C.10 SOCIOECONOMICS AND PUBLIC SERVICES

C.10.1 ENVIRONMENTAL BASELINE AND REGULATORY SETTING

C.10.1.1 Regional Overview

The nine county Bay Area is one of the largest and most dynamic metropolitan areas in the country. Its employment and population have grown and are expected to continue to grow at a substantial rate. Between 1990 and 2000, Bay Area population is estimated to have grown by more than 900,000 people to a nine county total of approximately 6.9 million. At the same time, regional employment grew from 3.2 million to approximately 3.7 million, matching the 15 percent increase of population growth. Projections suggest an employment growth rate of 27 percent between 2000 and 2020, or the addition of one million new jobs. Since the population growth rate is only forecast to be 16 percent during the 20 year time span, a population growth of approximately 1.1 million, there is likely to both be an increase in labor force participation and a growth of in-commuting to Bay Area jobs from the surrounding counties.

The Proposed Project and alternatives are located primarily in eastern Alameda County, including unincorporated territory and the cities of Dublin, Livermore, and Pleasanton. A small portion of the project is located in southern Contra Costa County and alternatives include elements in the City of San Ramon, in Contra Costa County.

C.10.1.2 Environmental Setting

The community socioeconomic characteristics which are analyzed for the region and project area include employment patterns, income, and population and household trends. The data presented are primarily from the 1990 U.S. Census and the Association of Bay Area Governments' (ABAG) *Projections 2000*, the basis for regional planning activities by ABAG, the Metropolitan Transportation Commission (MTC), and many other agencies. Other sources include the state Department of Finance's population estimates and employment data compiled by the California Employment Development Department (EDD). Although the 1990 census data is somewhat dated, the 2000 data will not be released in time for inclusion in this EIR.

Information on public services and public utilities was derived from planning documents and key information interviews with agency representatives.

C.10.1.2.1 *Employment Patterns*

Table C.10-1 illustrates employment trends in Alameda and Contra Costa Counties, as well as the cities of Dublin, Livermore, Pleasanton, and San Ramon. Alameda will be one of the leading Bay Area counties in job growth, and although its percentage increase forecast from 2000 to 2020, at 30 percent, is not the highest, the projected absolute growth of 219,500 is second only to Santa Clara's projected job growth of 231,000. The forecast 141,000 net new jobs in Contra Costa between 2000 and 2020 represents a 39 percent increase. Dublin's anticipated employment growth of 80 percent from 2000 to

2020, along with growth rates of 54 percent for Livermore and Pleasanton, will be substantially higher than Alameda County as a whole. Likewise, the 58 percent employment growth anticipated in San Ramon is greater than the expected Contra Costa County growth rate. This employment growth, along with the associated population and household growth, is the driving force behind the need to expand the electrical capacity of the area.

Table C.10-1 Tri-Valley Employment Trends: 1990-2020

	1990	2000	2010	2020	2000-20 growth #	2000-20 growth %
Alameda County	644,100	725,800	848,300	945,300	219,500	30%
- Dublin	12,870	26,050	37,330	46,770	20,720	80%
- Livermore	31,830	39,820	51,370	61,390	21,570	54%
- Pleasanton	33,310	44,990	58,830	69,500	24,510	54%
Contra Costa County	314,550	360,090	429,460	500,680	140,590	39%
- San Ramon	32,490	38,580	50,550	60,970	22,390	58%

Source: ABAG Projections 2000

All industrial sectors are expected to increase their employment with manufacturing and services employment showing the most growth. Dublin and Livermore are also expecting substantial growth in retail jobs. The Tri-Valley cities of Alameda County (Dublin, Livermore, Pleasanton) are growing faster than the remainder of the County. In 2000, 15.2 percent of Alameda County jobs were in the three cities, a ratio expected to increase to 18.8 percent by the year 2020. The construction industry within the county is large and growing as well. In Alameda County, there are approximately 38,500 persons employed in the construction industry in 2000, a 17 percent increase since 1995.

C.10.1.2.2 *Population and Housing*

Table C.10-2 illustrates the anticipated population growth in Alameda and Contra Costa Counties from 2000 through 2020. The population growth rate is below the increase in employment. The anticipated Alameda countywide growth of 155,000 persons would represent an 11 percent increase. Almost 45 percent of county population growth is expected to occur in the Tri-Valley communities. Dublin is expected to witness the most population growth, almost doubling from 2000 to 2020. San Ramon, with a population growth of 76 percent, is also expected to grow rapidly during the next 20 years.

Table C.10-2. Tri-Valley Population Trends: 1990-2020

	1990	2000	2010	2020	2000-20 growth #	2000-20 growth %
Alameda County	1,276,200	1,462,700	1,615,900	1,617,700	155,000	11%
- Dublin	23,229	31,400	46,300	60,900	29,500	94%
- Livermore	56,741	76,400	92,100	97,000	20,600	27%
- Pleasanton	50,570	66,200	77,300	82,200	16,000	24%
Contra Costa County	803,732	941,900	1,076,800	1,169,000	227,100	24%
- San Ramon	35,400	45,900	63,700	80,700	34,800	76%

Source: ABAG Projections 2000

Table C.10-3 provides some demographic information on Alameda and Contra Costa Counties and the Tri-Valley cities, and Table C.10-4 provides household and housing information. There are few significant differences in socioeconomic characteristics between the cities with the exception that Dublin has a somewhat higher minority population than Livermore and Pleasanton, which both have approximately a 90 percent white population.

