

INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM

1. Project Title:

Pacific Gas and Electric Company (PG&E), Atlantic-Del Mar Reinforcement Project
Application Number A.01-07-004

2. Lead Agency Name and Address:

California Public Utilities Commission (CPUC)
Energy Division
505 Van Ness Avenue
San Francisco, CA 94102

3. Contact Person and Phone Number:

Nicolas Procos, Project Manager
Energy Division
(415) 703-5289

4. Project Location:

PG&E proposes to upgrade its existing 60 kV single circuit power line and substation system that serves the City of Rocklin and south Placer County by adding an additional 60 kV power line between the Atlantic Substation in the City of Roseville and the Del Mar Substation in the City of Rocklin, a new 60 kV breaker at the Atlantic Substation, and a new switch at the Del Mar Substation. The project is located in Placer County within the cities of Rocklin and Roseville (see Figure B-1, Regional Location Map). Figure B-2 illustrates the power line route, as originally proposed, and new tubular steel pole locations. As described in this document, the majority of the project is located within existing utility and transportation corridors and right-of-ways (ROWs).

5. Project Sponsor's Name and Address:

Pacific Gas and Electric Company (PG&E)
245 Market Street
San Francisco, CA 94104
Attn: Jo Lynn Lambert
(415) 973-5248

6. General Plan Designation:

Table B-1 lists land use designations along the Proposed Project route, as identified in the City of Roseville General Plan (1992) and the City of Rocklin General Plan (1991).

7. Zoning:

Zoning designations along the Proposed Project route in Roseville consist of: Public/Quasi Public (P/QP); Open Space (OS); Open Space/Flood Area (OS/FA); Business Professional (BP); and High Density Residential, Attached Units (HFR-20.3). Zoning designations along the Proposed Project route in Rocklin consist of: Heavy Industrial (M2); Planned Development Light Industrial (PD-LI); Retail Business (C-2); Open Area (OA).

8. Description of the Project:

Numerous comments on the initial Draft MND/IS questioned whether PG&E consulted with other public agencies during the development of the Proposed Project. PG&E contacted and consulted with numerous persons and agencies while developing the Project Description. These contacts included the City of Rocklin, Union Pacific Railroad, and the Native American Heritage Commission. See Appendix B for a list of those contacts and for copies of letters of correspondence between PG&E and responsible agencies.

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Figure B-1: Regional Location Map
(8½" X 11" B&W FIGURE) — SEE CONTENTS PAGE FOR LINK

Figure B-2: Project Route and New Tubular Steel Pole Locations
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Table B-1. Project Area Land Use Designations and Existing Land Use

Milepost / Substation	General Plan Land Use Designation	Existing Land Use
City of Roseville		
Atlantic Substation		Substation
0 - 0.25	Public / Quasi-Public	Power Lines
0.25 - 0.50	Between Public / Quasi-Public Community Commercial	Power Lines Overpass
0.50 - 0.75	Open Space	Open Space
0.75 - 1.25	Undesignated Borders Open Space Borders Business Professional Borders Residential	Railroad ROW Adjacent to Open Space Adjacent to Vacant Land Adjacent to Residential
City of Rocklin		
1.25 - 1.40	Retail Commercial	Railroad ROW Adjacent to Vacant Land
1.40 - 1.70	Retail Commercial	Railroad ROW Adjacent to Commercial Development
1.70 - 2.00	Heavy Industrial	Railroad ROW Adjacent to Tank Farms
2.00 - 2.10	Heavy Industrial	Railroad ROW Adjacent to Vacant Land
2.10 - 2.25	Residential	Railroad ROW Adjacent to Residential (with 0.1 mile buffer)
2.25 - 2.40	Residential	Railroad ROW Adjacent to Vacant Land Adjacent to Isolated Residences
2.40 - 2.70	Retail Commercial	Railroad ROW Adjacent to Front Street Historical Area (Residential / Retail)
2.70 - 2.80	Park	Railroad ROW Adjacent to Old Timers Park
2.80 - 3.10	Retail Commercial	Railroad ROW Adjacent to Retail / Residential
3.10 - 3.40	Light Industrial	Vacant Land
3.40 - 3.80	Light Industrial	Industrial Development
3.80 - 4.10	Heavy Industrial	Industrial Development Power Lines
Del Mar Substation	Heavy Industrial	Substation

Source: PG&E, 2001a.

The Proposed Project consists of constructing a new single-circuit 60 kV power line, installing a new 60 kV breaker at the Atlantic Substation, and installing a new switch at the Del Mar Substation. Each project component described below will be engineered and constructed pursuant to applicable engineering guidelines and standards, in particular those set out in CPUC General Order 95 (GO 95).

Power Line

The power line portion of the project, as originally proposed, involved installing approximately four miles (21,000 feet) of a new 60 kV line on tubular steel poles (poles). The Proposed Project would provide a second 60 kV line to serve the Rocklin-south Placer County area. It would be built to 115 kV standards so that, at some future date, PG&E could convert the line to a 115 kV line without replacing the poles and conductors. PG&E does not have present plans to convert the line to 115 kV.

Although the project would be built to 115kV standards, this Initial Study does not analyze impacts associated with a 115 kV line because the Application for a Permit to Construct is specifically for construction of a 60 kV system. However, had the Application been for a 115 kV line, there would be no difference in impact because the two projects (115 vs. 60 kV) would look exactly the same and construction impacts would also be the same. The CPUC requires PG&E to submit an Electric and Magnetic Field (EMF) Management Plan, which will be

prepared for the 60 kV project. The only difference between a 60 kV and 115 kV project in this case is the amount of voltage carried by the conductors. The amount of current, not voltage, determines magnetic field levels surrounding a power line. Therefore, the same load passing through a 115 kV line rather than a 60 kV line will result in decreased magnetic field levels (see also Section VII, section “e”).

The new power line, as originally proposed, would begin at Atlantic Substation and proceed north adjacent to Harding Boulevard, following the existing Atlantic-Del Mar 60 kV line, for approximately 900 feet. The line would then turn east, continuing to follow the existing line, and proceed approximately 2,000 feet, crossing Antelope Creek before reaching the Union Pacific Railroad (UPRR) tracks. At the railroad tracks, the proposed route turns northeast (the existing power line crosses the railroad and goes east at this point), and continues parallel to the west side of the tracks, crossing State Route 65 (SR 65) and Sunset Boulevard. The line would cross the railroad tracks south of Farron Street and continue northeast again on the east side of the railroad tracks for approximately 1.1 miles. At this point, the route follows the south spur of the railroad tracks for approximately 0.4 miles. The line would then turn east, crossing Pacific Street where it would meet the existing 60 kV power line. The existing line would be reconstructed to accommodate the new proposed line on a single set of double circuit poles along Sierra Meadows Drive to the Del Mar Substation.

As proposed by PG&E, approximately 30 new single-shaft pole structures, varying between approximately 75 and 110 feet in height, would be required to support the conductor (see Figure B-3, Typical Tubular Steel Poles). The City of Rocklin has stated that Pacific Street is scheduled to be widened within 5 years at the southerly end of the City. The existing 60 kV line would be in conflict with the City’s proposed street-widening plan. The City of Rocklin has requested that PG&E engineer and construct a portion of the proposed new line to accommodate the future relocation of the existing line that would be in conflict with the City’s Pacific Street project. The poles would be engineered and constructed to accommodate a second circuit (see Figure B-3) from the point where the new line would enter the railroad right-of-way to the first pole north of Sunset Boulevard. The double-circuit poles would support the new 60 kV line and would have a vacant second position. If the street-widening project occurs within 5 years, the existing 60 kV line along Pacific Street would be transferred to the vacant position on the new poles and reconnected into the existing line at Sunset Boulevard. The proposed pole just north of Sunset Boulevard would be designed to allow the existing line to cross the UPRR at a ninety-degree angle. The existing wood poles would then be “topped” to a point just above the distribution circuit. The poles supporting the distribution circuit and other utilities would remain unless the City of Rocklin chooses to underground its distribution lines at some other future date.

Based on PG&E’s preliminary design, the type of conductor used on the proposed new power line would be “477 Aluminum Conductor Steel Strand.” The proposed circuit would have three conductors per pole. The vertical distance between two conductors would be 10 feet. The spans between poles would average approximately 800 feet, although distances would vary depending on the available ROW, topography, and other line alignment issues.

Underground Power Line Segment

Based on analysis of visual impacts of PG&E’s proposed project, an approximately 1.3 mile long segment of underground power line is recommended in Mitigation Measure V-1. This underground power line segment would begin approximately 30 to 100 feet south of Sunset Boulevard and extend to at least 120 feet north of Midas Avenue (see Section I.c for a detailed description of Mitigation Measure V-1). The underground power line would be located within the UPRR ROW on the east side of the railroad tracks from its southern terminus to approximately 500 feet south of Rocklin Road. North of this point, the underground route would cross the City of Rocklin’s Multi-Modal Station property, UPRR ROW, and private property north of Midas Avenue.

The 60 kV single circuit underground power line would consist of three cross-linked polyethylene-insulated, single conductor cables in duct bank. The cable system would consist of four to six 6-inch polyvinyl chloride (PVC) ducts, incased in concrete and spaced approximately ten inches apart in a trench or 30” bore casing between the two overhead/underground transition structures. The southernmost approximately 600 feet of the underground power line would be installed in an arcing to nearly horizontal drilled hole, with the major portion approximately 15 feet below ground surface that would extend from the southern transition structure, beneath the Sunset Boulevard embankment,

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Figure B-3: Examples of Single and Double Circuit Tubular Steel Pole Structures
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drainage way and wet areas, to approximately 500 feet north of Sunset Boulevard. North of the horizontal directional drill, the line would be installed in a trench approximately 30 inches wide by 6 to 8 feet deep. The minimum depth of cover above the cables would be 36 inches as required by CPUC General Order 128.

Atlantic Substation

A new 60 kV breaker and bay would be installed within the fenced area at the existing Atlantic Substation. The new line would be placed on three new double-circuit poles within the Atlantic Substation property, along with the existing Atlantic-Del Mar 60 kV circuit, and routed toward the Del Mar Substation. The new 60 kV bay would be added to the end of the 60 kV bus.

Del Mar Substation

East of Pacific Street, along Sierra Meadows Drive, both the new 60 kV line and the existing 60 kV circuit from the Atlantic Substation would be placed on two new, double-circuit poles and routed from the Del Mar Substation toward the Atlantic Substation. The wood poles currently carrying the existing Atlantic-Del Mar 60kV circuit and a distribution circuit in this area would be topped off (i.e., the top third of the poles would be cut off leaving the existing distribution circuit attached) after the 60 kV circuit has been moved to the new poles. In order to permit a possible future voltage upgrade, the clearances and equipment at this substation are rated 115 kV, although the operating voltage is proposed to remain 60 kV. New equipment and clearances would also be rated 115 kV.

General Construction Methods

Since the entire Proposed Project is within approximately four miles of the Atlantic Substation, PG&E would secure an area at the substation for manpower point of assembly, material delivery/laydown, and equipment parking. An area of approximately 100 feet by 100 feet would be required at each pole location for structure assembly and erection. The horizontal directional bore construction would require a laydown area roughly the length of the directional bore for assembly of casing and ducts. No material or equipment would be left or parked overnight along the Proposed Project ROW or on private property without prior consent from the appropriate representative or landowner.

Project Access

The main travel routes that PG&E proposes to use for construction access would include Harding Boulevard, Atlantic Street, and Taylor Road/Pacific Street. Perpendicular streets and roads adjacent to this main route, including Sunset Boulevard, Farron Street, Rocklin Road, Midas Avenue, and Yankee Hill Road, would also be used to access the Proposed Project area. Additional access would be along the UPRR ROW or on existing dirt roads. PG&E does not propose to build new roads for project access.

Short duration traffic control and small segment lane closures may occur along Roseville Parkway, SR 65, Sunset Boulevard, Farron Street, Rocklin Road, Midas Avenue, and Pacific Street. PG&E would consult the California Department of Transportation (Caltrans), the cities of Roseville and Rocklin, and the UPRR and all required approvals secured prior to the commencement of construction activities within any roadway ROW.

Personnel

Power line construction would require approximately 20 personnel. Installation of the 60 kV breaker in the Atlantic Substation and connecting the new circuit to the Del Mar Substation would take place concurrently with the overhead line construction. Proposed construction activities at the substations would require approximately five personnel total.

Overhead Power Line Construction

The pole structures are proposed to be constructed with base plates and foundation bolts. It should be noted that PG&E has committed to implementing measures to protect existing utilities and the railroad during all construction activities (see Applicant Proposed Mitigation Measure 15-2).

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Base Plate and Foundation Bolt Construction. Heavy equipment, including hole diggers or augers, would be used to dig the foundation holes for the anchor bolt foundations of the self-supporting poles. The foundation holes would be approximately four to six feet in diameter and fifteen to twenty feet deep. After digging the hole, a wooden form would be built around the top of the hole to support a rebar cage and anchor bolts. The cage and anchor bolts would then be set down inside the hole by a boom truck. Once the rebar and anchor bolts are secured at the proper depth and orientation, concrete would be poured into the hole, vibrated to remove voids up to the top of the forms, and then finished with a hand trowel. The concrete would be allowed to cure for seven days.

The pole structures would be hauled to the site by a fifth wheel tractor and a 40-foot flatbed trailer. The pole sections, typically measuring 45 feet in length or less, would be offloaded by a boom truck and spotted at each structure location. The pole structures would be fully assembled on the ground at the installation locations. The structures would then be erected using a 50-ton crane and secured with large nuts to the threaded anchor bolts imbedded in the concrete foundation. Typically, the pole base section is set on the foundation and the nuts secured to the anchor bolts over the flange. Then the top section is slipped onto the top of the base section and jacked together using hoists, until proper lap length is achieved.

Steel arms, as required, would be bolted to each pole during assembly on the ground. The telescoping pole shaft sections would be jacked together with a winch. Insulators would be placed on the structure to support the electrical conductors.

Once all poles are assembled, the new conductors would be installed. Conductors would be installed by first feeding a lead wire through temporary rollers suspended from the ends of the insulators. The conductor would be attached to the end of the lead wire and pulled through the structures by a truck-mounted winch. After the conductor is supported by all structures, a prescribed tension would be applied to produce the desired sag. Conductors would then be removed from the rollers and clamped to the ends of the insulators. Once this is complete, the line would then be energized.

Underground Power Line Construction

Horizontal directional drilling would be the technique used to excavate the arching-horizontal hole for the southernmost 600 feet of the underground line. A bore entrance pit for containment of drilling mud would be located approximately 30 to 100 feet south of Sunset Boulevard on the east side of the railroad tracks. According to preliminary plans, the hole would be drilled down at a gentle angle at the entry (usually between 5 and 15 degrees from horizontal), then approximately horizontal, then upward to the exit at a gentle angle. An exit pit would be located approximately 500 feet north of Sunset Boulevard. The drilling operation would involve drilling a pilot hole and then reaming to enlarge the hole to the required diameter for casing to be pulled into the bore. Once the hole is drilled, the casing with ducts and spacers pre-installed would be pulled through the bore in one continuous operation. The casing annular space around ducts would then be filled with thermal grout. Duct bank would then be installed from each bore end towards the transition riser structures. Once duct banks are built out of the bore pit areas, the pits would be backfilled. To prevent frac-outs the following or similar prevention measures will be instituted: before thermal grout is pumped into the casing, thermal concrete of compressive strength 2,500 psi (same as the duct bank concrete) will be used to form concrete plugs at the casing ends to prevent escape of the grout during the pumping operation. Overflow standpipes will be directed into a sandbagged, fabric or plastic lined dam to prevent contamination of any surrounding areas.

