

C.7 LAND USE AND RECREATION

This section evaluates land use and recreation in the areas through which the Proposed Project Corridor and Alternatives would pass. Issues related to potential land use and recreation conflicts, interference with agricultural operations and loss of productive agricultural land, permanent preclusion of land uses, and public policy consistency are addressed in this analysis. These issues are evaluated because portions of the proposed and alternative transmission line corridors could affect productive agricultural areas and areas with developed land uses and recreation.

The information in this section is based on an update of land use and recreation data presented in the 1988 FEIS/EIR and PG&E's supporting documentation (TANC/WAPA, 1988; PG&E, 1986). The land use environmental setting has changed somewhat from the setting analyzed in the 1988 FEIS/EIR. Along the Proposed Project corridor, more land is now devoted to intensive agriculture (row and permanent crops), and agricultural production has also increased along the Eastern Corridor Alternative. However, acreages of the 1988 FEIS/EIR cannot be compared to current agricultural acreage estimates because a much broader corridor area was included in the acreage calculations of the 1988 FEIS/EIR, which resulted in a larger total agricultural area and larger percentage of agricultural land being included in the 1988 corridor analysis.

Several previously planned projects have been abandoned or put on hold (e.g., Coalinga Air Cargo Port, Los Banos Grandes Reservoir, and Martin Ranch State Vehicular Recreation Area Project), while other new development projects (e.g., Villages of Laguna San Luis) within the study corridor are in the planning stage. Specific changes regarding future land uses are described in the environmental baseline in Section C.7.1.2. The regulatory setting has changed slightly since 1988, as both Fresno County and Merced County have updated their General Plans.

Both 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 corridor, the impacts on agriculture along this corridor are more prevalent than they were in 1988.

The land use and recreation analysis in this section concluded that the Proposed Western Corridor is environmentally preferred to the Eastern Corridor Alternative. The Western Corridor would cause less severe impacts on agricultural lands because less land within the Western Corridor is devoted to productive agriculture. Within the Western Corridor, Alternative Segment 2A is environmentally preferred because it would reduce potential impacts on the Los Banos Creek Recreation Area by avoiding all but the very western edge of the recreation area. Alternative Segment 4A is preferred over Proposed Segment 4 due to its location on the western side of the Little Panoche Reservoir Wildlife Area, over the westernmost edge of the reservoir. This crossing is in a remote area, which is less visible to most recreational visitors. Alternative Segment 6B is preferred over the other two alternative segments in this area because it is farthest from the Harris Ranch Airstrip and avoids most cultivated agricultural land, thus avoiding significant impacts on agriculture associated with Proposed Segment 6.

C.7.1 ENVIRONMENTAL BASELINE

This section presents information on the existing land use patterns and land ownership in the area of the proposed and alternative transmission line corridors. The study area or “area of potential effect” for land use includes the Proposed Project and Alternative Corridors, each corridor with a width of about 1,500 to 2,000 feet. Within the study corridor, the actual right-of-way (ROW; easements obtained from landowners) will be 200 feet wide. The baseline description also identifies sensitive land uses (e.g., residential areas and recreational facilities) within and adjacent to the corridor. The land use setting is based on land ownership information from the project Applicant; land use maps provided by the Applicant (based on generalized County land use data); U.S. Geological Survey 7.5 minute quadrangle maps; local, State, and Federal agency consultations; a field reconnaissance in May 2001 and field data collected by Aspen Environmental Group in September 2001; and the Transmission Agency of Northern California and Western Area Power Administration Final EIS/EIR (TANC/WAPA, 1988), and PG&E Los Banos-Gates 500 kV Transmission Project Environmental Report and Technical Appendices (PG&E, 1986) previously completed for this project.

C.7.1.1 Regional Overview of the Proposed Project

Land Ownership and Jurisdiction

The land crossed by the Proposed Project corridor (also known as the Western Corridor in TANC/WAPA, 1988) is about 94 percent private and 6 percent public land. The corridor crosses mainly private unincorporated 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).

The San Luis Water District manages the Third Lift Canal in the northern portion of Fresno County and the Westlands Water District (WWD) manages the Coalinga Canal in the southern portion of the Proposed Western Corridor.

The corridor parallels and crosses the California Department of Transportation (Caltrans) U.S. Interstate 5 (I-5). State Route 165 (SR-165) in Merced County and State Routes 33, 198, and 145 (SR-33, SR-198, SR-145) in Fresno County intersect I-5. Unimproved roads provide limited access in the northern section, with fewer roads in the southern portion in the Tumey Hills, Monocline Ridge, and Big Blue Hills areas, making access more difficult. A Southern Pacific Railroad ROW is located from three miles east of Coalinga to Huron in the southern portion of the study area.

Land Use Characteristics and Major Features

PG&E operates 500 kV, 230 kV, 115 kV, 70 kV, and 60 kV transmission lines within the study area. Two 500 kV transmission lines (Pacific Intertie) parallel the Proposed Western Corridor approximately 2,000 feet east of the corridor boundary, then cross I-5 to parallel an existing 230 kV line into Gates Substation.

Chevron and Equilon (formerly Texaco and Shell) operate two oil pipelines that cross the proposed corridor. Oil development occurs in the southern portion of the study area.

The land crossed by the Proposed Western Corridor and the area surrounding the corridor is predominantly grazing and open space, with some recreation, wildlife habitat, and irrigated agriculture in the southern portion. According to local officials, almond orchard production in this area greatly exceeds County averages.

In the north, the proposed corridor crosses the western portion of the recreation area at Los Banos Reservoir and the Little Panoche Reservoir in northern Fresno County. In the southernmost portion of the corridor, there are a variety of land uses including oil production and operation areas, commercial development along I5, and developed agriculture and agribusiness operations. Two residences are located within the proposed corridor at Milepost (MP) 68 and MP 80 (PG&E, 1986).

Due to hilly terrain, seasonal water supplies, limited access, and generally poor soil characteristics, agricultural production is somewhat limited. However, consultation with local and regional agencies indicates that more lands in the project area are being planted with crops. In recent years, agricultural uses within the study area have been converted from row crops to permanent crops (e.g., orchards) and from grazing to crops. This change, which is partially due to market conditions and water costs, has occurred since the Draft EIS/EIR was prepared in 1986. Therefore, more area within or adjacent to the study area is now devoted to row crops and orchards, compared to agricultural uses in the 1980s. Figure C.7-1 (maps a through e, presented at the end of this section) shows agriculture types within the study corridor for both the proposed and alternative routes.

C.7.1.2 Environmental Setting: Proposed Project

This section describes the land jurisdiction and uses along the individual segments (numbered 1 through 7) of the Proposed Western Corridor, as described in Section B.2 (Project Description). Unless indicated otherwise, the land uses on public undeveloped lands crossed by the proposed corridor include grazing, dispersed recreation, open space, and wildlife habitat. The land uses on the private undeveloped lands crossed by the proposed corridor include grazing, open space, and wildlife habitat.

Agricultural production along the proposed route is quantified in Table C.7-1. As shown in the table, agricultural production is concentrated in Segments 5, 6, and 7 and approximately 13 percent of the proposed corridor is used for intensive agricultural production.

Table C.7-1 Agricultural Production Within Proposed Project Corridor

Proposed Project (West)	HAY	Orchard	Seasonal Crop	Grazing+ Other	Total Acres Ag	% total Ag	TOTAL
Segment 1	0	0	0	491	0	0.0%	491
Segment 2	0	0	0	2,521	0	0.0%	2,521
Segment 3	0	0	0	1,627	0	0.0%	1,627
Segment 4	0	0	0	1,632	0	0.0%	1,632
Segment 5	0	255	479	6,994	734	9.5%	7,728
Segment 6	40	332	505	1,917	877	31.4%	2,794
Segment 7	0	151	493	107	644	85.8%	751
TOTAL	40	738	1,477	15,289	2,255	12.9%	17,544

C.7.1.2.1 Merced County

Segments 1, 2, and 3 are located in Merced County. They cross private land, the State of California land (CDPR and CDFG), and the U. S. Bureau of Reclamation (BOR) land at Los Banos Reservoir. The majority of the proposed corridor in Merced County is located on land designated as Foothill Pasture by the Merced General Plan and zoned A-1, General Agriculture, and A-2, Exclusive Agriculture.

Segment 1

The Western Corridor commences at the existing PG&E Los Banos Substation, located within a 32-acre fenced area. Acreage outside the fenced area is owned by PG&E (276 acres) and leased to local farmers for grazing. From the substation parcel, the initial 0.5-mile section of the transmission corridor crosses undeveloped CDFG and State of California land. The remaining 1.5-mile is on private undeveloped land, with MP 0.75 to MP 1.25 planted in seasonal hay. A variety of highway commercial uses are located immediately east of the Los Banos Substation on Gonzaga Road (at the intersection of SR-33 and SR-152) including a truck stop, café, two automobile service stations, motel, and RV campground. A 62-unit residential subdivision is under construction south of the existing commercial uses. These uses are located 0.5 mile east of the proposed transmission corridor.

There is a pending application for a Specific Urban Development Plan (SUDP), The Villages of Laguna San Luis Community Specific Plan, which is a 4,200-acre new town development proposed on Gonzaga Road. The “new town” plan includes the Los Banos Substation within its boundaries and proposes development to the west, south, and east of the substation (see Figure C.7-2). Proposed development includes 14,721 new residences, over 1,300,000-square feet of new commercial space, and 109 acres of public and quasi-public uses (Cope, 2001). Segment 1, located entirely within the community plan area, is identified as Open Space (OS) in the proposed plan. An EIR is being prepared for the proposed plan, with a decision on the application anticipated within one year.

Figure C.7-2

Proposed Villages of Laguna San Luis Community Specific Plan

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Figure C.7-2

Proposed Villages of Laguna San Luis Community Specific Plan

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The San Luis Reservoir State Recreation Area is located northeast of the Los Banos Substation, outside of the proposed corridor. This large recreation facility offers over 65 miles of shoreline and recreational opportunities such as boating, fishing, sailing, water skiing, camping, and migratory waterfowl hunting in the fall and winter seasons. Total annual visitor use in 2000-2001 was over 500,000 (including day use and camping at both Basalt and O'Neill Forebay; Hardcastle, 2001).

Segment 2

This 12.7-mile segment parallels the two existing PG&E 500 kV lines (Pacific Intertie), maintaining a 2,000-foot separation. The segment crosses undeveloped private land through most of its length and crosses State of California lands (CDPR) between MP 5 and MP 6, and BOR lands at Los Banos Creek Recreation Area (including Los Banos Reservoir) at MP 6 to MP 6.5. These public lands are part of the Los Banos Creek Recreation Area managed by the CDPR, with recreational activities including fishing, boating, swimming, camping (20 primitive sites), picnicking, hiking, equestrian camping, horseback riding, and in-season hunting. The highest seasonal use is from May through September. Annual visitor use at Los Banos Creek Recreation Area is listed in Table C.7-2 and the location of the reservoir in relation to the proposed corridor is shown in Figure C.7-3.

Table C.7-2 Los Banos Creek Recreation Area Annual Visitor Attendance

Year	Day Use	Camping	Total
1996-97	47,650	5,254	52,904
1997-98	31,322	3,504	34,826
1998-99	44,388	2,871	47,259
1999-00	71,033	4,572	75,605
2000-01	55,911	4,375	60,286

Source: CDPR, 2001.