Table C.10-3. Tri-Valley Population, Race, Hispanic Origin: 1990

	Population	% White	% Black	% Asian	% Hispanic
Alameda County	1,279,182	60%	18%	15%	14%
- Dublin	23,229	77%	11%	6%	11%
- Livermore	56,741	89%	1%	5%	10%
- Pleasanton	50,570	91%	1%	6%	7%
Contra Costa County	803,732	76%	9%	10%	11%
- San Ramon	35,303	87%	2%	9%	6%

Source: 1990 US Census.
Note: Percentages do not add up: White includes substantial portion of Hispanic; and American Indian and Other not included due to very small percentages.

Relative to Alameda County, the Tri-Valley communities had a higher proportion of owner-occupied housing and substantially higher mean household income than the county as a whole in 1990. According to ABAG *Projections 2000* forecasts, this household income relationship continues, with Dublin, Livermore, and Pleasanton estimated to have year 2000 mean household income levels of approximately $80,000, $76,700, and $96,000, respectively, compared to an Alameda County average of $66,800. San Ramon had the highest mean household income in 1990, at $63,600, approximately 40 percent higher than the Contra Costa County mean. San Ramon estimated mean income is $102,300, 29 percent higher than the Contra Costa average.

Table C.10-4. Tri-Valley Housing Characteristics: 1990

	Households	% owner occupied	Vacancy rate	Median household income
Alameda County	480,079	53%	4.8%	$37,544
- Dublin	6,559	65%	2.8%	$53,710
- Livermore	20,659	67%	3.9%	$49,149
- Pleasanton	18,675	70%	4.5%	$59,458
Contra Costa County	301,087	68%	5.0%	$45,087
- San Ramon	12,806	69%	5.1%	$63,607

Source: 1990 US Census

C.10.1.2.3 *Public Services*

Fire Protection. Fire protection to much of the subject area is provided by the Livermore-Pleasanton Fire Department (LPFD), which was formed in 1997 by the consolidation of both cities fire departments. The department has a total of 100 fire suppression staff, all of whom have emergency medical training (EMT) and certification. The department operates out of eight stations including station 5 on Vineyard Avenue near the Ruby Hill development, station 7 in northwest Livermore, and station 8, located north of I-580 in Springtown. The LPFD has an automatic aid agreement with the

fire department at the Lawrence Livermore National Laboratory, which has seven fire engines and 42 full-time firefighters. The Alameda County Mutual Aid Plan also permits the LPFD to request aid from the California Division of Forestry, the Alameda County Fire Department, and the Tracy Rural Fire District (City of Livermore. 1999).

The Dougherty Regional Fire Authority provides fire protection to southern San Ramon and eastern Dublin, operating from a station on Alcosta Boulevard just north of the Dublin-San Ramon border. The Alameda County Fire Department provides the City of Dublin with fire protection, operating from two stations. The San Ramon Valley Fire Protection District is responsible for the remainder of San Ramon, the Morgan Territory area and Tassajara Valley, located in unincorporated areas of Contra Costa County.

Police Protection. The Livermore Police Department operates from a central station adjacent to City Hall on South Livermore Avenue. The Department is staffed by 65 sworn officers. The Pleasanton Police Department has a force of approximately 80 sworn personnel. The San Ramon Police Department has a force of 40 sworn officers.

The Alameda County Sheriff's Department provides police services for the unincorporated area, as well as the City of Dublin on a contractual basis. There is a police station at the Dublin Civic Center. The City of San Ramon has its own Police Department of 40 sworn officers, and unincorporated Contra Costa County receives protective services from the County Sheriff's Department.

Schools. Each of the communities has an affiliated school district. The Pleasanton Unified School District provides kindergarten through 12th grade education, and was formed by a consolidation of three districts in 1988. As a result of anticipated growth, the District plans the construction of three additional elementary schools, one middle school, and the expansion of the two high schools (City of Pleasanton, 1996). The Dublin Unified School District and Livermore Joint Unified School District serve areas to the north and east of Pleasanton, respectively. Both districts plan new schools and school expansions warranted as additional residential areas come on-line.

The San Ramon Valley Unified School District serves the cities of Danville and Alamo as well as San Ramon.

Hospitals. Valley Memorial Hospital and a Veterans Administration Hospital are both located in Livermore. The Valleycare Medical Center is located in Pleasanton.

C.10.1.2.4 *Public Utilities*

Water. Zone 7 of the Alameda County Flood Control and Water Conservation District is the water management agency for the Tri-Valley water basin. Zone 7 is responsible for bulk water purchase and treatment - both drinking water and untreated agricultural irrigation water, surface water and groundwater basin management, and flood control. There are four water retailers in the area, including the City of Pleasanton, Dublin San Ramon Services District, California Water Service Company, and City of Livermore. There are three sources for the Zone 7 water supply: imported water from the State

Water Project via the South Bay Aqueduct, local runoff stored in the Del Valle Reservoir, and local groundwater (Alameda County, 1993). Two Zone 7 water treatment plants are adjacent to the PG&E Co. Tesla-Newark and Stanislaus Corridors: Del Valle, just west of Sycamore Grove Regional Park, and Patterson Pass, at the east end of Alameda County.

