

EXECUTIVE SUMMARY

1. INTRODUCTION/BACKGROUND

On April 13, 2001, Pacific Gas and Electric Company (PG&E) filed an application (A.01-04-012) with the California Public Utilities Commission (CPUC) for a Certificate of Public Convenience and Necessity (CPCN) for the Los Banos-Gates 500 kV Transmission Project (Proposed Project). According to PG&E, the Proposed Project is needed to decrease congestion on the electric transmission route known as "Path 15"¹. The Proposed Project is intended to improve system reliability by reducing or eliminating the need for load interruptions in Northern California due to constraints on Path 15, reduce overall energy supply costs to consumers in the Independent System Operator (ISO) grid, primarily in Northern California, and unify the California energy market by allowing increased power transfers between Northern and Southern California. According to PG&E's schedule, the Proposed Project would be built and operational by 2004.

The CPUC is the state lead agency for purposes of conducting environmental review of A.01-04-012 in compliance with the California Environmental Quality Act (CEQA). A Final Environmental Impact Statement/Environmental Impact Report (FEIS/EIR) was prepared for the Los Banos-Gates Transmission Project and certified in 1988. However, utility participation in the project was not approved by the CPUC. Consistent with the requirements of CEQA, the CPUC is now preparing a Supplemental EIR (SEIR) to update the analysis of potential environmental effects of the Proposed Project and alternatives, and to propose measures to mitigate any significant effects identified.

CEQA Guidelines §15163(a) state that a Supplemental EIR should be prepared if "only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation." Because the Proposed Project is essentially identical to that proposed in 1986 and the circumstances and analysis indicate that relatively minor additions and changes are necessary to update the prior analysis, the Supplemental EIR was determined to be the appropriate form for CEQA compliance. The SEIR identifies the potential for new significant impacts in the areas of biological resources, air quality, and safety, and presents substantially updated mitigation measures in all environmental issue areas that will more effectively reduce impacts on the environment.

Sections B and C of this SEIR present relevant comparison information for the Proposed Project as well as project alternatives, including the No Project Alternative, that were considered in the 1988 FEIS/EIR. CEQA did not require an evaluation of new or different alternatives in this SEIR because either the impacts of the Proposed Project could be adequately addressed based on the existing set of alternatives or no new feasible alternatives were identified which would substantially reduce one or more significant effects on the environment.

The purpose of this SEIR is to update information on the environmental setting and environmental impacts, and to identify the environmentally superior alternative for use by the CPUC in conducting the

¹ Path 15 is a series of high-capacity transmission lines that connect Northern and Southern California. These transmission lines also link the Pacific Northwest and Oregon to Southern California.

proceeding to determine whether to grant PG&E's requested CPCN. As presented in analysis in this document, the environmentally superior alternative is the Proposed Project (Western Corridor), with Alternative Segment 2A.

2. DESCRIPTION OF PROPOSED PROJECT AND ALTERNATIVES

CEQA Guidelines Section 15126.6 requires that, in addition to evaluation of the Proposed Project, an EIR evaluate feasible alternatives. This SEIR considers PG&E's Proposed Project (Western Corridor), one complete alternative corridor (Eastern Corridor), four Alternative Segments of the Western Corridor, and the No Project Alternative.

2.1 PROPOSED PROJECT (WESTERN CORRIDOR)

The major elements of PG&E's Proposed Project include:

- Construction of approximately 84 miles of 500 kV overhead transmission line following a route called the Western Corridor, between the Los Banos Substation and the Gates Substation;
- Realignment of the existing Los Banos-Midway No. 2 500 kV transmission line into Gates Substation;
- Modifications to Los Banos and Gates Substations to accommodate the new transmission line and realignment; and
- Reconductoring or upgrading portions of the Gates-Arco-Midway 230 kV transmission line.

The Proposed Project would be located in the western portion of the San Joaquin Valley, as illustrated in Figure ES-1. The Los Banos Substation, the northern terminus, is approximately 10 miles west of the City of Los Banos, just south of State Route 152 (SR-152) near San Luis Reservoir in western Merced County. The Gates Substation, the southern terminus of the new 84-mile transmission line, is approximately 5 miles southwest of Huron, in southern Fresno County. Upgrades to the existing Gates-Arco-Midway 230 kV transmission line are within Kings and Kern Counties. The Proposed Project area is mostly grassland and generally parallels the foothills of the Coast Range, Interstate 5 (I-5), and two existing 500 kV lines known as the Pacific Intertie. The straight-line distance between the Los Banos and Gates Substations is approximately 80 miles.

The Western Corridor that is studied in this SEIR is approximately 1,500 to 2,000 feet wide, but the actual right-of-way that PG&E will use for project construction and operation will be 200 feet wide.

2.2 PROJECT ALTERNATIVES

2.2.1 Eastern Corridor Alternative

The Eastern Corridor Alternative, as also illustrated in Figure ES-1, would connect the Los Banos and Gates Substations by following a path that is generally located on the east side of I-5 on the western fringe of the San Joaquin Valley. This entire route is also approximately 84 miles long. The primary objective in the design of this alternative corridor was to parallel existing 230 kV transmission lines to the extent possible. The Eastern Corridor Alternative accomplishes this objective along most of its route.

Figure ES-1

Proposed Project and Alternatives

[See link on webpage]

The Eastern Corridor Alternative would parallel the existing 230 kV line (with the new 500 kV transmission line located approximately 130 feet east of that line), which leaves the Los Banos Substation to the south-southeast and continuing for approximately 68 miles. The Eastern Corridor Alternative would diverge from the 230 kV lines at the southernmost end because of the proximity of the 500 kV lines in this area; the route was modified to allow the Eastern Corridor Alternative to pass through agricultural fields a north-south or east-west direction to minimize impacts on agricultural operations. This orientation would reduce the impacts on existing agricultural land uses by siting the corridor parallel or perpendicular to established agricultural practices (e.g., irrigation or spraying).

