

## 8.8 Socioeconomics

### 8.8.1 Introduction

The Eastshore Energy Center (Eastshore) will be a nominal 115.5-megawatt (MW) intermediate/peaking load facility operating up to 4,000 hours per year using natural gas-fired reciprocating engine technology. The Eastshore facility will be located at 25101 Clawiter Road in the City of Hayward, Alameda County, California, on a 6.22 acre parcel owned by Eastshore Energy, LLC, the project owner. Major features of the Eastshore project include the following:

- Demolition of the existing site building, foundations and paved surface,
- Grading of site and installation of new foundations, piping and utility connections,
- Fourteen (14) nominal 8.4 MW (gross) Wartsila model 20V34SG natural gas-fired reciprocating engine – generator sets,
- Fourteen (14) state-of-the-art air pollution control systems representing Best Available Control Technology (BACT), one system per each of the 14 engines, consisting of a selective catalytic reduction (SCR) unit for oxides of nitrogen (NO<sub>x</sub>) control and an oxidation catalyst unit for carbon monoxide (CO) and precursor organic compounds (POC) control,
- Fourteen (14) approximately 70-foot tall stacks, each with a separate continuous emissions monitoring system (CEMS),
- Acoustically-engineered main building enclosing all 14 engines,
- Closed loop cooling system consisting of multiple fan-cooled radiator assemblies outside of the main engine building,
- Two 10,000 gallon (each) aqueous (19% by weight) ammonia storage tanks and handling system serving the SCR units,
- One raw water storage tank, approximately 35,000 gallons,
- One nominal 225-kW diesel-fired emergency black start generator,
- One (1) either electric or 7.15 MMBtu/hr natural gas-fired heater (BAAQMD exempt), used for heating of the natural gas fuel to the reciprocating engines,
- Miscellaneous ancillary equipment,
- Pre-existing onsite water and wastewater service interconnections,
- Onsite 115 kV switchyard including switchgear and step-up voltage transformers,
- Approximately 1.1-mile 115 kV single-circuit transmission line interconnecting to PG&E's Eastshore Substation,
- Approximately 200-foot offsite natural gas line connection to PG&E Line 153,

- Chain-link security fencing enclosing the facility with a secured entrance on Clawiter Road, and
- 4.65-acre temporary construction laydown and parking area located immediately across Clawiter Road from the Eastshore site.

This section discusses the environmental setting, consequences, regional and local impacts, and mitigation measures associated with the socioeconomic aspects of Eastshore. Section 8.8.2 presents the laws, ordinances, regulations, and standards (LORS) applicable to socioeconomics. Section 8.8.3 describes the environment that might be affected by Eastshore construction and operation. Section 8.8.4 identifies environmental impacts from development of the power plant, and Section 8.8.5 discusses cumulative impacts. Environmental justice (EJ) issues are discussed in Section 8.8.6. Mitigation measures are discussed in Section 8.8.7. Section 8.8.8 lists the agencies involved and their contact information. Section 8.8.9 presents the required permits and permitting schedule. Section 8.8.10 provides a list of references used to prepare this section.

For this project, the region of influence is Alameda County.

## 8.8.2 Laws, Ordinances, Regulations, and Standards

### 8.8.2.1 Federal

A summary of the LORS, including the project’s conformance to them, is presented in Table 8.8-1.

Civil Rights Act of 1964, Public Law 88-352, 78 Stat. 241 (codified as amended in various sections of 42 U.S.C.), Title VI 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.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires the United States Environmental Protection Agency (EPA) and other federal agencies to identify and address any adverse human health or environmental effects that could disproportionately affect minority and low-income members of the community. This executive order applies only to federal agencies, and not agencies receiving federal funds.

### 8.8.2.2 State

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

TABLE 8.8-1  
Laws, Ordinances, Regulations, and Standards Applicable to Eastshore Socioeconomics

LORS	Purpose	Applicability	Conformance
<b>Federal</b>			
Civil Rights Act of 1964	Prohibits discrimination on the basis of race, color, or national origin.	Applies to all federal agencies and agencies receiving federal funds.	Section 8.8.6

TABLE 8.8-1  
Laws, Ordinances, Regulations, and Standards Applicable to Eastshore Socioeconomics

LORS	Purpose	Applicability	Conformance
Executive Order 12898	Addresses disproportionate impacts on minority and low-income members of the community.	Applies only to federal agencies. Does not apply to agencies receiving federal funds.	Section 8.8.6
<b>State</b>			
Government Code Sections 65996 and 65997	Establishes that the levy of a fee for construction of an industrial facility be considered as mitigating impacts on school facilities.	Hayward Unified School District charges a one-time assessment fee to mitigate potential school impacts.	Section 8.8.7
Education Code Section 17620	Allows a school district to levy a fee against any construction within the boundaries of the district for the purpose of funding construction of school facilities.	Hayward Unified School District charges a one-time assessment fee to mitigate potential school impacts.	Section 8.8.7
<b>Local</b>			
City of Hayward General Plan – Economic Development Element	Identifies the current economic conditions, constraints, and opportunities in the City of Hayward.	Encourages the development of industrial development that creates and maintains job opportunities.	Sections 8.8.2.3.3, 8.8.4.3, 8.8.4.4

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

### 8.8.2.3 Local

**8.8.2.3.1 Alameda County.** Because the project site is entirely within the City of Hayward, the County of Alameda General Plan does not apply to Eastshore.

**8.8.2.3.2 City of Hayward.** The City of Hayward General Plan (March 2002) has an economic development element, which encourages businesses that create permanent, higher wage jobs to move to and grow in the City. It also promotes commercial and industrial development that creates and maintains the maximum job opportunities for residents.

## 8.8.3 Affected Environment

### 8.8.3.1 Population

Alameda County is bordered on the north by Contra Costa County, to the south by Santa Clara County, to the west by San Francisco and San Mateo Counties, to the east by San Joaquin, to the southeast by Stanislaus County, and to the northwest by Marin County. There are 14 incorporated cities in Alameda County including Oakland, Fremont, Hayward, and Berkeley.

The City of Hayward is located on the east shore of the San Francisco Bay, 25 miles southeast of San Francisco, in the western portion of Alameda County. With an estimated January 1, 2006 population of 146,398, the City of Hayward is the third largest city in the county (DOF, 2006a). Historical population data for the City of Hayward and Alameda County are summarized in Table 8.8-2. Annual average compounded population growth rates are summarized in Table 8.8-3. During the 1990s, Alameda County's population increased at an average annual rate of 1.24 percent, while the City of Hayward's increased by 2.32 percent (DOF, 2006b). The average annual growth rate for the years 2000 through 2005 was 0.74 percent for the City and 0.77 percent for the County. The County's and City's growth rates during this period were approximately half of the state's (1.58 percent). Alameda County and California are expected to have their greatest population growth from 2000 to 2010.

TABLE 8.8-2  
Historical and Projected Populations

Area	1990	2000	2005	2010(p)	2020(p)	2030(p)
City of Hayward	111,343	140,030	145,322	N/A	N/A	N/A
Alameda County	1,276,702	1,443,939	1,500,228	1,651,200	1,864,100	2,038,500
California	29,758,213	34,043,198	36,810,358	39,246,800	43,851,700	48,110,700

Source: Department of Finance (DOF), 2006a; 2006b; 2006c

<sup>a</sup> Population projections rounded to nearest 100.

(p) projected

N/A not available

TABLE 8.8-3  
Historical and Projected Annual Average Compounded Population Growth Rates

Area	1990-2000 Percent	2000-2005 Percent	2005-2010 Percent	2010-2020 Percent	2020-2030 Percent
City of Hayward	2.32	0.74	N/A	N/A	N/A
Alameda County	1.24	0.77	1.94	1.22	0.90
California	1.35	1.58	1.29	1.12	0.93

Source: CH2M HILL.

Tables 8.8-4 and 8.8-5 (at the end of the section) show the minority (both racial and Hispanic), as well as the low-income distribution for the census tracts that are within a 6-mile radius of Eastshore. The minority and income data are from the 2000 United States Census Bureau. Of the total population within the 6-mile radius, approximately 64 percent are racial minority, 25 percent are of Hispanic origin<sup>1</sup>, and 8 percent are low-income. This compares to 45 percent racial minority, 50 percent Hispanic, and 11 percent low-income for

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

the City of Hayward. Alameda County's population is 34 percent minority, 27 percent Hispanic, and 12 percent low-income.

Of the 84 census tracts, 64 (about 76 percent) have minority populations that are above 50 percent, while only 6 (about 7 percent) of the tracts have Hispanic population distribution above 50 percent. With respect to income, none of the census tracts have low-income population distributions above 50 percent.