Sewer. There are two primary wastewater treatment plants in the Tri-Valley area, the Dublin San Ramon Service District Treatment Plant located in the City of Pleasanton, and the Livermore Water Reclamation Plant. The Livermore-Amador Valley Water Management Agency (LAVWMA) is a joint powers agency that was created to export treated effluent from the valley to connect with the East Bay Dischargers Authority pipeline in Hayward.

Solid Waste. There are two existing landfills in the Tri-Valley area. The Altamont Sanitary Landfill is located north of I-580 in the Altamont Hills. The 2,170-acre site is owned by the Oakland Scavenger Company. Most of Alameda County's waste stream is disposed of at this facility, as well as material from San Francisco. The Vasco Road Sanitary Landfill, operated by BFI, is located just west of the Altamont facility on Vasco Road. It receives solid waste from the cities of Berkeley, Pleasanton, and Livermore, and self-haul waste from other sources.

Natural Gas, Electricity, and Telephone. PG&E Co. currently serves the Tri-Valley area with natural gas and electricity. A discussion of load projections and current capacity is presented in Section A.2, Project Description.

Telephone service for the project area is provided by Pacific Bell. Cable TV is provided by AT&T.

C.10.1.3 Applicable Regulations, Plans, and Standards

Federal Communications Commission. The FCC has a monitoring station in the North Livermore area on a 117-acre site between May School Road and Hartford Avenue, north of I-580 and west of the Livermore City limits in unincorporated Alameda County. Its address is 3320 Lorraine Street, Livermore. The FCC station was established in 1947. Its primary functions are: 1) High Frequency (HF) long-range direction finding, aiding vessels and aircraft in distress or with navigational equipment problems; 2) spectrum management (HF, VHF, UHF) tasks using monitoring and radio law enforcement facilities; and 3) solution of international radio frequency interference problems, cross-border disputes and negotiations, and the maintenance of international treaty obligations. To accomplish these tasks, the station employs a wide variety of antennas and a long-range direction finder (HFDF) (Alameda County, 1993).

Because certain types of development may cause electromagnetic interference with the monitoring station's equipment, the FCC has criteria regarding the nature of development within one mile of the radio transmitters in the station. Several of the more restrictive criteria are included in the following FCC, letter to Alameda County Community Development Agency, March 1998:

f) Obstructions, including man-made structures or natural terrain features, maximum elevation (as viewed from ground level at the arrays equipment building) shall not exceed in height the horizontal distance to the

obstruction multiplied by 0.052 (a 3 degree vertical clearance angle). For example, at 1000 foot distance, structures exceeding 52 feet in height would violate this criteria.

g) Any single quarter wave structure, resonant at any frequency with the HFDF operating frequency range, should be removed at least 7 wavelengths. A rule of thumb for this item is a 2 degree vertical clearance angle (horizontal distance to structure multiplied by 0.035) for grounded metallic structures (e.g. street light standards, down spouts). A rough equivalent of this rule, assuming flat terrain, is that a structure must be removed from the array's perimeter by at least 30 times to structure's height.

The North Livermore Specific Plan proposed a land trade to relocate a portion of the FCC property to allow more development in the area while meeting the above cited criteria. The land trade would relocate FCC facilities further south of its current location (Alameda County, 2000b). "While the status of the FCC's radio monitoring site at Livermore is being explored, no decision has been made concerning future disposition of that property. Nothing in the EIR should be construed to represent the position of the FCC concerning the future of this site. (FCC letter to Alameda County Community Development Agency, June 2000)

Pleasanton. The Pleasanton General Plan anticipated both residential and employment growth in the community, expecting residential build-out "around the year 2004 or later" and build-out of employment generating uses "would occur around the year 2018..." (City of Pleasanton, 1996). The following Land Use Element goals, policies, and programs illustrate Pleasanton's aspirations:

- Policy 4: Ensure that neighborhood, community, and regional commercial centers provide goods and services needed by residents and businesses of Pleasanton and its market area.
- Program 4.1: Zone sufficient land for neighborhood, community, and regional commercial uses to support Pleasanton's increasing business activity (City of Pleasanton, 1996).

Pleasanton also has an Economic and Fiscal Element which includes the following policy:

- Policy 2. Actively recruit and attract businesses and industries which are compatible with the General Plan and consistent with the environmental holding capacity of the land and surrounding land uses (City of Pleasanton, 1996).

The following sections of the Public Facilities Element regarding gas and electricity should be noted:

- Policy 8: Ensure a sufficient gas and electric system to serve existing and future needs while minimizing impacts on existing and future residents.
- Program 8.1: Work with PG&E Co. to design and locate appropriate expansions of the gas and electric system.
- Program 8.3: Place new regional serving transmission and distribution lines underground, wherever feasible.
- Program 8.4: Design utility substations in a visually-appealing structure, and minimize their impact on nearby residential areas (City of Pleasanton, 1996).

