

## I. LAND USE AND PLANNING

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with general plan designation or zoning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be incompatible with existing land uses in the vicinity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Affect agricultural resources or operations (e.g., impacts to soils or farmlands, or impacts from incompatible land uses)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion

The project area is located in Santa Clara County and specifically within the City of San Jose and the City of Santa Clara. The area is comprised of varied land uses including industrial, commercial, open space, parkland, residential and institutional uses. The area is located within the heart of Silicon Valley, an area that is currently undergoing rapid development.

- a) The proposed Nortech Substation site is located immediately north of State Route (SR) 237 and east of North First Street in the northern portion of the City of San Jose. The proposed 115 kV transmission lines would run from the existing Kifer Receiving Station in Santa Clara and Trimble Substation in San Jose northerly to the new Nortech Substation. The area around the substation site is characterized by industrial/office uses and vacant land. The transmission line routing traverses a variety of land use types in both the City of Santa Clara and City of San Jose, including industrial, residential, commercial, institutional and open space designations. The *San Jose 2020 General Plan* land use map designates the Nortech Substation site as Light Industrial. The Light Industrial designation is considered appropriate for low-density industrial uses (i.e., manufacturing, research and development). Utilities are considered an allowed use under this designation. The substation site is zoned as Industrial (I), a district which permits utility facilities. Because it is industrial in nature,

an electrical substation is considered to be compatible with the Light Industrial land use designation and Industrial zoning. Therefore, the Nortech Substation would not conflict with land use or zoning designations.

Land along the proposed Trimble-Nortech line is designated in the *San Jose 2020 General Plan* as Industrial Park, Light Industrial, Public/Quasi-Public, and Public Park/Open Space. Applicable City of San Jose zoning along the proposed Trimble-Nortech line is designated as Industrial (I), Residence District (R-3-B), Manufacturing (M-4), Agricultural (A), and Agricultural Planned District (APD). Utility facilities are permitted in the Industrial District, and are allowed, with a conditional use permit, within the R-3-B, M-4, A, and APD Districts. The Trimble-Nortech line would therefore have no impact with respect to compatibility with general plan and zoning designations.

Lands along the Kifer-Nortech line lies primarily within the City of Santa Clara and is designated in the City of Santa Clara *General Plan* as Industrial Transition (IT), Light Industrial (LI), Moderate Density Residential (MOD), Single Family Detached (SFD), Single Family Attached (SFA), Institutional (Inst), Urban Reserve (UR), Parks & Recreational (P&R) and Open Space (OS). Applicable City of Santa Clara zoning along the proposed Kifer-Nortech line is designated as Light Industrial (ML). Utility facilities are permitted in the ML district with a conditional use permit. The Kifer-Nortech line would therefore have no impact with respect to compatibility with general plan and zoning designations.

- b) Discretionary approval of the project is held solely by the CPUC. Although approval of the proposed substation and line construction would not be under the jurisdiction of the City of San Jose or City of Santa Clara, both cities have indicated their support for the project as identified in the May 1998 Proponent's Environmental Assessment. Therefore, the project would have no impact with respect to agency jurisdiction.

The Trimble-Nortech power line route lies primarily within the Rincon de Los Esteros Redevelopment area of north San Jose. The new line would not change the land use within the redevelopment area, and therefore, the project would have no impact with respect to the future redevelopment plans. The Kifer-Nortech power line alignment lies primarily within the City of Santa Clara. The new line would not change the land use within the plan area, and therefore, the project would have no impact with respect to the future redevelopment plans.

Crossing U.S. Highway 101 at one location and State Route 237 at two locations would require encroachment permits from Caltrans.

- c) The currently vacant 3.3-acre substation parcel is located in an industrial area, bounded by a church, office/parking to the north and east, vacant land to the west, and SR 237 to the

south. The proposed Nortech Substation would be compatible with adjacent land uses since it would be constructed in a Light Industrial zone, and would not interfere with normal activities expected in those use areas.

The Trimble-Nortech line would run adjacent to areas with industrial and office parks as the primary land use. These business parks, which are occupied primarily by high-tech companies, would not be significantly affected by construction of the line. At the northern end of the proposed line is an existing medium high density residential area. Residential uses are considered sensitive receptors and would be affected in the short-term by project construction, as well as by visual and noise effects from long-term operation. These are indirect effects to land use as they potentially affect existing activities associated with residential uses. The project would not directly alter existing residential uses; e.g., would not require moving or demolishing any residences. Thus, project impacts to vicinity land uses would be less than significant. In addition, the following proposed project mitigation measure would further reduce potential indirect impacts of noise and visual conditions on existing activities: at least two weeks prior to line construction, PG&E will give notice to potentially affected property owners, residents and businesses by both posting bulletins locally and publishing them in local papers. PG&E will designate a public affairs representative to respond to all public concerns regarding the project. Construction of the Trimble-Nortech line would therefore have a less than significant impact on land use.

The Kifer-Nortech line would run adjacent to a variety of land uses, including industrial and office parks, single and multi-family residences, and several recreational-use areas, including the Police Activity League recreation area and Santa Clara Golf and Tennis Club. Residential and public land uses are considered sensitive land uses. As discussed above, line construction would not directly alter existing residential uses; e.g., would not require moving or demolishing any residences. Thus, the impacts to vicinity land uses would be less than significant. Mitigation measures discussed above would also be implemented during construction of the Kifer-Nortech line. Construction of the Kifer-Nortech line would therefore have a less than significant impact on vicinity land uses.

- d) The land uses surrounding the substation site and along the line routes are primarily industrial, commercial, public use and residential. While a small portion of the Trimble-Nortech line would pass along land zoned for agricultural use north of SR 237, no impacts to agricultural resources or operations would occur as a result of either the Nortech Substation or power line construction.
- e) Neither the proposed substation site nor the new transmission lines would result in physical features that would disrupt or divide the area, or induce changes in land use that would be expected to have this result. The transmission lines would be constructed primarily along existing right-of-ways, or adjacent to them. Therefore, the project would not disrupt or divide the physical arrangement of an established community.

## II. POPULATION AND HOUSING

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cumulatively exceed official regional or local population projections?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace existing housing, especially affordable housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion

- a,b) Construction of the Nortech Substation and associated transmission lines would not directly increase population within the community. The project is designed to accommodate projected and planned growth in demand in the north San Jose and north Santa Clara areas of Santa Clara County, by providing additional electrical power to a system where the existing electrical capacity cannot meet projected needs. While new development is planned under approved plans for the area by the Cities of San Jose and Santa Clara, no new public or private projects are anticipated to be directly initiated as a result of construction and operation of the substation and transmission lines. Therefore, no impact would occur because the project would not exceed population projections or induce growth in the area.
- c) No housing units are located on the proposed Nortech substation site or within the corridor necessary for construction of power lines. Although there are several residential areas adjacent to both of the proposed line corridors, since no residences would need to be demolished or moved, no impacts to housing would occur.

### III. GEOLOGIC PROBLEMS

Would the proposal:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Fault rupture?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Seismic ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Seiche, tsunami, or volcanic hazard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Landslides or mudflows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Erosion, changes in topography, or unstable soil conditions from excavation, grading, or fill?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g)	Subsidence of the land?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h)	Expansive soils?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i)	Unique geologic or physical features?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Discussion

The project site is located in the flat to gently sloping portion of the Santa Clara Valley. The Nortech substation site is located approximately one-half mile south of the southern margin of the San Francisco Bay. Geologically, the Santa Clara Valley is characterized by a deep structural depression filled with sediment derived from the erosion of adjacent uplands and marine deposition. The Nortech substation site is essentially flat at an elevation of about 2.4 feet (National Geodetic Vertical Datum). The site is located on Holocene basin deposits, generally consisting of organic-rich clay to very fine silty clay. The Trimble-Nortech power line ranges in elevation from about 2 feet to 30 feet. The Kifer-Nortech power line ranges in elevation from about 2 feet to 40 feet. Both power lines cross areas with Holocene Basin deposits. The Trimble Substation is located in an area with Holocene flood plain deposits consisting of dense sandy to silty clay with locally present lenses of silt, sand and/or pebbles.

- a) The active (surface displacement within the last 11,000 years) Hayward Fault is located approximately 4.5 miles east of the project site and the active San Andreas Fault lies approximately 13 miles west. The active Calaveras Fault lies approximately eight miles easterly of the proposed substation site. The active San Gregorio Fault is located approximately 25 miles to the west. Potentially active (surface displacement within the

last 1.6 million years) traces of the Silver Creek and San Jose faults are located 0.5 mile and four miles, respectively, from the proposed substation site.

The Alquist-Priolo Earthquake Fault Zoning Act requires the delineation of zones along sufficiently active and well-defined faults. The purpose of the Act is to restrict construction of structures intended for human occupancy along traces of active faults, thus reducing the hazards associated with fault rupture. There is no evidence of the presence of an active fault crossing the site. The substation site is not located within an Alquist-Priolo Earthquake Fault Zone established for the active faults in this region. The substation and the power lines would operate unattended. The presence of a concealed fault, e.g., a low angle thrust fault, buried at great depth under the thick sediments of the area is a potential hazard that cannot be determined with available information. (An undiscovered concealed fault of this type was the source of the 1994 Northridge Earthquake in the Los Angeles area that damaged substation and transmission facilities.) While the possibility for a concealed fault cannot be entirely discounted, given the seismic history of the Santa Clara Valley, the potential hazard posed by a concealed undetected fault is considered speculative and a less than significant hazard.

- b) The main potential project-related hazard to structures and people in the project area would be from seismic activity. The project site is located in the Coast Range Geomorphic Province, which is an area of relatively high seismic activity. Several major northwest-trending fault zones are anticipated to generate major earthquakes that could induce significant ground shaking at the site, including the San Andreas Fault Zone (the dominant fault zone in California), and a number of fault zones are located within 60 miles of the project site. In addition to the San Andreas and Hayward faults, other major potentially active faults are listed in Table III-1. A major earthquake on any of the faults listed in Table III-1 could produce strong ground shaking at the site, affecting the proposed facilities (see discussion under [a], above). Shaking amplification is rated as “very high”(7 on a scale of 1 to 8, with 8 rating the highest amplification) and the modified Mercalli intensity is rated as high as IX-Heavy (9 on a scale of 1 to 10, with 10 rating as extreme) for both a major 7.0 earthquake on the southern segment of the Hayward Fault with a 7.0 magnitude event and a 7.3 magnitude earthquake on the entire Hayward Fault (ABAG, 1995). In an earthquake of that magnitude, damage to structures, roads and infrastructure would be heavy throughout the project area.

Similar to the existing Trimble Substation and Kifer Receiving Station, because the proposed Nortech Substation site would be fenced and locked, direct public access would be prevented. Therefore, unless workers were present onsite (which would occur only occasionally), no injuries to people on the site would occur during earthquakes. The earthquake hazards are potentially significant only for the substation facilities themselves. To the extent that these would be rendered inoperable by an earthquake, the result could be a loss of power in the service area. However, a major earthquake that could affect the site

is also likely to affect a wide area in the South Bay. By providing better linkage of power transmission and distribution in the area, the project would likely result in a net improvement to system reliability during and following a major earthquake.

