

14.0 TRANSPORTATION AND TRAFFIC

14.1 INTRODUCTION

This chapter describes the existing transportation and traffic within Pacific Gas and Electric Company's Windsor Substation Project area and evaluates the potential transportation and traffic-related impacts associated with project construction and operation. The project will not have a significant impact on transportation and traffic in the area and will not conflict with any adopted transportation policies.

14.2 METHODOLOGY

Traffic and transportation data were obtained from literature review, internet research, and communications with agency staff. Additionally, the general plans for Sonoma County and the Town of Windsor were reviewed.

14.3 EXISTING CONDITIONS

14.3.1 Regulatory and Planning Background

As described above, the general plans, regional transportation plans, and municipal codes for Sonoma County and the Town of Windsor were reviewed for transportation plans, policies, and programs. There are no municipal codes or other policies applicable to this project.

14.3.2 Roadways and Highways

The Sonoma County General Plan 2020 (Plan), Circulation and Transit Element and the Town of Windsor General Plan provide assessments of the level of service (LOS) on roads within their respective jurisdiction. LOS is based on traffic congestion, which is measured by dividing traffic volume by roadway capacity. The resulting number, known as the volume-to-capacity ratio, is divided into six LOS categories, A through F, which represents conditions ranging from unrestricted traffic flow (A) to extreme traffic congestion (F). According to the Plan, the segment of Highway 101 south of Windsor River Road, and road segments in central Windsor are expected to be moderately congested and operate below LOS "C" during peak hours. The Plan also points out that roadways including Highway 101 are mainly affected by weekend recreational travel, and that gravel trucks associated with mining along the Russian River (approximately 3 miles to the west of the substation site) will continue to impact several roadways.

General access to the site and associated distribution line installation within the Town of Windsor will be via: one major highway, Highway 101; two major arterial highways, Shiloh Road and Hembree Lane; and two rural roads, Conde Lane and Mitchell Lane. The project site is less than 1 mile to the west of the segment of Highway 101. Shiloh Road, a major two-lane highway, is a perpendicular boulevard from Highway 101 leading to the project site and has a LOS "C." Hembree Lane, a major arterial highway that parallels Highway 101 and intersects

Shiloh Road, has a LOS greater than “C.” Conde Lane and Mitchell Lane are both paved rural lanes which have a LOS “E/F” and “A”, respectively.

Distribution line installation may require both general access and additional work space within the following roads and highways:

- Mitchell Lane, just west of the NWPRR, east through the intersection of Conde Lane;
- Conde Lane, from approximately 200 feet south of the intersection of Mitchell Lane north to Denbeste Court;
- Highway 101; between the Shiloh Road exit and the Windsor River Road exit
- Hembree Lane, from the intersection of Billington Lane south to Shiloh Road fronting the Shiloh Center; and
- Shiloh Road, between Conde Lane and Hembree Lane.

Table 14-1 provides the approximate location and traffic data, as well as LOS, for each of these roads. Refer to Figure 1-1: Project Overview Map and Figure 1-7: Reconductoring of Existing Distribution Lines in Chapter 1: Project Description for a depiction of the roadways in the project vicinity.

Table 14-1: Roadways in the Project Vicinity

Roadway	Lanes	Classification	Daily Traffic Volume	Peak-Hour Level of Service (LOS)
Highway 101	4	Highway	66,000	Less than C
Shiloh Road	2	Arterial	17,700	C
Hembree Lane	2	Arterial	7,800	Greater than C
Conde Lane	2	Rural Lane	5,200	E/F
Mitchell Lane	2	Rural Lane	1,000	A

Source: California Department of Transportation (2007), Town of Windsor (2005), Tilton (2009)

14.3.3 Bus Service

Sonoma County Transit (SCT) provides intercity surface transit services to the entirety of Sonoma County. SCT Route 60 serves intercity transportation between Cloverdale, Asti, Geyserville, Healdsburg, Windsor, Larkfield, and Santa Rosa. Within the Town of Windsor Route 60 travels along Old Redwood Highway, Windsor River Road, and Starr Road.