Dublin. This rapidly growing city has plans which include the annexation of a large area to the east of the established community, including the provision of community services and facilities, as noted below:

Goal: To provide a full complement of community services and facilities as needed in eastern Dublin.

- Policy 8-9: Coordinate with Pacific Gas and Electric and Pacific Bell in planning and scheduling future facilities which will serve eastern Dublin (City of Dublin, 1999).

North Livermore (joint city/county plan). The following policies are proposed regarding utility service (Alameda County, 2000b):

- Policy 6.5.1: Pacific Gas & Electric High Voltage Transmission Lines and Substations. The County shall consult with PG&E Co. regarding appropriate locations and design of any proposed high voltage transmission lines and/or substations within Zones B, C, or D. It shall be County policy that any such lines or substations be located to minimize visual impacts to the area.
  - a) The transmission of power from the substation to the urban area should be in underground conduits.
  - b) A substation, if required, should be adequately screened from all adjacent public right-of-ways.
  - c) Overhead 230kV lines visible from the central portion of project area shall be strongly discouraged.

Alameda County. The County has adopted the following goal and policies (Alameda County, 1994):

Goal: To provide efficient and cost-effective utilities.

- Policy 262: The County shall facilitate the provision of adequate gas and electric service and facilities to serve existing and future needs while minimizing noise, electromagnetic, and visual impacts on existing and future residents.
- Policy 263: The County shall work with PG&E Co. to design and locate appropriate expansion of gas and electric systems.

San Ramon. Guiding Policy (City of San Ramon, 1995):

A. Ensure the provision of adequate communication and utility systems for existing and future residents and the business community.

B. Cooperate with PG&E Co. to monitor future utility expansion to ensure that facilities are designed and planned with minimal impact on existing and future residents.

C.10.2 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES FOR THE PROPOSED PROJECT

C.10.2.1 Introduction

The Proposed Project could affect socioeconomic conditions and public services both directly and indirectly. Construction and operation of the transmission line could create a direct demand for, or disruption to, public services along the alignment. The construction labor force could impact local employment patterns, population growth, and demand for housing. Acquisition of property could displace businesses and residents. These factors could have an indirect impact on public service demands. The operation of the facility could result in availability of new infrastructure in the area that could induce further employment and population growth, which would also directly impact need for public services. In the case of the Federal Communications Commission, transmission lines and substations could interfere with the functions of the FCC.

The evaluation of employment impacts is developed by collection of background employment trends in the project corridor, verification of the applicant's projections of construction labor force required, and

assessment of the location and duration of construction employment generated by the project. Large construction projects can attract a new labor force to an area, which can be factored into temporary and permanent housing availability, and thus into demand for public services. Projections of direct project impacts on public services are generated based on knowledge of the nature of the activities and discussion with representatives of public service providers.

C.10.2.2 Definition and Use of Significance Criteria

Socioeconomics

Temporary Employment. The impact of the project on the construction period employment patterns could be beneficial or adverse. If unemployment in the region is reduced without causing a large influx of new employees into the region, it would be considered a Class IV beneficial impact. If, however, labor shortages result in a competition for labor that drives up wage rates or an influx of workers who compete for existing housing, the employment impacts could be significant (Class I or Class II) adverse impacts.

Temporary Housing. The impact on temporary housing would be considered significant if the demand for such housing takes up more than 25 percent of the supply of such housing that is utilized by the visitor market during the peak visitor season. If competition for temporary housing takes less than 25 percent of such supply, it would not be considered significant (Class III impact). If temporary housing demand is such that it utilizes housing that is normally vacant during the peak season, it would be a beneficial or Class IV impact.

Permanent Housing. The impacts on permanent housing would be significant if demand for housing generated by project inducing immigration resulted in: a) increases in housing rent or prices by more than 10 percent or b) decreased vacancy rates to less than five percent, or c) decreased vacancy rates by more than 20 percent if already below five percent.

Business in the Project Area. Project construction could impact businesses along the route by displacing them or by disrupting access and/or business activities. Any impact that causes the permanent displacement or relocation of a business would be considered a significant impact. A temporary business disruption would be considered a Class II (mitigable) or Class III (not significant) impact depending on the nature and extent of disruption. Businesses that benefit by selling supplies to the contractors or labor force could be beneficially impacted (Class IV).

Institutional Activity in the Project Area. Project construction or operation could interfere with activities of governmental or nonprofit entities operating in the corridor. Any impact that causing the displacement of or interference with such activities would be a significant (Class I or Class II) impact.

Property Values. Proposed transmission line projects often raise concerns about their potential effects on property values. Review of the literature on the effects of overhead transmission lines on property values indicates that considerable study has been devoted to evaluating such potential impacts on residential and agricultural property values, but the literature contains minimal discussion of impacts on

commercial or industrial use. Studies have either been based on appraisal comparisons of like property proximate or not proximate to transmission lines, attitudinal studies of qualitative perceptions, or statistical analyses using statistical tools on data derived from appraisals and other field study methodologies (Kroll & Priestley, 1992). The conclusions of impacts on residential and agricultural property can be summarized by the following points:

- Overhead transmission lines have the potential to reduce the sales price of residential and agricultural property.
- The effect, especially for single family homes, is generally small (from zero to 10 percent), but has been estimated to be greater than 15 percent in some specialized cases of rural areas.
- Other factors (e.g. neighborhood factors, square footage, size of lot, irrigation potential) are much more likely than overhead transmission lines to be major determinants of the sales price of property.
- Effects are most likely to occur to property crossed by or immediately next to the line, but some impacts have been measured at longer distances.
- Positive impacts may also occur, where the right-of-way is attractively landscaped and/or developed for recreational use.
- Impacts may be greater for small properties than for larger properties.
- Impacts may be greatest immediately following construction of a new line (or a major increase in size in an older right-of-way), diminishing over time (Kroll & Priestley, 1992).

