E. COMPARISON OF ALTERNATIVES

E.1 INTRODUCTION

This section summarizes and compares the environmental advantages and disadvantages of the Proposed Project (Western Corridor) and the alternatives evaluated in this Supplemental EIR. This comparison is based on the updated assessment of environmental impacts of the Proposed Project and each alternative, as identified in Sections C.2 through C.12, and on cumulative impacts and No Project Alternative impacts, identified in Section D. Sections B.5 and B.6 describe the alternatives considered in this SEIR and the process used in 1986 to select these alternative corridors.

Section E.2 describes the process used in this SEIR to compare alternatives. Section E.3 summarizes the comparison of alternatives and presents the environmentally superior alternative, along with a map of the environmentally superior transmission line route (Figure E-1). Section E.4 then compares the Environmentally Superior "Build[1]" Alternative with the No Project Alternative, and identifies the resulting Environmentally Superior Alternative for this SEIR.

E.2 COMPARISON METHODOLOGY

Following is the methodology that was used to compare alternatives in this Supplemental EIR and in the original EIS/EIR:

- **Step 1: Identification of Alternatives**. For the original EIS/EIR, an alternatives screening process (described in Section B.5) was used to identify the Proposed Project and alternatives. The result of that screening process was the identification of the Proposed Project, the Eastern Corridor Alternative, and the four Western Corridor Alternative Segments. Those routes remain relevant and are also evaluated in this SEIR. No other feasible alternatives that may lessen or alleviate significant impacts have been identified.

- **Step 2: Determination of Environmental Impacts**. The environmental impacts of the proposed and the alternative route segments were identified in Sections C.2 through C.11, including the potential impacts of transmission line and substation construction and operation. The impacts of the No Project Alternative are evaluated in Section C.12.

- **Step 3: Comparison of Proposed Project with Alternatives**. The environmental impacts of the Western Corridor have been compared to those of the Eastern Corridor Alternative to determine the Environmentally Superior transmission line route. This comparison was performed for each of the 10 environmental issue areas. The conclusion of this process resulted in a determination that the Proposed (Western) Corridor is environmentally superior to the Eastern Corridor Alternative. Details supporting this conclusion are presented in Sections E.3.1 and E.3.2, and the No Project Alternative is compared with the "build" alternatives in Section E.4.

CEQA does not provide specific direction regarding the methodology of alternatives comparison. Each project must be evaluated for the issues and impacts that are most important; this will vary depending on the project type and the environmental setting. Issue areas that are generally given more weight in comparing alternatives are those with long-term impacts (e.g., visual impacts, permanent loss of

[1] The term "build" alternatives is used to distinguish these alternatives (i.e., Proposed Western Corridor, Eastern Alternative Corridor) from the No Project Alternative which would not involve construction of the 84-mile 500 kV transmission line.

habitat or loss of use of agricultural land, safety impacts). Impacts associated with construction or those that are easily mitigable to less than significant levels are considered to be less important.

E.3 ENVIRONMENTALLY SUPERIOR "BUILD" ALTERNATIVE

Determination of which of the project alternatives are environmentally superior is quite difficult and depends on the balancing of many factors. In order to meet the CEQA requirements to identify an environmentally superior alternative, the most important impacts in each area were identified and compared; these impacts are summarized in this section. The following sections summarize the benefits and impacts of each alternative, and state whether the Proposed Project or which of the "build" alternatives is considered to be environmentally superior within each area. The Proposed Project and the alternatives are described in detail in Sections B.2 through B.6 and illustrated on Figures B-1a and B-1b.

The first section below (Section E.3.1) compares the entire Western Corridor, as proposed, with the Eastern Corridor Alternative. Section E.3.2 then compares the four Western Corridor Alternative Segments with their respective Proposed Project segments. Each section begins with a summary of the reasons (in 1986) that the route was originally selected for consideration, and includes a discussion of the conclusions of the 1988 Final EIS/EIR along with the conclusions of this SEIR.