Route 60 runs daily to the following bus stops along each of these roads:

- Old Redwood Highway and Shiloh Road, 0.50 mile northeast of the distribution line work
- Old Redwood Highway at Hembree Lane, 0.50 mile north of the distribution line work

In addition, Route 60 runs a deviation loop within the Town of Windsor, Monday through Friday only, to the following bus stops along each of these roads:

- Hembree Lane and McFarlane, located along the distribution alignment
- Hembree Lane and Wilson Lane, located along the distribution alignment
- Hembree Lane and Cornell Street, located 300 feet north of distribution alignment

The Town of Windsor is also serviced by a local public transit service, the Windsor Shuttle, under contract with the Town of Windsor. Windsor Shuttle Route 66 travels along Shiloh Road, Conde Lane and Mitchell Lane, and runs Monday through Saturday.

In addition, there are Route 66 bus stops along each of these roads:

- Conde Lane at the Windsor Mobile Home Park, 0.35 mile north of the project site.
- Mitchell Lane, at the intersection of Mitchell Lane and Windsor Road, 0.72 mile west of the project site.
- Hembree Lane at Old Redwood Highway, 0.45 mile north of distribution line work.
- Shiloh Center Wal-Mart, at the intersection of Victory Lane and MacFarlane, 0.25 mile east of distribution line work along Hembree Lane.

14.3.4 Commuter Rail

There is currently no commuter rail service within 0.25 mile of the project.

14.3.5 Passenger and Freight Rails

There is currently no passenger or freight rail service within 0.25 mile of the project. While the NWPRR right-of-way and tracks remain physically in place to the west of the project area, the line was closed by the Federal Railroad Administration (FRA) in 1998 because of severe damage from the 1997-1998 winter storms. The NWPRR right-of-way has been acquired for future passenger and freight railroad service by the Sonoma-Marine Area Rail Transit District (SMART), with an easement issued to the North Coast Railroad Authority (NCRA) for freight operations along this route. Rail line maintenance activities, however, are still ongoing in order to comply with FRA Class 2 and 3 Standards¹, and to address safety issues identified in FRA Emergency Order No. 21².

¹ FRA Track Safety Standards establish nine specific classes of track (Class 1 to Class 9) which specify track structure, geometry, and inspection frequency. Each Class of Track has a corresponding maximum allowable operating speed for both freight and passenger trains and applicable track safety standards. Class 2 and 3 tracks maximum allowable speed for freight trains is 25 and 40 miles per hour (mph), respectively; maximum allowable speeds for passenger trains is 30 and 60 mph, respectively. Class 2 and 3 tracks must be inspected, at minimum, weekly, or twice weekly if the track carries passenger trains or more than 10 million gross tons of traffic during the preceding year.

² FRA Emergency Order No. 21 went into effect November 27, 1998, and mandated the NWPRR to discontinue operation of any trains on the Northwestern Pacific rail line from Arcata, California to Schellville, California and Napa Junction, California until the NWPRR inspected and properly repaired the tracks and grade crossing signals,

The SMART passenger service project trains are projected to commence in 2014 and will include a 14-station, 70 mile long passenger rail line from Larkspur to Cloverdale. As proposed, the SMART project will include one station within the Town of Windsor, at Windsor River Road.

According to the *NCRA Russian River Division Freight Rail Project Draft Environmental Impact Report* and phone consultation with NCRA staff, the start up phase for establishing freight service is scheduled for the first quarter of 2010 and will consist of three round trips per week from the Town of Windsor south (three north bound and three south bound) through Lombard. The number of cars per train is estimated to be fifteen cars. The freight service will stop at one station within the Town of Windsor, at Windsor River Road. As the freight service becomes established, it is anticipated that the region may support an increase in the number of trains to two round trips per day (two north bound and two south bound), six days a week. The number of cars per train is estimated to be 25 cars for one round trip and 60 cars for the other round trip.

14.3.6 Bikeways

There are several existing and proposed Class I (separate, multi-use trails or paths) and Class II (striped bicycle lanes on roadways) bicycle facilities that run along or intersect Conde Lane, NWPRR, Shiloh Road, and Mitchell Lane. Table 14-2 provides the approximate location and data for these existing and proposed bikeways.

Table 14-2: Existing and Proposed Bikeways in the Project Vicinity

Bikeway	Class	Location
Conde Lane	Existing Class II	From Mitchell Lane to Shiloh Road
Conde Lane	Proposed Class II	From Mitchell Lane to Old Redwood Highway
Northwestern Pacific Railroad (NWPRR)	Existing Class I	From north of Wilson Ranch Soccer Park to north of Shiloh Road
Northwestern Pacific Railroad (NWPRR)	Proposed Class I	From north of Shiloh Road to the Town of Windsor Limits
Mitchell Lane	Proposed Class II	From the NWPRR trail to Conde Lane
Shiloh Road	Existing Class II	From Hembree Lane to Old Redwood Highway and from Skylane Boulevard to Windsor Road

and trained employees how to properly maintain the safety of its track and grade crossing signals.

