the last 3 months of the construction period).

5.10.3.3.1 Construction Workforce

The primary trades in demand will include boilermakers, carpenters, electricians, ironworkers, laborers, millwrights, operators, and pipefitters. Table 5.10-9 estimates construction personnel requirements for the plant. Total personnel requirements during construction will be approximately 1,158 person-months, or 97 person-years. Construction personnel requirements will peak at approximately 149 workers in month six of the construction period. The average workforce would be 97 workers.

TABLE 5.10-9
Construction Workforce by Trade by Month

	Months												
Discipline	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**Total**
Plant													
Boilermakers			10	16	20	20	20	20	20	16	16		158
Bricklayers/Masons				2	2	2	2	2	2	2	1		15
Carpenters		8	8	8	8	6	6	6	3	3	3		59
Electricians		4	8	12	20	22	22	26	22	22	15	10	173
Insulation Workers								4	8	8	4	4	28
Ironworkers		8	8	8	8	10	10	10	8	4	2		76
Laborers	3	4	8	8	8	8	8	8	8	6	4	2	75

TABLE 5.10-9
Construction Workforce by Trade by Month

Discipline	Months												
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**Total**
Millwrights				4	8	8	10	10	12	12	6	2	72
Operating Engineers	3	3	4	4	4	5	6	6	6	4	4	2	51
Painters							3	3	3	3	3	2	17
Pipefitters		4	4	6	8	8	8	12	12	10	10	6	88
Sheetmetal Workers								3	3	3	4	2	15
Surveyors	3	3	2	2	2	2							14
Teamsters		3	3	4	4	4	3	3	3	3	3	3	36
Total Manual Staff	9	37	55	74	92	95	98	113	110	96	75	33	877
Total Contractor Staff	3	3	6	8	10	10	10	10	10	10	8	8	96
Total Plant Construction Workforce	**12**	**40**	**61**	**82**	**102**	**105**	**108**	**123**	**120**	**106**	**83**	**41**	**983**
Natural Gas Pipeline													
Electricians							2						2
Laborers			2	8	10	10	2						32
Operating Engineers				4	6	6	1						17
Painters							2						2
Pipefitters				8	10	10	2						30
Surveyors			2	2	2								6
Teamsters			2	4	4	4	2						16
Total Manual Staff	0	0	6	26	32	30	11	0	0	0	0		105
Total Contractor Staff	0	0	2	4	4	4	2	0	0	0	0		16
Total Gas Pipeline Workforce	**0**	**0**	**8**	**30**	**36**	**34**	**13**	**0**	**0**	**0**	**0**		**121**
Transmission Lines													
Electricians						2	4	6	1				13
Laborers						2	4	6	1				13
Operating Engineers						1	4	4	1				10
Surveyors						2	2						4
Teamsters						1	2	2	1				6
Total Manual Staff	0	0	0	0	0	8	16	18	4	0	0	0	46
Total Contractor Staff	0	0	0	0	0	2	2	2	2	0	0	0	8
Total T-line Workforce	**0**	**0**	**0**	**0**	**0**	**10**	**18**	**20**	**6**	**0**	**0**	**0**	**54**
Total Workforce	**12**	**40**	**69**	**112**	**138**	**149**	**139**	**143**	**126**	**106**	**83**	**41**	**1,158**

Available skilled labor in Stanislaus County was evaluated by surveying local labor unions (Table 5.10-10) and contacting CEDD (Table 5.10-11). Both sources show that the workforce in the Modesto MSA will be adequate to fulfill A2PP's construction labor requirements. Therefore, A2PP construction will not place an undue burden on the local workforce. In addition, as shown in Table 5.10-4, the Natural Resources, Mining and Construction sector workforce within the Modesto MSA has been growing at an average annual rate of 1.3 percent per year. In 2007, the Natural Resources, Mining and Construction sector workforce was estimated at 11,400 workers. The A2PP peak construction needs are about 1.4 percent of the 2007 estimated workforce in the Natural Resources, Mining and Construction sector. Therefore, project will have a less-than-significant impact on construction labor supply.