Segment 3

This segment parallels the Pacific Intertie for approximately 5.3 miles, traversing private undeveloped hilly terrain and native grasslands through its entire length.

C.7.1.2.2 *Fresno County*

Segments 4, 5, 6, and 7 are located in Fresno County. These segments cross private land, U.S. Bureau of Reclamation (BOR) land at Little Panoche Dam, and dispersed BLM lands. The majority of the proposed corridor in Fresno County is located on land designated as Westside Rangeland and Agriculture by the Fresno County General Plan and the Coalinga Regional Plan. Zoning is designated as AE, Exclusive Agriculture. Private agricultural land in the corridor is located in the San Luis Water District or the Westlands Water District.

Segment 4

This segment begins at the Merced/Fresno County border at MP 20.5 and parallels the Intertie for its entire length to MP 29. The corridor crosses mainly undeveloped private lands characterized by hilly

grassland terrain used for grazing. Small areas of agricultural uses are located near the corridor from MP 21.25 to MP 21.75 and from MP 25 to MP 26.

At MP 23, the segment crosses the eastern side of Little Panoche Reservoir Wildlife Area at Little Panoche Dam, owned by the BOR and managed by the CDWR. The California Department of Fish and Game (CDFG) manages the undeveloped Little Panoche Reservoir Wildlife Area for public use, with recreation activities consisting mainly of fishing, hunting, nature study, and dog trials. Annual use in 2000 was approximately 3,200 visitors for day use activities.

The southern two miles of this segment cross the eastern edge of BLM's Panoche Hills Management Area. These BLM lands are managed for multiple use, primarily livestock grazing, dispersed recreation (upland game hunting, sightseeing, birdwatching, and picnicking), and wildlife use. No developed BLM recreational facilities are located on lands crossed by this segment.

Segment 5

This segment parallels the Pacific Intertie for its entire 40-mile length from MP 29 to MP 69, and crosses mainly undeveloped private land with moderate to steep slopes and sparse vegetation. Most of this segment is managed through leases for grazing (PG&E, 1986). Several areas of developed agricultural uses are located at MPs 31 to 36. An agricultural equipment storage area is located at MP 32 (PG&E, 1986).

The northern seven miles of this segment cross private land to the east of BLM's Panoche Hills Wilderness Study Area (WSA), sited to comply with BLM's management policy which prohibits development of any kind within a designated WSA.

This segment crosses Panoche Creek near MP 37 and the entrance to BLM's Tumey Hills Recreation Area, which provides hunting and limited equestrian use. From MP 37 to MP 55, the segment passes through private lands along the Tumey Hills and Monocline Ridge; at MP 44.5 to MP 45 and MP 46 to MP 46.5, the segment crosses dispersed BLM lands.

Developed features crossed by this segment include the San Luis Water District Third Canal, from MP 29 to MP 31, an existing 230 kV transmission line at MP 37, two existing oil pipelines at MP 41, and an oil pipeline from MP 61 to MP 63. At MP 65, a Mack Pumping station is used for oil operations (PG&E, 1986). A mobile home residence is located at MP 68 (PG&E, 1986).

Segment 6

This 10.5-mile segment crosses mainly private cultivated and grazing lands and skirts existing oil fields. Although the proposed ROW avoids most oil wells, a few oil operation evaporation ponds are within the proposed corridor. A small area of BLM land is located at MP 69. This segment crosses the Coalinga East Oil Field from MP 70 to MP 70.5 and the Gujarral Hills Oil Field at MP 77. Existing oil tanks are adjacent to, but not within, the study corridor.

Figure C.7-3

Los Banos Creek Recreation Area

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Figure C.7-3

Los Banos Creek Recreation Area

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Irrigated farmlands, including orchards and row crops, are located south of SR-198 from MP 71 to 78. The corridor crosses a few areas of grazing land near MP 71.

Highway commercial uses (Harris Ranch complex) exist at the intersection of SR-198 and I-5, approximately one mile east of the corridor at MP 70.5. The area surrounding the intersection is developed with the Harris Ranch Restaurant and Lodge, gasoline service stations, and fast food restaurants. The Harris Ranch Airstrip is located on the east side of I-5 in the southeast corner of the intersection complex, approximately 1.5 mile east of the transmission corridor centerline. The segment crosses the western boundary of the secondary review area of the Harris Ranch Airport Land Use Compatibility Plan from MP 70 to 73. Any development within this secondary review area is subject to the standards established by the Fresno County Airport Land Use Commission's Harris Ranch Airport Land Use Compatibility Plan (see discussion of local regulations in Section C.7.2.2).

Developed features crossed by this segment include a grain storage tank at MP 77 (PG&E, 1986). The Coalinga Canal parallels the corridor within 1,000 feet to the east for approximately three miles from MP 73 to MP 76 and the canal is located within the segment from MP 76 to MP 80. Water treatment facilities are located approximately 1,000 feet east of the corridor at MP 73 adjacent to the Coalinga Canal. A sand and gravel operation is located outside the proposed corridor near MP 70 at Los Gatos Creek (PG&E, 1986) and a large commercial area is crossed at MP 78. An existing 60 kV transmission line crosses the corridor at MPs 71.5, 76, 77.5, and 78. The segment crosses El Dorado Avenue at MP 77.5 and Phelps Avenue and the Southern Pacific Railroad tracks (out of service) at MP 77. Scattered residences are located in the vicinity of El Dorado Avenue, but none are located within the corridor.

The corridor parallels a future Coalinga Air Cargo Port identified in the Coalinga Regional Plan. The site is approximately 1,000 feet east of the corridor from MP 74 to MP 78, and the corridor crosses the cargo port boundary at MP 77. Development of the Air Cargo Port is not considered feasible in the near future, as it is a complex, multi-agency project that would require a large-scale cooperative effort that is unlikely to occur (Ulik, 2001).

Segment 7

This 4-mile segment is the southernmost segment of the Western Corridor, crossing I-5 at MP 82 and ending at the Gates Substation at MP 84. Cultivated agricultural land containing field crops, row crops, and orchards occupies the entire length of this segment. PG&E. Two transmission lines parallel the corridor: a 70 kV transmission line along Jayne Avenue 0.5 mile south of the corridor, and a 60 kV transmission line located 0.5 mile north of the segment. The 60 kV line crosses into the Western Corridor at MP 82.5 for the last mile into the Gates Substation. Predominant land use around the Gates Substation is irrigated agriculture. Outside of the fenced substation area, PG&E owns an additional 223 acres that are leased to local farmers for agriculture uses.

C.7.1.3 Eastern Corridor Alternative

The majority of the Eastern Corridor Alternative is located east of I-5, but the first 16 miles of the corridor are located on the western side of I-5. According to Table C.7-3, approximately 71.7 percent of the corridor is comprised of intensive, irrigated farmlands. The California Aqueduct, the Delta-Mendota Canal, and the Outside Canal are within the northern third of the corridor. Public lands crossed by the corridor include CDPR, BOR, CDWR, and three water districts: the Central California Irrigation District, San Luis Water District, and Westlands Water District. Recreational uses are limited to a small portion of the Los Banos Reservoir area and two fishing access sites.

Table C.7-3 Agricultural Production Within Eastern Corridor Alternative

Alternative Route (East)	Hay	Orchard	Seasonal Crop	Grazing & Other	Total Acres Agriculture	% Total Agriculture	TOTAL
Segment 1	0	166	0	216	166	43.5%	382
Segment 2	0	107	0	1,235	107	8.0%	1,342
Segment 3	0	0	0	1,532	0	0.0%	1,532
Segment 4	0	2,191	3,928	918	6,119	87.0%	7,037
Segment 5	0	939	3,194	635	4,133	86.7%	4,768
Segment 6	0	0	2,387	543	2,387	81.5%	2,930
TOTAL	0	3,403	9,509	5,079	12,912	71.7%	17,991

C.7.1.3.1 Merced County

Eastern Corridor Alternative Segments 1, 2, and the first two miles of Segment 3 are located in Merced County. They cross private land, the State of California land (CDPR and CDFG), and BOR land at Los Banos Creek Recreation Area. The majority of the Eastern Corridor Alternative in Merced County is located on land designated as Agricultural by the Merced General Plan and zoned A-1, General Agriculture, and A-2, Exclusive Agriculture.

Segment 1

This 2-mile segment departs the existing Los Banos Substation in a southeast direction and parallels the existing 230 kV transmission line. Various highway commercial uses are located on Gonzaga Road east of the Los Banos Substation (at the intersection of SR-33 and SR-152), including a truck stop, café, two automobile service stations, motel, and RV campground. A 62-unit residential subdivision is under construction to the east of the Los Banos Substation, south of the existing commercial uses. The corridor crosses private orchard land for the first 0.5 mile, then agricultural and grazing land for the remaining 1.5 miles. The Merced County waste disposal facility, Billie Wright Landfill, is located approximately one mile to the east of the segment at MP 2.

The entire segment is located within a proposed Specific Urban Development Plan (SUDP) area, which is under review by Merced County. The Villages of Laguna San Luis Community Specific Plan is a 4,200-acre new town development proposed on Gonzaga Road immediately adjacent to the south and east of Los Banos Substation (see description of planned development in Proposed Project Segment 1). The existing 230 kV lines have been designated as Open Space (OS) in the Community Plan; however, the plan does not address the proposed 500 kV transmission line. The corridor would pass through

proposed Low Density Residential (LD), Light Industrial (LI), Industrial (I), Urban Reserve (UR), and a potential Elementary School (ES) site.

Segment 2

This 7-mile segment parallels the existing 230 kV transmission line. It crosses primarily private grazing land and some cultivated areas, including orchards. At MP 6, the segment crosses the east portion of Los Banos Creek Recreation Area at the Los Banos Reservoir dam (see Figure C.7-3 and description of recreation uses in Proposed Segment 2).

Developed features near this segment of the Eastern Corridor Alternative include a residence at MP 3 and an employee residence at MP 7 at Los Banos Reservoir (PG&E, 1986). An existing oil pipeline crosses the segment at MP 7. A sand and gravel operation is located near MP 7 and a large cattle feed lot is adjacent to the east of Los Banos Creek Recreation Area near MP 7 (PG&E, 1986)

Segment 3

This 8-mile segment continues to parallel the existing 230 kV transmission line. The segment is located immediately west of I-5 from its beginning at MP 9 to MP 16 where it crosses, with the 230 kV transmission line, to the east of I-5. The segment passes through primarily private grazing land.

A residence is located at MP 10 (PG&E, 1986) and several other developed features are located adjacent to this segment including an existing oil pipeline, which parallels the entire segment on the east side of I-5. The California Aqueduct (San Luis Canal) parallels the entire segment length, within one mile on the east side of I-5. A gypsum, sandstone, and limestone quarry is located to the west of the corridor at MP 13 south of the intersection of I-5 and SR-165. An airstrip used for crop dusting operations is located more than 1.5 miles to the east of the corridor segment near MP 10 (PG&E, 1986).

C.7.1.3.2 Fresno County

Segments 4, 5, and 6 of the Eastern Corridor Alternative are located in Fresno County on private land developed with a variety of agricultural uses. The majority of the Eastern Corridor Alternative in Fresno County is located on land designated as agriculture by the Fresno County General Plan and the Coalinga Regional Plan. Zoning is designated as AE, Exclusive Agriculture.

