

## 8.10 SOCIOECONOMICS

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This section presents a discussion of the environmental setting, environmental consequences and impacts, and mitigation measures associated with the socioeconomic conditions of the Russell City Energy Center (RCEC) and the Advanced Wastewater Treatment (AWT) plant. Section 8.10.1 discusses the affected environment with respect to socioeconomic conditions. For purposes of this socioeconomic evaluation, the area that will be most affected, and thus analyzed, is the City of Hayward. In addition, some analyses include adjacent cities and Alameda County as a whole. The socioeconomic issues relevant to the existing environment include population, housing, employment and economic base, education, public services and utilities, and fiscal resources. Section 8.10.2 discusses regional and local impacts that arise from both power plant construction and operation. Section 8.10.3 evaluates any cumulative impacts to socioeconomics, including potential environmental justice issues in the project vicinity. Section 8.10.4 includes proposed mitigation measures. Section 8.10.5 presents applicable laws, ordinances, regulations, and standards (LORS). Section 8.10.6 references agency contacts; Section 8.10.7 presents permit requirements and schedules; and Section 8.10.8 contains references.

### 8.10.1 Affected Environment

The RCEC and AWT plant site, electrical transmission line, natural gas pipeline, and water supply and wastewater return pipelines are located in the City of Hayward, Alameda County. Specifically, the RCEC project site is located on approximately 14.7 acres on Enterprise Avenue across from the City of Hayward Water Pollution Control Facility (WPCF). The site is located within the West Industrial Planning Area of Hayward's Industrial Corridor (see Land Use, Section 8.6). Industrial and urban facilities are the primary land uses in the immediate surrounding area, including paint polymer production, metal fabrication, large vehicle (bus) assembly, milk and soft drink processing and bottling, distribution, warehousing and shipping, automobile salvage, and a variety of light industrial uses. The closest residential neighborhoods are located 0.82 miles from the project site and are well buffered from the RCEC project area by the intervening industrial/urban land uses.

#### 8.10.1.1 Population

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. Incorporated cities in Alameda County, ranked in order of 2000 population data, include Oakland, Hayward, Berkeley, San Leandro, Livermore, Alameda, Pleasanton, Dublin, Albany, Piedmont, and Emeryville (California Department of Finance [CDOF] 2000a).

Historical and projected population trends for the City of Hayward, Alameda County, and California are summarized in Table 8.10-1, based on Association of Bay Area Governments (ABAG) projects done in 1998. Over the past 10 years, the City of Hayward and surrounding areas have experienced steady increases in population growth. According to the ABAG projections, the 2000 Hayward population would be 129,610 as compared with a 1990 population of 111,300 (U.S. Census Bureau, CDOF 2000a). Actual U.S. Census Bureau data from the Year 2000, recently released, show a City of Hayward population of 140,030, eight percent more than expected. This is, in fact, more than projected for the year 2010 (Table 8.10-1). In Alameda County, population growth has been steady since 1980. County population in 2000 was 1,443,741 (U.S. Census Bureau, 2000 Census).

**Table 8.10-1. Estimated population growth in Hayward, Alameda County, and California.**

Location	1990 <sup>1</sup>	2000 <sup>2</sup>	2005	2010
Hayward	111,300	129,610	133,700 <sup>3</sup>	136,200 <sup>3</sup>
Alameda Co.	1,284,825	1,443,741	1,571,796 <sup>4</sup>	1,654,485 <sup>4</sup>
California	29,942,397	33,773,000	37,372,444 <sup>4</sup>	39,957,616 <sup>4</sup>

<sup>1</sup>CDOF 2000b City/County population estimates 1991-98 w/1990 census data.

<sup>2</sup>2000 population figures from City/County Population Estimates with Annual Percent Change, January 1, 2000 (CDOF 2000a).

<sup>3</sup>Population projections are from Projections 98 (ABAG 1997); County Population Projections with Race/Ethnic Detail (CDOF 1998a).

<sup>4</sup>CDOF 2000c County population projections with race/ethnic detail, estimated July 1, 1990-96 and projected 1990-2040.

The City's population is becoming more diverse in its racial and ethnic composition. The non-Hispanic white population decreased from 1990 to 2000, while the size of the City's other primary population groups, Hispanic, Black, and Asian, increased (Table 8.10-9).

### 8.10.1.2 Housing

Housing data for the project area indicate there is limited available housing. The January 1, 2000, housing stock figures for Hayward and Alameda County showed 44,991 and 536,495 dwelling units, respectively (CDOF 2000a). Vacancy rates for Hayward are also low, at 4.97 percent, which is slightly less than the county vacancy rate of 5.01 percent and regional (9 Bay Area counties) rate of 5.22 percent. Housing resources are summarized in Table 8.10-2.

**Table 8.10-2. Housing resources in the project vicinity.**

Location	Single Housing Units	Multiple Housing Units	Mobile Homes	Total Housing Units	Vacancy Rates
Hayward	25,316	17,309	2,286	44,991	4.97%
Alameda Co.	319,478	210,057	6,960	536,495	5.01%
Bay Region	1,578,701	917,436	61,228	2,557,365	5.22%

Source: CDOF 2000a

### 8.10.1.3 Employment and the Economy

In regional terms, the employment outlook in Alameda County is strong. Alameda ranks second among Bay Area counties in the projected number of jobs to be generated between 2000 to 2020 (220,000), contributing 23 percent of the region's job growth over that time period. Overall, Hayward should account for 10 percent of the total job growth within Alameda County with almost 22,000 new jobs to be created by the year 2020 (City of Hayward 2001). These projections are in direct contrast to the significant job losses resulting from federal military base closures that have taken place in the Bay Area since the early 1990s. The southern portion of the county, part of Silicon Valley, is recognized for its concentration of high technology industries, especially computer hardware manufacturing.

The manufacturing and services sectors are expected to experience the largest percentage growth of any sector in Alameda County between 2000 and 2020 (ABAG 1997). The City of Hayward is among the high growth cities of Alameda County, with estimated current total employment of 90,080. This figure is projected to grow to over 110,000 by the year 2020 (estimates based on place of employment) based on recent Association of Bay Area Government (ABAG) estimates.

Table 8.10-3 shows the labor force levels (2000) for the state of California, Alameda County, and the City of Hayward. The California Employment Development Department (CEDD) estimates the average labor force (the total number of employable persons) for Alameda County in 2000 to be 740,000 persons, with an average unemployment rate of 3.0 percent (CEDD 2000a). Currently, the City of Hayward has the same unemployment rate as the County as a whole (3.0 percent). In comparison, California has a substantially higher unemployment rate of 5.4 percent (CEDD 2000b). Labor force, employment, and unemployment figures use workforce information by place of residence.

Construction of the RCEC and AWT plant project will create a short-term demand (18- to 21-month construction period starting summer of 2002) for various construction trade and operations workers. In the construction industry, due to the variable nature and duration of projects, workers often commute considerable distances to reach potential job locations. Since workers may frequently move from one project site to another, permanent relocation for any given project is usually not a practical option. Some workers may temporarily relocate on a workweek basis. Since the region's construction labor force is fairly large, it is expected that the majority of the construction workers will commute daily for one hour or less each way to the job site.

**Table 8.10-3.** Employment statistics in the project area.

Area	Labor Force	Employment	Unemployment	Unemployment Rate (%)
Hayward <sup>1</sup>	64,790	62,640	1,940	3.0
Alameda County <sup>1</sup>	740,000	718,000	21,900	3.0
California <sup>2</sup>	16,703,100	15,802,200	900,900	5.4

<sup>1</sup>Labor force data for sub-county areas, source: CEDD 2000a  
<sup>2</sup>Civilian labor force data, source: CEDD 2000b

The project labor supply would be drawn from approximately a 50-mile radius surrounding the project site, including the counties of Alameda, Santa Clara, Contra Costa, San Mateo, San Francisco, Santa Cruz, and San Joaquin. The construction and operations-related labor force in these counties is presented in Table 8.10-4. In general, construction-related labor for the year 2002/2003, when the RCEC construction will take place, is expected to be approximately 200,000 people.