TABLE 5.10-10
Labor Union Contact

Labor Union	Contact	Phone Number
Stanislaus, Merced, Mariposa, Tuolumne Building Trade Council	Lucille Palmer-Byrd Secretary-Treasurer	(209) 524-0614

TABLE 5.10-11
Available Labor by Skill in Modesto Metropolitan Statistical Area, 2004 to 2014

Occupational Title	Annual Averages		Absolute Change	Percentage Change	Average Annual Compounded Growth Rate (%)
	2004	2014			
Carpenters	3,350	3,970	620	18.5	1.7
Cement Masons & Concrete Finishers	330	400	70	21.2	1.9
Painters, Construction & Maintenance	1,110	1,290	180	16.2	1.5
Sheet Metal Workers	240	300	60	25.0	2.3
Electricians	1,010	1,200	190	18.8	1.7
Welders, Cutters, Solderers, & Brazers	620	720	100	16.1	1.5
Industrial Truck & Tractor Operators	1,530	1,710	180	11.8	1.1
Operating Engineers and Other Construction Equipment Operators	170	190	20	11.8	1.1
Helpers, Construction Trades	600	710	110	18.3	1.7
Construction Laborers	1,770	1,830	60	3.4	0.3
Plumbers, Pipefitters, & Steamfitters	600	720	120	20.0	1.8
Administrative Services Managers	230	260	30	13.0	1.2
Mechanical Engineers	120	170	50	41.7	3.5
Electrical Engineers	170	230	60	35.3	3.1
Engineering Technicians	140	170	30	21.4	2.0
Plant & System Operators	370	400	30	8.1	0.8

Source: CEDD, 2009c.

5.10.3.3.2 Population Impacts

It is anticipated that most of the construction workforce will be drawn from Stanislaus, County. Construction workforce could also be drawn from other nearby counties or from out of state, if necessary. For the purposes of our analysis, because of the size of the local construction workforce, it is assumed that 60 percent of the construction workers will be from the local area. Because most workers are expected to commute to the project site, they will not contribute to an increase in the population of the area. Therefore, the project will result in a less-than-significant impact to the local population.

5.10.3.3.3 Housing Impacts

The construction workforce will most likely commute daily to the project site; however, if needed, there are about 47 hotels/motels with 3,332 rooms in Stanislaus County (Smith Travel Research, 2009) to accommodate workers who may choose to commute to the project site on a workweek basis. The average daily room rate is $76. Hotel occupancy rates for the period November 2007 through October 2008 averaged about 42 percent (Smith Travel Research, 2009). Since Ceres is close to the Bay Area, some of the workers could choose to seek accommodation in the Bay Area. In addition to the available hotel/motel accommodation, a few recreational vehicle parks are near Ceres. As a result, construction of the proposed project is not expected to increase the demand for housing. Therefore, the project will have a less-than-significant impact on housing.

5.10.3.3.4 Impacts to the Local Economy and Employment

The cost of materials and supplies required by the project during construction of the A2PP is estimated at approximately $175 million. The estimated value of materials and supplies that will be purchased locally is between $1 million and $2 million (in 2008 dollars).

A2PP will provide an estimated $7.56 million in construction payroll, at an average salary of approximately $38 per hour. The anticipated payroll for employees, as well as the purchase of materials and supplies during construction, will have a slight beneficial impact on the area. Assuming, conservatively, that 60 percent of the construction workforce will reside in Stanislaus County, it is expected that approximately $4.54 million will stay in the local area during the 12-month construction period. These additional funds will cause a temporary beneficial impact by creating the potential for other employment opportunities for local workers in other service areas, such as transportation and retail. All cost estimates are in constant 2008 dollars, as are the economic benefits noted in this section.

Indirect and Induced Economic Impacts from Construction

Construction activities would result in secondary economic impacts (indirect and induced impacts) within Stanislaus County. Indirect and induced employment effects include the purchase of goods and services by firms involved with construction, and induced employment effects include construction workers spending their income within the county. In addition to these secondary employment impacts, there are indirect and induced income effects arising from construction.