Bikeway	Class	Location
Shiloh Road	Proposed Class II	From Hembree Lane to Skylane Boulevard
Hembree Lane	Existing Class II	From Arata Lane to Victory Lane
Hembree Lane	Proposed Class II	From Victory Lane to Shiloh Road

Source: Sonoma County Transportation Authority, 2008.

14.3.7 Air Traffic

There are six airports in Sonoma County open for public use: two are privately owned (Sonoma Skypark and Sonoma Valley), three are owned by cities (Cloverdale, Healdsburg and Petaluma airports) and one is owned by the County of Sonoma (Charles M. Schulz Sonoma County Airport). Charles M. Schulz Sonoma County airport is the only point for commercial airline services and is located approximately 1.26 miles from the project area. This airport is also designated as a fire base by the California Department of Forestry, which uses aerial tankers and helicopters in forest fire suppression operations.

The Charles M. Schulz Sonoma County Airport is the only aviation service provider located within 2.0 miles of the project area.

14.4 IMPACTS

14.4.1 Significance Criteria

Standards of significance were derived from Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Impacts to transportation and traffic may be considered significant if they were to:

- results in an impact to existing traffic flows, including a substantial increase in traffic,
- exceeds an established LOS standard,
- causes a change in air traffic patterns,
- results in a substantial increase in hazards due to design features or incompatible uses,
- results in inadequate emergency access,
- results in inadequate parking capacity, or
- conflicts with adopted policies, plans, or programs supporting alternative transportation.

14.4.2 Construction

14.4.2.1 Increase in Traffic and Traffic Flow Disruption

Impacts to traffic will be limited to the use of existing highways and roadways to and from the project site and the associated distribution line installation work areas, and the PG&E construction yard located at 101 Airport Boulevard in Santa Rosa (Sonoma County).

Conde Lane and Mitchell Lane are rural lanes with a LOS standard of “E/F” and “A”, respectively, for the stretch of road used for general access to the project site and the associated distribution line work. Shiloh Road and Highway 101 are highways with a LOS of “C” and less than “C”, respectively, for the stretch of road leading towards the project site and the associated distribution line work. Although Conde Lane is poorly rated with respect to congestion, the Town of Windsor is scheduled to install signals at the intersection of Conde Lane and Shiloh Road in 2010 in an effort to improve congestion. Additionally, traffic related to the project will not be of a volume to significantly increase volume-to-capacity ratios. During peak construction, approximately 15 people will work at the substation site and make approximately two trips per day to and from the site. Distribution line installation work may require a maximum workforce of approximately 16 people at various locations along the alignment and make approximately two trips per day to and from the site. In accordance with Caltrans and the Town of Windsor requirements, distribution line installation work will require temporary road or lane closures. PG&E will use the California Highway Patrol to hold traffic for brief periods of time while the existing overhead line is removed and then reinstalled across Highway 101. In addition, PG&E may use flaggers to hold traffic for brief periods of time for construction along Mitchell Lane, Conde Lane, and Hembree Lane within the Town of Windsor. These slight increases in traffic will be temporary and short-term. PG&E will obtain ministerial encroachment permits to conduct work in public rights-of-way as required by the state and the Town of Windsor for distribution line installation and substation construction. As part of the encroachment permit process, PG&E will implement a Pedestrian and Traffic Control Plan, which incorporates appropriate BMPs to manage potential traffic resulting from construction. This plan has not yet been prepared as it will be subject to site-specific conditions based on the location of the work along the ROW and engineering design. The Pedestrian and Traffic Control Plan will be submitted to California Public Utility Commission (CPUC) staff once developed. As a result, impacts to traffic will be less than significant.

14.4.2.2 Change in Air Traffic Patterns

The substation site is located 1.26 miles (6,650 feet) northeast of the Charles M. Schulz Sonoma County Airport and is within the airport's Outer Safety Zone – A (OSZ-A) for runway 19 according to the Charles M. Schulz Sonoma County Airport *Comprehensive Airport Land Use Plan*. The distribution line along Mitchell Lane is located within the OSZ-A. Along Conde Lane, the line is located within the Outer Safety Zone – B (OSZ-B). There will be no penetration of airspace requiring referral to the Federal Aviation Administration (FAA) (Title 14 of the Code of Federal Regulations (CFR) Part 77.13) as the top of the highest structure associated with the project (two TSPs approximately 95 feet tall [top elevation is 207 feet]) will be well under the 50:1 imaginary approach surface for runway 19 (elevation is 258 feet at this location). However, because of the proximity to the airport, PG&E has consulted with the Sonoma County Airport Land Use Commission staff who confirmed the project facilities will not conflict with the airport approach surfaces. Consequently, construction activities will not result in a safety hazard for people residing or working in the project area as the project will not interfere with or extend into navigable airspace.

