CHAPTER 5.0
ENVIRONMENTAL IMPACT ASSESSMENT SUMMARY

5.1 DEVERS-HARQUAHALA 500kV TRANSMISSION LINE

5.1.1 Introduction

This section includes the summary of impacts that could occur for each affected resource with respect to the proposed Devers-Harquahala 500kV transmission line. Potentially significant impacts are described in Chapter 6.

5.1.2 Land Use

The proposed Devers-Harquahala transmission line generally parallels the existing DPV1 line, utilizing existing access roads where possible and requiring approximately 19.3 miles of new spur roads.

According to CEQA significance criteria, potential land use impacts can occur based on the following:

- project physically divides an established community

- project conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect

- project conflicts with any applicable habitat conservation plan or natural community conservation plan

- prime farmland, unique farmland, or farmland of statewide importance is converted into a non-agricultural use

- conflicts occur with the existing zoning for agricultural use or Williamson Act contract

- due to location or nature of other involved changes to the existing environment a conversion of farmland to a non-agricultural use results

5.1.2.1 Arizona

The Arizona portion of the proposed Devers-Harquahala 500kV transmission line would be constructed within an existing utility corridor and, therefore, would not physically divide any established community.

The proposed transmission line would not conflict with existing general plans for the study area. The proposed transmission line crosses federal lands within a designated utility corridor, and within an existing right-of-way granted across federal lands; therefore, land use impacts to federal land would be minimal.

No conflicts with habitat conservation plans or natural community conservation plans would occur. Link 2 crosses the KOFA NWR. The USFWS issued a CRC (USFWS 1989 – Appendix C) for the proposed DPV2 500kV transmission line through the KOFA NWR. The CRC states that the proposed transmission line is "compatible with the purpose for which the land was acquired…." Additionally, the CRC indicates that "although the existing and proposed Devers-Palo Verde transmission lines are routed adjacent to proposed wilderness areas on the KOFA Refuge, they remain within the Crystal Hill-Coyote Peak Exclusion, an area specifically eliminated from consideration for wilderness designation because of its utility ROW

development. As stated in the EIS prepared for the 1974 wilderness proposal, wilderness designation would provide for continuation of existing rights-of-way, easements, and permits, and would not preclude additional routes on those lands excluded from wilderness designation if authorized under permit from this agency" (USFWS 1989). The impacts associated with crossing the KOFA NWR would therefore be less than significant.

Potential impacts to areas where private land and recreational areas may be affected by the construction and operational phases of the proposed transmission line are described below.

Construction

The proposed transmission line would cross 2 miles of agricultural land along Link 1a, where approximately 11 tubular steel pole towers would be installed in a parallel alignment with the Harquahala-Hassayampa 500kV transmission line. During the construction phase, temporary laydown areas, tensioning, and pulling sites would result in the removal of some active prime and unique agricultural land from production, and interfere with tilling and irrigation patterns.

A temporary impact during construction may occur where Link 8 crosses the Colorado River and could disrupt the recreational opportunities on the river in the vicinity of the proposed line.

Operation

Potential long-term operational impacts would occur along Link 1a, where tubular steel pole foundations would take approximately 950 square feet of active agricultural land out of production, and may interfere with tilling and irrigation patterns. The proposed transmission line would parallel the existing DPV1 500kV line; thus, impacts to agricultural crop dusters would be less than significant.

5.1.2.2 California

The California portion of the proposed Devers-Harquahala 500kV transmission line would be constructed within an existing utility corridor and, therefore, would not physically divide any established community.

The proposed route would not conflict with adopted environmental plans, policies, or goals of the affected communities. Although the preferred route passes through three cities and two municipal spheres of influence, the proposed transmission line would not conflict with existing general plans. The proposed route would not conflict with specific developments within Riverside County.

No conflicts with habitat conservation plans or natural community conservation plans would occur. The California portion of the proposed Devers-Harquahala 500kV transmission line crosses federal lands within the designated BLM utility corridor and within the existing right-of-way granted by BLM for construction of the DPV2 project. Therefore, impacts to federal land would be minimal.

Potentially significant impacts could occur along Links 13 and 14 where the proposed transmission line would cross three BLM ACECs (Chuckwalla Valley Dune Thicket, Alligator Rock, and Coachella Valley Fringe-toed Lizard), a California State Park (Indio Hills Palms), and the Coachella Valley NWR and Preserve.

<u>Construction</u>

Removal of an unoccupied single-family dwelling unit located within the proposed Devers-Harquahala right-of-way may be required at Link 10, Milepost 5.3. Two single-family dwelling units and a mobile home are located on an 11-acre parcel located west of CA 78 between 24th Avenue and 22nd Avenue north of and adjacent to the DPV2 right-of-way at Milepost 6.2. The

proposed Devers-Harquahala 500kV transmission line would be constructed north of and adjacent to the irrigation ditch, and would be located within approximately 100 feet of the structures. Mitigation would include purchase of the parcel, or selective tower placement, to avoid conflict with the residences.

The proposed transmission line would impact prime irrigated farmland in the Palo Verde Valley along Link 10. Approximately 39 transmission structures would be installed along 10.5 miles of farmland, parallel to the existing DPV1 line. Potential impacts during the construction phase would result from the removal of cropland from production, interference with tilling/irrigation patterns, and potential conflict with agricultural aviators due to temporary laydown areas, tensioning, and pulling sites.

Milepost 15 of Link 14 of the proposed transmission line would cross the Granite Construction Company sand and gravel mine. Impacts may occur if mining operations are impeded during construction.

Link 16 crosses a corral at Milepost 3.4. Potential construction impacts could occur to the corral located under the existing DPV1 transmission line if construction were to temporarily restrict the use of the corral.

Operation

Long-term operational impacts would occur in the Palo Verde Valley along Link 10 where structure foundations would permanently remove less than 0.1 acre of active agricultural land from production, and may interfere with tilling and irrigation patterns. Because the proposed transmission line would parallel the existing DPV1 line, impacts to agricultural aviators would be minimal.

Operational impact also could occur in the vicinity of the Granite Construction Company sand and gravel mine located at Milepost 15 of Link 14. No long-term operational impacts would occur, however, because the mine would be spanned by placing towers on either side of the mine pit.

5.1.3 Socioeconomics, Population, and Housing

According to CEQA significance criteria, potential impacts to population and housing could occur based on the following:

- project induces substantial population growth in an area, either directly (i.e., by proposed new homes and businesses) or indirectly (i.e., through extension of roads or other infrastructure)

- project displaces substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere

- project displaces substantial numbers of people, necessitating the construction of replacement housing elsewhere

5.1.3.1 Arizona

The construction of the proposed transmission line would not have a significant impact on the population or housing of the communities through which it passes in Arizona. An estimated 205 construction personnel are expected to be employed for the Devers-Harquahala 500kV line construction in Arizona and California combined.