Approximately 90 percent of the Eastern Corridor Alternative is composed of intensive, irrigated farmlands. The California Aqueduct, a Delta-Mendota Canal, and the Outside Canal are within the northern third of the corridor and represent the major water conveyance systems present within the corridor.

2.2.2 Western Corridor Segment Alternatives

The primary routing objective for the Western Corridor was to parallel the existing 500 kV line wherever possible, while maintaining the required minimum separation of approximately 2,000 feet. Following are the alternative segments that were designed and the reasons for their creation.

- **Segment 2A.** This 12.9-mile segment provides a route option avoiding the Los Banos Reservoir recreation area while maintaining adequate separation from the Intertie.
- **Segment 4A.** This segment is 9.0 miles long and provides a route option that would be to the west of Little Panoche Reservoir, rather than crossing near the dam which is an area more heavily used for recreation.
- **Segments 6A and 6B.** There are two separate alternatives to Proposed Segment 6: only one of these segments (6, 6A, or 6B) would be constructed. **Segment 6A**, 10.3 miles long, would cross primarily agricultural land but avoids oil field equipment. **Segment 6B**, 11.7 miles long, is the westernmost routing option, crossing oil field equipment, oil wells, and water wells, but avoiding most cultivated agricultural land.

2.2.3 No Project Alternative

In accordance with CEQA requirements, this SEIR evaluates the No Project Alternative that must include (a) the assumption that conditions at the time of the Notice of Preparation (i.e., baseline environmental conditions) would not be changed since the Proposed Project would not be installed, and (b) the events or actions that would be reasonably expected to occur in the foreseeable future if the project were not approved. Two general possibilities are considered:

- **No Action Taken by PG&E.** In this scenario, authorization would not be granted for construction of the Proposed Project or any of the project alternatives. Although project objectives would not be achieved, no environmental impacts would occur since there would be no new construction.
- **Reasonably Foreseeable Actions.** If neither the Proposed Project nor any alternative were approved by the CPUC, PG&E or other entities could implement alternative courses of action intended to improve Path 15 capacity constraints. These actions are speculative at this time; however, PG&E has identified the following actions that could be considered: (1) New generation projects (power plants) could be constructed North of Path 15; in fact, several projects are currently under construction, or (2) Smaller Transmission System Upgrades could occur, in which a 400 to 500 MW capacity increase to Path 15 could be obtained by installation of a second 500 kV/230 kV transformer bank at the Gates Substation and reconductoring of the Gates-Panoche 230 kV transmission line.

3. SUMMARY COMPARISON OF THE PROPOSED PROJECT AND ALTERNATIVES

3.1 INTRODUCTION

CEQA requires that an EIR determine which of the Proposed Project or Alternatives is environmentally superior. This SEIR applies an assessment methodology to achieve this goal, which includes establishing an environmental baseline, updating information in the 1988 FEIS/EIR regarding environmental impacts of the Proposed Project and Alternatives, evaluating feasible mitigation measures, and comparing this information to reach a conclusion.

3.2 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

For the reasons briefly summarized below, this SEIR concludes that the Proposed Western Corridor (including Segments 1, 2A, 3, 4, 5, and 6) is determined to be the environmentally superior alternative. This determination was based on impact analysis in the following 10 environmental issue areas:

- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Minerals
- Hydrology and Water Resources
- Land Use and Recreation
- Public Safety, Health, and Nuisance
- Socioeconomics and Public Services
- Transportation and Traffic
- Visual Resources

3.2.1 Western Corridor Vs. Eastern Corridor

Both the Western Corridor and the Eastern Corridor Alternative were designed to follow established transmission corridors. The Proposed Western Corridor was developed in order to minimize impacts on agricultural land and to parallel, but maintain a safe (2,000 foot) distance from, the existing 500 kV lines. This corridor is generally described as non-cultivated/non-irrigated hilly land used primarily for livestock grazing.

The Eastern Corridor Alternative was designed to follow existing transmission corridors (primarily, a 230 kV line) and to minimize impacts to recreation, waterways, and cultural and biological resources. This corridor is primarily agricultural, and crosses more roadways and major travel corridors.

The 1988 FEIS/EIR concluded that the Western Corridor was environmentally superior primarily due to the extensive and unmitigable agricultural impacts in the Eastern Corridor and because the Western Corridor is less visible. Although the Western Corridor project presented more conflict with vegetation and wildlife, as well as cultural and paleontological resources, these impacts could be substantially reduced or eliminated with proper siting, careful construction practices, and adequate mitigation.

The conclusions of this SEIR regarding the comparison of the Western Corridor with the Eastern Corridor Alternative are presented in Table ES-1 below.

Table ES-1 SEIR Conclusions: Western Vs. Eastern Corridors

Issue Area	Preferred Corridor	Issue Area	Preferred Corridor
Air Quality	Eastern	Land Use & Recreation	Western
Biological Resources	Eastern	Public Safety, Health, and Nuisance	Western
Cultural Resources	Eastern	Socioeconomics & Public Services	No Preference
Geology, Soils, & Minerals	Western	Transportation & Traffic	Western
Hydrology & Water Resources	Eastern	Visual Resources	Western

This SEIR identified the following related and significant and unmitigable (Class I) impacts for the Eastern Corridor: loss of use of productive agricultural land, loss of agricultural soils, impacts on agricultural equipment and operations, safety impacts on aerial applicators, and effects on irrigation practices.

Based on information presented in this SEIR, the strongest preferences in favor of the Eastern Corridor are in biological and cultural resources. Based on available information, most impacts in these two issue areas are mitigable to less than significant levels if mitigation recommended in Section C is implemented. However, without completion of site-specific biological surveys at defined tower sites and access roads, the effectiveness of mitigation for impacts on special status wildlife species is not assured so a significant impact on special status species is identified in this SEIR. Despite this, the significant land use and safety impacts on the Eastern Corridor result in this SEIR confirming the conclusion of the 1988 FEIS/EIR in finding the Western Corridor to be the environmentally superior alternative.