A review of the literature on property value impacts from industrial activities conducted for the Application for Certification for the Metcalf Energy Center included a summary of studies of impacts of transmission lines:

> "We review ten studies here. The studies can be separated into two categories – those that find no impact on surrounding property, and those that do find an impact. Four studies found no discernable impacts on adjoining property values.…One study found a significant reduction of $2,232 per lot abutting the transmission line using a hedonic analysis, but no effect in another neighborhood using a comparable sales analysis.… Five studies determined that the impacts were significant…Hamilton and Schwan (1995) developed the most complete and reliable analysis on transmission line impacts in Vancouver, British Columbia. They found that an adjacent transmission tower reduced a property's value by 5.7 percent, and that the transmission line reduced property values out to 100 meters (328 feet) from the center line by 0.018% per foot. This effect is similar to that found by Colwell (1990) who found an impact of 0.017% per foot out to 400 feet." (M.Cubed, 1999).

The two impacts the transmission line could have on property values would be adverse visual impacts or impacts on the usage of electronic equipment; these issues are addressed directly in Sections C.9 (Public Safety, Health and Nuisance) and C.12 (Visual Resources). Potential impacts on electronic equipment should be reduced to non-significant levels through implementation of mitigation measures.

Section 15131 of the CEQA Guidelines includes the following language:

(a) Economic or social effects of a project shall not be treated as significant effects on the environment.

(b) Economic or social effects of a project may be used to determine the significance of physical changes caused by the project.

(c) Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR.

It has been established that CEQA was not designed to protect against a possible decline in the commercial value of property adjacent to a project *(Hecton v. People of the State of California, 1976, 58 Cal.App. 3d 653, 656)*. Potential visual, safety, and nuisance impacts resulting from the Proposed Project are addressed in other sections of this EIR. For these reasons, the possible reduction of property values *does not* constitute a CEQA impact and no further analysis is warranted.

Public Services

Public Protection. Impacts are considered significant if the project causes a temporary or permanent increase in need for police and fire protection personnel or equipment that is not matched by availability of such services and the financial resources to acquire such additional services.

Roads. A significant impact would occur if construction-related equipment caused an abnormal degree of deterioration to city or county roads.

Schools. For schools with available capacity, any project-related temporary or permanent increase in enrollment that exceeds such capacity or results in the need to hire additional teachers or staff would be considered significant. For schools with no reserve capacity, any project-related enrollment increase will represent an unavoidable significant (Class I) impact.

Water. A significant impact would occur if the project or project-related growth would generate a demand that exceeds the ability of water utilities to supply the needed water.

Wastewater. A significant impact would occur if the project or project-related population growth would result in wastewater flows that exceed the capacity of the collection and treatment facilities.

Solid Waste. A significant impact on landfill capacity would occur if the project or project-related population growth would generate solid waste in excess of landfill capacity.

Pipelines and Existing Infrastructure. A significant impact on infrastructure improvements would occur if the project or alternatives reduced the service life of an existing pipeline or other infrastructure.

C.10.2.3 Applicant Proposed Measures

While PG&E Co. does not present specific measures to reduce impacts on public services and socioeconomics, several construction procedures or design measures are referenced in its PEA (PG&E, 1999), and would reduce impacts in these areas:

- For the proposed Dublin Substation, PG&E Co. plans to utilize a larger than normal site to allow for future screening to reduce potential neighborhood impacts on future nearby residential development (page 2-29).

- A portion of the South Area transmission line (in Pleasanton) will be placed underground to eliminate the need to displace residents and homes (page 2-32).

- To reduce the impact of temporary lane closures that could disrupt emergency access by public protection services, PG&E Co. will follow the provisions in the Work Area Protection and Traffic Control Manual which addresses provisions for safe access for police, fire, and other rescue equipment. In addition, PG&E Co. will obtain roadway encroachment permits from the City of Pleasanton and will submit a traffic management plan subject to agency review and approval (page 2-48).

- To ensure that existing underground and aerial utilities are not affected by construction, PG&E Co. will conduct surveys of all utilities in the project area and contact Underground Service Alert to verify the location of existing underground utilities.

- Most of the transmission lines and substations will be on right-of-way or easements presently controlled by PG&E Co. For any project elements not presently along an existing easement, PG&E Co. will purchase easements and thus compensate property owners.

C.10.2.4 Environmental Impacts and Mitigation Measures: Project and Alternatives

This section discusses general socioeconomic impacts or concerns that are not site-specific but rather potentially apply whether the Proposed Project or alternative transmission corridors and/or substation sites are selected. The impacts of construction employment or economic impacts (fiscal and property value) do not have differential impacts based on particular routings. Neither the Proposed Project nor the alternatives would cause displacement of population or housing, so it is covered once in this section.