Using the 2000 census blocks to more accurately portray those within the 6-mile radius, the racial minority and Hispanic origin populations remain approximately 63 and 26 percent, respectively. Similarly, using the 2000 census block groups to more accurately portray those within the 6-mile radius, the low-income population remains approximately 8 percent. (See Appendix 8.8A for more information on demographics at the smaller census block group and census block levels.)

Figures 8.8-1, and 8.8-2 (at the end of this section) show the percent distribution of minority and low-income populations by 2000 census blocks and census block groups within a 6-mile radius of Eastshore.

### 8.8.3.2 Housing

As shown in Table 8.8-6, housing stock for Alameda County as of January 1, 2006, was 562,479 units. Single-family homes accounted for 340,816 units, multiple family dwellings accounted for 214,017 units, and mobile homes accounted for 7,646 units (DOF, 2006a). New housing authorizations for Alameda County in 2004 totaled 5,691 units; about 40 percent were single-family units and 60 percent were multi-family units. These authorizations were valued at \$1.53 billion (DOF, 2006d). The median single-family home price in Alameda County as of July 2006 was \$670,000 (Alameda, 2006). Alameda County's vacancy rate has declined from about the 4.9 percent rate in the 1990s to the rate of 3.01 percent in January 2006. Housing supply is limited in the County based on the federal standard vacancy rate of 5 percent.

As of January 1, 2006, the City of Hayward had 47,861 housing units, of which 27,462 were single-family homes, 18,100 were multiple family homes, and 2,299 were mobile homes (Table 8.8-6). As of July 2006, the median single-family home price in the City of Hayward was \$585,000. The vacancy rate, as of January 1, 2006, for the City of Hayward was 2.43 percent, which is about half of the federal standard of 5 percent. Thus, housing within the city is in short supply.

TABLE 8.8-6  
Housing Estimates by City and County, January 1, 2006

Area	Total Units	Single Family	Multi-family	Mobile Homes	Percent Vacant
City of Hayward	47,861	27,462	18,100	2,299	2.43
Alameda County	562,479	340,816	214,017	7,646	3.01
California	13,138,670	8,482,802	4,068,851	587,017	5.87

Source: DOF, 2006a.

### 8.8.3.3 Economy and Employment

Between 2000 and 2005, employment in Alameda County decreased by 19,100 jobs or about 3 percent. This 3 percent decrease is a significant contrast to California's net increase (1.8 percent) during that period (CEDD, 2006a). As shown in Table 8.8-7, financial activities, natural resources, mining and construction, and government were the only sectors to experience an increase in employment. Employment in all the other sectors declined between 2000 and 2005. The natural resources, mining, and construction industry's contribution to the Alameda County economy remained about the same in 2000 (about 6 percent or 39,000 jobs) as it did in 2005 (about 6 percent or 44,300 jobs). The financial activities, natural resources, mining and construction, and government sectors were the only sectors with positive average annual compound rate.

TABLE 8.8-7  
Employment Distribution in Alameda County, 2000 to 2005

Industry	2000		2005		2000-2005	
	Number of Employees	Employment Share (%)	Number of Employees	Employment Share (%)	Percentage Change (%)	Average Annual Compound Growth Rate (%)
Agriculture	800	0.1	700	0.1	-12.5	-2.6
Natural Resources, Mining, and Construction	39,000	5.5	44,300	6.4	13.6	2.6
Manufacturing	93,100	13.1	75,600	10.9	-18.8	-4.1
Wholesale Trade	44,500	6.3	39,600	5.7	-11.0	-2.3
Retail Trade	69,500	9.8	68,200	9.9	-1.9	-0.4
Transportation, Warehousing, and Utilities	32,900	4.6	27,000	3.9	-17.9	-3.9
Information	21,600	3.0	17,100	2.5	-20.8	-4.6
Financial Activities	24,300	3.4	36,300	5.2	49.4	8.4
Services	257,100	36.2	254,000	36.7	-1.2	-0.2
Government	128,400	18.1	129,200	18.7	0.6	0.1
<b>Total Employment</b>	<b>711,000</b>	<b>100.0</b>	<b>691,900</b>	<b>100.0</b>	<b>-2.7</b>	<b>-0.5</b>

Source: California Employment Development Department (CEDD), 2006a.

Alameda County is in the Oakland-Fremont-Hayward Metropolitan Division (MD), which make up Alameda and Contra Costa Counties. Between 2000 and 2005, employment in the Oakland-Fremont-Hayward MD decreased by 11,800 jobs or about one percent. This one percent decrease is in contrast to 1.8 percent net increase at the state level during that period (CEDD, 2006a). As shown in Table 8.8-8, construction, financial activities, services and government sectors were the only sectors that experienced an increase in employment between 2000 and 2005. Although employment in construction increased (13 percent)

between 2000 and 2005, the contribution of this sector to the Oakland-Fremont-Hayward MD only increased by about one percentage point from 6 percent in 2000 to 7 percent in 2005.

TABLE 8.8-8  
Employment Distribution in Oakland-Fremont-Hayward MD, 2000 to 2005

Industry	2000		2005		2000-2005	
	Number of Employees	Employment Share (%)	Number of Employees	Employment Share (%)	Percentage Change (%)	Average Annual Compound Growth Rate (%)
Agriculture	3,000	0.3%	1,500	0.1%	-50.0%	-12.9%
Natural Resources, Mining	2,400	0.2%	1,100	0.1%	-54.2%	-14.4%
Construction	65,500	6.3%	74,000	7.1%	13.0%	2.5%
Manufacturing	116,500	11.1%	95,400	9.2%	-18.1%	-3.9%
Wholesale Trade	53,700	5.1%	48,400	4.7%	-9.9%	-2.1%
Retail Trade	112,300	10.7%	112,300	10.8%	0.0%	0.0%
Transportation, Warehousing, and Utilities	41,700	4.0%	34,400	3.3%	-17.5%	-3.8%
Information	39,000	3.7%	30,400	2.9%	-22.1%	-4.9%
Financial Activities	50,600	4.8%	70,500	6.8%	39.3%	6.9%
Services	386,500	36.9%	387,600	37.4%	0.3%	0.1%
Government	176,600	16.9%	180,000	17.4%	1.9%	0.4%
<b>Total Employment</b>	<b>1,047,600</b>	<b>100.0%</b>	<b>1,035,800</b>	<b>100.0%</b>	<b>-1.1%</b>	<b>-0.2%</b>

Source: CEDD, 2006a.

Table 8.8-9 provides more detail on the characteristics of the regional labor force. It shows 2005 employment data for Oakland-Fremont-Hayward MD, Alameda County, and the City of Hayward compared to California. Oakland-Fremont-Hayward MD and Alameda County have unemployment rates that are lower than the state average. However, the unemployment rate in the City of Hayward is higher than the state average. The California Employment Development Department (CEDD) does not project future unemployment rates.

TABLE 8.8-9  
Employment Data 2005

Area	Labor Force	Employment	Unemployment	Unemployment Rate (%)
City of Hayward	68,800	64,700	4,100	6.0%
Alameda County	747,800	708,900	38,900	5.2%
Oakland-Fremont-Hayward MD	1,259,700	1,196,200	63,500	5.0%
California	17,695,600	16,746,900	948,700	5.4%

Source: CEDD, 2006a.

### 8.8.3.4 Fiscal Resources

The local agencies with taxing power include Alameda County and the City of Hayward. Alameda County's estimated summary of expenditures and revenues are presented in Table 8.8-10. The General Fund revenue for the Alameda County increased by 5 percent from fiscal years (FY) 2004-2005 to FY 2005-2006 and is projected to grow by about 5 percent for the FY 2005-2006 to FY 2006-2007. Taxes (property and other) contribute about 23 percent to the County's General Fund revenues. Current property tax revenues contribute about 14 percent of the overall General Fund revenues.