Indirect and induced impacts were estimated using an IMPLAN Input-Output model of Stanislaus County. IMPLAN is an economic modeling software program. The estimated indirect and induced employment within Stanislaus County would be 33 and 38 jobs, respectively. These additional jobs result from the $2 million in annual local construction expenditures as well as the $3,176,510 in spending by local construction workers. The

$3,176,510 represents the disposable portion of the annual local construction payroll (assumed to be 70 percent of $4,537,800[3] in annual construction payroll spent locally). Assuming an average monthly direct construction employment of 97, the employment multiplier associated with the construction phase of the project is approximately 1.7 ([97 + 33 + 38]/97). This project construction phase employment multiplier is based on a Type SAM model.

Indirect and induced income impacts were estimated at $1,112,050 and $1,253,970, respectively. Assuming a total annual local construction expenditure (payroll, materials, and supplies) of about $5,176,510 ($3,176,510 in payroll + $2 million in materials and supplies), the project construction phase income multiplier based on a Type SAM model is approximately 1.5 (i.e., [$5,176,510 + $1,112,050 + $1,253,970]/$5,176,510).

Assuming that annual local construction expenditures are only $1 million instead of $2 million and that annual local construction workforce expenditures are the same ($3,176,510), the indirect and induced employment estimates within Stanislaus County are 17 and 34 jobs, respectively. Based on the same average construction employment of 97, the construction phase employment multiplier is approximately 1.5.

Indirect and induced income impacts based on the total annual construction expenditure of $4,176,510 ($3,176,510 in payroll + $1 million in materials and supplies) were estimated at $556,020 and $1,130,290, respectively. Based on these estimates, the construction phase income multiplier was estimated at approximately 1.4.

5.10.3.3.5 Fiscal Impacts

A2PP's initial capital cost is estimated to be $200 million; of this, materials and supplies are estimated at approximately $175 million. The estimated value of construction materials and supplies that will be purchased locally (within Stanislaus County) is between $1 million and $2 million. The effect on fiscal resources during construction will be from sales taxes realized on equipment and materials purchased in the County and from sales taxes from expenditures. The sales tax rate in the Stanislaus County, where the purchases are likely to be made, is 7.375 percent (as of January 1, 2009). Of this, 6.25 percent goes to the state; 0.25 percent goes to the county; 0.75 percent goes to the place of sale; and 0.125 percent goes to the special districts (BOE, 2009). The total local sales tax expected to be generated during construction is between $73,750 and $147,500 (7.375 percent of local sales). Assuming all local sales are made in Ceres, the maximum sales tax the city could receive is between $8,750 and $17,500, while the county would receive between $2,500 and $5,000. The remainder (between $62,500 and $125,000) is the portion that goes to the state.

5.10.3.3.6 Impacts on Education

Construction of the A2PP will not cause population changes or housing impacts to the region because most employees will commute to the site from areas within the County, as opposed to relocating to the area. As a result, A2PP construction will not cause a significant increase in demand for school services.

[3] Annual local portion of construction payroll = $7,563,130 x 60% = $4.537,880. The disposable portion of the annual local construction payroll = $4.537,880 x 70% = $3,176,510.

5.10.3.3.7 Impacts on Public Services and Facilities

The construction phase of the project may have minor impacts on police, fire, or hazardous materials handling resources. However, because the peak workforce is only 149 workers, it is not expected to place a burden on public service providers. Copies of the records of conversation with local agency staff are included in Appendix 5.10B. Typically, construction sites hold a higher risk of emergency due to the types of activities taking place. With construction companies putting an emphasis on safety, A2PP construction is not expected to create significant adverse impacts on medical resources in the area because minor injuries could be treated at the Memorial Medical Center.

5.10.3.3.8 Impacts on Utilities

A2PP construction will not make significant adverse demands on local water, sanitary sewer, electricity, or natural gas. Water requirements for construction are relatively small. Given the number of workers and temporary duration of the construction period, the impact on the local sanitary sewer system would not be significant.

5.10.3.4 Operational Impacts

This section looks at the changes to the local economy as a result of bringing the A2PP online.