C.10.2.4.1 *Employment Patterns*

Project Construction. In a rural area with an insufficient local construction labor force, construction workers often commute large distances, rent rooms, or use campgrounds on a temporary basis. A small proportion actually move their families temporarily to an area. When the project is in a large urban region such as the San Francisco Bay Area, it is anticipated that the majority of the labor force would be workers already living in the area.

The construction period for the transmission lines and substations is expected to be approximately 12 months. PG&E Co. projects a maximum of 60 to 70 workers involved in construction. (PEA, page 16-5). This will be split between activities such as site clearing and construction of the substation and foundation, structure fabrication, and stringing of wire from tower to tower.

Current Bay Area unemployment rates are at historically low rates, 2.9 percent in Contra Costa and 3.3 percent in Alameda, according to the California Employment Development Department's August 2000 estimates (EDD, 2000). However, given the large local labor force in the construction industry in general and required trades specifically, there should be little need for construction workers to move to the Bay Area to work in this project. Thus, construction of the project should not have adverse impacts on primary or secondary employment patterns.

Direct permanent employment associated with the Proposed Project is minimal, limited to monitoring and inspection. The need for the project is directly related to the forecasts for employment and

population growth in the Tri-Valley area, which are contained in approved community plans and ABAG's forecasts of regional growth, as described in the setting section. Thus the project should have a beneficial impact on permanent secondary employment.

C.10.2.4.2 *Population and Housing*

Transmission Lines and Substation Sites. No residential, commercial, industrial, or institutional structures will be displaced as a result of the Proposed Project.

C.10.2.4.3 *Socioeconomic Impacts*

The Proposed Project would have small but positive fiscal impacts on local government finance. PG&E Co. will pay property tax on the value of improvements. This will generate revenue for City and County governments, and other agencies that receive a portion of property tax receipts. However, as part of a large and growing metropolitan area, the incremental revenue to the cities of Dublin, Livermore, and Pleasanton, and other agencies will not be significant.

C.10.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES: PLEASANTON AREA

C.10.3.1 Proposed Project

C.10.3.1.1 *Construction*

The demand for public services such as fire and police protection, schools, hospitals, and maintenance of public facilities will not increase during construction of the project. PG&E Co. will work directly with the Pleasanton Public Works Departments regarding construction schedules and work along roadways such as Bernal Avenue. Construction activities will not physically affect local hospitals because no hospitals are present in the construction area. Given the size of local hospital facilities and the number of construction workers relative to the availability of medical services, potential medical emergencies among the construction crews will not place an undue burden on the local hospitals. This impact is less than significant.

Impacts of underground construction could be significant on neighborhoods in terms of emergency access, but would be mitigated to less than significant through implementation of mitigation measures T-5 through T-8 (see Section C.11, Transportation and Traffic).

Construction of a 230 kV transmission line and substation upgrade would not have a significant adverse impact on any local utilities in the project area. Installation of new phone lines to substations would not result in an impact to public telecommunication services. Along the proposed corridor, project construction could inadvertently contact underground facilities during construction of underground elements or the setting of new transmission poles, potentially leading to short-term service interruptions. A temporary impact to these services could occur. Water use during construction would be minimal and would be limited to dust control or other incidental uses, resulting in a less than significant impact to the overall available water supply. Project construction would result in an insignificant temporary increase in the total amount of waste generated in the region. Waste that is gen-

erated during construction will be disposed of in an environmentally responsible manner in the Altamont or Vasco Road Landfills and impacts would be less than significant.

Passage of heavy construction vehicles could cause abnormal deterioration of county or city roads not designed to accommodate such vehicles, which is addressed in Section C.11 (Mitigation Measure T-4).

Where the proposed transmission line would be installed underground (along Benedict Court, Smallwood Court, Hearst Drive, and Bernal Avenue), it will be important for PG&E Co. to coordinate with the City of Pleasanton regarding the exact location of existing underground utilities. If existing pipelines are present, there is the potential for the underground transmission line to increase corrosion on existing lines by increasing current through some soils. This is a potentially significant (**Class II**) impact that can be reduced to less than significant levels with implementation of Mitigation Measure S-1 below.

S-1 PG&E Co. shall consult with local jurisdictions and agencies responsible for all underground utilities in order to define the exact placement of the underground transmission line. In addition, PG&E Co. shall evaluate the potential for the underground transmission line to increase corrosion on existing pipelines. If this potential is determined to exist, PG&E Co. shall be responsible for installation of the required cathodic protection systems that would eliminate this risk. A letter documenting these consultations and their results, including concurrence by the affected jurisdiction, shall be provided to the CPUC prior to the start of construction.

C.10.3.1.2 *Operation and Maintenance*

No significant impacts would result to public services during operation of the project. PG&E Co. maintains transmission lines and substations on a regular basis (including tree-trimming) and there is no need for local government involvement in maintenance activities.

Both construction and operation of underground and above ground transmission lines generate risk of fire, particularly bird strikes or downed wires in the case of above ground transmission. However, with correct wire spacing, the risk of fire from bird strikes is minimized. Although each mile of transmission line generates some possibility of fire, it is not significant in terms of fire department staffing or ability to respond with existing equipment resources.

