

# Chapter 11—Transportation/Traffic

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## 11.1 Introduction

This chapter describes existing conditions, potential project related impacts, and mitigation measures for transportation and circulation issues within the project area. The project will not conflict with any adopted policies supporting transportation or result in hazards to safety from design features or incompatible uses. Although current traffic conditions will be temporarily affected by project construction, all impacts will be less than significant or mitigated to a less than significant level.

### 11.1.1 Methodology

Traffic data was obtained from site visits, literature searches, aerial photos, and personal communications with state and local government personnel.

## 11.2 Existing Conditions

The Tri-Valley area transportation system is comprised of an interconnected network of federal, state, city, and county roads; local and regional transit systems; local bikeways; and rail rights-of-ways.

### 11.2.1 Freeways and State Highways

The three main transportation corridors that serve the Tri-Valley area include Interstate 580, Interstate 680, and State Route 84.

#### Interstate 580

Interstate 580 is an eight-lane freeway running primarily east-west through Alameda and Contra Costa Counties. Interstate 580 serves as a major commuter route between the Central Valley and the Bay Area and provides connections to Interstate 680 in Pleasanton and Interstate 5 in Tracy. Interstate 580 also provides access to State Route 84 in Livermore. The peak directions of travel along Interstate 580 are westbound during the morning peak period and eastbound during the evening peak period. Average traffic volumes on Interstate 580 in the project area for 1997 averaged from 109,000 to 134,000 vehicles daily with peak hour volumes from 8,400 to 10,300 vehicles. In 1998, Interstate 580 had a daily delay of 4,810 vehicle hours.

#### Interstate 680

Interstate 680 is a six-lane north-south freeway running along the west side of the project area. It is the only officially designated state scenic highway in the project area. Interstate 680 has an average daily traffic volume of 140,000 vehicles. Interstate 680 had a 1998 daily delay of 17,290 vehicle hours and a 1997 peak hour volume of 11,200 to 12,500 vehicles in the San Ramon and Pleasanton areas.

## State Route 84

State Route 84, also known as Vallecitos Road, is a two-lane arterial roadway that originates at Interstate 580 in Livermore. It follows the route of First Street, Holmes Street, and Vallecitos Road south of Pleasanton. In a regional context, the route serves as a bypass of the Interstate 580/Interstate 680 interchange for travelers heading south from Interstate 580 to Interstate 680. Daily traffic volumes, measured in 1997, range from approximately 24,000 vehicles to 47,000 vehicles with a westbound morning peak between 2,000 and 3,400 heading to Interstate 680. According to the Tri-Valley Transportation Plan (1995), the Tri-Valley Transportation Council has proposed that Route 84 be widened to four lanes by the year 2010.

### 11.2.2 Transit and Rail Service

Bus service in the Tri-Valley area is provided by Central Contra Costa Transit Authority, Livermore/Amador Valley Transit Authority (LAVTA), and Bay Area Rapid Transit (BART). The LAVTA provides the WHEELS bus system within the Cities of Dublin, Pleasanton, Livermore, and some unincorporated sections of the East County.

BART is an 81-mile long automated rapid transit system serving over three million people in four Bay Area counties, including Alameda, Contra Costa, San Francisco, and northern San Mateo. There is one BART station near the project area located on the border of Pleasanton and Dublin. In addition, BART Express Buses connect the outlying regions of Contra Costa and Alameda Counties to five East Bay BART stations.

The Altamont Commuter Express (ACE) was established in 1997 to provide passenger rail service to the Tri-Valley area and surrounding communities. The trains run between Stockton and San Jose with a total of nine stops. Stations in the project area include Vasco, Livermore, and Pleasanton. ACE trains operate Monday through Friday and provide service twice in the morning and twice in the afternoon.

The Union Pacific Railroad Company also operates freight trains on railroad tracks throughout the project area.