PG&E, in conjunction with other utilities and equipment vendors throughout the country, have revised IEEE 693, "Recommended Practices for Seismic Design of Substations," to address equipment and voltage-specific seismic qualification requirements. These requirements are generally more stringent than the Uniform Building Code (PG&E, 1998). New equipment at the existing substations and for the proposed Nortech Substation will be procured using the seismic qualification requirements of IEEE 693. Following these requirements, it is anticipated that no structural damage would occur if the substation were subjected to peak ground accelerations levels approaching 1 g (gravitational acceleration). The mean peak horizontal ground acceleration is estimated at 0.5 g; therefore, the project would be expected to perform adequately if designed and constructed to established standards required by the CPUC. Compliance with the IEEE 693 and, where applicable, the Uniform Building Code, would reduce ground shaking effects to levels of acceptable risk and result in a less than significant impact from seismic hazard.

Ground shaking, and liquefaction in some limited project areas where poles would be constructed, could result in damage to power lines. The conductor wires are strung with sufficient length and catenary (sag) to accommodate vibratory motions and tensions set up by ground motions in earthquakes or high winds. In other words, it is considered a remote hazard that the power lines would "snap" because of earthquake ground shaking. On the other hand, earthquake induced vibratory motions in power lines have resulted in "wrapping" of the lines in which the separate conductor lines come into physical contact with each other. For example, wrapping was recorded as an effect of the 1989 Loma Prieta Earthquake. Wrapping is a potentially hazardous situation because the "hot wires" come into contact, although it would not likely cause the lines to break and fall. PG&E's design and spacing requirements would be expected to be in conformance with requirements and industry standards for conductor separation.

The primary potential cause of failure of power lines would result from the failure of one or more of the poles supporting the conductors. Tubular steel poles are structurally extremely strong and able to resist earthquake induced vibratory motions (or high winds) without failure, as evidenced by their performance in the Loma Prieta Earthquake, the 1994 Northridge Earthquake, and other earthquakes. Bending or breaking of the poles would be a remote hazard. The failure of poles is more likely potentially related to a failure of the foundation support as a result of liquefaction (or landsliding, which is not a hazard present in the project area). See the discussion and mitigation under item III.c, below.

**Table III-1**  
**Selected Faults in the Project Vicinity, Their Maximum Credible Earthquake Magnitude, Fault Activity Classification, and Distance from the Nortech Substation Site**

Fault	Activity <sup>3</sup>	Distance (miles)	MCE <sup>1</sup>	Peak Ground Acceleration <sup>2</sup>
Hayward (southern segment)	Holocene (Active) (1836, 1868)	4.5	7.0	0.41
San Andreas (Peninsula segment)	Holocene (Active)	13	7.9	0.21
Calaveras (southern segment)	Holocene (Active)	13.7	6.5	0.22
San Gregorio	Holocene (Active)	25	7.3	0.13
San Jose	Quaternary (Potentially Active)	4	NA	NA
Silver Creek	Quaternary (Potentially Active)	0.5	NA	NA

N/A = Accurate Estimates Not Available

1. MCE is the Maximum Credible Earthquake, Richter Magnitude, an estimate of the largest earthquake that is judged by geologic studies to be capable of occurring on a fault or segment of a fault.
2. The peak ground acceleration expressed in gravitational acceleration.
3. Age is the period of recorded or most recent geologic evidence of earthquake displacement on a fault.

SOURCE: PG&E, PEA

- c) Earthquakes or aftershocks may cause secondary ground failures. Ground failures are caused by soil losing its structural integrity. Examples of seismically induced ground failures are liquefaction, lateral spreading, ground lurching, and subsidence. *Liquefaction* (the rapid transformation of soil to a fluid-like state) affects loose saturated sands. Earthquake ground shaking induces a rapid rise in excess pore pressure and the soil loses its bearing strength, and it may spread laterally, undergo settlement and form fissures and sand boils (upwellings of sand at the surface). *Lateral spreading* is the horizontal movement of loose, unconfined sediment and fill deposits during seismic activity. *Ground lurching* is the horizontal movement of soil, sediments, or fills located on relatively steep embankments or scarps as a result of seismic activity, forming irregular ground surface cracks. The potential for lateral spreading or lurching is highest in areas underlain by soft, saturated materials, especially where bordered by steep banks of a river or adjacent hard ground. *Subsidence* is vertical downward movement of the ground surface as the soil densifies.



The Nortech Substation site is located in an area considered to have a low to moderate liquefaction potential. Soils in the vicinity of Coyote Creek (Trimble-Nortech power line) may have a high potential for liquefaction (rated low to high, indicating that the hazard is site specific) (PG&E, 1998). A low to high liquefaction rating is also indicated for the Kifer-Nortech power line. Lateral spreading, lurching and ground settlement (subsidence) are rated low to high hazards and localized in their effect. Lateral spreading or lurching could occur along the banks of the Guadalupe River, threatening the integrity of the proposed transmission poles. A loss of foundation support for the poles could cause them to tip, bringing down the conductors. If the wires were energized at the moment of tipping or collapse, the “hot” wire would pose a potential hazard to people in the area and could ignite fires. The project includes high-speed relays that would de-energize the line within about one-tenth of a second after detecting a broken line. See Section IX, Hazards. While the potential for earthquake induced hazards are unavoidable, conformance with industry design standards and CPUC design requirements for the poles and their foundations would reduce the hazard to an acceptable level of risk. Therefore, the impact, with proposed mitigation, is considered less than significant.

- d) Earthquakes can cause tsunami (“tidal waves”), seiches (oscillating waves in enclosed water bodies), and landslide splash waves in enclosed water bodies such as lakes and reservoirs. The project site is not located near a tsunami run-up area or near an enclosed body of water such as a reservoir or lake. Therefore, this is considered a less than significant impact.
- e.) The project site is essentially flat, and is not located in the vicinity of uplands characterized by unstable slopes; therefore, hazards associated with landsliding are not considered a hazard on the project site.
- f) Unstable soil conditions include settlement and failure from low strength. Substation site soils are not of the types characterized by low strength. Settlement can occur either uniformly or differentially. Uniform settlement of a structure can cause poor drainage. Differential settlement can damage foundations and cause mechanical and structural problems within a structure. The magnitude of settlement of a fill or native clay material will depend on their properties, the manner in which the fills are placed, the thickness of the material, the type of underlying subsurface soil, and the load placed on the material. Differential settlement at the Nortech Substation site is rated as low to moderate. Settlement beneath the proposed transformer bank foundations is expected to occur due to compressibility of native, near-surface clay. Total settlement is expected to be low to moderate, on the order of a few inches. This could be accommodated within the project design. Settlement is generally a gradual hazard. As standard engineering, design, and construction practices are proposed in conformance with PG&E construction guidelines and CPUC required standards, impacts resulting from settlement, would be minor and the hazard would be less than significant. Differential settlement hazard is rated as low to high

for both power lines. The slow action of settlement and the expected small amount of settlement is not expected to impair the operation of the power lines. Poles that settle differentially could create a requirement for corrective action as part of long-term maintenance requirements; this would constitute a less than significant impact.

The project site would require minimal additional grading of the flat site to construct the proposed Nortech Substation and would not result in any substantial changes in topography. Two to three feet of engineered fill would be placed at the substation site. No fills or changes in topography would be needed at the Trimble Substation and Kifer Receiving Station or for construction of the power lines. Construction of the substation would disturb site soils: temporarily exposed site soils may be subject to erosion by rain splash and overland flow of storm water for the duration of the construction activities. Site preparation would entail minor regrading, fill placement, resurfacing, and paving of portions of the site, eliminating any long-term hazard. Because the site is flat and the soils have a high clay content, soil erosion from construction activities would not result in significant hazards of gully formation. Runoff from the site could entrain loose soil and discharge it into storm drains. While the hazard is deemed less than significant, the impacts from erosion and sediment discharges could be eliminated by implementation of standard best construction management practices, as contained in Mitigation Measure IV.c.1, below.

- g) Historic land subsidence due to extraction of groundwater from the underlying Santa Clara Formation has been recorded in this portion of the Santa Clara Valley. However, subsidence was virtually halted by 1971 due groundwater recharge and importation of water. The project would not require the removal of groundwater or any change in groundwater use; therefore, there would be no impact related to ground subsidence.
- h) Expansivity, or shrink-swell, is the cyclic change in volume that occurs in fine-grained sediments because of expansion and contraction of clay caused by wetting and drying. Soils that are expansive (have shrink-swell potential) can damage foundations and other structures. This problem can be overcome with proper foundation engineering (Helley, 1979). Soils on the project site were observed to be clay mixtures with varying degrees of expansive potential. The hazard is rated as moderate to high for the Nortech Substation site and low to high for the proposed power lines. Foundation designs would be based on assumptions of high groundwater depth. A rise in groundwater following construction at the facility could cause the lean clays to swell. Proposed placement of engineered fill would reduce the hazard to the foundation of the Nortech Substation. Soils with high shrink-swell hazard potentially could affect some of the proposed poles. The slow action of expansive clay soils on the poles could cause them to lean out of plumb but is not expected to impair the operation of the power lines. Poles affected by expansive soils could create a requirement for corrective action as part of long-term maintenance requirements; this would constitute a less than significant impact.

- i) The project area is essentially flat and has no unusual or unique geological features; therefore, there would be no impacts related to unique geologic or physical features. There is no evidence of potentially significant paleontological resources present in the area of the project. There are no significant mineral resources present in the project area. Soils in project area at one time were involved in extensive use for agriculture. Some of the soils along the power line routes potentially would be considered prime agricultural soils. However, as the area in general has been largely converted to urban uses, and because the project itself would not affect agricultural uses in the area, the use of these soils for the project would be a less than significant impact.

#### IV. WATER

Would the proposal:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Exposure of people or property to water-related hazards such as flooding?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen, or turbidity)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Changes in the amount of surface water in any water body?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Changes in currents, or the course or direction of water movements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations, or through substantial loss of groundwater recharge capability?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g)	Altered direction or rate of flow of groundwater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h)	Impacts to groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i)	Substantial reduction in the amount of groundwater otherwise available for public water supplies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Discussion

The project area covers the lower portions of three river catchments: Coyote Creek, the Guadalupe River and San Tomas Aquino Creek. North of State Route 237, the creeks converge into the Baylands that form a system of natural and channelized courses along the southern margin of San Francisco Bay. The major waterways have been channelized and contained in levees, and were relocated for purposes of flood control. The proposed Nortech Substation site is located about on-half mile from the southern edge of San Francisco Bay. Most of the area below about elevation nine feet above NGVD, that is, most of the area north of State Route 237, including the proposed Nortech Substation site, is susceptible to flooding from San Francisco Bay during periods of extremely high tides. Flooding of the project area, including the Nortech Substation site, Trimble Substation and portions of the proposed power line alignments, has occurred in historic time on all three streams. The project area in general has a relatively high groundwater table, especially the area north of State Route 237. Portions of the project area (primarily the northerly end of the Kifer-Nortech power line alignment) are located on former landfills which may contain contaminated groundwater and that alignment also passes near a contamination zone of a leaking underground storage tank (Rotten Robbie Gas Station).