E.3.1 PROPOSED WESTERN CORRIDOR VS. EASTERN CORRIDOR ALTERNATIVE

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

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

The 1988 Final EIS/EIR concluded that the Western Corridor was environmentally superior to the Eastern Corridor Alternative for the following reasons:

- Crossing grazing lands in the Western Corridor was considered to be preferable to crossing agricultural lands along the Eastern Corridor Alternative. This results in a reduced impact on the farming community by minimizing the disruption of existing agricultural practices including aerial seeding and spraying, field irrigation, and soil cultivation and preparation.
- The Western Corridor had fewer conflicts with scattered farmhouses and agricultural operation areas and, because of the terrain, there was considered to be less potential for future development.
- Los Banos Reservoir recreational facilities are concentrated in the eastern portion of the recreation area near the point where the Eastern Corridor Alternative would cross it.

- Fewer visual impacts on travelers would result from a Western Corridor because the line would not be seen from most of Interstate 5.
- There may be more conflict with vegetation and wildlife, as well as cultural and paleontological resources on the west route, but with proper siting, careful construction practices, and adequate mitigation, impacts could be substantially reduced or eliminated.

The conclusions regarding the comparison of the Western Corridor with the Eastern Corridor Alternative, based on the updated information in this SEIR, are presented below and in more detail in Table E.4-1 at the end of this section.

Table E.3-1 SEIR Conclusions: Western Vs. Eastern Corridors

Issue Area	Corridor With Less Impacts	Issue Area	Corridor With Less Impacts
Air Quality	Eastern	Land Use & Recreation	Western
Biological Resources	Eastern	Public Health & Safety	Western
Cultural Resources	Eastern	Socio. & Public Services	No Preference
Geology, Soils, Minerals	Western	Transportation/Traffic	Western
Hydrology/Water Res.	Eastern	Visual Resources	Western

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

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

E.3.2 PROPOSED WESTERN CORRIDOR VS. WESTERN CORRIDOR ALTERNATIVE SEGMENTS

Because the Western Corridor is environmentally superior overall to the Eastern Corridor Alternative, the comparison must be made between the Western Corridor Alternative Segments and the proposed Western Corridor Segments. Sections E.3.2.1 through E.3.2.3 present these comparisons.

E.3.2.1 Proposed Segment 2 Vs. Alternative Segment 2A

Alternative Segment 2A was designed to cross Los Banos Reservoir at its far western end in an attempt to minimize visual, recreation, and hydrologic impacts of the Proposed Segment 2. The Final EIS/EIR determined that Segment 2 (identified as "West-2") was preferred over Segment 2A (identified as "West-3") for the following reasons:

- Construction in Segment 2A could result in more biological impacts. Construction activities could adversely affect three sensitive plant species, habitat for golden and bald eagles, and known San Joaquin kit fox locations.
- In Segment 2A, there would be an increase in construction difficulty and costs because of more rugged terrain, difficult access, increased need for cut and fill, and greater erosion hazard potential.
- In Segment 2A, there is a potential for interference with the proposed Los Banos Grandes Reservoir and ancillary facilities [Note: DWR now states that this project may not be constructed].
- Segment 2A is approximately 0.2 miles longer than West-2 and, therefore, would require more towers resulting in greater ground disturbance (potential for biological and cultural impacts).
- Although Segment 2A crosses the westernmost portion of the Los Banos Reservoir, the impacts are not considered to be significant since the line would be sited over two miles to the west of the principal recreational use area.

Table E.3-2 presents the SEIR's summary conclusions regarding these segments; more detailed discussion is presented in Table E.5-2.