It is difficult to determine how many people within each trade are unemployed, again due to the nature of these occupations. Construction workers with short-duration jobs are often continuously in transition between jobs.

### 8.10.1.4 Education

A single public school district, the Hayward Unified School District (HUSD), serves the project area. HUSD operates 33 schools, including 24 elementary schools, 5 middle schools, and 4 high schools. Total enrollment during the 1999-2000 school year was 23,773 students (California Department of Education [CDOE] 2000), up from 21,693 in 1996 (CDOE 1996). Given the fact that regional population and employment are both expected to increase, future enrollment is likely to continue to increase over the next several years. The current pupil-teacher ratio is 20:1 and there are 1,178 Full-Time-Equivalent (FTE) teachers working within the District. The Economic Development Element of the Hayward General Plan indicates that many of the schools in the HUSD have relatively high transience rates and

many are close to physical capacity, particularly with a 21:1 student to teacher ratio. This is a slightly better student to teacher ratio of 20.4:1 for the state during the same school year.

**Table 8.10-4.** Potential labor force in the principal labor pool area.<sup>1</sup>

Occupational Title	Annual Averages <sup>2</sup>		Percentage Change
	1995	2002	
<b>Construction:</b>			
Boilermakers	120	100	-16.7
Bricklayers/Cement Masons	3,640	4,340	19.2
Carpenters	13,360	15,260	14.2
Electricians	9,020	10,440	15.7
Insulators	830	1,120	34.9
Ironworkers (structural metal workers)	310	350	12.9
Laborers	102,240	123,490	20.8
Millwrights	480	430	-10.4
Operating Engineers	2,600	3,130	20.4
Painters	5,920	7,080	19.6
Pipefitters/Sprinklerfitters	5,680	6,850	20.6
Sheetmetal Workers	3,590	3,870	7.8
Supervisors (construction)	5,690	6,650	16.9
Surveyors (including technicians)	1,610	1,590	-1.2
Truck Drivers	20,310	21,840	7.5
Welders	4,330	4,990	15.2
<b>Total Construction:</b>	<b>179,730</b>	<b>211,530</b>	<b>17.7</b>
<b>Operations:</b>			
Mechanical Engineers (incl. technicians)	7,240	9,190	26.9
Electrical Engineers (incl. technicians)	41,200	53,720	30.4
Plant and System Operators	5,600	5,710	2.0
<b>Total Operations:</b>	<b>54,040</b>	<b>68,620</b>	<b>27.0</b>

Source: California Employment Development Department, 1999

<sup>1</sup>The labor pool area here includes the counties of Alameda, Santa Clara, Contra Costa, San Mateo, San Francisco, Santa Cruz, and San Joaquin.

<sup>2</sup>Figures represent aggregated county-wide data from 1999

Other educational facilities affiliated with the District include the Adult Education Laurel Site in Castro Valley, the Sunset Community Center's Adult School in Hayward, the Helen Turner Children's Center in Hayward, and the English Language Center in Hayward. Colleges and Universities in the Hayward area include the California State University at Hayward, Chabot Community College in Hayward, the Hayward Adult School, Heald College's Hayward School of Business and Technology, and the Life Chiropractic West College, which is located in the Hayward Industrial Corridor.

### **8.10.1.5 Public Services**

#### ***Law Enforcement***

The principal agency responsible for providing law enforcement in the City of Hayward is the Hayward Police Department. The Hayward Police Department is located at 300 West Winton Avenue, east of I-880, approximately 2.4 miles from the project site. Police services are provided by 268 full-time officers in patrol, investigation, and administration (City of Hayward 2000).

The Alameda County Sheriff's Office provides additional law enforcement support throughout the county and is responsible for various tasks that include providing patrol and investigative services to the unincorporated areas of Alameda County. Since Hayward is an incorporated city, the Sheriff's Office does not have direct jurisdiction in most of the project vicinity. There are segments of land along Depot and Clawiter Roads (the Mount Eden Neighborhood) that are unincorporated County land. However, the Sheriff's Office does serve the county, including Hayward, as Coroner, Public Administrator, and Director of Emergency Services. In addition, it operates a full service criminalistics laboratory and two county jails (Santa Rita and North County Jail). The Sheriff's Office has a budget of approximately \$135 million and employs over 1,400 persons, including over 800 sworn personnel (Alameda County Sheriff's Office 1999).

#### ***Fire Protection***

Fire protection service for the City of Hayward is provided by the Hayward Fire Department, which has an ISO Fire Rating of 3. The Hayward Fire Department is served by 125 firefighters and officers, 11 civilian positions, 6 fire stations, 8 engine companies and 2 truck companies (City of Hayward 2000). The 6 fire stations are strategically located around the city so response times from these stations would be rapid. The closest fire station to the project site is the City of Hayward Fire Station No. 6, located approximately 2 miles from the site on West Winton Avenue.

#### ***Medical Facilities***

The closest emergency medical facility to the project site is Kaiser Foundation Hospital, located in Hayward approximately 2 miles from the project site. In addition, St. Rose Hospital is located nearby, about 2.25 miles from the RCEC. These two hospitals provide a combined 399 beds along with specialized care and services (City of Hayward 2000). Other medical facilities in the project region include the Newark Health Center (Alameda County Health Care Services Agency) as well as numerous local private health care providers.

### **8.10.1.6 Utilities**

#### ***Electricity and Gas***

PG&E provides electrical and natural gas service to Hayward. There is a 115-kV utility corridor that runs north-south between PG&E's Eastshore and Grant substations. A PG&E 230-kV transmission line crosses the San Francisco Bay, paralleling the Hayward-San Mateo Bridge to also connect with the Eastshore Substation. This line continues eastward over the East Bay hills. All electrical transmission lines are above ground, while the distribution lines, which connect existing and new development, may be both above and underground.

A major PG&E natural gas distribution line, Line 153, runs northwest-southeast within the Hayward Industrial Corridor along the Union Pacific Railroad tracks, less than a mile east of the project site. All

natural gas lines are underground. Local utility systems are currently functioning within capacity and are capable of expanding to meet demand.

### **Sewer**

Regional sewer services are provided by the City of Hayward and the East Bay Municipal Utility District (EBMUD) (EBMUD 2000). The City of Hayward processes wastewater from within the city limits at the City's WPCF, located at 3700 Enterprise Avenue directly across the street from the RCEC site. This plant has a rated capacity of 16.5 mgd. Wastewater collection and treatment for the cities of Union City, Newark, and Fremont is provided by the Union Sanitary District (USD) through their 30-mgd capacity Alvarado Treatment Plant in Union City, approximately 3 miles south of Hayward. To the north of Hayward, the City of San Leandro provides wastewater treatment for its residences. The cities of Hayward and San Leandro and the USD are members of the East Bay Dischargers Authority (EBDA), which operates a permitted outfall for treated wastewater in the San Francisco Bay near the Oakland Airport.

EBMUD provides wastewater treatment (and water service) for parts of Alameda and Contra Costa counties, including unincorporated areas near Hayward, such as Castro Valley and San Lorenzo. The District serves approximately 600,000 people in an 83-square-mile service area. Service charges are based on the volume and quality of discharge.