No permanent housing would be required, as a long-term operations work force would not be needed after construction is complete. Should housing be required during construction, the town of Quartzsite, located near the proposed route in La Paz County, is accustomed to seasonal fluctuations in population from tourism; the relatively small influx of construction workers would not adversely impact the community's ability to provide housing or other accommodations. In addition, the towns of Tonopah and Buckeye in Maricopa County have adequately supported the influx of construction labor for numerous energy projects in recent years. As such, the proposed transmission line would not induce significant growth, resulting in a less than significant impact, or displace any existing housing, resulting in no impact. Any worker expenditures in these communities would represent a small, short-term benefit to some businesses in the vicinity of the proposed route.

An estimate of potential property tax payments to local jurisdictions was calculated based on proposed project costs and weighted ad valorem tax rates on a county basis. Many property-taxing jurisdictions would receive tax revenues from the proposed Devers-Harquahala transmission line. For purposes of this analysis, only total tax payments in each county are addressed, without allocation to the jurisdictions within counties to which such taxes would accrue, such as cities and special districts.

The results indicate that property taxes paid in La Paz County would represent a significant proportion of the county's total assessed valuation. The estimated annual property tax revenue would be approximately $3.4 million (in 2010), which would be more than 19 percent of La Paz County's total assessed value in fiscal year 2003-2004, and a total of approximately $14 million (net present value) or $48 million (nominal value) over the project life.

The estimated highest annual property tax payment in Maricopa County would be less than $2 million, which would be less than 1 percent of the county's total assessed valuation.

It is important to recognize that these estimates are preliminary and subject to revision as project planning proceeds. Actual property tax payments would be established by the state valuation

agencies in detail when the proposed transmission line is constructed and do not constitute a commitment by SCE.

5.1.3.2 California

The construction of the proposed Devers-Harquahala transmission line would not have a significant impact on the population or housing of the communities through which it passes in California. The greater Palo Verde and Coachella valleys are accustomed to seasonal fluctuations in population from tourism. The relatively small influx of construction workers would not adversely impact the community's ability to provide housing or other accommodations.

Potential property tax payments to local jurisdictions were estimated based on proposed project costs and weighted ad valorem tax rates on a county basis. Many property-taxing jurisdictions would receive tax revenues from the proposed DPV2 project. For purposes of this analysis, only total tax payments in each county are addressed, without allocation to the jurisdictions within counties to which such taxes would accrue, such as cities and special districts. These estimates also combine the west of Devers 230kV transmission upgrades with the California portion of the Devers-Harquahala 500kV transmission line and related facilities. Tax payments have been estimated for all counties affected by the proposed transmission line within California (i.e., Riverside, San Bernardino, Orange, and San Diego).

The results indicate that property taxes paid in California would not represent a significant proportion of the counties' total assessed valuation. The estimated annual property tax revenue for Riverside County would be approximately $3.9 million (in 2010), which would be less than one percent of the county's combined total assessed value in fiscal year 2003-2004, and total $15.3 million (net present value) or $51 million (nominal value) over the project life.

In San Bernardino County, estimated tax revenues would be approximately $7.2 million over the project life. Negligible tax revenues would accrue to Orange and San Diego counties.

It is important to recognize that these estimates are preliminary and subject to revision as project planning proceeds. Actual property tax payments would be established by the state valuation agencies in detail when the Devers-Harquahala transmission line is constructed and do not constitute a commitment by SCE.

5.1.4 Geology and Soils

According to CEQA significance criteria, potential geologic impacts could occur if the proposed Devers-Harquahala transmission line facilities were exposed to or cause one or more of the following:

- rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault
- seismic ground shaking, seismic-related ground failure, liquefaction
- inundation by seiche, tsunami, mudflow
- landslides and flooding
- wildland fires
- substantial soil erosion or the loss of topsoil
- loss of unique geologic features
- on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse

- expansive soil that could create substantial risks to life or property

- have soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater

- the project was to result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state

- the project was to result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan or other land use plan

5.1.4.1 Arizona

Geology

No potentially significant impacts for geology were identified within the Arizona portion of the Devers-Harquahala study corridor during construction of the DPV1 project. The proposed transmission line would follow the alignment of the existing DPV1 transmission line and would utilize existing access roads. Except for spur roads in work areas within the existing right-of-way, construction of the proposed transmission line would not require any new access road grading that would result in modifications to ground surface features.

In areas of low relief along the existing DPV1 line right-of-way, a minimal amount of grading was done for the construction of spur roads and tower pads, thus minimizing disturbance to the existing terrain or ground surface within the right-of-way. Similar procedures would be utilized in construction of the spur road extensions and pads for the proposed Devers-Harquahala transmission line. Soil compaction along new spur roads in soft fluvent soils may result in

localized shallow depressions of the ground surface. These depressions would be limited to the spur roads and tower pads and would be insignificant.

Geologic or physical features that may be considered unique are desert pavements and sand dunes. The only extensive sand dune is located southeast of Ford Dry Lake in California. The access road along the existing alignment does not traverse this feature.

Desert pavement is common in the study area. As noted previously, impacts to desert pavement by spur roads and tower pads were minimized on the existing DPV1 line alignment by limiting or eliminating grading in areas of low relief terrain. Similar procedures would be utilized in constructing the spur roads and pads for the proposed Devers-Harquahala transmission line.

Operation of the proposed transmission line would have minimal impacts on geology.

To mitigate potential impacts to geology, mitigation measures specified in the 1989 BLM Right-of-Way Grant (Appendix B) would be applied, including 2-1, 2-6, and 2-9.

Soils

No significant impacts were identified to soils within the Arizona portion of the proposed Devers-Harquahala study corridor during construction of the existing DPV1 project. Soil erosion along the existing DPV1 transmission line and its access road, due to surface water runoff, has been minimal. The erosion that has occurred is localized and is largely the result of surface water eroding low fill slopes and local portions of the access road with steep gradients. Since the proposed transmission line would utilize existing access roads, and the major portion of the proposed route crosses relatively low relief terrain, the erosion impacts due to the new spur roads and tower pads would be insignificant.

5.1.4.2 California

Geology

No potentially significant impacts were identified for geology within the California portion of the Devers-Harquahala study corridor during construction of the DPV1 project. Similar to the Arizona portion of the corridor, the proposed transmission line would follow the alignment of the existing DPV1 transmission line and would utilize existing access roads. Except for spur roads in work areas within the existing right-of-way, construction of the proposed transmission line would not require any new access road grading that would result in modifications to ground surface features.

In areas of low relief along the existing DPV1 line right-of-way, minimal or no grading was done for spur roads and tower pads for its construction, thus disturbance to the existing terrain or ground surface was minimized. Similar procedures would be utilized in construction of the spur roads and pads for the proposed Devers-Harquahala transmission line. Soil compaction along new spur roads in soft fluvent soils may result in localized shallow depressions of the ground surface. These depressions would be limited to the spur roads and tower pads and would be insignificant.

The western portion of the proposed route is located in a seismically active region and crosses the active Banning and Mission Creek faults and the potentially active Mecca Hills Fault. The towers along the alignment in this area could likely be subject to severe seismic shaking within the lifetime of the proposed project. Stringing and wind loads are generally higher than seismic load on towers, so this potential impact is not considered significant to the operation of the proposed transmission line. Ground surface rupture also may occur at the line crossings of active faults. Towers would be located to avoid siting over an active fault trace. Landslides, mudslides, or other related ground failures are not considered to be a significant impact along the preferred alignment.