Table E.3-2 SEIR Conclusions: Proposed Segment 2 Vs. Alternative Segment 2A

Issue Area	Corridor With Less Impacts	Issue Area	Corridor With Less Impacts
Air Quality	No Preference	Land Use & Recreation	Segment 2A
Biological Resources	Segment 2	Public Health & Safety	No Preference
Cultural Resources	Segment 2A	Socio. & Public Services	No Preference
Geology, Soils	Segment 2	Transportation/Traffic	No Preference
Hydrology/ Water Res.	Segment 2A	Visual Resources	Segment 2A

Conclusion: Segment 2 Vs. Segment 2A. As described above, the original EIS/EIR determined that Proposed Segment 2 ("West-2") was preferred over Western Corridor Alternative Segment 2A. While this SEIR does not identify any significant unmitigable impacts associated with either segment, the potential long-term impacts of Proposed Segment 2 to recreation and visual resources outweigh the other issues. Therefore, Alternative Segment 2A is considered to be environmentally superior to Proposed Segment 2.

E.3.2.2 Proposed Segment 4 Vs. Alternative Segment 4A

Alternative Segment 4A was designed to cross Little Panoche Reservoir at its western end, whereas Proposed Segment 4 would cross immediately east of the dam. The Final EIS/EIR determined that Segment 4 (identified as "West-5") was preferred over Segment 4A (identified as "West-6") for the following reasons:

- Segment 4 would concentrate man-made facilities in one area. These facilities include the existing 500 kV transmission lines (about 2,000 feet east of the dam) and the Little Panoche Dam facilities. There is not a conflict with Little Panoche Dam and the new transmission line.
- Construction would be more difficult in Segment 4A because of steeper terrain, need for cut and fill for access roads construction, and increased potential for erosion.
- Segment 4A contains one recorded paleontological site (Segment 4 has none).

- Segment 4A is 0.5 miles longer than Segment 4, and would require more towers. This would result in greater ground disturbance (potential for biological and cultural impacts).

Table E.3-3 presents the SEIR's summary conclusions regarding these segments; more detailed discussion is presented in Table E.5-3.

Table E.3-3 SEIR Conclusions: Proposed Segment 4 Vs. Alternative Segment 4A

Issue Area	Corridor With Less Impacts	Issue Area	Corridor With Less Impacts
Air Quality	No Preference	Land Use & Recreation	Segment 4A
Biological Resources	Segment 4	Public Health & Safety	No Preference
Cultural Resources	Segment 4A	Socio. & Public Services	No Preference
Geology, Soils	Segment 4	Transportation/Traffic	No Preference
Hydrology/Water Res.	No Preference	Visual Resources	Segment 4A

Conclusion: Segment 4 Vs. Segment 4A. As explained above, the original EIS/EIR determined that Proposed Segment 4 (then called "West-5") would have fewer environmental impacts. No significant unmitigable impacts occur on this segment. The SEIR analysis presents mixed results: recreational users of the reservoir would notice the new line less if Segment 4A were used and this segment has less potential to affect cultural resources. However, Segment 4A would have somewhat greater biological and geologic impacts. Given that balance of impacts, this SEIR considers that Segment 4 is environmentally superior because it is one-half mile shorter than the alternative segment, reducing overall construction impacts and eliminating towers from permanent view.

E.3.2.3 Proposed Segment 6 Vs. Alternative Segments 6A and 6B

Segments 6, 6A, and 6B are the southernmost segments of the Western Corridor (before Segment 7, which runs east to the Gates Substation). They pass through different land uses. Segment 6B, the furthest west segment, passes through the low hills of the Coalinga Oil Fields, avoiding agricultural lands. Segment 6A is the furthest east segment, crossing the most agricultural land on the diagonal path that is most problematic to agricultural management concerns. The Final EIS/EIR determined that Segment 6 (identified as "West-9") was preferred over Segments 6A (identified as "West-8") and 6B (identified as "West-10) for the following reasons:

- Segment 6A was not preferred because approximately 75 percent of the route crosses agricultural land. Siting a transmission line within this route would have more significant impacts on developed agricultural land than either Segments 6 or 6B, including interference with existing circle irrigation.
- Segment 6A crosses the proposed site of the Coalinga Air Cargo Port [Note: This is no longer proposed].
- Segment 6B was not preferred because this segment would conflict with oil wells, water extraction wells, and oil operation areas, potentially restricting resource development.
- Segment 6 provided the best opportunity to minimize impacts on both agricultural land and oil operations. An alignment can be selected that could avoid most of these concerns.
- Segment 6 is 0.2 miles longer than Segment 6A and 1.2 miles shorter than Segment 6B (greater length results in potential for greater ground disturbance, affecting biological and cultural resources).