### 11.2.3 Air Transportation

The Livermore Municipal Airport is located in the Livermore-Amador Valley about 3 miles west of central Livermore.

### 11.2.4 North Area—Phase 1

#### Major Arterials

**Doolan Canyon Road.** Within the project area, Doolan Canyon Road is a two-lane, north-south rural roadway. This road is designated as a scenic corridor by Alameda County. Traffic volumes were not available for this roadway. The City of Dublin has plans to extend the north end of Doolan Canyon Road west to connect to Camino Tassajara.

**Collier Canyon Road.** Collier Canyon Road is a two-lane north-south rural roadway located in Alameda County east of Doolan Road. In 1998, the 24-hour traffic volume was measured at 185 vehicles for both directions at the Alameda County line. The morning peak (8:00 a.m. to 9:00 a.m.) traffic volume was measured at 35 vehicles.

**North Livermore Avenue.** North Livermore Avenue is a two-lane, north-south rural collector roadway without a shoulder. An existing PG&E distribution line is located on the eastern side of the roadway. In 1997, North Livermore Avenue had an average daily traffic volume of 2,000 vehicles. Peak morning (7:00 a.m. to 8:00 a.m.) and afternoon (5:00 p.m. to 6:00 p.m.) traffic volumes, measured in 1998, were 511 vehicles and 122 vehicles, respectively. The 24-hour traffic volumes for the morning southbound and afternoon northbound traffic were measured at 1,881 vehicles and 1,055 vehicles, respectively. The City of Livermore has plans to widen North Livermore Avenue to four or six lanes north of Interstate 580 by the year 2010 to save future growth.

**Vasco Road.** Vasco Road is a north-south arterial that is defined as a route of regional significance by Contra Costa County and Alameda County, and it terminates at Tesla Road in Livermore. Routes of regional significance have been adopted by each city in Contra Costa and Alameda Counties as part of the Measure C Growth Management Program. Routes of regional significance are those roads that serve regional mobility, or act as reliever routes for the regional system, and serve more than one jurisdiction. The designated routes are exempt from the Measure C basic route level of service standards. Vasco Road is a two-lane road along most of its length. In 1998, the peak hour traffic volumes were measured on Vasco Road north of Dalton Avenue. Morning peak volumes (between 6:00 a.m. and 7:00 a.m.) were 1,583 vehicles and afternoon peak volumes (between 4:00 p.m. and 5:00 p.m.) were 1,500 vehicles. The 1998 24-hour traffic volume on Vasco Road north of Dalton Avenue was approximately 10,953 vehicles southbound and 10,966 vehicles northbound.

### Minor Arterials

**May School Road.** May School Road is a two-lane rural roadway between North Livermore Avenue and Dagnino Road. May School Road meets North Livermore Avenue at a T-junction approximately across from the proposed substation site.

**Dagnino Road.** Dagnino Road is a two-lane rural roadway that dead-ends approximately at the location of the proposed new transmission line in PG&E's existing right-of-way. It is located north of Livermore and just east of North Livermore Avenue.

## 11.2.5 North Area—Phase 2

### Major Arterials

**Altamont Pass Road.** Altamont Pass Road is a two-lane, east-west roadway with unimproved shoulders through rural ranch and agricultural areas. It is located northeast of Livermore. The 1997 average daily traffic volume on Altamont Pass Road was 4,800 vehicles. Peak volumes, measured west of Dryer Road in 1998, were 470 vehicles for the morning peak (7:00 a.m. to 8 a.m.) and 382 vehicles for the afternoon peak (5:00 p.m. to 6:00 p.m.). In 1998, the 24-hour traffic volumes west of Dryer Road were measured at 2,491 westbound and 2,586 eastbound.

### Minor Arterials

**Manning Road.** Manning Road is a two-lane rural roadway without a shoulder located north of North Livermore Avenue in Alameda County. The 24-hour total traffic volume,

measured at the Alameda County line in 1998, was approximately 348 vehicles with an afternoon peak hour (12:00 p.m. to 1:00 p.m.) volume of 34 vehicles traveling westbound.