Segment 4

This 30-mile segment begins two miles north of the Merced Fresno County line at MP 17 and parallels the 230 kV transmission line and an existing pipeline its entire length to MP 47. It crosses private cultivated land primarily containing field crops, row crops, PG&E, and orchards. The California Aqueduct crosses the segment from MP 18 to MP 20 then parallels the segment within 0.5 mile on the east where it diverts in a southeasterly direction at MP 30. The San Luis Water District's Re-lift Canal is located approximately 0.5 mile west of the segment from MP 26 to MP 30.

A relatively new (1998) aggregate quarry operation (Central Valley Resources) is located approximately 0.5 mile west of MP 19, on the west side of I-5. An existing sand and gravel quarry is located at MP 23 (PG&E, 1986). Other developed features crossed by this segment of the Eastern Corridor Alternative include: an agricultural equipment storage area at MP 35; three residences in a Farm Labor Camp at MP 37; and Chaney Ranch Facilities at MP 38 (PG&E, 1986).

Segment 5

This 22-mile segment parallels the 230 kV transmission line along its entire length. It parallels an existing pipeline 0.5 mile to the east and I-5 within one mile to the west from its beginning at MP 47 to MP 65 where the segment crosses the pipeline. From MP 65 to MP 69, the pipeline is located 0.5 mile to the west and I-5 is one mile to the west. Almost the entire segment is devoted to agricultural uses, including cultivated lands of field crops, row crops, and orchards.

A 115 kV transmission line at MP 57 connects to the Cantua Substation. Other developments in the segment include a ranch house, Jordan Ranch agricultural facilities at MP 65, and the Harris Ranch Feedlot at MP 67 PG&E. The Pleasant Valley Pumps are located near MP 67.

At MP 54, this segment of the Eastern Corridor Alternative is located within 0.5 mile of the intersection of SR-33 and I-5, which is developed with highway commercial uses. Coalinga-Mendota Road crosses I-5 less than 0.5 miles west of MP 61. At MP 68, the segment crosses within one mile of the intersection of SR-145 and I-5. MP 69 of the segment crosses the eastern boundary of the secondary review area of the Harris Ranch Airport Land Use Compatibility Plan (see Section C.7.2, regulatory setting). The Harris Ranch Airstrip is located two miles south of MP 69.

Segment 6

This 14.5-mile segment departs the 230 kV transmission line corridor and traverses east for six miles, then south for nine miles to the Gates Substation. This segment crosses exclusively cultivated lands containing primarily row crops. The Harris Ranch Airstrip is located 1.5 miles south of the route, and the segment crosses the eastern boundary of the secondary review area of the Harris Ranch Airport Land Use Compatibility Plan between MP 70 and 71 (see regulatory discussion in Section C.7.2.2). Other developed uses include a labor camp, which is 0.5 mile east of MP 82.

Hwy. 269 parallels the last nine miles of this segment approximately 1.5 miles to the east, and the town of Huron is located 1.5 miles east of MP 80. The segment crosses SR-198 at MP 77 and crosses the Southern Pacific Rail Road tracks (out of service) at MP 81.

C.7.1.4 Western Corridor Alternative Segments

The primary objective for the Proposed Western Corridor was to parallel the existing 500 kV line wherever possible while maintaining the required minimum separation of approximately 2,000 feet. The Western Corridor Alternative Segments were created to avoid specific land uses along the proposed corridor. Agricultural use along these alternative segments is shown in Table C.7-4.

Table C.7-4 Agricultural Use Within Western Corridor Alternative Segments

Alternative Routes (West)	Hay	Orchard	Seasonal Crop	Grazing and Other	Total Acres Agriculture	% Total Agriculture	TOTAL
Segment 2A	0	0	0	2,684	0	0%	2,684
Segment 4A	0	0	0	1,462	0	0%	1,462
Segment 6A	189	747	594	250	1,530	86%	1,780
Segment 6B	0	0	0	3,209	0	0%	3,209

Segment 2A

This 12.9-mile segment provides a corridor option avoiding the Los Banos Reservoir while maintaining adequate separation from the Pacific Intertie. To accomplish this, Segment 2A makes an angle turn west of the reservoir. This segment crosses undeveloped private land primarily used for grazing through most of its length and crosses BOR lands at Los Banos Creek Recreation Area from MP 5 to MP 7. This segment crosses the most westerly portion of the Los Banos Reservoir at MP 6.5 and continues southeasterly through steep open rangelands to join Proposed Segment 2 at Ortigalita Creek at MP 13.5.

Segment 4A

This segment provides a corridor option to the west of Little Panoche Reservoir where no developed facilities are located. This segment begins at the Fresno/Merced County boundary and crosses mainly private hilly grazing lands and BOR land at the far west portion of Little Panoche Reservoir. The segment makes an angle turn south of Little Panoche Creek and continues eastward to resume the parallel route with the Intertie. The segment crosses steep terrain and areas of erosion hazard.

Segment 6A

This 10.3-mile segment provides the easternmost routing option for the Western Corridor through the southern terminus area. Approximately 86 percent of this segment crosses agricultural land, which is primarily orchards and row crops. The first mile of this segment crosses a moderately developed portion of the Coalinga Oil Field (PG&E, 1986). The northern three miles of this segment cross through the primary and secondary review zones of the Harris Ranch Airport Land Use Compatibility Plan (see Section 3.7.2.2). The corridor crosses the Coalinga Canal at MP 72 and passes east of the water treatment facility adjacent to the Coalinga Canal at MP 74. The Coalinga Canal parallels the remainder of the segment approximately 0.5 mile to the west. The segment crosses an existing 60 kV transmission line several times through MP 75, MP 76, and at the end of the segment at MP 79.5. The potential future Coalinga Air Cargo Port is within the corridor from MP 74 through MP 78. However, current information indicates that the Air Cargo Port is not a feasible project and is no longer considered reasonably foreseeable (see Proposed Segment 6 discussion).

Segment 6B

Segment 6B is the second alternative to Proposed Segment 6 of the Proposed Western Corridor. This 11.7-mile segment represents the westernmost routing option in the southern terminus area. Segment

6B crosses several oil and water wells. The segment is generally to the west of most cultivated agricultural land. This segment crosses a heavily developed portion of the Coalinga East Oil Field, and moderately developed portions of the Pleasant Valley and Gujarral Hills Oil Fields. Although the Coalinga Regional Plan identifies a proposed Gujarral Park at MP 79, the City of Coalinga indicates that no plans for the park are anticipated in the future (Ulik, 2001).

C.7.2 APPLICABLE REGULATIONS, PLANS, AND STANDARDS

Federal, State, and local laws, ordinances, and policies apply to lands crossed by the proposed transmission line and to the development of the Proposed Project. The following subsections briefly describe existing land use and recreation regulations relevant to the Proposed Project. A policy consistency analysis is provided in Section C.7.3.8.

C.7.2.1 Federal and State Regulations

Public land within the study corridor is predominantly under federal ownership and management. Lands that are administered by both state and federal agencies are described under the Bureau of Reclamation sub-heading.

Bureau of Land Management (BLM)

A small portion (4 percent) of land in the Proposed Western Corridor is under the administration of the BLM. The BLM will require issuance of a permit called a "Right-of-Way (ROW) Grant" for the Proposed Project. BLM lands are concentrated in the western portion of the Panoche Hills, Ciervo Hills, Monocline Ridge, and Anticline Ridge. The Hollister Resource Management Plan (BLM, 1984; amended in 1993) governs uses on these lands, designating most areas as "Multiple Use Lands" which are managed primarily for livestock grazing with emphasis on recreation and wildlife uses. The Management Plan considers transmission line easements permissible as part of the principles of multiple-use. Dispersed recreational use on these lands includes hunting, off-road vehicle (ORV) use, rock hounding (rock hunting), camping, hiking, bird watching, sightseeing, horseback riding, and picnicking. The BLM administers grazing leases as well as oil and gas drilling operations in the study area.

The BLM Panoche Hills Wilderness Study Area (WSA) is adjacent to the Proposed Project Corridor, but is not crossed by the corridor. The Panoche Hills WSA is not recommended by BLM as suitable for wilderness but can only be deleted from the WSA roster by an act of Congress, which has not occurred to date. The BLM's management policy for WSAs prohibits development of any kind, which includes development of transmission corridors. For that reason, the WSA was avoided during the corridor siting process.

According to the Hollister Resource Management Plan, F5 is a designated utility corridor, with a number of branches to the west. BLM staff indicates that the Proposed Project is considered to be within this existing utility corridor (Byrne, 2001).

Bureau of Reclamation (BOR)

The BOR owns the California Aqueduct, the Delta-Mendota Canal, Los Banos Reservoir, and Little Panoche Reservoir within the project study area. The Delta-Mendota Canal is operated and managed by the San Luis Delta-Mendota Water Authority, created in 1992. The Los Banos Reservoir and surrounding land are managed by C DPR, and the Los Banos Creek dam (which forms the Los Banos Reservoir) is managed by CDWR. Of the 2,568 acres of BOR land surrounding the Los Banos Reservoir, approximately 333 acres are within the Proposed Western Corridor and 217 acres are within the Eastern Corridor Alternative. The lands around Little Panoche Reservoir are managed by CDFG for fishing and hunting and the dam is managed and maintained by CDWR.

These facilities that are administered by both State and Federal agencies are identified as “joint-use” facilities. Because the BOR holds title to the land, the BOR would be the agency to issue a ROW easement for these public lands. However, C DPR, CDWR, and CDFG would be consulted by BOR prior to BOR’s approval of any easement on lands jointly administered by these agencies.

C.7.2.2 Local Regulations

The State of California requires counties to prepare General Plans that identify goals and policies to guide land use and development within their respective jurisdictions.

Merced County

The Circulation Element of the Merced County General Plan establishes specific goals, objectives, and policies for transmission lines. Policies encourage the siting of transmission lines along major roads or rail systems and within existing utility easements and rights-of-way. Although referenced in the General Plan, the Merced County Zoning Ordinance does not contain specific permit procedures for review of transmission line projects.

Fresno County

Policies for the siting of transmission lines are contained in the Public Facilities and Services Element of the General Plan. Policies “seek to facilitate the efficient provision of necessary services . . . and to minimize the impacts of utilities on surrounding land uses” (Fresno County, 2000). Policy PF-J.2 requires the County to work with electric utility companies to design and locate facilities, while minimizing impacts to agriculture and minimizing noise, electromagnetic, visual, and other impacts on exiting and future residents. The Fresno County Zoning Ordinance requires that “the routes of proposed electric power lines shall be submitted to the [Planning] Director for County review prior to acquisition of rights-of-way.”

Harris Ranch Airport Land Use Compatibility Plan and Westside Freeway Sub-Regional Plan

Any development within the vicinity of the Harris Ranch Airport is subject to the standards established by the Fresno County Airport Land Use Commission’s Harris Ranch Airport Land Use Compatibility Plan. Portions of the Proposed Project and Alternative Corridors cross the Plan’s “secondary review

area,” which is a geographic boundary established around the airport to ensure air space protection. Projects proposed in the secondary review area, where structure height exceeds the height limit of the permitted zone, are referred to the Fresno County Airport Land Use Commission for review and consistency with the Harris Ranch Airport Land Use Compatibility Plan. The Proposed Project would exceed the permitted structure height of 35 feet and therefore, would be subject to this review. Also, as identified above, a small section of Alternative Segment 6A would cross a “primary review area,” which requires Airport Land Use Commission review of all projects within its geographic boundaries. Fresno County’s Westside Freeway Sub-Regional Plan further states that projects located within the airport review areas “shall be consistent with the air space protection, noise, safety, and general nuisance provision of the Harris Ranch Airport Land Use Policy Plan.”