Table E.3-4 presents the SEIR's summary conclusions regarding these segments; more detailed discussion is presented in Table E.5-4.

Table E.3-4 SEIR Conclusions: Proposed Segment 6 Vs. Alternative Segments 6A and 6B

Issue Area	Corridor With Less Impacts	Issue Area	Corridor With Less Impacts
Air Quality	No Preference	Land Use & Recreation	Segment 6B
Biological Resources	Segment 6A	Public Health & Safety	Segment 6B
Cultural Resources	Segment 6A	Socio. & Public Services	Segment 6B
Geology, Soils	Segment 6A	Transportation/Traffic	No Preference
Hydrology/Water Res.	Segment 6A	Visual Resources	Segment 6

Conclusion: Segment 6 Vs. Segments 6A and 6B. As discussed above, the conclusion of the 1988 Final EIS/EIR was that Proposed Segment 6 environmentally superior to the two alternative segments. As illustrated in Table E.3-4, the analysis in this SEIR does not present a consensus regarding these segments. Segment 6B (in the oil fields and west of agricultural lands) is environmentally preferable in Land Use, Public Safety, and Socioeconomics because it avoids agricultural land uses which have associated significant and unmitigable (Class I) impacts related to Segment 6A's potential effects on agricultural operations/equipment and aerial spraying. Segment 6A (in agricultural land) is environmentally preferable in biological and cultural resources, geology, and hydrology because it would avoid the oil field and habitat impacts of Segment 6B. The Final EIS/EIR selected Segment 6 because it offered an opportunity to minimize impacts on both agricultural land and oil operations. Segments 6 and 6A would have a significant unmitigable impact related to aerial spraying, but Segment 6B is 1.2 miles longer than Segment 6, requiring additional construction impacts and long-term visibility of more towers in a highly visible area. In conclusion, Segment 6 appears to be the best solution to minimizing overall impacts in this area. Therefore, Segment 6 is environmentally superior to Segments 6A and 6B.

E.3.3 ILLUSTRATION OF THE ENVIRONMENTALLY SUPERIOR "BUILD" TRANSMISSION LINE

As explained in Sections E.3.1, the Proposed Western Corridor was found to be environmentally superior to the Eastern Corridor Alternative. Section E.3.2 determines that the following segments along the Western Corridor are environmentally superior:

- Alternative Segment 2A is preferred over Segment 2
- Segment 4 is preferred over Segment 4A
- Segment 6 is preferred over Segments 6A and 6B.

Figure E-1 illustrates the transmission line route in the Environmentally Superior "Build" Alternative.

Figure E-1

Environmentally Superior Route

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[See link on webpage]

Figure E-1

Environmentally Superior Route

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[See link on webpage]

E.4 NO PROJECT ALTERNATIVE COMPARED WITH THE ENVIRONMENTALLY SUPERIOR "BUILD" ALTERNATIVE

As described in Section B.8, the No Project Alternative could have two components: new generation north of Path 15 and different transmission upgrades. The environmental impacts of large thermal (natural gas fired) power plants can be significant, especially with respect to air quality, water resources, biological resources, and visual resources. The environmental impacts of a transmission line, because the operational impact are insignificant, would be substantially less than those associated with power generation. Therefore, the Proposed Project (or any alternative) is environmentally superior to the No Project Alternative, assuming the generation option. However, because power plants are constructed by merchant power generators or local utilities, their construction will proceed regardless of whether Path 15 is built.

The No Project Alternative also includes the possibility of a smaller transmission system upgrade that could provide an additional 400 to 500 MW of capacity between the Los Banos and Gates Substations. This transmission upgrade would have impacts that are much less extensive and severe than those of the Proposed Project. Therefore, if the need is justified for only 500 MW or less, this alternative is environmentally superior to the Proposed Project.