Operation of the project would not increase the demand for public water supply, nor would it jeopardize the water quality of the public water supply system. The only post-construction demand for water would be for intermittent domestic use by PG&E Co. personnel.

C.10.3.2 Alternatives S1, S2, and S4

C.10.3.2.1 *Construction*

The specific streets utilized for underground construction in these alternatives would be different from the Project. Underground construction would be more focused in existing transportation and utility

corridors. The public service and public utility impacts would be comparable to those of the Proposed Project, and remain less than significant. Potential impacts on public roads could be comparable to the Proposed Project. Mitigation Measure S-1 should be implemented for all underground transmission line segments.

C.10.3.2.2 *Operation and Maintenance*

Operation and maintenance of the alternative alignments would not have differential impacts on public services and utilities, and they would be less than significant.

C.10.4 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES: DUBLIN AREA

C.10.4.1 Proposed Project

C.10.4.1.1 *Construction*

The demand for public services such as fire and police protection, schools, hospitals, and maintenance of public facilities will not increase during construction of the project. Impacts would be less than significant. Construction activities will not physically affect local hospitals because no hospitals are present in the construction area. Capacity exists to handle potential construction accidents. This impact is less than significant.

Construction of a 230 kV transmission line and substation upgrade would not have a significant adverse impact on any local utilities in the project area. Installation of new phone lines to substations would not result in an impact to public telecommunication services. Along the proposed corridor, project construction could inadvertently contact underground facilities during construction of underground elements or the setting of new transmission poles, potentially leading to short-term service interruptions. A temporary impact to these services could occur. Water use during construction would be minimal and would be limited to dust control or other incidental uses, resulting in a less than significant impact to the overall available water supply. Project construction would result in an insignificant temporary increase in the total amount of waste generated in the region. Waste that is generated during construction will be disposed of in an environmentally responsible manner in the Altamont or Vasco Road Landfills and impacts would be less than significant.

Passage of heavy construction vehicles could cause abnormal deterioration of county or city roads not designed to accommodate such vehicles, which is addressed in Section C.11 (Mitigation Measure T-4).

C.10.4.1.2 *Operation and Maintenance*

No significant impacts would result to public services during operation of the project. PG&E Co. maintains transmission lines and substations on a regular basis (including tree-trimming) and there is no need for local government involvement in maintenance activities.

Both construction and operation of underground and above ground transmission lines generate risk of fire, particularly bird strikes or downed wires in the case of above ground transmission. However, with correct wire spacing, the risk of fire from bird strikes is minimized. Although each mile of transmission

line generates some possibility of fire, it is not significant in terms of fire department staffing or ability to respond with existing equipment resources.

Operation of the project would not increase the demand for public water supply, nor would it jeopardize the water quality of the public water supply system. The only post-construction demand for water would be for intermittent domestic use by PG&E Co. personnel.

C.10.4.2 Alternatives D1 and D2

C.10.4.2.1 *Construction*

The specific areas utilized for construction would be different. Underground construction around the San Ramon Substation (D2) would require coordination with the City of San Ramon Public Works Department. The public service and public utility impacts would be comparable to those of the Proposed Project, and less than significant. Mitigation Measure S-1 should be implemented for all underground transmission line segments.

C.10.4.2.2 *Operation and Maintenance*

Operation and maintenance of the alternative alignments would not have differential impacts on public services and utilities, and they would be less than significant.

C.10.5 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES: NORTH LIVERMORE AREA

C.10.5.1 Proposed Project and P1 and P2 Variant Alternatives

C.10.5.1.1 *Construction*

The demand for public services such as fire and police protection, schools, hospitals, and maintenance of public facilities will not increase during construction of the project. Impacts would be less than significant. Construction activities will not physically affect local hospitals because no hospitals are present in the construction area. Capacity exists to handle potential construction accidents. This impact is less than significant.

Construction of a 230 kV transmission line and substation upgrade would not have a significant adverse impact on any local utilities in the project area. Installation of new phone lines to substations would not result in an impact to public telecommunication services. Along the proposed corridor, project construction could inadvertently contact underground facilities during construction of underground elements or the setting of new transmission poles, potentially leading to short-term service interruptions. A temporary impact to these services could occur. Water use during construction would be minimal and would be limited to dust control or other incidental uses, resulting in a less than significant impact to the overall available water supply. Project construction would result in an insignificant temporary increase in the total amount of waste generated in the region. Waste that is generated during construction will be disposed of in an environmentally responsible manner in the Altamont or Vasco Road Landfills and impacts would be less than significant.

Passage of heavy construction vehicles could cause abnormal deterioration of county or city roads not designed to accommodate such vehicles, which is addressed in Section C.11 (Mitigation Measure T-4). Mitigation Measure S-1 should be implemented for all underground transmission line segments.

C.10.5.1.2 *Operation and Maintenance*

No significant impacts would result to public services during operation of the project. PG&E Co. maintains transmission lines and substations on a regular basis (including tree-trimming) and there is no need for local government involvement in maintenance activities.