C.7.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES FOR THE PROPOSED PROJECT

C.7.3.1 Introduction

This section describes the potential impacts resulting from the proposed transmission line and identifies mitigation measures that would reduce or avoid adverse impacts. Although the proposed transmission line corridor would not disrupt or divide any established community, other land use impacts may occur. Impacts on land uses and on recreation facilities and resources within the study area could result from various project-related construction activities including: establishment of construction yards and staging areas; clearing and grading for new access roads; clearing and excavating tower sites and installing towers; removal of obstructions (e.g., vegetation and trees) in right-of-way (ROW); installing conductors; and modifying substations. The long-term placement of towers and lines could conflict with existing land uses in and near the proposed ROW. In addition, maintenance activities could affect land uses and recreational activities. The general types of impacts and mitigation measures are described first, followed by subsections identifying impacts and their significance along each segment. Much of the discussion regarding the various types of impacts, particularly on agricultural lands, is summarized from the *COTP and Los Banos-Gates Transmission Project Draft EIS/EIR, Volume 2B: Los Banos-Gates Supporting Environmental Report* (TANC/WAPA, 1986). While the type of impacts remains consistent with the previous EIS/EIR, the location of agricultural impacts has changed somewhat due to the increase in agriculture along the study corridor.

C.7.3.2 Definition and Use of Significance Criteria

The criteria used to determine the significance of impacts on residential, recreational, agricultural, and commercial land uses are based on CEQA guidelines and previous environmental documents analyzing transmission line projects. These criteria include the following:

- Permanent preclusion of a permitted use or a particular land use.
- Long-term disturbances that would diminish the quality of a particular land use.
- Inclusion of public uses or sensitive land use receptors within the footprint of a hazardous area.
- Conversion of prime cropland or grazing land to non-agricultural use. (Specific impacts on soils are addressed in Section C.5)

- Interference with agricultural equipment operation, irrigation practices, or aerial spraying activities that would result in long-term impairment of agricultural operations and productivity.
- Permanent or long-term preclusion of a recreational use or temporary preclusion (longer than one week) during the peak use season.
- Conflict with the established residential, agricultural, or recreational use of an area.
- Conflict with Federal, State, or County land use plans, policies, or regulations adopted to avoid or mitigate environmental impacts.
- Short-term land use disruptions (longer than one week) or farming disruptions for a period of time, which would preclude one or more crop seasons.

Visual effects of the project on the quality of the rural landscape are assessed in Section C.11, Visual Resources.

C.7.3.3 General Impacts and Mitigation Measures

The general types of land use and recreation impacts that may result from the Proposed Project or Alternatives are described below. The specific locations where each impact could occur, impact significance, and recommended mitigation measures are presented in Section C.7.3.5. The significance of each impact depends on the extent and location of its occurrence.

Impact 7-1: Temporary Construction Disturbances

A variety of construction activities will temporarily disturb existing land uses. In addition to noise, dust, traffic, and visual disturbances to existing land uses and on recreational activities, grazing lands within the ROW would be temporarily lost as a result of removing vegetation, grading, overland travel, site preparation, and assembling and erecting structures. Construction activities would also result in a temporary loss of the use of grazing land outside the ROW as a result of overland travel, constructing new access routes, and constructing and using staging areas. Also, construction may necessitate removal of fencing and gates. A small amount of crops would be temporarily removed for construction activities. However, these losses would be more severe in the case of permanent crops such as vineyards and orchards, which require numerous years to be re-established to productive levels. In addition, soil compaction may occur as a result of construction equipment and activities, necessitating remedial activities to restore agricultural uses.

Since precise locations for towers, access roads, and staging areas have not been identified, assumptions were made about overall land disturbance, based on project description information (e.g., number of towers per mile, size of staging areas, and acreage for new roads). This information allows assessment of construction impacts and identification of appropriate mitigation measures. The overall amount of land that would be subject to physical disturbance would be about 261 acres. Short-term land disturbances are significant in areas where intensive farming or developed land uses occur within or adjacent to the proposed ROW. The duration and extent of the impact can be reduced through implementation of Mitigation Measures **L-1 through L-10** (below).

Mitigation Measures for Impact 7-1, Temporary Construction Disturbances

- L-1** PG&E shall, to the extent feasible, use access roads that were constructed for the existing 500 kV transmission lines. (These roads, many of which are still used for maintenance, with necessary repair, could be used for access with only construction of spur roads that would be necessary to reach individual tower locations.) PG&E shall document compliance with this measure by submitting an access road plan (demonstrating use of existing roads or reasons why existing roads cannot be used) to the CPUC for review and approval at least 30 days before construction.
- L-2** Construction staging areas and pulling sites shall be located adjacent to roads where practical. PG&E shall coordinate with landowners to establish construction areas (such as conductor pulling and splicing areas and construction yards) on non-agricultural land or in areas with less sensitive crops, where feasible. PG&E shall document compliance with this measure by submitting to the CPUC for review and approval, at least 30 days before construction begins, a plan showing construction staging and pulling areas, demonstrating use of non-agricultural land or reasons why agricultural land cannot be avoided.
- L-3** All access roads not required for maintenance by PG&E after construction should be either permanently closed using the most effective and least environmentally damaging methods appropriate to the landowners, or be regraded (recontoured), restored, and revegetated with the concurrence of the relevant landowners. Any damaged recreation, farm, or residential access roads shall be repaired. PG&E shall document compliance with this measure by submitting to the CPUC for review and approval a plan showing methods to restore and revegetate unnecessary access roads.
- L-4** PG&E shall locate new access roads parallel to landform contours where feasible, in order to minimize ground disturbance and/or reduce scarring. PG&E shall document compliance with this measure by submitting an access road plan (demonstrating conformance to landform contours) to the CPUC for review and approval.
- L-5** In agricultural areas where sites would be graded, PG&E shall stockpile topsoil. After construction, topsoil shall be replaced and the site graded to the original contours. If appropriate, the site shall be reseeded in accordance with agency or landowner objectives. PG&E shall document compliance with this measure by submitting to CPUC for review and approval a plan showing methods to stockpile topsoil and restore construction sites.
- L-6** PG&E shall time construction, whenever practical, to minimize disruption of normal seasonal activities for crop and rangeland and to avoid peak use periods at recreational areas. PG&E shall work with the appropriate County agent and farmers to agree to a construction schedule that would avoid the prime crop planting, growing, and harvesting seasons, to the extent possible. PG&E shall submit a construction schedule to the CPUC for review and approval. The schedule shall document how disruptions to agricultural operations will be avoided.
- L-7** At least one month prior to constructing the project, PG&E shall give advance notice of such construction, construction activity schedules, access restrictions, and anticipated disturbances to property owners, residents, and tenants potentially affected by construction activities (within 1,000 feet of project ROW or access roads). The Applicant shall provide adequate access to existing land uses during all periods of construction and shall notify landowners of alternative access. PG&E shall avoid nighttime construction near noise-sensitive land uses (e.g.,

residences and campers at recreation areas). PG&E shall document compliance with this measure by submitting to CPUC a copy of the notice for review and approval prior to mailing said notice. PG&E shall provide evidence to CPUC that the notice was delivered to landowners and residents within 1,000 feet of the project ROW and access roads. PG&E shall submit to CPUC for review and approval a plan showing how adequate access to existing land uses will be provided during construction.

- L-8** Immediately after removing sections of grazing fencing, PG&E shall construct a temporary barrier across the section of removed fencing so that grazing animals cannot move through the fencing. Immediately after completing construction in the area, PG&E shall repair the section of removed fencing. PG&E shall close all gates immediately after they are opened to allow construction vehicles and equipment access to a construction area. PG&E shall incorporate these requirements into the construction plan and demonstrate to the CPUC that all construction workers are informed of these provisions.
- L-9** PG&E shall include a stipulation in its easement agreements with landowners along the ROW that landowners shall be reimbursed for the value of the crops lost and the cost of any delay or interruption in necessary farming or grazing practices as a result of any interrupted use of cropland or grazing land. Evidence of this stipulation shall be submitted to the CPUC.
- L-10** PG&E shall avoid construction operations that disturb soil during the wet season (moist soil is generally more susceptible to compaction than dry soil). PG&E shall minimize the use of heavy equipment on agricultural land to avoid soil compaction. Where compaction occurs on agricultural land as a result of construction, the soil shall be ripped to restore adequate percolation of irrigation water through the soil strata. PG&E shall incorporate these requirements into the project construction plan and submit the plan to CPUC for review and approval.

Impact 7-2: Conflicts with Existing and Planned Land Uses

The proposed transmission line may conflict with several types of land uses occurring within the proposed or alternative corridors. These uses include residences, agricultural operations, airstrips, planned developments, oil operation areas, canals, and dams. Although it may be possible to route the transmission line to avoid these uses in most cases, complete avoidance may not be possible. Potential conflicts include the following:

- **Residences** – For safety reasons, residential structures cannot be located within a transmission right-of-way.
- **Agricultural Operations** – The transmission line would be incompatible with agricultural operations that include buildings and structures such as farm and forage buildings, irrigation pipe laydown areas, grain storage tanks, and feedlots.
- **Planned Developments** – A new town is being proposed around the Los Banos Substation, including homes, parkland, and commercial uses. The proposed corridor would pass through areas of the new town designated as open space.
- **Canals** – Several canals are crossed by the proposed or alternative corridors. There are concerns associated with potential interference with canal maintenance operations.
- **Oil Field Operations** – Transmission lines may present a hazard to oil drilling and maintenance operations. Also, future drilling in areas containing known untapped oil reserves could be hindered by the presence of transmission lines.

- **Dams** – The Little Panoche Dam and Los Banos Dam are crossed by alternative corridors. There is a potential concern associated with conflicts with facilities at the base of the dams.
- **Recreation Areas** – The Proposed Western Corridor may pose conflicts with existing or proposed recreational uses and facilities. Conflicts include restriction of certain recreation activities in the immediate vicinity of the transmission line and degradation of the scenic quality of the recreational area. However, through proper siting and standard construction practices (see Mitigation Measure **L-7**), impacts on recreation can be reduced to levels that are not significant.
- **Airstrips** – Four airstrips are located in the vicinity of the proposed and alternative corridors.

Mitigation Measure **L-11** would reduce or avoid land use conflicts with the Proposed Project or Alternatives.

Mitigation Measure for Impact 7-2, Conflicts with Existing and Planned Land Uses

L-11 PG&E shall coordinate with property owners during final transmission line design and shall align the transmission line, with the review and approval of the CPUC, so as to avoid existing residences and maximize the distance between the line and agricultural operations, planned developments, canals, oil fields, dams, recreation areas, and airstrips located within, adjacent to, and near the ROW.

Impact 7-3: Long-Term Conversion/Loss of Productive Agricultural Land

In intensively farmed areas, transmission towers and access roads may permanently displace agricultural production. An estimated 0.03-acre per tower would be lost and an additional 1.5 acres per mile of transmission line would be lost to access roads. The proposed corridor includes a small amount of prime farmland and intensively farmed land (see Table C.7-1; impacts on prime soils are addressed in Section C.5). Grazing land losses would not be significant due to the fact that there is very little permanent loss of natural vegetation.