### **Water**

Regional water services are provided by the City of Hayward and EBMUD. The City of Hayward Public Works Department provides water to City residents. Hayward residents have access to a very high quality water supply, the source of which is the Hetch Hetchy reservoir in the Sierra Nevada Mountains within Yosemite National Park. Hayward has access to this water through the Hetch Hetchy aqueduct in perpetuity, by agreement with the City of San Francisco, which owns and operates the Hetch Hetchy system. Water system capacity is approximately 32 million gallons per day (mgd), while daily average consumption is 19 mgd.

The Alameda County Water District (ACWD) is responsible for the acquisition, distribution, and management of water supplies for cities of Fremont, Newark, and Union City. This service area is approximately 103 square miles in size, with an estimated 73,000 customers. ACWD currently delivers approximately 45 million gallons per day (mgd) of water to its customers (50,000 acre-feet per year). Water supplies obtained by ACWD are mostly from local groundwater pumping. This is supplemented, however, by imported water delivered via the South Bay Aqueduct and the Hetch Hetchy Aqueduct (ACWD 1998).

EBMUD provides water (and sewer services) for parts of eastern Alameda County near the project not served by ACWD or the City of Hayward, such as unincorporated communities and the City of San Leandro (EBMUD 2000). Approximately 1.2 million people are served by the system in a 325-square-mile service area. EBMUD draws approximately 90 percent of its water from the 577-square-mile protected watershed of the Mokelumne River, which collects Sierra Nevada snowmelt and flows into Pardee Reservoir in the Sierra foothills. The remaining 10 percent of the supply is obtained from local runoff to three East Bay reservoirs (EBMUD 2000). EBMUD has a maximum water supply capacity of 502 mgd and an average daily consumption of 304 mgd.

## **Telephone**

Pacific Bell provides standard telephone service to the City of Hayward. In addition there are a number of telephone service providers specializing in high-speed fiber optic data and communications connections and wireless communications, providing service to the area (City of Hayward 2000).

### **8.10.1.7 Fiscal Resources**

Property tax is a significant source of revenue for the City. The City's assessed valuation is \$6,018,581,405. Property taxes are applied to the value of most secured and unsecured property in the county. Property tax collection is the responsibility of Alameda County. Once the county collects property tax, it redistributes a percentage back to the Cities. Under state law, Hayward receives somewhat less than 20 percent of the locally-generated property tax (City of Hayward 1998).

Another significant source of revenue is taxable retail sales, which generally represents about 41 percent of the City's total General Fund revenue (City of Hayward 1998). In 1995, this represented \$2,001,862 (City of Hayward 2000).

## **8.10.2 Environmental Consequences**

### **8.10.2.1 Potential Environmental Impacts**

Many projects, such as power plants, have the potential to impact local socioeconomic resources like population, housing, employment, education (schools), public services and utilities, and fiscal resources. This section analyzes the impacts of the RCEC and AWT plant on each of these areas. Impacts have the potential to occur locally and/or regionally, although most impacts would be relatively localized. Local impacts were determined by comparing project demands with the socioeconomic resources of the Hayward area. Regional consequences compared demands with the resources of the county or larger region. Overall, it is anticipated that the proposed project will not have any significant adverse impacts on the socioeconomic environment of the local or regional area.

### **8.10.2.2 Significance Criteria**

The criteria used in determining whether project-related socioeconomic impacts are significant are consistent with standard industry practice and California Code of Regulations Title 14, §15065. Project-related impacts are determined to be significant if they:

- Induce substantial growth or concentration of population, either directly or indirectly
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere
- Displace substantial numbers of people, necessitating the construction of housing elsewhere
- Disrupt or divide the physical arrangement of an established community
- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following: fire protection, police protection, schools, parks, or other public facilities.

Other impacts may be significant if they cause substantial change in community interaction patterns, social organizations, social structures, or social institutions; if they cause substantial conflict with

community attitudes, values, or perceptions; or if they cause substantial inequities in the distribution of project cost and benefit.

### **8.10.2.3 Construction Phase Impacts**

#### ***Construction Workforce***

Actual construction will take place over approximately 18 to 21 months during the 2-year construction period, beginning in the summer of 2002. Primary trades in demand will include boilermakers, carpenters, electricians, ironworkers, laborers, millwrights, operators, pipefitters, and others, as presented in the Table 8.10-5, which shows total construction workforce for the RCEC and AWT plant. Total construction personnel requirements during the 18 to 21 months of construction will be approximately 6,396 person-months, or 535 person-years. Construction personnel requirements will peak at approximately 485 workers during month 15 of the construction period.

#### ***Construction Impacts on Population***

Due to the small scale of the project, it is not likely that project construction would generate a significant increase in area population. Almost all of the construction workforce (277 workers on average, peaking to 485 in month 15) will be drawn from the principal labor pool (Alameda, Contra Costa, San Francisco, San Joaquin, San Mateo, Santa Clara, and Santa Cruz counties). The proximity of the project to the labor pool and the fact that individual work assignments typically last from several days to weeks suggests that there will be no permanent relocation of construction workers. Overall, there will be no significant construction-related impacts to local population conditions.

#### ***Construction Impacts on Housing***

There will be no impact to local housing. As discussed above, there will be no permanent relocation of construction workers. However, there may be some temporary relocation that would impact local hotel/motel conditions. If necessary, there is adequate hotel/motel space available in Hayward and in close-by communities of San Leandro, Union City, San Lorenzo and Castro Valley (total number of rooms of 1,821) or in all of Alameda County (total number of rooms of 12,126) to accommodate workers who might choose to commute to the project site on a workweek basis. The average hotel/motel occupancy rate for the Oakland Metropolitan Statistical Area (MSA) which covers Alameda and Contra Costa Counties was 71.0 percent in the year 2000. Therefore, based on this figure, there would be 528 and 3,517 rooms available for rent in near-by communities and in the county, respectively. Thus, available hotel/motel space is more than sufficient to meet the construction workers needs (personal communication, Kathi Drewes, Director, Hotel Motel Association of California, 3/28/01).

#### ***Construction Impacts on Employment and the Economy***

The project will provide short-term job opportunities for up to 277 construction workers on average. Construction personnel requirements would peak at 485 workers during the single most active month of construction. The average construction workforce of 277 workers represents a negligible percent (0.13 percent) of the 2002 projected construction labor pool of 211,530 (Table 8.10-4).

In 2000, the unemployment rates in both Hayward Alameda County were 3.0 percent. Both are significantly lower than California's civilian unemployment rate of 5.4 percent for the same time period.

**Table 8.10-5. Construction personnel by month (months after Notice to Proceed) for the power plant and AWT plant, combined.**

Craft Mix	Months After Notice To Proceed																								Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Boilermaker	-	-	-	8	16	24	36	45	48	48	48	48	48	48	45	40	30	16	8	4	2	-	-	-	562
Carpenter	2	12	24	40	40	40	40	33	22	22	22	22	22	22	22	22	22	22	18	9	3	-	-	-	481
Cement mason	-	1	4	5	5	7	7	9	9	6	5	5	4	4	-	-	-	-	-	-	-	-	-	-	71
Electricians	1	4	8	11	11	12	22	33	49	66	83	88	88	88	88	82	66	55	44	33	11	-	-	-	943
Iron worker	-	4	16	33	33	33	39	44	49	50	40	33	26	18	14	9	9	9	9	5	-	-	-	-	473
Labor	5	10	18	27	30	30	30	30	24	24	24	23	23	22	22	22	22	18	13	9	9	-	-	-	435
Millwright	-	-	-	-	-	3	13	26	33	33	33	27	26	26	22	18	13	9	7	4	4	-	-	-	297
Operator	3	5	9	11	14	16	16	16	16	16	14	14	14	14	14	11	11	9	7	4	2	-	-	-	236
Pipe fitter	2	12	18	18	16	20	24	33	49	77	112	121	121	121	121	121	110	88	66	33	13	-	-	-	1296
Teamster	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	-	-	-	35
Insulation worker	-	-	-	-	-	-	-	-	-	-	-	7	13	27	33	39	39	39	39	26	13	-	-	-	275
Painter	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	6	6	6	6	5	5	-	-	-	38
Sheet metal	-	-	-	-	-	-	-	-	-	-	-	5	13	27	39	39	39	39	37	37	25	-	-	-	300
Total craft manpower	15	50	99	155	167	187	229	271	301	344	383	396	401	420	422	410	368	311	255	170	88	-	-	-	5442
Field start-up staff	-	-	-	-	-	-	-	-	1	1	2	7	11	14	14	15	15	16	15	14	14	12	6	4	161
Field non-manual staff	7	14	20	27	33	40	43	46	49	50	50	50	50	50	49	49	46	40	33	22	13	6	4	2	793
On-site total	22	64	119	182	200	227	272	317	351	395	435	453	462	484	485	474	429	367	303	206	115	18	10	6	6396