E.5 ALTERNATIVE COMPARISON SUMMARY TABLES

This section presents a summary comparison of the impacts of the Proposed Project (Western Corridor), the Western Corridor Alternative Segments, and the Eastern Corridor Alternatives. Four tables follow:

- Table E.5-1, Proposed Western Corridor vs. Eastern Corridor Alternative
- Table E.5-2, Proposed Western Corridor Segment 2 Vs. Western Alternative Segment 2A
- Table E.5-3, Proposed Western Corridor Segment 4 Vs. Western Alternative Segment 4A
- Table E.5-4, Proposed Western Corridor Segment 6 Vs. Western Alternative Segments 6A and 6B

Table E.5-1 Proposed Western Corridor Vs. Eastern Corridor Alternative

Impact	Impact Discussion
Air Quality	**Eastern Corridor Preferred.** The Eastern Corridor Alternative is slightly preferred over the Western Corridor (Proposed Route) because the Eastern Corridor Alternative does not require development of as many new access roads as would be required for the Western Corridor and overall construction emissions would be reduced. However, impacts associated with NOx construction emissions would still be considered significant for either alternative.
Biological Resources	**Eastern Corridor Preferred.** Construction of the transmission line along the Eastern Corridor Alternative would occur within predominantly agricultural lands, thereby avoiding nearly all sensitive biological resources and eliminating virtually all impacts to all special status plant and animal species. Consequently, from a biological standpoint, the Eastern Corridor Alternative is strongly preferred over the Western Corridor.
Cultural Resources	**Eastern Corridor Preferred.** The Eastern Corridor Alternative has the least potential to impact recorded cultural resources, other known cultural resources, and potential cultural resources eligible for inclusion on the National Register and/or California Register. The Western Corridor has greater potential to impact National Register and/or California Register prehistoric, ethnographic/contemporary, and historic era eligible cultural resources. This route is generally near and through the foothills of the Coast Ranges and closer to natural resources (e.g., asphaltum/oil, gypsum, etc.) that were used in historic and prehistoric times. This Corridor has a much larger number of recorded sites and the terrain is more favorable for the presence of additional (unrecorded) cultural sites based on environmental factors.
Geology, Soils, & Minerals	**Western Corridor preferred** (preferably including Segment 6A). Overall, the Western Corridor is the superior alignment with respect to geologic hazards. The Western Corridor will be subject to more significant hazards from landslide, slope stability, and expansive soils than the Eastern Corridor, is closer to regional seismic sources than the Eastern Corridor, and crosses potentially active faults along several segments. However, the Eastern Corridor is also subject to the hazards of landslide, slope stability, and expansive soils in Merced County, crosses large tracts of agricultural lands in Fresno County requiring the permanent conversion of agricultural lands to a non-agricultural use beneath tower supports, and the temporary conversion of agricultural lands for construction yards, pulling and splicing sites. The Western Corridor would avoid large expanses of soils susceptible to hydrocompaction found along the Eastern Corridor. The Western Corridor primarily crosses grasslands used for grazing, with only minor intrusion across agricultural lands east of Coalinga. While the Eastern Corridor would require conversion of agricultural lands, the Western Corridor would require construction of more all-weather access roads, thus inducing erosion and slope stability hazards. The conversion of agricultural lands to non-agricultural uses is considered to be more severe than the construction of access roads through grassland areas.
Hydrology and Water Resources	**Eastern Corridor Preferred.** Construction along the flatter eastern corridor will involve less potential erosion, runoff, and sediment transport impacts. The Eastern Alternative also requires fewer creek, reservoir, and other important wetland crossings, and it does not pass through the oil operations zone in the Coalinga area and therefore has a smaller chance of encountering contaminated soil or water. The Eastern Corridor Alternative does pass through areas with potentially shallower groundwater depths than the Western Corridor. However, in considering the overall significance of the various potential impacts, the shallower depth to groundwater along the Eastern Corridor is not considered as significant as the impacts described above.
Land Use and Recreation	**Western Corridor Preferred.** The Eastern Corridor Alternative crosses substantially more intensively farmed agricultural land than the Proposed Western Corridor. Agricultural impacts related to loss of productive land and interference with agricultural operations, irrigation practices, and aerial spraying would occur on every segment. Due to the predominance of intensive farming, particularly permanent crops, these agricultural impacts are considered significant and unavoidable. Because agricultural impacts on the proposed project route are less abundant, the proposed project route is preferred to the Eastern Corridor Alternative.
Transportation and Traffic	**Western Corridor Preferred.** The Western Corridor is slightly preferred over the Eastern Corridor Alternative because the Eastern Corridor Alternative route would involve crossing at least 3 additional county roads compared to the Western Corridor. Transmission line stringing over the additional roads would create a short-term (less than significant) impact associated with traffic control.