- a) The proposed project would require paving an added portion of the proposed Nortech Substation site, which would reduce infiltration and slightly increase the amount and rate of runoff. Because the existing site is partially paved and the soils are compacted, a slight increase in runoff at the site could result from the project. The project would not alter runoff at either the Trimble Substation or Kifer Receiving Station. Construction of poles would create a negligible impact on runoff in the project area. Stormwater collected in the Spill Prevention Control and Countermeasure (SPCC) system and pond located at each of the two existing substations and at the proposed Nortech Substation would contain some of the site runoff and regulate the peak discharge offsite, compared to the current conditions. The SPCC system and pond would have a capacity of 11, 220 gallons (PG&E, 1998a). The impact would be less than significant.

Storm water runoff from other portions of the yards that are not directed into the SPCC pond would drain separately and be discharged to the storm drainage pipe system. This storm drainage pipe system would discharge to the existing city storm pipes. The proposed design would be adequate to reduce operational impacts related to the expected small increase in storm water discharge to a less than significant level. Additional mitigation is not required.

- b) The project area is within a zone of flood hazard as defined by the Federal Emergency Management Agency, Flood Insurance Program. The proposed Nortech Substation site is located within a 100-year flood hazard zone, with flood inundation expected to reach Elevation 9. As the site at present is at Elevation 2.4, PG&E proposes to place fill raise the foundation by two to three feet. While the fill would reduce the depth of inundation during

a 100-year flood, the site would be flooded. PG&E does not anticipate that the expected level of flooding would impair operation of the substation, although this would make access to the substation difficult.

Portions of the power line alignments are located in inundation zones of the 100-year flood. Most of the Trimble-Nortech power line are located in areas with shallow (one to three feet depth) inundation hazard. The power line north of State Route 327 lies within a zone of deeper inundation, similar to that at the Nortech Substation site. Most of the Kifer-Nortech power line is located within a zone outside the 100-year flood inundation zone; only the portion immediately westerly of the Nortech Substation site is within the 100-year flood zone, with a hazard similar to the substation site. Inundation of the areas with the pole lines is not expected to pose a significant hazard to the poles themselves. The chief hazard would result from a failure of the levees containing one of the rivers. In that event, the erosive force of the water and entrained debris could tip one of the poles. The Santa Clara Valley Water District is undertaking levee improvement projects in the area. Thus, the likelihood is remote that the power lines or substations would be subject to that type of hazard.

A large earthquake potentially could result in dam failures at reservoirs upstream of the project area. According to dam failure inundation maps (ABAG, 1980) the project site could be impacted by flooding in a dam failure of the Lexington, Vasona, Calero, Almaden or Guadalupe Reservoirs. Considering the distance of the reservoirs from the project area, topography, and flood control structures currently in place on Coyote Creek and Guadalupe River, and the protection of the Nortech site created by the State Route 237 embankment, inundation in this area is likely to be shallow and the quantity of flood water and entrained debris from a dam failure flood would not impair operations at the substation. Therefore, this is considered to have a less than significant impact.

The project itself would not directly expose people to flood hazards of the types described above. The hazards would only be to workers present at the substations during a flood. Because the substations are remote controlled and personnel are onsite only during occasional inspection and maintenance visits, the hazard to people is minimal. The impact is less than significant.

- c) Stormwater discharges during construction might contain high concentrations of pollutants from spills of hazardous substances and total suspended solids. Since this project includes proposed construction activity that would disturb less than five acres of land, the project is not subject to regulation by the state General Storm Water National Pollution Discharge Elimination System (NPDES) permit. The project would discharge into the city storm drains, that in turn empty into surface waters (Guadalupe River, Coyote Creek and San Tomas Aquino Creek) and eventually into San Francisco Bay. Construction of foundations for poles would require borings to a depth of 10-25 feet. If rain occurs during the

construction period, some of the removed soil could be discharged in runoff into storm drains, clogging or reducing their capacity. Mitigation included in this Initial Study would result in a less than significant effect on surface waters.

Surface water runoff from the Nortech Substation site after construction is expected to contain minor concentrations of a variety of pollutants typical of electrical substations (e.g., automobile fluids, suspended solids, metals, and organics), but is not expected to be substantially different than the pollutants currently released from the project vicinity, which is now a parking and storage area. It is not expected that surface water runoff pollutants from long-term operations would occur in concentrations that would be acutely toxic to aquatic life.

Three proposed electrical transformer banks would each contain up to 9,500 gallons of inert mineral oil at the Nortech Substation. The transformers would be installed on sealed concrete foundations, and the substation would be surfaced to direct any leaks into an on-site, concrete-lined SPCC pond, to be designed in accordance with PG&E DCS Guideline D-G0052 (January, 1998). The SPCC pond would be designed to contain oil and rainfall equal to 110% of the largest oil container or oil and rainfall quantity equal to 10% of the total aggregate oil volume contained in the drainage area (DCS Guideline D-G0052). A built-in weir system with a skimmer to collect oil would be constructed to segregate oil from the water, providing stormwater spillover and oil retention. The DCS Guideline requires that the skimmer weir accommodate discharge for a 25-year design storm in combination with no oil. In heavy storm periods, the SPCC pond would be monitored for operational effectiveness of the containment system and proper release of storm discharge. Oil released from a transformer would be directed to the SPCC pond through berm-enclosed surface drainage or through underground piping. The SPCC pond would be equipped with a manually operated isolation valve. Pursuant to Environmental Protection Agency requirements, the equipment and spill containment area are inspected on a monthly basis. Operators would not release accumulated rainwater until the SPCC pond is inspected for oil or sheen. This should be adequate to prevent unplanned releases and overflows.

### **Mitigation**

The following mitigation measure would reduce the potential impact of surface water discharge to a less-than-significant level.

***Measure IV.c.1. If construction is scheduled during the rainy season, PG&E shall employ best construction management practices to prevent discharges of silt and other substances from construction into storm drains. PG&E shall develop and implement a plan to control excavated soils and runoff, specifying practices such as the use of detention basins, straw bales, silt fences or other deterrents, and site clean-***

**up procedures and practices to minimize contact of construction materials with stormwater. PG&E shall file a copy of the plan with the CPUC for review and final approval and shall certify compliance with this measure in progress reports to the CPUC.**

- d) No water bodies are present at the Nortech or other substation sites (site visit July 17, 1998). The Kifer-Nortech power line crosses the course of the Guadalupe River on the north side of State Route 237. The Guadalupe River could be spanned by the power line without impact to the river channel. The project would result in no quantifiable change in impervious surface area and associated storm water runoff. This level of increase would not result in a significant change in the amount of water in any water body.
- e) No watercourse is present on the proposed Nortech Substation site or at the Trimble Substation and Kifer receiving Station (site visit July 17, 1998). The proposed project would have no effect on the course or direction of surface waters. Installation of the new power line spanning the Guadalupe River is not expected to disturb the riverbed within the limits of the floodplain. No proposed facilities are located near the channels of Coyote Creek or San Tomas Aquino Creek.
- f) The proposed project is located in the Santa Clara County Groundwater Basin, which is managed by the Santa Clara Valley Water District. Historic groundwater pumping from the underlying Santa Clara Formation has caused land subsidence in portions of the Santa Clara Valley. However, subsidence was virtually halted by 1971 due groundwater recharge and importation of water (Helley and Lajoie, 1979). The lower portions of the project area and areas near the major watercourses have areas of high groundwater. Groundwater typically is within five to 20 feet of the surface. The Nortech Substation site is located in an area in which the groundwater table is located close to the surface (that is, the water table is expected to be near Bay level (2.4 feet below the surface) (PG&E, 1998 PEA). The near surface water is brackish and is not used for water supply.

The project area is underlain by groundwater-bearing aquifers (PG&E, 1998 PEA). The shallow, unconfined aquifer occurs within the shallow Bay Mud usually at depths ranging from 0 to 20 feet. The water is of poor quality and is not used for water supply. Between about 20 and 50 feet below grade is a upper confined aquifer. It has relatively poor yield. The upper aquifer is underlain by a clay layer (aquitarde) that separates it from the lower aquifers (deeper than 150 feet) that are used for water supply. Those water supplies are of relatively good quality and until the early 1970's were over-pumped, resulting in salt water intrusion. Groundwater management programs by the SCVWD have resulted in significant improvement of the aquifers and its quality.

The Nortech Substation construction would require shallow cuts that would intercept shallow groundwater or require significant construction de-watering. The effect would be

temporary, as the site would be immediately filled by two to three feet of engineered cover fill. As the water is brackish, any dewatering would have no impact on a water supply. Subsidence related to dewatering would be minor and is not expected to affect any adjacent properties. In addition, PG&E may choose other construction methods which would not result in dewatering. The placement of some poles for the power line would require bores to a depth of up to 25 feet, potentially penetrating into the upper unconfined aquifer. Minor temporary (one or two days at each location) dewatering of the bore hole for placement of pole foundations may be required until the cement foundation is poured.. If piles are used, they may be one or two feet in diameter and from 50 to 100 feet deep. The small size of the holes for the piles is unlikely to have any identifiable effect on the aquifer and because of their number and spacing, the piles would not impede flows in the aquifer. These impacts would be less than significant.

The project would result in a negligible increase in impervious surface area and would not create other features that would reduce the potential for groundwater recharge. Therefore, there would be no impact related to any change in the quantity of groundwater.

- g) The project would not require removal of substantial amounts of groundwater during construction and none during operation. The project would not include any substantial deep cuts or other features that would intercept or impede the flow of groundwater. The cement foundations to support the power lines poles would have a negligible effect as a barrier to groundwater movement: in most cases they would not intercept the water table at all. Therefore, the project would have no impact on the direction or rate of flow of groundwater.
- h) Construction of the Kifer-Nortech power line could encounter contaminated soils near the site of the Rotten Robbie Gas Station on Lafayette Street. PG&E intends to avoid pole placement on sites with existing contamination. If contaminated sites cannot be avoided, PG&E will test the soil and groundwater using standard procedures. Construction could involve dewatering and disposal of the contaminated water in accordance with Regional Water Quality Control Board requirements. Construction also may involve use of protective casing outside of the piles or other method to seal off the shallow contaminated zone. Public access to the construction site may be restricted and workers would be required to follow OSHA protective procedures. If these procedures are followed the impact would be less than significant and additional mitigation would not be required.

The proposed compacted fills and impervious surface areas would prevent infiltration of contaminants into the soils. The proposed SPCC pond at the Nortech Substation would be concrete-lined to prevent infiltration of contaminants from the pond into the subsurface soils. Run off or percolation from the proposed project would not be expected to impact groundwater quality in the area (See also the discussion under checklist item IV.c). After constructing the bored holes for the power line poles, the holes would be immediately



filled with cement. This would create a seal that would prevent infiltration of surface contaminants into the groundwater. Therefore, the project would have no impact on groundwater quality.

- i) The project would not involve the need for use of groundwater resources, therefore it would not have an impact on water supplies from local groundwater. Water supplies for construction would come from the general groundwater and surface water supply sources provided by the SCVWD. The amount of water needed for construction would be minor. The impact on SCVWD water supplies would be less than significant. Long term operation of the project would have a negligible use of water and no impact on local groundwater supplies. Therefore, the project would have no impact on the availability of groundwater for public water supply.