TABLE 8.8-10  
Alameda County General Fund Revenues and Expenditures (\$ Millions)

	FY 2003-04	FY 2004-05	FY 2005-06	Proposed FY 2006-07
<b>Expenditures</b>				
Capital Projects	\$11.10	\$7.98	\$9.17	\$6.26
Cultural, Recreation & Education	\$0.00	\$0.00	\$0.00	\$0.00
General Government	\$139.19	\$139.07	\$131.86	\$151.78
Public Assistance	\$562.57	\$461.74	\$590.42	\$604.11
Public Protection	\$400.01	\$50.29	\$426.75	\$473.52
Public Ways & Facilities	\$0.00	\$567.28	\$0.00	\$0.00
Healthcare Services	\$438.27	\$402.56	\$492.00	\$512.50
Non-program Financing	\$50.85	\$0.00	\$57.45	\$57.03
Contingency & Reserves	\$19.89	\$45.14	\$54.69	\$58.33
<b>Total Expenditures</b>	<b>\$1,621.88</b>	<b>\$1,674.06</b>	<b>\$1,762.33</b>	<b>\$1,863.53</b>
<b>Revenues</b>				
Current Property Tax	\$227.18	\$222.61	\$237.90	\$261.00
Other Taxes	\$153.55	\$154.16	\$159.34	\$171.36

TABLE 8.8-10  
Alameda County General Fund Revenues and Expenditures (\$ Millions)

	FY 2003-04	FY 2004-05	FY 2005-06	Proposed FY 2006-07
Licenses, Permits & Franchises	\$5.75	\$5.63	\$6.17	\$6.40
Fines, Forfeits & Penalties	\$16.37	\$12.87	\$11.49	\$9.25
Use of Money & Property	\$9.03	\$4.72	\$13.75	\$15.33
State Aid	\$509.04	\$540.90	\$591.67	\$644.27
Aid from Federal Government	\$265.04	\$269.84	\$255.44	\$268.65
Aid from Local Govt Agencies	\$6.38	\$7.29	\$7.16	\$8.51
Charges for Services	\$207.27	\$218.51	\$255.80	\$265.26
Other Revenues	\$22.17	\$46.11	\$33.86	\$32.65
Other Financing Sources	\$186.14	\$172.64	\$189.75	\$168.97
Available Fund Balance	\$13.98	\$18.79	\$0.00	\$11.86
<b>Total Revenue</b>	<b>\$1,621.88</b>	<b>\$1,674.06</b>	<b>\$1,762.33</b>	<b>\$1,863.53</b>

Source: Alameda County, 2006.

Numbers might not add up as a result of independent rounding of amounts.

As shown in Table 8.8-11, the General Fund revenue for the City of Hayward increased by 5 percent from FY 2004-2005 to FY 2005-2006 and is projected to increase by about 2 percent and 4 percent over the next couple of fiscal years. Sales and property taxes are the major contributors to the growth observed in the City's General Fund revenues. Tax revenues average about 70 percent of the City's General Fund revenues during the period shown in Table 8.8-11. Tax revenues from sales and property make up about 27 percent and 20 percent, respectively, of the General Fund revenues.

TABLE 8.8-11  
City of Hayward General Fund Revenues and Expenditures (\$ Thousands)

	Actual FY 2004-2005	Estimated FY 2005-2006	Proposed FY 2006-2007	Recommended FY 2007-2008
<b>Expenditures</b>				
Employee Services	80,724	84,574	88,169	92,817
Maintenance and Utilities	4,452	3,900	4,017	4,138
Supplies and Services	10,144	9,901	10,198	10,503
Capital Expense	270	225	225	225
Net Interdepartmental	-4,186	-3,694	-3,958	-4,098
Transfers from General Fund	5,144	6,938	5,448	5,444
<b>Total Expenditures</b>	<b>96,548</b>	<b>101,844</b>	<b>104,099</b>	<b>109,029</b>
<b>Revenues</b>				
Taxes	68,427	69,378	74,745	78,432
Sales Tax	27,155	27,295	28,933	30,669
Property Tax	18,860	20,500	23,680	25,338
Other Taxes	22,412	21,583	22,132	22,425
All Other Sources	20,944	24,016	22,343	22,813
Charges for Services	3,119	2,493	2,587	2,587
Transfers to General Fund	5,246	5,131	5,059	5,168
Public Safety Radio Reserve	0	1,600	0	0
<b>Total Resources</b>	<b>97,736</b>	<b>102,618</b>	<b>104,734</b>	<b>109,000</b>

Source: Hayward, 2006.

Numbers might not add up as a result of independent rounding of monetary amounts.

### 8.8.3.5 Education

There are a total of 21 elementary, high school, and unified school districts in Alameda County. Eastshore is within the boundaries of the Hayward Unified School District, which has a total of 33 elementary, middle, and high schools. The closest schools to the project site include Eden Gardens Elementary School (2184 Thayer Avenue), Ochoa Middle School (2121 Depot Road), and Mt. Eden High School (2300 Panama Street). Current and historical enrollment figures for the Hayward Unified School District (which includes the above three schools) are listed in Table 8.8-12. As shown in the table, enrollment for the Hayward Unified School District decreased by 1,136 students (or 5 percent) in the 2005-2006 school year from the previous year, while the combined enrollment for the three schools serving the project site have declined (about 6 percent or 213 students) from the 2004-2005 school year. Projected enrollment for the 2006-2007 school year indicates that the school district will continue to experience a decline (about 7 percent or 1,467 students) in enrollment. Similarly,

the three schools serving the project site are projected to continue experiencing enrollment declines (about 12 percent or 392 students) in the 2006-2007 school year from the previous school year.

TABLE 8.8-12  
Historical, Current, and Projected Enrollment by Grade

Grade Level	Hayward Unified School District			Eden Gardens ES, Ochoa MS, and Mt. Eden HS combined		
	Enrollment (2004-2005)	Enrollment (2005-2006)	Projected Enrollment (2006-2007)	Enrollment (2004-2005)	Enrollment (2005-2006)	Projected Enrollment (2006-2007)
Kindergarten	1,901	1,827	1,854	64	65	68
First	1,992	1,917	1,740	87	72	66
Second	1,971	1,849	1,727	64	78	58
Third	1,862	1,850	1,655	74	62	71
Fourth	1,893	1,765	1,660	104	72	59
Fifth	1,858	1,766	1,600	102	91	61
Sixth	1,846	1,744	1,605	107	100	86
Seventh	1,745	1,635	1,597	274	277	262
Eighth	1,722	1,643	1,518	278	264	243
Ungraded Elementary	0	0	0	0	0	0
Ninth	1,717	1,515	1,492	662	560	463
Tenth	1,678	1,664	1,404	636	652	528
Eleventh	1,623	1,606	1,515	592	619	577
Twelfth	1,564	1,455	1,402	590	509	487
<b>TOTAL</b>	<b>23,372</b>	<b>22,236</b>	<b>20,769</b>	<b>3,634</b>	<b>3,421</b>	<b>3,029</b>

Source: ED-Data, 2006; Combes, 2006.  
ES, MS, HS = Elementary School, Middle School, High School

### 8.8.3.6 Public Services and Facilities

This section describes public services in the project area.

**8.8.3.6.1 Law Enforcement.** Eastshore is within the jurisdiction of the Hayward Police Department (HPD). The only HDP station in the City of Hayward is at 300 West Winton Avenue. There are 200 sworn full-time officers in HPD (Gomes, 2006). Although the approximate response time to an emergency in Eastshore was not available from HPD at the time of filing, it is about a 3-minute drive from the station to the project site (Waters, 2006).

The California Highway Patrol (CHP) is the primary law enforcement agency for state highways and roads (e.g., Interstate 5). CHP services include law enforcement, traffic control, accident investigation, and management of hazardous materials spill incidents.

**8.8.3.6.2 Fire Protection.** Eastshore is within the Hayward Fire Department (HFD) jurisdiction. HFD has 9 stations serving the City, with its headquarter located at 777 B Street. Fire Station No. 6, located at 1401 West Winton Avenue, is the nearest station to Eastshore. Station No. 6 has one fire engine and three fire fighters (Valencia, 2006). The nearest station that would come to the aid of Station No. 6 would be Stations No. 1 (22690 Main Street), Station No. 2 (360 West Harder Road), and Station No. 4 (27826 Loyola Avenue). Combined, these three stations have four engines and one truck with 16 firefighters including a battalion chief. Station No. 6 would respond to a call from the site in approximately 3 to 4 minutes (Berg, 2006).

**8.8.3.6.3 Emergency Response.** In the City, hazardous materials are handled by HFD. Because there is not one specific hazardous material (hazmat) team, the nearest fire station will respond to hazardous material emergencies. The fire department is able to respond to incidents involving aqueous ammonia, and metal or oil contaminated wastewater, which are the only two identified hazardous materials of concern on Eastshore (Galang, 2006). The HFD response time to a hazmat emergency call from Eastshore is approximately 3 to 4 minutes (Galang, 2006).

**8.8.3.6.4 Hospitals.** The closest hospitals with an emergency room (ER) to Eastshore are St. Rose and Kaiser Hayward Medical Center. St. Rose Hospital, located at 27200 Calaroga Avenue in the City of Hayward, is an acute, general, not-for-profit, 175-bed facility serving the needs of the population of southern Alameda County and its environs. St. Rose is approximately 2 miles from Eastshore. St. Rose's ER offers basic emergency medical services.