5.10.3.4.1 Operational Workforce

The proposed A2PP facility is expected to begin commercial operation in fourth quarter 2011. In addition to the current 12 full-time employees at the Almond Power Plant, the A2PP is expected to add four full-time employees. Facility employees will be drawn from the local workforce. Consequently, no population increase is anticipated as a result of this project. There will be no significant impact on local employment.

5.10.3.4.2 Population Impacts

Some of the operational workforce may be drawn from the local population. However, it is anticipated that some of the operational workforce will be drawn from other cities in Stanislaus County or the neighboring counties. All workers would be expected to reside within commuting distance of the facility and would not be expected to require relocation. However, even assuming that all four new-hires relocate to the area, plant operations will not create a significant influx of new workers to the community and would not result in a significant impact to the local population.

5.10.3.4.3 Housing Impacts

Due to the few operations staff required, significant impacts to housing are not anticipated. Based on the housing vacancy data in Table 5.10-3, there are approximately 419 available housing units in Ceres and 6,586 housing units in Stanislaus County. Thus, if all four new employees relocated to the Ceres, only four dwelling units would be needed. Therefore, the demand for housing would not be significant.

5.10.3.4.4 Impacts on the Local Economy and Employment

A2PP operation will generate a small, permanent, but less-than-significant beneficial impact by creating secondary employment opportunities for local workers through local expenditures for materials, such as office supplies and services. There will be an annual operations and maintenance budget of approximately $1.8 million, of which $1.5 million is assumed to be spent locally (within Stanislaus County). These additional jobs and spending

will generate other employment opportunities and spending in the Stanislaus County area. All cost estimates are in constant 2008 dollars as are the economic benefits noted in this section.

Indirect and Induced Economic Impacts from Operations

The operation of the project would result in indirect and induced economic impacts that would occur within Stanislaus County. These indirect and induced impacts represent permanent increases in the county's economic variables. The indirect and induced impacts would result from annual operations and maintenance (O&M) expenditures.

Estimated indirect and induced employment within Stanislaus County would be 26 and 10 permanent jobs, respectively. These additional 36 jobs result from the $1.75 million ($250,000 in payroll, and $1.5 million in operations and maintenance) in annual local operational budget. The operational phase employment multiplier is estimated at 2.8 ([4 + 4 + 3]/4) and is based on a Type SAM multiplier.

Indirect and induced income impacts are estimated at $1,072,600 and $326,600, respectively. The income multiplier associated with the operational phase of the project is approximately 1.2 ([$250,000 + $176,890 + $95,970]/$250,000) and is based on a Type SAM model.

5.10.3.4.5 Fiscal Impacts

The annual operations and maintenance budget is expected to be approximately $1.8 million (in 2008 dollars), of which $1.5 million is assumed would be spent locally within Stanislaus County.

During operations, additional sales tax revenues will be obtained by Stanislaus County. O&M expenses spent locally would be approximately $1.5 million annually. Based on the assumed local O&M expenditures of $1.5 million, the estimated sales taxes (using January 2009 rates) would be $110,625. Of this amount, the place of sale would receive $13,125 in sales tax revenue. The overall anticipated increase in sales tax revenue would be beneficial but would not be significant, since it would constitute such a small percent of total County or City revenues. (All estimates are in 2008 dollars).

The A2PP is not expected to pay property taxes because TID is tax exempt.

5.10.3.4.6 Impacts on Education

Even assuming that all four operational employees will reside in Ceres, A2PP operation is not expected to create a significant adverse impact to the local school system. Assuming an average family size of 3.32 persons per household for Ceres (DOF, 2009a) would imply the addition of approximately five children to the local schools.[4] This would constitute a negligible increase (about 0.04 percent in the Ceres Unified School District) in school enrollment. Assuming that all four operational employees reside outside Ceres, and using the average family size of 3.32 persons per household for Stanislaus County (DOF, 2009a), would imply the addition of about five students to the local schools serving the project area. This, again, would constitute a negligible and less-than-significant increase (about 0.04 percent in the Ceres Unified School District) in school enrollment.

[4] This assumes a two-parent household.