During the design life of the proposed project, moderate to high levels of ground shaking are possible given the seismic setting of the project area. Design-level studies would identify the hazard levels and present engineering recommendations to support appropriate seismic designs. Overhead transmission lines and substation equipment can be engineered and constructed to withstand strong motions and moderate ground deformation. For example, specific requirements for seismic design would be followed based on the Institute of Electrical and Electronic Engineers' 693 "Recommended Practices for Seismic Design of Substation." Strong ground shaking is considered during substation design, but is not as relevant to transmission line tower design because wind design criteria, which are considered, are more conservative than ground shaking considerations.

Geologic or physical features that may be considered unique are desert pavements and sand dunes. Impacts to these features would be insignificant as the access road along the existing alignment would be utilized. This access road does not traverse the only extensive sand dune found in the study area. The sand dune is located southeast of Ford Dry Lake in California, which is north of I-10.

Soils

No significant impacts were identified to soils within the California portion of the proposed Devers-Harquahala study corridor during construction of the DPV1 project. Soil erosion along the existing DPV1 transmission line and its access road due to surface water runoff has been minimal. The erosion that has occurred is localized and is largely the result of surface water eroding low fill slopes and local portions of the access road with steep gradients. Since the proposed Devers-Harquahala transmission line would utilize existing access roads, and the major portion of the proposed route crosses relatively low relief terrain, the erosion impacts due to the new spur roads and tower pads would be insignificant.

5.1.5 Hydrology

According to CEQA significance criteria, potential impacts to water quality could occur if the proposed transmission line were to cause one or more of the following:

- violation of any water quality standards or waste discharge requirements

- substantial depletion of groundwater supplies or interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level

- substantial alteration of the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site

- substantial alteration of the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or a substantial increase in the rate or the amount of surface runoff in a manner which would result in flooding on- or off-site

- creation or contribution to runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff

- placement of housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map

- placement of a structure within a 100-year floodplain structure that would impede or redirect flood flows

5.1.5.1 Arizona and California

The construction and operation of the proposed Devers-Harquahala transmission line is not expected to violate water quality standards or waste discharge requirements. No groundwater would be used for construction or operations; therefore, no impacts are expected to aquifer volume. There is a low potential for increased surface water runoff and sedimentation. Such an effect would be less than significant since existing access roads would be utilized, except for construction of spur roads and work areas. Washes would be spanned, where possible; therefore, no significant impacts are expected to streams or washes.

5.1.6 Air Quality

According to CEQA significance criteria, potential air quality impacts could occur if the project would:

- conflict with or obstruct implementation of applicable Air Quality Attainment Plan or Congestion Management Plan
- violate any stationary source air quality standard or contribute to an existing or projected air quality violation
- result in a net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative threshold for ozone precursors)
- create or contribute to a non-stationary source "hot spot" (primarily carbon monoxide)
- expose sensitive receptors to substantial pollutant concentrations
- create objectionable odors impacting a substantial number of people

5.1.6.1 Arizona and California

CEQA requires Air Quality Management Districts in California to determine thresholds of significance for emissions. These emissions thresholds have been compiled based on the standards developed by SCAQMD and the MDAQMD. No local emissions thresholds exist for the portion of the proposed Devers-Harquahala transmission line that is located in Arizona. Table 5-1 lists the daily emission thresholds of significance in California for the construction components of the proposed Devers-Harquahala transmission line. Projects that produce pollutants that exceed the amounts listed may have a potentially significant impact on air quality.

Emissions results for the west of Devers 230kV transmission line upgrade are described in Section 5.2.6. Fugitive dust and vehicle emissions for the proposed west of Devers 230kV upgrade are included in Tables 5-2 through 5-4, in order to illustrate cumulative impacts for the California portion of the proposed Devers-Harquahala transmission line during construction.

TABLE 5-1
AIR POLLUTION CONTROL DISTRICT
SIGNIFICANCE IMPACT EMISSION THRESHOLDS (CONSTRUCTION)

Air Pollution Control District		Pollutant				
		CO	**ROC**	**NO_x**	**SO_x**	**PM_{10}**
SCAQMD	tons per year	99	10	10	27	27
	tons per quarter	25	2.5	2.5	7	7
	pounds per day	413	42	42	113	113
MDAQMD	tons per year	75	25	25	25	15
	tons per quarter	19	6	6	6	4
	pounds per day	313	104	104	104	63

Source: MDAQMD 2002; SCAQMD 2002
CO – carbon monoxide
ROC – reactive organic compounds
NO_x – nitrogen oxide
SO_x – oxides of sulfur
PM_{10} – particulate matter

TABLE 5-2 ESTIMATED CUMULATIVE FUGITIVE DUST PM_{10} EMISSIONS BEFORE MITIGATION	
	PM_{10} (lbs/day)
Arizona (Devers-Harquahala)	273
California (Devers-Harquahala)	340
California (west of Devers upgrade)	114
California Emissions Total	**454**

TABLE 5-3 ESTIMATED CUMULATIVE FUGITIVE DUST PM_{10} EMISSIONS AFTER MITIGATION		
	PM_{10} (lbs/day)	**PM_{10} (tons/year)**
Arizona (Devers-Harquahala)	62	7.2
California (Devers-Harquahala) (MDAQMD)	78	2.1
California (Devers-Harquahala) (SCAQMD)	78	9.2
California (west of Devers) (SCAQMD)	31	0.4
California SCAQMD Total	109	9.6
Assumptions based on five-day work weeks.		

TABLE 5-4 ESTIMATED CUMULATIVE DAILY EXHAUST EMISSIONS FOR CONSTRUCTION VEHICLES					
	Emissions (lbs/day)				
	CO	**ROC**	**NO_x**	**SO_x**	**PM_{10}**
Arizona	236.3	61.7	445.4	76.7	32.4
California (Devers-Harquahala) (MDAQMD and SCAQMD)	236.3	61.7	445.4	76.7	32.4
California (west of Devers upgrade) (SCAQMD)	195.2	45.6	366.1	30.0	23.3
California SCAQMD Total	431.5	107.3	811.5	106.7	55.7
	Emissions (tons/year)				
	CO	**ROC**	**NO_x**	**SO_x**	**PM_{10}**
Arizona	27.3	7.1	51.4	8.9	3.7
California (Devers-Harquahala) (MDAQMD)	6.4	1.7	12.0	2.1	0.9
California (Devers-Harquahala) (SCAQMD)	27.8	7.2	52.3	9.0	3.8
California (west of Devers upgrade) (SCAQMD)	25.4	5.9	47.6	3.9	3.0
California SCAQMD Total	53.2	13.1	99.9	12.9	6.8
Source: Exhaust emissions factors found in Table A9-8-B of CEQA Air Quality Handbook. SCAQMD, revised 1993. Assumptions based on diesel fuel emissions, for eight-hour work day.					