The Kaiser Hayward Medical Center, located at 27400 Hesperian Boulevard in the City of Hayward, is a 275-bed hospital. It is approximately 2 miles from Eastshore. Kaiser Hayward Medical Center's ER provides basic emergency medical services. Specialty services at the hospital include intensive care unit, emergency, medical-surgical, pediatrics, labor and delivery, critical care, and pre-operative services.

Alameda County Medical Center (ACMC) located at 1411 E. 31st Street in Oakland is about 21 miles from Eastshore. ACMC is one of the major hospital systems in the Bay Area, with 475 licensed beds on three campuses – 236 at Highland Hospital (1411 East 31st Street in Oakland), 159 at Fairmont Hospital (15400 Foothill Boulevard in San Leandro), and 80 at John George Psychiatric Pavilion (2060 Fairmont Drive in San Leandro). ACMC has a number of specialty clinics at the Highland Hospital area and in community health clinics throughout the county. The specialty clinics include inpatient medical-surgical care, including cardiac, cancer, HIV/AIDS, orthopedics, oral surgery, urology, diabetes, respiratory, and maternal and child health. ACMC is designated Level II<sup>2</sup> Emergency and Trauma Center for Northern Alameda County and is capable of handling most life-threatening traumas.

### 8.8.3.7 Utilities

This section describes utilities in the area.

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<sup>2</sup> Level II has 24-hour neurology, open heart, and other surgeries.

**8.8.3.7.1 Electricity and Gas.** The plant's capacity and the electricity produced by the plant will be sold to PG&E under the terms of a power purchase agreement (PPA) between Eastshore Energy, LLC, and PG&E. The exact operational profile of the plant will depend on weather conditions and PG&E's economic bidding decisions. Gas will be delivered by PG&E through an approximately 200-foot pipeline connecting the site to PG&E Line 153, a gas distribution pipeline located within the eastern shoulder of Clawiter Road. Both systems can adequately serve the project. Gas supply is described in Section 6.0.

**8.8.3.7.2 Water and Wastewater.** The water supply to Eastshore will be minimal and will be supplied by the City of Hayward. Water supply is described in Sections 7.0 and 8.14.

Eastshore would generate a very small quantity of wastewater. Wastewater meeting discharge limits will be discharged to the City of Hayward publicly owned treatment works (POTW) through an existing sewer connection on Eastshore; non-spec wastewater will be trucked offsite for processing and disposal. Wastewater is further described in Section 8.14.

**8.8.3.7.3 Sewer.** Domestic sanitary sewage will be discharged into the City's existing sewer connection located on Eastshore.

## 8.8.4 Environmental Consequences

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

### 8.8.4.1 Potential Environmental Impacts

Local environmental impacts were determined by comparing project demands during construction and operation with the socioeconomic resources of the project area (i.e., Alameda County). A proposed power-generating facility could affect employment, population, housing, public services and utilities, and schools. Impacts could be local or regional, although most impacts would more likely be regional than local. It is anticipated that Eastshore will not have significant adverse impacts on the socioeconomic environment, but it will have significant socioeconomic benefits to the local community.

### 8.8.4.2 Significance Criteria

The criteria used to determine the significance of project-related socioeconomic impacts are as suggested in the CEQA checklist. Project-related impacts are determined to be significant if they have the following characteristics:

- Induce substantial growth or concentration of population
- Displace a large number of people or existing housing
- Result in substantial adverse environmental impacts associated with the provision of utility services
- Result in substantial adverse physical impacts associated with the provision of public services

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

### 8.8.4.3 Construction Impacts

The project will include demolition of an industrial building and construction of the new power plant. Accordingly, the impacts of both construction and demolition are discussed in this application. Construction of the generating facility, from demolition, to site preparation and grading, to plant testing, to commercial operation, is expected to take place from fourth quarter 2007 to the second quarter 2009. Plant testing is targeted to begin the fourth quarter of 2008, and commercial operation is expected to occur the second quarter 2009.

**8.8.4.3.1 Demolition and Construction Workforces.** The primary trades in demand will include carpenters, electricians, ironworkers, laborers, operators, pipefitters, and mechanical trades (including millwrights). Table 8.8-13 provides an estimate of demolition and construction personnel requirements for the plant and linear facilities (including the HV transmission line). Total personnel requirements during demolition and construction will be approximately 2,246 person-months. Personnel requirements during demolition and construction are expected to peak at approximately 235 workers in month 11 of the demolition and construction period. The average number of personnel per month is expected to be 125.

Available skilled labor in the Alameda County was evaluated by surveying the Building and Construction Trades Council of Alameda County (Table 8.8-14) and contacting CEDD (Tables 8.8-15). Both sources show that the workforce in Alameda County would sufficiently meet Eastshore's labor requirements for construction. Therefore, Eastshore construction will not place an undue burden on the local workforce. In addition, as shown in Tables 8.8-8, the construction workforce has been growing at an average annual growth rate of about 3 percent per year within the Oakland-Fremont-Hayward MD. If growth continues at this rate, Eastshore is not likely to result in a significant construction impact. In addition, because the City of Hayward is in the San Francisco Bay Area, which is an area with a huge workforce, construction of the project is unlikely to result in construction labor shortages.

TABLE 8.8-14  
Labor Union Contacts

Labor Union	Contact	Phone Number
International Brotherhood of Electrical Workers (IBEW) Local 595	Victor Uno	(925) 686-5880
United Brotherhood of Carpenters & Joiners of America (UCB N. California Local 102) <sup>1</sup>	Chuck Wagner	(925) 294-5360

<sup>1</sup> United Brotherhood of Carpenters & Joiners is the union that represents carpenters and millwrights.

**TABLE 8.8-13**  
**Plant Construction and Demolition Personnel by Month**

Job Category	Months After Notice to Proceed																		Totals
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Grading and Excavator Operators	5	5	3	1													1	1	16
Equipment Operating Engineers	6	7	4	4	3	3	5	5	7	7	6	4	2	2	1	1			67
Teamsters	9	8	3	3	3	3	4	3	3	2	2	2	2	3	3	3	1	1	58
Surveyors	3	2																	5
Forman and Supervisors	2	3	4	5	5	5	5	5	5	5	5	4	3	3	3	2	2		66
Ironworkers		3	10	15	15	15	15												73
Steel Fitters		4	5	5	11	15	12	5	4										61
Welders			3	4	4	8	8	8	8	8	8	6	6						71
Sheetmetal Workers				4	4	4	4	4	4										24
Roofers				5	5	5	4	4	3										26
Electricians						8	12	26	28	28	28	30	20			1	1		182
Electrical Journeyman							10	22	22	22	22	22	11						131
Labors	6	9	12	9	9	9	18	21	24	30	25	18	18	19	7	6	5	4	249
Pipefitters						5	15	25	25	25	25	24	16			1	1		162
Riggers						5	8	8	8	8	8	8	8						61
Millwrights						10	11	26	26	26	26	26	16						167
Carpenters		3	3	3	3	5	5	5	5	5	5	5	3	3	3		1	1	58
Bricklayer						3	6	7	8	8	8	8	4	4	2				58

**TABLE 8.8-13**  
**Plant Construction and Demolition Personnel by Month**

Job Category	Months After Notice to Proceed																		Totals
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Cement Finishers		3	3	3								3	2						14
Steamfitters										5	8	8	3	2					26
Painters					1	2	3	4	5	10	10	8	5	5	5				58
Insulators							4	4	4	12	12	8							44
Plasterers											3	3							6
Sprinklerfitters						2	2	2	2										8
Plant Operating Engineers														15	15	15	15	15	75
Start-up Engineers													4	8	8	7	3		30
Genset OEM Team members		1	1	1	1	2	3	3	3	3	3	3	8	12	15	15	12	3	89
Manual	4	4	4	4	4	4	6	6	7	10	10	5	5	5	4	4	2	1	89
Nonmanual	1	2	3	3	3	3	5	5	5	5	5	4	4	4	5	7	7	1	72
<b>Project Management Team</b>	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72
<b>TOTAL PLANT</b>	<b>40</b>	<b>58</b>	<b>62</b>	<b>73</b>	<b>75</b>	<b>120</b>	<b>169</b>	<b>202</b>	<b>210</b>	<b>223</b>	<b>223</b>	<b>203</b>	<b>144</b>	<b>89</b>	<b>75</b>	<b>66</b>	<b>55</b>	<b>31</b>	<b>2,118</b>
<b>Project Linear Facilities</b>																			
Sewer Line - off site		3	3	4															10
Water Line - off site	3	3	3																9

