D. OTHER CEQA CONSIDERATIONS

This section presents three analyses that are required under CEQA. Sections D.1 and D.2 present the scenario for evaluation of cumulative impacts and the cumulative impact analysis, respectively. Section D.3 describes the potential growth inducing effects of the Proposed Project, and Section D.4 describes the significant irreversible changes caused by the project.

D.1 SCENARIO FOR EVALUATION OF CUMULATIVE IMPACTS

Section 15130 of the *CEQA Guidelines* requires a discussion of cumulative environmental impacts. Cumulative impacts are defined as those impacts that are created as a result of the combination of the project evaluated in an EIR, together with other projects causing related impacts. The *CEQA Guidelines* require that the discussion reflect the severity of the impacts and the likelihood of the occurrence of cumulative impacts, but this discussion need not provide as much detail as the discussion of the impacts attributable to the Proposed Project alone.

CEQA mandates two ways in which cumulative impacts may be evaluated. One of these mandated approaches is to summarize growth projections in an adopted general plan or in a prior certified environmental document. The second method involves compilation of a list of past, present, and probable future projects producing related or cumulative impacts [Guidelines, Section 15130 (b)1(A)]. This second method has been utilized for the purposes of this Draft SEIR.

The cumulative scenario consists of projects that are reasonably foreseeable and that would be constructed or operated during the life of the project. This list was developed, after issuance of the NOP in July 2001, by consulting with local and regional agencies with jurisdiction in the area, and requesting that they provide information on projects that are being considered for approval under their jurisdiction. Cumulative projects includes a range of project types from small single-family housing developments and road improvements to large commercial developments, rail and highway projects. Proposed, pending, and probable projects are presented that would have at least some portion of their area within close proximity to the Proposed Project Corridor and facilities or Alternative Corridors and facilities. Table D-1 lists the various projects comprising the cumulative scenario. The cumulative projects considered for this study are presented by jurisdiction, and their approximate geographic locations are described. Figure D-1 is a map showing the location of each of the projects listed in Table D-1.

Table D-1 Cumulative Projects

Site No.	Project	Project Type	Project Location	Project Size	Proximity	Permitting Status/Schedule
CITY OF LOS BANOS						
No Projects.						
CITY OF COALINGA						
1	Mental Health Facility	Institutional	South of West Jayne Avenue about 10 miles outside of Coalinga. Adjacent to Pleasant Valley Prison.	200 acres.	Southwest of Proposed Project and Western Corridor Alternative Segments.	Construction to begin November 2002 and completion by September 2004.

Site No.	Project	Project Type	Project Location	Project Size	Proximity	Permitting Status/Schedule
CITY OF HURON						
2	Cieleto Lindo	Residential	5th Street and M Street.	14-lot subdivision.	Approximately one and one-half miles east of the Eastern Corridor Alternative.	Currently grading site and planning site but there is no set construction date.
3	Jimmie Estates	Residential	7th and 8th Street and M Street.	28-lot subdivision.	Approximately one and one-half miles east of the Eastern Corridor Alternative.	2 Phase project, currently in first phase with 9 of the 24 homes constructed.
COUNTY OF MERCED						
4	Villages of Laguna San Luis	Community Development: Residential, Commercial, Institutional, Industrial/Office, Park/Open Space	South of Highway 152 and west of I-5, adjacent to existing PG&E Co.'s Los Banos Substation.	4,668 acres to be developed.	Adjacent to Proposed Project and Eastern Corridor Alternative.	A General Plan Amendment project that has been in environmental review for years. A revised Draft EIR is being prepared. It is a "new town" proposal that would be phased but there is no construction schedule yet.
5	Fox Hills	Single family residential/golf course community	South end of Volta Road on both sides of I-5.	391 acres with 402 residential lots.		There is an approved subdivision map but no construction schedule yet.
6	Highway Interchange Center (HIC)	A zoning and General Plan designation required by the State at certain road crossings of I-5 at the time the interstate was completed. The intent is to accommodate typical tourist or traveling-public and commercial traffic needs, such as gas stations, restaurants, etc.	Intersection of I-5 and Highway 152.	Unknown	East of Los Banos Substation.	Has not been built out as anticipated and no construction schedule or plans are known.
7	HIC		Intersection of I-5 and Highway 165.	Unknown	Approximately 2 to 3 miles east of Eastern Corridor Alternative.	Has not been built out as anticipated and no construction schedule or plans are known.
COUNTY OF MERCED						
8	HIC	A zoning and General Plan designation required by the State at certain road crossings of I-5 at the time the interstate was completed. The intent is to accommodate typical tourist or traveling-public and commercial traffic needs, such as gas stations, restaurants, etc.	I-5 at the Merced/Fresno County line.	Unknown	Just east of the Eastern Corridor Alternative right after it crosses I-5.	Has not been built out as anticipated and no construction schedule ir plans are known.
COUNTY OF FRESNO						
No response to requests for relevant projects was received from the County of Fresno.						
CALTRANS DISTRICT 6						
9	Maintenance Program	Replace Joint Seals	Areas along I-5 in Fresno County.	N/A	East of Proposed Project.	Ongoing.
10	Little Panoche Rehab	Road Rehabilitation	On I- 5 from Panoche Road to Fresno/Merced county line.	N/A	East of Proposed Project and west of Eastern Corridor Alternative.	Looking for funding, construction would not begin until spring of 2006.