**Laughlin Road.** Laughlin Road is a two-lane rural road located east of Dagnino Road. The most recent data available for Laughlin Road was measured north of Northfront Road in 1987. At this time, the peak volume of traffic in both directions was 25 vehicles during the morning hours (11:00 a.m. to 12:00 a.m.). The 24-hour traffic volume in 1987 was 240 vehicles.

## 11.2.6 South Area

### Major Arterials

**Vineyard Avenue.** Vineyard Avenue is generally a two-lane arterial street that feeds through-traffic from East Pleasanton to the Downtown Pleasanton area. From Bernal Avenue east to near Montevino Drive, Vineyard Avenue is a five-lane arterial roadway with parking and bike lanes on both sides and a two-way left-turn lane in the center of the roadway. The daily traffic volume in 1998 was 8,100 vehicles per day. The capacity of this improved section of Vineyard Avenue is approximately 30,000 vehicles per day.

### Minor Arterials

**Hearst Drive.** Hearst Drive is a local roadway through a residential neighborhood. It has parking on both sides, a sidewalk on the south side, and paved travel lanes between 35 and 40 feet wide. At the intersection of Hearst Drive and Bernal Avenue, there is one travel lane for entering the street and two lanes for exiting the neighborhood onto Bernal Avenue.

**Bernal Avenue.** Bernal Avenue varies between a two- and four-lane collector running north-south through the project area. The four-lane portion has a narrow median along part of its length that varies between 3 and 15 feet. The two-lane portion has a bi-directional turn lane in the center. An existing PG&E distribution line is located on the east side of the roadway between Hearst Drive and Vineyard Avenue. Bernal Avenue has a capacity of approximately 15,000 vehicles per day. The existing average daily traffic volume on the roadway was measured at 10,220 vehicles per day in 1998. Bernal Avenue crosses Arroyo del Valle between Vineyard Avenue and Stanley Boulevard. According to the EIR for the Vineyard Avenue Corridor Specific Plan, the city has identified the need for a second bridge.

## 11.3 Potential Impacts

### 11.3.1 Significance Criteria

Standards of significance were derived from Appendix G of the revised CEQA Guidelines. The project would have a significant impact on transportation/circulation if it resulted in the following:

- A substantial increase in traffic
- Exceedance of an established level of service standard
- A change in air traffic patterns
- Substantial increase in hazards due to a design feature or incompatible uses

- Inadequate emergency access
- Inadequate parking capacity
- Conflict with adopted policies, plans, or programs supporting alternative transportation

### 11.3.2 Construction Impacts

The majority of transmission line construction will occur in roadless areas and will not require lane closures. However, potential construction-related transportation impacts associated with the project fall into two categories: temporary traffic disruption resulting from road and lane closures, and temporary restricted access to nearby neighborhoods.

Impacts to traffic resulting from truck trips to and from the project sites during construction will be insignificant due to the small number of trucks required at each site for pole placement and line stringing. Estimated truck trips include an average of two concrete truck trips per day for 60 days during overhead construction, and periodic deliveries of pole segments, conductor spools, hardware, and equipment.

This level of project-related traffic is negligible when added to the existing daily traffic on freeways and major arterial roadways. Construction traffic will be an inconsequential addition to the existing low traffic flows in the project area because of its rural location. Impacts resulting from increased vehicle trips and traffic disruption would be less than significant.

#### North Area—Phase 1

**Impact 11.1. Traffic Disruption.** The North Area Phase 1 transmission line would cross the following roadways:

- Doolan Canyon Road
- Collier Canyon Road
- North Livermore Avenue
- Vasco Road
- May School Road
- Dagnino Road

All of these crossings will require closing the road to through traffic temporarily for approximately 10 minutes at a time. Closures will occur in non-peak traffic periods and will be conducted under the permit requirements set forth by local agencies. Consistent with PG&E standard construction procedures, lane closures will be avoided to the extent possible to minimize obstruction of local circulation patterns. The potential impact would be less than significant because of the low traffic flow on these roads and mitigation is not required.