**TABLE 8.8-13**  
**Plant Construction and Demolition Personnel by Month**

<b>Job Category</b>	<b>Months After Notice to Proceed</b>																		<b>Totals</b>	
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>		
Natural Gas Pipeline			3	5	5	6	6	6												31
HV Transmission line - offsite					5	6	8	8	8	10	10	4	4							63
Communications											2	4	4	2	2	1				15
<b>Total Linears</b>	<b>3</b>	<b>6</b>	<b>9</b>	<b>9</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>14</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>8</b>	<b>8</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>128</b>	
<b>TOTAL WORKFORCE</b>	<b>43</b>	<b>64</b>	<b>71</b>	<b>82</b>	<b>85</b>	<b>132</b>	<b>183</b>	<b>216</b>	<b>218</b>	<b>233</b>	<b>235</b>	<b>211</b>	<b>152</b>	<b>91</b>	<b>77</b>	<b>67</b>	<b>55</b>	<b>31</b>	<b>2,246</b>	

TABLE 8.8-15  
Available Labor by Skill in Oakland MSA<sup>1</sup>, 2001 to 2008

Occupational Title	Annual Averages		Absolute Change	Percentage Change	Average Annual Compounded Growth Rate (%)
	2001	2008			
Carpenters	10,610	12,290	1,680	15.8	1.5
Cement Masons & Concrete Finishers	1,060	1,240	180	17.0	1.6
Painters, Construction & Maintenance	3,560	4,030	470	13.2	1.2
Sheet Metal Workers	1,430	1,560	130	9.1	0.9
Electricians	4,960	5,220	260	5.2	0.5
Welders, Cutters, Solderers, and Brazers	3,060	3,510	450	14.7	1.4
Industrial Truck and Tractor Operators	5,070	5,190	120	2.4	0.2
Operating Engineers and Other Construction Equipment Operators	3,370	3,510	140	4.2	0.4
Helpers, Construction Trades	2,230	2,320	90	4.0	0.4
Construction Laborers	11,870	13,430	1,560	13.1	1.2
Plumbers, Pipefitters, and Steamfitters	3,190	3,290	100	3.1	0.3
Administrative Services Managers	2,200	2,400	200	9.1	0.9
Mechanical Engineers	1,790	1,850	60	3.4	0.3
Electrical Engineers	1,680	1,650	-30	-1.8	-0.2
Engineering Technicians	4,340	4,620	280	6.5	0.6
Plant & System Operators	3,770	3,850	80	2.1	0.2

Source: CEDD, 2006b.

<sup>1</sup> Occupational data projections were developed for the Oakland MSA before the name was changed to the Oakland-Fremont-Hayward MD. However, since both the MD and the MSA comprise the two counties of Alameda and Contra Costa, data for the MSA and MD are the same.

**8.8.4.3.2 Population Impacts.** It is anticipated that most of the construction workforce will be drawn from the Oakland-Fremont-Hayward area (Alameda and Contra Costa Counties), and other counties in the Bay Area, if necessary. Most workers are expected to either be currently living in the Oakland-Fremont-Hayward area or to commute to the project site. Therefore, construction workers will not contribute to an increase in the population of the area.

**8.8.4.3.3 Housing Impacts.** Most of the construction workforce will either already be living the Oakland-Fremont-Hayward area or will likely commute to the project site daily from other parts of the Bay Area. However, there are about 30 hotels or motels within 10 miles of the project site. It can be assumed that there are enough hotel or motel rooms to accommodate workers from outside the Bay Area who might choose to commute to the project site on a workweek basis. As a result, construction of the proposed project is not expected to increase the demand for housing in Alameda County or the City of Hayward.

**8.8.4.3.4 Impacts on the Local Economy and Employment.** The cost of materials and supplies required by the project is estimated at \$75 million. The estimated value of materials and supplies that will be purchased locally (within Alameda County) is about \$1.9 million. All cost estimates are in constant 2006 dollars as are the economic benefits discussed in this section.

Eastshore will provide about \$33.8 million in construction payroll, at an average salary of about \$87 per hour (including benefits). The anticipated payroll for employees, as well as the purchase of materials and supplies during the construction period, will have a slight beneficial impact on the area. Assuming, conservatively, that 60 percent of the construction workforce will reside in Alameda County, it is expected that approximately \$20.3 million will stay in the area during the 18-month construction period. These additional funds will cause a temporary beneficial impact by creating the potential for other employment opportunities for local workers in other service areas, such as transportation and retail.

*Indirect and Induced Economic Impacts from Construction.* Construction activity would result in secondary economic impacts (indirect and induced impacts) within Alameda County. Secondary employment effects would include indirect and induced employment as a result of the purchase of goods and services by firms involved with construction, and induced employment as a result of construction workers spending their income within the county. In addition to these secondary employment impacts, there are indirect and induced income effects from construction.

Indirect and induced impacts were estimated using an IMPLAN input-output model of Alameda County. IMPLAN is an economic modeling software program. The estimated indirect and induced employment within Alameda County would be 17 and 90 jobs, respectively. These additional jobs will result from the \$1.9<sup>3</sup> million in local construction expenditures, and approximately \$9.46 million in spending by local construction workers. The \$9.46 million represents the disposable portion of the annual construction payroll (here assumed to be 70 percent of \$13.52 million). Assuming an average direct construction employment of 125, the employment multiplier associated with the construction phase of

<sup>3</sup> The \$1.9 million was adjusted to an annual estimate since the construction duration exceeds a year and the IMPLAN I-O evaluates impacts on an annual basis. Thus, the \$1.9 million in expenditures became \$1.26 million ( $\$1,900,000 / (18/12)$ ).

the project will be approximately 1.9 (i.e.,  $(125 + 17 + 90)/125$ ). This project construction phase employment multiplier is based on a Type SAM model.

Indirect and induced income impacts were estimated at \$733,300 and \$3,828,200, respectively. Assuming a total annual local construction expenditure (payroll, materials and supplies) of \$14.79 million (\$13.52 million in payroll + \$1.27 million in materials and supplies), the project construction phase income multiplier based on a Type SAM model is approximately 1.3 (i.e.,  $[\$14,786,700 + \$733,300 + \$3,828,200]/\$14,786,700$ ).

**8.8.4.3.5 Fiscal Impacts.** Eastshore initial capital cost is estimated to be \$140 million (in 2006 dollars). The estimated value of materials and supplies that will be purchased locally (within Alameda County) during construction is about \$1.9 million. The effect on fiscal resources during construction will be from sales taxes realized on equipment and materials purchased in the County and from sales taxes from expenditures. The sales tax rate in Alameda is 8.75 percent (as of July 1, 2006). Of this percent, 6.25 percent goes to the state, 0.25 percent goes to the County, one percent goes to the place of sale, and 1.25 percent goes to the special districts (BOE, 2006). The total local sales tax expected to be generated during 18-month construction period is \$166,250 (i.e., 8.75 percent of local sales). Of this amount, the total portion going to the County, the place of sale and the special district is \$47,500 while that going specifically to the place of sale is \$19,000. The remainder, \$118,750, is the portion that goes to the state.

**8.8.4.3.6 Impacts on Education.** The schools in the Hayward Unified School District have been experiencing a reduction in enrollment. Enrollment declined by 4.9 percent from the 2004-2005 and the 2005-2006 school years and is expected to decline by 6.6 percent between the 2005-2006 and the 2006-2007 school years. If there are additional students, the school district will enroll them as required by law.

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

**8.8.4.3.7 Impacts on Public Services and Facilities.** The construction phase of the project could have minor impacts on police, fire, or hazardous materials handling resources. The Police Department was unable to confirm if the impacts during the construction phase of the project would be minimal (Diaz, 2006). The Fire Department does not anticipate any significant impacts during the construction phase of the project (Berg, 2006). Copies of the records of conversation with the Police and Fire departments are included in Appendix 8.8 B. Eastshore construction is not expected to create significant adverse impacts on medical resources in the area because minor injuries could be treated at the St. Rose Hospital, Kaiser Hayward Medical Center, and Alameda County Medical Center. Alameda County Medical Center has a trauma center.

**8.8.4.3.8 Impacts on Utilities.** Eastshore construction will not make significant adverse demands on local water, sanitary sewer, electricity, or natural gas. Impacts will involve the construction of onsite water and wastewater service interconnections, as well as an approximately 1.1-mile 115-kV single-circuit transmission line connecting to PG&E Eastshore Substation, and approximately 200-foot offsite natural gas line connection to

PG&E Line 153. Given the number of workers and temporary duration of the construction period, the impacts on the local sanitary sewer system would not be significant.