Both construction and operation of underground and above ground transmission lines generate risk of fire, particularly bird strikes or downed wires in the case of above ground transmission. However, with correct wire spacing, the risk of fire from bird strikes is minimized. Although each mile of transmission line generates some possibility of fire, it is not significant in terms of fire department staffing or ability to respond with existing equipment resources.

Operation of the project would not increase the demand for public water supply, nor would it jeopardize the water quality of the public water supply system. The only post-construction demand for water would be for intermittent domestic use by PG&E Co. personnel.

C.10.5.2 Alternatives L1 and L2

C.10.5.2.1 *Construction*

The specific areas utilized for construction would be different, but the impacts similar. Underground construction under either the L1 or L2 alternatives would require coordination with the Alameda County or Livermore Public Works Department. Mitigation Measure S-1 should be implemented for all underground transmission line segments.

C.10.5.2.2 *Operation and Maintenance*

Operation of a conventional substation for the L1 alternative would have a significant adverse impact on the FCC facility. As planned, it would be adjacent to the FCC property, and the substation facilities and potential aboveground distribution lines would conflict with the FCC guidelines on height clearance and radio frequency noise. This is a potentially significant (**Class II**) impact with implementation of the following mitigation measure.

S-2 The potential property exchange between the property owners and FCC described in the North Livermore Specific Plan and Draft EIR must occur, or the FCC property is otherwise changed to accommodate the substation. The substation shall be designed with underground distribution as well as feeder lines. In addition, PG&E Co. would need to reduce the size of or eliminate the substation microwave tower in order to comply with the FCC interference criteria described in EIR Section C.10.1.3.

C.10.6 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES: TESLA CONNECTION PROPOSED PROJECT – PHASE 2 AND ALTERNATIVE

C.10.6.1 Construction

The demand for public services such as fire and police protection, schools, hospitals, and maintenance of public facilities will not increase during construction of the project. Impacts would be less than significant. Construction activities will not physically affect local hospitals because no hospitals are present in the construction area. This impact is less than significant.

Impacts of underground construction could be significant on neighborhoods in terms of emergency access, but would be mitigated to less than significant through implementation of Mitigation Measures T-5 through T-8 (see Section C.11, Transportation and Traffic).

Construction of a 230 kV transmission line would not have a significant adverse impact on any local utilities in the project area. Along the proposed corridor, project construction could inadvertently contact underground facilities during the setting of new transmission poles, potentially leading to short-term service interruptions. A temporary impact to these services could occur. Water use during construction would be minimal and would be limited to dust control or other incidental uses, resulting in a less than significant impact to the overall available water supply. Project construction would result in an insignificant temporary increase in the total amount of waste generated in the region. Waste that is generated during construction would be disposed of in the Altamont or Vasco Road Landfills in a manner that would not result in the breach of published national, state, or local standards. Impacts would be less than significant.

Passage of heavy construction vehicles could cause abnormal deterioration of county or city roads not designed to accommodate such vehicles, which is addressed in Section C.11 (Mitigation Measure T-4).

C.10.6.2 Operation and Maintenance

No significant impacts would result to public services during operation of the project. PG&E Co. maintains transmission lines and substations on a regular basis (including tree-trimming) and there is no need for local government involvement in maintenance activities. Operation of the project would not increase the demand for public water supply, or any other public utility.

Both construction and operation of underground and above ground transmission lines generate risk of fire, particularly bird strikes or downed wires in the case of above ground transmission. However, with correct wire spacing, the risk of fire from bird strikes is minimized. Although each mile of transmission line generates some possibility of fire, it is not significant in terms of fire department staffing or ability to respond with existing equipment resources

C.10.7 MITIGATION MONITORING PROGRAM

Table C.10-5 presents the mitigation monitoring table for Socioeconomics and Public Services

Table C.10-5 Mitigation Monitoring Program Socioeconomics

Impact	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
North Livermore Area: Proposed Project and L1 Alternative						
Underground	**S-1** PG&E Co. shall consult with local jurisdictions and agencies responsible for all underground utilities in order to define the exact placement of the underground transmission line. In addition, PG&E Co. shall evaluate the potential for the underground transmission line to increase corrosion on existing pipelines. If this potential is determined to exist, PG&E Co. shall be responsible for installation of the required cathodic protection systems that would eliminate this risk. A letter documenting these consultations and their results shall be provided to the CPUC prior to the start of construction.	All proposed and alternative underground segments	CPUC to review PG&E letter documenting coordination	Existing pipelines and other underground infrastructure is not damaged.	CPUC	Before construction
The substation facilities and potential aboveground distribution lines would conflict with the FCC guidelines on height clearance and radio frequency noise (Class II)	**S-2** The potential property exchange between the property owners and FCC described in the North Livermore Specific Plan and Draft EIR must occur, or the FCC property is otherwise changed to accommodate the substation. The substation shall be designed with underground distribution as well as feeder lines. In addition, PG&E Co. would need to reduce the size of or eliminate the substation microwave tower in order to comply with the FCC interference criteria described in EIR Section C.10.1.3.	North Livermore	PG&E Co. shall provide documentation regarding discussions with FCC and resolution recommended to CPUC for CPUC review.	FCC facility operates with out disturbance from PG&E Co. facilities	FCC	Prior to construction

C.10.8 REFERENCES

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