Assuming that all of the construction workforce is derived from Alameda County alone, the addition of 485 temporary jobs would reduce the county's unemployment rate by only about 0.1 percent.

Overall, the proposed project will not have significant impacts in this area. It will not create excessive demand on construction trades and will help maintain the region's low unemployment rate.

### ***Construction Impacts on Education***

Construction of the proposed project will not cause significant impacts to population or housing in the City of Hayward, the Tri-Cities area to the south, or San Leandro-Oakland to the north. In fact, virtually the entire construction workforce is expected to commute to the project site, as opposed to relocating to the area. As a result, the construction of the RCEC and AWT plant will not create any significant adverse impacts to the local school system since there will likely be no new students entering the local school districts.

### ***Construction Impacts on Public Services and Facilities***

The construction of the proposed project will not cause significant demands on public services or facilities. During construction, the demand for public services such as police, fire, and medical facilities, are only needed in cases of emergency (i.e., construction accidents). Due to standard safety plans in effect at the project site (see Section 8.16, Worker Health and Safety), it is expected that these occurrences will be rare. Emergency services are all available within the City of Hayward, in close proximity to the project site.

### ***Construction Impacts on Utilities***

Construction of the proposed project will not cause significant demands to electricity and gas, sewer, water, or telephone service. All utilities are readily available from local utility providers.

### ***Construction Impacts on Fiscal Resources***

The total construction cost of the project is estimated to be between \$300 and \$400 million, of which \$58.2 million will be paid out as wages and salaries, including benefits (estimated using \$60.00/hr). Based on the multiplier effect, and applying the income multiplier of 1.59 (State of California, 1982), project construction would result in over \$92 million in total income to the local community. According to the economic theory of the multiplier effect, every dollar spent on the project regionally, generates an additional 59 cents of income as a consequence of additional spending. The multiplier effect suggests that money circulating within an economy will lead to secondary employment and expenditures in local industries (e.g., retail, transportation, and entertainment).

Local products subject to County taxes will be purchased during the construction process. Property tax revenue, which reflects the value of the completed facility, will not be realized by local governments until after completion of construction. Unlike the property tax, sales tax revenue begins to flow when construction starts due to immediate purchases of goods and services. Five to ten million dollars of total local product purchases would be taxed during project construction.

The sales tax rate in Alameda County is 8.25 percent, distributed as follows: 6 percent state, 1.25 percent local government, 0.5 percent Alameda County Transportation Authority (ACTA), and 0.5 percent Bay Area Rapid Transit District (BART) (California Board of Equalization 1999). Therefore, the total tax revenue from the sale of local products as stated above would be in the range of \$412,500 to \$825,000 distributed as shown in Table 8.10-6.

**Table 8.10-6. Alameda County sales tax rate and distribution.**

<b>Sales Tax Rate</b>	<b>Distribution – Percent</b>	<b>Distribution – Dollars</b>
8.25% (county-wide)	State of California - 6.0%	\$300,000 - \$600,000
	Local (City/County) - 1.25%	\$62,500 - \$125,000
	ACTA - 0.5%	\$25,000 - \$50,000
	BART - 0.5%	\$25,000 - \$50,000
<b>Totals</b>	<b>8.25%</b>	<b>\$412,599 - \$825,000</b>

Source: California Board of Equalization, 1999

**8.10.2.4 Operation Phase Impacts*****Plant Operation Workforce***

The RCEC and AWT plant are expected to begin commercial operation by the summer of 2004. Most of the on-site facility operators would commute from various locations in Alameda County itself and/or from one of the surrounding Bay area counties (Contra Costa, San Francisco, San Joaquin, San Mateo, Santa Clara, and Santa Cruz). The RCEC is expected to employ approximately 25 full-time employees with job classifications as shown in Table 8.10-7. The AWT will employ an additional 6 persons full time (3 persons in 2 shifts).

**Table 8.10-7. Plant operation workforce.**

<b>Department</b>	<b>Personnel</b>	<b>Shift</b>	<b>Work days</b>
Operations, plans	10 Operating Technicians		7 days a week
Maintenance, plans	5 Maintenance Technicians (2 mechanical, 1 electrical, and 2 instrumentation)	Standard 8-hour days	5 days a week (Maintenance Technicians will also work unscheduled days and hours as required)
Administration plans	5 Administrators (1 Operations Supervisor, 1 Maintenance Supervisor, 1 Plant Manager, 1 Plant Administrator and 1 Plant Engineer)	Standard 8-hour days	5 days a week with additional coverage as required
AWT	6 operating technicians	Rotating 12-hour shift, 2 operators per shift, plus 2 relief operators	7 days a week

***Operation Impacts on Population***

The proposed power plant is expected to employ approximately 25 people in full-time, on-site positions (Table 8.10-7). These employees would be drawn from the local and regional (Bay Area) labor force. Employees would not be expected to relocate, and as a result, there would be no significant impact on population due to plant operations. The AWT plant will employ approximately 6 people in full-time positions and would also have no significant impact on population due to plant operations.

***Operation Impacts on Housing***

Since there would be no expected increase in the local population resulting from facility operations, there would also be no anticipated significant impacts to local housing resources.

### ***Operation Impacts on Employment and the Economy***

As stated above, the project is expected to employ approximately 25 full-time positions. Although there will be a minor increase in employment due to the project, it will not have a significant impact on local employment rates. For the most part, non-technical positions will be filled from the local workforce, while the regional labor force will supply the more technical positions. There are a sufficient number of skilled employees in the region to meet the project's operations labor needs (Table 8.10-4). Although there will be a minor local increase in employment, the project will not make a significant impact on local employment rates. The average salary per operations employee is expected to be \$50,000 per year, which corresponds to an average operations payroll of \$1.3 million annually. The operations payroll will have a direct beneficial impact to the local economy through local spending patterns by the RCEC and AWT plant employees.

### ***Operation Impacts on Education***

There will be no significant impact to the local educational system from the operation of the RCEC and AWT plant since there will be no significant increase in local school district enrollment. However, Calpine/Bechtel will be required to pay a school impact fee based on the amount of inhabitable space constructed at the site. The current fee rate is \$0.33 per square foot. Total inhabitable space at the RCEC will be approximately 28,500 square feet; therefore, the estimated school impact fee is \$9,405. The AWT plant will be exempt from the school impact fee requirement because this facility will be deeded to the City of Hayward following construction. Calpine/Bechtel will be required to provide Hayward Unified School District with a letter documenting that the property will be deeded to the City following construction; Board of Education approval will be required (Lepore 2001).