Table E.5-1 Proposed Western Corridor Vs. Eastern Corridor Alternative

Impact	Impact Discussion
Public Safety, Health & Nuisance	**Western Corridor Preferred.** The Western Corridor is preferred over the Eastern Corridor. The Eastern Corridor is comprised of more agricultural land, in miles, than the Western Corridor; therefore, there would be more safety impacts to aerial applicators.
Socioeconomics & Public Services	**No Preference**. There is no preference for a corridor. The Eastern Corridor would have more impacts to business activity, in terms of size of area affected, since the alternative traverses through more agricultural areas. However, the Eastern Corridor is less susceptible to fire impacts since it is drier, due to more irrigation, and more accessible via county and farm roads. There are more potential fire hazards for the Western Corridor.
Visual Resources	**Western Corridor Preferred (Segments 1 to 5).** The Western Corridor is preferred over the Eastern Corridor Alternative due to its more remote location and/or typically greater distance from Interstate-5, which provides the primary visual access in the project study area. The Proposed Project's greater distance from I-5 reduces overall structural visibility and prominence, thereby reducing visual impacts to levels lower than they might otherwise be if experienced from closer viewing distances. **Eastern Corridor Preferred (Segments 6 and 7**). Proposed Project Segments 6 and 7 west of I-5 would be located in landscapes generally lacking existing tall, vertical structural elements and would be visible from I-5. In contrast, Segment 6 of the Eastern Corridor Alternative would be located further from I-5 and in an area that would be partially obscured by intervening transmission lines. Proposed Project Segments 6 and 7 would be more visible and would cause more visual contrast and greater degradation of existing landscape visual quality than would Eastern Corridor Segment 6. Therefore, Eastern Corridor Segment 6 is preferred over Proposed Project Segments 6 and 7. In order to reduce the visual impact of the southerly-most segments of the Proposed Project, it is recommended that Proposed Project Segment 6 be revised to parallel the existing 500 kV lines and cross I-5 near Milepost 69, turning east to follow Eastern Corridor Segment 6 to Gates Substation.