**V. TRANSPORTATION / CIRCULATION**

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increased vehicle trips or traffic congestion?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Inadequate emergency access or access to nearby uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Insufficient parking capacity on site or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Hazards or barriers for pedestrians or bicyclists?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Rail, waterborne, or air traffic impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion**

The project area includes major highways and thoroughfares that carry substantial traffic. U.S. Highway 101 and State Route 237 are primary highways with 24-hour traffic volumes in the

project area reaching up to 182,00 and 91,000 vehicles, respectively. North First Street, Trimble Road, Zanker Road and Lafayette Street are each major thoroughfares with high traffic volumes. Traffic congestion is significant problem on most major thoroughfares during peak commute hours and the level of service is minimally acceptable or unacceptable on many streets. Unacceptable level of surface (over Level D in San Jose and over Level E in Santa Clara) currently occurs at North First/Trimble in the p.m., North First/Montague in the p.m., Montague Expressway/Trimble in the p.m., Montague Expressway/Zanker Road, Trimble Road/Zanker Road in the a.m., De La Cruz/Trimble Road in the p.m., and Lafayette/Central in the p.m.

- a) The Nortech Substation site's construction entrance would be located on an access road that joins North First Street, or alternatively from Disk Street, which connects to Nortech Parkway and North First Street. The substation's operational entrance would be on a paved driveway from the north side via Disk Street. The substation will require only occasional inspection and maintenance by PG&E personnel (once a month); these would have no net change in traffic in the long term.

No changes in access are proposed for the existing Trimble and Kifer Substations. The Trimble Substation is located just off North First Street in San Jose. The Kifer Receiving Station is located on Comstock Street and Duane Avenue near Lafayette Street in the City of Santa Clara (and just south of U.S. Highway 101).

The proposed Trimble-Nortech power line alignment runs from the Trimble Substation easterly along Component Drive crossing North First Street, northerly along North First Street to Trimble Road, easterly along Trimble Road crossing Zanker Road, northerly along Zanker Road crossing the Montague Expressway and State Route 237, then westerly along the northern side of State Route 237 to the Nortech Substation.

The proposed Kifer-Nortech power line crosses vacant land northerly of the receiving station, crossing Duane Avenue and spanning U.S. Highway 101, northerly along Bassett Road, crossing the Southern Pacific Railroad tracks, then northerly along Lafayette Street crossing the Montague Expressway and State Route 237 where Lafayette Street changes to Gold Street, then easterly along the access road on the northern side of State Route 237 to the Nortech Substation. During construction of the project, the maximum number of workers distributed among all work sites would be 70 (PG&E, 1998 PEA). Truck and worker commute trips to and from the site would increase during the construction period over the negligible traffic currently routed to the site. The site receives appreciable traffic only during services at the adjacent church, primarily weekend and evening events. The impact of the construction-related trip generation on traffic volumes would be negligible for construction at the Trimble Substation and Kifer Receiving Station, and for construction of the power lines. During operation, no workers would be permanently located on the proposed Nortech site and a only negligible trips would be needed for site inspections and maintenance at the substation.

The project would involve temporary lane closures for construction of the power lines. PG&E proposes scheduling of single lane closures during weekday off-peak hours and coordination of timing and route selection for heavy slow moving vehicles with the Public Works Departments of Santa Clara and San Jose. Construction of poles will occur on road shoulders to the extent possible to avoid road closures and PG&E proposes to coordinate with the Santa Clara Traffic Engineering Division to adjust traffic signal timing to accommodate and alleviate traffic congestion. Permits would be obtained from both cities for lane closures. PG&E proposes to employ traffic control measures in accordance with Santa Clara and San Jose plans (the cities adopted traffic control measures in Chapter 5 of the 1993 Caltrans Traffic Manual). With these measures, therefore, the impact on traffic conditions on local streets, including major thoroughfares, would be less than significant.

Crossing of U.S. Highway 101 and State Route 237 would require a brief (15- 20 minute) highway lane closure for installation of (and later removal of) a safety net and stringing of the lines. This would occur at two crossings of State Route 237, one crossing of U.S. Highway 101. PG&E would coordinate and obtain the assistance of the California Highway Patrol and Caltrans for these crossings. PG&E has proposed these undertakings at early morning hours with low traffic before the commute traffic begins and would comply with Chapter 5 of the 1993 Caltrans Traffic Manual. With PG&E's proposed mitigation measures, a less than significant impact on traffic congestion would occur.

The construction of the project would not likely result in significant damage to roads. Some damage to sidewalks may occur for pole placement. PG&E has proposed to repair any damages to roads should they occur and to repair sidewalks. Given this commitment, the impact would be less than significant and additional mitigation is not required.

- b) No impact related to traffic safety hazards from proposed design features would occur as no reconfiguration of existing roads would occur. Traffic safety issues related to temporary lane closures during construction would be less than significant with mitigation measures proposed by PG&E (see preceding discussion under item a). PG&E would place signage and cones in lanes requiring temporary closure. Workers would comply with appropriate safety procedures to protect themselves and the public during construction.
- c) Single lane closures would be coordinated with Caltrans, the California Highway Patrol, the City of San Jose and the City of Santa Clara. No impacts related to emergency access would occur. No access to hospitals or fire stations would be affected by construction of the project. PG&E will maintain access to all residences and businesses along the power line alignment. Construction of the Nortech Substation will not impede access to any residences or businesses.
- d) The Nortech substation would generate no long-term parking demand as no employees would work at the site on a daily basis, maintenance workers would have access to the

interior of the substation site for parking. Construction parking would be accommodated at the Nortech Substation site and at the Kifer Receiving Station and Trimble Substation. Therefore, no impact related to parking demand would occur. Construction of the Nortech Substation would remove parking areas used by the adjacent Jubilee Christian Center. Parking areas are available for the church in the immediate area; the impact would be less than significant.

- e) The Nortech substation site has no pedestrian sidewalks or bicycle paths; therefore no impact would occur there. Construction in the Trimble Substation and Kifer Receiving Station would not affect pedestrian or bicycle uses in the area.

Construction of the power poles and stringing of the power lines would result in temporary closure of bicycle paths, bicycle lanes and sidewalks. ADA ramps to sidewalks also may be closed temporarily during pole construction and line stringing. PG&E proposes to maintain pedestrian and bicycle access adjacent to the construction zone and separate them from traffic. Routing of pedestrians and bicycles to the opposite side of the street through signage also would occur. As PG&E proposes limiting construction to off-peak traffic periods, the impact on pedestrians and bicyclists also would be minimal. Pedestrian and bicycle safety measures would comply with the measures implemented under the Work Area Protection and Traffic Control Manual, which would guide all construction work in the street rights-of-way. Therefore, there would be no impact related to hazards to pedestrians or bicyclists.

- f) The project would not create a long-term demand for site visits; therefore, no conflict with transportation policies would occur. Construction of the power lines could temporarily displace curbside bus stops and lane closures would result in brief delays of buses. By coordinating construction activities with the cities and the transit agency, the impact would be less than significant. The Santa Clara Valley Transit Authority Stop Coordinator does not intend to temporarily relocate any bus stops and will instruct the route drivers on procedures for passenger pick-up and drop-off in the construction areas. No impact to the light rail system on North First Street or to school bus stops would occur at any time during construction. Therefore, the impact on public transportation would be less than significant; additional mitigation is not required.
- g) No waterborne or air traffic is located within the project area, and the project would therefore have no effect on these modes of transportation (site visit July 17, 1998). The project is well north of, and would not affect the San Jose International Airport. The construction of the pole lines would not disrupt operation of the light rail line located on North First Street or the Southern Pacific Railroad line located along Lafayette Street. Construction of the power lines would not disrupt rail traffic at the two locations where the proposed power line would cross railroad tracks. Construction and operation of the power line would have no impact on rail facilities.

## VI. AIR QUALITY

Would the proposal:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Expose sensitive receptors to pollutants?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Alter air movement, moisture, or temperature, or cause any change in climate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Create objectionable odors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion

- a) Construction activities would temporarily increase particulate concentrations in and around the project sites. The impact would be temporary and would last for the duration of the project construction. Part of the Nortech Substation site has been previously undeveloped and part is covered by a parking lot. The site will require removing overburden and importing and placement of approximately 20,000 cubic yards of fill to elevate the grade to reduce the potential for flooding. These grading activities along with installation of a paved driveway, general construction activities, and operation of major equipment & vehicles used during construction would generate substantial dust. Boring of pole foundation holes for the power line sites, however, would be a minor source of dust emissions at sites distributed over a broad area. Construction activities at the Trimble Substation and Kifer Receiving Station would generate negligible emissions. Particulate concentrations that would occur at or adjacent to the construction sites would be affected by local wind conditions and vegetation and to variations in soil, silt, and moisture content.

The Bay Area Air Quality Management District (BAAQMD) considers construction emissions to be significant only if project-appropriate mitigation measures are not implemented. Dust is comprised of large particles (i.e., larger than 10 microns in diameter) which settle out rapidly on nearby horizontal surfaces and are easily filtered by human breathing passages. Much of the dust generated by construction is, therefore, of concern more as a soiling nuisance rather than for its unhealthful impacts. The remaining fraction of small particulate matter might be sufficient to violate the state 24-hour average PM-10

standard in the vicinity of construction. Unless mitigation measures are implemented, elevated levels of PM-10 would occur throughout periods of project construction.

Long term operation of the Nortech Substation and other project facilities would generate no direct air emissions. The proposed project would allow for the delivery of electricity that would otherwise not be transmitted. Much of California's electricity is generated by burning fossil fuels, the combustion of which results in air pollutant emissions. Consequently, fuel-combustion power plants within California would increase production to deliver the electricity demand facilitated by the proposed substation. However, these emissions could be generated from any or all of the air districts within California, or even from out of state or from a renewable source. The environmental impact of air emissions from each power plant would be assessed at the time of power plant construction or permit issuance by the local air district. The project itself would not induce new demand for generation of additional electricity, except for the increase needed for lighting of facilities.

Maintenance of the proposed facilities would require intermittent vehicle trips to the site. Assuming 400 miles per month of light-duty truck trips and 100 miles per month of heavy-duty truck trips, maintenance-related mobile emissions would be less than 2 pounds per day of any criteria pollutant or precursor. This would be less than the BAAQMD recognized significance criteria of 80 pounds per day of reactive organic gases, oxides of nitrogen, or PM-10.

The mitigation measures requiring its construction contractors or crews to implement a dust abatement program during construction activities following the model from the BAAQMD. These measures, proposed by PG&E as a part of the project, would reduce the potential impact of dust generation to a less-than-significant level. These measures include:

- Sprinkling exposed soils at all active construction sites at least twice daily on days without measurable rainfall at the site;
  - Covering all trucks hauling soil, sand, and other loose materials *or* require all trucks to maintain at least two feet of freeboard;
  - Paving, applying water three times daily, or applying (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites; and
  - Sweeping daily (with water sweepers) the paved access roads and parking and paved staging areas at the substation site, as well as .sweeping each paved street area used to drill foundation holes and pour foundations for power line towers.
- b) Construction dust emissions could have a temporary impact on the adjacent Jubilee Christian Center which is located immediately north of the proposed substation. Very young children or the infirm could be considered sensitive receptors. It is expected that most construction activities would not occur during periods when activities occur

involving large numbers of people at the Center. Workers at the nearby North San Jose Technology Center also may be exposed to dust emissions, particularly at times when they are in the parking lot. The impact to the congregation and workers would likely be a nuisance impact related to larger particle dust settling out and would not be an impact related to a violation of PM-10 standards. With implementation of the above-cited mitigation measure VI-a, this impact would be less than significant. Similarly, dust could be a nuisance for construction of the power lines and other facilities. Project operations would not have a long-term impact to local air pollutant concentrations because transformers and other substation equipment are not sources of air emissions.