North of the bore exit pit, a trench would be dug to carry the cables. The construction work would be completed using cut and cover construction (open trenching) for the underground power line and conduits. The conduit that will contain the solid dielectric cables would be installed in a trench approximately 30 inches wide and 6 to 8 feet deep. Thermal concrete would be poured around the formed conduits and spacers to create the concrete duct bank. The conduit would have a minimum cover of 36 inches. It is anticipated that 5 splice vaults (one approximately every 1,500 feet) would be constructed along the 1.3-mile underground segment for installing cables and splicing sections of cables together. Cables would rise out of the ground at two transition riser structures, one south of Sunset Boulevard and one north of Midas Avenue.

PG&E contractors would conduct soil sampling and final exploration surveys or “potholing” prior to construction of the line. Information gained from these surveys would be provided to construction crews to inform them about soil conditions and utility locations. If hazardous materials were encountered in soils from the trench, work would be stopped until the material is properly characterized and appropriate measures are taken to protect human health and the environment.

It is estimated that construction of the underground segment would proceed at a rate of approximately 200 feet per day to complete trenching/installation of conduit and racks, vaults, pouring backfill, and repaving. (No time estimate is available for the portion requiring directional horizontal drilling.) No more than 300 feet of trench would be open in either location, or as required by the City of Rocklin’s requirements for construction projects. Cable pulling, splicing, and terminating in the underground segment of the Project is expected to take approximately three additional months. This estimate assumes accessing two vaults or one terminal riser structure at a time on a five day per week schedule. If blasting is necessary in order to complete trenching or drilling of the underground segment, if hazardous materials are discovered, if project work hours are restricted, or if biological species issues arise that impact project schedule, project construction could take substantially longer to complete.

Construction Equipment

Equipment that would be used during construction of both the power lines and at the substation is listed in Table B-2.

Table B-2. Major Equipment to be Used During Construction

Equipment	Use
3/4-ton pickup trucks	Transport construction personnel
1 ton crew trucks	Transport construction personnel
2 ton flat bed trucks	Haul materials
Flat-bed boom truck	Haul and unload materials
Rigging truck	Haul tools and equipment
Mechanic truck	Service and repair equipment
Shop vans	Store tools
Truck-mounted digger	Excavate foundations
Crawler backhoe	Excavate foundations, bore pit, and underground power line trench
Loader	Load and unload fill
Small mobile cranes (< 12 tons)	Load and unload materials
Puller	Pull conductor wire
Tensioner	Pull conductor wire
Wire reel trailer	Haul wire
Semi-tractor trailer	Haul structure components
Air compressors	Operate air tools
Air tampers	Compact soil around poles
Portable generators	Power tools
Auger	Excavate foundations
Dump trucks	Haul spoil
Concrete trucks	Transport concrete
Aerial lift trucks	String conductor wire
Cable trailer	Transport and payoff cable reels
Large mobile crane	20 ton for loading/unloading cable reels
Pavement saw	Cutting paved areas for trench
Roller	Asphalt paving
Large excavator backhoe	Main trench, bore pits, splice vault excavations
Splice trailer	Splice vault access, climate control, splice materials
Directional drilling rigs, baker tanks	Directional drilling for duct casing

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Construction Schedule

The Atlantic-Del Mar Reinforcement Project is scheduled to begin construction immediately after CPUC approval, estimated to be in late 2002. The project construction schedule, as defined in PG&E's PEA, would have started in February 2002 and ended in June 2002. Table B-3 shows the time required for major construction tasks.

Table B-3. Estimated Project Construction Schedule

Construction Activity	Start	End
Atlantic Substation Upgrades*	Day 1	Day 103
Del Mar Substation Upgrades	Day 1	Day 119
Install Tubular Steel Poles	Day 1	Day 88
String Conductor	Day 88	Day 119
Underground Construction	Unknown	Unknown; estimate is seven months for construction only (not contract award or design), not counting delays due to species mitigation.
Start of Operations	June 2004	June 2004

* Certain work at Atlantic Substation (estimated 60 days) must be completed by May 15 due to clearance issues associated with cutting power to a portion of the substation. After May 15, it would be risky to cut any power to the station because of high demand associated with elevated temperatures. If not completed by May 15, five months would need to be added to the construction schedule.

Electric and Magnetic Fields (EMF)

The CPUC is aware of the public concerns regarding the potential health effects from exposure to electric and magnetic fields (EMFs) from electric facilities. This issue continues to be controversial in the scientific community and with other public organizations researching this issue, and no resolution or agreement has been reached on whether EMF exposure poses a human health threat or not.

EMFs are separate phenomena and occur both naturally and as a result of human activity across a broad electrical spectrum. Naturally-occurring EMF are caused by the weather and the earth's geomagnetic field. These fields also occur from human activity, caused by technological application of the electromagnetic spectrum for uses such as communications, appliances, and the generation, transmission, and local distribution of electricity.

The EMF from power lines change their direction over time. The rate of this change in direction is referred to as a frequency, and represents the number of times the fields change direction each second. For power lines in the United States, the frequency of change is 60 times per second and is defined as 60 Hertz (Hz) power. In Europe and many other countries, the frequency of electric power is 50 Hz. Radio and communication waves operate at much higher frequencies: 500,000 Hz to 1,000,000,000 Hz. The information presented in this document is limited to the EMF from power lines at frequencies of 50 or 60 Hz.

Electric power flows across transmission systems from generating sources to serve electrical loads within the community. The transmission line's voltage and current determine the apparent power flowing over a transmission line. The higher the voltage level of the transmission line, the lower the amount of current needed to deliver the same amount of power. For example, a 115 kV transmission line with 200 amps of current will transmit approximately 40,000 kilowatts (kW), while a 230 kV transmission line requires only 100 amps of current to deliver the same 40,000 kW. A 500 kV transmission line requires 46 amps of current to deliver this amount.

Electric Fields

Electric fields from power lines are created whenever the lines are energized, with the strength of the field dependent directly on the voltage of the line creating it. Electric field strength is typically described in terms of kilovolts per meter (kV/m). Electric field strength attenuates rapidly as the distance from the source increases. Electric fields are shielded by most objects or materials such as trees or houses.

At reasonably close distances, electric fields of sufficient strength in the vicinity of power lines can cause the same phenomena as the static electricity experienced on a dry winter day, or with clothing just removed from a clothes dryer, and may result in electric discharges when touching long metal fences or large vehicles. An acknowledged potential impact to public health from electric transmission lines is the hazard of electric shock. Electric shocks from transmission lines are generally the result of accidental or unintentional contact by the public with the energized wires.

Magnetic Fields

Magnetic fields from power lines are created whenever current flows through power lines at any voltage. The strength of the field is directly dependent on the current in the line. Magnetic field strength is typically measured in milligauss (mG). Similar to electric fields, magnetic field strength attenuates rapidly with distance from the source. Unlike electric fields, magnetic fields are not easily shielded by objects or materials.

The nature of a magnetic field can be illustrated by considering a household appliance. When the appliance is energized by being plugged into an outlet but not turned on so no current would be flowing through it, an electric field will be generated around the cord and appliance, but no magnetic field will be present. If the appliance is switched on, the electric field will still be present and a magnetic field will be created. The electric field strength is directly related to the magnitude of the voltage from the outlet and the magnetic field strength is directly related to the magnitude of the current flowing in the cord and appliance.

**Table B-4.
Typical Electric Field Values for
Appliances, at 12 Inches**

Appliance	Electric Field Strength (kV/m)
Electric blanket	0.25*
Broiler	0.13
Stereo	0.09
Refrigerator	0.06
Iron	0.06
Hand mixer	0.05
Phonograph	0.04
Coffee pot	0.03

* 1 to 10 kV/m next to blanket wires (Enertech, 1985).

**Table B-5.
Magnetic Field From Household Appliances**

Appliance	Magnetic Field (mG)	
	12" Distant	Maximum
Electric range	3 to 30	100 to 1,200
Electric oven	2 to 25	10 to 50
Garbage disposal	10 to 20	850 to 1,250
Refrigerator	0.3 to 3	4 to 15
Clothes washer	2 to 30	10 to 400
Clothes dryer	1 to 3	3 to 80
Coffee maker	0.8 to 1	15 to 250
Toaster	0.6 to 8	70 to 150
Crock pot	0.8 to 1	15 to 80
Iron	1 to 3	90 to 300
Can opener	35 to 250	10,000 to 20,000
Mixer	6 to 100	500 to 7,000
Blender, popper, processor	6 to 20	250 to 1,050
Vacuum cleaner	20 to 200	2,000 to 8,000
Portable heater	1 to 40	100 to 1,100
Fans / blowers	0.4 to 40	20 to 300
Hair dryer	1 to 70	60 to 20,000
Electric shaver	1 to 100	150 to 15,000
Color TV	9 to 20	150 to 500
Fluorescent fixture	2 to 40	140 to 2,000
Fluorescent desk lamp	6 to 20	400 to 3,500
Circular saws	10 to 250	2,000 to 10,000
Electric drill	25 to 35	4,000 to 8,000

Source: Gauger, 1985.

EMF exists in the environment both naturally and as a result of human activities. The geomagnetic field of the earth ranges from 500 to 700 mG (Carstensen, 1987). In areas not immediately adjacent to transmission lines, EMF exists as a result of other electric power uses such as neighborhood distribution lines, household wiring, and electrical equipment or appliances. Public exposure to these fields is widespread and encompasses a very broad range of field intensities and durations. Research on ambient magnetic fields in homes and buildings in several western states found average magnetic field levels within rooms to be approximately 1 mG, while in the immediate area of appliances, the measured values ranged from 9 to 20 mG (Severson et al., 1988, Silva et al, 1988). Tables B-4 and B-5 indicate typical sources and levels of EMF exposure the general public experiences from appliances.

Public Health and EMF Studies

For more than 20 years, questions regarding the potential effects within the environment of EMF from power lines have been asked, and research has been conducted to provide some basis for response. Earlier studies focused primarily on interactions with the electric fields from power lines. In the late 1970s, the subject of magnetic field interactions began to receive additional public attention and research levels have increased.

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A substantial amount of research investigating both electric and magnetic fields has been conducted over the past 15 years; however, much of the body of national and international research regarding EMF and public health risks remains contradictory or inconclusive.

Scientists have found that EMF can produce a number of biological effects (Carstensen, 1987). These range from slowed heart rates to changes in the rate at which the body produces various compounds. Some of these effects are apparently related to the electric field while others are thought to be due to the magnetic field. These effects have been difficult to determine and often are only detectable at field strengths well in excess of those to which the public is exposed from power lines or household wiring and appliances. Although it has been found that EMF causes biological effects, there is no scientific basis to conclude that any of these biological effects have negative implications for public health at the field levels associated with power lines.

Research related to EMF can be grouped into three general categories: cellular level studies, animal and human experiments, and epidemiological studies. These studies have provided mixed results; some studies show an apparent relationship between magnetic fields and health effects, while other similar studies do not.

Since 1979, public interest and concern specifically regarding magnetic fields from power lines has increased. This increase has generally been attributed to publication of the results of an epidemiological study (Wertheimer and Leeper, 1979), which observed an association between the wiring configuration of distribution power lines outside of homes in Denver and the incidence of childhood cancer. Following publication of the Wertheimer and Leeper study, more than 50 major epidemiological studies regarding EMF have been conducted.

Scientific Panel Reviews

Numerous panels of expert scientists have convened to review the data relevant to the question of whether exposure to power-frequency EMF is associated with adverse health effects. These evaluations have been conducted in order to advise governmental agencies or professional standard-setting groups. These panels of scientists first evaluate the available studies individually, not only to determine what specific information they can offer, but also in terms of their experimental design, methods of data collection, analysis, and suitability of the authors' conclusions to the nature and quality of the data presented. Subsequently, the individual studies, with their previously identified strengths and weaknesses, are evaluated collectively in an effort to identify whether there is a consistent pattern or trend in the data that would lead to a determination of possible or probable hazards to human health resulting from exposure to these fields.

These reviews include those prepared by international agencies such as the World Health Organization (WHO, 1984; 1987) and the international Non-Ionizing Radiation Committee of the International Radiation Protection Association (IRPA/INIRC, 1990), as well as governmental agencies of a number of countries, such as the U.S. Environmental Protection Agency (USEPA), the National Radiological Protection Board of the United Kingdom, and the French and Danish Ministries of Health.

All of these panels have concluded that the body of data, as large as it is, does not provide evidence to conclude that exposure to EMF of the magnitude expected during the operation of electric transmission lines causes cancer or otherwise constitutes a health hazard.

In May 1999, the National Institute of Environmental Health Sciences (NIEHS) submitted to Congress its report titled, *Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields*, containing mixed conclusions regarding EMF and health effects. The conclusions of this report state "using criteria developed by the International Agency for Research on Cancer, none of the Working Group considered the evidence strong enough to label ELF-EMF exposure as a known human carcinogen or probable human carcinogen. However, a majority of the members of this Working Group concluded that exposure to power-line frequency ELF-EMF is a possible carcinogen." Congress has not taken any action following issuance of this report and further research is being conducted since this Working Group was unable to determine that EMF does result in any health effects.

Policies, Standards, and Regulations Regarding EMF

A number of counties, states, and local governments have adopted or considered regulations or policies related to EMF exposure. The reasons for these actions have been varied; in general, however, the actions can be attributed to addressing public reaction to and perception of EMF as opposed to responding to the findings of any specific scientific research. Following is a brief summary of activity in this area.

International Activity. The International Radiation Protection Association, in cooperation with the World Health Organization, has published recommended guidelines (INRC, 1998) for EMF exposures. For the general public, the limits are 4.2 kV/m for electric fields, and 830 mG for magnetic fields. Neither of these organizations has any governmental authority nor recognized jurisdiction to enforce these guidelines. However, because they were developed by a broad base of scientists, these guidelines have been given merit and are considered by utilities and regulators when reviewing EMF levels from electric power lines.

National Activity. Although the USEPA has conducted investigations into EMF related to power lines and health risks, no national standards have been established. The number of studies sponsored by the USEPA, the Electric Power Research Institute (EPRI), and other institutions has increased dramatically in the past few years. Several bills addressing EMF have been introduced at the congressional level and have provided funding for research; however, no bill has been enacted that would regulate EMF levels.

The 1999 NIEHS report to Congress suggested that the evidence supporting EMF exposure as a health hazard was insufficient to warrant aggressive regulatory actions. The report did suggest passive measures to educate the public and regulators on means aimed at reducing exposures. NIEHS also suggested that the power industry continue its practice of siting lines to reduce exposures and to explore ways to reduce the creation of magnetic fields around lines.