#### 8.8.4.4 Operational Impacts

**8.8.4.4.1 Operational Workforce.** Eastshore is expected to begin commercial operation in the second quarter of 2009. It is expected to employ up to 13 full-time employees. Anticipated job classifications are shown in Table 8.8-16. The entire permanent workforce is expected to commute from within Alameda County.

TABLE 8.8-16  
Typical Plant Operation Workforce

Plant Peak Operations	Personnel	Shift	Workdays
Operations	4 O&M Tech I and 4 O&M Tech II	24/7 Three (3) shifts per day 1 Shift Supervisor 1 Operator	7 days a week rotate shifts to allow personnel 2 days per week off time
Maintenance	2 Maintenance Technicians (1 mechanical, 1 electrical)	Standard 8-hour days	5 days a week (Maintenance technicians will also work unscheduled days and hours, as required, including weekends)
Administration	3 Administrators, 1 Plant Manager, 1 Contract Administrator, 1 Administrative Assistant)	Standard 8-hour days	5 days a week additional coverage, as required

Facility employees may be drawn from the local workforce, regional workforce, or existing staff. Consequently, any increase in population resulting from the project is expected to be minimal and inconsequential. There will be no significant impact on local employment.

**8.8.4.4.2 Population Impacts.** Some of the operational workforce may be drawn from the local population. However, it is anticipated that some of the operational workforce will be drawn from the City of Hayward, other cities in Alameda County, or other neighboring counties in the Bay Area.

**8.8.4.4.3 Housing Impacts.** Because there would be few Eastshore operations staff members, significant impacts on housing are not anticipated. Hiring preferences will be given to workers living within the City of Hayward and Alameda County, thus minimizing the need for new housing. Based on the housing vacancy data in Table 8.8-6, there are approximately 1,163 available housing units within the City limits. Thus, some employees who need to relocate could choose to live within the City or within the County. However, the new demand for housing would not be significant.

**8.8.4.4.4 Impacts on the Local Economy and Employment.** Eastshore operation will have a small, permanent benefit by creating employment opportunities for local workers through local expenditures for materials, such as office supplies and services. The average annual

salary per operations employee is expected to be \$86,000, excluding benefits. For the assumed average of 13 full-time employees, this will result in an approximate operation payroll of \$1.1 million per year. There will be an annual operations and maintenance budget of approximately \$2.08 million, of which \$1,331,200 is estimated to be spent locally (i.e., within Alameda County). These additional jobs and spending will generate other employment opportunities and spending in the City of Hayward and Alameda County. The addition of 13 full-time jobs would not significantly reduce unemployment rates. All cost estimates are in constant 2006 dollars as are the economic benefits discussed in this section.

*Indirect and induced Economic Impacts from Operation.* The operation of Eastshore would have indirect and induced economic impacts on Alameda County. These indirect and induced impacts represent permanent increases in the County's economic variables. The indirect and induced impacts would result from annual expenditures on payroll, as well as those on operations and maintenance (O&M).

Estimated indirect and induced employment within Alameda County would be 4 and 7 permanent jobs, respectively. These additional 11 jobs result from the \$2,366,100 (\$1,034,900 in payroll, and \$1,331,200 million in O&M) in annual operational budget. The operational phase employment multiplier is estimated at 1.9 (i.e.,  $[13 + 4 + 7]/13$ ) and is based on a Type SAM multiplier.

Indirect and induced income impacts are estimated at \$223,800 and \$307,400, respectively. The income multiplier associated with the operational phase of the project is approximately 1.5 (i.e.,  $[\$2,366,100 + \$223,800 + \$307,400]/\$2,366,100$ ) and is based on a Type SAM model.

**8.8.4.4.5 Fiscal Impacts.** The annual operations and maintenance budget is expected to be approximately \$2.08 million (in 2006 dollars), of which \$1,331,200 is assumed would be spent locally (within Alameda County). As previously stated, Eastshore will bring about \$1,034,900 in operational payroll to the region.

During operations, additional sales tax revenues will be obtained by the City of Hayward and Alameda County. Increased payroll will be \$1,034,900 annually, and additional O&M expenses spent locally will be approximately \$1,331,200 annually. Based on the assumed local O&M expenditures of \$1,331,200, the estimated sales taxes will be approximately \$116,480. Of this amount, the place of sale will receive \$13,300 in sales tax revenue. The overall anticipated increase in sales tax revenue will be beneficial but will not be significant because it would constitute such a small percent of total City and County revenues. (All estimates are in 2006 dollars).

Eastshore is expected to bring increased property tax revenue to the City of Hayward. The California State Board of Equalization has jurisdiction over the valuation of a power-generating facility for property tax purposes, if the power plant produces 50 MW or more. For power-generating facility producing less than 50 MW, the county has jurisdiction over the valuation (Lee, 2006). Because Eastshore is a nominal 115.5-MW power-generating facility, BOE will assess property value. The property tax rate is set by the Alameda County Assessors Office and for the current property the rate is one percent. Assuming a capital cost of \$140 million, the assessed property tax value is estimated to be approximately \$1,400,000 per year. Because the property taxes are collected at the city level, their disbursement is also at the city level.

**8.8.4.4.6 Impacts on Education.** The schools in the Hayward Unified School District have been experiencing a reduction in enrollment. Enrollment declined by 4.9 percent between the 2004-2005 and 2005-2006 school years and is expected to decline by 6.6 percent in the 2005-2006 and 2006-2007 school years. Even assuming that most of the 12 operational employees end up residing within the City of Hayward, Eastshore operation is not expected to have significant adverse impacts on the local school system. Assuming an average family size of 3.09 persons per household for the City of Hayward (DOF, 2006b) would imply the addition of approximately 13 children to the local schools. Because the school district is experiencing a reduction in enrollment, the addition of 13 students would not improve the downward trend in enrollment. In spite the fact that the addition of 13 students could improve enrollment, development (industrial or residential) within the Hayward Unified School District boundaries is currently charged a one-time assessment fee of \$0.42 per square foot of principal building area (Combes, 2006). Based on 32,800 square feet of occupied structures, USE Admin Building. Eastshore will pay \$13,776 in school impact fees as full mitigation for potential school impacts.

**8.8.4.4.7 Impacts on Public Services and Facilities.** Eastshore operation will not make significant demands on public services or facilities even if all 12 operational employees decide to reside in the City of Hayward. Although, the Police Department was unable to confirm if the impacts during the operational phase of the project would be minimal (Diaz, 2006); however, it is assumed to be minimal because the anticipated change in population is very minimal. The Fire Department does not anticipate any impacts on its services during plant operations (Berg, 2006). Copies of the records of conversation with the HPD and HFD are in Appendix 8.8 B. Eastshore operation would not have significant adverse impacts on medical resources in the area because of the safety record of power plants and few operations staff.

**8.8.4.4.8 Impacts on Utilities.** Eastshore operation will not make significant adverse demands on local water, sanitary sewer, electricity, or natural gas because adequate supply and capacity currently exist.

## 8.8.5 Cumulative Impacts

Because construction and operations personnel will reside primarily in the City of Hayward, or live within commuting distance, no adverse impact on local schools or housing is anticipated. No adverse cumulative socioeconomic impacts are anticipated from either the construction or operation of Eastshore. Instead, the local community will enjoy a beneficial (but not significant) impact from short-term construction and longer-term operations employment. In addition, the long-term payment of taxes and fees are expected to have a significant beneficial impact on the City.

For further discussion on cumulative impacts see Section 8.4, Land Use.

## 8.8.6 Environmental Justice

President Bill Clinton's Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations was signed on February 11, 1994. The purpose of this executive order is to identify and address adverse human health

or environmental effects that are likely to disproportionately affect minority and low-income members of the community.

The federal guidelines set forth the following three-step screening process:

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

According to EPA guidelines that assist federal agencies in developing strategies to address this circumstance, a minority and low-income population exists if the minority and low-income population percentage of the affected area is 50 percent or more of the area's general population. The EPA guidance suggests using two or three standard deviations above the mean as a quantitative measure of disparate effects.

A screening-level analysis of EJ (Appendix 8.8A) showed that Eastshore does not have high and adverse impacts. Therefore, there are no environmental impacts that are likely to disproportionately affect minority and low-income members of the community.

### 8.8.7 Mitigation Measures

1. The Applicant will pay the one-time statutory development fee as required at the time of filing for an in-lieu building permit with the City, which would include school impact fees.
2. The Applicant will provide onsite security and work with local law enforcement to address the need for any additional support during the construction phase.

### 8.8.8 Involved Agencies and Agency Contacts

Table 8.8-18 provides a list of agencies and contact persons of potentially responsible agencies. Copies of records of conversation are provided in Appendix 8.8B.