Any development (industrial or commercial) within the Ceres Unified School District is currently charged a one-time assessment fee of $0.47 per square foot of principal building area (Davis, 2009). However, due to its public agency status, TID is exempt from paying school impact fees.

5.10.3.4.7 Impacts on Public Services and Facilities

The project operation will not make any new significant demands on public services or facilities even if all of the operational employees reside in Ceres. The CPD did not express any concerns about increased service demands during plant operations (Borges, 2008). The A2PP's operation is not expected to result in significant impacts to the CFD (Wheeler, 2008). The A2PP's operation would not create significant adverse impacts on medical resources in the area due to the safety record of power plants and the few additional operations staff.

5.10.3.4.8 Impacts on Utilities

Similarly, because of the few number of new employees, A2PP operation will not make significant adverse demands on local water, sanitary sewer, electricity, or natural gas because adequate supply and capacity currently exist.

5.10.4 Cumulative Effects

Cumulative socioeconomic impacts could occur if the construction schedules for additional large projects overlap, creating a demand for construction workers that exceeds the capacity of the local labor force; thus, creating an influx of construction workers that would result in impacts to local housing, schools, and/or public services.

A cumulative impact refers to a proposed project's incremental effect together with other closely related past, present, and reasonably foreseeable future projects whose impacts may compound or increase the incremental effect of the proposed project (Public Resources Code § 21083; California Code of Regulations, Title 14, §§ 15064(h), 15065(c), 15130, and 15355). Cumulative socioeconomic impacts may occur when more than one project has an overlapping construction schedule that creates a demand for workers that cannot be met by local labor, resulting in an influx of non-local workers and their dependents.

Because the majority of the construction workers will reside primarily in the Stanislaus County and live within commuting distance, no adverse impact to local schools or housing is anticipated. Although there are a number of projects that are either planned or currently under development in the vicinity of the A2PP (see Section 5.6, Land Use) that could potentially have an adverse cumulative socioeconomic impact, most of these projects have not advanced to the point where enough is known about them in terms of construction workforce requirements or construction schedule.

For an additional discussion of cumulative effects, the reader is referred to Section 5.6, Land Use.

5.10.5 Environmental Justice

President Clinton's Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" was signed on February 11, 1994. The purpose of this Executive Order is to consider whether a project may result in disproportionately high and adverse human health or environmental effects on any minority or low-income population.

The federal guidelines set forth a three-step screening process:

1. Identify which impacts of the project are high and adverse.
2. Determine whether minority or low-income populations exist within the high and adverse impact zones.
3. Examine the spatial distribution of high and adverse impact areas to determine whether these impacts are likely to fall disproportionately on the minority and/or low-income population.

According to the guidelines established by U.S. Environmental Protection Agency (EPA, 1996) to assist federal agencies to develop strategies to address this circumstance, a minority and/or low-income population exists if the minority and/or low-income population percentage of the affected area is 50 percent or more of the area's general population. The guidance suggests using two or three standard deviations above the mean as a quantitative measure of disparate effects.

A screening-level analysis of environmental justice is presented in Appendix 5.10A. According to that analysis, since all project impacts will be mitigated below the level of significance, this project does not create high and adverse impacts. Therefore, there are no environmental impacts that are likely to fall disproportionately on minority and/or low-income members of the community.

5.10.6 Mitigation Measures

Because the project will not cause any significant adverse impacts, no socioeconomic mitigation measures are proposed.

5.10.7 Laws, Ordinances, Regulations, and Standards

A summary of the laws, ordinances, regulations, and standards (LORS) applicable to socioeconomics, including the project's conformance to them, is presented in Table 5.10-12.