- c) The proposed Nortech Substation would not be a large source of thermal emissions and would not represent the type of operation that could cause alteration of air movement, moisture, or temperature, or cause any change in climate. Therefore, there would be no impacts related to climate change.
- d) The proposed Nortech Substation, power lines and other facilities are not the type of operation identified by the BAAQMD as a typical odor source (BAAQMD, 1996). The project would not result in an odor-related impact. Excavated saturated mud soil sometimes is regarded as a source of objectionable odor; however, if this were to occur the effect would be a relatively brief nuisance odor, and would be eliminated when fill is placed over the excavated mud.

## VII. BIOLOGICAL RESOURCES

Would the proposal:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Endangered, threatened or rare species or their habitats (including but not limited to plants, fish, insects, animals, and birds)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Locally designated species (e.g., heritage trees)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Locally designated natural communities (e.g., oak forest, coastal habitat, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Wetland habitat (e.g., marsh, riparian and vernal pool)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Wildlife dispersal or migration corridors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Discussion

The project area is characterized as a mixture of urban and open space lands. Much of the project area is developed in industrial, commercial, residential and transportation uses which contain landscaped areas mostly with non-native plants that provide little habitat for wildlife.

Agricultural lands and open space areas are interspersed throughout the project area. Most of these areas are cultivated or contain ruderal vegetation that has low to moderate value for wildlife. A small area of coastal brackish marsh/fresh emergent wetland/ coastal salt marsh/saline emergent wetland occurs along the channel of the Guadalupe River. These areas provide habitat of higher value to wildlife. Development in the area is occurring at a rapid pace, and these areas appear destined to become urbanized in the near future.

- a) Most of the project area, including the Nortech Substation site, is located within the Urban Service Area (USA) of the City of San Jose, and is currently part of a plan to conserve burrowing owls (*Speotyto cunicularia*) and owl habitat and mitigate for the impacts of development throughout the City. The burrowing owl, a California species of special concern, has very low populations (approximately 40 pairs within the City USA), and is considered “threatened” for CEQA purposes according the CEQA guidelines, Section 15380.

The City of San Jose Owl Conservation Plan, which will be completed in 1998, defines north San Jose as a “Primary Owl Area.” Potential habitat for the burrowing owl occurs on the unpaved portion of the vacant parcel for the Nortech Substation site and also occurs along the proposed power line route. Although surveys conducted in the Spring of 1998 did not reveal any individuals or pairs of burrowing owls on the substation site, occupancy of adjacent parcels in the area north of Highway 237 suggests there is high potential for owls to move onto the site in the future, or to use the site at present for foraging.

Construction activities associated for the substation may affect individuals using the site and also regional owl populations by further fragmenting habitat in north San Jose.

Construction activities for placement of the poles along the Kifer-Nortech and Trimble-Nortech power line route may also affect individuals and burrows known along the route.

No sensitive birds were observed nesting in the Nortech Substation site or power line project alignment during 1997 and 1998 surveys; however, suitable raptor nesting sites occur in trees in and adjacent to the project corridor. Impacts to sensitive raptor species are not anticipated unless a project area tree is selected as a nesting site, but would be considered a significant impact.

The 1997 and 1998 surveys detected no cliff swallow or barn swallow nests under the State Route 237 bridge spanning the Guadalupe River, through there is potential for nesting swallows to become established before or during project implementation. Construction



disturbances in this area could potentially result in nest abandonment, which is considered a significant impact.

No special status plants were identified during spring 1998 surveys, therefore impacts to special status plants are not anticipated.

### **Mitigation**

The following mitigation measure would reduce the potential impact on burrowing owls or burrowing owl habitat to a less-than-significant level:

***Mitigation Measure VII-a:* To avoid direct impact to any burrowing owl or nest, conduct a pre-construction survey no more than 30 days prior to construction according to the Burrowing Owl Survey Protocol and Mitigation Guidelines (Burrowing Owl Consortium 1993). If owls are found to be using the site and avoidance is not feasible, a passive relocation effort (displacing the owls from the site) may be conducted, subject to the approval of the California Department of Fish and Game (CDFG).**

For habitat losses, other project sites within the San Jose Urban Service Area have mitigated for impacts by applying a 1:1 acreage replacement ratio, i.e., off-site purchase of land, as compensation for the impact of replacing or providing substitute resources or environments (Guidelines, Section 15370). This type of mitigation is currently seen as less effective than City-wide conservation planning; the plan currently under development by the city will more equitably and logically acquire and allocate conservation land.

Participation by PG&E in the city plan would likely involve paying a fee based on the vacant land acreage to be developed. No specific participation fee has been proposed at this time. It appears that the fee would be considerably less than the cost of purchasing replacement habitat. PG&E would be considered to have mitigated the impacts on burrowing owl habitat with a payment to this program of a per acre fee based on the entire acreage of the site. PG&E participation in the plan, when promulgated in 1999, would constitute full mitigation under CEQA for impacts to burrowing owls. Alternatively, if the city plan is not promulgated in a timely manner, or if PG&E elects not to participate in the plan, PG&E would carry out the following mitigation measures:

***Mitigation Measure VII-a-1:* PG&E will assess the amount of burrowing owl foraging and/or nesting habitat that could be impacted by construction. The acreage involved will be reported to CDFG. All foraging and nesting habitat that could be lost due to construction activity will be mitigated at a 1:1 ratio with either the purchase of habitat credits or the purchase of offsite mitigation land.**

*Monitoring Action:* PG&E shall monitor activities at the site and document compliance with measure VII-a-1.

PG&E shall certify compliance with this measure in scheduled progress reports to the CPUC.

*Responsibility:* PG&E shall submit a copy of the pre-construction survey report and ensure compliance with those recommendations.

*Timing:* Before on-site work begins, PG&E shall provide the CPUC mitigation monitor with verification that a pre-construction survey has been completed.

The following mitigation measure would reduce the potential impact to nesting raptors to a less-than-significant level:

***Mitigation Measure VII-b: Prior to the breeding season and project construction, a survey will be conducted in areas containing suitable raptor and sensitive bird habitat. Should an occupied nest be detected, the project proponent will consult with the CDFG to determine an appropriate means for reducing impacts to nesting birds. Suitable measures to avoid impacts could include creation of a 250-foot buffer zone and avoidance of potentially disturbing activities until nestlings have left the site, but could include additional measures. Removal of any raptor nests will be reviewed with the CDFG.***

*Monitoring action:* PG&E shall monitor activities at the site and document compliance with measure VII-b.

PG&E shall certify compliance with this measure in scheduled progress reports to the CPUC.

*Responsibility:* PG&E shall submit a copy of the pre-construction survey report and ensure compliance with those recommendations.

*Timing:* Before on-site work begins, PG&E shall provide the CPUC mitigation monitor with verification that a pre-construction survey has been completed.

- b) As many as 191 landscape trees greater than 6 inches in diameter at breast height, and some as large as 18 inches in diameter, including documented heritage trees as defined by the City of San Jose, would need to be removed to accommodate the proposed power line alignment. Pursuant to City ordinance, a permit would be obtained from the City for the removal of trees over six-feet tall within the right-of-way of City streets. As a condition of

the permit, removed trees would be replaced with trees approved under the City street tree plan. The replacement species would be low-growing trees that are selected in accordance with the San Jose Redevelopment Agency’s landscape plan for Zanker Road.

- c) The riparian corridor of the Guadalupe River is a locally designated natural community, but would not be disturbed or indirectly affected by construction or operations of the proposed project facilities.
- d) The Guadalupe River provides the only wetland habitat identified in the project vicinity. Wetland habitat in and near the Guadalupe River corridor would not be disturbed or indirectly affected by construction or operation of the proposed project facilities.
- e) The only potential wildlife dispersal or migration corridor in the project area is the Guadalupe River. All construction-related activities would take place outside the banks of the Guadalupe River, and would not inhibit wildlife dispersal or migration corridors.

**VIII. ENERGY AND MINERAL RESOURCES**

Would the proposal:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Conflict with adopted energy conservation plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Use non-renewable resources in a wasteful and inefficient manner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) The project is not energy consumptive. Minor amounts of fuel would be required for construction. Operation of the project would not encourage the use of excessive amounts of electricity by industry, commerce, or residents served by the existing and proposed substations. The project would have no conflict with energy conservation and no impact would occur.
- b) The project would use a variety of widely available non-renewable materials for construction of the facilities including aggregate, asphalt, iron and related minerals used in steel, mineral oil, and fuel to power construction vehicles and equipment. Long term operation would require only a minor amount of fuel for site inspection vehicles. Proposed

construction and operation of the facility would not involve the wasteful use of non-renewable resources; no impact would occur.

- c) The project site has no known mineral, oil, gas, geothermal, or aggregate resources. The project would not affect the availability of these resources, and no impact would occur.

**IX. HAZARDS**

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) A risk of accidental explosion or release of hazardous substances (including but not limited to oil, pesticides, chemicals or radiation)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Possible interference with an emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) The creation of any health hazard or potential health hazard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Exposure of people to existing sources of potential health hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Increased fire hazard in areas with flammable brush, grass, or trees?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) Several hazardous substances would be used in the operation of the proposed FMC Substation. One 115 kV - 21 kV, 45-MVA transformer could contain up to 9,500 gallons of mineral oil, which is used as an insulating medium and coolant. The mineral oil would not contain Polychlorinated Biphenyls (PCBs). To prevent the release of mineral oil in the event of damage to the transformer, PG&E proposes to mount the transformer on a pad with drainage directed to a SPCC collection system and pond that could hold 110% of the volume of oil from one transformer, plus rainwater runoff. A weir system with a manually operated gate valve would retain any oil in the SPCC pond for collection and disposal at an approved site. Environmental Protection Agency regulations require that the equipment and spill containment area be inspected at least monthly. During heavy storm periods, more frequent monitoring of the transformers and the SPCC pond would be conducted to prevent overflows of the pond. The operator would check the pond for evidence of an oil sheen, and any oil would be cleaned up before the valve would be manually opened by the operator to release rainwater that had accumulated in the pond.

Batteries would be used for emergency back-up power at the new substation. Similar to automobile batteries, these batteries would contain sulfuric acid in the electrolyte, which is in a gel, rather than liquid, form. The substation's three batteries would have 20 cells each for a total of 60 cells, and would provide an output of 125 volts (in comparison, an automobile battery has 6 cells and provides an output of 12 volts). Release to the environment of material from the batteries in the event of a spill would be prevented by housing batteries in a dedicated metal-enclosed compartment in the switchgear building.