Site No.	Project	Project Type	Project Location	Project Size	Proximity	Permitting Status/Schedule
11	Huron II Overlay	AC overlay and widening; Improving intersections on State Route (SR) 269	In Fresno County, near Huron, on SR 269 from Kings County line to SR 198.	N/A	Approximately one and one-half miles east of Eastern Corridor Alternative.	Scheduled to start construction in the summer of 2003.
12	Route 180 Extension	Construct new 4-lane freeway	In Fresno County, from San Mateo Avenue near the community of Mendota heading west to I-5.	21 to 23 miles	4 Routes are currently under consideration.	Preferred route will be chosen by 2003. Construction would not follow for another few years following that decision.

Other Energy Projects. No other transmission projects are planned in the project area. While there have been discussions between power plant developers, landowners, and local officials about possible power plant siting near the Los Banos and Gates Substations, no applications for new power plants have yet been submitted to the CEC. It is possible that completion of the Los Banos-Gates Transmission Project would encourage development of additional power plants, especially south of the Gates Substation. However, this is speculative at this time.

D.2 CUMULATIVE IMPACT ANALYSIS

Cumulative impacts are those that result from the incremental impacts of an action added to other past, present and reasonably foreseeable future actions, regardless of who the responsible party is for the projects. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Cumulative impacts of the Proposed Project or Alternatives in addition to any of the projects listed in Table D-1 are analyzed for each issue area in the following sections. The last section below, Section D.2.11, presents a summary of cumulative impacts for the Los Banos-Gates Transmission Project.

D.2.1 Air Quality

Future and proposed single-site and linear projects in close proximity to construction of the Proposed Project could have cumulative air quality impacts on the study area. The majority of the cumulative projects are residential (e.g., Cieleto Lindo, Jimmie Estates, and Fox Hills) and transportation infrastructure (Little Panoche Road Rehabilitation, Huron II Overlay, and SR-180 Extension) projects.

The pollutants generated from these projects would have an impact on ambient air quality if they were constructed in close proximity and at the same time as the Proposed Project.

Construction of the cumulative projects could further exacerbate the significant NO_x emission impacts and the potentially significant PM_{10} emission impacts (PM_{10} 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

Cumulative impacts during the operation of the Proposed Project or Alternatives are not expected because operational emissions generated by the Proposed Project would be very small. The cumulative operational impacts to air quality would be less than significant.

D.2.2 Biological Resources

Proposed Project

Vegetation. Cumulative projects most likely to contribute additional impacts on vegetation resources include the Coalinga Mental Health Facility, the proposed community of Laguna San Luis, the Fox Hills residential community, and the Caltrans State Route 180 Extension. Collectively, these projects are projected to disturb approximately 5,500 acres of vegetation communities, with the largest single contributor to cumulative impacts being the proposed community of Laguna San Luis at 4,668 acres. The remaining cumulative projects presented in Table D-1 are not likely to contribute significantly to cumulative biological impacts with the Proposed Project.