The loss of productive farmland would result in financial impacts on farmers. The amount of land lost would depend on the type of crop and the irrigation method. The main irrigation factor to consider is the angle of the tower-to-furrow irrigated crops (usually row crops). Crop values have a wide variation from year to year. While the trend towards almond orchards within the study area has resulted in high yields and profitable crops, the price of almonds has fluctuated from \$2 per pound to \$0.80 per pound. Because of this wide fluctuation, it is not practical to attempt to quantify a definite value per acre for farmland that may be lost to the Proposed Project Corridor, as that value is likely to change by the time right-of-way (ROW) easement acquisitions are pursued. When ROW easement negotiations occur, average values will need to be calculated. In addition to almond orchards, several blocks of pistachios are located within the study area. Compared to almond trees, which take four to five years to reach full production, pistachio trees do not reach full production until 10 years of age.

Based on the limited occurrence of intensively farmed land, the potential impact from loss of productive agricultural land in the Western Corridor is limited to the southern segments (see segment discussion below). Impacts on the Eastern Corridor Alternative and several of the Western Corridor Alternative Segments may be significant. Mitigation Measure **L-12** is recommended in these areas, as defined in the segment discussions below. Note also that Mitigation Measure **B-6b** (Section C.3, Biological

Resources) recommends consideration of the use of Tubular Steel Poles rather than lattice towers. The TSPs require substantially less land for their supports, and would reduce the loss of agricultural land by at least half.

Mitigation Measure for Impact 7-3, Long-Term Conversion/Loss of Productive Agricultural Land

L-12 Tower placement shall be adjusted, with review and approval of the CPUC during final project design, to avoid orchards and vineyards, row crops, and furrow-irrigated crops (with tower-to-furrow angles greater than 61 percent), wherever possible. Also when possible, the corridor should avoid more heavily cultivated crops in preference for non-agricultural land or crops such as alfalfa, corn, and small grains. PG&E shall coordinate work with local landowners to place towers in areas that would cause the least impact (e.g., along the edges of fields or adjacent to mid-section farming roads).

Impact 7-4: Impacts on Agricultural Equipment and Operation

Placement of transmission line towers may cause additional time and effort to maneuver agricultural equipment around tower footings. All types of agricultural operations may be affected, from land leveling and preparation to crop harvesting. Maneuvering row crop harvesting equipment around towers may be especially difficult, according to testimony by farmers (PG&E, 1986). The level of farming difficulty and effort caused by presence of transmission towers depends on the crop, with generally more difficulty for crops with rows that are perpendicular or diagonal to the transmission lines, rather than parallel (PG&E, 1986). Potential secondary effects include collisions with towers and damage to farm equipment, restrictions on nighttime operations (due to the potential for accidents), restrictions on normal crop rotations because of operational considerations, and increased difficulty in leasing fields with towers. Impacts related to the need for farmers to increase weed and pest control activities around tower bases are not significant for the Proposed Project and Alternatives. In addition to Mitigation Measure L-12 (above), Mitigation Measure L-13 would apply to this impact.

Mitigation Measure for Impact 7-4, Impacts on Agricultural Equipment and Operation

L-13 When locating towers in row crops is unavoidable, PG&E shall attempt to locate towers in fields with rows that would be parallel, rather than perpendicular, to the transmission line. Transmission lines shall not be placed in diagonal orientations across cultivated fields, to the extent feasible. At least 30 days prior to construction, PG&E shall submit to the CPUC, for review and approval, a tower location plan that indicates agricultural row orientation.

Impact 7-5: Interference with Irrigation Practices

Farmlands that utilize certain types of irrigation systems may be impacted by the placement of towers on cropland. Long-term project effects on irrigation practices include increased labor efforts to move irrigation mechanisms around tower footings, decreased uniformity in water application, and interference with canals and ditches at field borders. Although most of the Proposed Project Corridor is comprised of non-irrigated land and will be unaffected, portions of the alternative corridors will affect irrigation practices.

Impacts on flood irrigation are minimal, while impacts on wheel-line sprinkler or furrow irrigated crops are more serious. Drip systems may be impacted on a short-term basis, but can be re-configured around tower bases once construction is complete. During construction, farmers using furrow irrigation will be required to re-form furrows and waterways around the construction areas and access roads. Once construction is complete, the furrows will need to be modified to accommodate the tower footings and necessary access roads.

Mechanical move sprinklers (e.g., wheel lines, center pivot, and linear systems) are less prevalent than furrow irrigation, but would be subject to relatively greater impacts. The placement of transmission towers can result in the preclusion of these irrigation methods, or substantially increased difficulty in using them. Mitigation Measures **L-13** (above) and **L-14** and **L-15** (following) would reduce this potential impact.

Mitigation Measures for Impact 7-5, Interference with Irrigation Practices

L-14 Where towers must be placed in agricultural fields, transmission lines and towers shall be placed toward the center of fields where feasible. PG&E shall avoid placing towers at the edge of fields where canals or irrigation ditches are located. PG&E shall document compliance with this measure by submitting to the CPUC, for review and approval, a tower location plan that indicates tower location relative to agricultural fields and irrigation systems.

L-15 PG&E shall avoid siting of towers in fields using mechanical move irrigation systems, and shall attempt to locate them in fields using flood or border check irrigation over those using furrow irrigation. PG&E shall document compliance with this measure by consulting with landowners to identify irrigation systems and by submitting to the CPUC, for review and approval, a tower location plan that indicates avoidance of areas of mechanical move and furrow irrigation systems.

Impact 7-6: Effects on Aerial Applications

Aerial spraying is very common for both row crops and permanent crops (e.g., orchards) in the study area. During winter months, aerial spraying is preferred over ground spraying due to the difficulties of operating ground equipment in wet conditions. Furthermore, aerial spraying is preferred for large agricultural operations, as it is faster in covering large acreages of crops. Transmission lines and towers pose serious problems for crop dusting activities. In addition to the obvious safety hazards (see Section C.9), there is a potential for lower effectiveness of aerial spraying and higher costs for materials and aircraft operations. Mitigation measures include **L-13** and **L-14** (above), and **L-16** (following).

Mitigation Measure for Impact 7-6, Effects on Aerial Applications

L-16 When transmission towers are to be installed in or adjacent to agricultural fields, PG&E shall avoid installing them adjacent to existing transmission lines and shall avoid angular joining of corridor segments. PG&E shall document compliance with this measure by submitting to the CPUC, for review and approval, construction plans that show locations of all angle towers in agricultural areas.

Safety hazards of transmission lines and towers in agricultural areas are further discussed in Section C.9, Public Safety, Health, and Nuisance.

Impact 7-7: Permanent Preclusion of Existing, Permitted, and Planned Land Uses

Placement of the transmission line and towers will lead to some limitations on long-term use of property. Maintenance access roads and areas occupied by the tower bases will be the only permanent facilities displacing land. Assuming project description parameters of four towers per mile of transmission line and 20 feet by 60 feet tower bases, as well as one mile of new road per mile of transmission line and an average road width of 14 feet, a total of 153.1 acres would be permanently displaced for the proposed corridor. Of this total acreage, a much smaller amount of agricultural land would be affected, as only portions of the route are used for agriculture. The exact amount of agricultural land impacted will depend on the tower locations.

Once construction is complete and the towers are in place, agricultural uses (i.e., crops) may be re-established within the transmission line right-of-way. Although the towers will displace some area, crops can be established within most of the corridor. The primary effect of the project on private property is that ROW agreements with property owners will stipulate that certain structures, wells, and some classes of plants and trees will be precluded within the 200-foot wide ROW easement. No substantive portions of recreational areas will be permanently precluded from use (see segment discussions in following section).

A concern was raised at Supplemental EIR scoping meetings regarding preclusion of future development on the band of land between the existing transmission line and the proposed transmission line. This 2,000-foot wide section of land is needed to provide a separation corridor between the two lines to maintain transmission safety and reliability. Due to topography and final corridor design, in some places the separation may be as great as 4,000 feet. Agriculture is permitted within this separation zone, as are buildings and structures (as long as they are outside of the project ROW). However, in effect, it may be less desirable for landowners to locate new major developments within this buffer zone due to physical constrictions on two sides of the land, the narrowness of the area that could be developed, and visual impacts of the two transmission lines. It is important to note that new urban development is not currently permitted in these areas, regardless of the presence of a new transmission line, because current zoning for most of the corridor is limited to agriculture or other rural designations. In order to develop the land for urban uses, the property owner would be required to amend the relevant county general plan to change the property's land use designation and rezone the property.

To ensure minimization of preclusion effects, Mitigation Measure L-17 (below) should be implemented.

Mitigation Measure for Impact 7-7, Permanent Preclusion of Existing, Permitted, and Planned Land Uses

L-17 During the right-of-way acquisition process, PG&E shall coordinate with each affected property owner, in order to develop an alignment and specific tower locations, to provide clear

information about the right-of-way acquisition process compensation, and construction and maintenance activities, and to understand landowner plans for use of the transmission corridor area in order to minimize the impact of tower and ROW location. PG&E shall document compliance with this measure by submitting to the CPUC written evidence of landowner consultation and a copy of the written information distributed to landowners.

Effects on Property Values

Proposed transmission line projects often raise concerns about their potential effects on property values. It has been established that CEQA was not 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*). Potential visual, safety, and nuisance impacts resulting from the Proposed Project are addressed in other sections of this SEIR and effects on agricultural productivity are analyzed in this land use analysis (see Impacts 7-3, 7-4, 7-5, and 7-6). Any decline in property values would not result in an environmental impact. A potential decline in property values was not a factor in determining the significance of the project's physical effects on the environment. For these reasons, the possible reduction of property values does not constitute a CEQA impact and no further analysis is warranted.

Section 15131 of the CEQA Guidelines includes the following language:

- a) Economic or social effects of a project shall not be treated as significant effects on the environment.
- b) Economic or social effects of a project may be used to determine the significance of physical changes caused by the project.
- c) Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR.

C.7.3.4 Impacts and Mitigation Measures from 1988 Final EIS/EIR

Impacts and mitigation measures of the 1988 FEIS/EIR were reviewed in the process of preparing this land use analysis. Table C.7-5 presents land use and recreation impacts from the FEIS/EIR and their significance (after mitigation), as well as the relevant SEIR impact and its significance, based on conclusions in this land use analysis. As shown in the table, the overall significance of each impact is consistent between the 1988 FEIS/EIR and this SEIR.

Mitigation measures identified for land use and recreation impacts in the 1988 FEIS/EIR for the Proposed Project and Alternatives are listed in Table C.7-6, along with the disposition of these measures for this SEIR. In most cases, the mitigation measures from the 1988 FEIS/EIR have been carried forward to this SEIR, with only slight modifications for clarity. Additional general mitigation measures are identified in Section C.7.3.3 and site-specific measures are identified in the impact analysis text in the following sub-sections.