### ***Operation Impacts on Public Services***

Operation of the proposed project will not cause significant demands on public services or facilities, although there is a potential for infrequent calls to the Hayward Fire Department in the event of an emergency. However, the Hayward Fire Department's ISO rating of 3 suggests that it will be able to sufficiently handle any increased activity resulting from the RCEC. In the event that emergency medical services are needed, Kaiser Foundation Hospital and St. Rose Hospital are both located close-by.

### ***Operation Impacts on Utilities***

Operation of the proposed project will not cause significant demands to electricity, water, sewer, or telephone service. These utilities are readily available from local utility providers. Natural gas will be used to fuel the electrical generation process. As a result, there will be demand for natural gas to operate the facility. PG&E has agreed to supply natural gas to the facility. The primary source of industrial makeup water will be tertiary-treated water from the AWT plant. The RCEC will also require potable water for domestic use and for fire fighting. The source for this water will be the City of Hayward.

### ***Operation Impacts on Fiscal Resources***

The RCEC will enhance fiscal resources through payment of property taxes, which are levied and collected annually by Alameda County at a rate of 1.1572 percent of property value. The RCEC's total value for property tax purposes has not been established. The derivation of this value is highly complex, incorporating a number of factors related to the anticipated revenue generating capability of the property over time including production capacity, amount and term of the income stream, allowance for relevant expenses, development and application of an appropriate discount rate in a discounted cash flow model, and an estimation of the present worth of the reversionary value at the end of the term.

A simple assessment using values of \$300 to \$400 million, based on Calpine/Bechtel's estimate of project value, suggests the total property tax obligation could range from \$3.47 million to \$4.63 million annually. The County would return a portion of this amount to the City of Hayward.

### ***Environmental Justice***

The purpose of Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low Income Populations* (1994), is to identify and address the disproportionate placement of adverse environmental, economic, social, or health impacts from federal actions and policies on minority and/or low-income communities. The Order requires that impacts on minority or low-income populations be taken into account when preparing environmental and socioeconomic analysis of projects or programs that are proposed, funded, or licensed by federal agencies.

Two documents provide some measure of guidance to agencies required to implement the Executive Order. The first document is the *Environmental Justice Guidance Under the National Policy Act*, published by the Council on Environmental Quality (CEQ). The second document, the EPA's *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analysis*, serves as a guidance for incorporating environmental justice goals into EPA's preparation of environmental impact statements under NEPA. These documents provide specific guidelines for determining whether there are any environmental justice issues associated with a proposed federal project. The RCEC will be in compliance with these Guidances and the Executive Order, because local minority and low-income populations will not be exposed to disproportionately high and adverse impacts from the project.

### **General Issues**

The CEC has incorporated an environmental justice analysis as part of its power plant licensing process under the California Environmental Quality Act (CEQA). To prove a violation of civil rights, the government must demonstrate that a project would cause impacts that are "disproportionately high and adverse," either directly, indirectly, or cumulatively. To make a finding that disproportionately high and adverse effects would likely fall on the minority or low-income population, three conditions must be met simultaneously: 1) there must be a minority or low-income population in the impact zone; 2) a high and adverse impact must exist; and 3) the impact on the minority or low-income population must be disproportionately high and adverse.

### **Methodology**

According to CEQ and EPA guidelines established to assist federal and state agencies for developing strategies to examine this circumstance, the first step in conducting an environmental justice analysis is to define minority and low-income populations. Based on these guidelines, a minority population is present in a project area if: a) the minority population of the affected area exceeds 50 percent, or b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. By the same rule, a low-income population exists if the project area is comprised of 50 percent or more people living below the poverty threshold, as defined by the U.S. Census Bureau, or is significantly greater than the poverty percentage of the general population or other appropriate unit of geographic analysis. The second step of an environmental justice analysis requires a finding of a high and adverse impact. The CEQ guidance indicates that when determining whether the effects are high and adverse, agencies are to consider whether the risks or rates of impact "are significant (as employed by NEPA) or above generally accepted norms." The final step requires a finding that the impact on the minority or low-income population be *disproportionately* high and adverse. While none of the Guidances define the term "disproportionately high and adverse," the CEQ Guidance

includes a non-quantitative definition that states that an effect is disproportionate if it appreciably exceeds the risk or rate to the general population.

The area of potential effect (APE) for the purposes of an environmental justice screening is the area approximately 6 miles from the project site. The CEC has used this distance in past projects to take into account potential air emissions effects. In order to use a comparable distance in this analysis, data from the U.S. Census Bureau, 2000 Census, for race and ethnic origin were obtained. As of the time of this printing, 2000 Census data for poverty status was not yet available from the U.S. Census Bureau. In addition, the 2000 Census data is not available by census tract for race and ethnic origin or poverty status. This information is expected to be available sometime in July 2001. For this reason, both 1990 and 2000 Census data are presented here. The 2000 data is presented for race and ethnic origin, for cities and unincorporated census places, and 1990 data is presented for census tracts, within a 6-mile radius (see Figure 8.10-1 in pocket). Figure 8.10-1 also shows Toxic Release Inventory System toxic release sites and AIRS Facility System air pollution point sources sites, as tracked by the EPA.

For the RCEC project, the 6-mile radius includes all or part of the cities of Hayward, Union City and San Leandro, as are the unincorporated areas of Ashland, Cherryland, Fairview, San Lorenzo and Castro Valley. For example, all of the densely developed portions of Hayward are within six miles of the project as well as all of the unincorporated community of San Lorenzo. Portions of Castro Valley, San Leandro, and Union City extend a mile or more beyond the six-mile radius. The city limits of Fremont extend into the radius, but it is mostly unpopulated areas along the bay margins that do so. These city and unincorporated community boundaries are an appropriate aggregation of demographic units with which to screen for potential environmental justice effects. All census tracts touching on the 6-mile radius were included in the analysis.

## **Results**

As discussed above, to make a finding that disproportionately high and adverse effects would likely fall on the minority or low-income population, three conditions must be met simultaneously: 1) there must be a minority or low-income population in the impact zone; 2) a high and adverse impact must exist; and 3) the impact on the minority or low-income population must be disproportionately high and adverse.

**Poverty Population**—The six-mile radius near the project area does not contain a large low-income population. The percentage of individuals living below the poverty threshold ranges, based on 1990 census data by city or unincorporated place, is about 6.39 percent (2000 data is expected to become available in July 2001). This is well below the 50 percent criterion.

By 1990 census tract (Table 8.10-10), there are no tracts with a poverty population greater than 50 percent within 6 miles of the project. Of the 73 census tracts, only 15 have poverty populations greater than 10 percent. Two have poverty populations between 20 and 30 percent of the tract population. The tract with the highest poverty rate is Tract 4377, with 28.6 percent in poverty in 1990. Overall, the tract is at 47.9 percent of the median statewide income. Tract 4377 is located about 3 miles east of the RCEC. Therefore, the project would not cause a disproportionate high and adverse impact on low-income populations.