A total of 241 acres of vegetation would be temporarily impacted and 153 acres would be permanently impacted by the Proposed Project. These disturbances represent 4.4 and 2.8 percent of the 5,500-acre cumulative total, respectively. While the contribution of the Proposed Project's effects represents a small percentage of the total of all of these projects, these effects along with 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. Because specific tower, access road and equipment staging area locations have not yet been identified by PG&E, focused biological surveys have yet to be conducted to identify the specific loss of special status plant communities that would result from this project, and determine whether these effects can be fully mitigated. Therefore, as for the effects of the Proposed Project, the impacts on special status plant species from implementation of the Proposed Project are considered to be cumulatively considerable.

Wildlife. The cumulative projects considered above for vegetation impacts are reasonably foreseeable, but as yet the disturbance to specific wildlife habitat types has not been identified for most of these projects. As with vegetation, the proposed community of Laguna San Luis is the largest single contributor to potential cumulative wildlife impacts. Construction-related impacts to local wildlife and special status species from cumulative projects would include direct removal of habitat, increased noise and disturbance from heavy equipment use or blasting, increased human presence, direct mortality, and indirect impacts such as displacement of individuals of some wildlife species. In addition, road clearing and surface disturbance associated with the proposed cumulative projects would also create the effect of habitat fragmentation. Bird collisions would only apply to the Los Banos-Gates Project, and would not be an additive impact. Minor cumulative impacts to sensitive wildlife species could result from the Proposed Project and other projects proposed in the region over the life-of-development activities. Therefore, 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 cumulatively considerable.

Figure D-1

Cumulative Projects

Page 1 of 2

[See link on webpage]

Figure D-1

Cumulative Projects

Page 2 of 2

[See link on webpage]

Western Corridor Alternative Segments

There fewer cumulative projects in the vicinity of these segments, because of their remove locations. But the cumulative impacts on vegetation communities and wildlife habitats, and on sensitive plant and animal species would still be cumulatively considerable due to the Project's contribution to overall loss of habitat, as discussed above.

Eastern Corridor Alternative

Cumulative impacts on biological resources would generally be lower for the Eastern Corridor Alternative as compared to the Proposed Western Corridor because this corridor is already heavily disturbed and in agricultural use. There are more proposed cumulative projects in the vicinity of the Eastern Corridor Alternative, so there could be cumulative effects on biological resources. However, due to the high percentage of agricultural land crossed by the project's Eastern Corridor Alternative, the cumulative effect of this project would be there are few remaining natural plant communities and wildlife habitats in that area so cumulative impacts on biological resources would be unlikely.

D.2.3 Cultural Resources

The areas affected by the Proposed Project are generally linear corridors in relation to the general San Joaquin Valley. However, cultural resources exposed during the project area as a result of construction could provide significant information important to interpreting the regional prehistory and/or history.

Future and proposed projects in close proximity to construction of the Proposed Project could have cumulative impact to cultural resources in the study area. Together with the impacts of the Proposed Project, a significant cumulative effect on cultural resources could result. However, the incremental effect of the Proposed Project itself would be mitigated to less than significant levels, resulting in an overall contribution of the project of a less than considerable cumulative impact.

D.2.4 Geology, Soils, and Minerals

Geologic impacts are generally the impact of the geologic environment on the project, and not the effects of the project on the geologic environment. The development of the Villages of Laguna San Luis and the Highway Interchange Center (HIC) adjacent to the existing Los Banos Substation will have the potential for raising the level of groundwater due to irrigation of landscaped areas around proposed residential and commercial buildings, which increases the potential for liquefaction. This potential for increased groundwater level is qualitative; however, analysis for the presence of liquefiable deposits should be included in the design-level geotechnical investigations in the vicinity of the substation. Where found, the presence of liquefiable materials should be considered in the foundation design of affected structures due to the potential for increased groundwater levels with construction of these two projects. This is a potentially significant cumulative impact that can be reduced to a less than significant level with implementation of Mitigation Measure **G-3**.

D.2.5 Hydrology and Water Resources

Cumulative hydrologic impacts potentially arising from the Proposed Project, in combination with the other regional projects listed in Table D-1, would primarily result from construction activities. Construction of residential and industrial developments (Projects 1 to 5) may result in locally increased runoff due to the increase in impervious surfaces, as well as the potential sediment loading and contaminant spills to local drainages. Projects 1, 2, and 3 are located in the southern project areas of Coalinga and Huron, while Projects 4 and 5 are located in the northern project area around Los Banos.