Construction of the North Livermore and Dublin Substations will require approximately 6 months to complete. During construction, workers will carpool to the sites from a central assembly point. Approximately 15 to 20 vehicles will enter and leave the substation sites each day. Traffic impacts on these rural roadways will be temporary and will result in a less than significant impact. Mitigation is not required.

**Impact 11.2. Access Restrictions.** Access to six driveways along North Livermore Avenue may be restricted during construction activities. In addition, the Browning-Ferris Industries

(BFI) Landfill access road off of Vasco Road and approximately two driveways off of Dagnino Road may be restricted during construction activities. These access restrictions would be temporary and short-term. With implementation of Mitigation Measures 11.1 through 11.4, impacts will be less than significant.

### North Area—Phase 2

**Impact 11.3. Traffic Disruption.** The 230 kV transmission line would cross the following roadways:

- Altamont Pass Road
- Laughlin Road
- A BFI Landfill access road
- Interstate 580
- Some windfarm access roads

With the exception of the Interstate 580 crossing, these crossings will result in temporary 10-minute road closures, resulting in a short-term impact to traffic flow and access. The Interstate 580 crossing may require closing the freeway for 15 minutes at a time on five different occasions. The temporary closures may impede traffic flow for a short duration; however, these closures are only allowed during the period from midnight to 6:00 a.m. on Friday and Saturday. Work will be performed according to the encroachment permit from Caltrans and in coordination with the California Highway Patrol. Impacts would be less than significant, and mitigation is not required. The project will also cross railroad tracks used by Altamont Commuter Express and Union Pacific Railroad Company. PG&E will schedule these crossings so that train schedules are not impacted. This impact would be less than significant.

### South Area

**Impact 11.4. Traffic Disruption—Overhead Construction.** The overhead portion of the 230 kV transmission line would cross Route 84/Vallecitos Road.

The crossing will require closing the road to through traffic for approximately 10 minutes at a time. This will result in temporary traffic disruptions. However, with implementation of Mitigation Measures 11.1 through 11.4, impacts will be reduced to a less than significant level.

**Impact 11.5. Traffic Disruption—Underground Construction.** Underground construction will cause temporary disruptions to project area roadways as described below. PG&E will restore all streets pursuant to its permit conditions with the City of Pleasanton and Alameda County.

- **Lane Width Reductions:** A temporary lane closure during construction will reduce the number of lanes for up to 600 feet at a time on Hearst Drive, Bernal Avenue, and Vineyard Avenue (during the dry boring activities) with approximately 600-foot breaks between trenches. Trenching, duct installation, concrete pouring, backfilling, and paving would necessitate lane closure. For all other operations, the trench would be covered by a plate to allow traffic flow to continue. Road closure would occur at the splice vault locations during cable pulling and splicing operations.

PG&E will follow traffic diversion plans as prescribed by the encroachment permit that will be obtained from the City of Pleasanton. Collectively, these closures are anticipated to last approximately 11 months. The temporary lane closures, increased traffic disruption, and access restrictions in the project area will create a potential short-term circulation impact. Implementation of Mitigation Measures 11.1 through 11.4 will reduce this impact to a less than significant level.