3.2.2 Western Corridor Alternative Segments

Alternative Segment 2A is Preferred to Proposed Segment 2. The FEIS/EIR determined that Proposed Segment 2 was preferred over Western Corridor Alternative Segment 2A. This SEIR does not identify any significant unmitigable impacts associated with either segment. However this SEIR concludes that Alternative Segment 2A is preferred because of the potential long-term impacts of Proposed Segment 2 to recreation and visual resources.

Proposed Segment 4 is Preferred to Alternative Segment 4A. Both this SEIR and the FEIS/EIR determined that Proposed Segment 4 was preferred and that no significant unmitigable impacts occur on this segment. Alternative Segment 4A would have somewhat greater biological and geologic impacts and is one-half mile longer than the proposed segment, increasing overall construction impacts and imposing additional towers on permanent views.

Proposed Segment 6 is preferred to Alternative Segments 6A and 6B. Both this SEIR and the FEIS/EIR determined that Proposed Segment 6 is preferred over the two alternative segments. The diverse land uses in these segments make analysis difficult: Alternative Segment 6B (in the oil fields and west of agricultural lands) is preferred in Land Use, Public Safety, and Socioeconomics because it avoids agricultural land uses which have associated significant and unmitigable (Class I) impacts related to Alternative Segment 6A's potential effects on agricultural operations/equipment and aerial spraying. Segment 6A (in agricultural land) is preferred in biological and cultural resources, geology, and

hydrology because it would avoid the oil field and habitat impacts of Alternative Segment 6B. The FEIS/EIR selected Proposed Segment 6 because it offered an opportunity to minimize impacts on both agricultural land and oil operations. Proposed Segment 6 may have a significant unmitigable impact related to aerial spraying, but Segment 6B is 1.2 miles longer than Proposed Segment 6, requiring additional construction impacts and long-term visibility of more towers. Overall, Proposed Segment 6 appears to be the best solution to minimizing impacts in this area. Therefore, Proposed Segment 6 is environmentally superior to Alternative Segments 6A and 6B.

3.2.3 Western Corridor Vs. No Project Alternative

Two courses of action are currently envisioned as possible under the No Project scenario: the construction of new generation north of Path 15 and smaller transmission upgrade activities.

The environmental impacts of large thermal (natural gas fired) power plants can be significant, especially with respect to air quality, water resources, biological resources, and visual resources. By contrast, the environmental impacts of constructing a transmission line are substantially less because the operational impacts are insignificant. Therefore, the Proposed Project (or any transmission related alternative) is environmentally superior to the new generation option under the No Project Alternative.

The environmental impacts of transmission upgrades would have impacts that are much less extensive and severe than those of the Proposed Project, particularly for smaller upgrades to provide an additional 400 to 500 MW of capacity. Therefore, if the need is justified for only 500 MW or less, this alternative is environmentally superior to the Proposed Project.

4. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact Assessment Methodology. The analysis within each issue area began with an examination of the FEIS/EIR, the environmental setting at the time that document was prepared, and the impacts and mitigation measures presented. Then the current environmental setting was evaluated in order to determine the changes in the setting since the FEIS/EIR was prepared. The regulatory setting, which includes applicable government rules, regulations, plans, and policies, was reviewed for changes since 1988, and this information is also presented. For the purpose of this document, and pursuant to CEQA Guidelines, the baseline used for the impact analysis reflects conditions at the time of issuance of the Notice of Preparation (July 10, 2001).

The most noticeable change in the environmental setting of the project area since preparation of the FEIS/EIR is that agricultural land use has increased. Other changes relate to the regulatory environment (e.g., air quality regulations, lists of threatened and endangered species). A third type of change since preparation of the FEIS/EIR is the methodology now used for impact analysis differs from that used in 1986 (e.g., visual resources and evaluation of seismic hazards).

The SEIR then addresses the environmental consequences and potential impacts that the Proposed Project and the Alternatives would have related to each issue area. This SEIR identifies over 70 separate impacts in 10 environmental issue areas for the Proposed Project and Alternatives. About

two-thirds of these impacts are mitigable to less than significant levels with implementation of recommended mitigation measures. The following impacts are identified as significant and unmitigable:

- Engine emissions from construction equipment (Proposed Project and all alternatives)
- Loss of agricultural soils and loss of productive agricultural lands (along the Eastern Corridor Alternative)
- Transmission towers and lines presenting safety hazards to aerial applicators (along the Eastern Corridor Alternative and the southern portion of the Western Corridor).
- Potentially significant impacts on special status plant and wildlife species (Western Corridor).

Impacts were evaluated in each issue area using the following system of classification of the impacts:

- Class I:** Significant; cannot be mitigated to a level that is not significant
- Class II:** Significant; can be mitigated to a level that is not significant
- Class III:** Adverse, less than significant
- Class IV:** Beneficial impacts.

The impacts of the No Project Alternative are summarized in Section 4.11. Growth-inducing impacts, significant irreversible changes, and cumulative impacts are summarized in Section 4.12.

Mitigation Measures. CEQA Guidelines (Section 15226.4) require that an EIR describe feasible measures that could minimize significant adverse impacts. The FEIS/EIR recommended 64 mitigation measures for the proposed project and alternatives. This SEIR presents about the same number of measures, but the mitigation measures in the SEIR are considerably more rigorous, requiring specific compliance documentation and actions that were omitted from the FEIS/EIR. Within each issue area, the mitigation measures from the FEIS/EIR are presented and the disposition of those measures is explained (i.e., whether the measure has been incorporated into a new measure, retained, or eliminated). Once an impact was identified, diligent effort was taken to identify mitigation measures that will reduce the impact to a level that is not significant. Since some reviewing agencies require a demonstration of reduction of impacts to the maximum extent possible, mitigation measures were identified for all classes of impacts (except beneficial impacts). The mitigation measures recommended by this study have been identified in the impact assessment sections and presented in a Mitigation Monitoring Program table at the end of the analysis for each issue area.

