5.11 Socioeconomics

This section addresses the potential socioeconomic impacts of the Blythe Solar Power Project (BSPP or Project). It describes existing socioeconomic conditions and discusses impacts during Project construction and operation. The section covers a range of economic and demographic characteristics of the area. Environmental justice considerations are addressed specifically. Applicable Laws, ordinances, regulations, and standards (LORS) are discussed in Section 5.11.1.

This socioeconomic impact evaluation is intended to support compliance by the California Energy Commission (CEC) with the California Environmental Quality Act (CEQA), and by the Bureau of Land Management (BLM) with the National Environmental Policy Act (NEPA). The two agencies are conducting a joint review of the Project and will prepare a combined CEQA/NEPA document

Summary

BSPP construction and operation would cause minimal adverse socioeconomic impacts and substantial positive impacts. Project employment would provide additional income to Riverside County and other nearby areas, as would local expenditures for materials and services. The Project construction workforce would average about 600 workers over a 69-month period with a short term peak of 1,000, while the long-term work force will be 221.

Studies have shown that construction workers typically commute as much as two hours rather than leaving home. Riverside and neighboring San Bernardino Counties combined have over 150,000 construction workers, laborers, and carpenters in their work forces. Most non-local construction workers are likely to commute rather than relocate to the Project area. There are residential opportunities or amenities in Blythe, about eight miles to the east on Interstate-1 (I-10) or to the west about 90 miles in Coachella. Some workers may use campgrounds, RV parks, or motels; housing vacancy rates are high in the region. Impacts on socioeconomic factors (e.g., population, housing, services).during construction would be very small. The Project's long-term operation work force of 221, some likely local residents, would not significantly affect local socioeconomic conditions. The Project would not have disproportionate impacts on minority or low-income populations (adverse environmental justice impacts).

The Project would provide an annual beneficial economic impact during construction of about $96 million, with annual economic impacts during operation of about $26 million. Property taxes are estimated at about $400,000 per year, and the Palo Verde Unified School District would receive a development impact fee of about $116,000. The Project would have beneficial socioeconomic impacts for the entire State by helping ensure an adequate supply of electrical power to fuel the State's economy, helping California meet its Renewable Portfolio Standard and greenhouse gas emissions reduction goals, as well as providing jobs in an area that is experiencing hard times.

The many solar projects proposed in the I-10 corridor of eastern Riverside County conceivably could have cumulative socioeconomic impacts. These impacts would depend on how many of the proposed projects actually reach construction and when. It is unlikely they all will be built. However, even though eastern Riverside County is currently experiencing difficult times with high housing vacancy rates, there is a possibility of a period (a few years between roughly 2012 and 2014) where the demand for housing, and services of all kinds associated with the cumulative energy projects conceivably might strain the infrastructure, services, and communities of Blythe and vicinity in eastern Riverside County.

5.11.1 LORS Compliance

A summary of potentially applicable LORS is presented in Table 5.11-1 and in the text following the table. The Project will comply with all applicable Federal, State, and local LORS.

Table 5.11-1 LORS Applicable to Socioeconomics

LORS	Applicability	Where Addressed in AFC
Federal		
Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations; Executive Order 12898	As a result of the Executive Order, the U.S. Environmental Protection Agency (EPA) issued guidelines requiring Federal agencies to develop strategies to address environmental justice issues.	Section 5.11.2
Civil Rights Act of 1964: Public Law 88-352, 78 Stat. 241	Prohibits discrimination on the basis of race, color, or national origin by all Federal agencies or activities receiving Federal financial assistance.	Section 5.11.1
State		
California Taxation and Revenue Code Section 73	Allows property tax exclusion for certain types of solar energy systems.	Sections 5.11.1 and 5.11.3
Education Code Section 17620	The governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities, subject to any limitations (set forth by Section 65995 for the California Government Code).	Sections 5.11.1 and 5.11.3
California Government Code (GC) Sections 65995-65998 (amended by Senate Bill [SB] 50)	Public agencies may impose fees, charges or other financial requirements on developers to offset the cost of school facilities.	Sections 5.11.1 and 5.11.3
Title 14 California Code of Regulations (CCR) Section 15131.	CEQA guidelines state that economic or social information may be included in an Environmental Impact Report, but economic and social effects shall not be treated as significant effects on the environment.	Sections 5.11.2 and 5.11.3
Local		
Riverside County General Plan (Administration, Land Use Elements)	Establishes goals and implementing policies to accommodate anticipated future growth while maintaining a safe and healthful environment and prosperous economy.	Sections 5.11.2 and 5.11.3

5.11.1.1 Federal LORS

Executive Order 12898

Executive Order 12898 and the President's February 11, 1994 Memorandum on Environmental Justice (sent to the heads of all departments and agencies) are intended to ensure that Federal departments and agencies identify and address disproportionately high and adverse human health or environmental effects of their policies, programs and activities on minority populations and low-income populations. This consideration extends to permits issued by Federal agencies. Because the Project will require Federal agency approval (for example, a right-of-way [ROW] lease from the BLM), the Executive Order applies to the Project.

Civil Rights Act of 1964, Public Law 88-352, 78 Stat. 241 (codified as amended in various sections of 42 United States Code)

Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color, or national origin by all Federal agencies or activities receiving Federal financial assistance.

5.11.1.2 State LORS

California Taxation and Revenue Code Section 73

Section 73 of the California Revenue and Taxation Code allows a property tax exclusion for certain types of solar energy systems installed between January 1, 1999, and December 31, 2016. This section was amended in 2008 to include the construction of an active solar energy system incorporated by an owner-builder in the initial construction of a new building that the owner-builder does not intend to occupy or use.

Education Code Section 17620

Education Code Section 17620 authorizes school districts to levy a fee, charge, dedication, or other requirement against any development project for the construction or reconstruction of school facilities, provided that the district can show justification for levying of fees. GC 65995 limits the fee to be collected to the statutory fee unless a school district conducts a Facility Needs Assessment (GC Section 65995.6) and meets certain conditions. The administering agency implementing school impact fees for the Project is the Palo Verde School District.

California GC Sections 65995-65998 (amended by SB 50)

GC Sections 65995-65998 limits fees, charges, dedications, or other requirements for the construction (or reconstruction) of school facilities in connection with, or made a condition of, the development of property. SB 50, adopted in 1998, imposed limitations on the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development. In the case of industrial construction, the amount of fees and/or charges (levied under Education Code Section 17620 with support of a Facility Needs Assessment) may not exceed $0.31 per square foot of covered, enclosed space.

Title 14 CCR Section 15131

The regulations implementing CEQA state that economic or social factors of a project may be included in a CEQA document but shall not be treated as significant effects on the environment. However, economic or social effects of a project may be used to determine the significance of physical changes caused by the Project. Additionally, economic, social, and housing factors should be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are

feasible to reduce or avoid the significant effects on the environment. Under the Warren-Alquist Act, the CEC's licensing process is legally CEQA-equivalent and is guided by the CEQA regulations.

5.11.1.3 Local LORS

Riverside County General Plan

Although the Project does not require socioeconomic-related permits, the draft Riverside County General Plan contains goals related to maintaining and improving socioeconomic conditions in the County. The General Plan does not have an element specifically addressing public services and utilities, however, issues concerning open space and land use are addressed in the Multipurpose Open Space Element and the Land Use Element. The Multipurpose Open Space and Land Use Elements are discussed in Section 5.7, Land Use. The Administration Element incorporates policies and procedures for administering the General Plan.

5.11.1.4 Involved Agencies and Local Contacts

Table 5.11-2 lists Federal and local agency contacts for the Project.

Table 5.11-2 Agencies and Agency Contacts

Agency Contact	Phone/Email	Permit/Issue
Karen Henry U.S. EPA Region 9 75 Hawthorne Street San Francisco, CA 94105	(415) 972-3844 henry.karen@epa.gov	Executive Order 12898 (Environmental Justice)
Ron Goldman, Planning Director Riverside County Riverside County Administrative Center 4080 Lemon Street Riverside, CA 92502-1629	(951) 955-6429 (951) 955-3200 rgoldman@rctlma.org	Riverside County Land Use Zoning, Plans, and Policies

5.11.1.5 Required Permits and Permitting Schedule

No socioeconomics-related permits are required for the proposed Project. Therefore, there are no applicable permitting agencies or agency contacts.

5.11.2 Affected Environment

5.11.2.1 Study Area

This section discusses potentially affected socioeconomic resources for the Project. The Project footprint comprises a large, contiguous area consisting of approximately 9,400 acres located approximately eight miles west of Blythe, California. The area north of the Project site is primarily undeveloped open space. The Project is on flat, desert terrain on public land managed by BLM. There are two privately-owned parcels located within the area covered by the BLM ROW grant application. However, no Project activities are currently proposed on these parcels.

The Project site is located in eastern Riverside County, California. For the purposes of the socioeconomic analysis, the study area is considered to be the counties within a two-hour drive from the

Project site on mapped roads (Federal, State, city and county).[1] This includes portions of the counties of Riverside, San Bernardino, Imperial, and San Diego. To simplify the analysis by focusing on the most likely communities of residence for commuters, those cities and communities within 30 minute drive times are specifically included in the analysis, as are all cities and communities with populations over 20,000 individuals within Riverside County, and all cities with populations over 40,000 individuals in San Bernardino, San Diego, Imperial, La Paz, Yuma, and Maricopa counties, within a two-hour drive time. For San Bernardino, San Diego, Imperial, La Paz, Yuma, and Maricopa counties, no cities or communities with populations over 40,000 individuals are within a two-hour drive, so no communities are specifically identified. However, the counties are included in the general study area because rural locations in these counties are within the two-hour commute radius.

Figure 5.11-1 depicts the counties and communities relevant to this analysis along with the approximate drive times from the Project site. These cities and communities include Blythe, Cathedral City, Coachella, Indio, La Quinta, Palm Desert, Palm Springs, and Banning in Riverside County, California, and Ehrenberg, Quartzsite, and Cibola in Yuma County, Arizona.

5.11.2.2 Population

The Project is in eastern Riverside County near the western border of the State of Arizona. Population estimates and future population projections for the local and regional area are summarized in Table 5.11-3.

Riverside County is the fourth most populous county in California. The population of Riverside County grew from 1,545,387 in 2000 to 2,078,601 in 2008, a 4.3 percent average annual increase, according to the California Department of Finance (DOF). However, between 2000 and 2008, Riverside County grew at a much faster rate than California as a whole and the other counties in the study area. Between 2000 and 2008 average annual growth was much slower in San Diego, San Bernardino, and Imperial counties, at 1.4, 2.2, and 2.9 percent, respectively.

Population growth in Riverside County is expected to slow over the next few decades. The growth rate is projected to be 3.9 percent per year between 2008 and 2010, 3.0 percent per year between 2010 and 2020, and then to fall to 2.1 percent per year between 2020 and 2030. Growth in all counties in the study area is projected to slow by the year 2030. The population projections discussed above were made prior to the economic recession that began in 2008. It is possible these projections may be modified as a result of the economic recession or related events.

Table 5.11-4 shows the populations of the affected cities and communities in 2000 and 2008, along with growth rates. The cities in Riverside County that experienced especially pronounced population growth between 2000 and 2008 are La Quinta (10.1 percent annually), Coachella (9.7 percent annually), and Indio (8.1 percent annually). All of the Riverside communities together experienced a 4.6 percent growth rate. None of the cities in La Paz County, Arizona had pronounced population growth between 2000 and 2008. The three Arizona communities in the study area had population growth consistent with La Paz County and the state of Arizona.

[1] A two-hour commute-shed is considered to be an acceptable commuting distance for construction workers.