**Minority Population**—Minority (non-white) populations make up 68.7 percent of the combined populations of the cities of Hayward, Union City, San Leandro, and unincorporated communities (Census places) of San Lorenzo, Castro Valley, Ashland, Cherryland, and Fairview, based on 2000 Census data. Table 8.10-8 shows demographic data for these cities and unincorporated areas. This compares with a minority population for Alameda County of 59.1 percent and statewide of 53.3 percent (Table 8.10-9). The APE thus has a minority

**Table 8.10-8. Race, Hispanic origin, and poverty statistics within six miles of the RCEC.**

	Hayward		Union City		San Leandro		Unincorporated <sup>1</sup>		Combined	
	No.	Pct	No.	Pct	No.	Pct	No.	Pct	No.	Pct
<b>a. Race and Hispanic origin (2000 census)</b>										
White	40,896	29.2%	13,610	20.4%	33,646	42.3%	15,137	34.3%	103,289	31.3%
Hispanic origin	47,850	34.2%	16,020	24.0%	15,939	20.1%	13,960	31.7%	93,769	28.4%
Asian	26,189	18.7%	28,780	43.0%	18,064	22.7%	5,100	11.6%	78,133	23.6%
Black	14,846	10.6%	4,321	6.5%	7,622	9.6%	7,277	16.5%	34,066	10.3%
Hawaiian or Pac. Isl.	2,511	1.8%	577	0.9%	627	0.8%	453	1.0%	4,168	1.3%
Amerindian	570	0.4%	132	0.2%	360	0.5%	249	0.6%	1,311	0.4%
Other race	692	0.5%	203	0.3%	175	0.2%	116	0.3%	1,186	0.4%
Two or more races	6,476	4.6%	3,226	4.8%	3,019	3.8%	1,808	4.1%	14,529	4.4%
Total	140,030	100.0%	66,869	100.0%	79,452	100.0%	44,100	100.0%	330,451	100.0%

**b. Poverty (1990 census)**

Above poverty level	100,858	90.5%	51,301	95.4%	64,343	95.0%	32,031	89.1%	248,533	92.4%
Below poverty*	10,640	9.5%	2,461	4.6%	3,375	5.0%	3,934	10.9%	20,410	7.6%
Total	111,498	100.0%	53,762	100.0%	67,718	100.0%	35,965	100.0%	268,943	100.0%

<sup>1</sup>Unincorporated Census places within 6 miles of the project include Castro Valley, San Lorenzo, Ashland, Cherryland, and Fairview.

\*For persons whose poverty level has been determined.

Source: U.S. Census Bureau, 2000 census (race) and 1990 census (poverty). Note: 2000 poverty data not available at the time of this writing.

**Table 8.10-9. Race and Hispanic origin, Alameda County and California.**

	Alameda County		California	
	No.	Pct	No.	Pct
<b>Race and Hispanic origin (2000 census)</b>				
White	591,095	40.9%	15,816,790	46.7%
Hispanic origin	273,910	19.0%	10,966,556	32.4%
Asian	292,673	20.3%	3,648,860	10.8%
Black	211,124	14.6%	2,181,926	6.4%
Hawaiian or Pac. Isl.	8,458	0.6%	103,736	0.3%
Amerindian	5,306	0.4%	178,984	0.5%
Other race	4,676	0.3%	71,681	0.2%
Two or more races	56,499	3.9%	903,115	2.7%
Total	1,443,741	100.0%	33,871,648	100.0%

**Table 8.10-10. Poverty and racial/ethnic group data by census tract, 6-mile radius, 1990 Census.**

Census Tract #	Tract Population	Percent of Median Income*	Income Level	% Below Poverty Line	Racial or ethnic group						Minority Population	Minority Percent
					American Indian	Asian	Black	Hispanic	White	Other		
4304	2,008	119.0%	Middle	0.5%	20	151	0	213	1,624	0	384	19.1%
4305	4,807	100.5%	Middle	5.0%	5	461	339	658	3,339	5	1,468	30.5%
4306	5,070	117.0%	Middle	1.9%	23	418	107	393	4,129	0	941	18.6%
4307	3,721	110.2%	Middle	1.3%	4	280	61	269	3,095	12	626	16.8%
4308	4,865	83.6%	Middle	7.0%	0	295	83	371	4,116	0	749	15.4%
4309	3,884	79.0%	Moderate	6.9%	37	195	119	395	3,138	0	746	19.2%
4310	2,126	79.9%	Moderate	6.2%	26	150	76	254	1,612	8	514	24.2%
4311	2,999	73.6%	Moderate	4.5%	19	115	160	441	2,256	8	743	24.8%
4312	4,894	94.2%	Middle	5.3%	0	423	254	613	3,604	0	1,290	26.4%
4324	4,768	85.1%	Middle	3.9%	44	672	204	1,016	2,827	5	1,941	40.7%
4325	7,152	85.5%	Middle	5.7%	79	1,246	473	1,494	3,860	0	3,292	46.0%
4326	5,010	84.3%	Middle	4.9%	17	434	397	675	3,487	0	1,523	30.4%
4327	2,465	108.1%	Middle	3.8%	45	157	39	199	1,996	29	469	19.0%
4328	3,584	140.2%	Upper	7.9%	5	555	120	391	2,513	0	1,071	29.9%
4329	779	.	.	.	8	61	418	149	143	0	636	81.6%
4330	3,234	88.5%	Middle	5.8%	15	368	37	332	2,472	10	762	23.6%
4331	9,145	88.2%	Middle	4.5%	22	1,294	883	1,324	5,597	25	3,548	38.8%
4332	5,882	83.9%	Middle	8.4%	15	1,038	592	673	3,544	20	2,338	39.8%
4333	6,179	93.4%	Middle	2.8%	9	978	128	1,101	3,932	31	2,247	36.4%
4334	3,485	97.6%	Middle	2.8%	6	691	217	384	2,182	5	1,303	37.4%
4335	3,937	97.7%	Middle	3.1%	8	521	51	636	2,721	0	1,216	30.9%
4336	5,100	84.9%	Middle	5.8%	25	726	168	669	3,512	0	1,588	31.1%
4337	2,511	69.0%	Moderate	11.5%	39	187	153	449	1,683	0	828	33.0%
4338	5,348	79.5%	Moderate	4.4%	36	713	459	1,042	3,098	0	2,250	42.1%
4339	4,999	48.1%	Low	20.6%	83	568	1,199	991	2,151	7	2,848	57.0%
4340	3,857	58.9%	Moderate	11.0%	45	330	366	823	2,293	0	1,564	40.6%
4351.01	4,583	88.3%	Middle	9.5%	55	543	775	667	2,506	37	2,077	45.3%
4351.02	4,901	143.6%	Upper	4.1%	5	989	499	374	3,034	0	1,867	38.1%
4352	3,827	111.5%	Middle	6.5%	45	387	1,179	523	1,677	16	2,150	56.2%
4353	3,947	71.1%	Moderate	12.0%	80	204	573	452	2,629	9	1,318	33.4%
4354	3,264	67.0%	Moderate	14.4%	96	209	356	703	1,900	0	1,364	41.8%
4355	3,067	77.9%	Moderate	8.4%	38	105	240	610	2,074	0	993	32.4%
4356	7,699	62.1%	Moderate	13.7%	57	397	398	2,151	4,696	0	3,003	39.0%
4357	3,797	87.2%	Middle	8.8%	35	299	119	632	2,712	0	1,085	28.6%
4358	4,387	83.7%	Middle	5.2%	46	474	42	819	3,006	0	1,381	31.5%
4359	4,602	101.6%	Middle	2.5%	31	574	42	576	3,363	16	1,239	26.9%
4360	4,010	100.1%	Middle	3.8%	5	252	75	613	3,065	0	945	23.6%
4361	4,337	91.0%	Middle	4.4%	41	532	90	650	3,012	12	1,325	30.6%

Table 8.10-10. (Continued)