The following sections summarize the findings from the environmental analysis for each of the 10 environmental issue areas evaluated in the SEIR.

4.1 AIR QUALITY

The entire Proposed Project and Alternatives area is within the San Joaquin Valley Air Basin (SJVAB). This air basin is classified as “severe non-attainment” for the Federal ozone standard, “serious non-attainment” for the State ozone standard, and “serious non-attainment” for the Federal standard for small particulate matter (PM₁₀). Emissions associated with either the Proposed Project or Alternatives would contribute to the overall decline in air quality in the SJVAB.

Since the issuance of the 1988 FEIS/EIR, air quality in the SJVAB has declined. As a result, the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) has established construction emissions thresholds for ozone precursors. The Proposed Project or Alternatives would exceed this threshold, creating a significant impact because emissions would be over threshold levels even with implementation of mitigation.

Impacts of the Proposed Project. The Proposed Project would create significant air emissions during construction (short-term). The pollutants of greatest concern to the SJVUAPCD are particulate matter less than 10 microns (PM₁₀) and ozone precursor emissions [reactive organic compounds (ROC) and nitrogen oxides (NO_x)]. PM₁₀ construction emissions can be mitigated to levels that are less than significant. However, as stated above, despite mitigation measures, NO_x emissions generated during construction activities would remain significant because pollutant levels would exceed APCD guidelines.

Mitigation Measures for the Proposed Project. Three mitigation measures are recommended. Fugitive dust emissions (PM₁₀) would be reduced by the SJVUAPCD's required control measures, as well as additional measures controlling construction equipment and activities. Two additional measures are designed to reduce NO_x construction emissions, but impacts of ozone precursor emissions remain significant.

Comparison of Alternatives. The Alternatives would have the same types and levels of impacts (construction PM₁₀ and NO_x emissions) that are associated with the Proposed Project. The Eastern Corridor Alternative would have fewer air quality impacts than the Proposed Western Corridor because fewer new access roads would be required and construction would occur primarily in irrigated land.

4.2 BIOLOGICAL RESOURCES

Construction of the Proposed Project could result in temporary or permanent impacts to vegetation and wildlife species and their habitats. All identified impacts to biological resources are potentially significant, but mitigation recommended in this SEIR would reduce most impacts to less than significant levels. Significant impacts could remain to special status plant and wildlife species; this impact cannot be further determined until tower and access road locations are defined and biological surveys are completed. The list of plant and animal species in the project area has changed substantially due to considerable changes to the legal status of many plant and animal species since the 1988 FEIS/EIR. While the FEIS/EIR determined that all biological impacts would be mitigable to less than significant levels, this SEIR identifies that a significant impact on special status plant and wildlife species may occur.

Impacts of the Proposed Project. Impacts include the direct removal of plants or of wildlife habitat, wildlife mortality caused by construction vehicles, and the risk of bird collision with towers and transmission lines. Construction occurring in sensitive habitats (wetlands or riparian areas) would be more likely to affect sensitive plants and wildlife. There are 37 sensitive plant species that could be

present in the project area, but only 9 have been observed in surveys. Eight species of special status wildlife were observed in the project area.

Mitigation Measures for the Proposed Project. Twelve mitigation measures are recommended to reduce impacts on biological resources, including the following:

- Pre-construction surveys for rare plants, wetland/riparian habitat, and wildlife
- Use of exclusion flagging or fencing to mark and protect sensitive vegetation communities
- Selectively placing towers to span sensitive habitats
- Maximizing the use of existing access roads
- Restoration of disturbed areas or off-site compensation for permanent vegetation losses
- Implementing a *Worker Environmental Awareness Program* for construction crews
- Scheduling project activities to avoid critical breeding seasons and establishing buffer zones around nests and burrows
- Installing bird flight diverters in areas with high bird use to reduce bird collision impacts.

After implementation of these measures, if residual impacts to special status plant and/or animal species remain, PG&E would be required to consult with appropriate resource agencies to determine specific additional actions that would offset remaining impacts to listed species.

Comparison of Alternatives. The Eastern Corridor Alternative would have far fewer impacts to species and their habitats because it passes primarily through agricultural lands, eliminating impacts to all but a few special status plant and wildlife species that grow, den, burrow, and forage in agricultural land. Consequently, from a biological standpoint, the Eastern Corridor Alternative is strongly preferred over the Western Corridor.

4.3 CULTURAL RESOURCES

Archaeological expeditions in the San Joaquin Valley have discovered archaeological, ethnographic, and historic artifacts as old as 12,000 years old that define distinct cultural traditions and provide a link to the development of human history.

Since publication of the 1988 FEIS/EIR, several additional cultural sites have been recorded along the Proposed and Alternative corridors. In addition, mitigation measures have been substantially strengthened to ensure that cultural resources would be protected during construction. With implementation of these expanded mitigation measures, this SEIR concludes that all impacts on cultural resources would be less than significant.

Impacts of the Proposed Project. The Proposed Project could affect National Register and/or California Register prehistoric, ethnographic/contemporary, and historic era eligible cultural resources. The most serious impact would be the destruction or disturbance of cultural resources during construction. Project construction could also affect recorded cultural resources in several parks, Wilderness Study Areas, and recreational areas. The Proposed Project would require access roads to remote areas previously inaccessible, resulting in an increased potential for vandalism or inadvertent

disturbance of unknown resources. All these impacts would be less than significant with implementation of recommended mitigation.

Mitigation Measures for the Proposed Project. Five mitigation measures are recommended to reduce cultural resource impacts to less than significant levels. Measures require PG&E to develop a Cultural Resources Management Plan covering all project activities, and defining actions to be taken if resources are discovered. Pre-construction field surveys and the identification and recording of any previously unrecorded cultural resources are required. Mitigation measures also require consultation with Native Americans and with land management agencies or parks to identify specific known resources that should be avoided.