State Activity. Several states have adopted limits of electric field strength within transmission line ROWs. Florida and New York are the only states that currently limit the intensity of magnetic fields from transmission lines. These regulations include limits within the ROW as well as at the edge of the ROW and cover a broad range of values. Table B-6 lists the states regulating EMF and their respective limits. The magnetic field limits were based on an objective of preventing field levels from increasing beyond levels currently experienced by the public and are not based upon any link between scientific data and health risks (Morgan, 1991).

Table B-6. EMF Regulated Limits (by State)

State	Electric Field (kV/m)	Magnetic Field (mG)	Location	Application
500 kV Lines Florida (codified)	10		in ROW	Single Circuit
	2	200	edge of ROW	Single Circuit
	2	250	edge of ROW	Double Circuit
230 kV Lines or less Florida (codified)	8		in ROW	
	2	150	edge of ROW	230 kV Lines or less
Minnesota	8		in ROW	> 200 kV
Montana (codified)	1		edge of ROW	> 69 kV
	7		in ROW	road crossings
New Jersey	3	under consideration	edge of ROW	Guideline for complaints
New York	1.6	200	edge of ROW	> 125 kV, > 1 mile
	7		in ROW	public roads
	11		in ROW	public roads
	11.8		in ROW	other terrain
North Dakota	9		in ROW	Informal
Oregon (codified)	9		in ROW	230 kV, 10 miles

Source: Public Utilities Commission of Texas.

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Elsewhere in the United States, several agencies and municipalities have taken action regarding EMF policies. These actions have been varied and include requirements that the fields be considered in the siting of new facilities. The manner in which EMF is considered has taken several forms. In a few instances, a concept referred to as “prudent avoidance” has been adopted. Prudent avoidance, a concept proposed by Dr. Granger Morgan of Carnegie-Mellon University, is defined as “...limiting exposures which can be avoided with small investments of money and effort” (Morgan, 1991). Some municipalities or regulating agencies have proposed limitations on field strength, requirements for siting of lines away from residences and schools, and, in some instances, moratoria on the construction of new transmission lines. The origin of these individual actions has been varied, with some initiated by regulators at the time of new transmission line proposals within their community, and some by public grassroots efforts.

In 1991, CPUC initiated an investigation into EMF associated with electric power facilities. This investigation explored the approach to potential mitigation measures for reducing public health impacts and possible development of policies, procedures, or regulations. Following input from interested parties, the CPUC did implement a decision (93-11-03), which requires the use of low-cost or no-cost mitigation measures for electric facilities requiring certification under General Order 131 (such as the subject of this SEIR). In response to this decision, PG&E implemented Transmission Line EMF Design Guidelines, which were submitted as a part of PG&E’s application for this project. This decision also implemented a number of EMF measurement, research, and education programs. The CPUC did not adopt any specific limits or regulations on EMF levels related to electric power facilities.

California Research Programs. In coordination with the California Department of Health Services (DHS), the CPUC sponsors the California EMF Program, which conducts a wide range of research and advisory programs. This program and its components are described in detail on two Internet websites:

- <http://www.dnai.com/~emf/>
- <http://www.cpuc.ca.gov/divisions/energy/environmental/emf/emfopen.htm>

The EMF Program under the CPUC and DHS is briefly described in the following sections.

Creation of the California EMF Program. CPUC Decision 93-11-013 (also described in Section C.9.2.1.1 following) created the California Electric and Magnetic Fields (EMF) Program to research and provide education and technical assistance on the possible health effects of exposure to EMF from power lines and other uses of electricity. In addition to funding research and policy analysis on this issue, the EMF Program provides education and technical assistance to government agencies, professional organizations, businesses, and members of the general public. Under the CPUC decision, this program is funded by money provided by the state’s investor-owned utilities and is based in the DHS. The California EMF Program produces periodic reports to the CPUC, and its goal is to make the research, policy analysis, and educational products useful to the CPUC in future decision-making.

As a part of this process, the CPUC mandated the DHS to explore the possible health risks of EMF as a result of power lines. A draft of that study, *An Evaluation of the Possible Risks from Electric and Magnetic Fields (EMFs) From Power Lines, Internal Wiring, Electrical Occupations, and Appliances*, was released in April 2001, but the conclusions are preliminary and may not be quoted. Comments on the draft report were due on September 10, 2001. At the time of release of this Revised Draft IS/MND, the Department of Health Services was compiling the comments received on that draft report. The final Department of Health Services document is anticipated to be released in late 2002 (DHS, 2002).

Program Organization. The DHS has assigned Dr. Raymond Richard Neutra of the Division of Environmental and Occupational Disease Control to head the EMF Program. Funding for the EMF Program became available on January 1, 1994, and the Public Health Institute (PHI, formally the California Public Health Foundation) became the Program’s nonprofit fiscal manager on April 30, 1994. PHI assists DHS by staffing the Stakeholders Advisory Consultants (SAC), overseeing the extramural research unit and its subcontracts, and handling the fiscal and administrative matters of the education unit. After the formation of the SAC and an international search, the research director joined the staff on February 1, 1995.

Stakeholders Advisory Consultants (SAC). The CPUC decision that created the California EMF Program states that the involvement of stakeholders and the public is very important to the development of effective EMF policies. This decision asks DHS to determine what form of stakeholder and public involvement best meets its needs. DHS decided that the most appropriate role for the SAC would be to advise the program on the development of the research projects and on budgetary matters, and to monitor its progress to ensure that the scientific and technical staff can exercise their responsibility and authority to carry out an effective program on behalf of the CPUC. The EMF Program assembled the SAC in 1994 and they have met several times a year since then.

One important function of the SAC is to serve as a forum where all citizens can ask questions and express their concerns about the possibility of health effects from exposure to EMF and express their opinions about EMF policy. All SAC meetings are open to the general public. Stakeholders' concerns about the research projects have surfaced through discussions that extended in some cases over several quarterly meetings. For some important issues, such as conflict of interest and property values research, consensus was not possible. In these cases, the Program tries to find solutions that are technically and scientifically sound while being responsive to the basic concerns of the various stakeholders.

Research Unit. The goal of the Research Unit is to help answer the following four questions that decision-makers face as they deal with the EMF issue:

- Is there a health problem? (risk research)
- Where is the problem? (exposure assessment and analysis)
- What can be done about it? (mitigation research)
- What should policymakers do, or what are the policy options and their pros and cons? (policy analysis)

In order to answer these questions, the Program's research priority areas are policy analysis, exposure assessment, epidemiology, and electrical engineering and mitigation.

Education and Technical Assistance Unit. The goals of the Education and Technical Assistance unit are to:

- Provide a trustworthy and balanced source information about potential EMF health risks and mitigation options
- Provide technical and consultative services to State and local officials, professional organizations, and the public about EMF exposures and health risks thought to be related to EMF
- Facilitate and maximize opportunities for public input into program projects and goals and provide support and training to enable stakeholders to use and remain informed about the research program results
- Coordinate actions within DHS, with other California State and local agencies, and with programs sponsored by the federal government, other State governments, and investor-owned and municipal utilities
- Act as liaison between the Program's Stakeholders Advisory Consultants and staff by organizing and facilitating meetings and preparing and distributing meeting minutes
- Provide education and support for stakeholders and the public through the program newsletter, and prepare and distribute important program materials.

To accomplish these goals, Education and Technical Assistance staff write and distribute educational materials, organize meetings and workshops for stakeholders and the general public, produce a newsletter to keep stakeholders and interested parties informed of program activities, and respond by telephone, mail, and electronic mail to questions raised by members of the public.

Program Synthesis Projects. This is the final phase of the EMF Program, during which the research results will be reviewed and used as the basis for preparing reports and products to inform future discussions on this issue. As a result of SAC discussions, the DHS decided to pursue a program synthesis that includes four elements:

- An evaluation of the evidence of risk based on results of this Program as well as other research
- A policy integration document to help decision-makers use the policy analyses' results
- A well thought-out process for releasing the data collected in and results of the research projects
- Opportunities for potential end-users of the research effort to familiarize themselves with complex technical documents

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The addition of this program synthesis project required two applications to the CPUC for no-cost extensions of the EMF Program.

Applicant Proposed Measures

PG&E’s Proposed Project includes a number of measures designed to reduce or avoid potential environmental impacts associated with project construction and operation. PG&E’s measures are considered part of the Proposed Project for purposes of impact assessment in this Initial Study and are summarized in Table B-7. It should be noted that, in addition to the Applicant Proposed Measures presented in Table B-7, PG&E has agreed to implement all additional Mitigation Measures that are recommended within this Initial Study’s environmental analyses. For a consolidated list of all Applicant Proposed Measures and Mitigation Measures that are required to be implemented by PG&E, refer to Table C-1 of the Mitigation Implementation and Monitoring Plan (Section C).

Table B-7. Applicant Proposed Measures

APM *	Text
Aesthetics	
APM 5-1: Landscaping and Reflection and Contrast Reduction	Pacific Gas and Electric Company has agreed to the City of Rocklin’s requests to implement the following visual mitigation measures to further ensure that the project will not negatively impact the existing visual environment within the City of Rocklin. These measures include: <ul style="list-style-type: none"> • Landscaping around poles, where possible; • Use of non-reflective wires; and • Use of gray self-weathering steel poles.
Air Quality	
APM 6-1: Worker Training	All personnel working on the project will be trained prior to starting work on methods for minimizing air quality impacts during construction. These methods are outlined in the following sections.
APM 6-2: PM10 Controls	Although the PM-10 associated with project construction is insignificant relative to the ambient PM-10 levels, the following mitigation measures have been incorporated into the project to ensure PM-10 emissions are minimized during construction activities: <ul style="list-style-type: none"> • All construction areas, unpaved access roads, and staging areas will be watered at least twice daily, or soil stabilizers will be applied, as conditions require; • All trucks hauling soil and other loose material will be covered or have at least two feet of freeboard; • Construction vehicles will use paved roads to access the construction site, wherever possible; • Vehicle speed will be limited to 15 miles per hour on unpaved roads and construction areas, or as required to control dust; • Streets will be cleaned, as necessary, if soil material is carried onto adjacent public streets from project activities; • Soil stabilizers will be applied to inactive construction areas on an as-needed basis; • Exposed stockpiles of soil and other excavated materials will be enclosed, covered, watered twice daily, or applied with soil binders; and • Vegetation will be replanted in disturbed areas following the completion of construction and during the appropriate time to insure the greatest vegetative success.
APM 6-3: Equipment and Vehicle Emissions	Although short-term construction vehicle emissions are minimal relative to the ambient emission levels the following mitigation measures have been incorporated into the project to reduce emissions from equipment and vehicles during construction activities: <ul style="list-style-type: none"> • Carpooling will be encouraged among construction workers through contractor bid specifications and project orientation training for workers; • Vehicles used in construction activities will be tuned per the manufacturer’s recommended maintenance schedule; and • Vehicle idling time will be minimized (e.g., 5 minute maximum).

* APMs (Applicant Proposed Measures) are numbered based on the section and sequence in which they appear in the PEA.

APM *	Text
Biological Resources	
APM 7-1: Standard Construction Practice to Avoid or Minimize Impacts to Biological Resources	<p>As part of Pacific Gas and Electric Company's standard construction practice, the following mitigation measures will be incorporated into the project and will be implemented to avoid or minimize impacts to biological resources:</p> <ul style="list-style-type: none"> • An ongoing environmental education program for construction crews will be conducted before beginning the site work and during construction activities. Sessions will include information about the federal and state Endangered Species Acts, the consequences of noncompliance with these acts, identification of sensitive species and wetland habitats, and review of mitigation requirements. • Vehicles will be restricted to established and identified roadways. • Sensitive resource areas, such as rare plant populations, habitat for listed species, and active nests in the project vicinity, will be mapped and marked in the field. • If sensitive species are located prior to or during construction, Pacific Gas and Electric Company will consult with the USFWS and CDFG to coordinate avoidance measures. • A biological monitor will be onsite during any construction activity near sensitive habitat to ensure implementation of, and compliance with, mitigation measures. The monitor will have the authority to stop activities and determine alternative work practices in consultation with construction personnel, if construction activities are likely to impact sensitive biological resources. • Photo documentation of preconstruction habitat conditions at all tower and pull-site locations within sensitive habitat will occur prior to the start of work, as well as immediately after construction activities. • Pacific Gas and Electric Company will make diligent efforts to protect the existing plant community and wetlands and to keep temporary impacts to a minimum. However, temporary impacts to habitat will be addressed through a revegetation/restoration plan. • Trash dumping, firearms, open fires (e.g., barbecues), hunting, and pets will be prohibited in the project area.
APM 7-2: Wetlands and Riparian Habitat	<p>To ensure avoidance of wetland habitat (includes vernal pools, artificial seasonal pools, freshwater marsh, and other natural wetlands, riparian vegetation, and perennial and ephemeral streams) the following mitigation measures will be implemented:</p> <ul style="list-style-type: none"> • Rubber-tired construction vehicles will be used on the site and no new roads will be excavated, with the exception of a small pad at the base of the tower west of Antelope Creek. Where holes are augered for poles located within the 250-foot buffer zone of vernal pools and other seasonal pools, runoff will be contained and care will be taken to prevent cast-off of excavated soil. For other aquatic habitats (i.e., perennial and ephemeral streams, wetlands, and quarry ponds) poles are located within 200 feet of these habitats, and care will be taken to prevent cast-off of excavated soil. Once the seated pole has been back-filled, any excess excavated soils will be moved away from the stream or wetland. • All vehicle and equipment access into the site will be limited to marked access routes to avoid entering streams, wetlands, vernal, and seasonal pools. Wetland habitat will be marked with flagging by a qualified biologist. When possible, indirect impacts to vernal pools and seasonal pools will be avoided by maintaining a disturbance-free zone of 250 feet from the edge of all wetland habitats. For other aquatic habitats (perennial and ephemeral streams, wetlands, and quarry ponds) indirect impacts will be avoided when possible, by maintaining a disturbance-free zone of 200 feet from the edge of all aquatic habitat during the wet season (November through April) and 30 feet during the dry season (May through October). • Riparian vegetation along the Antelope Creek corridor and the unnamed ephemeral streams that occur in the project area will be marked as Environmentally Sensitive Areas (ESA's) prior to construction and under the supervision of a qualified biologist. • Prior to construction, silt fencing will be installed in areas where any soil disturbance within 100 feet of the Antelope Creek corridor, or within 50 feet of any of the ephemeral streams or pools is anticipated. The disturbed area will be restored to a pre-existing grade and any bare soil will be covered with certified weed-free straw or wood chips immediately following construction. • Refueling or equipment repair will occur outside the defined project area.
APM 7-3: Native Trees	<ul style="list-style-type: none"> • Permits will be obtained as necessary from the City of Roseville and City of Rocklin for the removal or trimming of native oaks or other native trees. A complete tree survey will be conducted by a qualified biologist or forester, and will include a list and location of all trees to be removed or trimmed. Any oaks or other native trees removed, or trimmed in excess of 20 percent of the tree canopy, will be mitigated to be consistent with local tree protection ordinances. • Any oaks or other native trees over six inches diameter-at-breast-height that are not slated for removal and are within pole laydown areas will be protected. Placement of temporary fencing at the dripline of the tree prior to construction to protect the resource from direct impacts will be implemented.
APM 7-4: Noxious Weeds	<p>Construction vehicles will avoid disturbing or driving through significant populations of noxious and invasive exotic species. Flagging will identify these areas to be avoided.</p>