- **Sidewalks and Bicycle Lanes:** If project construction is required on the southern side of Hearst Drive, the sidewalk will be temporarily closed during construction. Because there is no sidewalk on the northern side of the roadway, pedestrians will be re-routed. In addition, construction along this portion of the route could result in an increased hazard to bicyclists that currently share the roadway with automobiles. Trenches will be covered with metal plates whenever feasible and bicyclists will be re-routed around construction areas. Mitigation Measures 11.1 through 11.4 will be implemented to reduce impacts to a less than significant level.
- **Parking:** Parking is currently prohibited on Bernal Avenue. Parking along Hearst Drive will not be permitted in construction areas. Because the area is residential, there is a relatively small need for parking, and impacts to parking will be less than significant.
- **Increased Traffic Volumes:** Approximately seven dump truck trips and eight concrete truck trips per day to and from the project area will occur over a period of 6 months during underground construction. This temporary slight increase in traffic volume will not reduce the level of service on roadways or result in traffic disruption. Impacts would be less than significant.
- **Access Restrictions:** Driveway access for residents and access for emergency vehicles will be maintained throughout project construction. PG&E will coordinate any lane closures with emergency service providers. Access restrictions would be a less than significant impact with implementation of Mitigation Measure 11.4.
- **Transit Operations:** Transit operations along Bernal Avenue could be impacted during underground construction of the transmission line. Because construction will occur along approximately 5,500 feet of the roadway, two WHEELS bus routes (route 8 and 606) may be impacted. In addition, school bus routes may be impacted by construction activities. Potential impacts include scheduling delays and bus stop closures. Implementation of Mitigation Measure 11.5 will reduce these impacts to a less than significant level.

### 11.3.3 Operation Impacts

Project operations will not affect traffic, circulation, or the level of roadway service. Project operations will not cause emergency access restrictions or affect parking capacity. It will not increase hazards due to design features or incompatible uses. Because the project is not located within 1,000 feet of the Livermore Municipal Airport, air traffic patterns will not be affected by the placement of new structures and power lines. In addition, because the project does not directly or indirectly affect alternative transportation, it does not have the potential to conflict with adopted policies, plans, or programs supporting alternative transportation.

Operation of the substations will not impact transportation or circulation because the substations will be unmanned facilities. Mitigation measures are not required.

## 11.4 Mitigation Measures

### 11.4.1 Construction

The following mitigation measures are will be implemented to reduce construction impacts of the project.

**Mitigation 11.1.** PG&E will maintain the maximum amount of travel lane capacity possible during non-construction periods and will provide flagger-control at all construction sites to manage traffic control and flows.

**Mitigation 11.2.** During construction, PG&E will limit the work zone to a width that, at a minimum, maintains alternate one-way traffic flow past the construction zone. Alternatively, PG&E will use detour signing, where available, on alternate access streets in the event that temporary street closure is required.

**Mitigation 11.3.** Required permits for temporary lane closures will be obtained from the City of Pleasanton, Contra Costa County, and Alameda County. Before obtaining roadway encroachment permits from the cities and counties, PG&E will submit a Traffic Management Plan subject to the local jurisdiction's review and approval. As part of this plan, traffic control measures and construction vehicle access routes will be identified. Construction of the underground portion of the transmission line will occur between 8 a.m. and 5 p.m., Monday through Friday, unless PG&E obtains special permission from the City of Pleasanton.

All property owners and residents of streets affected by construction will be notified prior to the start of construction. Advance public notification will include postings of notices and appropriate signage of construction activity.

**Mitigation 11.4.** All construction activities will be coordinated with local law enforcement and fire protection agencies. Emergency service providers will be notified of the timing, location, and duration of construction activities.

**Mitigation 11.5.** PG&E will consult with the Alameda, Pleasanton, and Livermore Valley Joint Unified School Districts at least 1 month prior to construction to coordinate construction activities adjacent to school bus stops. If necessary, school bus stops will be temporarily relocated or buses will be rerouted until construction in the vicinity is complete. PG&E will also consult with the Livermore/Amador Valley Transit Authority at least 1 month prior to construction to reduce potential interruption of transit service on Bernal Avenue.

### 11.4.2 Operation

Because no potentially significant impacts have been identified, mitigation measures are not required.

## 11.5 References

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