Comparison of Alternatives. The Eastern Corridor Alternative would affect fewer cultural resources than the Western Corridor because it would pass through areas that have been disturbed, and are also located farther from the areas that were historically more occupied. In addition, because the Eastern Corridor Alternative has had more heavy agricultural uses, potential historic resources in that area would likely have already been destroyed or recovered.

4.4 GEOLOGY, SOILS, AND MINERALS

The Proposed Project and Alternatives are located along the boundary of the Diablo Range of the Coast Ranges and the Central Valley physiographic provinces, dividing the rough varied terrain of the hills and mountains from the nearly level plains of the valley floor.

The environmental setting of the Proposed Project area has not significantly changed since the publication of the FEIS/EIR with respect to the geology, soils, mineral and paleontologic resources of the region; however, the general understanding of the processes underlying the observed conditions have advanced and seismic standards have changed. The SEIR presents a revision of the seismic hazard analysis reflecting changes in the governing regulations and an improved understanding of the faulting in the Project area. Five revised mitigation measures are proposed, which, if implemented, would ensure that all impacts would be less than significant.

Environmental Impacts of the Proposed Project. Specific impacts associated with the Proposed Project and Alternatives include the potential for surface fault rupture and strong ground shaking. Certain soil characteristics can affect project facilities. Existing landslides and potentially unstable slopes are present throughout the foothills of the Diablo Range, and erosion and/or destabilization of slopes could occur as a result of construction activities, particularly access roads. The permanent conversion of agricultural soils to a non-agricultural use is considered a significant impact, but all other impacts are mitigable to less than significant levels.

Mitigation Measures for the Proposed Project. Five mitigation measures are proposed to minimize the effects of hazardous geologic conditions. These measures require site-specific geotechnical testing to define soil conditions and faults, avoidance of unstable slopes, and development of a Paleontologic Resources Monitoring Plan.

Comparison of Alternatives. The Eastern Corridor Alternative would have greater impacts than the Western Corridor for two reasons. It has greater potential for loss of agricultural soils and there is a potential hazard from hydrocompactive soils (which could cause differential settlement and tilting or twisting of transmission line support structures).

4.5 HYDROLOGY AND WATER RESOURCES

The Proposed Project is located along the transitional zone between the eastern edge of the Diablo Range and the western edge of the San Joaquin Valley, and crosses or approaches several stream courses, water supply reservoirs, canals, irrigation ditches, and several oil and water wells. Impacts to surface water hydrology and water quality, groundwater hydrology and water quality, and the geomorphology of stream courses were considered.

This SEIR includes a more thorough reporting of hydrologic conditions (including flooding, groundwater, water quality, and wetland issues) that were not addressed in the FEIS/EIR. These issues are addressed in detail, and eight detailed mitigation measures are recommended.

Impacts of the Proposed Project. Construction of the Proposed Project could result in the following hydrologic impacts, each of which would be less than significant with mitigation:

- Alteration of existing drainage patterns could cause increased runoff and erosion
- Accidental discharge of construction-related contaminants (including fuels) could contaminate surface drainages or groundwater
- Excavation for tower foundations and substations could impair groundwater quality.

Mitigation Measures for the Proposed Project. Eight mitigation measures are proposed to reduce potential significant hydrologic impacts to less than significant levels. Erosion, sediment loading, contamination, and other surface water quality impacts would be controlled through development of a comprehensive Erosion Control Plan, a Storm Water Pollution Prevention Plan, Hazardous Substance Control and Emergency Response Plan, and an environmental training program. Impacts to groundwater hydrology and quality would be reduced by reviewing contamination data prior to selecting the final transmission line alignment. Contaminated soil or groundwater that is encountered during construction would be disposed of and treated if necessary. Transmission towers would not be sited in 100-year floodplain locations.

Comparison of Alternatives. The Eastern Corridor Alternative is preferred over the Western Corridor in the area of Hydrology and Water Quality for several reasons. Construction along the flatter Eastern Corridor Alternative will involve less potential erosion, runoff, and sediment transport impacts. The Eastern Corridor Alternative also requires fewer creek, reservoir, and other important wetland crossings (i.e., Salt and Ortigalita Creek wetlands). The Eastern Corridor Alternative does not pass through the oil fields in the Coalinga area and therefore has a smaller chance of encountering contaminated soil or water in that area. The Eastern Corridor Alternative does pass through areas with potentially shallower groundwater depths than the Western Corridor, but this issue is considered less significant than the other impacts addressed above for the Western Corridor.

4.6 LAND USE AND RECREATION

The Proposed Project and Alternatives cross mainly private land under Merced and Fresno County jurisdictions and the jurisdiction of several public agencies including: the U.S. Bureau of Land Management (BLM); U.S. Bureau of Reclamation (BOR); California Department of Water Resources (CDWR); California Department of Parks and Recreation (CDPR); and California Department of Fish and Game (CDFG). Transmission line siting can create a variety of potential land use conflicts, but most of these (i.e., with residential properties, agricultural operation areas, canals, oil field areas, dams, recreation areas, and pipelines) can be avoided during final alignment of the transmission line. The primary land use concern is interference with agricultural operations because these operations cannot be avoided along several portions of the Proposed and Alternative Corridors.

The land use impact assessment methodology and impact conclusions remain consistent with the 1988 FEIS/EIR. However, due to the increase in agricultural production along the Proposed Project route, the impacts on agriculture along this route are more prevalent than they were in 1988. Along the Proposed Project route, more land is now devoted to intensive agriculture, and agricultural production has also increased along the Eastern Corridor Alternative.

Impacts of the Proposed Project. Impacts related to agriculture include interference with irrigation practices or agricultural operations and loss of productive agricultural land. These potentially significant impacts can be reduced to levels that are less than significant with implementation of mitigation measures. One exception is the southern section of the proposed route, where impacts related to interference with agricultural operations (specifically aerial spraying) are identified as significant and unmitigable.