The potential for significant hydrologic impacts due to these other projects shown in Table D-1 is greatest for Project 4, which is a large community development plan of 4,668 acres adjacent to the Los Banos Substation. As a large project, Project 4 currently has its own environmental review process and a Draft EIR document has recently been prepared. Increased runoff from proposed modifications to the Los Banos Substation is not considered significant and will not contribute to cumulative impacts with Project 4 because substation modifications are minor and would occur within the existing substation footprint. Water quality impacts related to Los Banos Substation modifications are reduced to less than significant levels through the application of Mitigation Measures **H-1**, **H-3**, **H-4**, and **H-8**, and cumulative water quality impacts created by the substation are considered to be less than cumulatively considerable. Other impacts described above related to the transmission line corridor or modifications at the Gates Substation are also considered to be less than significant in generating cumulative impacts because the surface area involved is very small relative to the size of the other projects.

D.2.6 Land Use and Recreation

There is a very low potential for significant short-term cumulative construction disturbances to land uses and recreation activities, or long-term cumulative land use conflicts and long-term aggregate agricultural land conversion. Most of the future developments listed in the cumulative projects list are either outside of the study corridor (so would not contribute to short- or long-term land use conflicts in the project area) or are not scheduled for construction at the same time as the proposed project. Also, most of the projects would not involve conversion of intensive agricultural production land and therefore would not contribute to project-related agricultural land losses. (See geology analysis for cumulative effects on soils.) Therefore, from a land use perspective, most of these future developments would not result in cumulative impacts on land use or recreation.

The HIC development on I-5 at the Merced/Fresno County line would be in close proximity to the Eastern Corridor Alternative and may contribute to short-term construction disturbances, in the unlikely event that it and the transmission project are constructed simultaneously. With the exception of the Route 180 extension, road improvements proposed by Caltrans would be outside the study corridor and would not contribute to short- or long-term disturbances to land uses within the project study area. Even though the Route 180 extension would have the potential to contribute to short-term construction disturbances and blocked access, it is unlikely that construction would occur at the same time as the proposed project. If the Huron II Overlay project is conducted simultaneously with the transmission line project, there is the potential for cumulative construction effects on access to surrounding

properties. The disturbances would be temporary and alternative access could be provided, making the impact less than cumulatively considerable.

Cumulative projects in the City of Coalinga and City of Huron, as well as several Highway Interchange Center (HIC) developments in Merced County and the Fox Hills residential development are located beyond the study corridor and would not contribute to project-related short- or long-term land use or agricultural conflicts. Furthermore, these projects would not contribute to the conversion of intensive agricultural production lands in the project study area.

Impacts of the proposed project on the planned (but not approved) Villages of Laguna San Luis near the Los Banos Substation are addressed in Section C.7.3.5 under the impact category of project conflicts with existing or planned land uses.

D.2.7 Socioeconomics and Public Services

Labor force shortages are not anticipated during the construction or operation of the Proposed Project or Alternatives. Due to the high unemployment rate in the project area, if any of the cumulative projects were constructed simultaneously with the Proposed Project or Alternatives, there would be no cumulative impacts on the available labor force. While the potential development of Projects 4 and 5 could result in temporary shortages of school space or place strain upon public service agencies in Merced County, such as police or fire departments, the development and operation of the Proposed Project or Alternatives would not contribute to this problem. Therefore, no cumulative impacts are expected to result from the construction and operation of the Proposed Project or Alternatives.

D.2.8 Public Safety, Health, and Nuisance

There are no conclusively known cumulative impacts from transmission line and substation electric and magnetic fields (EMFs). No EMF mitigation measures are required or recommended beyond the no-cost, low-cost measures incorporated by PG&E Co. Operation of the proposed transmission lines increases the possibility for induced currents and shock hazards. These impacts are not cumulative and can be mitigated through proper grounding techniques on large metal objects in the vicinity of the lines. Operation of the proposed transmission lines increases the possibility for radio/television/equipment interference in the vicinity of the line. These impacts are not cumulative and can be mitigated by designing conductors and equipment to limit corona and gap discharges, correcting through maintenance any gap discharges from worn hardware, and by using software or installing magnetic field shielding on sensitive equipment. Because the other projects considered (Table D-1) would not have these health and safety effects, no cumulative effects would result.

Safety hazards for aerial applicators are specific to agricultural areas along the corridor. Since none of the cumulative projects occur within agricultural areas, there would be no additional safety hazards to aerial applicators. Therefore, no cumulative safety or health impacts are anticipated from construction or operation of the Proposed Project or Alternatives.