Table 5.11-3 Population Estimates, Projections, and Average Annual Growth Rates

Jurisdiction	2000	2008	Average Annual Growth Rate 2000-2008	2010 Projection	Average Annual Growth Rate 2008-2010	2020 Projection	Average Annual Growth Rate 2010-2020	2030 Projection	Average Annual Growth Rate 2020-2030
Riverside County	1,545,387	2,078,601	4.3%	2,239,053	3.9%	2,904,848	3.0%	3,507,498	2.1%
San Diego County	2,813,833	3,131,552	1.4%	3,199,706	1.1%	3,550,714	1.1%	3,950,757	1.2%
Imperial County	142,361	175,622	2.9%	189,675	4.0%	239,149	2.6%	283,693	1.9%
San Bernardino County	1,721,942	2,055,766	2.2%	2,177,596	2.9%	2,582,777	1.7%	2,957,744	1.4%
California	34,105,437	38,049,462	1.5%	39,135,676	1.4%	44,135,923	1.3%	49,240,891	1.2%
La Paz County	19,715	21,544	1.2%	22,632	0.5%	25,487	1.3%	28,074	1.0%
Maricopa County	3,072,149	3,987,942	3.7%	4,217,427	0.6%	5,276,074	2.5%	6,207,980	1.8%
Yuma County	160,026	203,779	3.4%	218,810	0.7%	271,361	2.4%	316,158	1.7%
Arizona	5,130,632	6,629,455	3.7%	6,999,810	0.6%	8,779,567	2.5%	10,347,543	1.8%
Source: California DOF, 2009; Arizona Department of Commerce, 2006; Arizona Department of Economic Security (DES), 2008									

Table 5.11-4 Study Area Communities Population Growth

Jurisdiction	2000	2008	Average Annual Change (2000-2008)
Riverside County, California			
Blythe	20,465	21,627	0.7%
Cathedral City	42,647	51,972	2.7%
Coachella	22,724	40,317	9.7%
Indio	49,116	80,962	8.1%
La Quinta	23,694	42,743	10.1%
Palm Desert	41,155	50,686	2.9%
Palm Springs	42,805	47,019	1.2%
Banning	23,562	28,148	2.4%
Riverside Communities	266,168	363,474	4.6%
La Paz County, Arizona			
Cibola	172	198	1.9%
Ehrenberg	1,357	1,409	0.5%
Quartzsite	3,354	3,745	1.5%
La Paz Communities	4,883	5,352	1.2%
Source: California DOF, 2009b; Arizona DES, 2008			

5.11.2.3 Housing

Permanent Housing

Table 5.11-5 presents the housing resources in the study area counties of Riverside, San Bernardino, Imperial, and San Diego in California and La Paz, Yuma, and Maricopa in Arizona. In 2008, Riverside County had 773,402 total housing units, with a vacancy rate of 13.2 percent. Of the other counties in the study area, La Paz County has the highest vacancy rate of 42.7 percent, with the lowest vacancy rate occurring in San Diego County (4.4 percent). Among the cities in Riverside County relevant to the Project, Palm Springs had the highest vacancy rate (33.4 percent), and is behind only Palm Desert in number of housing units, with 33,479. Among the cities in La Paz County relevant to the Project, Cibola had the highest vacancy rate (60.0 percent), but Quartzsite had the highest number of vacant units at 1,336. Of the seven counties, San Diego County has the highest number of households (3,074,598) as well as the highest number of total housing units (1,149,647).

Table 5.11-5 Study Area Housing Characteristics, 2008

Jurisdiction	Households	Total Housing Units	Vacancy
Riverside County*	2,043,086	773,402	13.2%
Blythe*	13,473	5,444	16.1%

Table 5.11-5 Study Area Housing Characteristics, 2008

Jurisdiction	Households	Total Housing Units	Vacancy
Cathedral City*	51,777	21,561	21.5%
Coachella*	40,273	8,814	4.4%
Indio*	80,106	27,744	18.0%
La Quinta*	42,703	21,058	28.5%
Palm Desert*	50,302	34,120	30.9%
Palm Springs*	46,323	33,479	33.4%
Banning*	27,810	11,631	8.6%
Riverside Communities Total	352,767	163,851	
San Diego County*	3,074,598	1,149,647	4.4%
Imperial County*	167,588	56,237	11.0%
San Bernardino County*	2,055,766	612,801	11.6%
California*	38,049,462	11,885,099	
La Paz County**	8,932	15,577	42.7%
Quartzite***	1,850	3,186	41.9%
Ehrenburg***	545	824	34.9%
Cibola***	65	161	60.0%
La Paz Communities Total	2,460	4,171	
Maricopa County**	1,318,623	1,492,572	11.7%
Yuma County**	68,857	85,082	19.1%
Arizona**	2,215,761	2,596,351	

*California State, county and community data from 2008
**Arizona State and county data from 2007
***Arizona community data from 2000
Source: California DOF, 2009c; U.S. Census, 2000; U.S. Census, 2008.

Temporary Housing

Temporary housing would likely be used by temporary construction workers and a small proportion of operational workers. Temporary housing in the form of hotel/motel rooms are present throughout the four counties of the study area, typically concentrated in major urban areas or near major transportation nodes. For the purposes of this analysis, only those hotels in the closest population center were tabulated under the assumption that construction and operations workers would congregate to this area for commuting ease. Based on information from the website Travelocity.com, there are about 630 guest rooms among 11 hotels and motels in the area surrounding Blythe alone, with substantial additional temporary housing available in the communities within two hours of the BSPP site. Additional housing opportunities are available in the form of recreational vehicle facilities, mobile home sites, and campgrounds. Also, permanent housing includes rentals as well as owner-occupied units. As shown in Table 5.11-5 above, vacancy rates are high in the study area.

5.11.2.4 Economy and Employment

Study area employment statistics by industry sector and county for 2007 are summarized in Tables 5.11-6a, 6b and 6c. The government is the largest employer in Riverside County. This sector accounts for over 17 percent of the total jobs in Riverside County. Additional industries in the area include natural resources, mining, and construction; manufacturing; transportation; trade (wholesale and retail); information; financial activities; and services (e.g., professional, business, educational, health). In Riverside County, natural resources, mining and construction, government, and retail trade services are the leading industry groups in terms of employment. The sector with the lowest number of persons employed is the information sector, with 7,600.

The largest employer in San Bernardino County is government. This sector accounts for 119,100 jobs, almost 18 percent of the total number of jobs in the County. Other leading industries include retail trade, professional and business services, and other services. The largest employer in San Diego County is also government. This sector accounts for 222,400 jobs, or 17 percent of the total jobs in the County. Other leading industry sectors include professional and business services, other services, and retail trade. In Imperial County, the government sector accounts for the vast majority of employment with 18,100 jobs, or 32 percent of total employment. This is followed by agriculture and retail trade.

Table 5.11-6a Employment by Industry Group – 2007

Industry Group	Riverside County Employment		San Bernardino County Employment		California Employment	
	Total	Percent of Total	Total	Percent of Total	Total	Percent of Total
Agriculture	13,700	2.2%	3,100	0.5%	383,700	2.5%
Natural Resources, Mining, and Construction	70,600	11.4%	43,500	6.5%	919,300	5.9%
Manufacturing	54,900	8.9%	64,000	9.6%	1,464,400	9.4%
Transportation, Warehousing, and Utilities	18,300	3.0%	48,500	7.3%	507,600	3.3%
Wholesale Trade	21,200	3.4%	35,200	5.3%	715,300	4.6%
Retail Trade	87,500	14.1%	87,800	13.2%	1,689,900	10.9%
Information	7,600	1.2%	7,600	1.1%	470,800	3.0%
Financial Activities	23,100	3.7%	27,000	4.1%	904,600	5.8%
Professional and Business Services	64,000	10.3%	81,500	12.2%	2,264,300	14.6%
Educational and Health Services	56,900	9.2%	69,600	10.4%	1,670,300	10.7%
All Other Services	94,400	15.3%	79,800	12.0%	2,072,600	13.3%
Government	106,600	17.2%	119,100	17.9%	2,494,600	16.0%
Total	618,800	100%	666,700	100%	15,557,400	100%
Source: California EDD, 2009a						

Table 5.11-6b Employment by Industry Group – 2007

Industry Group	San Diego County Employment		Imperial County Employment		California Employment	
	Total	Percent of Total	Total	Percent of Total	Total	Percent of Total
Agriculture	10,900	0.8%	10,100	18.0%	383,700	2.5%
Natural Resources, Mining, and Construction	87,400	6.6%	1,900	3.4%	919,300	5.9%
Manufacturing	102,500	7.8%	2,600	4.6%	1,464,400	9.4%
Transportation, Warehousing, and Utilities	28,800	2.2%	1,800	3.2%	507,600	3.3%
Wholesale Trade	45,500	3.5%	1,900	3.4%	715,300	4.6%
Retail Trade	148,100	11.2%	7,500	13.4%	1,689,900	10.9%
Information	37,600	2.9%	400	0.7%	470,800	3.0%
Financial Activities	80,300	6.1%	1,400	2.5%	904,600	5.8%
Professional and Business Services	216,800	16.4%	2,700	4.8%	2,264,300	14.6%
Educational and Health Services	129,500	9.8%	2,900	5.2%	1,670,300	10.7%
All Other Services	210,100	16.0%	4,200	7.5%	2,072,600	13.3%
Government	222,400	16.9%	18,100	32.3%	2,494,600	16.0%
Total	1,319,700	100%	56,000	100%	15,557,400	100%
Source: California EDD, 2009a						

Table 5.11-6c Employment by Industry Group – 2007

	La Paz County Employment		Maricopa County Employment		Yuma County Employment	
Industry Group	**Total**	**Percent of State Total**	**Total**	**Percent of State Total**	**Total**	**Percent of State Total**
Agriculture	411	1.7%	8,671	36.2%	4,136	17.3%
Natural Resources, Mining, and Construction	327	0.01%	209,583	65.6%	5,606	0.2%
Manufacturing	313	0.2%	141,051	72.7%	2,931	2.0%
Transportation, Warehousing, and Utilities	n/a	n/a	81,334	74.4%	1,967	1.7%
Wholesale Trade	n/a	n/a	98,109	50.5%	1,884	1.0%
Retail Trade	1,437	0.3%	275,748	67.1%	9,791	2.4%
Information	n/a	n/a	37,555	71.5%	1,667	3.2%
Financial Activities	611	0.1%	312,772	72.7%	4,869	1.1%
Professional and Business Services	169	0.01%	183,937	74.3%	2,428	1.0%
Educational and Health Services	n/a	n/a	242,070	65.2%	7,470	2.0%
All Other Services	n/a	n/a	323,353	40.1%	9,669	1.2%
Government	2,533	0.6%	231,903	51.2%	18,330	4.1%
Total	5,801		2,146,086		70,748	
Source: Bureau of Economic Analysis, 2009						

Table 5.11-7 presents the projected new jobs by occupation for counties in the study area. For the purposes of employment data tabulation, the California Employment Development Department (EDD) groups Riverside and San Bernardino counties as one statistical area; hence, they are presented in Table 5.11-7 together. Imperial County and San Diego County are presented separately. Data for projected jobs was not available for Arizona state or counties. The highest number of new jobs projected in Riverside and San Bernardino County is expected to be in retail sales. Job growth is also anticipated for cashiers, waiters and waitresses, and material movers. In San Diego County, retail sales are also projected to have the most job openings. This is followed by waiters and waitresses, and cashiers. In Imperial County, jobs in agriculture are anticipated to have the greatest number of openings. Job growth is also anticipated for personal care aides, and retail sales.