TABLE 8.8-18  
Agencies and Agency Contacts for Eastshore Socioeconomics

Agency	Contact/Title	Phone Number	Address
California Board of Equalization	Sang Lee, Senior Property Specialist	916-324-2753	3321 Power Inn Road Suite 210, Sacramento, California 95826
Hayward Unified School District	Jan Combes Director, Business Support Services	510-784-2613	24111 Amador Street Hayward, California 94540
Hayward Police Department	Cindy Waters Director, Operations Support	510-293-7061	300 West Winton Avenue Hayward, California 94544
Hayward Police Department	Jennifer Gomez Personnel and Training	510-293-7061	300 West Winton Avenue Hayward, California 94544

TABLE 8.8-18  
Agencies and Agency Contacts for Eastshore Socioeconomics

Agency	Contact/Title	Phone Number	Address
Hayward Police Department	Susan Diaz Chief Secretary	510-293-7070	300 West Winton Avenue Hayward, California 94544
Hayward Fire Department	John Berg Fire Marshall	510-583-4912	Hayward Fire Department City Hall 777 B Street Hayward, California 94541
Hayward Fire Department	Danilio Galang Environmental Specialist	510-583-4925	Hayward Fire Department City Hall 777 B Street Hayward, California 94541

### 8.8.9 Permits and Permitting Schedule

Permits dealing with the effects on public services are addressed as part of the building permit process. For example, school development fees are typically collected when the Applicant pays in-lieu building permit fees to the City. These permits are addressed in Table 8.4-4 in the Land Use section. No permits are required to for the socioeconomic impacts of the project.

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**TABLE 8.8-4**  
Distribution of Minority and Hispanic Population by Census Tracts Within a 6-Mile Radius

<b>Tract</b>	<b>Population</b>	<b>Non-Hispanic White</b>	<b>Minority</b>	<b>Percent Minority</b>	<b>Hispanic Origin</b>	<b>Percent Hispanic Origin</b>
06001432400	5,411	2,037	3,374	62.4	1,605	29.7
06001433400	6,014	1,976	4,038	67.1	548	9.1
06001432500	8,676	2,506	6,170	71.1	2,254	26.0
06001437100	8,721	2,086	6,635	76.1	2,176	25.0
06001440332	3,318	490	2,828	85.2	206	6.2
06001441501	5,273	1,009	4,264	80.9	376	7.1
06001440305	4,321	911	3,410	78.9	721	16.7
06001440331	3,346	501	2,845	85.0	816	24.4
06001440304	5,022	805	4,217	84.0	654	13.0
06001440306	4,195	514	3,681	87.7	528	12.6
06001440302	7,432	1,238	6,194	83.3	922	12.4
06001441521	6,100	1,620	4,480	73.4	373	6.1
06001441522	4,996	1,330	3,666	73.4	682	13.7
06001441401	7,115	2,507	4,608	64.8	842	11.8
06001441402	5,232	2,018	3,214	61.4	509	9.7
06001440307	4,333	1,419	2,914	67.3	827	19.1
06001440301	7,001	1,951	5,050	72.1	2,006	28.7
06001435900	4,817	2,651	2,166	45.0	848	17.6
06001436000	4,252	2,525	1,727	40.6	1,072	25.2
06001435800	5,034	2,454	2,580	51.3	1,259	25.0
06001437200	6,239	2,135	4,104	65.8	1,173	18.8
06001437000	3,430	1,313	2,117	61.7	792	23.1
06001436100	4,873	2,337	2,536	52.0	1349	27.7
06001436200	3,330	956	2,374	71.3	1,286	38.6
06001435700	4,181	1,952	2,229	53.3	1,246	29.8
06001436900	6,868	1,452	5,416	78.9	3,414	49.7
06001436800	3,790	1,077	2,713	71.6	1,284	33.9
06001436700	2,989	705	2,284	76.4	1,810	60.6
06001435600	9,524	3,422	6,102	64.1	4,071	42.7
06001433500	4,092	2,110	1,982	48.4	707	17.3

**TABLE 8.8-4**  
 Distribution of Minority and Hispanic Population by Census Tracts Within a 6-Mile Radius

<b>Tract</b>	<b>Population</b>	<b>Non-Hispanic White</b>	<b>Minority</b>	<b>Percent Minority</b>	<b>Hispanic Origin</b>	<b>Percent Hispanic Origin</b>
06001433300	6,635	3,007	3,628	54.7	1,372	20.7
06001433600	5,901	2,595	3,306	56.0	976	16.5
06001433200	6,562	2,537	4,025	61.3	1,103	16.8
06001433101	7,067	2,609	4,458	63.1	1,778	25.2
06001433000	3,371	1,865	1,506	44.7	559	16.6
06001433102	3,683	1,352	2,331	63.3	797	21.6
06001432600	6,401	2,642	3,759	58.7	1,339	20.9
06001432700	2,408	1,558	850	35.3	344	14.3
06001433800	7,100	1,947	5,153	72.6	2,026	28.5
06001433700	2,849	1,126	1,723	60.5	941	33.0
06001434000	4,616	1,338	3,278	71.0	1,696	36.7
06001433900	6,301	1,180	5,121	81.3	2,103	33.4
06001430500	6,014	2,857	3,157	52.5	979	16.3
06001430600	5,688	3,793	1,895	33.3	591	10.4
06001432800	3,658	2,007	1,651	45.1	457	12.5
06001430400	2,087	1,607	480	23.0	169	8.1
06001438300	3,759	590	3,169	84.3	1,293	34.4
06001438400	2,254	829	1,425	63.2	574	25.5
06001437300	3,270	872	2,398	73.3	934	28.6
06001437400	3,357	1,068	2,289	68.2	1,449	43.2
06001437600	3,184	976	2,208	69.3	1062	33.4
06001437500	4,872	746	4,126	84.7	2,609	53.6
06001438201	4,469	997	3,472	77.7	2,082	46.6
06001437700	8,827	1,063	7,764	88.0	4,838	54.8
06001437800	4,118	1,142	2,976	72.3	1,231	29.9
06001437900	2,276	464	1,812	79.6	1,114	48.9
06001436300	6,378	1,383	4,995	78.3	3,518	55.2
06001436602	4,344	781	3,563	82.0	1,759	40.5
06001436601	6,424	1,500	4,924	76.7	3,219	50.1
06001435500	3,694	1,616	2,078	56.3	1,223	33.1
06001435400	4,365	1,783	2,582	59.2	1,202	27.5

**TABLE 8.8-4**  
Distribution of Minority and Hispanic Population by Census Tracts Within a 6-Mile Radius

Tract	Population	Non-Hispanic White	Minority	Percent Minority	Hispanic Origin	Percent Hispanic Origin
06001436500	4,797	1,580	3,217	67.1	1,412	29.4
06001436401	7,145	3,690	3,455	48.4	1,481	20.7
06001435300	4,707	1,834	2,873	61.0	1,189	25.3
06001438202	8,812	2,677	6,135	69.6	1,834	20.8
06001438100	7,109	2,462	4,647	65.4	2,485	35.0
06001438000	3,021	1,532	1,489	49.3	720	23.8
06001435102	5,031	2,339	2,692	53.5	518	10.3
06001436402	2,844	1,846	998	35.1	295	10.4
06001431200	5,988	3,749	2,239	37.4	864	14.4
06001430900	4,667	2,855	1,812	38.8	865	18.5
06001431000	2,585	1,600	985	38.1	462	17.9
06001430700	3,714	2,709	1,005	27.1	442	11.9
06001431100	3,137	1,868	1,269	40.5	599	19.1
06001430800	5,169	3,945	1,224	23.7	568	11.0
06001430300	3,649	2,893	756	20.7	272	7.5
06001430200	7,077	5,335	1,742	24.6	566	8.0
06001435200	4,198	1,567	2,631	62.7	620	14.8
06001441503	10,783	2,086	8,697	80.7	544	5.0
06001440308	6,001	1,357	4,644	77.4	1,894	31.6
06001440200	6,346	434	5,912	93.2	5,165	81.4
06001440100	2,283	952	1,331	58.3	351	15.4
06001435101	10,579	4,124	6,455	61.0	1,838	17.4
06001430100	8,338	4,360	3,978	47.7	569	6.8
<b>TOTAL</b>	<b>433,837</b>	<b>157,631</b>	<b>276,206</b>	<b>63.7</b>	<b>107,246</b>	<b>24.7</b>

Source: 2000 Census.