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APM *	Text
<p>APM 7-5: Interruption of Breeding and Nesting Activities of Avian Species</p>	<p>“Take” of individual animals will be avoided by conducting preconstruction surveys before the spring breeding season (and prior to start of construction). A qualified biologist will perform a survey of the construction area for potential avian species within 30 days prior to construction, if scheduled during the breeding season. It is expected that if construction occurs in suitable habitat before the onset of the breeding season, the construction disturbance would cause bird species to seek alternate sites for breeding and nest construction.</p> <p>The following measures will reduce the likelihood of impacting sensitive habitat or directly impacting birds that could be nesting:</p> <ul style="list-style-type: none"> • To the extent possible, power line towers and access roads will avoid sensitive habitat; • To the extent possible, construction during the breeding season (February through September) will be avoided. If avoidance of active nests is not possible, a construction-free buffer of at least 250 feet around the nest will be maintained to protect breeding birds. In the unlikely event a Swainson’s hawk nest is present, consultation will occur with CDFG; • In the event a nesting raptor is identified in the project vicinity, a biologist will monitor the site during construction activities to ensure there is no nest abandonment; and • Should nest abandonment occur during the breeding season, despite efforts to minimize disturbance, and if the nestlings are still alive, the biological monitor(s) will notify the appropriate agencies.
<p>APM 7-6: Trimming or Removal of Nest Trees</p>	<ul style="list-style-type: none"> • When feasible, all tree removal or trimming will occur between September 15 and March 15 to avoid the breeding season of birds protected by the Migratory Bird Treaty Act, and to discourage hawks from nesting in the vicinity of the proposed power line ROW. • Prior to the beginning of construction (between March 15 and September 15), all trees within 250 feet of any construction activity will be surveyed for active raptor nests by a qualified biologist. If active raptor nests are found within 250 feet of potential construction activity, flagging will be erected around the tree at the dripline to prevent construction disturbance and intrusions on the nest area.
<p>APM 7-7: Interruption of Breeding/Denning Activities of Sensitive Wildlife Mammals</p>	<ul style="list-style-type: none"> • Before the spring breeding season (and prior to construction), a survey of the construction area for any denning activity will be performed by a qualified biologist. It is expected that if construction occurs in suitable habitat before the onset of breeding season, the construction disturbance would cause mammal species to seek alternate sites for breeding and denning; • To the extent possible, sensitive habitat, including burrows, will be avoided by moving the location of the transmission pole. Some flexibility exists in the exact placement of these features along the route; • If an active den is located within the construction zone, a biological monitor will be present during construction activities; • If possible, a buffer of at least 300 feet will be maintained around known dens of the American badger during the breeding season (March through September) to avoid the direct loss of individuals. PG&E will consult with USFWS if construction must occur within this buffer; and • Vehicular speed will be kept to 20 miles per hour in sensitive wildlife habitat.
<p>APM 7-8: Potential Loss of VELB Habitat</p>	<ul style="list-style-type: none"> • Two elderberry shrubs are located outside the ROW; • Fencing or flagging will identify all areas to be avoided during construction activities. The avoidance area will be photographed and flagged prior to construction. Signs will be installed at 50-foot intervals along the edge of the avoidance area, according to USFWS 1999 guidelines; • Towers will be constructed no closer than 100 feet to the existing shrubs; • A qualified biologist will monitor both elderberry shrubs during construction; • Informal consultation with the USFWS will occur prior to construction; and • Should impacts occur to the elderberry shrubs, the USFWS will be notified immediately.

APM *	Text
APM 7-9: Vernal Pool Fairy Shrimp, Vernal Pool Tadpole Shrimp, and California Linderiella Fairy Shrimp	<p>Pacific Gas and Electric Company will comply with Endangered Species Act requirements for mitigating impacts to these species. Where possible, a 250-foot buffer zone around pools in the project vicinity that have the potential to support vernal pool fairy shrimp, vernal pool tadpole shrimp, and California Linderiella shrimp will be fenced. This will prevent impacts to these species. Where construction activities must occur within 250 feet of a pool potentially supporting these species, the following precautions (in consultation with the USFWS) will be taken:</p> <ul style="list-style-type: none"> • A biological monitor approved by the USFWS will be present during construction activities and will have the authority to halt work to ensure that unnecessary impacts do not occur; • Adequate fencing will be placed and maintained around the vernal pool habitat; • Construction personnel will be provided environmental training that includes a description of the species involved, the importance of avoiding impacts, and the measures that they must follow while working within 250 feet of vernal pools; • Runoff from the construction activities will be prevented from draining into the pool; and • Activities that could interfere with protection of the vernal pools will be prohibited. These include alteration of existing topography; use as a staging or laydown area; building new roads; burning, burying, or leaving behind wastes; alteration of any native vegetation; and use of pesticides.
APM 7-10: California Red-legged Frog	<p>To avoid construction impacts to potential aestivation or foraging habitat, the proposed pole site in the general vicinity of potential CRLF habitat will be placed where aestivation habitat is absent. Excavation and other construction activities will not occur in wetlands identified as suitable foraging habitat.</p> <p>If construction activities are necessary inside the wet and dry season buffer zones, avoidance and minimization measures by the USFWS will likely be required, including the following:</p> <ul style="list-style-type: none"> • Prior to the initial site investigation and subsequent ground-disturbing activities, a qualified biologist will instruct all project personnel in recognition of CRLF and their habitat. Workers will be informed about the presence of CRLF and their habitat, and that unlawful "take" of the animal or destruction of its habitat is a violation of the federal Endangered Species Act. The biologist will instruct all construction personnel regarding the life history of CRLF, the importance of marshes/wetlands to the frog, and the terms and conditions of the Biological Opinion; • A qualified biologist will be present during construction activities to monitor and determine the extent of potential ground-disturbing activities within 30 feet of suitable habitat; • Between November 1 and April 30, ground-disturbing activities will not occur within 30 feet of suitable habitat; • Between May 1 and October 31, equipment will not be allowed within 30 feet of suitable habitat until a qualified biologist inspects the site to ensure the route is clear of CRLF; • Clearing of wetland vegetation will be confined to the minimal area necessary. Excavation activities will be accomplished by using equipment located on and operated from the side of the drainage with the least interference practical for emergent vegetation; • If a CRLF is encountered during excavations, activities will cease until the frog is removed and relocated by a USFWS approved biologist; and • After completion of construction activities, any debris will be removed and, wherever feasible, disturbed areas will be restored to preconstruction conditions.
APM 7-11: California Tiger Salamander (CTS)	<p>To avoid potential construction impacts to aestivation habitat, all of the proposed pole sites will be surveyed to ensure that poles are placed in locations where aestivation habitat is absent. Measures described above to protect the vernal pool tadpole shrimp, the vernal pool fairy shrimp, and the California linderiella fairy shrimp will minimize potential impacts to the salamander. Additional measures include:</p> <ul style="list-style-type: none"> • If a CTS is encountered during excavations, activities will cease until the salamander is removed and relocated by a biologist approved by CDFG; • After completion of construction activities, any construction debris will be removed and, wherever feasible, disturbed areas will be restored to preconstruction conditions.
APM 7-12: Central Valley Fall-Run Chinook Salmon	<ul style="list-style-type: none"> • No construction activities will occur in or immediately adjacent to Antelope Creek; • A buffer zone of 200 feet during the wet season (November through April) and 30 feet during the dry season (May through October) will be established around Antelope Creek to protect this species; and • If work must be conducted in buffer zones, the type and duration of the work will be negotiated with the appropriate resource agency prior to construction in the area.

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APM *	Text
APM 7-13: Foothill Yellow-legged Frog	<ul style="list-style-type: none"> • No construction activities will occur in or immediately adjacent to Antelope Creek; • A buffer zone of 200 feet during the wet season (November through April) and 30 feet during the dry season (May through October) will be established around Antelope Creek to protect this species; and • If work must be conducted in buffer zones, the type and duration of the work will be negotiated with the appropriate resource agency prior to construction in the area.
APM 7-14: Western Pond Turtle	<ul style="list-style-type: none"> • No construction activities will occur in or immediately adjacent to Antelope Creek; • A buffer zone of 200 feet during the wet season (November through April) and 30 feet during the dry season (May through October) will be established around Antelope Creek to protect this species; and • If work must be conducted in buffer zones, the type and duration of the work will be negotiated with the appropriate resource agency prior to construction in the area.
APM 7-15: Western Spadefoot Toad	To avoid potential construction impacts to aquatic habitats, a buffer zone of 200 feet during the wet season (November through April) and 30 feet during the dry season (May through October) will be established around the seasonal pools in the project area that contain this species (those between MP 0.80 and MP 1.00) and could potentially be impacted by project activities. If work must be conducted in buffer zones, the type and duration of the work will be negotiated with the appropriate resource agency prior to construction in the area. To avoid potential construction impacts to aestivation habitat, all of the proposed pole sites will be surveyed to ensure that poles are placed in locations where aestivation habitat is absent.
APM 7-16: Vernal Pool Plant Species	To ensure that indirect impacts to special-status vernal pool plant species does not occur during annual inspection of the power line, inspection vehicles will remain on existing access roads and avoid entering streams, wetlands, vernal, and seasonal pools.
APM 7-17: Oak Tree Trimming During Operations	Any oak tree trimming required for compliance with CPUC General Order 95 will also be conducted in accordance with Rocklin and Roseville tree ordinances.
Cultural Resources	
APM 8-1: Tower Setback	<p>Transmission towers and anchor points will not be placed within 15 feet of the external boundaries of the following resources:</p> <ul style="list-style-type: none"> • Archaeological Site YH-2 • The following specific features within CA-Pla-841-H: <ul style="list-style-type: none"> - Culvert RM-1 - Site of the Rocklin Passenger Depot (California Landmark 280-2; RM-3). In this area, the power line alignment has been routed to avoid this site - Rocklin Roundhouse (C-Rocklin-B-10). In this area, the power line alignment has been routed to avoid this site - Culvert-1 - Culvert-2 - Culvert-3 - Culvert-4 and ditches - Culvert-5
APM 8-2: Vehicle Restrictions	<p>Vehicles will be restricted to existing access roads and/or will not be permitted within 15 feet of the external boundaries of the following resources:</p> <ul style="list-style-type: none"> • Archaeological Site YH-2 • The following specific features within CA-Pla-841-H: <ul style="list-style-type: none"> - Site of the Rocklin Passenger Depot (California Landmark 280-2; RM-3). In this area, the power line alignment has been routed to avoid this site. - Rocklin Roundhouse (C-Rocklin-B-10). In this area, the power line alignment has been routed to avoid this site. • Archaeological Site A-1. Tubular steel poles and anchor points will be placed in areas of the site that have been previously disturbed and no longer retain integrity. A cultural resources specialist will approve these locations and the specialist will monitor all excavation. Wherever possible, vehicles will be restricted to existing access roads.
APM 8-3: Flag Sensitive Areas	To ensure that physical damage to the resources listed above is avoided, all of these resources will be flagged as environmentally sensitive areas for at least 48-hours prior to construction work on the project. A cultural resources specialist will install this flagging.

APM *	Text
APM 8-4: Research Unsurveyed Areas	As required by procedures outlined in CEQA, steps must be taken to identify and evaluate the significance of cultural resources that may be affected by the proposed project. If modifications to the project are made that add unsurveyed areas to the project (such as laydown areas and access roads), these areas must be surveyed and any resources must be evaluated. The following steps must be taken to fulfill these requirements: <ul style="list-style-type: none"> • Conduct background research and field surveys to identify cultural resources • Apply the eligibility criteria for listing in the California Register of Historical Resources to cultural resources • Develop mitigation measures for significant resources • Implement mitigation measures
APM 8-5: Photographic, Graphical, and Textual Documentation	For archaeological sites, mitigation usually consists of data recovery through excavations to retrieve the data that would be lost through disturbance. For extant cultural features, mitigation usually consists of photographic, graphical, and textual documentation to record the data that would be lost through disturbance.
APM 8-6: Procedures When Previously Unknown Cultural Resources Are Encountered	Because of the potential for cultural resources in the project area and the limitations of surface survey techniques, previously unknown cultural resources may be discovered during construction activities. Should previously undetected cultural materials become apparent during construction, the following procedures are to be followed: <ul style="list-style-type: none"> • Prior to the initiation of construction activities, all construction personnel will receive environmental training. Training will emphasize the importance of the cultural resource sites in the vicinity of the project and will discuss the possibility that previously unidentified cultural resources may become apparent during ground-disturbing activities. • If previously unidentified materials and/or features are discovered during construction, all work in the immediate area will cease until a qualified cultural resources specialist is contacted for identification and evaluation. This specialist will then determine appropriate mitigation measures should the resource be considered significant in accordance with Appendix G of CEQA. The specialist will then determine appropriate mitigation measures in accordance with the CEQA regulations. • If human bone is found as a result of any construction activity, the construction crew will stop work immediately, contact Pacific Gas and Electric Company's Cultural Resources Specialist, and notify the Placer County Coroner in compliance with California Public Resources Code Section 5097. Should the remains be determined to be Native American, the Native American Heritage Commission will be immediately contacted for further instruction.
APM 8-7: Paleontological Monitors	A monitoring program utilizing experienced paleontological monitors will be established to inspect excavated materials in areas of high paleontological sensitivity.
Geology	
APM 9-1: Soils and Ground Shaking	The proposed project's construction and operations will incorporate measures to minimize potential soil and geologic impacts. In addition, underground and overhead structures will be built to the design specifications set out in General Order 95 and the Institute of Electrical and Electronics Engineers, Inc. Standard 693 to withstand potential seismic ground shaking. Pacific Gas and Electric Company's standard procedures incorporate Best Management Practices, which include removal of excavated materials where required, and the use of erosion control measures, such as straw bales, silt fences, and seeding with vegetative cover to protect biological resources.
Hydrology, Water Quality, and Public Health Hazards	
APM 10-1: Best Management Practices	Pacific Gas and Electric Company will implement Best Management Practices (BMPs) at pole construction locations, equipment laydown areas, and cable pull-sites, to minimize the potential for erosion and sedimentation of waterways. Special attention will be given to construction activities near Antelope Creek. Erosion control measures will be performed to protect the waterways, such as straw bales, silt fences, and seeding with vegetative cover to protect biological resources. These additional mitigation measures will further reduce any potential impacts to hydrology and resulting from hazardous materials to a less than significant level.
APM 10-2: No new roads	No new roads will be constructed to access pole locations.
APM 10-3: Bermed Areas for Excess Water and Liquid Concrete	Excess water and liquid concrete that escapes the pole foundation pours will be directed to bermed areas adjacent to the borings where the water will infiltrate or evaporate and the concrete will remain and begin to set. Once the excess concrete has been allowed to set up (but before it is dry), it will be removed and recycled or transported to an approved landfill for disposal.