Construction

Based on the construction plan described in Section 3.5, a variety of truck auxiliary vehicles would be used over a 24-month period for construction. Construction would occur in phases starting at both endpoints. The phases include material processing, roads, foundations, tower assembly/erection, and conductor operations. As work on any one phase is completed, the construction crew moves on to the next segment and is followed by the crew responsible for the next phase of construction. The construction of the proposed Devers-Harquahala 500kV transmission line would produce emissions in the form of fugitive dust and exhaust from heavy equipment and support vehicles.

During construction of the proposed project, exhaust emission is produced by vehicles and other internal combustion equipment. These emissions are in the form of CO, ROC, NO_x, SO_x, and PM_{10}.

PM_{10} is also generated as fugitive dust emissions from ground clearing and grading, and dust generated from vehicle traffic at the construction site.

Based on the estimated total number of acres disturbed and the amount of fuel consumption per day, the total amount of unmitigated worst case PM_{10} fugitive dust emissions were calculated to be 454 pounds per day (lbs/day) for the SCAQMD (including Devers-Harquahala and west of Devers) and 340 lbs/day for the MDAQMD (Devers-Harquahala), as presented in Table 5-2 (SCAQMD 1993). Approximately 127 miles of the proposed Devers-Harquahala 500kV line are located in California. Within California, approximately 24 miles of the proposed line are within the MDAQMD and 103 miles are within the SCAQMD. Calculations assume that there would be grading operations performed on all of the development area in California and would include 114 lbs/day of PM_{10} for the west of Devers 230kV upgrade portion of the DPV2 project. The calculated value exceeds the construction emission threshold of 113 lbs/day developed by the SCAQMD and 63 lbs/day developed by the MDAQMD. However, implementation of the Best Available Control Measures (BACM) would be utilized in order to control dust emissions,

reducing the cumulative impact of the project to less than significant levels (see Table 5-3). These BACM mitigation measures are described in Section 6.1.6. Yearly emissions totals were calculated assuming a 24-month construction period for the Devers-Harquahala 500kV and the west of Devers portions of the proposed DPV2 project. The MDAQMD and SCAQMD totals were calculated (after mitigation) based on the percent of the line found in each district. These totals also are shown in Table 5-3.

The cumulative exhaust emissions produced from the vehicles and equipment used for construction also were calculated. A summary of the impacts produced from the vehicles and equipment used is presented in Table 5-4. The work schedule and total fuel consumed were used in the calculations and the emission rates were estimated based on the CEQA Air Quality Handbook. The estimated daily exhaust emissions would exceed the SCAQMD thresholds for CO, ROC, and NO_x and the MDAQMD threshold for NO_x. Yearly exhaust emissions would exceed the SCAQMD thresholds for ROC and NO_x and the MDAQMD for NO_x. Mitigation measures to reduce these impacts would include purchasing air emissions credits from the districts to offset the construction emissions.

The estimates of daily emissions are dependent on the activity of the equipment used. The estimates shown here were developed for the entire construction portion of the project. It was assumed that on any given day, the same number and types of vehicles are used for each portion of the Devers-Harquahala 500kV line construction; therefore, exhaust emissions would be the same. Yearly emissions were calculated assuming a 24-month construction period for the Devers-Harquahala 500kV and the west of Devers portions of the DPV2 project. The MDAQMD and SCAQMD totals were calculated based on the proportion of the line found in each district. As part of the construction contract, SCE would require bidders to submit a construction transportation plan describing how workers would travel to the job site.

Operation

Operation of the Devers-Harquahala 500kV transmission line would not produce significant emissions. There would be extremely small amounts of ozone produced due to corona discharge at the hardware/insulator assemblies. Some fugitive dust and vehicle emissions would be produced by maintenance activities. Overall, impacts to air quality due to the operation and maintenance of the transmission line would be less than significant.

5.1.7 Traffic and Transportation

According to CEQA significance criteria, potential impacts to traffic and transportation could occur based on the following:

- project would cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, volume to capacity ratio on roads, or congestion at intersections)

- project would exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways

- project would result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risk

- project substantially increases hazards due to a design feature (e.g. sharp curves, dangerous intersections, or incompatible uses [e.g., farm equipment])

- project results in inadequate emergency access, inadequate parking capacity, or conflicts with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)

5.1.7.1 Arizona and California

Construction workers and supply vehicles would generate a less than significant amount of additional traffic in the area in which they are working. Because the work force would be divided into small crews working on different portions of the line, the additional traffic generated in any one area would be small and would occur for a short period of time. I-10 and numerous major arterials designed to accommodate large volumes of traffic are located near the proposed route. Access roads previously constructed for the existing DPV1 transmission line would be used for construction. Since construction would not require new access roads, new access for off-road vehicles would not be promoted. Road closures, if necessary, would be limited to short durations and periods of low volume traffic or in accordance with state departments of transportation policies. No long-term additional traffic from project operation would occur. The construction and operation of the proposed Devers-Harquahala 500kV line would not result in significant traffic impacts.

5.1.8 Biology

Under CEQA Significance Criteria (Appendix G of the revised CEQA Guidelines), a project would be considered to have a potentially significant biological impact if it would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS

- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS

- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means

- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

- conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

In general, the primary criteria for determining significance of an impact on biological resources are sensitivity ratings and regulatory protection assigned by federal and state resource agencies (e.g., USFWS, CDFG). Any activity within the proposed project area that results in the "take" of a federally or state-listed threatened or endangered species would be considered significant. To "take" is defined in the federal Endangered Species Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect an endangered or threatened species or to attempt to engage in any of these activities." Harm not only includes killing a species, but activities that modify or significantly degrade habitat that could result in death or injury to individual members of a species by significantly disrupting their essential behavioral patterns. The number of individuals impacted is not relevant to determining significance; if one individual is or could be impacted, then the impact would be considered significant. Because the impact is significant, mitigation would be required to reduce the impact to less than significant.

Four types of impacts to biological resources could result from the construction and operation of the proposed Devers-Harquhala transmission line, as follows:

- Direct impacts occur when biological resources are altered, disturbed, destroyed, or removed during the course of project implementation. Examples of direct impacts are loss of habitat as a result of grading, filling or "take" of a sensitive species.

- Indirect impacts occur when project-related activities impact biological resources in a manner other than direct. Potential indirect impacts include increased noise levels and non-native weed establishment.

- Permanent impacts result in the irreversible loss of biological resources. Examples include the removal of sensitive vegetation or vegetation that supports a sensitive species, or chronic disturbance of sensitive species during a critical time period (e.g., breeding season).

- Temporary impacts are reversible with the implementation of mitigation measures. Examples include the revegetation of an area cleared during construction, or short-term noise events associated with operations.

The following sections include summaries of potential impacts to sensitive plant and wildlife species that may result from construction and operation of the proposed Devers-Harquahala transmission line.

Related facilities include new telecommunications system facilities, series capacitor banks, shunt reactors, and additional equipment that would be installed at existing substations as described in Section 3.4, Chapter 3. New telecommunications facilities would be installed on existing properties at the Black Peak, Smith Peak, and Harquahala Mountain communication sites and within existing properties at Devers, Mirage, and Harquahala Generating Station substations.