Mitigation Measures for the Proposed Project. A combination of 10 mitigation measures would reduce the impacts of a variety of construction activities to less than significant levels. Nine other measures are recommended to reduce potential conflicts with specific land uses. These conflicts could be minimized by coordination with landowners, resulting in final design of the tower locations to minimize impacts on specific agricultural practices.

Comparison of Alternatives. Along Proposed Western Corridor, fewer land uses would be permanently affected than along the Eastern Corridor Alternative where the right-of-way is used for intensive farming, including row crops and permanent crops. Due to the predominance of intensive farming, particularly in permanent crops, these agricultural impacts are considered significant and unavoidable for the Eastern Corridor Alternative.

4.7 SOCIOECONOMICS, PUBLIC SERVICES, AND UTILITIES

Socioeconomics and public services are analyzed for Merced, Fresno, and Kings Counties in the San Joaquin Valley. The project area is predominantly characterized by farmland and grazing land. The unemployment rate is relatively high throughout the project area, and all three counties are estimated to grow in population by nearly 50 percent over the next 20 years. All public services are adequately provided in the project area.

The region surrounding the Proposed Project has experienced dramatic population growth since the publication of the FEIS/EIR. This SEIR presents updated data from the 1990 and 2000 Censuses. However, no difference in overall impact results since the Project and Alternatives would be located in sparsely populated areas of Merced and Fresno Counties.

Impacts of the Proposed Project and Alternatives. Impacts to socioeconomics and public services would be similar for the Proposed Project and Alternatives. A minor beneficial impact would result from the project-generated local purchase of consumable materials, and motels and restaurants could benefit from temporary increases in demand. Construction of the transmission line could result in minor disruption of grazing and crop activity and oil production activities, but this disruption could be reduced to a less than significant level if PG&E coordinates with landowners in tower and line placement. Many parts of the Proposed Project and Alternatives would be difficult to access by public fire personnel and would make it necessary for the construction crews to have on-site equipment and procedures in place to minimize the risk of fire and to quickly eliminate any small fires that might be started.

Mitigation Measures for the Proposed Project and Alternatives. One mitigation measure would require PG&E to submit a Fire Prevention and Suppression Plan to the CPUC for approval prior to construction.

Comparison of Alternatives. The overall level of impact on Western and Eastern Corridors is similar. While the Western Corridor avoids most agricultural land, it would have a greater likelihood of fire, which would place demands on public fire response services.

4.8 PUBLIC SAFETY, HEALTH, AND NUISANCE

For both the Proposed Project and Alternatives, safety, health and nuisance issues associated with transmission line construction and operation include exposure to electric and magnetic fields (EMF); the potential for radio, television, or electrical equipment interference; noise from construction and operation; and safety hazards created by transmission towers to airplanes in agricultural areas.

The SEIR evaluates the same issues considered in the 1988 FEIS/EIR, and the conclusions are similar. No significant impacts are identified for EMF, interference, or noise. However, this SEIR identifies significant and unmitigable impacts associated with the safety hazard of transmission lines to aerial applicators.

Impacts of the Proposed Project and Alternatives. EMF exists in the environment both naturally and as a result of human activities that use electricity. Additional EMF will be generated as a result of the Proposed Project. The CPUC has not adopted any specific limits on EMF, but has issued a decision to create a research program (described below), and requires the use of “low-cost” or “no-cost” mitigation measures for transmission lines and substations such as those included by PG&E in the Proposed Project. Power lines can also generate high frequency energy and EMF that can interfere with broadcast signals or electronic equipment. These interference problems tend to be associated with loose or worn hardware, so the sources of interference can usually be located and corrected.

Transmission lines in agricultural areas present a safety hazard for aerial applicators (“crop dusters”) because they present additional obstacles that pilots must avoid. Mitigation is recommended to reduce the level of impact of new transmission lines and towers. However, in some locations, due to the orientation of lines crossing the fields, the safety hazard would remain significant and unmitigable.

Mitigation Measures for the Proposed Project and Alternatives. Two mitigation measures would reduce impacts on radio and television interference to a less than significant level. The measures require PG&E to limit the conductor surface electric gradient in accordance with the IEEE Radio Noise Design Guide during the design and construction process. An additional mitigation measure addresses the potential for induced currents and shock hazards in joint use corridors, requiring PG&E to identify objects that have the potential for induced voltages and to work with the affected parties to determine proper grounding procedures. To help reduce the impact to aerial applicators, mitigation requires that PG&E provide written notification to all aerial applicators of when the new transmission lines and towers will be erected, along with recent aerial photos or topographic maps clearly showing the new lines and towers.

Comparison of Alternatives. The Proposed and Alternative Corridors are similar with respect to EMF health effects, noise, induced currents, or radio/television interference. Safety impacts to aerial applicators would be substantially more severe along the Eastern Corridor Alternative than the Western Corridor.

4.9 TRANSPORTATION AND TRAFFIC

A transmission line project can affect roadways during construction by causing increased or congested traffic, or by damaging road surfaces. The 1988 FEIS/EIR did not include analysis of these issues.

Impacts of the Proposed Project. Impacts involve increased traffic levels associated with material and supply haul trips and commuting workers, stringing transmission line conductors over Caltrans and county roads resulting in potential lane closure and disruption to bus transit services, and construction vehicles potentially damaging road surfaces.

Mitigation Measures for the Proposed Project. Four mitigation measures are proposed. One would require installation of temporary poles and netting across I-5 and other State Routes when conductors need to cross these roadways. Additional measures requires consultation with Coalinga Transit personnel and development of traffic control plans for locations where the lines would cross Caltrans or county roads. The last mitigation measure requires that roads disturbed by construction vehicles be properly restored to ensure long-term protection of road surfaces.

Comparison of Alternatives. The Proposed Western Corridor would have slightly less severe impacts than the Eastern Corridor Alternative because the Eastern Corridor Alternative crosses more heavily traveled roads.