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APM *	Text
APM 10-4: Rocklin and Roseville Fire Departments will Review Construction Methods, etc.	<p>Should the project schedule require construction during the fire season, the Rocklin and Roseville Fire Departments will review the specific construction methods and equipment, and identify any additional requirements that will minimize the potential for wildfires, such as:</p> <ul style="list-style-type: none"> • Any motor, engine, welding equipment, cutting torch, grinding device or equipment from which a spark, fire or flame may originate will not be used without first (a) clearing away all flammable material for a distance of 10 feet, and (b) having on hand a round-point shovel with an overall length of not less than 46 inches and a fire extinguisher or water-filled backpack pump fully equipped and ready to use. This does not apply to power saws and other portable tools powered by a gasoline-fueled internal combustion engine (Public Resources Code 4427). • Any portable gasoline-powered tool (chainsaws, etc.) will not be used within 25 feet of any flammable materials without providing one round-point shovel with an overall length of not less than 46 inches or a fire extinguisher having a minimum rating of 2-BC. The fire tools must be unobstructed and within 25 feet of the tool operation at all times (PRC 4431). Motor vehicles will not be parked or operated outside of cleared work areas except for the specific purpose of clearing vegetation.
APM 10-5: Welding Procedures	<p>Pacific Gas and Electric Company's standard procedures are to select a welding site that is void of native combustible material and/or clear the site of such material to minimize the fire hazard. All welding on supporting structures will be performed during fabrication of the poles at the fabricator's yard. Prior to performing welding at the substations, Pacific Gas and Electric or its contractor will obtain a welding permit.</p>
APM 10-6: Construction Equipment Requirements	<p>Construction equipment will meet the following requirements:</p> <ul style="list-style-type: none"> • The exhausts of all equipment powered by gasoline, diesel, or other hydrocarbon fuel will be equipped with effective spark arrestors; • The spark arrestor will be designed to prevent the escape from the exhaust of carbon or other flammable particles over 0.0232 inches. Motor trucks, truck tractors, buses, and passenger vehicles (except motorcycles) will not be subject to this provision if their exhaust systems are equipped with mufflers (PRC 4442); and • In addition to the requirements of PRC 4427 described above, all welding rigs will be equipped with a minimum of one 20 lb. or two 10 lb. fire extinguishers, and a minimum of 5 gallons of water in a fire-fighting apparatus.
APM 10-7: 1994 Uniform Fire Code Section 1109.5	<p>In accordance with the most recent edition of the 1994 Uniform Fire Code Section 1109.5, and as part of standard construction practice, Pacific Gas and Electric Company will inform its field personnel that lighted matches, cigarettes, cigars or other burning objects will not be discarded in such a manner that could cause ignition of other combustible material.</p>
APM 10-8: Hazardous Substance Control and Emergency Response Plan	<p>Pacific Gas and Electric Company will prepare a Hazardous Substance Control and Emergency Response Plan (HSCERP) that will include preparations for quick and safe cleanup in the event of an accidental release of hazardous material. The plan will prescribe BMPs for reducing the potential for significant impacts to surface and groundwater in the unlikely event of an oil or other liquid spill, including:</p> <ul style="list-style-type: none"> • Prescribing methods for safe collection and disposal of hazardous substances generated during construction activities • An emergency response program to ensure quick and safe cleanup of accidental chemical spills <p>The plan will identify areas where refueling and vehicle maintenance activities, temporary storage of unused concrete, and storage of hazardous materials will be permitted, and how these materials will be managed. Adherence to the HSCERP when managing hazardous materials will reduce the potential for impact to less than significant levels.</p>
APM 10-9: Avoid Sites Known for Hazardous Material Releases	<p>Construction and other earth moving activities in the vicinity of sites known or suspected of being associated with releases of hazardous material will be avoided, where possible, to prevent the spread of contamination and the risk of worker exposure.</p>
APM 10-10: Do Not Place Poles Directly Over Landfill Waste	<p>Pole locations will not be placed directly over landfill waste under any circumstances. Prior to initiating project construction activities at proposed pole locations near these sites, appropriate safety measures will be implemented to ensure the safety of construction workers and the proper handling of excavation spoils. An Industrial Hygienist will work with construction workers during pole foundation excavation activities to monitor working conditions and make safety recommendations. Alternately, subsurface sampling and laboratory analysis will be performed prior to excavation, to determine subsurface conditions and appropriate actions.</p>
APM 10-11: Notify the County EHP in the Event of a Chemical Release	<p>If chemical releases are encountered during construction, the county environmental health department will be notified.</p>

APM *	Text
APM 10-12: Use of Approved Landfill	Excavation spoils will be disposed of at an approved landfill.
APM 10-13: Environmental Training Program	An environmental training program will be established to communicate environmental concerns and appropriate work practices, including erosion control methods, fire prevention, and spill prevention and response measures, to all field personnel.
APM 10-14: Reduce Fire Hazard by Removal of Objects Within 10 Feet of Wires	Pacific Gas and Electric Company's standard procedures are to clear potential proximate objects, such as trees, during construction and maintenance clearance for the life of the power line to reduce the fire hazard potential. Routine maintenance will include the clearing of all vegetation within a radial distance of 10 feet of wires (Public Resources Code [PRC] 4293) to minimize fire and other hazards. PRC 4293 also requires the removal or trimming of hazardous trees that are dead, decayed, diseased, or leaning into the line. Clearing of vegetation consistent with Section 4293 and California Department of Forestry guidelines will reduce the threat of fire during construction and operation of the project.
APM 10-15: National Electric Safety Code Requirements	The National Electric Safety Code requires that power lines be designed so no more than 5 milliamperes of short-circuit current will flow through a person's body when contacting a large metal object beneath a power line. As is standard with all utility power line projects, adherence to this requirement (by identifying and grounding affected metallic buildings and structures) will reduce potential impacts from induced voltages to a less than significant level.
APM 10-16: General Order 95	Pursuant to standard design practices and General Order 95, Pacific Gas and Electric Company takes into account normal and unusual structural loads, such as ice and wind that can cause the conductors to break. Pacific Gas and Electric Company installs high-speed relay equipment that senses a broken line condition and actuates circuit breakers to de-energize the line in about one-tenth of a second. This procedure has proven to be a reliable safety measure and reduces the risk of fire or electrical shock to a less than significant level.
APM 10-17: Minimum distances between Equipment at the Substations	A minimum distance of 25 feet between transformers and circuit breakers will be maintained to reduce the potential for fires at the Atlantic or Del Mar Substations. A minimum distance of 50 feet will be maintained between oil-filled equipment and ignition sources. When construction is complete, the Atlantic and Del Mar Substations will be equipped with automated central alarm systems, which will immediately alarm in the unlikely event of a fire at either substation.
APM 10-18: Spill Prevention, Countermeasure, and Control Systems	The existing Spill Prevention, Countermeasure, and Control (SPCC) containment systems will be used at the Atlantic and Del Mar Substations to retain any release in the event of a catastrophic failure of oil-filled electrical equipment during equipment removal or installation. Catch basin capacities will be maintained at levels sufficient to contain the amount of insulating oil that could be released in the event of a sudden accidental spill. Oil-absorbent material, tarps, and storage drums will be used to contain and control any minor releases. Pacific Gas and Electric Company will revise their SPCC plans for the Atlantic and Del Mar Substations if there are significant future changes in the amount of oil used. The plans will include engineered methods for containing and controlling any oil release, and preparations for a quick and safe cleanup. The plans will be submitted to Placer County for review.
Noise	
APM 12-1: Techniques to Minimize Construction Noise	The following noise and vibration suppression techniques will be employed to minimize (to the extent possible) the impact of temporary construction noise and vibration on nearby sensitive receptors: <ul style="list-style-type: none"> • Equipment exhaust stacks/vents will be directed away from buildings. • Truck traffic will be routed away from noise-sensitive areas, where feasible. • Temporary sound barriers or sound curtains will be employed, if necessary, under the following conditions: <ul style="list-style-type: none"> - The other noise reduction methods are not effective or possible - Construction will occur within 100 feet of businesses - Sensitive receptors will be exposed to construction noise for more than one day • Construction techniques, including, but not limited to, non-vibratory means of compressing the soil, will be used where possible to reduce noise and vibration levels to the extent possible and to ensure that the determined construction criteria are not exceeded.

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APM *	Text
Transportation and Traffic	
APM 14-1: Road Closure Timing	The timing of temporary road closures will be coordinated with Rocklin and Roseville Public Works Departments, the CHP, and Caltrans.
APM 14-2: Flagger Control	Pacific Gas and Electric Company will maintain the maximum amount of travel-lane capacity possible when working adjacent to or crossing roadways during non-construction periods. A contract traffic management company will be deployed by Pacific Gas and Electric Company (or its contractor) to provide flagger control to maintain traffic flows and manage traffic control during temporary closures. Construction activities in road rights-of-ways will be subject to the conditions of encroachment permits from the cities of Rocklin and Roseville, and from the California Department of Transportation.
APM 14-3: Coordination with UPRR	Pacific Gas and Electric Company will maintain, at a minimum, the UPRR safety and engineering guidelines when installing power line within the railroad ROW. All construction crews and project personnel will be trained on UPRR safety guidelines prior to commencing work in the railroad ROW. Construction activities will be conducted in coordination with UPRR so as not to impact scheduled commuter train routes and to avoid delays on freight train services out of the Roseville switching station.
Public Services, Utilities, and Service Systems	
APM 15-1: Conduct Surveys and contact USA	Pacific Gas and Electric Company will conduct surveys to locate underground and overhead utilities, and all utilities encountered by project facilities will be put on the construction plan maps. During construction, before any ground disturbance occurs, Underground Service Alert (USA) will be contacted to verify the location of existing underground utilities, in order to insure that they are avoided.
APM 15-2: Routine Measures to Protect Existing Utilities and RR	In addition, other measures routinely implemented by Pacific Gas and Electric Company include: <ul style="list-style-type: none"> • Pacific Gas and Electric Company's technicians will locate Pacific Gas and Electric Company's underground distribution gas lines. • Representatives from all non-Pacific Gas and Electric Company aerial and underground utilities crossed by the project will be notified in advance that construction will be occurring near their lines. • Representatives from the utilities will provide the location of non-Pacific Gas and Electric Company underground utilities. Representatives from these utilities will be requested to be on-site for monitoring during construction. • Where the project crosses or is adjacent to live, overhead electric lines, signs will be installed warning equipment operators of the presence of the line. • Pacific Gas and Electric Company will locate poles and install conductors at a safe distance from intersecting transmission line structures, conductors, and telephone wires in accordance with the distances specified in the CPUC General Order No. 95. • During stringing, temporary crossing structures will be installed at major roads, railroad crossings, and in the vicinity of other lines to prevent accidental contact during conductor installation.

* Applicant Proposed Measures are numbered based on the section and sequence that they appear in the PEA.

9. Surrounding Land Uses and Setting:

The Proposed Project is located in the cities of Rocklin and Roseville, which are located in south Placer County along Interstate 80 (I-80) approximately midway between the cities of Sacramento and Auburn. I-80 provides access to the Sacramento area to the west and to the county seat in Auburn to the east. State Route 65, located between the two cities, provides a direct connection between I-80 and the City of Lincoln to the north. The Roseville/Rocklin vicinity is located in a transitional zone between the flat open terrain of the Central Valley and the foothills of the Sierra Nevada Mountains. For land uses immediately adjacent the Proposed Project route, refer to Table B-1.

10. Other Public Agencies Whose Approval is Required:

In addition to the Permit to Construct required by the CPUC, PG&E would likely be required to obtain permits and/or approvals from other federal, State, and local agencies. See Table B-8 for a listing of agencies whose approval may be required.

Table B-8. Agencies Other Than CPUC Whose Approval May Be Required

Agency	Jurisdiction / Purpose
Federal Agencies	
Army Corps of Engineers	Waters of the United States including wetlands and overhead crossing of drainages
US Fish and Wildlife Services	Threatened and Endangered Species Biological Opinion (through Corps process)
Advisory Council on Historic Preservation	Cultural Resource Management Plan (if appropriate through Corps process)
State Agencies	
California Department of Fish and Game	Crossing drainages (Streambed Alteration Agreements) and Endangered Species Consultation
California Regional Water Quality Control Board	Consistency with State water quality standards and/or issuance of waste discharge requirements waiver
Local Agencies	
City of Rocklin	Permits to remove oak trees and for temporary lane closures
City of Roseville	Permits for removal or encroachment on native oak trees and for temporary lane closures
Placer County Air Pollution Control District	Permits for all portable equipment (e.g., truck mounted construction equipment)
Union Pacific Railroad	Encroachment and Crossing Permits

Source: PG&E, 2001a and PCAPCD, 2001.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology / Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation / Traffic |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

ENVIRONMENTAL DETERMINATION

On the basis of this initial evaluation:	
I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	<input type="checkbox"/>
I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.	<input checked="" type="checkbox"/>
I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.	<input type="checkbox"/>
I find that the Proposed Project MAY have a “potentially significant impact” or “potentially significant impact unless mitigated” on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a “potentially significant impact” or “potentially significant unless mitigated.” An EIR is required, but it must analyze only the effects that remain to be addressed.	<input type="checkbox"/>
I find that although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.	<input type="checkbox"/>
<p>_____</p> <p>Rob Feraru, Manager Analysis Branch, Energy Division California Public Utilities Commission</p>	<p>_____</p> <p>Date</p>

EVALUATION OF ENVIRONMENTAL IMPACTS

Introduction

This Initial Study includes analyses of the 16 environmental issue areas listed below per section number. These issue areas incorporate the topics presented in CEQA's Environmental Checklist (identified in Appendix G to CEQA Guidelines).

I	Aesthetics	IX	Land Use/Planning
II	Agricultural Resources	X	Mineral Resources
III	Air Quality	XI	Noise
IV	Biological Resources	XII	Population/Housing
V	Cultural Resources	XIII	Public Services
VI	Geology/Soils	XIV	Recreation
VII	Hazards and Hazardous Materials	XV	Transportation/Traffic
VIII	Hydrology/Water Quality	XVI	Utilities/Service Systems

PG&E has developed Applicant Proposed Measures (APMs) to reduce adverse affects of the project on the environment (see Table B-7). For the purposes of this analysis, the APMs are considered part of PG&E's Project Description. In addition to PG&E's APMs, some of the issue area analyses recommend Mitigation Measures to be implemented in conjunction with, or instead of APMs that PG&E recommended for the issue area. Where APMs and Mitigation Measures are similar in intent, the more stringent measure is to be implemented.

Since the release of the Draft MND/IS in October 2001, the Aesthetics Section of this Initial Study (Section I) has been revised (including the development of new visual simulations) to address comments received on the Draft MND/IS. The revised Aesthetics Section recommends Mitigation Measure **V-1**, which would require the proposed power line to be constructed underground from south of Sunset Boulevard to north of Midas Avenue within the railroad ROW to avoid potentially significant visual impacts associated with the proposed above ground power line in the vicinity of Rocklin's historic district. PG&E has agreed to implement Mitigation Measure **V-1**. Therefore, impact analyses have been conducted for each of the CEQA Initial Study checklist topics to determine whether additional impacts would occur as a result of the implementation of Mitigation Measure **V-1**. These additional analyses are provided at the end of the analysis of each topic, and where necessary, additional mitigation is presented. PG&E has also agreed to implement these new Mitigation Measures.