Table C.7-5 Summary of Impacts: 1988 FEIS/EIR* and SEIR

Final EIS/EIR Impact	Significance	SEIR Impact	Significance
Short-term construction disturbances	Less than significant after mitigation	Impact 7-1: Temporary construction disturbances	Less than significant after mitigation
Conflicts with existing land uses	Less than significant after mitigation	Impact 7-2: Conflicts with existing and planned land uses	Less than significant after mitigation
Loss of productive agricultural land	Significant	Impact 7-3: Conversion/loss of agricultural land	PP: Less than significant after mitigation
			EA: Significant
Impacts on Agricultural Equipment and Operation	Less than significant after mitigation	Impact 7-4: Impacts on agricultural equipment and operation.	PP: Less than significant after mitigation
			EA: Significant
Impacts on irrigation practices	Significant	Impact 7-5: Interference with irrigation practices	PP: Less than significant after mitigation
			EA: Significant
Impacts on aerial application	Significant	Impact 7-6: Effects on aerial application	Significant
Impacts on recreational opportunities	Less than significant after mitigation	Impact 7-2: Conflicts with existing and planned land uses	Less than significant after mitigation
		Impact 7-7: Permanent preclusion of land uses	Less than significant after mitigation

* Impacts summarized from Final EIS/EIR Table 2-B, Summary of Significant Environmental Impacts, Applicable Mitigation Measures, and Mitigation Effectiveness for Los Banos-Gates.

PP: Proposed Project (Western Corridor).

EA: Eastern Corridor Alternative.

Table C.7-6 Disposition of Mitigation Measures from 1988 FEIS/EIR

Mitigation Measure from 1988 Final EIS/EIR	Disposition in this SEIR
PG&E will continue to consult with Merced and Fresno County officials during the siting process. County personnel will be able to review the proposed actions and submit their recommendations to the CPUC.	Repeated herein as Mitigation Measure L-19
Locate new access roads parallel to contours of landform wherever feasible.	Repeated herein as Mitigation Measure L-4
Avoid diagonal orientations of transmission lines across cultivated fields.	Incorporated into Mitigation Measure L-13
If practical, tower placement will be adjusted to avoid orchards and vineyards, row crops, and furrow-irrigated crops (with tower-furrow angles greater than 61%). When possible, the alignment should avoid more heavily cultivated crops in preference for nonagricultural land or crops such as alfalfa, corn, and small grains.	Incorporated into Mitigation Measure L-12
When locating towers in row crops is unavoidable, if possible, preference should be given to fields with rows that would be parallel, rather than perpendicular, to the transmission line.	Incorporated into Mitigation Measure L-13
Place transmission lines and towers toward the center of the field where possible. Avoid placing towers at the edge of fields where canals or irrigation ditches are located.	Incorporated into Mitigation Measure L-14
Avoid angular joining of transmission line alignments.	Incorporated into Mitigation Measure L-16
Avoid mechanical move irrigation systems. Select crops using flood or border check irrigation over those using furrow irrigation.	Incorporated into Mitigation Measure L-15
Existing roads will be used for access wherever possible. Minimize number and length of new construction access roads particularly in intensively farmed areas. Use temporary spur roads to towers and remove those roads not required for maintenance. Access roads should be designed to the minimum standards necessary for the construction and maintenance vehicle access.	Incorporated into Mitigation Measure L-1
Avoid causative construction operations during the wet season. Moist soil is generally more susceptible to compaction than dry soil. Minimize the use of heavy equipment on agricultural land to avoid soil compaction.	Incorporated into Mitigation Measure L-10
In agricultural areas where sites would be grades, topsoil should be stockpiled. After construction, topsoil should be replaced and the site graded to the original contours. If appropriate, the site should be reseeded in accordance with agency or landowner objectives.	Incorporated into Mitigation Measure L-5
Recontour, prepare the surface, and seed all roads, construction sites, and other disturbed areas not required for project operation and maintenance.	Incorporated into Mitigation Measure L-3
Construction of staging areas and pulling sites should be located adjacent to roads where practical. Soil from construction activities should be properly disposed.	Incorporated into Mitigation Measure L-2
Construction should be timed whenever practical to minimize disruption of normal seasonal activities for crop and rangeland.	Incorporated into Mitigation Measure L-6
Post-construction cleanup and removal practices detailed in Section 2.3.8 should be followed.	Deleted - These practices are part of the project description and are not required as additional mitigation.
Whenever possible shift construction areas (such as conductor pulling and splicing areas and construction yards) to nonagricultural land or less sensitive crops.	Incorporated into Mitigation Measure L-2
All access roads not required for maintenance should be either permanently closed using the most effective and least environmentally damaging methods appropriate to the landowners, or be regraded, put to bed, and revegetated with concurrence of landowner.	Incorporated into Mitigation Measure L-3

C.7.3.5 Proposed 500 kV Transmission Corridor

This section provides a detailed discussion of specific land use and recreation impacts that would occur on each segment of the Proposed Project corridor. Both the type of impact and impact significance are identified, by segment.

The Proposed Project will have no impact on land ownership or jurisdiction. The Applicant will obtain necessary right-of-way (ROW) permits for the crossing of Federal lands. ROW easements on private lands will be acquired through negotiations with landowners. An easement would permit the owner to continue the use of the land for most activities (e.g., grazing or agricultural operations). However, due to safety considerations, buildings, structures, wells, or trees more than 15 feet in height would not be allowed within the ROW. Most potential land use conflicts (i.e., residential, agricultural operation areas, planned developments, canals, oil field areas, dams, recreation areas, and pipelines) can be avoided during alignment.

Agricultural impacts are focused in the intensively farmed areas primarily at the southern end of the proposed corridor. The potential impacts on agriculture vary by segment, depending on the amount of intensively farmed land, type of crops, and the location of the corridor through the fields. Since agricultural impacts would be limited to a small portion of the proposed corridor, Table C.7-7 was prepared to illustrate these impacts. See Figure C.7-1 (a through e) for specific locations of agricultural lands.

Table C.7-7 Agricultural Impacts on Proposed Project Corridor

Segment	Impact 7-3 Loss of Productive Land	Impact 7-4 Effects on Agricultural Equipment & Operations	Impact 7-5 Interference with Irrigation Practices	Impact 7-6 Effects on Aerial Applications
1	Negligible	Low - Insignificant	Low - Insignificant	None
2	None	None	None	None
3	None	None	None	None
4	Low - Insignificant	Low - Insignificant	Low - Insignificant	Low - Insignificant
5	Moderate – Significant, Mitigable*	Moderate- Significant, Mitigable*	Moderate – Significant Mitigable*	Moderate – Significant, Mitigable*
6	Moderate – Significant, Mitigable*	Moderate – Significant, Mitigable*	Moderate – Insignificant	Moderate – Significant, Mitigable*
7	High - Significant, Mitigable*	Moderate - Insignificant	High – Significant, Mitigable*	High – Significant, Unavoidable

*See Section C.7.3.3 for full description of impact and applicable mitigation measures.

Segment 1

No intensively farmed land would be affected on this segment. Land use impacts along this segment are focused on the proposed 4,200-acre “new town” Villages of Laguna San Luis Community Specific Plan land area that surrounds the proposed transmission line corridor. The corridor is designated as open space in the proposed development plan and therefore would not cross any future developed land uses. The separation between the corridor and the nearest proposed developed land use (designated as very low density, two residential units per acre) would be about 2,000 feet. To ensure land use compatibility and minimization of conflicts (Impact 7-2, **Class II**), Mitigation Measure **L-17** (above) should be applied, as well as Mitigation Measure **L-18** (following).

L-18 Within the area proposed for the Specific Urban Development Plan (SUDP), *The Villages of Laguna San Luis Community Specific Plan*, PG&E shall landscape the transmission line ROW and buffer area or otherwise design the area for integration and compatibility with the planned development. Compliance will be determined by CPUC, in consultation with Merced County planning officials.

Segment 2

As shown in Table C.7-7, agriculture would not be impacted along this segment. The corridor would cross public recreational lands in the Los Banos Creek Recreation area managed by the C DPR. No significant impacts will occur from the proposed corridor crossing this recreation resource, as all recreational activity takes place about three miles downstream where developed recreational facilities exist (e.g., campgrounds, day use areas, and boat launch). Short-term construction effects would be minor and not significant to the majority of recreation visitors. Long-term effects related to visual impacts on the recreational quality of the reservoir would not be significant because of the distance of the corridor from the main recreation area and the presence of two existing 500 kV transmission lines 0.5 mile to the east. See Section C.11, Visual Resources, for a detailed discussion of visual impacts.

Segment 3

No developed land uses would be affected along this segment. Some grazing land could be subject to short-term construction impacts, which would be less than significant (Impact 7-1, **Class III**).

Segment 4

This segment of the Western Corridor would cross the Little Panoche Reservoir Wildlife Area east of the dam, thus avoiding impacts on recreational areas around the reservoir. Short-term construction disturbances may conflict with fishing, hunting, and nature study. With implementation of mitigation measures of providing public access to recreation areas (Measure **L-7**), repairing damaged recreation access roads (Measure **L-11**), and avoiding peak use periods (Measure **L-6**), the impact would not be significant (**Class II**). The long-term presence of the transmission line would not impact recreation activities. Impacts on agriculture (Impacts 7-3, 7-4, 7-5, and 7-6) are not considered significant because of the limited amount of cultivated agriculture and grazing along this segment (**Class III**, see Table C.7-7).

Segment 5

Segment 5 of the Western Corridor crosses the entrance to BLM's Tumey Hills Recreation Area and other BLM parcels with dispersed recreational opportunities. The corridor passes through the eastern edge of the BLM lands where construction disturbances on recreational use would not be significant, unless access to the area was blocked during peak use periods (Impact 7-1, Mitigation Measures **L-6** and **L-7**). This impact would be less than significant (**Class II**) with implementation of these mitigation measures. Most hunting occurs several miles west of the corridor. The long-term presence of the transmission line would not interfere with recreational activities.

Since the Western Corridor crosses numerous agricultural lands (including orchards) in Segment 5, agricultural uses may be impacted (see Table C.7-3). Short-term construction impacts (Impact 7-1) and impacts related to loss of productive land, agricultural operations, irrigation practices, and aerial spraying would be significant, but mitigable (**Class II**) with implementation of Mitigation Measures **L-1 through L-10**.

The San Luis Water District Third Canal would be crossed in this segment, creating the potential for conflicts with canal maintenance activities. This impact (Impact 7-2, **Class II**) would be mitigable through working with the Water District on the project alignment (Mitigation Measure **L-11**).

One residence near MP 68 may be subject to short-term construction impacts, as well as long-term land use conflicts. However, the residence can be avoided through proper alignment within the project corridor. Mitigation Measures **L-11** and **L-7** (requiring construction notification) would reduce these impacts to less than significant levels (Impacts 7-1 and 7-2, **Class II**).

Segment 6

Because this segment passes through more developed areas, short-term construction disturbances (e.g., disruptions to farm operations, commercial areas, oil fields) and long-term land use conflicts may be significant (Impacts 7-1 and 7-2, **Class II**). Construction impacts can be mitigated through the application of Mitigation Measures **L-1 through L-11**. Conflicts with existing land uses would be mitigated through Mitigation Measure **L-11** (working with landowners to align the corridor to maximize the distance from existing development, including oil field structures). The presence of the transmission line near the Harris Ranch Airstrip will require review by the Fresno County Airport Land Use Commission.

Impacts on irrigated agriculture may be significant, depending on the exact alignment and tower placement within the study corridor (see Table C.7-3). Impacts 7-3 through 7-6 would be reduced with implementation of Mitigation Measures **L-12 through L-16**, and impacts would be less than significant (**Class II**).

Segment 7

Agricultural uses may be significantly impacted in this segment (see Table C.7-3; Impacts 7-3, 7-5, and 7-6). Mitigation Measures **L-12 through L-15**, if fully implemented, can effectively mitigate impacts related to loss of productive lands and interference with irrigation practices. However, Impact 7-6, effects on aerial applications, is considered significant and unavoidable (**Class I**) because the towers and lines would be located in agricultural areas and would be oriented in ways that would interfere with aerial spraying.