4.10 VISUAL RESOURCES

The project area landscapes are comprised primarily of low, rolling grass-covered hills and level grazing land and agricultural fields. Since this type of terrain typically offers few screening opportunities, tall structures such as transmission line towers tend to be very visible if located in close to moderate proximity to roads or other points of public visual access, such as parks and recreation areas. The industrial character of transmission line structures also creates visual contrast with the more natural character of the rural agricultural setting. The primary issue of concern for the Proposed Project and Alternatives is the project's potential to degrade views from local and regionally important roadways (Interstate 5 [I-5]; State Routes 33, 152, and 198; Eldorado Road; and Jayne Avenue) and recreation areas (Los Banos Creek State Recreation Area and Little Panoche Reservoir).

The Project area has not undergone substantial development since the FEIS/EIR was published. However, a considerable amount of open grazing land has been converted to irrigated agriculture, particularly along the southern half of the proposed Western Corridor, and these changes are noticeable in the landscape. The SEIR uses an updated visual resource analytical methodology, but the conclusions reached (all impacts would be less than significant) are the same as those of the FEIS/EIR.

Impacts of the Proposed Project. Most segments of the Proposed Project would experience no significant visual impacts because they are either sufficiently distant from the primary points of public visual access or within the viewshed of the two existing 500 kV transmission lines. The Western Corridor would be visible to the west of Los Banos Creek Recreation Area, but it would be sufficiently distant from the primary use areas that a significant visual impact would not occur. The corridor would pass immediately adjacent to Little Panoche Reservoir and is prominent in views from both the reservoir and Little Panoche Road. Although the resulting visual impact is adverse, it is less than significant due to the presence of the existing two 500 kV transmission lines in the viewshed. Proposed Segments 6 and 7 would be located in close proximity to local roads and I-5 (where it would be crossed by the line). In this area, the resulting visual impact would be adverse but still less than significant.

Mitigation Measures for the Proposed Project. The Proposed Project does not create any potentially significant visual impacts, so no mitigation measures are required. Two measures are suggested, however, based on measures recommended in the 1988 FEIS/EIR. One would ensure that the visual impacts of construction activities remain less than significant and the second would require tower siting to minimize use of hilltops and to use non-reflective materials in construction.

Comparison of Alternatives. The Western Corridor is generally preferred over the Eastern Corridor Alternative due to its more remote location and/or typically greater distance from I-5, which provides the primary visual access in the project study area.

4.11 NO PROJECT ALTERNATIVE

CEQA requires an evaluation of the No Project Alternative that must include (a) the assumption that conditions at the time of the Notice of Preparation (i.e., baseline environmental conditions) would not be changed since the Proposed Project would not be installed, and (b) the events or actions that would

be reasonably expected to occur in the foreseeable future if the project were not approved. These two scenarios are addressed below.

The No Project Alternative could have two components: new generation north of Path 15 and different transmission upgrades. The environmental impacts of large thermal (natural gas fired) power plants can be significant, especially with respect to air quality, water resources, biological resources, and visual resources. The environmental impacts of a transmission line, because the operational impacts are insignificant, would be substantially less than those associated with power generation. However, because power plants are constructed by merchant power generators or local utilities, their construction will likely proceed regardless of whether Path 15 is built.

The No Project Alternative also includes the possibility of a smaller transmission system upgrade that could provide an additional 400 to 500 MW of capacity between the Los Banos and Gates Substations. This transmission upgrade would have impacts that are much less extensive and severe than those of the Proposed Project.

4.12 GROWTH INDUCING EFFECTS

CEQA requires a discussion of the ways in which a project could be an inducement to growth. Potential growth-inducing impacts of the proposed Los Banos-Gates 500 kV Transmission Project could be manifested in two fundamental ways:

- Growth resulting from the direct and indirect employment needed to construct and operate the Proposed Project.
- Growth resulting from the additional power that would be transmitted by the Proposed Project.

Growth resulting from the direct and indirect employment needed to construct and operate the Proposed Project or Alternatives is unlikely. Construction crews for the project are expected to come from within PG&E, with an emphasis on use of workers from the local San Joaquin Valley Area. It is likely that 50 percent of the workers may come from outside the local area, but these workers would not be expected to permanently relocate with their families. Given the relatively high unemployment rates in the project area and the large local labor force in the construction industry, the project itself would not significantly affect the employment patterns of the area. Over the long term, operation of the Proposed Project or Alternatives would require very few employees.

Growth resulting from the additional power transmitted by the Proposed Project or Alternatives is also unlikely. For California, Path 15 has been operated as a means of importing energy from Northern to Southern California during the winter and exporting energy from Southern to Northern California during the summer. The driving force behind the need to expand the electrical service capacity along Path 15 is to bring reliability in energy service for both Northern and Southern California, and to drive down the costs of wholesale electricity for all California residents. Neither the Proposed Project nor Alternatives would result in the generation of more electricity, just the ability to more effectively transfer existing electricity between Northern and Southern California. Although all three counties in

the project area anticipate a doubling of the population over the next twenty years, this growth is anticipated to occur regardless of construction of an approved project.

4.13 CUMULATIVE IMPACT ANALYSIS

CEQA Guidelines Sections 15120/15355 require a discussion of cumulative environmental impacts that may result from multiple projects that are reasonably foreseeable and that would be constructed or operated during the life of the Proposed Project. The CEQA discussion of cumulative impacts is not related to any evaluation of project need based on consideration of multiple projects. The issue of project need will be addressed in the CPUC proceeding to determine whether to grant PG&E's CPCN request in A.01-04-012.

This SEIR identifies 12 cumulative projects that would have at least some portion of their area within proximity to the Proposed Project Corridor and facilities or Alternative Corridors and facilities. Most of the future developments identified are either outside of the proposed corridor or are not scheduled for construction at the same time as the Proposed Project. Therefore, for most issue areas these future developments would not result in cumulative impacts. Potential cumulative impacts identified in the SEIR are addressed below.