The existing conditions and explanations for the checklist findings are provided for each environmental issue area. Much of the descriptions of existing conditions were obtained directly from PG&E's Proponent's Environmental Assessment (PEA; PG&E, 2001a); this information is not specifically referenced herein.

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I. AESTHETICS <i>Would the project:</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
(a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Substantially degrade the existing visual character or quality of the site and its surroundings	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The mixture of land uses currently found within the project vicinity includes residential development (e.g., single-family dwellings and apartments), commercial developments, industrial developments, a historic district, and open space. Commercial and industrial developments are primarily along Taylor Road/Pacific Street and Roseville Parkway. The oldest commercial area within the City of Rocklin is along Pacific Street. Vacant commercial land exists along Pacific Street, Rocklin Road, and Sunset Boulevard. Due to the existence of the Railroad tracks, there are several industrial uses and structures along Pacific Street. Development of commercially and industrially zoned lands along these roadways is ongoing.

Two major streams are found within the project area. Secret Ravine Creek is east of I-80 and Antelope Creek is west of I-80. The creek corridors and adjacent slopes are heavily wooded with riparian forest vegetation and dotted with native oak trees. Open space within the project area that is located adjacent to streams is generally covered with annual grasses.

Introduction. Visual resources are the natural and cultural features of the environment that can be viewed. This analysis focuses on whether the Proposed Project would cause visual impacts and whether such impacts would be significant under the California Environmental Quality Act (CEQA). The approach utilized here included the establishment of Key Viewpoints (KVPs) from which to conduct a detailed evaluation of the project. KVPs are generally selected to be representative of the most critical locations from which the project would be seen. KVPs are often located in an effort to evaluate existing landscapes and potential impacts on visual resources with various levels of sensitivity, in different landscape types and terrain, and from various vantage points.

The six KVPs utilized for this analysis were selected based on comments on the October 2001 Draft MND/IS and in consultation with CPUC staff during a field reconnaissance in December 2001. The six KVPs are as follows:

- KVP 1 – The Preserve at Creekside Residential Development
- KVP 2 – North of Sunset Boulevard
- KVP 3 – Front Street / Historic District
- KVP 4 – Railroad Avenue / Historic District
- KVP 5 – Railroad Avenue Viewing North
- KVP 6 – Midas Avenue

Figure I-1 shows the location of each KVP (all figures are presented at the end of this aesthetics section). At each location, the existing landscape and viewing characteristics were characterized and existing view photographs were obtained. Subsequently, an assessment of visual change and impact significance was conducted based on field observations and analysis of the project simulations. Figures I-2 through I-7 present the existing conditions and visual simulations of the project from each of the KVPs. A summary of the visual resources analytical data is presented in Table I-2. A discussion of the visual resources analysis methodology is provided.

Summary of Findings Regarding Aesthetics Impacts. Of the four CEQA Checklist areas of concern, the Proposed Project would cause less than significant or no visual impacts with respect to three areas (Item a: effects on scenic vistas, Item b: damage to scenic resources, and Item d: increased light and glare). However, it was determined that the Proposed Project would substantially degrade the existing visual character or quality of the site and its surroundings (Item c) when viewed from four of the six Key Viewpoints. The visual impacts would be significant when viewed from KVP 3 (Front Street), KVP 4 (Railroad Avenue-South), KVP 5 (Railroad Avenue-North), and KVP 6 (Midas Avenue). With implementation of Mitigation Measure V-1 (requiring undergrounding between Sunset Boulevard and Midas Avenue), the significant visual impacts that would be experienced at KVPs 3, 4, 5, and 6 would be eliminated or reduced to levels that would not be significant. See detailed discussion under Item c below.

VISUAL ANALYSIS METHODOLOGY

Key Terminology

The following paragraphs discuss the key factors for consideration in characterizing the existing landscape and view circumstances and determination of overall visual change and impact significance.

Visual Quality is a measure of the overall impression or appeal of an area as determined by the particular landscape characteristics such as landforms, rockforms, water features, and vegetation patterns, as well as associated public values. The attributes of variety, vividness, coherence, uniqueness, harmony, and pattern contribute to visual quality classifications of indistinctive (low), common (moderate), and distinctive (high). Visual quality is studied as a point of reference to assess whether a given project would appear compatible with the established features of the setting or would contrast noticeably and unfavorably with them.

Viewer Concern addresses the level of interest or concern of viewers regarding an area's visual resources and is closely associated with viewers' expectations for the area. Viewer concern reflects the importance placed on a given landscape based on the human perceptions of the intrinsic beauty of the existing landforms, rockforms, water features, vegetation patterns, and even cultural features.

Viewer Exposure describes the degree to which viewers are exposed to views of the landscape. Viewer exposure considers landscape visibility (the ability to see the landscape), distance zones (proximity of viewers to the subject landscape), number of viewers, and the duration of view. Landscape visibility can be a function of several interconnected considerations including proximity to viewing point, degree of discernible detail, seasonal variations (snow, fog, and haze can obscure landscapes), time of day, and presence or absence of screening features such as landforms, vegetation, and/or built structures. Even though a landscape may have highly scenic qualities, it may be remote, receiving relatively few visitors and, thus, have a low degree of viewer exposure. Conversely, a subject landscape or project may be situated in relatively close proximity to a major road or highway utilized by a substantial number of motorists and yet still result in relatively low viewer exposure if the rate of travel speed on the roadway is high and viewing times are brief, or if the landscape is partially screened by vegetation or other features. Frequently, it is the subject area's proximity to viewers or *distance zone* that is of particular importance in determining viewer exposure. Landscapes are generally subdivided into three or four distance zones based on relative visibility from travel routes or observation points. Distance zones typically include foreground, middle-ground, and background. The actual number of zones and distance assigned to each zone is dependent on the existing terrain characteristics and public policy and is often determined on a project-by-project basis. For the present project, distance zones are defined as follows: Foreground = less than or equal to 1/4 mile, Middleground = 1/4 to 1 mile, and Background = 1 mile and beyond.

Overall Visual Sensitivity is a concluding assessment as to the degree of probability that a given landscape will demonstrate a noticeable visual impact with project implementation. Visual sensitivity is derived from a comparison of existing visual quality, viewer concern, and viewer exposure.

Visual Contrast evaluates a potential project's or activity's consistency with the visual elements of form, line, color, and texture already established in the landscape. Other elements that are considered in evaluating visual contrast include the degree of natural screening by vegetation and landforms, placement of structures relative to existing

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vegetation and landforms, distance from the point of observation, and relative size or scale. Visual contrast is categorized from low to high.

Project Dominance refers to the project's relationship to other visible landscape components in terms of vertical and horizontal extent. A project's scale and spatial relationship to the existing landscape can be categorized as subordinate, co-dominant, or dominant.

View Blockage refers to the extent to which a project's scale and position result in the blockage of higher quality visual elements by lower quality elements and is categorized from low to high.

Overall Visual Change summarizes the extent of landscape or viewshed change caused by a project, typically as experienced from key viewpoints. The assessment of overall visual change is based on an analysis of visual contrast, project dominance, and the impairment (or blockage) of views from key viewpoints and is categorized from low to high.

Impact Determination and Significance Criteria

Assessment of the likely visual impacts that would occur as a result of operation of the Proposed Project was accomplished by establishing representative viewpoints from which to conduct a detailed analysis of the project. At each of these Key Viewpoints (KVPs), field analysis included assessment of visual contrast, project dominance, and view impairment. Subsequently, a conclusion was made regarding the overall visual change, which taken together with the existing landscape's overall visual sensitivity determined the probable visual impact significance.

Visual simulations were also prepared to aid in the assessment of project impacts by illustrating the anticipated long-term appearance of the project in the existing landscape. If a determination was made that the resulting impact would be significant, the impact situation was evaluated against the application of feasible mitigation in an effort to reduce the visual impact to a level of non-significance if possible. Appendix G of the CEQA Guidelines identifies the following four circumstances that can lead to a determination of significant visual impact:

- (a) The project has a substantial adverse effect on a scenic vista;
- (b) The project substantially damages scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- (c) The project substantially degrades the existing visual character or quality of the site and its surroundings; and
- (d) The project creates a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

In the present methodology, the degree of impact significance is generally arrived at as a function of landscape visual sensitivity and project-induced visual change. Table I-1 illustrates the general interrelationship between visual sensitivity and visual change leading to the determination of impact significance. The interrelationships presented in Table I-1 are intended as *guidance* only, recognizing that project- and site-specific circumstances may warrant different outcomes. However, it is reasonable to conclude that lower visual sensitivity ratings paired with lower visual change ratings will generally correlate well with lower degrees of impact significance when viewed on site. Conversely, higher visual sensitivity ratings paired with higher visual change ratings will tend to result in higher degrees of visual impact occurring at the site. Table I-1 is also useful as a tool to check for consistency among Key Viewpoint impact conclusions.

Implicit in this rating methodology is the acknowledgment that, for a visual impact to be considered significant, two conditions generally exist:

- (1) the existing landscape is of reasonably high quality and is highly valued by the public; and
- (2) the perceived incompatibility of one or more Proposed Project elements or characteristics tends toward the high extreme, leading to a substantial reduction in visual quality.

Table I-1. General Guidance for Determination of Impact Significance

VISUAL SENSITIVITY	VISUAL CHANGE				
	Low	Low to Moderate	Moderate	Moderate To High	High
Low	Not Significant ¹	Not Significant	Adverse but Less Than Significant	Adverse but Less Than Significant	Adverse but Less Than Significant
Low to Moderate	Not Significant	Adverse but Less Than Significant	Adverse but Less Than Significant	Adverse but Less Than Significant	Adverse and Potentially Significant ³
Moderate	Adverse but Less Than Significant	Adverse but Less Than Significant	Adverse but Less Than Significant	Adverse and Potentially Significant ³	Adverse and Potentially Significant ³
Moderate To High	Adverse but Less Than Significant	Adverse but Less Than Significant	Adverse and Potentially Significant ³	Adverse and Potentially Significant	Significant ⁴
High	Adverse but Less Than Significant	Adverse and Potentially Significant ³	Adverse and Potentially Significant ³	Significant ⁴	Significant

- 1 Not Significant impacts may or may not be perceptible but are considered minor in the context of existing landscape characteristics and view opportunity.
- 2 Adverse but Not Significant Impacts are perceived as negative but do not exceed environmental thresholds.
- 3 Combinations of Visual Sensitivity and Visual Change falling within this range may lead to significant visual impacts depending on project- and site-specific circumstances.
- 4 Significant impacts with feasible mitigation may be reduced to levels that are not significant or avoided all together. Without mitigation, significant impacts would exceed environmental thresholds.

Explanation for Aesthetics:

a) Scenic Vista: No Impact.

Significant visual impacts are caused by substantial adverse changes in public views and vistas in areas designated for preservation or enhancement of scenic quality. The Proposed Project is not within the vicinity of a scenic vista. Therefore, construction and operation of the project would not have a substantial adverse effect on a scenic vista.

b) Scenic Resources: Less than Significant.

The Proposed Project is not within view from a state scenic highway. Therefore, construction and operation of the project would not damage scenic resources within a designated state scenic highway. However, Antelope Creek, woodlands, and the oak trees in the vicinity of the Proposed Project provide a scenic resource that beautifies the landscape. The oak trees are protected and cannot be removed without obtaining a permit. Compliance with the measures required in both the Roseville and Rocklin Tree Preservation ordinances, as ensured in APM 7-3 (see Table B-7), would ensure that impacts to native oaks are reduced to less than significant level through avoidance, reduction, or replacement (refer to Section IV.e for discussion of potential impacts to oak trees). Thus, the Proposed Project would not likely significantly impact the scenic value of the oak trees. The Proposed Project would string a power line over Antelope Creek. Construction of the proposed power line would impact the scenic character of the area. However, because there is surrounding development, the power line would blend in with the surrounding environment and the impact would be less than significant.

c) Degrade Visual Character: Potentially Significant Unless Mitigation is Incorporated.

The visual resources of a given area consist of the landforms, vegetation, water features, and cultural modifications (physical changes caused by human activities) that impart an overall visual impression of the area landscape. As described above under Methodology, there are a number of factors that are considered in the evaluation of a landscape's visual resources in order to assess the potential for one or more visual impacts to occur, including: visual quality, viewer concern, and viewer exposure. Each of these factors is generally expressed as low, low-to-moderate, moderate, moderate-to-high, or high.

An *adverse visual impact* occurs within public view when: (1) an action perceptibly changes existing features of the physical environment so that they no longer appear to be characteristic of the subject locality or region; (2) an action introduces new features to the physical environment that are perceptibly uncharacteristic of the region and/or locale; or (3) aesthetic features of the landscape become less visible (e.g., partially or totally blocked from view) or are removed. Changes that seem uncharacteristic are those that appear out of place, discordant, or distracting. The degree of the visual impact depends upon how noticeable the adverse change may be. The noticeability of a visual impact is a function of project features, context, and viewing conditions (angle of view, distance, and primary viewing directions).

The discussion of the Proposed Project's visual impacts is presented in the following paragraphs for each of the six KVPs.

Key Viewpoint 1 – The Preserve at Creekside Residential Development. KVP 1 was established at the southeast corner of The Preserve at Creekside residential development, adjacent to the proposed route (see Figure I-1). The view from this location is to the north though the viewpoint is representative of both north and east views from the residential development (see the existing view photograph presented as Figure I-2A). The existing landscape is generally lacking in features of notable scenic value and is dominated by the adjacent transportation infrastructure (SR 65 and rail corridor) and existing utility lines. The resulting visual quality is low-to-moderate. Although residential views to the north and east anticipate the predominantly urban landscape, additional infrastructure would be perceived as an adverse visual change. Therefore, viewer concern is rated moderate-to-high. Project visibility would be moderate in that the closest structures would be at the extreme north and south ends of the development with only the three conductors spanning in front and above foreground views from the residences. While the number of viewers would be low-to-moderate, the duration of view would be extended. Overall viewer exposure would be moderate-to-high and overall visual sensitivity would be moderate (visual sensitivity is a concluding assessment as to the degree of probability that a given landscape will demonstrate a noticeable visual impact with project implementation and is derived from a comparison of existing visual quality, viewer concern, and viewer exposure).

Implementation of the Proposed Project would result in the addition of prominent linear forms with vertical to horizontal lines (see the visual simulation presented as Figure I-2B). The structural features would be similar to other structures in the landscape, but would be of a substantially larger scale, resulting in a moderate degree of visual contrast. The project would appear co-dominant with other developed features in the landscape, including the elevated form of SR 65. View blockage would be moderate with the conductors intersecting some sightlines to open sky to the east. The overall visual change would be moderate due to the moderate ratings for the three contributing factors (visual contrast, project dominance, and view blockage). The resulting visual impact would be adverse but less than significant in the context of an existing landscape and viewing circumstances exhibiting moderate visual sensitivity. Therefore, no mitigation is required at this location.