C.7.3.6 Proposed Substation Modifications

C.7.3.6.1 *Los Banos Substation*

Modifications within the PG&E Substation property will have minimal effects on surrounding land uses. A small amount of hay production area and/or grazing area (currently taking place on PG&E land leased to local farmers) may be converted to substation use (Impact 7-3, **Class III**). The nearest existing developed land uses are about 0.5 mile from the Los Banos Substation, and thus will not be substantially affected by construction noise, dust, and visual effects (Impact 7-1, **Class III**).

C.7.3.6.2 *Gates Substation*

Construction effects on nearby land uses will be negligible, as no developed land uses are in the immediate vicinity of the Gates Substation.

C.7.3.7 Proposed Changes South of Gates Substation

The proposed modifications south of the Gates Substation will result in minor and short-term construction effects such as noise, dust, and access restrictions on nearby land uses (Impact 7-1, **Class III**). Mitigation Measures **L-2**, **L-6**, **L-7**, and **L-10** would further reduce construction disturbances.

C.7.3.8 Policy Consistency Analysis

Pursuant to the significance criteria established in Section C.7.3.2, Proposed Project conflicts with land use policies adopted to avoid or mitigate environmental impacts would be considered significant impacts. The Proposed Project was reviewed to assess the potential for policy conflicts with Federal, State, and local land use regulations. Many land use policies require mitigation of impacts or protection of resources and habitats. In these cases, the project would be consistent with a particular policy if specific mitigation measures recommended elsewhere in this document were implemented.

C.7.3.8.1 *Federal Policies*

As stated in the regulatory setting, Section C.7.2, BLM land is managed through the Hollister Resource Management Plan. The Plan designates utility corridors to conform to the Western Utility Group Western Regional Corridor Maps. Since the I-5 corridor is shown as a utility corridor in the Plan, BLM considers the Proposed Project Corridor consistent with the Plan (Byrne, 2001).

C.7.3.8.2 *Local Policies*

General plans of the two counties crossed by the proposed and alternative project corridors were reviewed for policy consistency issues.

Merced County General Plan

Land use policies related to transmission lines are in the Circulation Element of the Merced County General Plan:

“Objective 3.A: Energy and communication transmission and distribution lines are adequately provided for within existing and future right-of-ways and easements.”

“Policy 1. Electrical, gas, crude oil and communication transmission and distribution lines should parallel major roads or rail systems.”

“Policy 2. New transmission and distribution lines shall be encouraged within existing utility easements and rights-of-way.”

“Policy 3. Electrical interference to adjacent land uses shall be considered in the placement of electrical and other transmission lines.”

The project would generally be consistent with these policies. Portions of the Proposed Project parallel I-5 and existing transmission line rights-of-way. According to PG&E, a distance of 2,000 feet must be maintained between the Proposed Project Corridor and the existing transmission lines for safety purposes. Electrical interference is evaluated in Section C.9, Public Safety and Health, of this SEIR.

General Plan Land Use Element policies address conversion of productive agriculture:

“Objective 7.A. Conversion of productive agricultural and other valuable rural land to urban uses is minimized.”

“Policy 1. Conversion of agricultural and other rural land into urban uses shall only be allowed where a clear and immediate need can be demonstrated..”

“Policy 2. Direct urban uses to less valuable farmland when conversion is justified.”

The purpose and need for the Proposed Project is described in Section A.4 and will be addressed in detail in the CPUC’s General Proceeding. Land use mitigation measures, identified in Section C.7.3.3, address loss of productive farmland and recommend avoidance of highly productive areas. With implementation of these mitigation measures, the Proposed Project would be consistent with these policies.

Objective 9.A of the General Plan Land Use Element states:

“Recreational areas, institutional and public facilities, ...power and communication towers...are appropriately located to minimize land use conflicts while satisfying local or regional demands.”

This objective is implemented by numerous policies, one of which applies to the Proposed Project:

“Policy 12. Structures which could impact air travel shall be reviewed for possible impacts.

Implementation: All proposed radio, television, power, or related transmission towers and lines shall be reviewed for appropriate location and possible air travel conflicts during the Conditional Use Application process. All applications will be referred to the Merced County Airport Land Use Commission for comment.”

A Conditional Use permit would not be required for the project because local permit authority is pre-empted by the CPUC. However, to ensure compliance with the above policy for review of the project, the following mitigation measure is recommended:

L-19 PG&E shall consult with County officials during the transmission line siting process to evaluate the potential effects on air travel safety. County personnel will review the Proposed Project and PG&E shall submit County recommendations to the CPUC.

Fresno County

The Land Use Element of the General Plan establishes several policies to protect agriculture from non-agricultural development:

“The County shall protect agricultural operations from conflicts with non-agricultural uses by requiring buffers...”

“The County shall ensure that the review of discretionary permits includes an assessment of the conversion of productive agricultural land and that mitigation be required where appropriate.”

Mitigation measures recommended in this land use assessment address project conflicts with agricultural operations and loss of productive farmland (see Section C.7.3.3, Measures **L-2, L-5, L-6, and L-9 through L-16**). With implementation of recommended mitigation measures, the Proposed Project route would be consistent with the above policies.

General Plan Public Facilities and Services Element policies for the siting of transmission lines include the following:

“Policy PF-J.2. The County shall work with local gas and electric utility companies to design and locate appropriate expansion of gas and electric systems, while minimizing impacts to agriculture and minimizing noise, electromagnetic, visual, and other impacts on existing and future residents.”

The Fresno County Zoning Ordinance requires that “the routes of proposed electric power lines shall be submitted to the Director for County review prior to acquisition of rights-of-way.” To ensure compliance with the above policy, Mitigation Measure **L-19** (above) is recommended.

C.7.4 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES FOR WESTERN CORRIDOR ALTERNATIVE SEGMENTS

Agricultural impacts for the Western Corridor Alternative Segments are summarized in Table C.7-8 and other specific land use effects are described by segment below. The policy consistency analysis presented in Section C.7.3.8 would also apply to the Western Corridor Alternative Segments.

Table C.7-8 Agricultural Impacts on Western Corridor Alternative Segments

Segment	Impact 7-3 Loss of Productive Land	Impact 7-4 Effects on Agricultural Equipment & Operations	Impact 7-5 Interference with Irrigation Practices	Impact 7-6 Effects on Aerial Applications
2A	None	None	None	None
4A	None	None	None	None
6A	Significant, Mitigable*	High – Significant Unavoidable	High – Significant, Mitigable*	High – Significant Unavoidable
6B	None	None	None	None

*See Section C.7.3.3 for full description of impact and applicable mitigation measures.

Segment 2A

This alternative segment would further minimize potential impacts on the Los Banos Creek Recreation Area by avoiding all but the very western edge of the recreation area (see Figure C.7-3). Agriculture would not be impacted along this segment.

Segment 4A

This segment crosses the western side of Little Panoche Reservoir Wildlife Area, over the westernmost section of the reservoir. Some recreational activities may be restricted during construction, but recreational use would not be affected once construction is complete. Mitigation measures for short-term construction effects (Impact 7-1, **Class II**) include **L-1, L-3, L-6, and L-7**.

No productive agricultural lands would be impacted in this segment.

Segment 6A

Agricultural impacts related to interference with agricultural operations and aerial spraying would be significant and unavoidable (Impacts 74 and 76, **Class I**) due to the large amount of cultivated agriculture along this segment and the predominantly diagonal orientation of the transmission line across the irrigated farmlands. This segment would be closer to the Harris Ranch Airstrip than the Proposed Segment 6 of the Western Corridor, and would be subject to the same airport commission review.

Segment 6B

Because this alternative segment is further west and avoids cultivated agricultural land, impacts on agriculture would be less than significant (**Class II**). Oil field conflicts (Impact 7-2, **Class II**) can be avoided through proper tower and line siting (Mitigation Measure **L-11**).

C.7.5 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES FOR THE EASTERN CORRIDOR ALTERNATIVE

Compared to the Proposed Project Corridor, much more of the Eastern Corridor Alternative is used for intensive farming (71 percent vs. 13 percent on the Proposed Project Corridor): more row crops and permanent crops exist within the ROW (see Table C.7-4). Agricultural impacts related to loss of productive land and interference with agricultural operations, irrigation practices, and aerial spraying would occur on every segment except Segment 3. Due to the predominance of intensive farming, particularly in permanent crops, these agricultural impacts are considered significant and unavoidable (Impacts 7-3, 7-4, 7-5, and 7-6, **Class I**). A large percentage of the crops planted within the Eastern Corridor Alternative are furrow irrigated. These crops include tomatoes, cotton, sugar beets, field corn, onions, garlic, and lettuce. As described in Impact 7-5 in Section C.7.3.3 (General Impacts), furrow irrigation is susceptible to significant disruptions from the project. Other specific land use effects are described by segment. The Eastern Corridor Alternative would be inconsistent with the Merced and Fresno agricultural protection policies presented in Section C.7.3.8 (a **Class I** impact).

Segment 1

Similar to Proposed Segment 1 of the Western Corridor, this segment would also pass through the planned development area, Villages of Laguna San Luis Community Specific Plan. Although it appears to be on land designated as open space in the proposed plan, it would be in closer proximity (less than

1,000 feet) to low density residential uses (two to eight units per acre) and light industrial areas than the Proposed Project Corridor. The degree of construction disturbance would depend on whether or not any of the planned development was established by the time construction of the transmission line began. To minimize potential long-term conflicts with land uses (Impacts 7-2 and 7-7, **Class II**), Mitigation Measures **L-11**, **L-17**, and **L-18** should be implemented.

Segment 2

This segment would cross the eastern section of the recreation area at Los Banos Reservoir, by crossing the area immediately east of the dam (see Figure C.7-3). Two employee residences on Canyon Road and on the edge of the project corridor may be impacted by this alignment. Short-term construction impacts on these residences would be potentially significant but mitigable (Impact 7-1, **Class II**) by Mitigation Measures **L-6** and **L-7**, and long-term conflicts may be significant (Class II), depending on the final alignment. Relocation of the residences, which are housed in mobile homes, may be required. Another residence at AMP 3 could be affected (Impacts 7-1 and 7-2, **Class II**), but impacts can be avoided through proper alignment (Mitigation Measure **L-11**).

Segment 3

One residence could be affected along this segment (Impacts 7-1, 7-2, and 7-7, **Class II**), but final alignment should result in avoidance. No other developed land uses would be impacted.

Segment 4

Short-term construction impacts (Impact 7-1, **Class II**), long-term conflicts (Impact 7-2, **Class II**), and preclusion of use (Impact 7-7, **Class II**) may occur due to the presence of the California Aqueduct, several residences, ranch facilities, and an agricultural equipment storage area. Mitigation Measures **L-7**, **L-11**, and **L-17** would reduce the impacts to levels that are less than significant.

Segment 5

Placement of the transmission line may conflict with agricultural operations (i.e., Harris feedlot, Jordan Ranch facilities) because of agricultural structures within the planned ROW. All of these areas could be avoided during the selection of the final alignment (Impact 7-2, **Class II**, Mitigation Measure **L-11**).

Segment 6

Other than the agricultural impacts identified at the beginning of this section, no land use effects would occur along this alternative segment. The commercial uses at the intersection of I-5 and SR-198 are 1.5 miles south of the corridor and would not be affected. A labor camp identified near MP 82 would be outside of the corridor. The segment would be required to undergo review by the Fresno County Airport Land Use Commission, due to its proximity to the Harris Ranch Airstrip.