TABLE 5.10-12
Laws, Ordinances, Regulations, and Standards for Socioeconomics

LORS	Purpose	Applicability	AFC Section Explaining Conformance
Federal			
Civil Rights Act of 1964	Prohibits discrimination on the basis of race, color, or national origin.	Applies to all federal agencies and agencies receiving federal funds.	5.10.5, 5.10.7.1
Executive Order 12898	Avoid disproportionately high and adverse impacts to minority and low-income members of the community.	Applies only to federal agencies.	5.10.5, 5.10.7.1
State			
Government Code Sections 65996-65997	Establishes that the levy of a fee for construction of an industrial facility be considered to fully mitigate impacts to school facilities.	Ceres Unified School District may charge a one-time assessment fee to mitigate potential school impacts.	5.10.3.4.6

TABLE 5.10-12
Laws, Ordinances, Regulations, and Standards for Socioeconomics

LORS	Purpose	Applicability	AFC Section Explaining Conformance
Education Code Section 17620	Allows a school district to levy a fee against any construction within the boundaries of the district for the purpose of funding construction of school facilities.	Ceres Unified School District may charge a one-time assessment fee to mitigate potential school impacts.	5.10.3
Local			
County General Plan	There are no goals or policies that pertain to socioeconomics.	NA	NA
City of Ceres General Plan	There are no goals or policies that pertain to socioeconomics.	NA	NA

NA = Not Applicable

5.10.7.1 Federal LORS

The Civil Rights Act of 1964, Public Law 88-352, 78 Stat. 241 (codified as amended in various sections of 42 U.S.C.) Title VI prohibits discrimination on the basis of race, color, or national origin by all federal agencies.

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires federal agencies to consider whether the project may result in disproportionately high and adverse human health or environmental effects on any minority or low-income population. Although the California Energy Commission (CEC) is not obligated as a matter of law to conduct an environmental justice analysis, since the signing of the executive order, the CEC has typically included this topic in its power plant sitting decisions to ensure that any potential adverse impacts are identified and addressed.

5.10.7.2 State LORS

Government Code Sections 65996 and 65997 provide the exclusive methods of considering and mitigating impacts on school facilities that might occur as a result of the development of real property.

Education Code Section 17620, listed in Government Code Section 65997 as an approved mitigation method, allows school districts to levy a fee against any construction within the boundaries of the school district for the purpose of funding construction of school facilities.

5.10.7.3 Local LORS

The existing Stanislaus County General Plan (Stanislaus County, 2000) does not contain an economic development element and does not have specific goals and policies that pertain to socioeconomics

The existing City of Ceres General Plan (City of Ceres, 1997) does not contain an economic development element and does not have specific goals and policies that pertain to socioeconomics.

5.10.8 Agencies and Agency Contacts

Table 5.10-13 provides a list of agencies and contact persons of potentially responsible agencies. Copies of records of conversation are provided in Appendix 5.10B.

TABLE 5.10-13
Agency Contacts for Socioeconomics

Issue	Agency	Contact
School impact fees and potential enrollment impacts	Ceres Unified School District	Linda Davis Administrative Secretary Facility Planning 2503 Lawrence Street Ceres, CA 95307 (209) 556-1500 ldavis@ceres.k12.ca.us
Available resources, potential impacts to resources and average response times	Ceres Emergency Services – Fire Division	Randy Wheeler, Battalion Chief 2755 Third Street Ceres, CA 95307 (209) 538-5709 randy.wheeler@ci.ceres.ca.us
Available resources, potential impacts to resources and average response times	City of Ceres Public Safety Department Police Division	Mike Borges, Deputy Chief 2727 Third Street Ceres, CA 95307 (209) 538-5722 mike.borges@ci.ceres.ca.us
Hazardous Materials Response	Stanislaus County Environmental Resources Department, Hazardous Materials Division	Beronia Beniamine, Senior HMS 3800 Cornucopia Way Suite C Modesto, CA 95358 (209) 525-6746 bbeniamine@envres.org Robert Riess 3800 Cornucopia Way Suite C Modesto, CA 95358 rriess@envres.org
Availability of labor	Stanislaus, Merced, Mariposa, Tuolumne BTC	Lucille Palmer-Byrd 418 – 13th Street #A P O Box 1890 (Mailing Address) Modesto, CA 95353 (209) 524-0614

5.10.9 Permits and Permit Schedule

Permits dealing with the effects on public services are addressed as part of the building permit process. For example, school development fees are typically collected when the applicant pays building permit fees to the County. No permits are required to comply with the socioeconomic impacts of the project.

5.10.10 References

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