Nitrogen gas ( $N_2$ ) and Sulfur Hexafluoride gas ( $SF_6$ ), both inert and non-toxic gases, would be used at the substation.  $N_2$  would be used to slightly pressurize oil-filled equipment, while  $SF_6$  would be used as an insulator and arc suppresser in circuit breakers.  $SF_6$  would not be released under normal conditions; PG&E usually recycles the  $SF_6$  gas in the breakers during maintenance. When  $SF_6$  is exposed to electric arcs, a small quantity of solid residue forms that is highly toxic and must be removed to prevent exposure hazards to PG&E personnel working with the circuit breakers. Vacuuming with a heavy duty shop vacuum and/or cleaning of the equipment surfaces with dry, lint-free rags and proper disposal of the material is adequate to control potential hazards from this residue.

The only potential hazard to the public involved in the use of either the  $N_2$  or  $SF_6$  is a physical hazard involving the high pressure of the gases in the storage cylinders. The likelihood of a cylinder explosion is low; distance between the cylinders and any public access makes the risk of injury remote.

Other hazardous materials are used in construction and maintenance of the substation and power lines, including petroleum products, paints, and adhesives, as well as those hazardous materials used in autos and trucks. The use of such materials is common and is regarded as posing less than significant risks to worker or public health or safety.

In the long term operation of the substation, and in the operation of the power and distribution lines, there is a finite risk of electrical arcing and short-circuits due to failure of the equipment or when a live phase conductor falls to the ground. The design of the substation, including the placement of the wires, equipment, and the seven-foot-high fencing around the substation, and the design of the power and distribution lines, are intended to prevent public access to high-voltage equipment and to minimize the risk to the public of shock or injury in the event of equipment failure. The sensing and high-speed relay systems that sense a broken line and activate circuit breakers within about one-tenth of a second mitigate the risk of fire and other harm to the public from downed power lines.

If soil contamination were present within any construction areas, such contaminated soils disturbed or excavated during site preparation could pose a health risk to construction workers or the adjacent public. Contaminated waste soils must be handled and disposed of in accordance with local, state, and federal regulations. If soil contamination were present

within any construction areas, all excavation would proceed according to worker safety requirements of the Federal and California Occupational Safety and Health Administrations (OSHA). If there were any site contamination that would require action, OSHA rules then would require a site-specific Health and Safety Plan (HASP) to be prepared and implemented by PG&E and its contractors to minimize exposure of construction workers to potential site contamination and to dispose of construction-derived waste soil in accordance with local, state, and federal regulations. These effects would be less than significant.

PG&E's proposed mitigation measures are consistent with those employed at other substations and power lines, and would be adequate to ensure a minimal risk of fire, accidental explosion or release of hazardous substances. Assuming implementation of the mitigation measures proposed as part of the project, additional mitigation is not required and the hazard would be less than significant.

- b) To the extent that the construction and operation of the project would improve the reliability of the local electric power system, the proposed substation and related power lines would benefit local emergency response capabilities. Traffic interruptions due to construction activities would be coordinated with the cities of San Jose and Santa Clara. No interference with the emergency response plans or emergency evacuation plans of the City of San Jose or the City of Santa Clara is evident.
- c,d) The project will take high-voltage electricity from the two new PG&E 115 kV power lines, step-down the voltage to 21 kV, and distribute the electricity to local customers. By its nature, the project provides certain benefits and poses certain risks to the public. Because the project will alter the electric and magnetic fields (EMF) in the vicinity of the substation site and along the routes of the two new 115 kV power lines and the 21 kV distribution lines, concerns about potential health-related consequences of the EMF are addressed.

Some portions of the new power lines are located on the right-of-way of an existing PG&E 115 kV power line, an operating high-voltage electric power transmission facility, or along lower-voltage distribution lines. PG&E has not estimated the magnetic field strengths to be expected at the substation boundary or under the power lines. However, similar 115 kV power lines, under peak electrical load conditions, have been estimated to generate a magnetic field strength of roughly 150 milliGauss (mG) or less at the edge of the right-of-way. Also, other substations have been estimated to generate a magnetic field strength in the range of roughly 15 mG or less at the substation boundaries. These values represent, in effect, rough estimates of the maximum conditions at the boundaries of the substation and boundaries of the power line right-of-ways; directly under the power lines, the values could be higher.

Typically, it can be expected that the highest levels of magnetic field strengths at the boundaries of the substation would occur at the locations of the undergrounded 21 kV distribution lines or the locations of overhead 115 kV power lines. Similarly, the highest levels of magnetic field strengths would be expected to occur at the center of the power line right-of-way, under the lowest point of the power line.

Compared to present maximum contributions from the existing 115 kV power lines and other distribution lines, the project would add a contribution that would be similar to the existing magnetic field strength present under the existing lines.

Average annual electrical load conditions for the substation and the power lines would be less than the maximum load, and the contribution of the project to the magnetic field strength at the property boundaries would be about correspondingly decreased.

Ultimately, up to nine underground 21 kV distribution circuits would connect the Nortech Substation to the existing electric distribution system. While not part of the proposed project, they would contribute to EMF at the site. These contributions would occur within the existing rights-of-way of the streets and power lines and not on surrounding industrial or commercial properties. Members of the public that would be exposed to these fields include anyone walking within the distribution line right-of-ways.

In response to public concern about possible health effects of EMF from electric utility facilities, the CPUC opened an investigation of the hazards. On November 2, 1993, the CPUC issued Decision 93-11-013, which recognized the public concern, but which declined to “adopt any specific numerical standard in association with EMF until we have a firm scientific basis for adopting any particular value.” However, in that decision, the CPUC did direct all publicly owned utilities to take “no cost and low-cost” EMF reduction steps on transmission, substation, and distribution facilities to reduce exposure of the public to magnetic fields.

In accordance with that requirement, the proposed design of the North San Jose Capacity Project includes the following “no cost and low-cost” EMF reduction measures:

- 1) Poles will be installed at a clearance to reduce EMF at ground level.
- 2) The phasing of the Trimble - Nortech 115 kV power line would be arranged to create the minimum magnetic field at the edges of the power line right-of-way. The phasing would be CBA (top, middle, bottom), to cross-phase with the phasing on the Newark -Trimble 115 kV power line.
- 3) Use compact equipment spacing at the substation, which reduces the site area used and allows equipment to be remain farther from the substation boundary. Providing

more distance between the equipment and the property lines would reduce magnetic field strength at the property line.

The possible relationships between exposure to EMF and potential health-related effects have been investigated by many organizations, including the U.S. National Academy of Sciences, American Medical Association, American Cancer Society, California Department of Health Services, National Institute of Environmental Health Sciences, U.S. Department of Energy, and the CPUC (PG&E, 1997). The U.S. National Academy of Sciences study (NAS, 1996) is the most recent comprehensive evaluation of the topic; that committee concluded that the current body of evidence does not show that exposure to power-frequency EMF presents a human hazard.

Based on the results of the U.S. National Academy of Science study, there is no evidence that the EMF from the proposed substation, the 115 kV power lines and the 21 kV distribution lines presents a health hazard to those individuals who live and/or work in the vicinity of the substation site or power line routes. Further, there is no evidence that the additional EMF contributed by the proposed substation or the new power line circuit would create a health hazard or potential health hazard. The impact is less than significant and mitigation beyond that proposed as part of the project is not required.

Also accompanying the operation of the power lines are concerns about other phenomena such as corona discharge, electrical interference, and electric shock and currents induced by the power lines. Design standards for power lines use established standards to limit the effect of these phenomena to less than significant levels.

Operation of the proposed Nortech Substation would not greatly alter the number of people working on or using that site, since the substation will be operated remotely. Those who do work periodically at the substation site would be PG&E employees or contractors, acting in accordance with occupational health and safety requirements. As a result of these two factors, the substation would result in a small increase the total exposure of people to any existing sources of potential health hazards.

Operation of the proposed power lines would not change the number of people working within or using the power line route right-of-ways. No individuals would live or work within the right-of-ways, which could be used as open space or as public or private parking lots. As a result, operation of the power lines would result in very small increases in the total exposure of people to any existing sources of potential health hazards.

- e) The substation site and the power line routes include substantial amounts of vegetation, ranging from native vegetation to landscape vegetation, including mature trees within the right-of-ways of the proposed power lines. See also the analysis of biological resources effects in this checklist.



The cleared and graded area within the substation would be maintained and kept free of shrubs or trees that might colonize the site; this would prevent any hazard of arcing leading to a fire that would spread to the landscaping trees on the perimeter of the site. There would be no increase in fire hazard on the substation site or adjacent areas.

Operation of the power lines carries a finite risk of electric arcing due to objects contacting the energized power line; that arcing, in turn, could lead to a fire. Where there are existing power lines over portions of the length of the two new power lines, the incremental increase in fire risk along those portions is likely very small. The project includes detailed measures to mitigate the fire risk along the routes of the two power lines, so even on those portions of the new lines where there are no existing power lines, the incremental increase in fire risk also is likely very small. The rigorous maintenance of right-of-way landscaping trees, in accordance with the power line tree clearance criteria and the maintenance schedule proposed (PG&E, 1998 NSJCP PEA), would be effective in reducing to acceptable levels the risk of fire due to tree contact with power lines. As a part of the construction of the two power lines, existing landscape trees within the right-of-ways would be removed and replaced with tree species with growth habits that are more suitable to locations under power lines. See also the project description for the criteria used to select and maintain trees within the power line right-of-ways.

**X. NOISE**

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increases in existing noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of people to severe noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) The substation site is located adjacent to State Route 237 (SR 237) and North First Street. There, the major noise source is traffic on SR 237. Along the Kifer - Nortech route, traffic along Lafayette Street and Highway 101 is the major noise source. Along the Trimble - Nortech route, traffic along North First Street, Trimble Road, Zanker Road and Highway 101 is the major noise source. Flight operations of the San Jose International Airport (SJIA) also contribute to ambient noise levels at the substation and along the power line routes. Construction noise levels at and near locations on the project site would fluctuate depending on the particular type, number, and duration of use of various pieces of

construction equipment. The effect of construction noise would depend upon how much noise would be generated by construction, the distance between construction activities and the nearest noise-sensitive uses, and the existing noise levels at those uses. Construction noise would be intermittent, extended over a period of five months at the substation site. Construction of pole foundations, erection of poles, and stringing of lines would also generate short-term noise along the proposed power line alignments.

The noisiest phases of substation construction would generate approximately 90  $L_{eq}$  at 50 feet (U.S. EPA, 1971). The receptors nearest proposed construction activity would be Oakcrest Estates Mobile Home Park, south of, and across SR 237 from the substation site. Although noise from substation construction would generate noise levels up to approximately 90 dBA, these noise levels would attenuate to 72 dBA or less at the nearest Oakcrest Estates residences, approximately 750 feet away.

Given ambient noise levels at these residences, construction noise would be noticeable; however, many residences are not occupied during the daytime. Construction noise would be noticeable, and possibly annoying, to residents at home during the daytime, but it would be a short-term effect. During nighttime, temporary construction-related noise could be more noticeable (since background noise is lower) and could annoy the closest residents given the more sensitive nature of the nighttime period. Therefore, without appropriate limitations on allowable hours of construction, this temporary impact could be significant.