Census Tract #	Tract Population	Percent of Median Income*	Income Level	% Below Poverty Line	Racial or ethnic group					Other	Minority Population	Minority Percent
					American Indian	Asian	Black	Hispanic	White			
4362	2,636	66.9%	Moderate	11.7%	50	125	155	658	1,620	28	1,016	38.5%
4363	4,753	66.7%	Moderate	13.8%	49	358	216	1,973	2,124	33	2,629	55.3%
4364.01	6,555	93.9%	Middle	7.7%	43	443	560	901	4,608	0	1,947	29.7%
4364.02	2,911	142.9%	Upper	2.1%	0	272	198	216	2,225	0	686	23.6%
4365	3,716	80.8%	Middle	8.1%	20	263	365	857	2,211	0	1,505	40.5%
4366	8,755	62.7%	Moderate	16.8%	93	959	1,182	2,746	3,724	51	5,031	57.5%
4367	2,372	80.6%	Middle	8.7%	59	259	118	983	953	0	1,419	59.8%
4368	2,871	94.3%	Middle	9.0%	28	375	279	621	1,568	0	1,303	45.4%
4369	5,739	71.6%	Moderate	12.2%	0	613	411	2,258	2,452	5	3,287	57.3%
4370	2,968	101.7%	Middle	1.9%	30	439	153	475	1,871	0	1,097	37.0%
4371	7,833	92.2%	Middle	7.0%	25	2,173	877	1,505	3,241	12	4,592	58.6%
4372	5,066	103.0%	Middle	6.8%	16	1,238	346	705	2,748	13	2,318	45.8%
4373	2,948	81.3%	Middle	6.1%	22	582	300	583	1,455	6	1,493	50.6%
4374	2,968	90.8%	Middle	5.9%	78	352	90	771	1,677	0	1,291	43.5%
4375	4,065	70.1%	Moderate	13.4%	0	473	348	1,556	1,688	0	2,377	58.5%
4376	2,551	75.8%	Moderate	11.9%	6	427	196	498	1,424	0	1,127	44.2%
4377	7,464	46.9%	Low	28.6%	86	951	1,286	2,445	2,663	33	4,801	64.3%
4378	3,464	97.0%	Middle	5.3%	0	671	255	821	1,713	4	1,751	50.6%
4379	2,434	79.7%	Moderate	14.3%	0	271	197	652	1,307	7	1,127	46.3%
4380	2,842	93.3%	Middle	4.2%	0	202	117	429	2,094	0	748	26.3%
4381	5,198	92.4%	Middle	3.3%	49	411	245	3,155	3,155	0	2,043	39.3%
4382.01	3,848	76.5%	Moderate	8.3%	22	779	283	1,253	1,497	14	2,351	61.1%
4382.02	6,335	84.8%	Middle	6.2%	48	1,452	423	1,064	3,348	0	2,987	47.2%
4383	3,321	96.2%	Middle	4.0%	13	968	274	1,099	967	0	2,354	70.9%
4384	2,055	104.4%	Middle	3.7%	10	484	127	364	1,070	0	985	47.9%
4403.01	4,753	102.3%	Middle	3.5%	9	717	444	1,096	2,484	3	2,269	47.7%
4403.02	5,928	117.1%	Middle	1.7%	39	2,783	603	844	1,659	0	4,269	72.0%
4403.04	4,704	103.8%	Middle	9.7%	16	2,175	476	828	1,203	6	3,501	74.4%
4403.05	4,153	128.8%	Upper	2.3%	36	1,664	434	615	1,360	44	2,793	67.3%
4403.06	4,029	100.9%	Middle	11.7%	36	1,723	433	705	1,132	0	2,897	71.9%
4403.07	4,279	93.9%	Middle	5.0%	0	1,127	312	839	2,001	0	2,278	53.2%
4403.31	2,351	80.8%	Middle	7.1%	6	773	195	693	675	9	1,676	71.3%
4415.01	5,019	139.0%	Upper	1.6%	18	2,641	253	494	1,602	11	3,417	68.1%
4415.02	10,651	128.7%	Upper	3.7%	29	4,672	513	966	4,471	0	6,180	58.0%
4415.98	7,853	132.4%	Upper	1.6%	60	3,339	392	679	3,364	19	4,489	57.2%
Totals	323,618				2,165	55,146	24,547	57,394	181,95	537	141,666	43.8%

\*Median tract income percent of statewide median income.  
Source: U.S. Census Bureau, 1990 census.

population that is 9.6 percentage points higher than that of Alameda County and 15.4 percentage points higher than that of the State of California.

As discussed above, the first step in the three-part analysis of Environmental Justice is whether a minority population exists in the impact area. That question is answered in the affirmative. The analysis then considers the second and third questions in the three-pronged test. Is there a high and adverse impact? Is the impact on the minority population disproportionately high and adverse?

In this case, there are no high and adverse impacts associated with the RCEC project. Specifically, as discussed in Section 8 of the AFC, there are no significant, unmitigated environmental impacts associated with the RCEC project. For example, local and regional air quality impacts will be mitigated to a level of less than significant. With respect to local air quality effects, the RCEC project addressed those issues with three different types of analyses: 1) pollution control technologies, including the use of BACT, dry low-NOx combustors, SCR, and natural gas as the sole fuel source, 2) the air quality impacts analysis performed by the Applicant, and 3) preparation of a health risk assessment for the RCEC project. With respect to regional air quality impacts, the RCEC project's demonstration that there will be no significant impact is confirmed by the Applicant's regional air quality studies, including a cumulative impacts analysis regarding regional air quality and the provision of emission offset or emission reduction credits. As another example, the project would cause no significant impacts to endangered or threatened species. The project site contains 1.68 acres of seasonal wetlands. Calpine/Bechtel will obtain a permit under the Clean Water Act from the U.S. Army Corps of Engineers to fill these wetlands at the plant site. The permit application will include a plan to mitigate this potential impact to below significance level. Similarly, noise modeling was performed to confirm that the RCEC's contribution to cumulative noise will not cause the background level to be increased by more than 5 dBA (barely noticeable increase) at the nearest receptor and that the project will comply with the City of Hayward's property line noise limit of 75 dBA, L<sub>DN</sub>.

As set forth in this AFC for each subject area, there are no unmitigated significant impacts associated with the RCEC project. Accordingly, since there are no high and adverse impacts associated with the project, there are no high and adverse impacts to fall disproportionately on minority populations.8.10.3 Cumulative Impacts

No significant adverse impacts to socioeconomic resources were identified; therefore, no cumulative impacts would result. Overall, the RCEC project will have a positive socioeconomic effect.

#### **8.10.4 Proposed Mitigation Measures**

No significant adverse impacts to socioeconomic resources were identified; therefore, no mitigation measures are proposed.

#### **8.10.5 Applicable Laws, Ordinances, Regulations, and Standards (LORS)**

All applicable LORS and their conformance measures are detailed in the text below. Table 8.10-10 summarizes this information.

##### **8.10.5.1 Federal**

None are applicable. The environmental justice issue, an issue of federal as well as state concern for any project, is addressed above in Section 8.10.2.