The new Blythe Optical Repeater facility would be constructed within the proposed Devers-Harquahala 500kV right-of-way in California. The new series capacitor bank sites in Arizona and California would be located adjacent to the existing DPV1 capacitor banks. The description provided in Sections 4.1.8.1 and 4.1.8.2 of existing vegetation and wildlife resources within the Devers-Harquahala study corridor includes these sites.

Each of the communication and substation sites described above have previously been disturbed, and therefore construction of new facilities at these sites would not cause any substantial new ground disturbance. Therefore, impacts to vegetation and wildlife at these sites would be less than significant.

An assessment of habitat conditions was also undertaken at the Valley Substation. The facilities would be installed within the existing substation property. The substation property has been previously disturbed, and no endangered or threatened wildlife or plant species, or otherwise sensitive species are present or would be expected to occur at the site. Therefore, impacts to vegetation and wildlife at Valley Substation would be less than significant.

5.1.8.1 Arizona

Vegetation

Table 5-5 contains information on the estimated impacts to the various vegetation communities traversed by the proposed Devers-Harquahala study corridor in Arizona.

TABLE 5-5
POTENTIAL DIRECT TEMPORARY IMPACTS TO VEGETATION ASSOCIATIONS WITHIN THE PROPOSED DEVERS-HARQUAHALA STUDY CORRIDOR BY TRANSMISSION LINE LINK – ARIZONA (ACRES)

Vegetation Association	Link 1a and 1b	Link 2	Link 6	Link 8	Total Acres
Creosote-bush scrub	0	53.7	0	0	53.7
Creosote bush – bursage scrub	176.2	88.6	33.0	1.8	299.6
Mixed paloverde-creosote bush scrub	1.8	1.8	35.0	0	39.4
Paloverde-ironwood/smoketree wash	0	56.2	2.8	0	59.0
Mesquite scrub dominated wash	7.8	0	0	0	7.8
Mixed paloverde and cactus	0	0	0	0	0
Mesquite and salt cedar riparian	0	0	0	1.4	1.4
Sand dune community	0	0	0	0	0
Agricultural	13.8	0	0	0	13.8
Total Disturbance	**199.6**	**200.3**	**71.6**	**3.2**	**474.7**

Source: Dames & Moore (1989)

Sensitive Plant Species

There are no federally listed threatened or endangered plants that have been documented in the Arizona portion of the Devers-Harquahala study corridor or are likely to be found there. Other sensitive plants known or likely to be found include Death Valley Mormon tea and straw-top cholla, both species that are tracked by the AGFD through the Heritage Data Management System.

There would be less than significant impacts to sensitive plants in the Arizona portion of the Devers-Harquhala study corridor. Straw-top cholla is common and widespread in western Arizona and eastern California. No individuals of Death Valley Mormon tea were found during field surveys of tower sites and access roads in 2002 and 2003.

Wildlife

During construction of the proposed Devers-Harquahala transmission line, impacts to general wildlife are expected. Individuals of fossorial species may be inadvertently killed when burrows are collapsed by heavy machinery. Depending on the season of construction, bird nests in cacti, shrubs, or trees could be destroyed. Similarly, highly cryptic nests of ground-nesting species may be accidentally destroyed. Wildlife may also be accidentally run over by vehicles, an impact type that could persist as long as the access road for the project is available to back-country motorists.

Sensitive Wildlife

There are no known federally listed wildlife species that are likely to occur in the Arizona portion of the proposed Devers-Harquahala study corridor with regularity. Yuma clapper rails pass through the corridor during migration where it crosses the Colorado River, but there is no nesting or loafing habitat for Yuma clapper rails at the crossing location of the proposed Devers-Harquahala transmission line. For this reason, the impact to any federally listed species would be less than significant.

Other sensitive wildlife species that may occur in the Arizona portion of the study area include desert tortoise (Sonoran population), Arizona chuckwalla, Mojave fringe-toed lizard, banded Gila monster, and desert rosy boa. The desert tortoise and the chuckwalla are likely to occur in upland areas, the Mojave fringe-toed lizard in sandy areas, and the Gila monster may be found in upland or lowland habitats. Sensitive bird species likely to be in this vicinity include western least bittern, great egret, snowy egret, white-faced ibis, and western burrowing owl. The herons and ibis are likely to be restricted to the Colorado River vicinity or irrigated agricultural areas, but the burrowing owl could be found in other habitats. Sensitive mammals in the transmission line corridor include California leaf-nosed bat, western yellow bat, pale big-eared bat, and desert bighorn sheep. All of these species, except the desert bighorn, are species that are monitored by

the AGFD's Heritage Data Management System. The desert bighorn is a high profile big game species that is intensely monitored by the AGFD.

Impacts to sensitive wildlife species in Arizona are expected to be less than significant. Most species, if impacted at all, would be temporarily disturbed by construction activity and noise, and most would be able to simply move away from the disturbance. It is possible that some individuals of desert tortoise, Gila monster, or rosy boa could be directly affected during construction of spur roads. Similarly, individuals of these species could be crushed by construction equipment and along access roads, especially in more upland, mountainous terrain. Sensitive bird species, mostly associated with the Colorado River crossing, are likely to simply move away from construction-related disturbance. There would be some minimal residual collision hazard for birds flying up and down the river and potentially running into conductors or static lines. It is highly unlikely that construction and operation of the proposed line would have any effect on any of the sensitive bat species that may occur in the proposed transmission line corridor. Desert bighorn sheep would be affected by construction activities in the KOFA NWR, New Water and Plomosa mountains, and in the Livingston Hills. The results of studies conducted on this population of bighorn between 1978 and 1984, however, suggest that the effects would neither be negative nor severe. In that study, the most significant effect of construction of the DPV1 line was that radio-collared animals spent more time in the construction zone during construction than they did before (four years of data) or after (two years of data) construction.

Indirect Impacts

Indirect impacts associated with the construction of the proposed transmission line could include an increase in non-native weed establishment and recruitment, particularly at tower sites, crane pads, material stockpile yards, and concrete batch plant sites.

5.1.8.2 California

Vegetation

Table 5-6 is a summary of potential impacts to general vegetation types within the California reach of the proposed Devers-Harquahala study corridor.

TABLE 5-6
POTENTIAL DIRECT TEMPORARY IMPACTS TO VEGETATION ASSOCIATIONS WITHIN THE PROPOSED DEVERS-HARQUAHALA STUDY CORRIDOR BY TRANSMISSION LINE LINK – CALIFORNIA (ACRES)

Vegetation Association	Link 8	Link 10	Link 12	Link 13	Link 14	Link 16	Total Acres
Creosote bush scrub	0	0	0	15.4	145.9	22.0	183.3
Creosote bush – bursage scrub	0	27.1	13.3	234.8	0	0	275.2
Paloverde-ironwood/ smoketree wash	0	0	0	68.8	0	0	68.8
Sand dune community	0	0	0	0	0	5.5	5.5
Agricultural	3.7	48.2	0	0	0	0	51.9
Total Disturbance	**3.7**	**75.3**	**13.3**	**319.0**	**145.9**	**27.5**	**584.7**

Source: Dames & Moore (1989)

Sensitive Plant Species

Field studies for rare plants in California revealed the presence of the following species that are federally listed or proposed for listing as threatened or endangered.