- Construction of the cumulative projects could further exacerbate the significant NO_x emission impacts and the potentially significant PM₁₀ emission impacts (PM₁₀ emissions would be controlled by requirements of the San Joaquin Valley Unified APCD) estimated for the construction of the Proposed Project or Alternatives. Therefore, the project's incremental effect would be cumulatively considerable.
- The increasing conversion of open space to agricultural land, urban uses, petroleum extraction, strip mining, canals, pipelines and evaporation and percolation basins in the western San Joaquin Valley contribute to an overall loss of Valley floor and upland habitat for plants and animals. Therefore, the impacts on special status plant species from implementation of the Proposed Project are considered to be cumulatively considerable. In addition, because the impacts of the Proposed Project itself are considered to be potentially significant, potential cumulative impacts to special status wildlife species and their habitat throughout the region is also considered to be cumulatively considerable.

5. PUBLIC PARTICIPATION AND AREAS OF CONTROVERSY

5.1 PUBLIC PARTICIPATION

Three actions have been taken to ensure public involvement in and awareness of the CEQA analysis of the Los Banos-Gates Project:

- (1) **Publication of a Notice of Preparation (NOP) of a Supplemental EIR and Notice of Public Scoping Meetings** soliciting comments from affected public agencies and from the public. On July 9, 2001, 200 copies of the NOP were mailed to agencies and members of the public.
- (2) **Public Scoping Meetings.** Two meetings were held on July 24, 2001, one at Los Banos City Hall, Council Chambers (1:30 p.m.) and one at Harris Ranch Conference Center (7:00 p.m.).
- (3) **Information Sources.** Establishment of an Internet web site, electronic mail address, a telephone hotline, and local Information Repositories.

5.2 PUBLIC NOTICE OF DRAFT SUPPLEMENTAL EIR RELEASE

A Notice of Release of the Draft Supplemental EIR will be sent to property owners and occupants on or adjacent to PG&E's Proposed Project and the alternative routes in October 2001, including information on how to review or obtain copies of the Draft Supplemental EIR.

5.3 PUBLIC REVIEW PERIOD

In compliance with CEQA Guidelines, the CPUC provides a public review period of 45 days for the Draft SEIR. This public review period commences upon release of the Draft SEIR, on October 5, 2001, and goes through November 19, 2001. Written comments on the Draft SEIR may be submitted at the informational meetings and Public Participation Hearings, discussed below, or via facsimile transmission on the SEIR Hotline (559-272-2107), e-mail at the SEIR e-mail address (Path15@AspenEG.com), or postal mail at:

Billie Blanchard
California Public Utilities Commission
c/o Aspen Environmental Group
235 Montgomery Street, Suite 800
San Francisco, CA 94104

Written comments must be received by **November 19, 2001**. Please remember to include your name and return address in whatever form you make your written comments.

EIR Information and Repository Sites

Five repository sites have been established in the Proposed Project area to provide information about the project to people in the area, and SEIR-related documents are also available at the CPUC in San Francisco. Copies of the SEIR will be mailed to agencies and parties to the CPUC's General Proceeding, and a limited number of copies will be available for distribution upon request to the

CPUC's Project Manager (contact information on previous page). SEIR-related documents and project information, including the Draft SEIR, will be available upon their release to the public at the locations listed below.

Coalinga District Library
305 North Fourth Street
Coalinga, CA
(559) 935-1676

Huron Public Library
26050 "O" Street
Huron, CA
(559) 945-2284

Hanford Public Library
401 N. Douty Street
Hanford, CA
(559) 582-0261

Los Banos Public Library
1312 Seventh Street
Los Banos, CA
(209) 826-5254

Fresno Free Library
2420 Mariposa Street
Fresno, CA
(559) 488-3195

CPUC Central Files
505 Van Ness Avenue
San Francisco, CA
(415) 703-2045

A telephone hotline for project information has been established at **(559) 272-2107**. This number receives voice messages and faxes.

SEIR information is also available on the Internet, including Proposed Project information and the Draft SEIR. The address below links to CPUC's Los Banos-Gates 500 kV Transmission Project web page (A.01-04-012):

<http://www.cpuc.ca.gov/Environment/info/aspen/path15/path15.html>

5.4 AREAS OF CONTROVERSY

This Draft SEIR reflects comments made by agencies and the public from the time the CPUC published its Notice of Preparation (July 10, 2001) through September 1, 2001, as well as continuing consultation with local jurisdictions and other agencies throughout preparation of this Draft SEIR. Comments and concerns received were related to the following issues:

- Effects on agricultural lands and oil fields
- Biological impacts of the Western Corridor
- Visual degradation of the landscape
- Negative effect on property values and potential loss of use of land between adjacent parallel corridors.

Agricultural, biological, and visual impacts are summarized in Section 4.6, 4.2, and 4.10 of this Executive Summary, and addressed in more detail in the SEIR Sections C.7, C.3, and C.11, respectively. Consistent with CEQA, the SEIR does not analyze the potential economic impacts of the Proposed Project and Alternatives. CEQA is not intended or designed to protect against a possible decline in the commercial value of property adjacent to a project (*Hecton v. People of the State of California, 1976, 58 Cal.App. 3d 653, 656*). Therefore, any possible reduction of property value does not constitute a CEQA impact (and would not be expected indirectly to create environmental impacts), and is not analyzed for purposes of determining an environmentally superior alternative.

6. IMPACT SUMMARY TABLE

The Impact Summary Table that follows is a complete, condensed presentation of the significant environmental impacts and mitigation measures for the proposed Los Banos-Gates 500 kV Transmission Project. Full descriptions of the Proposed Project and each of the alternatives can be found in Part B of the SEIR. The complete environmental analyses, along with the recommended mitigation measures for the Proposed Project and for each of the alternatives, are set out fully in Part C of the SEIR. Each impact identified in the SEIR is listed, followed by the impact determination, relevant mitigation measure(s), and statement of whether there is a residual impact.