Table 5.11-7 Industry Employment Projections – Riverside, San Bernardino, and Imperial Counties, 2006-2016

Occupation	Number of New Jobs Projected
Riverside and San Bernardino Counties	
Retail Salespersons	24,360
Cashiers	20,170
Waiters and Waitresses	15,340
Laborers and Freight, Stock, and Material Movers	13,460
Combined Food Preparation and Serving Workers, including Fast Food	12,880
Elementary School Teachers, except Special Education	11,450
Office Clerks, General	11,190
Personal and Home Care Aides	9,710
Customer Service Representatives	8,890
Registered Nurses	8,380
Imperial County	
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	2,890
Personal and Home Care Aides	1,260
Retail Salespersons	1,090
Cashiers	970
Correctional Officers and Jailers	890
Detectives and Criminal Investigators	610
Elementary School Teachers, Except Special Education	600
Office Clerks, General	470
Meat, Poultry, and Fish Cutters and Trimmers	470
Combined Food Preparation and Serving Workers, including Fast Food	450
San Diego County	
Retail Salespersons	23,450
Waiters and Waitresses	18,580
Cashiers	17,050
Office Clerks, General	10,120
Customer Service Representatives	10,050
Combined Food Preparation and Serving Workers, including Fast Food	8,950
Registered Nurses	8,370
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	8,210

Table 5.11-7 Industry Employment Projections – Riverside, San Bernardino, and Imperial Counties, 2006-2016

Occupation	Number of New Jobs Projected
Personal and Home Care Aides	5,980
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	5,900
California	
Retail Salespersons	261,600
Cashiers	191,300
Waiters and Waitresses	180,100
Office Clerks, General	138,300
Personal and Home Care Aides	125,100
Laborers and Freight, Stock, and Material Movers	120,900
Customer Service Representatives	111,600
Registered Nurses	99,000
Elementary School Teachers, except Special Education	93,200
Combined Food Preparation and Serving Workers, including Fast Food	93,200
Source: California EDD, 2009b	

5.11.2.5 Project Related Employment

Tables 5.11-8 through 5.11-11 present county employment figures for those skilled workers (by craft) required for construction and operation of the Project as estimated by the Project proponent. Employment figures for 2006 are provided, as well as employment projections for the selected occupations for 2016. As stated above, the EDD groups Riverside and San Bernardino into one statistical area for data presentation purposes. Thus, these two counties are presented together in Table 5.11-8. San Diego County and Imperial County are presented separately in Tables 5.11-9 and 5.11-10, respectively. As of 2006, there were relatively high numbers of skilled workers in Riverside and San Bernardino County, including construction workers (116,810), carpenters (28,850), and construction laborers (27,930). San Diego County also has a relatively large number of construction workers (82,620), as well as metal workers (12,770). Imperial County had 2,210 construction workers in 2006.

Relevant specialized positions were generally fewer in number for all counties in the study area, including paving, surfacing, and tamping equipment operators, power plant operators, and construction trade helpers. Employment figures for all occupations presented are anticipated to either remain constant or grow by 2016. The two occupations with the largest anticipated growth are plant and system operators (26.5 percent) and architects, surveyors, and cartographers (25.0 percent).

The largest growth by occupation in Riverside and San Bernardino Counties is anticipated to be power plant operators (19.4 percent) and architects, surveyors, and cartographers (17.6 percent). In San Diego County, the occupations with the largest amount of anticipated growth are power plant operators (20 percent) and welders, cutters, solderers, and brazers (16.0 percent). Table 5.11-11 illustrates employment projections for the State of Arizona as county data is unavailable. As in the California counties, construction workers comprise the largest labor population in Arizona relevant to the Project.

Existing Unemployment Rates

As of April 2009, Riverside County had a labor force of 923,000 workers, of which 805,100 were employed. San Diego, San Bernardino, and Imperial counties had labor forces of 1,576,300; 882,200; and 74,500 workers, respectively. In Arizona, the counties of La Paz, Yuma, and Maricopa has labor forces of 7,562, 85,249, and 1,999,025 workers, respectively. In San Diego County, 1,433,100 workers were employed. In San Bernardino County, 773,000 workers were employed. In Imperial County, 54,500 workers were employed. In the Arizona counties of La Paz, Yuma, and Maricopa, the employed workers totaled 6,987, 68,212, and 1,865,468, respectively.

The highest unemployment rate in California study area counties is in Imperial County (26.9 percent), followed by Riverside (12.8 percent), and San Bernardino County (12.4 percent). In Riverside County, the community with the highest unemployment rate is the City of Coachella (20.0 percent). In Arizona, the unemployment rate for any county in the study area is highest in Yuma County (20.0 percent), followed by La Paz County (7.6 percent) and Maricopa County (6.7 percent). In La Paz County, the community with the highest unemployment rate is Cibola (13.5 percent). The labor force of the study area counties and communities is presented in Table 5.11-12.

Projected Unemployment Rates

While no California or Arizona State-generated figures exist for projected unemployment rates in Riverside, San Bernardino, San Diego, Imperial, La Paz, Yuma, or Maricopa counties, a recent report prepared for the United States Conference of Mayors regarding the role of metropolitan areas in the American Recovery and Reinvestment Act does present near-term unemployment projections for the nation through 2010 and for major metropolitan areas through late 2009. At the time of publishing (January 2009), HIS Global Insight estimated that the nationwide unemployment rate would rise above 9.0 percent by early 2010. In fact, national employment exceeded 9.0 percent by mid-2009. The unemployment rate in California was higher than the national average in mid-2009.

As for major metropolitan areas, the Riverside-San Bernardino area was specifically identified as an area with high unemployment rates anticipated through 2009. For the Riverside-San Bernardino area, the unemployment rate is expected to be near 11.6 percent by the end of 2009 and among the highest projections for any metropolitan area presented in the analysis. For the Maricopa County area, the metropolitan area analyzed included Phoenix, Mesa, and Scottsdale, which is expected to have an unemployment rate of 7.8 percent by the end of 2009. The report states that Southern California metro-economies have experienced a sharp decline in the housing market, which has led to a loss of many jobs in the construction industry. In Arizona, unemployment has been affected by steep State government payroll cuts.

Table 5.11-8 Local Labor Pool by Craft - Riverside and San Bernardino Counties

Occupational Title	Annual Average Employment		Employment Change		Average Annual Job Openings		
	2006	2016	Number	Percent	New Jobs	Net Replacements	Total
Construction Managers	4,380	5,110	730	16.7	135	160	295
Construction Workers	116,810	132,160	15,350	13.1	1,061	2,347	3,408
Carpenters	28,850	32,390	3,540	12.3	198	380	578
Cement Masons and Concrete Finishers	4,110	4,690	580	14.1	38	120	158
Construction Laborers	27,930	32,080	4,150	14.9	348	236	584
Paving, Surfacing, and Tamping Equipment Operators	630	720	90	14.3	8	16	24
Operating Engineers and Other Construction Equipment Operators	4,790	5,460	670	14.0	37	85	122
Drywall and Ceiling Tile Installers	7,570	8,310	740	9.8	25	118	143
Electricians	6,740	7,600	860	12.8	66	336	402
Painters, Construction and Maintenance	7,950	9,210	1,260	15.8	101	235	336
Plumbers, Pipefitters, and Steamfitters	4,630	5,330	700	15.1	81	249	330
Metal Workers and Plastic Workers	19,460	20,800	1,340	6.9	0	1,024	1,024
Helpers - Construction Trades	120	130	10	8.3	35	169	204
Maintenance and Repair Workers, General	11,920	13,690	1,770	14.8	241	75	316
Welders, Cutters, Solderers, and Brazers	3,960	4,640	680	17.2	48	178	226
Plant and System Operators	2,030	2,380	350	17.2	36	104	140
Power Plant Operators	310	370	60	19.4	4	11	15
Architects, Surveyors, and Cartographers	1,420	1,670	250	17.6	56	135	191
Engineering Managers	1,370	1,600	230	16.8	43	170	213
Supervisors, Construction and Extraction Workers	10,990	12,380	1,390	12.6	95	216	311
Machinists	2,630	2,960	330	12.5	0	161	161
Source: California EDD, 2009c							

Table 5.11-9 Local Labor Pool by Craft – San Diego County

Occupational Title	Annual Average Employment		Employment Change		Average Annual Job Openings		
	2006	2016	Number	Percent	New Jobs	Net Replacements	Total
Construction Managers	5,840	6,560	720	12.3	72	91	163
Construction Workers	82,620	90,040	7,420	9.0	742	1,345	2,087
Carpenters	18,440	20,120	1,680	9.1	168	250	418
Cement Masons and Concrete Finishers	2,200	2,420	220	10.0	22	64	86
Construction Laborers	16,890	18,520	1,630	9.7	163	127	290
Paving, Surfacing, and Tamping Equipment Operators	350	380	30	8.6	3	7	10
Operating Engineers and Other Construction Equipment Operators	3,030	3,310	280	9.2	28	59	87
Drywall and Ceiling Tile Installers	4,530	4,930	400	8.8	40	62	102
Electricians	7,930	8,340	410	5.2	41	204	245
Painters, Construction and Maintenance	7,820	8,850	1,030	13.2	103	139	242
Plumbers, Pipefitters, and Steamfitters	6,170	6,590	420	6.8	42	127	169
Metal Workers and Plastic Workers	12,770	13,450	680	5.3	68	240	308
Helpers - Construction Trades	4,710	5,080	370	7.9	37	119	156
Maintenance and Repair Workers, General	11,830	13,020	1,190	10.1	119	29	148
Welders, Cutters, Solderers, and Brazers	2,060	2,390	330	16.0	33	44	77
Plant and System Operators	1,710	1,930	220	12.9	22	42	64
Power Plant Operators	100	120	20	20.0	2	3	5
Architects, Surveyors, and Cartographers	2,750	3,080	330	12.0	33	62	95
Engineering Managers	3,980	4,480	500	12.6	50	81	131
Supervisors, Construction and Extraction Workers	8,760	9,440	680	7.8	68	122	190
Machinists	3,560	3,870	310	8.7	31	55	86
Source: California EDD, 2009c							

Table 5.11-10 Local Labor Pool by Craft - Imperial County

Occupational Title	Annual Average Employment		Employment Change		Average Annual Job Openings		
	2006	2016	Number	Percent	New Jobs	Net Replacements	Total
Construction Managers	80	90	10	12.5	1	1	2
Construction Workers	2,210	2,580	370	16.7	37	36	73
Carpenters	130	150	20	15.4	2	2	4
Cement Masons and Concrete Finishers	160	190	30	18.8	3	5	8
Construction Laborers	720	860	140	19.4	14	5	19
Paving, Surfacing, and Tamping Equipment Operators	50	60	10	20.0	1	1	2
Operating Engineers and Other Construction Equipment Operators	250	290	40	16.0	4	5	9
Drywall and Ceiling Tile Installers	80	90	10	12.5	1	1	2
Electricians	250	300	50	20.0	5	7	12
Painters, Construction and Maintenance	90	100	10	11.1	1	2	3
Plumbers, Pipefitters, and Steamfitters	130	150	20	15.4	2	3	5
Metal Workers and Plastic Workers	210	230	20	9.5	2	4	6
Helpers - Construction Trades	100	110	10	10.0	1	3	4
Maintenance and Repair Workers, General	660	800	140	21.2	14	2	16
Welders, Cutters, Solderers, and Brazers	160	190	30	18.8	3	4	7
Plant and System Operators	340	430	90	26.5	9	9	18
Power Plant Operators	140	170	30	21.4	3	5	8
Architects, Surveyors, and Cartographers	40	50	10	25.0	1	1	2
Engineering Managers	60	70	10	16.7	1	1	2
Supervisors, Construction and Extraction Workers	200	240	40	20.0	4	3	7
Machinists*	n/a	n/a	n/a	n/a	n/a	n/a	n/a

* Information for Machinists not available for Imperial County.
Source: California EDD, 2009c