Scientific Name	Common Name	Status
Astragalus lentiginosus var. *coachellae*	Coachella Valley milkvetch	Endangered
Escobaria alversonii.	Cushion foxtail cactus	Species of Concern

Impacts to Coachella Valley milkvetch would be less than significant. There is evidence to suggest that the kinds of soil disturbances caused by electrical transmission line construction in milkvetch habitat may actually enhance populations. This is based on studies conducted by SCE following construction of DPV1. SCE biologists found Coachella Valley milkvetch populations

to be more robust in areas that had been disturbed by construction than in nearby, undisturbed areas. Impacts to cushion foxtail cactus would be significant unless mitigated.

Other plant species that may be adversely affected are listed in Table 4-34 and include triple-ribbed milkvetch and Little San Bernardino Mountains linanthus. The remaining sensitive plants of Riverside County that are listed in Table 4-34 have very little probability of occurring in the proposed Devers-Harquahala study corridor and none were detected during field surveys of tower sites and access roads in 2002 and 2003. Impacts to non-federal sensitive plant species are expected to be less than significant owing to an apparent absence of populations of these species within the Devers – Harquahala study corridor. Neither the triple-ribbed milkvetch, nor the Little San Bernardino Mountains linanthus, have been found within the study corridor during surveys conducted in 1987, 1994, 2002, and 2003.

Wildlife

Construction of the California portion of the proposed Devers-Harquahala transmission line could impact wildlife as a result of burrows being collapsed by heavy equipment, animals being inadvertently run over by construction vehicles, and generally being disturbed by the presence of people and machines. Depending on the season of construction, bird nests could be destroyed as a result of clearing of shrubs, trees, or cacti from spur roads and/or tower sites.

Sensitive Wildlife

Federally listed wildlife species, or potential habitat thereof, found during field surveys in California include the following:

Scientific Name	Common Name	Status
Phrynosoma mcallii	Flat-tailed horned lizard	Proposed Threatened
Gopherus agassizii	Desert tortoise	Threatened (California threatened)
Uma inornata	Coachella Valley fringe-toed lizard	Threatened (California endangered)
Spermophilus tereticaudus chlorus	Palm Springs round-tailed ground squirrel	Candidate (California species of concern)

Potential habitat for flat-tailed horned lizard, Coachella Valley fringe-toed lizard, and Palm Springs round-tailed ground squirrel was found during field surveys in 2002 and 2003. Desert tortoise and sign thereof were found at several locations in 2002 and 2003 in the proposed Devers-Harquahala study corridor.

Potential impacts to desert tortoise, Coachella Valley fringe-toed lizard, and Palm Springs round-tailed ground squirrel are considered to be potentially significant, but would be mitigated to less than significant. It is anticipated that the USFWS would provide mitigation recommendations as part of the Section 7 Consultation process for the DPV2 project.

A number of other sensitive (e.g., federally listed or proposed) wildlife species may occur in the California portions of the study area along the Colorado River. These include several species of fishes and birds, including southern bald eagle, Yuma clapper rail, western snowy plover, mountain plover, western yellow-billed cuckoo, and southwestern willow flycatcher. Of these species, the cuckoo, rail, and flycatcher could nest in the vicinity of the proposed crossing, if suitable riparian habitat is available.

Construction of the proposed transmission line would avoid any disturbance of riparian or aquatic habitats on the Colorado River. Consequently, impacts to these species by construction or operation of the proposed transmission line would be less than significant.

A number of species listed in the California Natural Diversity Database (CDFG 2003) also are likely to occur within California portions of the study corridor. Possible sensitive reptiles include chuckwalla, Mojave fringe-toed lizard, and desert rosy boa. Sensitive bird species in the

California portion of the study corridor include western least bittern, snowy egret, white-faced ibis, ferruginous hawk, Swainson's hawk, California black rail, elf owl, western burrowing owl, Gila woodpecker, loggerhead shrike, and LeConte's thrasher. Sensitive mammal species in this vicinity also may include California leaf-nosed bat, pale big-eared bat, pallid bat, and western yellow bat.

Impacts to these species include disturbance during construction, loss of habitat, loss of prey species and/or habitat thereof, incidental crushing of less mobile forms on access roads and in work areas, and crushing or smothering of individuals sequestered in burrows on work sites. Impacts to the more mobile forms (birds and bats) would be less than significant, owing to their ability to move away from disturbance. Habitat loss for these species will be less than significant and of short term in a regional sense.

Impacts to the sensitive reptile species are considered to be potentially significant and would be mitigated in order to reduce the impact to less than significant.

Indirect Impacts

Indirect impacts associated with construction within the proposed Devers-Harquahala corridor could include an increase in non-native weed establishment and recruitment, particularly at tower sites, crane pads, materials stockpile yards, and concrete batch plants. It is at these sites that soil surface disturbance is likely to be greatest, thus encouraging establishment of invasive, weedy species.

5.1.9 Noise

According to CEQA significance criteria, potential noise impacts can occur based on the following:

- exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies

- exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels

- substantial permanent increases in ambient noise levels in the project vicinity above levels existing without the project

- substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

- for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, where the project would expose people residing or working in the project area to excessive noise levels

- for a project within the vicinity of a private airstrip, where the project would expose people residing or working in the project area to excessive noise levels

5.1.9.1 Arizona and California

Construction

The noise associated with the construction activities would be due to equipment operation. The noise levels produced within the corridor would depend on the number of operating machines and the distance to the nearest sensitive receiving source property line. Typical noise levels associated with construction equipment falls in the range of 80 to 100 dBA (at a range of 50 feet from the active construction site). For the proposed transmission line, most of the corridor is in vacant desert land; however, there are isolated areas with residences within 350 feet of construction. Noise associated with construction would be masked by other sources of noise (i.e., I-10 and other high volume streets) and would be inaudible at large distances.

The proposed Devers-Harquahala construction would comply with local noise ordinances. Typical municipal ordinances stipulate that activities producing ambient noise should not exceed 55-50 dBA during nighttime hours (10 p.m. to 7 a.m.) and 60-55 dBA during daytime hours (7 a.m. to 10 p.m.) at residential property lines or sensitive areas. However, exemptions include temporary construction during daytime hours except on Sundays and federal holidays. There may be a need to work outside of the aforementioned local ordinances in order to take advantage of low electrical draw periods during the nighttime hours. SCE would comply with variance procedures established by local authorities if a variance is required.

Operation

The major sources of ambient noise in the area are due to I-10, aircraft flyovers, local traffic, activities at business locations, various recreational activities, and the existing DPV1 transmission line. The proposed Devers-Harquahala 500kV transmission line would slightly increase the noise level within the corridor. However, the increase would not be audible at the nearest sensitive receptors relative to the existing ambient noise levels and the distance from the

source. There are no residences or other sensitive receptors located within audible range of the proposed series capacitor stations. Noise impacts would be less than significant.