Table E.5-2 Proposed Segment 2 Vs. Alternative Segment 2a

Issue Area	Impact Comparison
Air Quality	**No Preference.** There is no difference between air quality impacts on these two segments.
Biological Resources	**Segment 2 Preferred.** Construction of the transmission line using Western Corridor Alternative Segment 2A could affect potential nesting sites within the riparian corridors at Los Banos Creek (MP 6) and Ortigalita Creek (MP 14).
Cultural Resources	**Segment 2A Preferred**. One site in this segment is eligible to be registered on the National Register of Historic Places.
Geology, Minerals, and Paleontology	**Segment 2 Slightly Preferred.** There is little or no difference in these two segments due to geologic hazards. Both of these segments are subject to adverse (but less than significant, Class III) hazards from increased erosion, landslide, slope stability, and expansive clay soil hazards which can be avoided by site selection or minimized by engineering design of foundations, but Segment 2A would be likely to have greater erosion and slope stability concerns. The segments will both be subject to strong ground shaking from local seismicity, in approximately the same intensity, due to the limited separation of the two segments.
Hydrology and Water Quality	**Segment 2A Preferred.** Alternative Segment 2A is preferred over Segment 2 because it avoids the Los Banos Reservoir.
Land Use and Recreation	**Segment 2A Preferred**. Agriculture would not be impacted along either the proposed or alternative segment. Alternative Segment 2A would reduce potential impacts on the Los Banos Creek Recreation Area by avoiding all but the very western edge of the recreation area, so this segment is preferred. However, the impact on the recreation facility is less than significant with either segment.
Transportation and Traffic	**No Preference.** There is little difference between any of the Western Corridor route segments and the corresponding Proposed Route segments because approximately the same number of roads would be crossed, resulting in short-term mitigable (Class II) construction impacts.
Public Safety and Health	**No Preference.** There is no preference for Segment 2 versus 2A.
Socioeconomics & Public Services	**No Preference.** There is no preference for Segment 2 versus 2A.
Visual Resources	**Segment 2A Preferred.** Alternative Route Segment 2A is preferred over Proposed Route Segment 2 because Segment 2A is located further away (to the west) from the higher use reservoir areas of the Los Banos Creek State Recreation Area and would cause less of a visual impact on the Recreation Area.

Table E.5-3 Proposed Segment 4 Vs. Alternative Segment 4A

Issue Area	Impact Comparison
Air Quality	**No Preference.** There is no difference in air quality impacts between Segment 4 and Alternative Segment 4A
Biological Resources	**Segment 4 Preferred**. Western Corridor Alternative Segment 4A would cross Little Panoche Creek and its riparian corridor. Therefore, Proposed Segment 4 is preferred.
Cultural Resources	**Segment 4A is Preferred**. The Western Corridor Segment 4 includes more recorded sites and potentially significant sites.
Geology, Minerals, and Paleontology	**No Preference.** There is little or no difference in these two segments due to geologic hazards. Both of these segments are subject to less than significant (Class III) hazards from increased erosion, landslide, and slope stability hazards, which can be avoided by site selection or minimized by engineering design of foundations. Both segments will be subject to strong ground shaking from local seismicity. Both segments cross potentially active strands of the O'Neill Fault system, though proper site selection and foundation design will reduce this hazard to less than significant (Class II). Both segments overlie the paleontologic resources of the Moreno Shale beds, a designated Area of Critical Environmental Concern, for approximately the same alignment length.
Hydrology and Water Quality	**Cannot Be Determined Without Tower Siting.** The comparison of Segments 4 and 4A it depends on the specific siting of tower locations. If Segment 4 travels east (downstream) of the Little Panoche Reservoir then it is preferred over Segment 4A. In particular, if Segment 4A requires a tower location on the valley bottom (floodplain) near to Little Panoche Creek, then a Segment 4 route that is east of the reservoir is the preferred alternative.
Land Use and Recreation	**Segment 4A Slightly Preferred.** Agricultural impacts on the two segments would be similar. In Proposed Segment 4, the transmission line would cross the Little Panoche Reservoir Wildlife Area immediately east of the dam, where it would be visible to recreationists on and around the reservoir. Alternative Segment 4A crosses the western side of Little Panoche Reservoir Wildlife Area, over the westernmost section of the reservoir. This crossing is in a remote area and would have lower recreation use. Some recreational activities may be restricted during construction.
Transportation and Traffic	**No Preference.** There is little difference between any of the Western Corridor route segments and the corresponding Proposed Route segments because approximately the same number of roads would be crossed, resulting in short-term mitigable (Class II) construction impacts.
Public Safety and Health	**No Preference.** There is no difference in impacts in public safety and health between Segments 4 and 4A.
Socioeconomics & Public Services	**No Preference.** There is no difference in socioeconomic or public services impacts for Segments 4 and 4A.
Visual Resources	**Segment 4A Preferred.** Alternative Route Segment 4A is preferred over Proposed Route Segment 4 because Segment 4A is located further away (to the west) from the higher use reservoir area of Little Panoche Reservoir. In contrast, Proposed Segment 4 would span almost directly overhead of the dam/spillway area and would be a prominent visual feature in views from the reservoir and immediate surrounding area. Alternative Segment 4A would cause less of a visual impact on visitors to the reservoir area.