Key Viewpoint 2 – North of Sunset. KVP 2 was established at the northeast, rear corner of the residential neighborhood along Willard Way, just north of Sunset Boulevard (see Figure I-1). The view from this location is to the south though it is representative of both east and south views from the rear of the residential development (see Figure I-3A). Most structures along the eastern side of the development are single level though there are approximately four two-level residences. The development is separated from the proposed route by a block wall. The visual quality of this landscape is rated low-to-moderate and reflects the dominance of the commercial development along Pacific Street to the east (to the left out of the frame of the photograph) and the adjacent transportation and utility infrastructure, as well as a lack of features of scenic value. Although residential views to the south and east anticipate the predominantly urban landscape, additional infrastructure would be perceived as an adverse visual change. Therefore, viewer concern is rated

moderate-to-high. Project visibility would be moderate in that the closest structure would be at the extreme south end of the development with only the three conductors spanning in front and above most foreground views from the residences. While the number of viewers would be low-to-moderate, the duration of view would be extended. Overall viewer exposure would be moderate-to-high and overall visual sensitivity would be moderate.

Implementation of the Proposed Project would result in the addition of prominent linear forms with vertical to horizontal lines (see Figure I-3B). There are a few existing utility poles in the landscape that have linear structural features similar to that of the Proposed Project though the Proposed Project would be of a substantially larger scale and more prominent. The resulting visual contrast would be moderate-to-high. The project would appear co-dominant-to-dominant at this foreground viewing distance. View blockage would be moderate with the conductors intersecting some sightlines to open sky to the east. The overall visual change would be moderate-to-high primarily due to the moderate-to-high degree of visual contrast and co-dominant-to-dominant presence of project features. The resulting visual impact would be adverse but less than significant in the context of an existing landscape and viewing circumstances exhibiting moderate visual sensitivity. No mitigation is required.

Key Viewpoint 3 – Front Street/Historic District. KVP 3 was established on southbound Front Street in front of The Rocklin House, just south of Rocklin Road (see Figure I-1). The view from this location is to the southeast and captures the viewing experience of local residents, pedestrians, and motorists along Front Street (see the existing view photograph presented as Figure I-4A). The foreground to middleground landscape appears relatively undeveloped and retains some historic structures along Front Street. Existing structures and built features are situated relatively low in the landscape and views down the rail corridor are generally open and unobstructed. Visual quality is moderate. Residents, motorists, and visitors within this historic area anticipate open unobstructed views down the rail corridor and would perceive the introduction of dominant vertical structures with industrial/technological character as inconsistent with the existing landscape character. Thus, the Proposed Project would be considered an adverse visual change to the integrity of the existing landscape and viewer concern is rated high. Project visibility in the foreground would be high. Although the number of viewers would be low-to-moderate, the duration of view would be extended. Overall viewer exposure would be moderate-to-high as would overall visual sensitivity.

Implementation of the Proposed Project would result in the addition of dominant linear forms with vertical to horizontal lines that would be dissimilar in scale to existing built features (see Figure I-4B). The structures would extend noticeably above the horizon line and would compromise the relatively open views across and down the rail corridor. The resulting visual contrast would be moderate-to-high and the project would appear as the dominant feature in the landscape. View blockage would be moderate-to-high in that the structures and conductors would substantially reduce the sense of openness that results from the general absence of tall vertical forms in the existing landscape. The overall visual change would be moderate-to-high.

The resulting visual impact would be significant in the context of an existing landscape and viewing circumstances that have moderate-to-high visual sensitivity. The area where project induced visual impacts transition from significant to not significant occurs approximately midway between Farron Street and Sunset Boulevard, because the area near Farron Street is very exposed to views from Pacific Street. Implementation of Mitigation Measure V-1 (below) would eliminate the significant visual impact experienced along Front Street.

V-1 The Proposed Project shall be installed underground within the Union Pacific railroad corridor from immediately south of Sunset Boulevard and east of the railroad ROW, in the vicinity of the existing tank farm, to a location at least 120 feet north of Midas Avenue also on the east side of the railroad ROW. PG&E shall consult with CPUC staff on the exact location of the transition structure north of Midas Avenue. In addition, the overhead line shall cross from the west side to the east side of the railroad in the vicinity of the tank farm, with the transition structure on the east side of railroad tracks. From this transition structure, the line would proceed underground along the east side of the railroad corridor to the transition structure located north of Midas Avenue.

Key Viewpoint 4 – Railroad Avenue/Historic District. KVP 4 was established on southbound Railroad Avenue just north of Rocklin Road (see Figure I-1). The view from this location is to the south and represents motorist, residential, and pedestrian views toward the core of the historic area while approaching from the north (see Figure I-5A). The

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foreground to middleground landscape is dominated by the historic structures along Front Street and the linear facilities associated with the adjacent rail corridor and utility line. With the exception of one wood utility pole, most vertical elements appear relatively low in the landscape and views down the corridor are generally open and relatively unobstructed. The resulting visual quality is moderate. Residents, motorists, and visitors within this historic area would perceive the introduction of dominant vertical structures with industrial/technological character as inconsistent with the relatively open and historic landscape character. Thus, the Proposed Project would be considered an adverse visual change to the integrity of the existing landscape and viewer concern is rated high. Project visibility in the foreground would be high. Although the number of viewers would be low-to-moderate, the duration of view would be extended. Overall viewer exposure would be moderate-to-high as would overall visual sensitivity.

Implementation of the Proposed Project would result in the addition of prominent linear forms with vertical to diagonal lines that would introduce additional built structural complexity to the landscape (see Figure I-5B). Also, the new structures would extend noticeably above the horizon line. The resulting visual contrast would be moderate-to-high and the project would appear dominant at this foreground viewing distance. View blockage would be moderate with the structures and conductors intersecting some sightlines down the relatively open rail corridor. The overall visual change would be moderate-to-high as a result of the elevated values for visual contrast and project dominance. The resulting visual impact would be adverse and significant in the context of an existing landscape and viewing circumstances exhibiting moderate-to-high visual sensitivity. However, implementation of Mitigation Measure V-1 (project undergrounding described above) would eliminate the significant visual impact experienced from this view from Railroad Avenue.

Key Viewpoint 5 – Railroad Avenue Viewing North. KVP 5 was established on northbound Railroad Avenue, just north of Rocklin Road (see Figure I-1). The view from this location is to the north along the rail corridor and captures the viewing experience of local residents, pedestrians, and motorists along Railroad Avenue (see the existing view photograph presented as Figure I-6A). The foreground to background landscape contains no apparent industrial or technological features and retains some of the historic rural character. Existing structures and built features are situated relatively low in the landscape and views down the rail corridor are generally open and unobstructed to the ridgelines to the north and west. Visual quality is moderate. Residents, motorists, and visitors within this area anticipate open unobstructed views down the rail corridor and to the west ridge and would perceive the introduction of dominant vertical structures with industrial/technological appearance as inconsistent with the existing landscape character. Thus, the Proposed Project would be considered an adverse visual change to the integrity of the existing landscape and viewer concern is rated high. Project visibility in the foreground would be high. Although the number of viewers would be low-to-moderate, the duration of view would be extended. Overall viewer exposure would be moderate-to-high as would overall visual sensitivity.

Implementation of the Proposed Project would result in the addition of dominant linear forms with vertical to horizontal lines that would be dissimilar in scale to existing built features (see Figure I-6B). The structures would extend noticeably above the horizon line and would compromise the relatively open views across and down the rail corridor. The resulting visual contrast would be moderate-to-high and the project would appear as the dominant feature in the landscape. View blockage would be moderate-to-high in that the structures and conductors would substantially reduce the sense of openness that results from the general absence of tall vertical forms in the existing landscape. The overall visual change would be moderate-to-high. The resulting visual impact would be adverse and significant in the context of an existing landscape and viewing circumstances exhibiting moderate-to-high visual sensitivity. However, implementation of Mitigation Measure V-1 (project undergrounding described above) would eliminate the significant visual impact experienced along Railroad Avenue.

Key Viewpoint 5 – Railroad Avenue Transition Structure. KVP 5 was also utilized to evaluate the visual impact of a transition structure that could be located north of Midas Avenue as part of the V-1 undergrounding mitigation measure. KVP 5 was used for this evaluation because it affords “in-line” frontal views of the transition structure as viewers travel northbound on Railroad Avenue. Existing visual quality (moderate) and viewer concern (high) would be the same as described above for the Railroad Avenue North view. However, viewer exposure would be low-to-moderate along Railroad Avenue due to the structure’s low-to-moderate visibility at this middleground viewing distance. Also, although the number of viewers would be low-to-moderate along Railroad Avenue, the duration of view would be brief-to-moderate given the single structure location. Overall visual sensitivity would be moderate.

Implementation of the Proposed Project would result in the addition of a complex linear form with vertical to horizontal lines that would be similar in scale to other visible features at this middleground viewing distance (see Figure I-6C). The structure would extend above the horizon line but would not substantially compromise the relatively open views across and down the rail corridor. The resulting visual contrast would be low-to-moderate and the project would appear subordinate to other features in the landscape including the prominent horizontal forms and lines of the railroad, Railroad Avenue, the west ridge, and the prominent foreground natural vegetative forms. View blockage would be low as would be the overall visual change. The resulting visual impact would be adverse, but not significant in the context of an existing landscape and viewing circumstances exhibiting moderate visual sensitivity.

It should also be noted that the transition structure would be visible from both Midas Avenue and Pacific Street. However, pursuant to Mitigation Measure V-1, the structure would be sufficiently north of Midas Avenue (at least 120 feet) such that it would be beyond the primary cone of vision of both eastbound and westbound motorists. The same would be true for north and southbound motorists and pedestrians on Pacific Street. Furthermore, the undeveloped parcel at the northwest corner of Midas Avenue and Pacific Street will likely be developed, which will substantially screen the structure from Pacific Street and a portion of Midas Avenue. Impacts on views from these two roadways would be adverse, but not significant.

Key Viewpoint 6 – Midas Avenue. KVP 6 was established on westbound Midas Avenue just west of Pacific Street (see Figure I-1). The view from this location is to the south and represents motorist and pedestrian views down the open rail corridor (see Figure I-7A). Visual quality is low-to-moderate as foreground to middleground views encompasses a partially disturbed landscape dominated by the railroad infrastructure and natural vegetation along the adjacent residential areas to the east and west. While generally lacking features of notable scenic value, views from Midas Avenue down (south) the corridor are relatively open and unobstructed. Motorists on Midas Avenue anticipate the partially disturbed urban landscape but with the open views and would perceive the introduction of dominant vertical forms as an adverse visual change. Therefore, viewer concern is rated moderate-to-high. Project visibility in the foreground would be high. The number of viewers would be moderate. The duration of view would be brief-to-moderate reflecting not only the relatively quick passage of motorists past the viewpoint, but also the partially in-line view available as Midas Avenue briefly curves to the south toward the foreground structure location. Overall viewer exposure would be moderate-to-high and overall visual sensitivity would be moderate.

Implementation of the Proposed Project would result in the addition of prominent linear forms with vertical to diagonal lines that would introduce additional industrial/technological character to a landscape lacking tall vertical forms (see Figure I-7B). Also, the new structures would extend noticeably above the horizon line. The resulting visual contrast would be moderate-to-high and the project would appear dominant at this foreground viewing distance. View blockage would be moderate-to-high with the structures and conductors intersecting sightlines down and across the relatively open rail corridor. The overall visual change would be moderate-to-high as a result of the elevated values for all three contributing factors. The resulting visual impact would be adverse and significant in the context of an existing landscape and viewing circumstances exhibiting moderate visual sensitivity. However, implementation of Mitigation Measure V-1 (project undergrounding described above) would eliminate the significant visual impact experienced from Midas Avenue.

Compared to KVP 2, which also has moderate visual sensitivity and moderate-to-high visual change but was assigned an “adverse but less than significant” impact conclusion, KVP 6 would experience higher visibility, greater number of viewers, higher contrast, a more dominant project presence, and higher view blockage.

d) Light and Glare: Less than Significant Impact.

The construction work schedule would be limited to general daytime hours so there would be no significant impacts associated lights and glare during nighttime construction. During operation of the Proposed Project there would be no new sources of permanent light at the substation and the poles would not be lit.

Implementation of Applicant Proposed Measure APM 5-1 would reduce the potential glare associated with the power line and poles through the use of non-reflective wires and gray self-weathering poles. Impacts related to glare and light from the Proposed Project are considered to be less than significant.

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Figure I-1: Photographic Viewpoint Map
(8½" X 11" B&W FIGURE) — SEE CONTENTS PAGE FOR LINK

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Figure I-2a: Key Viewpoint 1 The Preserve Existing View
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Figure I-2b: Key Viewpoint 1 The Preserve Visual Simulation
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Figure I-3a: Key Viewpoint 2 North of Sunset Blvd. Existing View
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Figure I-3b: Key Viewpoint 2 North of Sunset Blvd. Visual Simulation
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Figure I-4a: Key Viewpoint 3 Front Street Existing View
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Figure I-4b: Key Viewpoint 3 Front Street Visual Simulation
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Figure I-5a: Key Viewpoint 4 Railroad Avenue – South Existing View
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Figure I-5b: Key Viewpoint 4 Railroad Avenue - South Visual Simulation
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Figure I-6a: Key Viewpoint 5 Railroad Avenue – North Existing View
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Figure I-6b: Key Viewpoint 5 Railroad Avenue North – Visual Simulation
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Figure I-6c: Key Viewpoint 5 Transition Structure Visual Simulation
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Figure I-7a: Key Viewpoint 6 Midas Avenue Existing View
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Figure I-7b: Key Viewpoint 6 Midas Avenue Visual Simulation
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Table I-2 Summary of Analysis
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II. AGRICULTURAL RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture farmland. Would the project:

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Conditions

There are no agricultural resources in the project area.

Explanation:

a) Conversion of Farmland: No Impact

There are no agricultural resources in the project area. Therefore, there would be no conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

b) Conflict with Agricultural Zoning: No Impact

There is no land subject to a Williamson Act contract in the project area and construction of the project would not conflict with zoning for agricultural land because no portion on or adjacent to the Proposed Project ROW is zoned agricultural.

c) Loss of Farmland: No Impact

There are no agricultural resources in the project area. Therefore, there is no potential for an individual or cumulative loss in farmland.

III. AIR QUALITY <i>Where available, the significance criteria established by the applicable air quality management or pollution control district may be relied upon to make the following determinations. Would the project:</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Conditions

Criteria Pollutants. The quality of the surface air (air quality) is evaluated by measuring ambient concentrations of criteria pollutants, which are air pollutants for which acceptable levels of exposure can be determined and for which standards have been set. The degree of air quality degradation is then compared to the current National and California Ambient Air Quality Standards (NAAQS and CAAQS). Because of unique meteorological problems in California, and because of differences of opinion by medical panels established by the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (USEPA), there is considerable diversity between State and federal standards currently in effect in California. In general, the CAAQS are more stringent than the corresponding NAAQS. The standards currently in effect in California are shown in Table III-1.

Attainment Status. Air pollution sources in the Placer County are under the jurisdiction of the Placer County Air Pollution Control District (PCAPCD). A summary of the air quality status within the county relative to meeting the National and State AAQS is provided in Table III-1. “Non-attainment” is a term used to indicate violations of the standards. In addition, the PCAPCD has several levels of classification based on the severity of the problem. The county is classified as “severe non-attainment” and “non-attainment” for the federal and State standards, respectively, for both ozone and NO₂, and “non-attainment” for the federal PM₁₀ standard. The State and federal standards for CO are non-attainment. Current State and federal designations for Placer County are indicated in Table III-2.