5.1.10 Public Services and Utilities

According to CEQA significance criteria, potential impacts to public services could occur based on the following:

- project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services including fire protection, police protection, schools, parks, and other public facilities

5.1.10.1 Arizona

Since most community services are provided to local residences and employee relocation would be temporary, no significant impacts on public services including medical, police, fire, and emergency are anticipated. Services to construction workers would not exceed the level that local facilities are equipped to provide for visitors or temporary workers in the area. In addition to the medical facilities available in the small communities near the proposed route, numerous medical facilities equipped to handle all levels of emergency medical situations are located in the greater Phoenix metropolitan area.

5.1.10.2 California

Since most community services are provided to local residences and employee relocation would be temporary, no significant impacts on public services including medical, police, fire, and emergency are anticipated. Services to construction workers would not exceed the level local facilities are equipped to provide for visitors or temporary workers in the area. In addition to the medical facilities available in the small communities near the proposed route, numerous medical facilities equipped to handle all levels of emergency medical situations are located on the western end of the proposed route near Devers. These include medical facilities in the cities of Palm Springs, Rancho Mirage, and Indio. Cathedral City also has two general hospitals.

5.1.11 Visual Resources

The impact analysis was based on the BLM's VRM System 8400 series (BLM 1984) as well as previous transmission line visual impact assessments in response to CEQA environmental criteria for aesthetics. This section focuses on potential impacts resulting from the construction and operation of the proposed Devers-Harquahala 500kV transmission line. CEQA provides specific significance criteria relating to visual impacts. According to the criteria, significant visual impacts could occur if the project would:

- substantially degrade the existing visual quality of the site and its surroundings
- have a substantial adverse effect on a scenic vista
- substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway
- create a new source of substantial light or glare adversely impacting day or nighttime views in the area

Visual impacts associated with the proposed Devers-Harquahala transmission line include short-term impacts resulting from the presence of vehicles and equipment during construction, and long-term impacts resulting from the presence of the proposed transmission line facilities over their lifetime.

The measure of potential adverse impacts on visual resources is based on visual contrast. Visual contrast is a measure of the degree of perceived change that would occur in the landscape due to the construction and operation of the proposed Devers-Harquahala transmission line. Visual contrast typically results from (1) landform modifications that are necessary to upgrade and construct new access roads and tower pad sites, (2) removal of vegetation to construct roads and maintain right-of-way and ground clearance zones associated with the conductors and towers, and (3) introduction of new structures in the landscape.

The visual contrast assessment was performed by comparing landscape elements (form, line, color, and texture) of the existing landscape with the elements associated with the proposed transmission line facilities including new structures (towers, hardware, equipment, and conductors) and new or improved access. In this regard, landform, vegetation, and structural elements in the landscape were evaluated in conjunction with the proposed (newly introduced) transmission line, and assigned degrees of change/contrast ranging from strong to moderate, weak, or none. Contrast evaluations were performed from selective key viewpoints representing typical views of the project, including the documentation of existing and simulated conditions as illustrated in Figures 5-1 through 5-3.

5.1.11.1 Arizona and California

Following is a summary of visual impacts based on the criteria as identified by CEQA.

Substantially Degrade the Existing Visual Quality of the Site and Its Surroundings

Impacts to scenic quality would occur in areas of Class A scenery and where construction and operation of the proposed Devers-Harquahala transmission line would result in strong contrast with the natural landscape setting. The proposed Devers-Harquahala transmission line crosses the Dome Rock Mountains and the Colorado River, which have a designation of Class A scenic quality. However, because the proposed transmission line would be located adjacent to existing transmission lines, with existing access and other land modifications, the resulting contrast and impacts are anticipated to be minimal.

Visual impacts would result from the visibility of the proposed Devers-Harquahala transmission line from sensitive viewpoints and from the contrast of the proposed facilities within the existing setting. Viewer impacts consist of potential effects to views from residences, park and recreation areas, and travel routes and highways. However, since the transmission line route would be constructed within designated BLM utility corridors, parallel to existing 500kV transmission lines with similar structures, and the use of existing access roads, the contrast is expected to be weak. The impact would therefore be less than significant. This would apply to both existing viewers and viewers associated with planned future use.

Residential Viewers

Typically, foreground to background views from a high-sensitivity viewpoint of the proposed transmission line, combined with a weak project contrast, would result in impacts that are not considered significant. This is the case with dispersed residences located adjacent to the proposed project in both Arizona and California, where the proposed line would directly parallel existing transmission lines including the existing DPV1 500kV transmission lines, and additional 230kV lines near Devers. Areas of residential viewers that would be impacted by the proposed Devers-Harquahala transmission line in Arizona include dispersed residences associated with the agricultural lands in the Harquahala Valley and north of the Eagletail Mountains, and from

isolated residences adjacent to the KOFA NWR. In California, residential viewers potentially affected by the project include dispersed locations south of Blythe and near Indio and Palm Desert. In the vicinity of the Devers Substation (Link 16), where residences have immediate foreground views of the proposed transmission line, the impacts are minimized because of the highly modified existing conditions, the presence of existing transmission lines in the foreground view, and wind turbines scattered throughout the middleground and background (see simulations, Figures 5-1 and 5-2). Therefore, impacts to residential viewers are anticipated to be less than significant.

Travelway Viewers

Potential impacts of short duration to travelway viewers would result from the proposed transmission line crossing or paralleling I-10 (see simulation, Figure 5-3). Similar impacts to views would occur from other travel routes including crossings of the Salome-Tonopah Road and SR 95. Additional impacts would occur to viewers from travel routes parallel to the proposed transmission line or with middleground views of the proposed transmission line such as portions of I-10, CA 111, and SR 74. However, because the proposed Devers-Harquahala transmission line would be constructed adjacent to existing 500kV transmission lines, impacts are anticipated to be less than significant.

Figure 5-1

Figure 5-2

Figure 5-3

Recreation/Open Space Viewers

Impacts would occur to recreational users of the Colorado River, and park and recreation areas near the river. Impacts to recreational users of KOFA NWR would result from the proposed transmission line crossing through the valley and foothill area south of the Plomosa Mountains. Additional impacts to recreation areas include views from the La Posa Visitor Area and views from the Big Horn and Eagletail mountains. However, because the proposed project is located adjacent to the existing DPV1 500kV transmission line, contrast levels are low and impacts are anticipated to be less than significant.

Substantial Adverse Effect on Scenic Vistas

There would be no adverse effect on scenic vistas because there are no state-designated scenic vistas within the proposed Devers-Harquahala transmission line study corridor.

Substantially Damage Scenic Resources Including, but Not Limited to, Trees, Rock Outcroppings, and Historic Buildings Within a State Scenic Highway.

The proposed Devers-Harquahala transmission line would not cross or affect any state scenic roads or highways. Therefore, there are no anticipated impacts to state scenic highways.