D.2.9 Transportation and Traffic

As presented in Table D-1, a number of projects both proposed and underway have been identified within the study area. The cumulative projects consist of proposed residential and planned infrastructure improvements such as road widening and rehabilitation. Some of these projects could potentially exacerbate the construction impacts of the Proposed Project and Alternatives depending on location, intensity, and scheduling. However, coordination between projects and appropriate agencies and implementation of Mitigation Measures **T-1 through T-3** for the Proposed Project would reduce potential impacts to a less than significant level.

D.2.10 Visual Resources

Cumulative impacts to visual resources would occur where project facilities occupy the same field of view as other built facilities or impacted landscapes. It is also possible that a cumulative impact could occur if a viewer's perception is that the general visual quality of an area is diminished by the proliferation of visible structures (or construction effects such as disturbed vegetation), even if the new structures are not within the same field of view as existing structures. The significance of the cumulative impact would depend on the degree to which (1) the viewshed is altered; (2) visual access to scenic resources is impaired; (3) scenic character is diminished; or (4) the project's visual contrast is increased. In the following subsections, projects from the Cumulative Projects List (Table D-1) are discussed in terms of their visibility within the same viewshed as the Proposed Project and/or Alternatives.

Proposed Project

County of Merced. Project 4 – Villages of Laguna San Luis residential development would be located south of Los Banos Substation in an area that would not be visible from either SR-52 or I-5, the two primary sources of public visual access to the project area. Due to the lack of visibility of the Project 4 area from these two travel corridors, Project 4 would not result in a cumulative visual impact with either the Proposed Project or Alternatives.

Project 6 – Highway Interchange Center would be located at the intersection of I-5 and SR-152. Due to Project 6's distance from the Proposed Project or Alternatives (approximately two miles) and limited visibility of the Proposed Project or Alternatives in the northern portion of the project area, no cumulative visual impact would occur.

Caltrans District 6. Project 9 – Maintenance Program would include temporary maintenance activities on I-5 at various locations in Fresno County. These activities would be located east of the Proposed Project and west of the Eastern Corridor Alternative. In all Project 9 maintenance events, no cumulative visual impacts would occur even if an event is visible in the same field of view as the Proposed Project or Alternatives for the following reasons: (1) the temporary nature of the activities, (2) the small scale of each repair event, (3) the similar visual characteristics of the repair vehicles in the context of I-5 traffic resulting in a lack of visual contrast or impact, and (4) limited visibility of the Proposed Project and Alternatives due to the distances from I-5.

Western Corridor Alternative Segments

City of Coalinga. Project 1 – Mental Health Facility would be located south of Jayne Avenue adjacent to Pleasant Valley Prison and would eventually encompass 200 acres. The project would potentially be visible in the same field of view as Western Corridor Alternative Segment 6B as it parallels Jayne Avenue on the north side. However, Segment 6B would be located at least one-half mile from Project 1 and on the opposite side of Jayne Avenue. Also, the proposed mental health facility would have visual characteristics similar to that already present in the existing landscape. Therefore, the noticeability of Project 1 viewed from a middleground viewing distance (the distance necessary to be able to encompass both Segment 6B and Project 1) would be less than significant in the context of the existing development. Overall, while there would likely be a slight cumulative visual impact due to the visibility of both Project 1 and Segment 6B in the same viewshed from some viewing points along Jayne Avenue, the impact would at most be adverse, but less than significant.

Eastern Corridor

City of Huron. Two residential projects (Project 2 – Cieleto Lindo and Project 3 – Jimmie Estates) would be located within the City of Huron, approximately 1-½ miles east of the Eastern Corridor Alternative. Due to the relatively small scale of Projects 2 and 3, and the distance from the Eastern Corridor Alternative, no cumulative visual impact would occur with either project.

Project 5 – Fox Hills residential development would be located at the intersection of Volta Road and I-5. This project would be approximately one mile from the Eastern Corridor Alternative. Because of the limited visibility of the Eastern Corridor Alternative due to intervening terrain, the middleground viewing distance, and high rate of travel speed along I-5, Project 5 would not result in a cumulative visual impact with either the Proposed Project or Alternatives.