Table III-1. National and State Air Quality Standards

Pollutant	Averaging Time	California Standards ¹	National Standards ²
Ozone (O ₃)	8-hour	NS	0.08 ppm ³
	1-hour	0.09 ppm	0.12 ppm
Carbon Monoxide (CO)	8-hour	9.0 ppm	9.0 ppm
	1-hour	20 ppm	35 ppm
Nitrogen Dioxide (NO _x)	Annual Average	NS	NS
	1-hour	0.25 ppm	0.053 ppm
Sulfur Dioxide (SO _x)	Annual Average	NS	0.03 ppm
	24-hour	0.05 ppm	0.14 ppm
	1-hour	0.25 ppm	NS
Fine Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	NS	50 ug/m ³
	Annual Geometric Mean	30 ug/m ³	NS
	24-hour	50 ug/m ³	150 ug/m ³
Fine Particulate Matter (PM _{2.5}) ³	Annual Arithmetic Mean	NS	15 ug/m ³
	24-hour	NS	65 ug/m ³

Notes: ppm=parts per million; ug/m³ = micrograms per cubic meter; NS=no standard

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM₁₀ are values that are not to be exceeded.
2. National standards other than for ozone and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. For example, the ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.
3. In 1997, USEPA established an 8-hour standard for ozone and annual and 24-hour standards for very fine particulate matter (PM_{2.5}). The USEPA's new standards were challenged in court. However, on February 27, 2001, the U.S. Supreme Court unanimously affirmed USEPA's ability to set national air quality standards that protect people from the harmful effects of air pollution. The USEPA is currently reviewing the results of the litigation to determine the approach and schedule for moving forward with implementing the new ozone standard. With regard to PM_{2.5}, the USEPA cannot start implementing the 1997 standards until the USEPA and the states collect three years of monitoring data to determine which areas are attaining the standards. The PM_{2.5} monitoring network was completed in 2000. In most cases, areas would not be designated "attainment" or "nonattainment" for PM_{2.5} until 2004-5.

Sources: CARB, 1998; and USEPA, 2001.

Table III-2. Placer County Attainment Status

County	O ₃		CO		NO ₂		PM ₁₀	
	State	Federal	State	Federal	State	Federal	State	Federal
Placer County	N	SN	A	A	N	SN	N	N

Source: PCAPCD, 2001 and CARB, 2001a

Notes: A = Attainment; N = Non-attainment; SN = Severe Non-attainment

Table III-3. Air Quality Summary

Standards	Rocklin Monitoring Station			
	1997	1998	1999	2000
Ozone (1-Hour) Standard				
Max. Concentration (ppm)	0.11	0.14	0.13	0.12
Days>CAAQS (0.09 ppm)	9	16	17	16
Days>NAAQS (0.12 ppm)	0	3	3	0
PM₁₀ (24-Hour) Standard^b				
Maximum Concentration (ug/m ³)	43.0	70.0	75.0	46.0
Days > CAAQS (50 ug/m ³)	0/61	1/61	4/61	0/61
Days > NAAQS (150 ug/m ³)	0/61	0/61	0/61	0/61

Source: CARB, 2001b. Aerometric Data Analysis and Management System website (<http://www.arb.ca.gov>).

Notes: ppm=parts per million; ug/m³=micrograms per cubic meter; NA=not available

^a No federal (1-hour) NO₂ standard.

^b "Days" for PM₁₀ are given as violation/approximate number of annual measurements (measurements are typically calculated every six days, or approximately 61 days a year).

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CARB operates regional air quality monitoring networks that measure the concentrations of air pollutants. A monitoring station near the Proposed Project in Rocklin was selected to provide a general profile of the air quality within the study area. The Rocklin Monitoring Station measures ozone and PM₁₀ levels. Table III-3 presents the ambient air quality concentrations recorded from 1997 through 2000.

Explanation:

a) Conflict with Air Quality Plan: Potentially Significant Unless Mitigation is Incorporated.

As described in the PEA, construction of the proposed 4.0-mile power line and substation modifications would occur over a period of approximately 4 months. Power line construction emissions can be distinguished as onsite or offsite. Onsite air pollutant emissions during construction would principally consist of exhaust emissions (e.g., nitrogen dioxide, carbon monoxide, and ozone) from heavy-duty diesel and gasoline-powered construction equipment, as well as fugitive particulate matter (dust) from material handling. Offsite exhaust emissions would result from workers commuting to and from the project site, from trucks hauling conductor, pole segments, and other equipment and supplies to the construction ROW, dump trucks hauling away dirt and vegetation debris, and trucks delivering fresh concrete to pole sites along the proposed power line route.

Construction of projects in Placer County that are estimated to result in daily construction emissions greater than 82 pounds per day of NO_x, ROG, and PM₁₀ or 550 lbs a day of CO would result in significant air quality impacts (PCAPCD, 2001). PG&E estimated daily maximum construction emissions for several different activities associated with the Proposed Project, including: general construction; structure foundation excavation; structure delivery and setup; wire installation; fugitive dust from grading and backfilling; and substation construction (PG&E, 2001a). For the purposes of this analysis, it is assumed that not all of these activities would take place on the same day. Therefore, to find the Proposed Project's maximum daily emissions, the estimated emissions from the construction activities that would generate the most emissions and that would likely occur concurrently were analyzed. These construction activities, equipment, and estimated emissions for reactive organic gases (ROG), CO, NO₂, SO₂, and PM₁₀ are presented below in Table III-4.

As presented in Table III-4, unmitigated estimated maximum daily PM₁₀ emissions are elevated above the PCAPCD's construction threshold of 82 pounds. PG&E's air quality Applicant Proposed Measure APM 6-2 (see Table B-7) is designed to minimize fugitive dust emissions during project construction activities. However, the PCAPCD requires that projects implement a PCAPCD approved Construction Emission/Dust Control Plan (see PCAPCD Mitigation Measure 2 in Table III-5) to reduce potentially significant PM₁₀ emissions to a level that is less than significant. It is anticipated that implementation of an approved Construction Emission/Dust Control Plan would reduce construction emissions by approximately 50 percent, thereby reducing PM₁₀ emissions to approximately 54 pounds a day, which is below the significance threshold of 82 pounds per day.

Table III-4. Construction Emission Estimates

Activity and Equipment	Emissions (Pounds / Day)				
	ROG	CO	NO ₂	SO ₂	PM ₁₀
General Construction					
2 Rigging Trucks	0.59	9.24	1.08	0.00	0.00
1 Mechanic Truck	0.14	1.69	0.17	0.00	0.00
Structure Foundation Excavation					
2 ¾-Ton Trucks	0.59	9.24	1.08	0.00	0.00
1 1-Ton Truck	1.20	5.76	13.52	1.15	1.11
1 Truck Mounted Digger	1.20	5.78	13.52	1.15	1.11
1 Crawler Backhoe	1.52	28.72	10.16	2.79	1.25
1 Concrete Truck	1.20	5.78	13.52	1.15	1.11
Fugitive Dust from Excavation	0.00	0.00	0.00	0.00	102.00

Activity and Equipment	Emissions (Pounds / Day)				
	ROG	CO	NO ₂	SO ₂	PM ₁₀
Substation Construction					
1 Mechanic Truck	0.14	1.69	0.17	0.00	0.00
1 ¾-Ton truck	0.30	4.62	0.54	0.00	0.00
1 Boom Truck	8.96	272.0	6.74	0.37	0.90
Fugitive Dust from Excavation	0.00	0.00	0.00	0.00	0.26
Total Maximum Daily Emissions	15.11	333.59	59.25	6.61	107.74

Source: PG&E, 2001b.

Although significant impacts associated with equipment exhaust emissions have not been identified, the PCAPCD recommends that projects with estimated construction emissions below the respective daily thresholds should implement their Mitigation Measures No. 1 and 2 through 6 to reduce the project’s contributions to cumulative air quality impacts associated with equipment exhaust and to be consistent with the PCAPCD’s Air Quality Attainment Plan.

Therefore, Mitigation Measure **A-1** is recommended to reduce potentially significant PM₁₀ emissions to a level that is less than significant and to reduce the potential for cumulative air quality impacts associated with equipment exhaust throughout the County. Mitigation Measure **A-1** described below supersedes PG&E’s APMS 6-1 through 6-3.

A-1 PG&E shall implement PCAPCD Mitigation Measures No. 1 through 6 as described in Table III-5. PG&E shall provide CPUC with documented compliance of how each PCAPCD Mitigation Measure is/will be complied with prior to the commencement of construction activities.

Table III-5. PCAPCD Mitigation Measures No. 1 through 6

No.	PCAPCD Mitigation Measure Text
1	Construction equipment exhaust emissions shall not exceed PCAPCD Rule 202 <u>Visible Emission</u> limitations. Rule 202 states: “A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three (3) minutes in any one (1) hour which is: a) as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or b) of such opacity as to obscure an observer’s view to a degree equal to or greater than does smoke described in Subsection (A) above.”
2	The applicant shall submit to the PCAPCD and receive approval of a Construction Emission/Dust Control Plan prior to groundbreaking.
3	The prime contractor shall submit to the PCAPCD a comprehensive inventory (i.e. make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project. PCAPCD personnel, with assistance from the California Air Resources Board, will conduct initial Visible Emission Evaluations of all heavy-duty equipment on the inventory list.
4	An enforcement plan shall be established to weekly evaluate project-related on-and-off- road heavy-duty vehicle engine emission opacities, using standards as defined in California Code of Regulations, Title 13, Sections 2180 - 2194. An Environmental Coordinator, CARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely evaluate project related off-road and heavy-duty on-road equipment emissions for compliance with this requirement. Operators of vehicles and equipment found to exceed opacity limits will be notified and the equipment must be repaired within 72 hours.
5	Construction contracts should stipulate that at least 20% of the heavy-duty off-road equipment included in the inventory be powered by CARB certified off-road engines, as follows: 175 hp B 750 hp 1996 and newer engines 100 hp B 174 hp 1997 and newer engines 50 hp B 99 hp 1998 and newer engines In lieu of or in addition to this requirement, an applicant can use other measures to reduce particulate matter and nitrogen oxide emissions from their project through the use of emulsified diesel fuel and/or particulate matter traps. The PCAPCD should be contacted to discuss this measure.
6	No open burning of removed vegetation during infrastructure improvements. Vegetative material should be chipped or delivered to waste-to-energy or composting facilities.

Source: PCAPCD, 2000.

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In addition, the District would require PG&E to obtain portable equipment permits for truck mounted construction equipment, such as truck-mounted diggers, unless PG&E has already obtained a State Wide Permit for the portable equipment emission sources.

Air Quality Impacts Associated with Mitigation Measure V-1. Construction equipment that would be required to build the underground portion of the project pursuant to Mitigation Measure V-1 are assumed to be: one excavator; one backhoe; one loader; one crane; one bore/drill rig, and approximately two diesel haul trucks. Table III-6 presents estimated maximum daily emission estimates associated with the underground power line construction. See Appendix C for all assumptions and emission factors that were used to estimate the emissions presented in Table III-6.

As presented in Table III-6, maximum daily NOx emissions associated with underground construction of the power line would exceed the PCAPCD's significance criteria. However, if horizontal bore activities were not to occur at the same time as the other underground power line construction activities, total maximum daily NOx emissions associated with underground power line construction would not exceed the PCAPCD recommended significance criteria of 82 pounds per day. In addition, if underground power line construction activities were to occur simultaneously with the overhead power line construction activities listed in Table III-4, total maximum daily NOx emissions would exceed the PCAPCD recommended significance criteria.

Table III-6. Emission Estimates Associated With Underground Power Line Construction

Activity and Equipment	Emissions (Pounds / Day)				
	ROG	CO	NO ₂	SO ₂	PM ₁₀
Underground Power Line Construction					
1 Excavator	0.70	7.74	16.89	1.41	1.06
1 Loader	1.09	6.02	12.58	1.09	0.82
1 Backhoe	0.88	4.41	6.47	0.59	0.29
1 Crane	2.00	6.00	15.35	1.34	1.00
1 Bore / Drill Rig	3.76	25.08	30.10	2.51	1.88
Haul trucks	1.48	7.08	10.22	0.33	0.47
Commuting Workers	4.60	32.64	2.93	0.07	0.15
Fugitive Dust	---	---	---	---	22.84
Total Maximum Daily Emissions	14.51	88.97	94.54	7.34	28.51

Therefore, in addition to implementation of Mitigation Measure A-1, Mitigation Measure A-2 (described below) is recommended to ensure that potentially significant levels of NOx emissions associated with construction of the project, including the underground power line portion, are kept at levels that are less than significant.

A-2 PG&E shall schedule construction activities so that exhaust levels do not violate PCAPCD exhaust requirements. Prior to construction, PG&E shall submit to the CPUC the Construction Emission/Dust Control Plan, approved by PCAPCD as set out in Mitigation Measure A-1, that demonstrates how construction exhaust emission levels will be kept below the PCAPCD significance thresholds for exhaust emissions.

b) Violation of Air Quality Standard: Potentially Significant Unless Mitigation is Incorporated.

As indicated in Table III-3, there were 58 violations of the CAAQS for ozone at the station during the four-year study period and a total of six violations of the NAAQS during the years 1997 through 2000. With regard to PM₁₀, the Rocklin Station recorded one violation in 1998 and four violations in 1999 of the CAAQS. The station did not record a violation of the NAAQS for PM₁₀ during the four-year study period.

As described above under a), emissions associated with construction equipment exhaust would be reduced and impacts associated with fugitive dust produced during construction would be reduced to less than significant levels through implementation of Mitigation Measure A-1. In addition, potentially significant impacts associated with implementation of Mitigation Measure V-1 (underground power line from Sunset Boulevard to Midas Avenue)

would be reduced to less than significant levels with implementation of Mitigation Measure A-2. Therefore, the Proposed Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

c) Result in a Cumulatively Considerable Increase in Non-Attainment Status Pollutants: Potentially Significant Unless Mitigation is Incorporated.

Potentially Significant unless Mitigation is Incorporated. As described above, the PCAPCD is in non-attainment status of CAAQS and NAAQS for PM10 and ozone (CARB, 2001b). However, implementation of the Mitigation Measures A-1 and A-2 (see a) above) would reduce overall equipment exhaust emissions and would reduce potentially significant impacts associated with fugitive dust during construction to a level that would be less than significant. With regard to operations, pollutant emissions and fugitive dust levels associated with inspection and maintenance activities would be minimal. As a result, project exhaust emissions and PM10 levels associated with the operation of the Proposed Project would be less than significant. Therefore, the Proposed Project would not result in a cumulatively considerable increase in non-attainment status pollutants.

d) Expose Sensitive Receptors to Pollutants: Less than Significant Impact.

Sensitive receptors including residences are present through out the Proposed Project area. However, short-term emissions associated with project construction would not generate substantial pollutant concentrations. Furthermore, emissions would be spread out over the entire length (4.0 miles) and duration (4 months) of the project. Therefore, the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations.

e) Create Objectionable Odors: No Impact.

The construction and operation of the Proposed Project would not create objectionable odors.