Table 5.11-11 Local Labor Pool by Craft – State of Arizona

Occupational Title	Annual Average Employment		Employment Change		Average Annual Job Openings		
	2006	2016	Number	Percent	New Jobs	Net Replacements	Total
Construction Managers	9,437	10,048	611	6.5%	61	146	207
Construction Workers	223,109	229,750	6,641	3.0%	699	3,611	4,310
Carpenters	75,437	76,235	798	1.1%	80	1,021	1,101
Cement Masons and Concrete Finishers	10,082	10,395	313	3.1%	31	292	323
Construction Laborers	38,390	40,080	1,690	4.4%	169	289	458
Paving, Surfacing, and Tamping Equipment Operators	1,888	1,985	97	5.1%	10	38	48
Operating Engineers and Other Construction Equipment Operators	14,438	15,565	1,127	7.8%	113	280	393
Drywall and Ceiling Tile Installers	7,255	7,174	-81	-1.1%	0	100	100
Electricians	9,873	10,650	777	7.9%	78	254	332
Painters, Construction and Maintenance	9,773	10,278	505	5.2%	51	174	225
Plumbers, Pipefitters, and Steamfitters	8,209	8,587	378	4.6%	38	169	207
Metal Workers and Plastic Workers	21,628	22,330	702	3.2%	135	424	559
Helpers - Construction Trades	12,078	12,375	297	2.5%	39	306	345
Maintenance and Repair Workers, General	27,515	31,579	4,064	14.8%	406	68	474
Welders, Cutters, Solderers, and Brazers	6,561	7,261	700	10.7%	70	139	209
Plant and System Operators	2,797	3,221	424	15.2%	47	66	113
Power Plant Operators	422	471	49	11.6%	5	15	20
Architects, Surveyors, and Cartographers	2,804	3,388	584	20.8%	58	70	128
Engineering Managers	5,422	6,166	744	13.7%	74	110	184
Supervisors, Construction and Extraction Workers	14,999	15,540	541	3.6%	54	210	264
Machinists	3,757	4,132	375	10.0%	38	58	96
Source: Bureau of Labor Statistics, 2009							

Table 5.11-12 Employment Data in the Study Area (April 2009)

Jurisdiction	Civilian Labor Force	Total Employment	Number Unemployed	Unemployment Rate	Median Household Income*
Riverside County	**923,000**	**805,100**	**117,900**	**12.8%**	**$55,881**
Blythe	7,100	6,100	1,100	15.2%	$36,883
Cathedral City	26,500	23,100	3,300	12.5%	$43,792
Coachella	12,400	9,900	2,500	20.0%	$35,797
Indio	27,600	23,800	3,800	13.8%	$47,708
La Quinta	14,900	13,900	1,000	6.7%	$72,452
Palm Desert	25,200	23,300	1,900	7.6%	$51,999
Palm Springs	26,500	23,900	2,600	10.0%	$43,615
Banning	11,800	10,000	1,700	14.6%	$40,073
San Diego County	**1,576,300**	**1,433,100**	**143,200**	**9.1%**	**$60,970**
Imperial County	**74,500**	**54,500**	**20,000**	**26.9%**	**$35,993**
San Bernardino County	**882,200**	**773,000**	**109,200**	**12.4%**	**$54,093**
California	**18,535,500**	**16,506,000**	**2,029,500**	**11.0%**	**55,361**
La Paz County	**7,562**	**6,987**	**575**	**7.6%**	**$28,973**
Ehrenberg	605	574	31	5.1%	$34,893**
Quartzsite	691	649	42	6.1%	$29,792**
Cibola	74	64	10	13.5%	$28,068**
Yuma County	**85,249**	**68,212**	**17,037**	**20.0%**	**$38,502**
Maricopa County	**1,999,025**	**1,865,468**	**133,557**	**6.7%**	**$53,549**
Arizona	**3,141,995**	**2,909,014**	**232,981**	**7.4%**	**$48,609**

* 2005-2007 Average
** 2000 Values converted into 2008 dollar values
Source: Arizona Workforce Enformer 2009; California EDD, 2009d; U.S. Census, 2008; U.S. Census 2000

5.11.2.6 Public Services and Utilities

This subsection describes public services and utilities in the Project area.

Law Enforcement

The Riverside County Sheriff's Department provides law enforcement and public safety services to the Project site, including linear facilities. These services include traffic control and neighborhood policing, emergency calls, and crime prevention. The Colorado River Station at 260 North Spring Street in Blythe provides service to the unincorporated area from Red Cloud Road on the west, to the Arizona State line on the east, and county line to county line on the north and south. Communities included in this service area are Desert Center, Eagle Mountain, East Blythe, Hayfield, Midland, Nicholls Warm Springs, Ripley, and the Colorado River. According to the Riverside County Sheriff's Department, the average response

time to the Project site depends on the severity of the incident and the location of the deputies on call, but response time is estimated at 10 to 30 minutes.

Fire Protection

Fire protection services would be provided by the Riverside County Fire Department (RCFD). The RCFD provides a full range of services including, municipal and wildland fire protection and prevention services, pre-hospital emergency medical services including paramedics to contract cities and unincorporated areas, hazardous materials response, and technical rescue services. As of 2006, the RCFD had 1,150 career California Department of Forestry and Fire Protection (CAL FIRE) and Riverside County personnel and about 1,100 firefighters in 65 volunteer fire companies.

The RCFD division serving the Project site and vicinity is the East Desert Division, which stretches from the lower Coachella Valley eastward, to the Arizona State line. There are two battalions, nine permanently staffed fire stations, and two all-volunteer fire stations. The closest station to the Project site is the Blythe Air Station 45, less than one mile from the Project site. This station is staffed and has one medic engine. The estimated response time to the Project site from Blythe Air Base Station 45 is less than five minutes.

Other nearby staffed stations are the Blythe Fire Station 43, the Riverbend Fire Station 46, Lost Lake Station 47 (volunteer only), and the Ripley Fire Station 44 (in nearby Ripley). Together these stations have three engines and two paramedic engines. Lost Lake and River Bend volunteer stations do not have engines. Fire stations can have a mix of State, county, contract city, or volunteer-staffed equipment. All are dispatched by CAL FIRE Riverside Unit/RCFD Emergency Command Center under the Integrated Fire Protection System.

In addition, a Project fire protection system would be designed to protect personnel and limit property loss and plant downtime in the event of a fire. The primary source of fire protection water would be the raw water storage tank located in each power block. An electric jockey pump and electric-motor-driven main fire pump would increase the water pressure in the plant fire main to the level required to serve all fire fighting systems. In addition, a back-up diesel engine-driven fire pump would pressurize the fire loop if the power supply to the electric motor-driven main fire pump fails.

Two fire departments in Arizona also service the Blythe area. The Ehrenberg Volunteer Fire Department, located at 49100 Ehrenberg Poston Highway in the town of Ehrenberg, currently has a Mutual Aid Agreement with the City of Blythe and provides fire protection services to the area when necessary. The estimated response time to the city of Blythe is approximately 10 minutes. This fire department retains two full-time personnel and seventeen volunteer firefighters. Fire protection equipment includes two engines, one water tender, two rescue trucks, one pumper, and one hazmat trailer. A new fire station is being constructed in Ehrenberg to better service the area, and is planned to open August 2009.

The second Arizona fire department that serves the Blythe area is the Quartzsite Fire & Rescue Department, located at 70 E. Tyson Street in the town of Quartzsite. Although Quartzsite Fire & Rescue Department does not have an official Mutual Aid Agreement with the City of Blythe, they do respond to fire emergencies in the Blythe area when necessary. The estimated response time to the City of Blythe is approximately 20 minutes. This fire department retains eight full-time firefighters and twelve on-call firefighters. Fire protection equipment includes two engines, two water tenders, and one rescue truck.

Hospitals

The nearest hospitals to the Project site are the Palo Verde Hospital approximately eight miles southeast in Blythe, the John F. Kennedy Memorial Hospital approximately 98 miles west in Indio, and the Desert Regional Medical Center approximately 120 miles west in Palm Springs. Desert Regional Medical Center is the closest trauma care center to the Project site and the only trauma center in the Coachella Valley. It

is a Level II trauma center and provides a full range of specialists and equipment available 24 hours a day. Palo Verde Hospital provides intensive care/critical care on site. The La Paz Medical Services family health clinic in Quartzsite, Arizona also accepts patients from the Blythe area. This clinic provides general medical services and treatments.

Table 5.11-13 provides a summary of the hospital services in the Project area.

Table 5.11-13 Hospitals Serving the Project Area

Hospital/Address	Available Services
Palo Verde Hospital 251 First Street Blythe, CA	Hospital, blood bank, computerized tomography scan, intensive care unit, labor/delivery/recovery rooms, magnetic resonance imaging, nuclear medicine, outpatient services, ultrasound
La Paz Medical Services 150 E. Tyson Street Quartzsite, AZ	General medical services and treatments
John F. Kennedy Memorial Hospital 47111 Monroe Street Indio, CA	Hospital, cardiac and vascular, healthgrades, orthopedic and arthritis institute, outpatient rehabilitation, women and children, emergency department, free physician referral and community education, emergency and express care
Desert Regional Medical Center 1150 N. Indian Canyon Drive Palm Springs, CA	Hospital, hematologists, pathologists, radiology, general surgeons, emergency medical and surgical service, anesthesiologists, physical therapists, obstetricians and gynecologists, rehabilitation services

Natural Gas and Electricity

Natural gas would be obtained by installing an underground distribution pipeline connecting to the existing Southern California Gas Company pipeline, which runs approximately 2 miles south of the Project site.

Water and Wastewater

The Project proposes to draw groundwater from area wells. The locations of the wells have not been established at this time. Each of the four power blocks would be connected to the ground water wells by underground water pipelines. Project water consumption (for all four units combined) is estimated to be approximately 600 acre-feet per year (afy), which would primarily be used to provide water for washing mirrors and to replace boiler feed water blow down. Groundwater would go through a treatment system for use as boiler make-up water and to wash the mirrors. To facilitate dust and contaminant removal, water from the primary desalination process (reverse osmosis water), would be used to spray clean the solar mirrors periodically. This operation is generally done at night and involves a water truck spraying treated water on the mirrors in a drive-by fashion. The treated water production facilities would be sized to accommodate the additional solar mirror washing demand of about 234 afy and is shown on the Figure 2-10, Water Balance Diagram. Rinsate from the washing operation is expected to evaporate on the mirror surface with no appreciable runoff. The only wastewater expected to be generated by the system would be treated and used for dust suppression. Water supply issues are discussed in Section 5-17, Water Resources.

Solid Waste

All operational wastes produced at the Project would be properly collected, treated (if necessary), and disposed of in a closed system. Wastes include process and sanitary wastewater, and liquid and solid nonhazardous waste and hazardous waste. Non-hazardous solid waste will consist primarily of construction and office wastes and evaporation pond sludge. These wastes will be trucked to the nearest Type II landfill. Non-hazardous liquid waste will consist primarily of domestic sewage waste; the Project is considering installation of a septic system and leach fields.

The Riverside County Waste Management Department operates seven landfills, seven transfer stations, and a grinding facility within the County. The nearest landfills that serve the Project site include the Blythe Landfill at 1000 Midland Road, which is approximately 10 miles away, and Desert Center Landfill at 17-991 Kaiser Road in Desert Center, which is approximately 60 miles away. The City of Blythe contracts with Palo Verde Valley Disposal for waste and recycling needs.

Schools

Educational institutions in close proximity to the Project area are operated by the Palo Verde Unified School District in Blythe, serving Blythe and other remote areas of Riverside County and the Desert Center Unified School District in Desert Center. Palo Verde is the closest district, approximately eight miles southeast of the Project site, and consists of three elementary schools, one middle school, one high school, and a continuation high school. Palo Verde Unified anticipates that enrollment will not deviate substantially for the duration of the Project schedule. The school district expects to have the necessary capacity to accommodate new students as a result of operation of the Project. The Desert Center District, approximately 35 miles west of the Project site, consists of one elementary school. Enrollment in both of these school districts have been declining in recent years and this trend is expected to continue. Tables 5.11-14 and 5.11-15 include the schools and enrollment in each of the respective districts.