Substation transformers and cooling fans on the substation site would generate operational noise. The three transformers proposed for the site would each generate a noise level of 69 dBA at partial load and without fans operating and a noise level of 72 dBA during peak load periods. Long-term noise levels resulting from the transformers is predicted to range from 56 dBA  $L_{dn}$  at a distance of 160 feet from the substation fence line to 49 dBA  $L_{dn}$  at a distance of 340 feet. Applying a 5-dBA "penalty" to account for human sensitivity to the pure tone component of transformer noise, the resulting noise would meet the City of San Jose's criteria for residences more than 340 feet from the transformers. PG&E predicts a resultant noise level of 36 dBA at the nearest residences, in Oakcrest Estates. This projected noise level at the nearest residences due to the transformers is well below the ambient noise level during daytime and evening hours.

Construction of the power lines would require the use of cranes, drilling and digging equipment, compressors, tampers, generators, trucks and other equipment. Each of these operations would be of limited duration and any given location would be affected only by local construction activities. Given the spans between the poles, placement of one or two poles may be the full extent of the noise effects of heavy construction experienced at any one location. Projected short-term noise levels at 100 feet range from 68 to 93 dBA for all construction operations. These noise levels could be audible and noticeable to residents and sensitive receptors in the vicinity of the various construction activities.

Ground vibration resulting from construction operations may be felt by persons in nearby buildings, but no damage is expected to result. If vibration-sensitive operations, such as semiconductor manufacturing or lithography, exist near prospective power pole locations along the power line routes, such operations may be adversely affected during a portion of the five-month construction period.

Under certain conditions (such as wet weather or dirty insulators), power lines can create corona-generated noise, usually associated with a buzzing or crackling. Sound levels beneath the power lines would be less than 30 dBA, as would sound levels at all buildings along the power line corridors. Given the number of rainy days per year within the Santa Clara Valley, and PG&E's practice of high-pressure washing of insulators, corona-generated noise, while occasionally audible, would not be considered a substantial increase to the typical urban noise environment.

### **Mitigation**

The following mitigation measures would reduce the potential impacts of construction noise and construction vibration to less than significant levels:

***Mitigation Measure X.a-1:* To reduce the construction noise effects, PG&E shall ensure that noisy construction activities at the substation site and near residences along the power line route shall be limited to, as much as practicable, the least noise-sensitive times of day and week (e.g., 7:00 a.m. to 6:00 p.m., Monday through Friday, not including federal holidays, in residential areas), unless there are overriding traffic and/or power interruption concerns.**

**If such activities occur, PG&E shall notify the CPUC project manager of noisy construction activities in residential areas outside the aforementioned hours within seven days. Written variances for *Mitigation Measure X.a-1* may be required if such activities outside the agreed upon hours are disturbing residences near PG&E construction activities.**

***Mitigation Measure X.a-2:* If concerns are raised about potential vibration from project construction, PG&E shall respond by informing those individuals about the nature, locations and schedule of construction, and by minimizing vibration-causing construction activities to the extent practicable.**

*Monitoring Action:* PG&E shall monitor activities at the site and document compliance with measures X.a-1 and X.a-2.

PG&E shall provide the CPUC mitigation monitor with documentation of compliance actions in regular progress reports.

PG&E shall inform CPUC of such concerns raised by the public and of PG&E actions in response.

- b) As discussed in the response to Item X.a., the noise levels resulting from project operation would be less than ambient noise levels and would be considered a less than significant impact.

**XI. PUBLIC SERVICE**

Would the proposal have an effect upon, or result in a need for new or altered, government services in any of the following areas:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Maintenance of public facilities, including roads?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other governmental services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) Under normal operating conditions, the proposed substation and power lines would not introduce any uses that would generate new building construction or increased population that would typically require additional fire protection services. Under normal operating conditions, the project would not create any new fire hazard or structures likely to require fire suppression service. No impact is anticipated.
- b) The City of San Jose Police Department serves the substation site. The proposed substation would not introduce any uses that would increase population, which would typically require additional police protection services during operation. The project may require the occasional use of police services during construction. Theft of construction equipment and/or vandalism might occur during the construction period, requiring a police response. The erection of new power line poles or replacement of existing transmission poles may require temporary closure or partial closure of streets for power line manipulation. Such actions are typically coordinated with the local police and normally take place during off-peak commute hours. The use of police services would be a temporary construction-related impact and would not be expected to affect police services substantially. In the long term, PG&E proposes that the substation transformer banks would be fenced and lighted to prevent vandalism and public access. Additional mitigation

is not required. The project would have a less than significant effect related to police services.

- c) The proposed substation and power line project would not introduce any uses that would increase population, which would typically require additional school services. Therefore, the project would have no impact on school or other community services.
- d) The proposed project would not require additional maintenance of public facilities during its operation. The maintenance of the substation facilities themselves would be handled by PG&E. Therefore, the project would have no effect related to public facilities.
- e) No project impacts to other government services are anticipated in the City of San Jose or the City of Santa Clara.

**XII. UTILITIES AND SERVICE SYSTEMS**

Would the proposal result in a need for new systems or supplies, or substantial alterations, to the following utilities:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Power or natural gas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Communications systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Local or regional water treatment or distribution facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Sewer or septic tanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Storm water drainage?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Solid waste disposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Local or regional water supplies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) The project is proposed in response to a specific local need for electric power within a rapidly developing area in northern San Jose. As a utility upgrade, it would not in itself be considered a cause for further development of other new or altered power or natural gas utilities. Electrical demand in northern San Jose is expected to continue to increase rapidly, which would require further increases in electrical utility capacity to adequately serve the area. The expected further increases in electrical demand, and the need for further electric utility improvements to serve that demand, are not the result of the construction and operation of the North San Jose Capacity Project. No impact to power or natural gas systems or supplies would occur.

- b) Pacific Bell provides communication services and currently serves the project area. The project site currently has telephone lines, and the operation of the new substation and power lines would not require any new communications infrastructure other than that provided exclusively for PG&E use as a part of the project. The substation would not house any employees but would be connected via telephone lines to PG&E engineering controls for remote operation and alarm systems. No impact to communication services is anticipated.
- c, d) The project site does not have any septic tanks or sewer services. The operation of the substation would not create a demand on water supply or sewer services. No restroom facilities would be required since the substation would be controlled remotely and not house any employees. Water supply for the substation landscaping would be required. Other than facilities that may need to be moved during construction of the power line to accommodate the placement of poles, no water or sewer lines would have to be moved or modified for construction of the project. No impact to water supply and sewer services is anticipated.
- e) The area of the substation site is approximately 3.3 acres, and the storm water drainage from the site currently discharges ultimately into the City's storm water system. The increase in the amount of impermeable surfaces (that would create additional run-off) is small and would have a less than significant impact on the local storm drainage system (see also Checklist item IV.a). Site runoff would not exceed the capacity of the storm drains serving the site. Therefore, the project would have a less than significant impact related to storm water infrastructure.
- f) The project would require solid waste disposal service only during the construction phase. PG&E and its contractors for construction would remove all solid wastes from the construction site. In the long term, no solid wastes would be generated regularly at the site (PG&E, 1998, PEA). Therefore, no impact to solid waste disposal services would occur.
- g) The project would require a minor increase in water use for construction that could be accommodated by available water service and would not have a substantial impact on local or regional water supplies. In the long term, no additional water services would be needed, as the substation would be controlled remotely and would not house any employees (PG&E, 1998 PEA). Water use would be limited to that needed for maintaining the landscaping. Therefore, no impact to water services would occur.

### XIII. AESTHETICS

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Affect a scenic vista or scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a demonstrable negative aesthetic effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Create light or glare?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### Discussion

The visual landscape consists predominantly of urban elements including multi-story buildings, residential houses, urban landscaped areas, roads and other features of a developed landscape spread across a flat area with little discernible topographic features (site visit July 17, 1998). Views are closed in by buildings and trees, affording only occasional vistas of the distant hills to the east, and the Santa Cruz Range to the south and west. Interspersed areas of open space and agricultural land provide open vistas in the project area. The area along State Route 237 provides the largest area of open vistas across agricultural and open space lands to the surrounding hills. State Route 237 is a designated scenic route. The City of San Jose is progressing with plans to replace urban landscaping with consistent streetscape landscaping themes on North First Street, Zanker Road, Trimble Road and State Route 237 as part of its *Rincon de los Esteros Landscape Master Plan* (PG&E, 1998 PEA). PG&E has proposed as mitigation to contribute funds to this program and assist in its implementation. Portions of the proposed power line alignments follow existing power lines; the project would replace these poles and lines in the same alignment.

- a) Significant visual impacts are caused by substantial adverse changes in public views and vistas in areas designated for preservation or enhancement of scenic quality. State Route 237 is the only formally designated scenic route in the project area. At present, the eastern highway is bordered on both sides by agricultural lands and vacant open space lands in the eastern part of the North San Jose Capacity Project area, as well as in the western part of the project area on the north side of the highway. The latter area includes the Nortech Substation site. Office/light industrial buildings with surrounding landscaping are located on the north side of the highway adjacent to the Nortech Substation site. The south side of the highway includes a residential area between North First Street and the Guadalupe River. An existing distribution power line supported by wood poles is located along the north side of the highway. These poles would be replaced by steel poles to support the

existing distribution line and the proposed new 115 kV line. The taller poles would be more visible to motorists, but the overall change in the visual landscape would not be substantial. Urban development has been occurring rapidly in this area and much of the area is planned for more light industrial/office development. The 1985 Environmental Impact Report on the Rincon de los Esteros Redevelopment Project acknowledged the transformation of the area's rural landscape to an urban setting, and visual impact was classified by the City of San Jose as less than significant (PG&E, 1998 PEA). Therefore, the change in the visual landscape created by the proposed power lines would be consistent with the planned urban character of the area. In addition, the poles would be located on the north side of the highway and therefore would not obstruct the motorists' vistas of the distant hills and mountains. The primary view interruption would occur at the two places where the power lines cross the highway. At Zanker Road, the crossing of the proposed Trimble-Nortech power line would occur in area in which no existing power lines cross the highway. The change in the visual landscape would be noticeable to motorists and to viewers from nearby offices. At Lafayette Street, the Kifer-Nortech power line would replace an existing power line, but the power line would be taller and more noticeable. The interruption in the views in either the eastbound or westbound directions created by these crossings of the highway would be brief, and because motorists and workers in offices are considered groups with low viewer sensitivity, the impact is considered a less than significant impact of the project. The *Rincon de los Esteros Landscape Master Plan* includes a landscaping concept in which rows of poplar trees will be planted along the road between the Guadalupe River and Coyote Creek. The mature poplars would tend to further reduce the visual contrast of the poles compared to the existing condition.

The proposed Nortech Substation site is located on the northern side of State Route 237. The site has relatively low visibility to motorists from the highway because of the grade of the highway. Views of the site are afforded primarily to motorists travelling westbound. The view is principally of eucalyptus trees and parking areas on the eastern part of the site and an existing power line and transmission line; visually the adjacent buildings of the North San Jose Technology Center tend to attract the eye more than the site itself. The proposed substation facilities, in particular the 100-foot tall lattice steel micro-wave tower and the distribution lines converging on the substation, would be visible briefly to motorists on the highway, particularly those travelling westbound. The bus structure and transformers and other facilities at the substation would tend to recede visually for motorists on the highway. The micro-wave tower and the distribution power lines would not obstruct any vista at this location, as the area is flat. The proposed substation would alter the visual landscape in this area, but its visual arrangement and degree of contrast to the existing surrounding visual environment would not be substantial. Therefore, the impact would be less than significant.