14.4.2.3 Parking Lot and Lane Closures

Public “park and ride” lots exist at the intersections of Windsor Road and Windsor River Road, Starr Road, and Old Redwood Highway, and within the Wilson Ranch Soccer Park located along Mitchell Lane north of the project area. Construction personnel will be instructed to park in designated areas within the substation parcel and will therefore not affect public parking capacity. Power line interconnection work will require temporary lane closures along Eagle Drive and distribution line installation will require temporary lane closures along streets that parallel the distribution alignment. Reconductoring of the distribution line will require seven pull and tension locations along public streets, approximately 400 to 500 square feet (40 to 50 feet long by 10 feet wide), at dead end or angle pole locations. However, these lane closures will be brief and will be coordinated with the Town of Windsor. As a result, construction will have a less-than-significant impact on public parking capacity.

14.4.2.4 Hazards

It is possible (though extremely unlikely) for the new conductors to break during the pulling and tensioning process that is associated with the reconductoring the distribution lines. Conductor will be pulled through each structure under a controlled tension to keep it elevated and away from obstacles, thereby preventing damage to the line and protecting vehicular and pedestrian traffic. The reconductoring will be a temporary and short term construction process within existing roadways; therefore, there will be a less-than-significant impact.

14.4.2.5 Emergency Access

There are no emergency response plan staging areas or exit routes in the project vicinity, so the project will not impact emergency response activities. PG&E will maintain one-way access on all roads during construction within and along public roadways.

14.4.2.6 Public and Alternative Transportation

Construction vehicles will use roads that serve as bus routes, including Highway 101 and Hembree Lane, which serve an intercity bus Route 60 and Mitchell Lane, Conde Lane, and Shiloh Road, which all serve Windsor Shuttle Route 66. No bus stops along these routes will be affected as the increase in construction-related traffic will be less than significant and will not affect transit services.

The NWPRR right-of-way has been acquired for future freight use by the SMART, with an easement issued to NCRA for freight operations, a portion of which exists adjacent to the project area. The schedule of operation for the NCRA freight service is projected for the first quarter of 2010, and the SMART passenger rail service is projected for 2014. PG&E has initiated discussions with SMART staff to obtain permission for the crossing of the railroad and will consult with SMART regarding coordination of construction activities within and adjacent to the railroad crossing (e.g. stringing the conductor from the 60 kV power line to the substation). Therefore, there will be no impact to passenger or freight railroad services.

Public bike facilities run along or intersect roadways that will be used to access the project site or the associated distribution line installation (including Conde Lane, Shiloh Road, Hembree Lane and Mitchell Lane), and also run along the NWPRR bike trail located on the west side of the railway. Traffic in these areas due to construction vehicles will be less than significant and as such these bike routes will not be affected by project construction. Impacts to the bike path from pole replacement activities on Eagle Drive are described in Chapter 11: Land Use and Planning, Recreation, and Agricultural Resources.

14.4.2.7 Conflicts with Policies, Plans or Programs

Substation construction will occur on PG&E-owned property and will not conflict with transportation policies, plans, or programs. PG&E will obtain ministerial encroachment permits to conduct work in public rights-of-way as required by the state and the Town of Windsor for distribution line installation and substation construction. The project will not conflict with any policies supporting alternative transportation.

14.4.2.8 New Access Road Construction

PG&E will use Mitchell Lane to access the substation parcel. No new access roads will be constructed.

14.4.3 Operations and Maintenance

Operation, including maintenance of substation facilities, will not result in significant impacts to transportation and traffic in the project area. The substation will be unmanned, with automated features and remote control capabilities, and will only require PG&E maintenance personnel to visit approximately once a month. Therefore, operations and maintenance at the substation will not affect transportation and traffic.

14.5 AVOIDANCE AND PROTECTION MEASURES

Construction and operation of the project will not result in significant impacts to transportation or traffic. Therefore, avoidance and protection measures are not required.

14.6 REFERENCES

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