Table 5.11-14 Summary of Schools and Enrollment in Palo Verde School District, 2006-2007

School Name	Community	Grades	Location	Students
Felix J. Appleby Elementary School	Blythe	K – 5	401 S. Third Street	527
Margaret White Elementary School	Blythe	K – 5	610 N. Broadway	666
Ruth Brown Elementary School	Blythe	K – 5	241 N. Seventh Street	652
Blythe Middle School	Blythe	6 – 8	825 N. Lovekin Boulevard	841
Palo Verde High School	Blythe	9 – 12	667 N. Lovekin Boulevard	952
Twin Palms Continuation	Blythe	9 – 12	190 North Fifth Street	97
Source: National Center for Education Statistics, 2009				

Table 5.11-15 Summary of Schools and Enrollment in Desert Center Unified School District, 2006-2007

School Name	Community	Grades	Location	Students
Eagle Mountain Elementary	Desert Center	K – 8	1434 Kaiser Road	16
Source: National Center for Education Statistics, 2009				

5.11.2.7 Fiscal Resources

A summary of Riverside County's expenses and revenues for the 2006-2007 fiscal year is provided in Table 5.11-16. As the Project is located in Riverside County, the County is the local agency with taxing power and the only county in the four-county study area that may experience direct impacts from the Project in the form of additional expenses or revenues (from taxes, permits, and other sources). The economic benefits of increased income and employment would result in indirect and induced revenue, and potential expenditures in the surrounding three counties; however, these impacts cannot be quantified by county as the distribution of the labor force among these counties is not known. For the fiscal year 2006-2007, tax revenue for Riverside County totaled approximately $2.6 billion, and expenditures totaled $2.4 billion. Riverside's key expenditures were on public assistance, public safety, and health. The County acknowledges that the economic slowdown may result in revenues lower than past projections which may lead to cutbacks in services.

Table 5.11-16 Riverside County Expenses and Revenues for FY 2006-2007

Expenses and Revenues	Amount (Dollars)	Percent
Expenses	$2,631,785,124	100%
General Government	$250,487,746	9.5%
Public Safety	$926,776,477	35.2%
Public Ways and Facilities	$141,184,903	5.4%
Health	$341,496,264	13.0%
Public Assistance	$699,149,630	26.6%
Education	$14,822,535	0.6%
Recreation & Cultural	$196,969	0.01%
Debt Services	$66,917,127	2.5%
Transfers Out	$763,400	0.03%
Revenue Sources	$2,441,795,051	100%
Special Benefit Assessment	--	--
Property Taxes	$497,145,065	20.4%
Other Taxes	$91,615,486	3.8%
Licenses, Permits, Franchises	$68,864,992	2.8%
Fines, Forfeitures and Penalties	$79,640,195	3.3%
From Use of Money and Property	$89,500,920	3.7%
From Other Governmental Agencies	$1,390,278,852	56.9%
Charges for Current Services	$378,872,690	15.5%
Miscellaneous Revenue	$34,321,717	1.4%
Other Financing Sources	$1,306,179	0.05%
Transfers In	$239,028	0.01%
Source: State of California County Controller, 2008		

5.11.3 Environmental Impacts

The following sections discuss the potential effects of Project construction and operation on the socioeconomic resources. The potential for environmental justice impacts is also assessed in this section.

5.11.3.1 Evaluation Methods and Significance Criteria

For the purposes of this evaluation, local socioeconomic impacts were determined by comparing Project demands during construction and operation with the socioeconomic resources of the four-county study area. The primary criteria used to determine the significance of Project-related socioeconomic impacts are those suggested in the CEQA guidelines. Project-related impacts would be considered significant if they:

- Induce substantial growth or concentration of population;
- Displace a substantial number of people or existing housing;
- Cause a substantial decrease in employment or property values;
- Result in the substantial addition of students into an impacted school;
- Cause a substantial increase in the demand for public services that would affect local agencies' ability to provide public services; or
- Cause substantial disruption or division of the physical arrangement of an established community.

Project socioeconomic impacts could also be considered significant if they were to cause substantial change in community interaction patterns, social organization, social structures, or social institutions; cause substantial conflict within community attitudes, values, or perceptions; or cause substantial inequities in the distribution of Project costs and benefits.

5.11.3.2 Construction

The following subsections describe the potential construction phase impacts of the Project on population, housing, employment, public services, utilities, schools, and the economic base and fiscal resources of Riverside County and/or the four-county study area, where appropriate.

Project Work Force and Population

Project construction is expected to occur over a total of 69 months. Including solar field facilities as well as plant site facilities, Project construction would require an average of 604 employees per day over the entire 69-month construction period with manpower requirements peaking at approximately 1,004 workers in Month 16 of construction (see Table 5.11-17).

According to an Electric Power Research Institute report titled Socioeconomic Impacts of Power Plants, construction workers will commute as much as two hours to construction sites from their homes, rather than relocate. Table 5.11-17 illustrates the type of construction labor required by the Project and Table 5.11-8, Table 5.11-9, Table 5.11-10, and Table 5.11-11 show available construction labor in Riverside County, San Bernardino County, San Diego County, Imperial County, and Arizona state. The primary trades required for construction of the proposed Project will include pipefitters, skilled and unskilled laborers, electricians, carpenters, cement finishers, equipment operators, ironworkers, and truck drivers. The proposed Project would be expected to draw from the entire construction workforce in the region, not merely those workers that are available within the immediate area.

Even at the peak of construction (1,004 workers), the availability of over 201,000 construction workers in Riverside, San Bernardino, San Diego, and Imperial counties and over 115,000 in Riverside and San Bernardino counties alone, plus additional construction workers in parts of western Arizona would be more than sufficient to meet the Project employment needs; the Project would require approximately 0.5 percent of the available workforce. Therefore, Project construction labor demand would not significantly affect the availability of construction labor in the region.

With the exception of some specialized trades involving a limited number of workers, it is anticipated that the Project construction workforce would be drawn from the regional area (i.e., Riverside County, San Bernardino County, San Diego County, and Imperial County). Therefore, Project construction labor demand would not significantly affect the availability of construction labor in the region.

Population

As noted above, it is anticipated that the vast majority of the construction workforce (a peak workforce of 1,004 workers and an average of 604 workers per day over the 69-month duration of Project construction) would commute to the Project site rather than relocate. Thus, impacts to population are expected to be minimal, and the Project would not induce substantial growth. Additionally, the Project is located in a remote, uninhabited area, and would not displace existing populations.

Housing

As described above, it is assumed that few, if any, construction workers would permanently relocate to the communities near the Project site during the proposed Project construction phase. This is because construction workers typically commute relatively long distances to their work sites, which change over time. Should some construction workers choose to stay temporarily at a local area motel or hotel, there is ample transient housing. There are about 630 hotel/motel rooms and suites among 11 different establishments in the area surrounding Blythe, with extensive additional temporary housing available in the communities within two hours of the proposed Project site. Additional housing opportunities are available in the form of RV and mobile home sites. Should a portion of the workers relocate to the area for the duration of their construction assignments, impacts to available housing and population would be minor, as the residential vacancy rate is slightly over 16 percent in Blythe.

Because the Project construction workforce largely will commute to the area rather than relocate, increased demand on the local housing supply is expected to be negligible.

Economy and Employment

Project construction would create a temporary, positive impact on the local economic base and fiscal resources. Construction employment wages and salaries would provide additional income to the area, as would expenditures within the four-county study area for construction materials and services. The Project construction payroll has been estimated at approximately $406 million over 69 months ($70.6 million estimated annually). Capital expenditures and local spending on construction materials and equipment within the four-county study area are estimated to total approximately $60 million over 69 months ($10.4 million estimated annually).

Table 5.11-17 Blythe Solar Project Construction Workforce by Skill (Monthly)

Trade or Skill	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32	M33	M34	M35
Surveyor	4	15	11	13	16	16	14	12	10	9	10	12	15	19	12	16	13	8	9	10	9	10	12	9	20	20	8	11	6	6	6	8	6	7	9
Operator	29	93	95	112	114	152	114	86	87	87	107	109	112	107	75	94	81	65	77	105	88	75	76	54	127	105	50	73	61	55	48	56	47	52	55
Laborer	23	65	56	66	71	266	217	198	233	226	250	250	271	256	177	229	204	153	171	202	147	138	136	88	190	185	85	124	141	118	76	93	82	90	97
Truck Driver	18	23	22	29	31	43	38	25	24	23	33	34	31	30	23	28	23	20	26	35	27	20	22	16	42	34	13	19	17	16	15	20	14	15	16
Oiler	1	5	4	4	5	5	4	4	4	4	4	4	5	5	3	4	4	3	3	3	3	3	4	3	6	7	3	4	3	3	2	3	2	2	3
Carpenter	0	7	10	12	23	85	90	90	90	90	77	77	77	77	77	77	77	77	77	77	77	77	77	77	68	68	68	68	68	68	68	68	68	68	68
Boilermaker	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	0
Paving Crew	0	0	0	13	15	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0
Pipe Fitter	0	1	3	4	4	4	32	50	100	100	127	131	137	223	279	290	259	229	183	95	100	100	127	131	137	223	279	290	259	229	183	95	100	100	127
Electrician	0	5	5	7	8	16	16	21	27	41	41	41	77	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
Cement Finisher	0	4	7	8	11	17	17	40	70	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	70	70	70	54	54	54	54	54	54	54
Ironworker	0	0	8	9	17	20	20	20	25	28	28	28	42	50	50	42	30	20	20	20	25	28	28	28	42	50	50	42	30	20	20	20	25	28	28
Millwright	0	0	0	0	0	0	0	0	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Tradesman	0	19	34	40	45	66	43	34	26	23	11	4	6	8	6	8	8	4	8	26	25	24	22	8	8	8	8	8	8	8	8	8	8	8	8
Project Manager	2	2	2	2	2	3	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	3	2	2	2	2	2	2	2	2	2	2
Construction Manager	2	2	2	2	2	3	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	3	2	2	2	2	2	2	2	2	2	2
PM Assistant	2	2	2	2	2	3	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	3	2	2	2	2	2	2	2	2	2	2
Support	2	2	2	2	2	3	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	3	2	2	2	2	2	2	2	2	2	2
Support Assistant	2	2	2	2	2	3	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	3	2	2	2	2	2	2	2	2	2	2
Engineer	7	7	6	7	7	8	7	7	7	7	8	7	7	7	6	7	7	7	7	7	7	7	8	6	8	7	5	7	7	7	7	7	7	7	7
Timekeeper	2	2	2	2	2	3	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	3	2	2	2	2	2	2	2	2	2	2
Administrator	4	4	4	5	4	5	5	5	5	4	5	5	5	4	4	5	5	5	5	5	5	5	5	4	5	4	3	5	4	5	5	5	4	5	5
Welder	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	101	261	277	344	386	720	633	607	741	752	815	814	905	980	913	1004	913	793	788	788	714	688	719	623	864	902	759	843	770	701	606	550	530	550	590

Trade or Skill	M36	M37	M38	M39	M40	M41	M42	M43	M44	M45	M46	M47	M48	M49	M50	M51	M52	M53	M54	M55	M56	M57	M58	M59	M60	M61	M62	M63	M64	M65	M66	M67	M68	M69
Surveyor	10	17	17	8	8	6	6	6	6	7	7	7	7	12	10	4	4	4	0	0	0	0	0	0	0	0	0	3	3	3	3	2	0	0
Operator	56	101	98	63	52	44	46	48	46	52	51	49	49	63	38	19	20	18	6	5	4	5	5	5	5	5	5	9	10	12	21	10	5	1
Laborer	101	192	194	110	84	69	72	76	72	82	87	86	86	117	90	54	39	39	19	17	15	17	17	16	16	17	16	23	26	27	30	24	23	3
Truck Driver	16	26	25	16	15	13	14	15	14	18	15	15	15	21	17	9	10	10	7	7	7	7	7	7	7	7	6	7	8	8	12	8	12	2
Oiler	3	5	6	3	2	2	2	2	2	2	2	2	2	4	3	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0
Carpenter	68	68	68	68	68	68	68	68	68	59	59	59	59	59	59	59	59	59	50	50	50	50	50	50	50	50	40	10	10	10	5	5	0	0
Boilermaker	0	0	0	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0
Paving Crew	0	8	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipe Fitter	131	137	223	279	290	259	229	183	95	100	100	127	131	137	223	279	290	259	229	183	95	100	63	45	45	30	30	21	21	10	10	8	0	0
Electrician	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	76	76	60	60	50	50	40	10	10	10	10	8	8	1	0	0
Cement Finisher	54	54	54	54	54	69	78	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	70	70	70	55	0	0	0	0	0	0	0
Ironworker	28	42	50	50	42	30	20	20	20	25	28	28	28	42	50	50	42	30	30	10	10	8	8	8	8	6	6	4	4	4	4	0	0	0
Millwright	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	15	15	10	9	9	8	8	8	8	8	8	0	0	0
Tradesman	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	0	0	0	0	0	0	0	0
Project Manager	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	0
Construction Manager	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	0
PM Assistant	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	0
Support	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	0
Support Assistant	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	0
Engineer	7	8	6	6	7	7	7	7	7	7	7	7	7	8	6	6	7	7	7	7	7	7	7	7	7	7	6	6	7	7	8	7	7	1
Timekeeper	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	0
Administrator	4	5	4	4	5	4	5	5	5	5	5	5	5	5	4	4	4	4	5	5	4	5	5	5	5	5	4	4	4	5	5	5	5	0
Welder	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
Total	599	785	866	779	749	691	668	641	545	568	572	594	598	686	708	692	686	640	559	490	378	385	333	293	283	237	199	118	126	118	130	84	67	8

Project construction is expected to directly create an average of 604 annual full-time employees over 69 months, with a peak monthly employment of 1,004 full-time employees. This direct employment will create both indirect and induced secondary employment in the region. Indirect employment is defined as employment that will be generated by the purchase of goods and services required by the project. Induced employment is defined as employment that will be generated by the purchase of goods and services by businesses that are indirectly supported by the project.