Table E-5-4 Proposed Segment 6 Vs. Alternative Segments 6A and 6B

	Proposed Segment 6
Air Quality	**No Preference.** There is no difference between air quality impacts of Proposed Segment 6 and the Alternative Segments 6A and 6B.
Biological Resources	**Segment 6A Preferred.** Western Corridor Alternative Segment 6A is preferred over Proposed Segment 6 and Alternative Segment 6B because, similar to the Eastern Corridor Alternative, it would be primarily within agricultural lands.
Cultural Resources	**Segment 6A Preferred.**
Geology, Minerals, and Paleontology	**Segment 6A Preferred**. All three segments will be subject to less than significant geologic hazards of subsidence from oil extraction, settlement of soft or loose soils, and increased erosion potential. Alternative Segment 6A would affect the least number of existing oil well facilities; Proposed Segment 6 affecting more facilities; and Alternative Segment 6B affecting the most. Minor changes in the exact placement of the transmission line alignment could reduce the affected number of facilities along Segments 6 and 6B. All three segments have the potential for encountering liquefiable deposits where they cross stream channel deposits along Los Gatos Creek. Segment 6B would affect the most oil well facilities, but specific alignment could avoid most facilities.
Hydrology and Water Quality	**Segment 6A Preferred**. This segment crosses fewest oil operations areas and the likelihood of encountering contaminated soil or water is reduced.
Land Use and Recreation	**Segment 6B Preferred.** Because Alternative Segment 6B is further west than Proposed Segment 6 and Alternative Segment 6A, it avoids most cultivated agricultural land and the significant impacts on agriculture associated with Proposed Segment 6 and Alternative Segment 6A. Alternative Segment 6B is also furthest from Harris Ranch Airstrip. Potentially significant oil field and residential conflicts associated with Alternative Segment 6B can be avoided through proper tower and transmission line alignment. Segment 6A would have significant unavoidable (Class I) impacts on agricultural land.
Transportation and Traffic	**No Preference.** There is little difference between any of the Western Corridor route segments and the corresponding Proposed Route segments because approximately the same number of roads would be crossed, resulting in short-term mitigable (Class II) construction impacts.
Public Safety and Health	**Segment 6B Preferred.** This segment does not cross any agricultural land, therefore the safety hazards associated with aerial applications would be minimized.
Socioeconomics & Public Services	**Segment 6B Preferred.** This segment would have the least impact on agricultural productivity. Although it does cross oil production activity, proper tower siting would allow avoidance of impacts to this business activity, whereas agricultural operations on Segments 6 and 6A would be impossible to avoid.
Visual Resources	**Segment 6 Preferred.** This segment preferred over Alternative Segment 6A because Segment 6 is further from to I-5 and would be less prominent in views from that highway. Proposed Segment 6 is preferred over Alternative Segment 6B because the southern portion of Alternative Segment 6B would cross low rolling hills before turning east to parallel Jayne Avenue toward I-5. The Segment 6B structures would cause significant skylining as they ascend and cross over the horizon of the low hills. The Segment 6B structures would also diminish the visual quality of the landscape as viewed from Jayne Avenue to the north. Although the southern portion of Proposed Route Segment 6 also parallels Jayne Avenue, it does so for a shorter length than does Segment 6B. The high visibility of Segment 6B in the foreground of views from Jayne Avenue and its co-dominant to dominant presence in a landscape generally lacking tall, vertical structures would result in a moderate-to-high degree of visual change compared to low visual change for Segment 6. Alternative Route Segment 6A is slightly preferred over Segment 6B. Although Segment 6A will be more impacting on views from I-5, the impact of Segment 6B on views from Jayne Avenue would be greater with a resulting higher degree of visual change than would occur as a result of Segment 6A. Segment 6B is the least preferable of the segments