- b) Pursuant to CEQA, public views are eligible for protection and/or mitigation from project effects if there is a demonstrable negative aesthetic impact. The impact is defined in part by the degree of contrast which the proposed facilities would have with the surrounding visual landscape, in particular contrast that is not compatible with the character of the surroundings. Viewer sensitivity is an additional consideration. For the project, facilities proposed to be constructed at the Trimble Substation and Kifer Receiving Station would be consistent with those already present and the degree of contrast would be insufficient to cause a substantial change in the visual environment. The proposed Nortech Substation and distribution line visual impacts along State Route 237 are discussed under item a, above.

The proposed 3.7 mile long Trimble-Nortech power line would be constructed along highly visible edges of well traveled thoroughfares. These streets are border by mixed urban and open space areas. Street lights (32 feet tall), stop lights (34 feet tall), other street “furniture” and landscaping are present along most of these roads. The segment of the proposed power line along Zanker Road would represent the greatest degree of contrast in the visual landscape. The poles would be noticeable especially along the east side of Zanker Road between Trimble Road and State Route 237, as no power lines are currently present and the large poles and power lines would create a relatively high degree of visual contrast. Some trees would be removed or topped to accommodate appropriate clearance for the line. The removal of redwood and poplar trees along the east side of Zanker Road between Plumeria Drive and River Oaks Parkway would be a noticeable impact. Replanting would be carried out consistent with the *Rincon de los Esteros Master Landscape Plan*. Motorists on Zanker Road and workers in offices and industrial facilities are considered low sensitivity viewer groups. Occupants of residences and users of park lands are considered potentially sensitive viewers. Residential uses are present only at one location a mobile home park located on the west side of Zanker Road about 500 feet south of State Route 237. Views from that residential area are partially screened by a fence and eucalyptus trees planted in the median strip of Zanker Road. The proposed power line would be noticeable to residents in the mobile home park, and the lines would alter but not block distant views of the hills. There are no parklands along Zanker Road. The impact is considered potentially significant because of the visual contrast created by the scale of the power line. As noted, PG&E has committed to a \$500,000 contribution to the City of San Jose toward street landscaping along Zanker Road as mitigation for the project. Steel poles, 85-feet high, would be highly visible features of the landscape in this area. A new power line would add to the cumulative urban visual character already present along most of Zanker Road and would be generally consistent with the City of San Jose’s policies for development in the area. The incremental effect of the project, with implementation of the mitigation proposed by PG&E, would be less than significant.

The proposed Kifer-Nortech power line would largely occur in an area in which an existing power line would be replaced by the taller steel poles and wires. The power line would be

highly visible, and where it passes by residential areas with close range views, it would be considered a visually sensitive change in the landscape. Residential areas are present along both the east and west sides of Lafayette Street along the power line alignment. The power line would also pass by the Santa Clara Golf and Tennis Club, a recreational facility located on both sides Lafayette Street, and users of those facilities may be considered sensitive viewers. Other uses in the area are primarily office, retail, institutional and industrial, and these would not be considered sensitive visual users. However, for the entire length of Lafayette Street, including residential areas and the recreational area, the effect of the power line would be more in degree rather than kind of change, that is, the scale of the power line would be larger than the existing line created by taller poles and more power lines. The impact would be primarily on the close-in views from buildings facing on or near to Lafayette Street. The power lines would alter, but not block, views of the distant surrounding hills where these views are available (existing trees and buildings block distant views in some areas). The power line would not substantially change the existing visual character of Lafayette Street. As with the Trimble-Nortech power line, the proposed Kifer-Nortech power line would be consistent with the elements of the urban visual landscape. This impact would be considered less than significant.

Construction activities would create short-term visual impacts. These are not likely to significantly impair activities at sites along the power lines and because the effects are temporary at any of the construction sites, the impact is less than significant.

- b) New lights would be installed at the Nortech Substation site. This lighting would be hooded, directed downward, and confined to the Substation site in order to minimize glare. There are no nearby sensitive land uses for which lighting and glare would pose a problem. The project would therefore result in a less than significant impact.

#### XIV. CULTURAL RESOURCES

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Disturb paleontological resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Disturb archaeological resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Affect historical resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have the potential to cause a physical change that would affect unique ethnic cultural values?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Restrict existing religious or sacred uses within the potential impact area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a,b,c) Site reconnaissances of the substation site and power line corridors were performed by PG&E’s cultural resource specialist and an information search was performed within a half-mile radius of the project area by the Sonoma State University, Cultural Resources Study Center. The examination revealed no evidence of cultural resources in the area of the proposed project. No previous studies or recorded cultural resources sites or artifacts, other than prehistoric site CA-SCL-485 which is reported to be about 1/2 mile north of the Nortech Substation site, were revealed from the information search (PG&E, 1998 PEA). The Agnews Developmental Center West Campus, adjacent to the project, was recently listed on the National Register of Historic Places (NRHP).

Due to the potential for the site to contain cultural resources, PG&E proposes to incorporate mitigation measures into the project. The measures are as follows:

- Prior to the initiation of construction or ground disturbing activities, all construction personnel will receive environmental training. This training will include discussion of the possibility of buried cultural remains, the importance of the site, and the procedure, detailed below, that is to be followed if buried cultural remains are encountered during construction.
- Prior to the initiation of construction or ground disturbing activities for the Nortech Substation site, subsurface exploration will be conducted to determine the presence or absence of buried site deposits. Should a buried, subsurface archaeological deposit be encountered, further research will be conducted to determine the depth, size, integrity, and potential eligibility of the site for the California or National Register of Historic Places.

- If buried cultural materials, including prehistoric and historic resources, are discovered in the project area:
  1. Work in the immediate area of the find will be halted.
  2. PG&E’s archaeologists will be notified.
  3. PG&E’s archaeologists will identify the find, then make the necessary plans for treatment of the find.
  4. PG&E’s archaeologist will evaluate the find and if it is found to be “important” per CEQA (Appendix K), determine appropriate mitigation measures.
  
- If buried human remains are encountered during construction:
  1. Work will halt in that area.
  2. PG&E’s archaeologist and the coroner will be immediately notified.
  3. If the remains are determined to be Native American, then the Native American Heritage Commission (NAHC) will be notified within 24 hours as required by Public Resources Code 5097. The NAHC will notify designated Most Likely Descendants who will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains.
  
- During construction and operations, personnel and equipment will be restricted to areas surveyed for archaeological resources.
  
- If project plans change to include areas not surveyed, additional archaeological surveys will be conducted.

Because the project is proposed to incorporate the above mitigation measures, the project is not anticipated to have an effect on paleontological, archaeological, or historical resources.

- d) No unique ethnic cultural values are attributed to the project site. Therefore, the project would not have an effect on ethnic cultural resources.
  
- e) The project site is not being used for religious or sacred purposes. Therefore, the project would not have an effect on religious or sacred uses.

## XV. RECREATION

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the demand for neighborhood or regional parks or other recreational facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Affect existing recreational opportunities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a, b) The substation site has no recreational uses, and no existing or planned recreational uses are located near the site. Recreational uses along the existing power line alignment are predominantly uncontrolled activities such as bicycling, walking, and jogging. Part of the proposed Kifer-Nortech power line would pass through the Santa Clara Golf and Tennis Club (which is located on both sides of Lafayette Street). The proposed power line would be located along the edge of the street, replacing an existing power line. Proposed power line replacement in this area could briefly disrupt recreational activities, but long-term operation of the power line would not interfere with recreational activities. Therefore, no adverse impacts to recreational uses are anticipated.

**XVI. MANDATORY FINDINGS OF SIGNIFICANCE**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) As described in sections VII., Biological Resources, and XIV., Cultural Resources, the project is not anticipated to have biological or cultural impacts. Mitigation measures included as a part of the project or as adopted and included herein are sufficient to reduce these potential impacts to a less than significant level.
  
- b) The physical changes to the environment in the project area would not establish a disadvantage for the attainment of long-term goals within the area. The substation, 115 kV power line, and 21 kV distribution lines would be consistent with long term regional and area goals for establishing reliable power to support regional development as well as the industrial and commercial/office development contemplated in the *San Jose 2020 General Plan* for this area of San Jose. The substation site is acceptable for utility-related use and would not conflict with the City of San Jose's primary goals and policies regarding site development and use. Long-term goals and policies related to energy resources are also included within the *San Jose 2020 General Plan*, Energy Element (City of San Jose, 1994). In general, the Element highlights the need for energy conservation. Project construction and operation would not conflict with the City's energy-related goals as the substation and power lines would not prevent the implementation of energy conservation policies. PG&E, in coordination with the CPUC, also has established programs and incentives for conservation of energy resources. As discussed below under Checklist item XVI.c, the availability of electrical supply is considered growth accommodating. Therefore, implementation of the project would have no impact related to the achievement of short-term goals to the disadvantage of long-term environmental goals.
  
- c.) The proposed Nortech Substation and new power lines are designed to help meet forecast electric power needs in part of PG&E's North San Jose Distribution Planning Area. The forecast electric load growth is due primarily to planned growth and development within that limited geographical service area. The project would accommodate planned growth by providing additional electrical power where the existing electrical capacity cannot meet projected future needs (PG&E, 1998 PEA).

Adequate electric service is needed to support already planned economic development and population growth in this area. Lack of electrical power capacity in this service area would cause service to deteriorate, with negative economic effects on industry and a decrease in reliability in residential power service. Adequate electrical capacity, by itself, is not normally sufficient to ensure or encourage local growth. Other factors such as economic conditions, land availability, population trends, and local planning policies have more direct effects on growth than does the availability of electric power. The additional power supplied through the North San Jose Capacity Project would accommodate rather than induce growth. No public or private projects are expected to be started solely as a result of construction and operation of the project.

The North San Jose Capacity Project is a small part of the regional electric power transmission system, which in turn is part of the larger statewide and interstate power generation and transmission system in California. Transmission line project planning processes, project-specific CEQA environmental reviews and project approvals for each important element of the power transmission system already have considered these projects' direct impacts and their indirect, growth-inducing and cumulative impacts, which can include regional changes and impacts such as regional population growth and land use changes and basin-wide air and water quality impacts. Facilities such as part of the North San Jose Capacity Project represent the end-points for electric power transmission lines, and any potential indirect, growth-inducing and/or cumulative impacts caused by these substations have been implicit in prior environmental reviews for the transmission lines. (PG&E, 1998b)

The local industrial, commercial and residential land uses in the service area of North San Jose Capacity Project were established in the San Jose 2020 General Plan, which defined acceptable future land uses and evaluated the environmental effects, including any potential cumulative effects, of these future land uses. Construction and operation of North San Jose Capacity Project would result in localized environmental effects, as described in Sections I - XV, above, however these effects of the project would not be cumulatively considerable. Therefore, the cumulative impacts of the North San Jose Capacity Project would be less-than-significant.

- d) As described in Section IX. Hazards, the North San Jose Capacity Project is not anticipated to cause substantial adverse effects on human beings, either directly or indirectly. Therefore, the project would have no impact related to adverse effects on human beings.

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