An input-output model (IMPLAN Professional) was used to estimate economic impacts within Riverside, San Bernardino, San Diego, Imperial, La Paz, Yuma, and Maricopa counties based on the project construction-phase expenditures that would benefit the local economies.[2] For the purpose of the input-output model, the following Project expenditures (rounded values) were assumed to be the Project expenditures that would benefit the local economies: 1) estimated annual payroll ($70.6 million); and 2) estimated annual local capital expenditures and materials ($10.4 million).

Based on the assumption stated above, the total estimated annual beneficial economic impacts from the 69-month construction phase within Riverside, San Bernardino, San Diego, Imperial, La Paz, Yuma, and Maricopa counties would be as follows (rounded values):

- Direct economic output: $67,000,000
- Indirect economic output: $15,000,000
- Induced economic output: $14,000,000
- Total impact: $96,000,000

The top 10 industries that would benefit the most in terms of economic output impacts include: rental housing, whole trade businesses, real estate establishments, physicians and other medical professionals, food service, private hospitals, architectural and engineering services, insurance carriers, banks, and telecommunications.

Also, using the assumptions above during the construction phase, the Project's estimated annual employment creation within the study area would be as follows:[3]

- Direct (Project) employment: 604
- Indirect employment: 309

[2] IMPLAN is an economic impact modeling tool that uses region-specific input/output accounts by industry to estimate secondary impacts of economic stimuli. Secondary impacts include 1) indirect impacts that occur due to the purchase of goods and services by firms involved with Project construction and operation, and 2) induced impacts, which result from household spending. Secondary impacts can occur in the form of employment, income, output, and taxes. Social Accounting Matrices (SAM) multipliers were used for the impact analysis. SAM multipliers are recommended by the writers of the IMPLAN software because an induced effect estimate using a SAM multiplier is based on information in the social account matrix, which accounts for social security and income tax leakage, institution savings, and commuting. The multipliers for the Project impact analyses were derived by editing the specific industry data for the four-county study area in the IMPLAN input/output relationships to represent the direct economic impacts associated with the Project (e.g., estimated annual construction cost and annual operation cost). IMPLAN sector 36, "Construction of other new non-residential structures," is the IMPLAN sector recommended by the software to correspond closest to the North American Industry Classification System code 21, which is used for "Power plants, new construction." All figures are in 2009 dollars.

[3] Employment impacts are rounded to the closest whole number. Thus, some error has been introduced due to rounding.

- Induced employment: 209
- Total employment creation: 1,095

This additional employment would result from the Project's local construction expenditures as well as from spending by local construction workers. This indirect and induced employment is expected to be filled both locally and regionally, and would result in positive economic impacts.

Public Services

No significant impacts to local public services are expected during construction. Current law enforcement, fire, and medical service capacity should be sufficient to handle emergencies at the site. Communication equipment will be available on site at all times to contact first responders if emergencies arise.

The Project would rely on both onsite security systems and county (e.g., County of Riverside) law enforcement protection services during construction. Site guards will be trained, uniformed, unarmed personnel. Their primary responsibility would be to control egress and exit of personnel and vehicles, perform fire and security watch during off hours, and perform security badge administration. A Project-wide photo security badge system for all construction and operations personnel would be used to control security. Guardhouses would be constructed at strategic points such as the main entrance gate for delivery vehicles, and at the construction pedestrian entry point adjacent to the parking area. The perimeter of the Project site area would be fenced with an eight-foot-high security fence, designed to a consulting biologist's specifications to keep the desert tortoise outside of the facility.

The Project would rely on both onsite fire protection systems and county (e.g., County of Riverside) fire protection services during construction. A Construction Fire Protection and Prevention Plan would be developed and followed throughout all phases of construction. During construction, the permanent facility fire suppression system, as described elsewhere in this Application for Certification (AFC), would be placed in service as early as practicable. Prior to installation of the permanent facilities, fire extinguishers, and other portable firefighting equipment would be available on site. Construction fire prevention regulations in Title 8 CCR Section 1920 et seq. would be followed, as necessary, to prevent construction fires. As a result, no significant adverse impacts would be expected on the RCFD.

Health and safety programs designed to mitigate hazards and comply with applicable LORS will be developed and implemented to protect worker health and safety during Project construction.

Utilities

Although minimal or no population impacts are expected, there would be some demands on utility services during construction as a result of onsite activities. Project construction would require potable water and electrical utility supplies, and would generate wastewater and solid waste. Portable generators would be available at the site for electrical service, but water would be trucked in and/or obtained from onsite wells. Sanitary wastes generated during construction would be collected in portable, self-contained toilets and hauled to an appropriate disposal site. No significant impacts would be expected.

Schools

Construction of the Project is expected to have an insignificant local and regional impact on schools. A large proportion of the Project construction workforce would be expected to commute to the site daily. Further, construction workers who relocate temporarily for a work assignment typically do not bring their families with them. Finally, the nearest school to the Project site is approximately eight miles away and school activities would not be affected by Project construction activities (e.g., equipment noise, fugitive dust, etc.).

Fiscal Resources

Annual expenditures within the four-county study area on construction materials, supplies, and equipment are estimated to total $10.4 million. In the event that all purchases are made within Riverside County, which has a tax rate of 8.75 percent, these expenditures would generate approximately $910,000 in annual sales tax revenue. The 8.75 percent Riverside County sales tax is divided into 7.25 percent for the State of California; 0.75 for Riverside County operations, 0.25 percent to the Riverside County transportation fund, and 0.5 percent for the Riverside County Transportation Commission. Based on estimated annual expenditures of $10.4 million within Riverside County, the annual sales tax generated for the State is estimated at $754,000; Riverside County operations would receive approximately $78,000 per year; County Transportation Fund sales tax revenues are estimated at approximately $26,000 per year; and the Riverside County Transportation Commission would receive an estimated $52,000 annually for the construction period.

5.11.3.3 Operation

The following subsections describe the potential impacts of Project operations on socioeconomic conditions and resources in Riverside County and the four-county study area, when applicable.

Project Workforce Population

The Project is expected to employ a total of 221 workers during operation when Units #1 through #4 are all in operation. Some of the Project operations employment may involve relocation to the area for workers with specialized technical or managerial skills. Given the modest size of the Project workforce and the likelihood that some of these workers already would be residents of the local area (assumed to be approximately 75 percent of the total operational workforce), Project population impacts would be less than significant.

Housing

Operation of the Project is expected to have a less than significant impact on housing because of the small number of workers needed for operation of the plant and the availability of local housing (e.g., 2008 vacancy rates of 13.2 percent in Riverside County). The Project would be constructed in a rural area and would not physically alter any residential or commercial community. Because the Project site location is away from residences and the Project-related population increase is expected to be minimal, no substantial change is expected in community interaction patterns, social organization, social structures, or social institutions.

Employment

As stated above, 221 full-time annual employees would be needed to operate and maintain the Project, including general staff and administrative support, solar field maintenance staff, and power plant maintenance and operation staff. These employees include various technicians, skilled personnel, operators, and engineers. It is estimated that 75 percent of the 221 employees will be hired locally with the remainder of the employees coming from outside the local area.

An input-output model (IMPLAN Professional) was used to estimate economic impacts within Riverside, San Bernardino, San Diego, Imperial, La Paz, Yuma, and Maricopa counties based on operation-phase project expenditures that would benefit the local economies.[4] For the purpose of the input-output model,

[4] IMPLAN sector 31, "Electric power generation, transmission, and distribution," is the IMPLAN sector recommended by the software to correspond closest to the North American Industry Classification System code 221119, which is used for, "Electric power generation: solar."

the annual expenditures of the project were assumed to be $9.6 million for materials, equipment, and supplies, and $9.4 million in payroll annually. These figures were used as inputs into the model to predict economic and employment impacts.

Based on the assumption above, the annual estimated economic impacts from the operation of the Project within the study area would be as follows (rounded values):

- Direct economic output: $17,000,000
- Indirect economic output: $5,000,000
- Induced economic output: $4,000,000
- Total impact: $26, 000,000

Also, using the assumptions above, during the operations phase, the Project's estimated annual employment creation within the study area would be as follows[5]:

- Direct (Project) employment: 221
- Indirect employment: 71
- Induced employment: 68
- Total employment creation: 360

Public Services

Project operation would slightly increase demands on local police, fire, medical, and other emergency services. Population immigration is expected to be small and one additional industrial facility (the proposed Project) with a modest size workforce would not be expected to have a significant adverse impact on demand relative to the capacity of most local public services. Additionally, the services provided by the Riverside County Sheriff's Department and Fire Department could be enhanced by emergency services in Blythe, Ehrenberg, and Quartzsite, if requested.

Many of the workplace health and safety programs for Project operations will be similar to those developed for Project construction activities. Therefore, many of the construction programs and plans will be revised so they are appropriate for routine operations activities, and the Project health and safety programs will transition from the construction phase into the operations phase as the overall Project makes the transition between phases.

Fire protection at the Project site during Project operations will include measures relating to safeguarding human life, preventing personnel injury, preservation of property, and minimizing downtime due to fire or explosion. Fire protection measures will include fire prevention methods to prevent the inception of fires. Of concern are adequate exits, fire safe construction, reduction of ignition sources, control of fuel sources, and proper maintenance of fire water supply and sprinkler systems.

Utilities

The Project will be dry-cooled and would utilize site groundwater for make-up water and thus would have no impact on local water utilities. Project sanitary wastes would be disposed of by an onsite septic

[5] Employment impacts are rounded to the closest whole number. Thus, some error has been introduced due to rounding.

system and leach field and thus would have no impact on the availability of local wastewater treatment capacity.

The Project would utilize natural gas for start-up and during temporary cloud cover. A new pipeline would be constructed to connect the Project with an existing Southern California Gas gas line; Project impacts on natural gas supply/service would be less than significant. The Project also would require electrical power for operational activities during nighttime hours when the facility is not generating its own power; impacts on electrical supply/service would be less than significant and the Project, by its very nature, would represent a net gain in capacity.

Schools

Operation of the Project is expected to have a less than significant local and regional impact on schools because of the relatively small number of workers needed for operation of the plant (maximum of 221 employees). The Palo Verde Unified School District requires new industrial development to pay impact fees at $0.47 per square foot for commercial and industrial development. With 246,800 square feet of floor space, it is estimated that the proposed Project would be required to pay a development impact of $116,000 to the Palo Verde Unified School District.