**Table 8.10-10. Laws, Ordinances, Regulations and Standards.**

<b>LORS</b>	<b>Document and Section</b>	<b>Applicability</b>	<b>AFC Section Where Conformance is Discussed</b>	<b>Agency/Contact</b>
<b>Federal:</b>				
	Environmental Justice	Nondiscrimination in siting or operating facilities	8.10.3	EPA Region 9 Romel Pasevak (415) 744-1212
<b>State:</b>				
General Plan	California Government Code, Section 65302	Requires each city/county to implement a General Plan	8.10.3.3 8.10.5.4	City of Hayward Comm. & Econ. Development Admin. Ms. Ann Bauman (510)583-4228
<b>Local:</b>				
School impact fees	Hayward Unified School District (HUSD)	School impact fees on new development in the City	8.10.5.3	Hayward Unified School District Interim Superintendent Cynthia LeBlanc (510) 784-2600
<b>Other Agency Contacts:</b>				
Hayward Police Department		Construction, safety & emergency response	8.10.1.5 8.10.2.3 8.10.2.4	Hayward Police Department Chief Craig Calhoun (510) 293-7272
Hayward Fire Department		Construction, safety & emergency response	8.10.1.5 8.10.2.3 8.10.2.4	Hayward Fire Department Chief Larry Arlsten (510) 583-4945
Alameda County Sheriffs Department		Construction, safety & emergency response	8.10.1.5	Alameda County Sheriffs Department Timothy P. Ostlund (510) 271-5198
Kaiser Foundation Hospital		Emergency response	8.10.1.5 8.10.2.3 8.10.2.4	Kaiser Foundation Hospital Operations Duayna Pucci (510) 784-4313
St. Rose Hospital		Emergency response	8.10.1.5 8.10.2.3 8.10.2.4	St. Rose Hospital V.P. Hospital Operations Bryan Daylor (510) 264-4005

**Table 8.10-10. (Continued).**

LORS	Document and Section	Applicability	AFC Section Where Conformance is Discussed	Agency/Contact
Alameda County Assessors Office		Tax revenues	8.10.2.3 8.10.2.4	Alameda County Assessors Office Dean Lewis (510) 272-3777
Alameda County Auditors Office		Tax revenues	8.10.2.3 8.10.2.4	Alameda County Auditors Office Patrick O'Connell (510) 272-6565

### **8.10.5.2 State**

California State Planning Law, Government Code Sections 65302 et seq., requires that each city and county adopt a General Plan consisting of seven mandatory elements, to guide its physical development. Section 65302(c) requires a housing element and Section 65302(e) requires an open space element be included in the General Plan. Section 65303(a) provides that optional elements also may be included in the General Plan. The City of Hayward manages local development through the Hayward General Plan, which was created in 1986 and amended in 1998.

### **8.10.5.3 Local**

The Economic Development Element of the Hayward General Plan identifies the current economic condition, constraints, and opportunities within the City of Hayward and establishes policies and strategies that:

- Support economic growth
- Maintain a healthy balance between economic growth and environmental quality
- Provide the necessary supports to businesses
- Eliminate cumbersome and unnecessary regulations
- Prevent the wasteful under-utilization of physical resources
- Encourage businesses that create permanent, higher wage jobs to locate and/or expand in Hayward
- Assist City residents to acquire skills so they may fill future jobs

The project will comply with these policies by slightly increasing employment; providing additional tax revenue; and maintaining the energy supplies in California required to support and maintain such objectives.

In addition, communities assess impact fees (e.g., school or transportation impact fees) as part of the building permit process. According to the Hayward General Plan, while Hayward does not have a Transportation Improvement Fee on new development projects, the Supplemental Building Construction and Improvement Tax (SBCIT) serves a similar purpose by generating General Fund revenue (City of Hayward 1998). The project will comply with this regulation by paying all applicable impact fees, including the SBCIT fees, as determined by the appropriate governing entity.

### **8.10.6 Involved Agencies and Agency Contacts**

Table 8.10-10 includes a list of agencies and contact persons.

### **8.10.7 Permits Required and Schedule**

No permits related to the socioeconomic aspects of the project are required.

### 8.10.8 References

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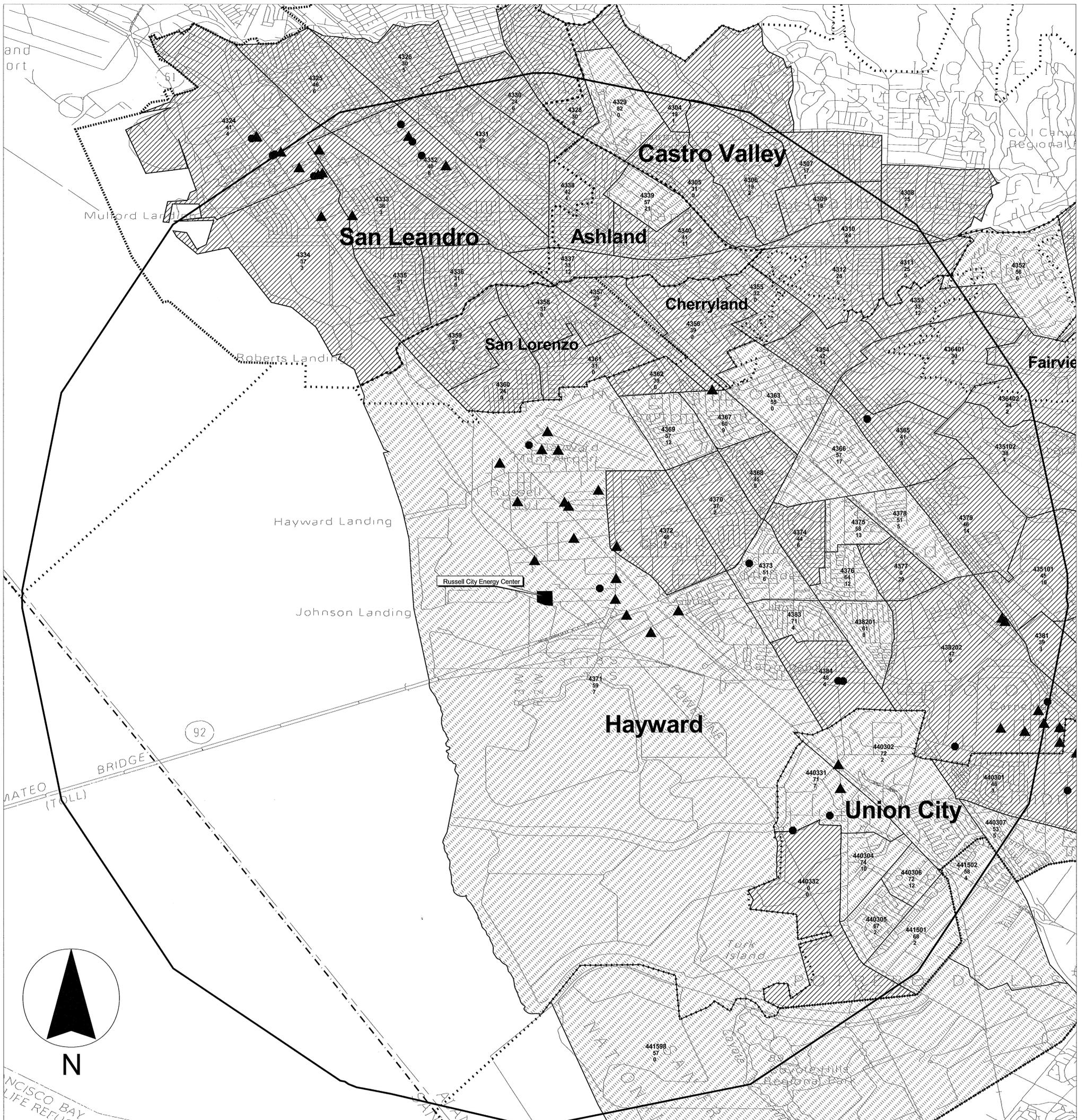
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**LEGEND**

- RCEC site location
- 6-mile buffer
- Roads
- City Boundaries
- Alameda County Boundary
- 39475 (top #) Census tract number
- 31 (middle #) Minority percentage for census tract
- 10 (lower #) Poverty percentage for census tract
- 0% - 50% Minority Population
- 51% - 100% Minority Population
- Permitted facilities**
- SARA Title III facilities
- AIRS Facility System (AFS)

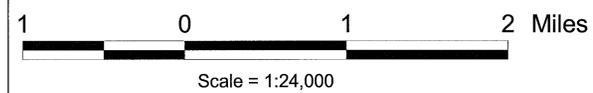


Figure 8.10-1

Minority Populations within Six Miles  
**RUSSELL CITY ENERGY CENTER**

*Russell City Energy Center AFC*

*May 2001*