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

**TABLE 8.8-5**  
**Distribution of Low Income Population by Census Tracts Within a 6-Mile Radius**

<b>Tract</b>	<b>Total Population<sup>1</sup></b>	<b>Income Below Poverty Level</b>	<b>Percent Low-Income</b>
06001432400	5,377	439	8.2
06001433400	5,996	145	2.4
06001432500	8,669	511	5.9
06001437100	8,721	560	6.4
06001440332	3,312	98	3.0
06001441501	5,262	311	5.9
06001440305	4,284	227	5.3
06001440331	3,334	164	4.9
06001440304	4,817	527	10.9
06001440306	4,189	356	8.5
06001440302	7,425	149	2.0
06001441521	6,088	573	9.4
06001441522	4,985	317	6.4
06001441401	7,109	361	5.1
06001441402	5,200	204	3.9
06001440307	4,333	133	3.1
06001440301	7,001	595	8.5
06001435900	4,787	145	3.0
06001436000	4,252	159	3.7
06001435800	5,018	294	5.9
06001437200	6,157	444	7.2
06001437000	3,426	184	5.4
06001436100	4,856	407	8.4
06001436200	3,243	560	17.3
06001435700	4,173	280	6.7
06001436900	6,855	983	14.3
06001436800	3,780	319	8.4
06001436700	2,979	282	9.5
06001435600	9,321	997	10.7
06001433500	4,092	203	5.0
06001433300	6,607	424	6.4
06001433600	5,893	327	5.5

**TABLE 8.8-5**  
**Distribution of Low Income Population by Census Tracts Within a 6-Mile Radius**

<b>Tract</b>	<b>Total Population<sup>1</sup></b>	<b>Income Below Poverty Level</b>	<b>Percent Low-Income</b>
06001433200	6,434	380	5.9
06001433101	7,195	801	11.1
06001433000	3,371	176	5.2
06001433102	3,422	193	5.6
06001432600	6,170	543	8.8
06001432700	2,401	87	3.6
06001433800	6,992	675	9.7
06001433700	2,803	273	9.7
06001434000	4,461	868	19.5
06001433900	6,290	1,104	17.6
06001430500	5,294	224	4.2
06001430600	5,672	174	3.1
06001432800	3,657	223	6.1
06001430400	2,082	64	3.1
06001438300	3,805	248	6.5
06001438400	2,198	119	5.4
06001437300	3,246	170	5.2
06001437400	3,339	242	7.2
06001437600	3,000	213	7.1
06001437500	4,733	1,097	23.2
06001438201	4,456	301	6.8
06001437700	8,792	1,786	20.3
06001437800	4,112	338	8.2
06001437900	2,376	228	9.6
06001436300	6,275	1,014	16.2
06001436602	4,315	404	9.4
06001436601	6,417	737	11.5
06001435500	3,643	503	13.8
06001435400	4,229	572	13.5
06001436500	4,527	721	15.9
06001436401	7,093	553	7.8
06001435300	4,436	391	8.8

**TABLE 8.8-5**  
**Distribution of Low Income Population by Census Tracts Within a 6-Mile Radius**

<b>Tract</b>	<b>Total Population<sup>1</sup></b>	<b>Income Below Poverty Level</b>	<b>Percent Low-Income</b>
06001438202	8,742	538	6.2
06001438100	7,070	529	7.5
06001438000	2,898	173	6.0
06001435102	4,643	422	9.1
06001436402	2,833	66	2.3
06001431200	5,650	343	6.1
06001430900	4,517	410	9.1
06001431000	2,568	278	10.8
06001430700	3,696	79	2.1
06001431100	3,107	169	5.4
06001430800	5,150	196	3.8
06001430300	3,645	111	3.0
06001430200	6,911	277	4.0
06001435200	4,093	387	9.5
06001441503	10,763	333	3.1
06001440308	5,997	377	6.3
06001440200	6,279	787	12.5
06001440100	2,241	196	8.7
06001435101	10,525	560	5.3
06001430100	8,310	232	2.8
<b>TOTAL</b>	<b>428,415</b>	<b>33,563</b>	<b>7.8</b>

Source: 2000 Census.

<sup>1</sup> Population numbers are only those for whom poverty was determined and exclude full-time college students.

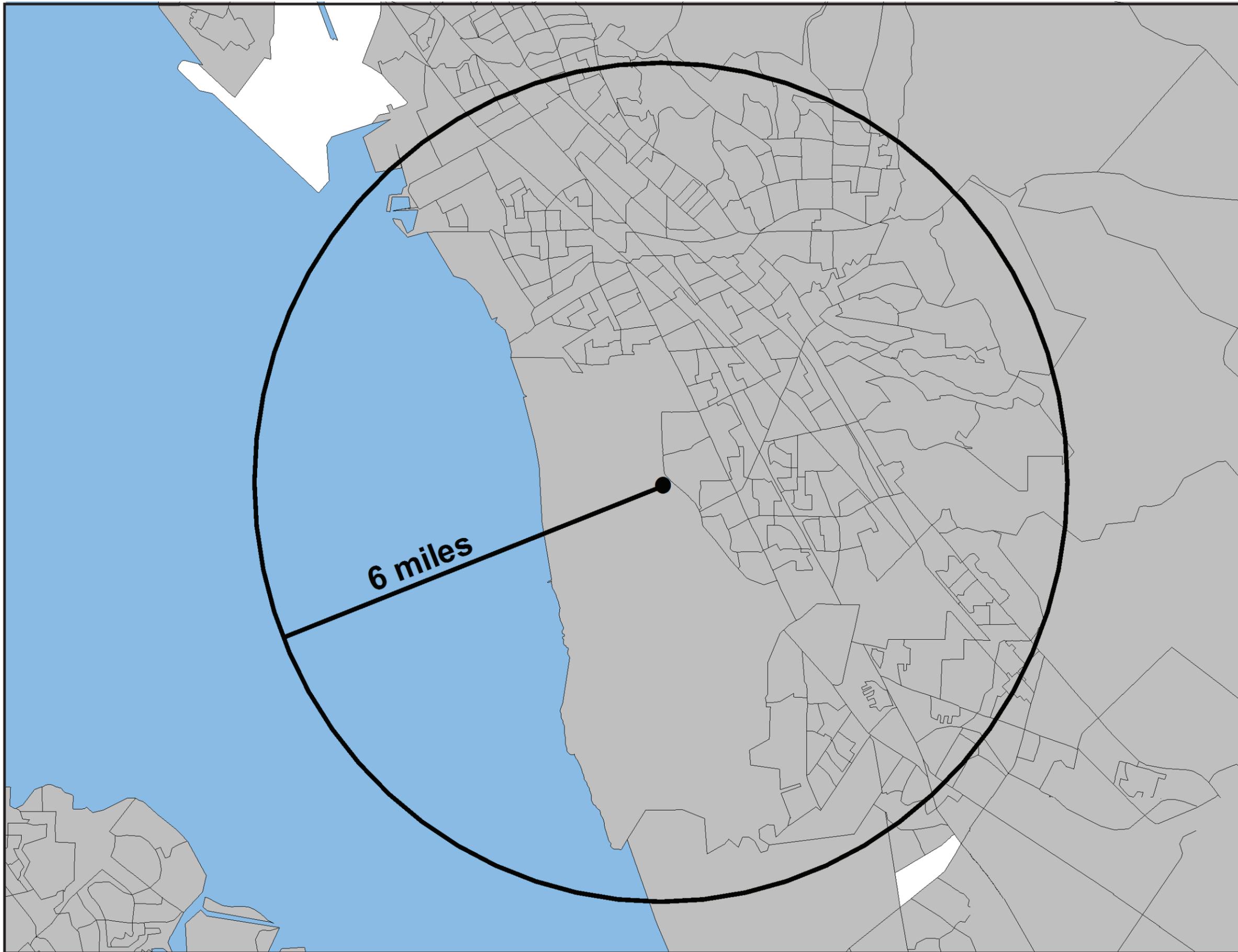


**LEGEND**

- 0% to 50%
- 50% to 100%
- No Population Reported



**FIGURE 8.8-1**  
**MINORITY POPULATION**  
**DISTRIBUTION BY CENSUS**  
**BLOCKS WITHIN**  
**6-MILES OF EASTSHORE**  
 EASTSHORE ENERGY CENTER  
 HAYWARD, CALIFORNIA  
 ALAMEDA COUNTY



**LEGEND**

- 0% to 50%
- 50% to 100%
- No Population Reported



**FIGURE 8.8-2**  
**LOW INCOME POPULATION**  
**DISTRIBUTION BY CENSUS**  
**BLOCK GROUPS WITHIN**  
**6-MILES OF EASTSHORE**  
 EASTSHORE ENERGY CENTER  
 HAYWARD, CALIFORNIA  
 ALAMEDA COUNTY