Fiscal Resources

At present, there is no property tax assessed on solar components (mirrors, solar boiler, heat exchangers) improvements by law (Section 73 of the California Taxation and Revenue Code). Other components included under the exemption include storage devices, power conditioning equipment, transfer equipment, and parts. The proposed Project property value is estimated at roughly $4 billion. After applying the California solar equipment property tax exemption, the taxable portion of the property value would be approximately $160 million. Based on the taxable portion of the property value the first operational year would generate an estimated $400,000 in annual property taxes. These taxes would be distributed among local agencies and programs in Riverside County, as outlined in Table 5.11-15. Fiscal impacts associated with operation of the Project are considered beneficial.

During operation, it is expected that the annual purchases for materials supplies, equipment, and services within the four-county study area would total approximately $9.6 million. In the event that all purchases are made within Riverside County, which has a tax rate of 8.75 percent, these expenditures would generate approximately $840,000 million in annual sales tax revenue. The 8.75 percent Riverside County sales tax is divided into 7.25 percent for the State of California; 0.75 for Riverside County operations, 0.25 percent to the Riverside County transportation fund, and 0.5 percent for the Riverside County Transportation Commission. Based on estimated annual expenditures of $9.6 million within Riverside County, the annual sales tax generated for the State is estimated at $696,000; Riverside County operations would receive approximately $72,000 per year; County Transportation Fund sales tax revenues are estimated at approximately $24,000 per year; and the Riverside County Transportation Commission would receive an estimated $48,000 annually for the operational period.

5.11.3.4 Environmental Justice

The purpose of this analysis, pursuant to Executive Order 12898, is to identify and address whether high and adverse human health or environmental effects are likely to fall disproportionately on minority and/or low-income populations of the community. The study area for the environmental justice analysis was delineated by a six-mile radius from the proposed Project site per CEC guidelines. The City of Blythe is on the extreme eastern edge of the study area, but is not directly within the six-mile radius.
The environmental justice analysis discusses the populations residing in census block groups 456.00.6, 458.00.4, and 459.00.1.

Table 5.11-18 presents the minority population composition of the study area, the nearby city of Blythe, and Riverside County as a whole.[6] Riverside County as a whole exhibits a proportion of minority residents of 49 percent, which is lower than the City of Blythe and block group 458.00.6, but higher than 459.00.1, which is at the eastern edge of the six-mile radius and closest to the City of Blythe. Block Group 458.00.4, which is located to the northeast of the proposed Project, has a very low population and a small percentage of minority residents.

Table 5.11-18 Environmental Justice Characteristics

Geographic Area (Census Block Group)	Total Population	Total Minority (Percentage Minority)	Median Household Income (1999)	Proportion of the Population Living Below the Poverty Level (Percentage Low-Income)
458.00.6	1,453	829 (57.1%)	$27,404	28.3%
458.00.4	115	14 (12.2%)	$28,684	0.0%
459.00.1	1,036	483 (46.6%)	$40,893	15.3%
Blythe	12,155	7,050 (58%)	$35,324	20.9%
Riverside County	1,545,387	756,556 (49%)	$42,887	14.2%
Source: U.S. Census, 2000				

Figure 5.12-2 shows the distribution of minority populations within a six-mile radius of the Project center. As shown, the radius encompasses parts of census block groups 458.00.6, 458.00.4, and 459.00.1. The total population of the three block groups within the six-mile radius is 2,604, of which 1,326 are classified as Black or African-American, American Indian (or Alaskan Native), Asian, Native Hawaiian (or other Pacific Islander, some other race (including two or more races), and/or Hispanic or Latino.

The 2000 census data reported that the median household income for Riverside County was $42,887. The median household income for Riverside County is higher than all of the three block groups within the six-mile radius of the Project site and the City of Blythe. Block group 459.00.1, which is located east of the Project on the western side of Blythe, has the highest median household income of the three block groups within the 6-mile radius. The block group in which the Project is situated, 458.00.6, has the lowest median household income at $27,404 and the highest proportion of residents below the poverty level (28.3 percent).

Pursuant to the directive, the EPA issued guidelines that require all Federal and State agencies receiving federal funds to develop strategies to address this issue. This analysis uses the Federal guidelines to analyze potential environmental justice impacts. Federal guidelines for addressing environmental justice include a two-step screening process to determine whether a project could result in disproportionate impacts on low-income and minority populations. The first step is to evaluate whether the potentially affected community or area includes minority and low-income populations. If it contains these population groups, the second step is to determine whether the environmental impacts fall disproportionately on minority and low-income members of the community. The CEC uses a 50 percent concentration of minorities or people with low-income as a cutoff to indicate that there is a potential issue in a given area.

[6] According to the U.S. Census Bureau, “Minority” is defined as all persons except non-Hispanic whites. In other words, minority is defined as all racial groups other than white, and all persons of Hispanic origin, regardless of race.

Based on the first step of the screening process described above, the Project could potentially affect minority populations in block group 458.00.6 as the proportion of minority residents exceeds 50 percent; however, it is less than the proportion of minority residents in the general population of the nearest community (Blythe). While the proportion of low-income residents does not exceed 50 percent in block group 458.00.6, the proportion of residents with low income is meaningfully greater than for the County as a whole and the nearby City of Blythe, and this block group is considered to have a concentration of low-income residents.

In the context of the siting of a fossil-fired power plant, the primary environmental justice issues typically would be potential air or water issues that could adversely affect the health of nearby populations. Other issues could be any potential residential or business displacements, and noise impacts on populations near the power plant or ancillary facilities. However, the BSPP would not result in significant air quality impacts or impacts to surrounding communities from emissions of toxic air contaminants. The Project would not involve wastewater discharges that could affect drinking water supplies or other water bodies. Because of the Project design, mitigation measures, and the absence of sensitive receptors nearby, there would be no significant noise impacts. The Project would not displace any homes or businesses. For the above reasons, the rural and remote character of the area, and the low population concentration of any sort near the Project site, the Project would not result in disproportionate adverse impacts on low-income and minority populations.

5.11.3.5 Cumulative Impacts

The potential for cumulative socioeconomic impacts exists where there are multiple projects proposed in an area that have overlapping construction schedules and/or project operations that could impact similar resources. Projects with overlapping construction schedules and/or operations collectively could result in a demand for labor that cannot be met by the Project area labor pool, which could lead to an influx of nonlocal workers and their dependents. This population increase could impact socioeconomic resources.

There are a substantial number of solar projects proposed along the I-10 corridor between roughly Desert Center and Blythe. Based on currently available data about these various projects (information gleaned from Plans of Development and other project documents), assuming all projects move forward, these projects would be under construction in the same general time frame as the BSPP (2011 to 2016). Not all of the proposed projects are expected to actually reach fruition. Also, the construction schedules of some or all of the projects may well change. However, this cumulative impacts discussion is based on the available data with respect to both construction schedules and labor requirements and conservatively assumes that all projects mover forward into construction. Using the average work force levels of the various projects, the largest demand on the regional construction labor supply and potential for cumulative socioeconomic impacts would occur in 2011 and 2012. In these years, there could be a total of approximately 4,000 workers employed at the various projects along the I-10 corridor. Based on the available data, this number would drop off to roughly 3,000 in 2013 and below 2,000 in 2014 and succeeding years (including operational employment at projects that have come on line).

As discussed earlier in this AFC section, the combined construction work force in the region (defined as Riverside, San Bernardino, Imperial, and San Diego Counties) is approximately 200,000. Thus, the cumulative impact of the various projects on construction labor in 2012 would represent approximately two percent of the total regional work force. Considering that this does not include any workers from the Los Angeles Basin or from within Arizona, this would not be a significant impact. However, there may be demand for specialized construction trades that exceeds the available regional supply for that specialty; it is assumed that these roles would be filled by workers who move into the region from elsewhere and that there would be no significant shortages of these skills when viewed from a broader geographic perspective.

The cumulative influx in construction labor to the area could create demand for temporary housing that is greater than the existing supply. There is the possibility that a few of the projects might choose to develop onsite facilities for their construction work forces. For example, the Eagle Crest Pumped Storage project near Desert Center is at the site of a mine that is no longer active but that has some existing housing that was developed for mine workers, and the Project documents indicated that the possible use of the onsite housing for the pumped storage project was being considered. It is assumed that few, if any, construction workers would permanently relocate to the communities during the construction of the projects where they are employed. This is because many construction workers choose to commute relatively long distances to their work sites.

The closest community to the Project is the City of Blythe, approximately eight miles to the southeast. There are about 630 hotel/motel rooms in the area surrounding Blythe. There is additional temporary housing in other communities within a two-hour commute of the Project site. Additional housing opportunities are available in the form of facilities such as RV parks. Finally, for workers that would choose to relocate to the area for a longer time period, the 2008 residential vacancy rate in Blythe was over 16 percent for a total of more than 5,400 housing units. Despite this relatively large supply of temporary housing, there conceivably could be the potential for cumulative adverse impacts on housing particularly in the Blythe area.

The influx of workers would be accompanied by an increase in economic activity from spending in local business establishments by these workers as well as spending in local businesses by the Projects themselves for construction materials and supplies, various kinds of services, etc. However, these same workers also would increase the demand for certain kinds of government services and infrastructure (e.g., police and fire services and medical facilities/services). There have been other instances of rapid growth in rural areas because of energy-related activities, notably the energy boom in the 1970s in states such as Wyoming. A number of communities, such as Rock Springs and Gillette, Wyoming, became known as "boomtowns," and the economic benefits were accompanied by some social changes that were not seen as positive. These included changes such as increases in the number of bars, higher crime rates, and perceived (by some) aesthetic degradation due to the rapid growth needed to accommodate the sudden increase in population. While the presence of communities, such as Indio and Coachella, within commuting range for construction workers means that circumstances are not the same as they were in the more isolated Wyoming boomtowns 35 years ago, there may be some potential for temporary impacts in the Blythe area, particularly if the possibility is unanticipated.,

In summary, there would appear to be the potential for some cumulative temporary adverse socioeconomic impacts in the Blythe area from construction of the various projects. Available data suggests that such impacts would be greatest in 2011 and 2012, and would taper off in 2013 and succeeding years. During the same time frame that the potential for adverse impacts exists, there also would be an economic stimulus to the Blythe area to at least partly offset the adverse impacts. The BSPP would represent less than 15 percent of the total temporary population increase in 2011 and 2012. Thus, the Project's contribution to the cumulative impacts would be less than considerable.

5.11.4 Mitigation Measures

No significant adverse socioeconomic impacts have been identified. For this reason, no mitigation measures are needed and none are proposed.