Project 7 – Highway Interchange Center would be located at the intersection of I-5 and SR-165. This project would be located in close proximity to the Eastern Corridor Alternative and would be visible in the same field of view. Although an adverse cumulative visual impact would occur between Project 7 and the Eastern Corridor Alternative, the impact would be less than significant due to the comparatively small scale of Project 7 and its limited visibility to motorists on I-5 traveling at relatively high speeds.

Project 8 – Highway Interchange Center would be located at the intersection of I-5 and the Merced/Fresno County line, approximately one-quarter mile west of the Eastern Corridor Alternative, just south of the Corridor's crossing of I-5. This project would be located in close proximity to the Eastern Corridor Alternative and would be visible in the same field of view. Although an adverse cumulative visual impact would occur between Project 8 and the Eastern Corridor Alternative, the impact would be less than significant due to the comparatively small scale of Project 8 and its limited visibility to motorists on I-5 traveling at relatively high speeds.

Project 10 – Little Panoche Rehab would include road repair activities along I-5 from Little Panoche Road to the Fresno/Merced County line. The more northerly portions of this project would be located within one-quarter to one mile from the Eastern Corridor Alternative and would be visible in the same

field of view. Although an adverse cumulative visual impact would occur between Project 10 and the Eastern Corridor Alternative, the impact would be less than significant due to the temporary nature of the road repair project, its comparatively small scale, and the typically limited visibility of the Eastern Corridor Alternative at distances of greater than one-half mile (representing approximately 75 percent of the Project 10 repair distance).

Project 11 – Huron II Overlay would be located in Fresno County, near Huron, on SR-269 from the Kings County line to SR-198. Project 11 would be located approximately 1 ½ miles to the east of the Eastern Corridor Alternative and would be visible in the same field of view due to the level nature of the intervening agricultural fields. Although a temporary adverse visual impact would occur, it would be less than significant due to the distance between the projects and the short-term nature of Project 11.

Project 12 – State Route 180 Extension would be located in Fresno County, from San Mateo Avenue near the community of Mendota to I-5. The more westerly portions of this project would cross the Eastern Corridor Alternative and would be visible in the same field of view. Although an adverse cumulative visual impact would occur between the Project 12 and the Eastern Corridor Alternative, the impact would be less than significant due to the temporary nature of the road construction project.

D.2.11 Summary of Cumulative Impacts

The Proposed Project would contribute to cumulatively considerable impacts in two areas: (1) air emissions from project construction, and (2) the potential loss of habitat for special status species.

D.3 GROWTH INDUCING EFFECTS

The California Environmental Quality Act (CEQA) requires a discussion of the ways in which a Proposed Project could be an inducement to growth. The CEQA Guidelines [Section 15126.2 (d)] identify a project to be growth-inducing if it fosters economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. New employees from commercial and industrial development and new populations from residential development represent direct forms of growth. The expansion of urban services into a previously unserved or underserved area, the creation or extension of transportation links, or the removal of major obstacles to growth are examples of projects that are growth-inducing. It is important to note that these direct forms of growth have a secondary effect of expanding the size of local markets and attracting additional economic activity to the area.

Typically, the growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies.

It cannot be assumed that the creation of growth-inducing potential automatically leads to growth. Growth occurs through capital investment in new economic opportunities by the private or public

sectors. These investment patterns reflect, in turn, the desires of investors to mobilize and allocate their resources to development in particular localities and regions. These and other pressures serve to fashion the local politics of growth and the local jurisdiction's posture on growth management and land use policy. These factors, combined with the regulatory authority of local governments in California in relation to land use, serve to mediate the growth-inducing potential or pressure created by a project.

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.

Each of these possibilities is addressed below.

D.3.1 GROWTH CAUSED BY DIRECT AND INDIRECT EMPLOYMENT

As discussed in Section B.3.4, construction crews are expected to come from within PG&E Co. with an emphasis on use of workers from the local San Joaquin Valley area. It is likely that 50 percent of the workers would come from outside the local area, but these workers would not be expected to permanently relocate with their families. Transmission line construction would require the highest number of employees at one time, but because the transmission line construction period is only about 14 months long, that workforce would peak and decline rapidly (TANC/WAPA, 1986). Given the relatively high unemployment rates in Merced, Fresno, and Kings Counties and the large local labor force in the construction industry (as documented in Section C.8, Socioeconomics and Public Services), the project itself would not significantly affect the employment patterns of the area.