C.7.6 MITIGATION MONITORING, COMPLIANCE, AND REPORTING TABLE

Table C.7-9 presents the Mitigation Monitoring Program for land use and recreation.

Table C.7-9 Mitigation Monitoring Program

Impact	Mitigation Measure	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Proposed Project and Alternatives						
Construction activities would disrupt existing land use activities	L-1: PG&E shall, to the extent feasible, use access roads that were constructed for the existing 500 kV transmission lines. (These roads, many of which are still used for maintenance, with necessary repair, could be used for access with only construction of spur roads that would be necessary to reach individual tower locations.) PG&E shall document compliance with this measure by submitting an access road plan (demonstrating use of existing roads or reasons why existing roads cannot be used) to the CPUC for review and approval at least 30 days before construction.	All Proposed and Alternative Segments	Construction plan; CPUC to monitor construction activities	Miles of new access roads minimized.	CPUC	Prior to construction
	L-2: Construction staging areas and pulling sites shall be located adjacent to roads where practical. PG&E shall coordinate with landowners to establish construction areas (such as conductor pulling and splicing areas and construction yards) on non-agricultural land or in areas with less sensitive crops, where feasible. PG&E shall document compliance with this measure by submitting to the CPUC, at least 30 days before construction begins, a plan showing construction staging and pulling areas, demonstrating use of non-agricultural land or reasons why agricultural land cannot be avoided.	Construction staging areas and pulling sites	Construction plan; CPUC to monitor construction activities	Agricultural lands and sensitive crops are avoided.	CPUC	Prior to and during construction
	L-3: All access roads not required for maintenance by PG&E after construction should be either permanently closed using the most effective and least environmentally damaging methods appropriate to the landowners, or be regraded (recontoured), restored, and revegetated with the concurrence of the relevant landowners. Any damaged recreation, farm, or residential access roads shall be repaired. PG&E shall document compliance with this measure by submitting to the CPUC a plan showing methods to restore and revegetate unnecessary access roads.	All Proposed and Alternative Segments	CPUC to monitor post-construction cleanup activities	Roads restored to natural conditions	CPUC	After construction
	L-4: PG&E shall locate new access roads parallel to landform contours where feasible, in order to minimize ground disturbance and/or reduce scarring. PG&E shall document compliance with this measure by submitting an access road plan (demonstrating conformance to landform contours) to the CPUC for review and approval.	All Proposed and Alternative Segments	Construction plan; CPUC to monitor construction activities	Ground disturbance and scarring from access road construction is minimized	CPUC	Prior to construction

Impact	Mitigation Measure	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>L-5: In agricultural areas where sites would be graded, PG&E shall stockpile topsoil. After construction, topsoil shall be replaced and the site graded to the original contours. If appropriate, the site shall be reseeded in accordance with agency or landowner objectives. PG&E shall document compliance with this measure by submitting to CPUC a plan showing methods to stockpile topsoil and restore construction sites.</p>	<p>Agricultural areas disturbed by construction</p>	<p>Construction plan; CPUC to monitor construction activities</p>	<p>Agricultural soils are not degraded</p>	<p>CPUC</p>	<p>During and after construction</p>
	<p>L-6: PG&E shall time construction, whenever practical, to minimize disruption of normal seasonal activities for crop and rangeland and to avoid peak use periods at recreational areas. PG&E shall work with the appropriate County agent and farmers to agree to a construction schedule that would avoid the prime crop planting, growing, and harvesting seasons, to the extent possible. PG&E shall submit a construction schedule to the CPUC for review and approval. The schedule shall document how disruptions to agricultural operations will be avoided.</p>	<p>Agricultural and recreational areas</p>	<p>Construction plan; CPUC to review construction schedule</p>	<p>Crop harvesting and planting are not disrupted; recreational facilities are not impaired during peak use periods</p>	<p>CPUC</p>	<p>Prior to and during construction</p>
	<p>L-7: At least one month prior to constructing the project, PG&E shall give advance notice of such construction, construction activity schedules, access restrictions, and anticipated disturbances to property owners, residents, and tenants potentially affected by construction activities (within 1,000 feet of project ROW or access roads). The Applicant shall provide adequate access to existing land uses during all periods of construction and shall notify landowners of alternative access. PG&E shall avoid nighttime construction near noise-sensitive land uses (e.g., residences and campers at recreation areas). PG&E shall document compliance with this measure by submitting to CPUC a copy of the notice for review and approval prior to mailing said notice. PG&E shall provide evidence to CPUC that the notice was delivered to landowners and residents within 1,000 feet of the project ROW and access roads. PG&E shall submit to CPUC a plan showing how adequate access to existing land uses will be provided during construction.</p>	<p>All lands within 1,000 feet of ROW, substation, or access road</p>	<p>CPUC to review and approve copies of mailed notices, bulletins, and published notices</p>	<p>Timely and detailed notices, bulletins, and published notices.</p>	<p>CPUC</p>	<p>At least one month before construction</p>

Impact	Mitigation Measure	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>L-8: Immediately after removing sections of grazing fencing, PG&E shall construct a temporary barrier across the section of removed fencing so that grazing animals cannot move through the fencing. Immediately after completing construction in the area, PG&E shall repair the section of removed fencing. PG&E shall close all gates immediately after they are opened to allow construction vehicles and equipment access to a construction area. PG&E shall incorporate these requirements into the construction plan and demonstrate to the CPUC that all construction workers are informed of these provisions.</p>	Grazing lands	Construction plan; CPUC to monitor in the field	No open sections of fencing are observed during inspections of construction areas	CPUC/BLM	During construction and immediately after construction
	<p>L-9: PG&E shall include a stipulation in its easement agreements with landowners along the ROW that landowners shall be reimbursed for the value of the crops lost and the cost of any delay or interruption in necessary farming or grazing practices as a result of any interrupted use of cropland or grazing land.</p>	Agricultural lands along Proposed and Alternative Segments	CPUC to designate responsible party to monitor Applicant compliance with easement stipulation.	Less than 20% of crop farmers complain about inadequate compensation for lost crops	CPUC	Prior to construction
	<p>L-10: PG&E shall avoid construction operations that disturb soil during the wet season (moist soil is generally more susceptible to compaction than dry soil). PG&E shall minimize the use of heavy equipment on agricultural land to avoid soil compaction. Where compaction occurs on agricultural land as a result of construction, the soil shall be ripped to restore adequate percolation of irrigation water through the soil strata. PG&E shall incorporate these requirements into the project construction plan and submit the plan to CPUC for review and approval.</p>	Agricultural lands	Construction plan; CPUC to monitor in field	Soil compaction does not occur on agricultural lands	CPUC	During construction
Conflicts with existing and planned land uses	<p>L-11: PG&E shall coordinate with property owners during final transmission line design and shall align the transmission line, with the review and approval of the CPUC, so as to avoid existing residences and maximize the distance between the line and agricultural operations, planned developments, canals, oil fields, dams, recreation areas, and airstrips located within, adjacent to, and near the ROW.</p>	Proposed and Alternative Segments	CPUC to review and approve final alignment and tower plans	Approved final plans that avoid displacing developed land uses	CPUC	Prior to construction
	<p>L-18: Within the area proposed for the Specific Urban Development Plan (SUDP), <i>The Villages of Laguna San Luis Community Specific Plan</i>, PG&E shall landscape the transmission line ROW and buffer area or otherwise design the area for integration and compatibility with the planned development. Compliance will be determined by CPUC, in consultation with Merced County planning officials.</p>	Proposed and Alternative Segments 1	Construction plan and restoration plans; CPUC to review and approve final alignment	Project is integrated with proposed development in safe and aesthetic manner	CPUC	Prior to construction and after construction

Impact	Mitigation Measure	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Loss of productive agricultural land	L-12: Tower placement shall be adjusted, with review and approval of the CPUC during final project design, to avoid orchards and vineyards, row crops, and furrow-irrigated crops (with tower-to-furrow angles greater than 61 percent), wherever possible. Also when possible, the corridor should avoid more heavily cultivated crops in preference for non-agricultural land or crops such as alfalfa, corn, and small grains. PG&E shall coordinate work with local landowners to place towers in areas that would cause the least impact (e.g., along the edges of fields or adjacent to mid-section farming roads).	Agricultural lands	Construction plan; CPUC to review and approve final alignment and tower plans	Approved final plans that avoid/minimize displacing intensive agriculture	CPUC	Prior to construction
Interference with agricultural equipment and operation	L-13: When locating towers in row crops is unavoidable, PG&E shall attempt to locate towers in fields with rows that would be parallel, rather than perpendicular, to the transmission line. Transmission lines shall not be placed in diagonal orientations across cultivated fields, to the extent feasible. At least 30 days prior to construction, PG&E shall submit to the CPUC, for review and approval, a tower location plan that indicates agricultural row orientation.	Row crops	Construction plan; CPUC to review and approve final alignment and tower plans	Approved final plans that avoid/minimize perpendicular alignments	CPUC	Prior to construction
Interference with irrigation practices	L-14: Where towers must be placed in agricultural fields, transmission lines and towers shall be placed toward the center of fields where feasible. PG&E shall avoid placing towers at the edge of fields where canals or irrigation ditches are located. PG&E shall document compliance with this measure by submitting to the CPUC, for review and approval, a tower location plan that indicates tower location relative to agricultural fields and irrigation systems.	Irrigated crop land	Construction plan; CPUC to review and approve final alignment and tower plans	Approved final plans that avoid/minimize irrigation facilities	CPUC	Prior to construction
	L-15: PG&E shall avoid siting of towers in fields using mechanical move irrigation systems, and shall attempt to locate them in fields using flood or border check irrigation over those using furrow irrigation. PG&E shall document compliance with this measure by consulting with landowners to identify irrigation systems and by submitting to the CPUC, for review and approval, a tower location plan that indicates avoidance of areas of mechanical move and furrow irrigation systems.	Irrigated crop land	Construction plan; CPUC to review and approve final alignment and tower plans; monitor in field	Approved final plans that avoid/minimize mechanical move irrigation systems	CPUC	Prior to construction

Impact	Mitigation Measure	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Effects on aerial practices	L-16: When transmission towers are to be installed in or adjacent to agricultural fields, PG&E shall avoid installing them adjacent to existing transmission lines and shall avoid angular joining of corridor segments. PG&E shall document compliance with this measure by submitting to the CPUC, for review and approval, construction plans that show locations of all angle towers in agricultural areas.	Crop lands	Construction plan; CPUC to review and approve final alignment and tower plans	Approved final plans that avoid/minimize side by side lines and angular joints	CPUC	Prior to construction
Permanent preclusion of existing and permitted land uses	L-17: During the right-of-way acquisition process, PG&E shall coordinate with each affected property owner, in order to develop an alignment and specific tower locations, to provide clear information about the right-of-way acquisition process compensation, and construction and maintenance activities, and to understand landowner plans for use of the transmission corridor area in order to minimize the impact of tower and ROW location. PG&E shall document compliance with this measure by submitting to the CPUC written evidence of landowner consultation and a copy of the written information distributed to landowners.	All Proposed and Alternative Segments	Construction plan; CPUC to review and approve final alignment and tower plans	Approved final plans that avoid/minimize preclusion of land uses	CPUC	Prior to construction

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