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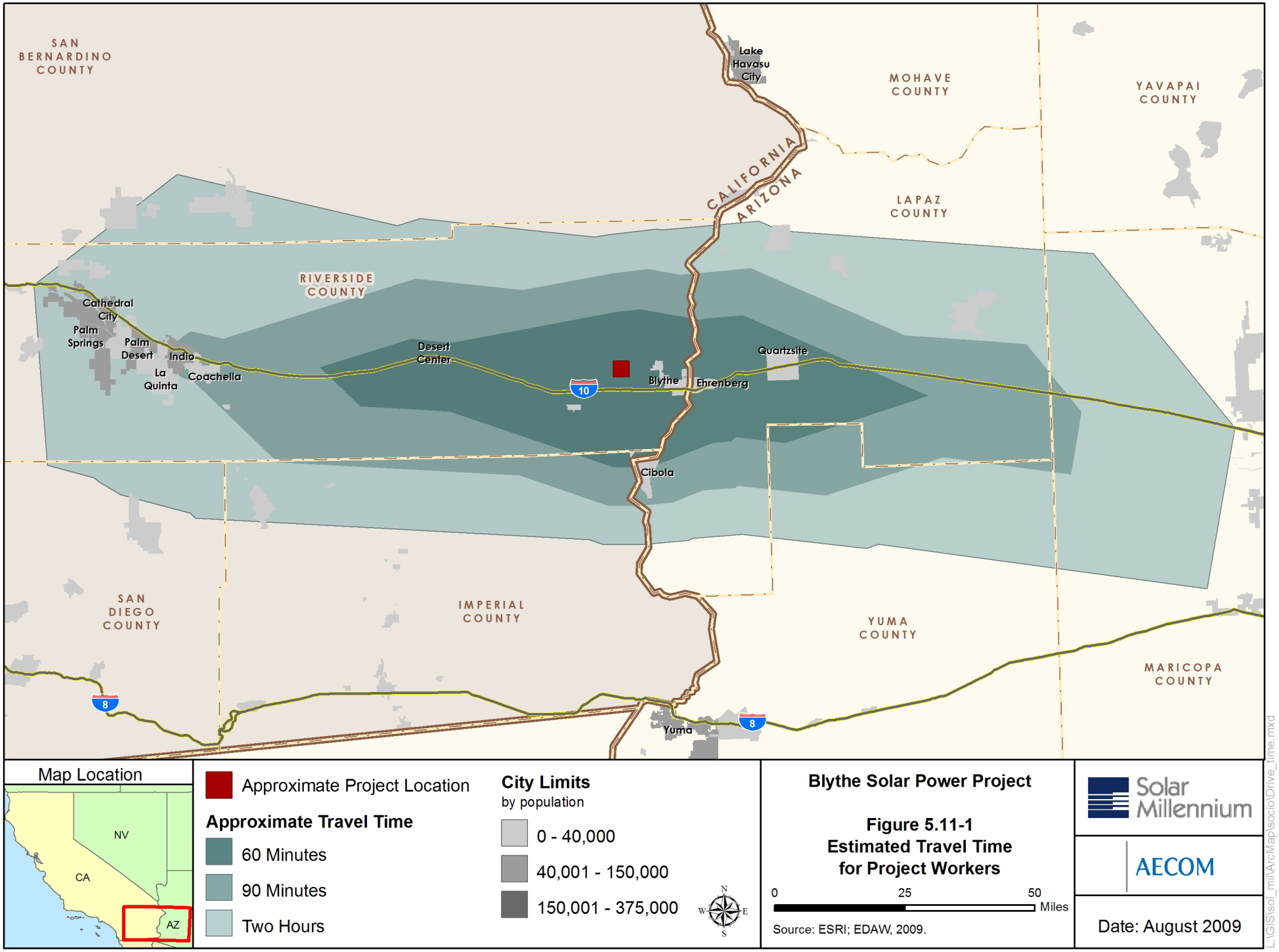
SAN BERNARDINO COUNTY
Lake Havasu City
MOHAVE COUNTY
YAVAPAI COUNTY
CALIFORNIA
ARIZONA
LAPAZ COUNTY
RIVERSIDE COUNTY
Cathedral City
Palm Springs
Palm Desert
Indio
La Quinta
Coachella
Desert Center
10
Blythe
Ehrenberg
Quartzsite
Cibola
SAN DIEGO COUNTY
IMPERIAL COUNTY
YUMA COUNTY
MARICOPA COUNTY
8
Yuma
Map Location
NV
CA
AZ
Approximate Project Location
Approximate Travel Time
60 Minutes
90 Minutes
Two Hours
City Limits
by population
0 - 40,000
40,001 - 150,000
150,001 - 375,000
N
W
E
S
Blythe Solar Power Project
Figure 5.11-1
Estimated Travel Time
for Project Workers
0
25
50
Miles
Source: ESRI; EDAW, 2009.
Solar Millennium
AECOM
Date: August 2009
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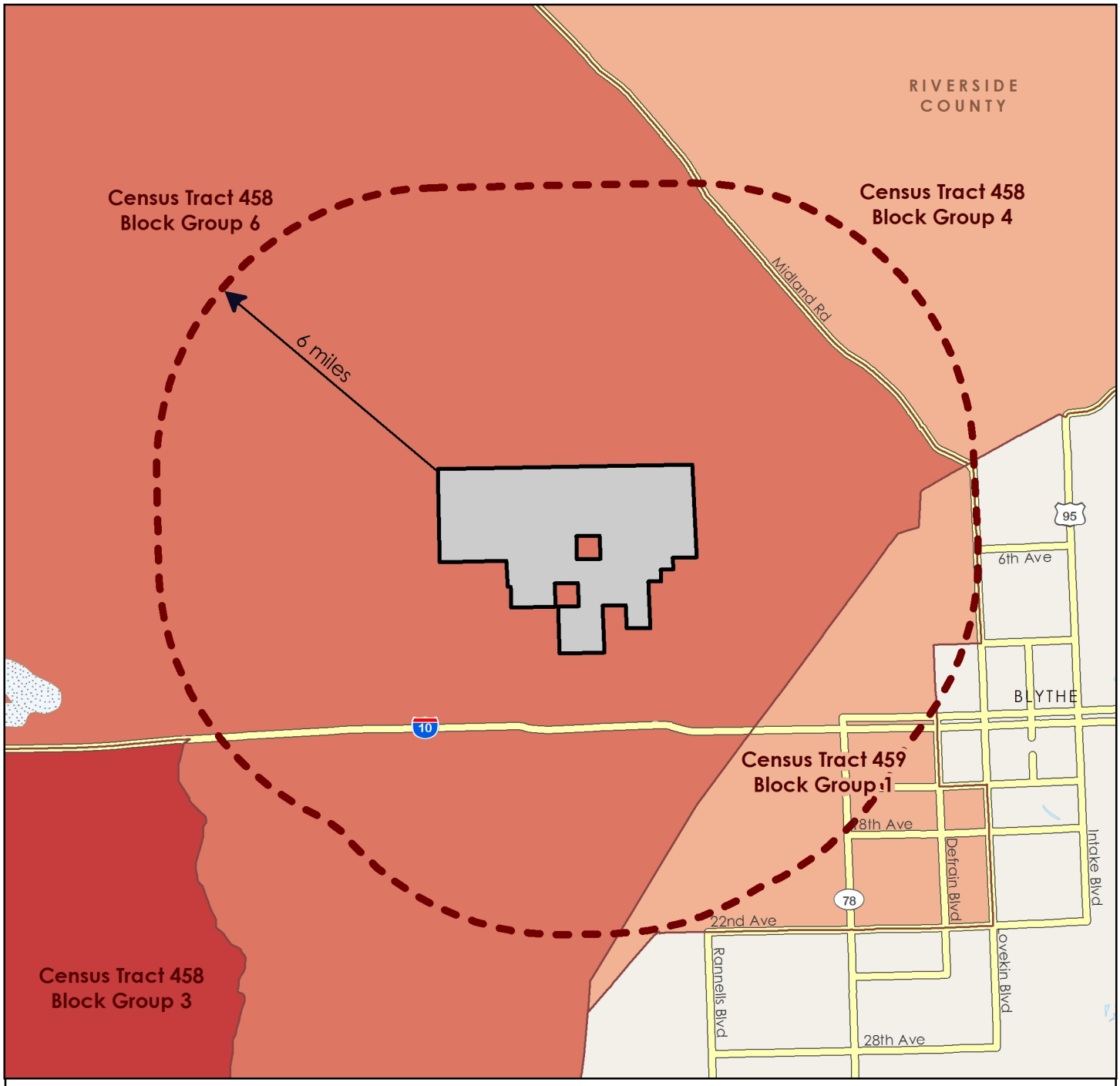

Project Right-of-Way

Percent Minority
by block group

- 19-33%
- 37-38%
- 58%
- 77-78%

Map Location

Source: US Census, 2000; EDAW, 2009.

0 2.5 5 Miles

N W E S

Blythe Solar Power Project

Figure 5.11-2
Percent Minority Population

Solar Millennium

AECOM

Date: August 2009

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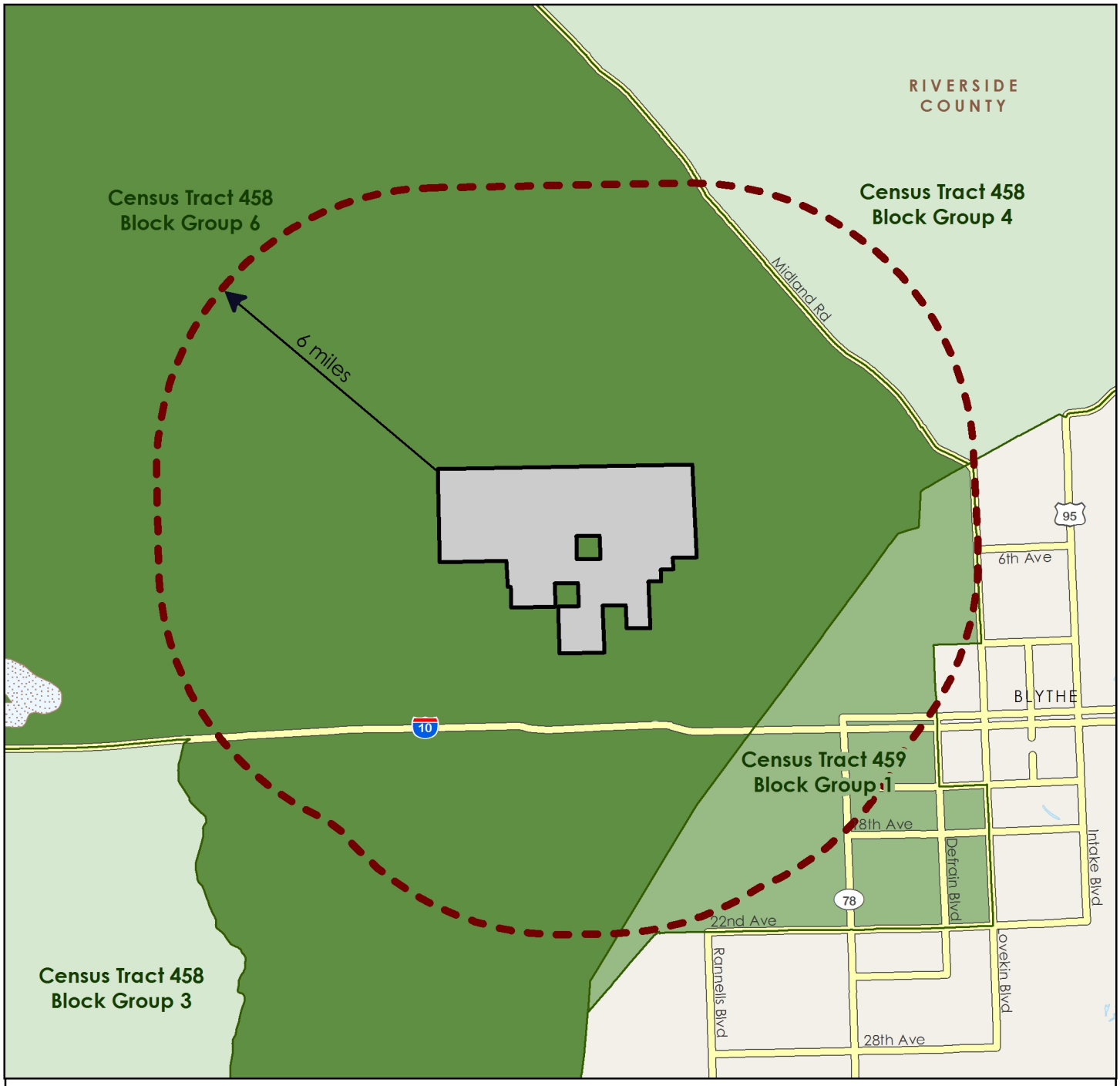

Project Right-of-Way

Percent Population Below Poverty Line
by block group

- 7-19%
- 28%
- 44%
- Data Not Available

Map Location

Source: US Census, 2000; EDAW, 2009.

0 2.5 5 Miles

Blythe Solar Power Project

Figure 5.11-3
Percent Population Below Poverty Line

Solar Millennium

AECOM

Date: August 2009

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