Over the long term, operation of the Proposed Project would require very few employees. Therefore, the Project would have a negligible effect on population growth due to employment opportunities.

D.3.2 GROWTH RELATED TO PROVISION OF ADDITIONAL ELECTRIC POWER

Path 15 is located in the southern portion of the PG&E Co. service area and forms part of the Pacific AC Intertie, which links the Pacific Northwest and Oregon to Southern California. 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. As stated in PG&E Co.'s Conditional Application (April 13, 2001):

> *"…installing this new line would 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 ISO grid, primarily in Northern California, and unify the California energy market by allowing increased power transfers between Northern and Southern California… starting in mid-2000, congestion on this path began to occur much more frequently due to limited generation availability in Northern California. In August 2000, ISO issued a report highlighting the need for expansion of the electric infrastructure at Path 15, among other transmission paths and areas, in order to drive down the costs of wholesale electricity in the State."*

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 to benefit all California residents. Over the past few years, Path 15 overloads have occurred more often and have resulted in significant events in the operation of the CAISO system. The CAISO reported 227 instances of Path 15 overloads in the south to north direction between January 1998 and January 2001. Given California's "Energy Crisis," it is difficult to conclude that the Proposed Project could foster growth when a reliable supply of energy is not consistently available for existing customers.

Population growth in the project area is described in Section C.8, Socioeconomics and Public Services. All three counties in the project area anticipate a doubling of their population over the next twenty years. This growth is anticipated regardless of construction of the Proposed Project and Alternatives.

D.4 SIGNIFICANT IRREVERSIBLE CHANGES

The *CEQA Guidelines* [Section 15126.2(c)] require an evaluation of significant irreversible environmental changes that would be caused by a project if it were implemented. In general, the *CEQA Guidelines* refer to the need to evaluate and justify the consumption of nonrenewable resources and the extent to which the project commits future generations to similar uses of nonrenewable resources. In addition, CEQA also requires that irreversible damage resulting from an environmental accident associated with the project be evaluated. Pursuant to Section 15126.2(c) of the *CEQA Guidelines*, significant irreversible environmental changes may include the following:

- Use of nonrenewable resources during the initial and continued phases of the project that would be irreversible because a large commitment of such resources makes removal or nonuse thereafter unlikely
- Primary impacts and, particularly, secondary impacts which commit future generations to similar uses (such as a highway improvement that provides access to a previously inaccessible area)
- Irreversible damage that may result from environmental accidents associated with the project.

Construction of the proposed transmission line would require an irretrievable commitment of natural resources from direct consumption of fossil fuels, construction materials, the manufacture of new equipment that largely cannot be recycled at the end of the project's useful lifetime, and energy required for the production of materials. Furthermore, construction of the transmission line would necessitate some vegetation and habitat removal, as evaluated in Section C.3 (Biological Resources), and loss of some agricultural land, as evaluated in Sections C.5 (Geology and Soils) and C.7 (Land Use and Recreation). Assuming implementation of the mitigation measures recommended in this SEIR, permanent loss of biological resources would be confined to project structure locations and new access roads that would also be needed for maintenance.

During the project's operational phase, the transmission line would allow for the transport of additional electrical power generated from nonrenewable resources (e.g., natural gas or coal), as well as an increasing proportion of renewable resources (e.g., wind, solar, hydroelectric). While the construction of the Proposed Project does commit the future use of some amounts of nonrenewable resources, the

Project is indifferent to whether the energy it transports is nonrenewable or renewable. Another way to look at the Project's potential is that it could also facilitate the distribution of renewable resources.

With regard to irreversible damage, the potential exists for a transmission line accident to cause a fire along the proposed right-of-way (ROW). An accidental fire could result in loss or damage to sensitive biological resources, residences, farmland, and cultural resources or sites. However, fire hazards from high voltage transmission lines are greatly reduced through the use of taller structures and wider ROWs. Further, transmission line ROWs are cleared of trees to control this hazard. Fire hazards due to a fallen conductor from an overhead line are minimal due to system protection features. Overhead high voltage transmission lines include system protection designed to safeguard the public and line equipment. The potential risk and consequences of transmission line accidents and associated fires are mitigated to the extent possible with implementation of mitigation measures outlined in this document. The risk cannot be completely eliminated, thus the potential for irreversible damage remains.