Create a New Source of Substantial Light or Glare Adversely Impacting Views

Construction of the proposed Devers-Harquahala transmission line would normally occur during daylight hours. No additional sources of light or glare would be created, as non-specular conductors would be utilized, and the finish on structures would be dulled.

5.1.12 Cultural Resources

Potential impacts to cultural resources could occur if the project would:

- cause a substantial adverse change in the significance of a historical resource
- cause a substantial adverse change in the significance of an archaeological resource
- directly or indirectly destroy a unique paleontological resource or site or unique geological resource
- disturb any human remains, including those interred outside of formal cemeteries

5.1.12.1 Arizona

Archaeology

Two archaeological sites have been identified within the proposed project APE: AZ S:8:1 (ASM) and AZ S:8:14 (ASM). Of these, only AZ S:8:1 (ASM) has been determined eligible for the NRHP. Artifacts from AZ S:8:1 were collected and analyzed as part of the original DPV1 project (Carrico and Quillan 1982) and the site artifacts identified during the Class III survey for the present project (Dobschuetz et al. 2004) were similar to those previously collected and analyzed. As a result, it was concluded that the data potential for the portion of AZ S:8:1 (ASM) located within the project APE appear exhausted. Therefore, no impacts to significant archaeological resources are anticipated by construction of the proposed Devers-Harquahala transmission line.

Ethnography

Because the proposed transmission line would be constructed adjacent to the existing DPV1 500kV transmission line, indirect effects to TCPs or potential TCPs are considered negligible. No TCPs or potential TCPs have been identified within the project APE (defined as within 100 feet of project tower pads and access roads). Apart from archaeological sites within the APE, about which Native Americans have expressed a general concern, no significant ethnographic values have been identified that could be affected by the proposed transmission line. BLM staff has indicated that they would consult with appropriate Native American groups regarding project effects on traditional cultural values within the context of the BLM's government-to-government responsibility with Native American tribes (personal communication, Wanda Raschkow 2004).

History

One archaeological site, AZ R:7:113 (ASM), was identified during the Class III survey within the project APE (Dobschuetz et al. 2004). This site is described as a historic-era artifact scatter and was not deemed NRHP eligible. No effects to NRHP eligible historic-era resources are expected as a result of construction and operation of the proposed transmission line.

Paleontology

Approximately 88.7 miles of high or undetermined areas of paleontological sensitivity are crossed by the proposed Devers-Harquahala study corridor between the Harquahala Substation and the Arizona/California border (Links 1a, 1b, 2, 6, and 8). Potentially significant paleontological specimens may be impacted by excavation of tower footings and grading of access spur roads in these areas (Scott 2003).

5.1.12.2 California

Archaeology

Eighteen NRHP eligible or potentially eligible archaeological resources have been identified within the proposed project APE. These resources are designated RIV-53T(c), RIV-53T(d), RIV-250T, RIV-343T(b), RIV-343(c), RIV-650T, RIV-673T, RIV-1119, RIV-1383, RIV-1813, RIV-1814, RIV-1815, RIV-1816, RIV-1819, RIV-1821, RIV-1822, P33-13574, and P33-13576. Potential impacts to these resources could result from earth-disturbing construction activities including tower pad and access road grading, footing digging, tower erection, and conductor pulling and splicing.

Ethnography

Because the proposed Devers-Harquahala transmission line would be constructed adjacent to the existing DPV1 500kV transmission line, indirect effects to TCPs or potential TCPs are considered negligible. Only one TCP or potential TCP has been identified within the project APE (defined as within 100 feet of project tower pads and access roads). This is Edom Hill forming the northwestern end of the Indio Hills. The hill is considered sacred to the Agua Caliente Indian Tribe. The study corridor crosses approximately 3 miles of the lower slopes of Edom Hill including 0.1 mile of Agua Caliente Indian Reservation land. Incremental effects to the Native American belief system from construction of the proposed project are thought to be minimal due to the presence of the DPV1 transmission line and a gas pipeline in the same area. Other potential ethnographic issues in the project APE are effects to archaeological sites, about which Native Americans have expressed a general concern.

BLM staff has indicated that they would consult with appropriate Native American groups regarding project effects on traditional cultural values within the context of the BLM's

government-to-government responsibility with Native American tribes (personal communication, Wanda Raschkow 2004).

History

Thirteen NRHP eligible or potentially eligible historic-era resources have been identified within the project APE. These resources are designated RIV-1117H(a), RIV-1117H(b), RIV-1809H, RIV-1810H, RIV-7489H, RIV-7490, P33-13588, P33-13596, P33-13598, P33-13600, P33-13601, P33-13602, P33-13603. Potential project impacts to these resources could result from earth-disturbing construction activities including tower pad and access road grading, footing digging, tower erection, and conductor pulling and splicing.

Paleontology

Between the California border and Devers (Links 10, 12, 13, 14, and 16) the study corridor traverses approximately 31 miles of high or undetermined areas of paleontological sensitivity. The undetermined or high sensitivity areas include Pleistocene older alluvium in Links 10, 13, and 14; Eocene Maniobra Formation rocks in Link 13; and Ocotillo Conglomerate and Pliocene non-marine sediments in Link 14. Potentially significant paleontological specimens may be impacted by excavation of tower footings and grading of access spur roads in these areas (Scott 2003).

5.1.13 Public Health and Safety

According to the CEQA significance criteria, potential hazards or hazardous materials impacts that may be caused by the project include the following:

- creation of a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous waste

- creation of a significant hazard to the public or the environment though reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment

- reasonable anticipation to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school

- if the project is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment

- if the project is located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, and would result in a safety hazard for people residing or working in the project area

- if the project is within the vicinity of a private airstrip, and would result in a safety hazard for people residing or working in the project area

- if the project would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan

- exposure to people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands

Potential impacts to public health and safety could occur during construction or operation of the proposed project, as follows.

5.1.13.1 Hazardous Materials

A hazardous substance is any substance that the EPA has designated as hazardous, dangerous, or toxic under the Clean Air Act, 42 U.S.C. 7401 et seq., the Clean Water Act, 33 U.S.C. 1251 et seq., the Toxic Substances Control Act, 15 U.S.C. 2601 et seq., the Comprehensive Environmental Response, Compliance, and Liability Act, as well as any hazardous waste under the Resource Conservation and Recovery Act of 1976. The Occupational Safety and Health Administration (OSHA) and the EPA at the federal level, and the California Occupational Safety and Health Administration (Cal/OSHA) and the California Environmental Protection Agency (Cal/EPA) at the state level, regulate hazardous materials. Cities and counties also regulate hazardous materials.

Project construction activities would involve the operation of heavy equipment and support vehicles on site. The presence of hazardous materials or hazardous wastes within the project area could pose a threat to the environment only if substances were improperly stored or handled, if construction equipment were to leak or spill petroleum or hydraulic fluids, or if hazardous materials are encountered during excavation of foundations resulting in inadvertent releases to the environment. Operation of the proposed DPV2 project would not cause the routine transport, use, or disposal of hazardous materials. Measures to avoid and/or minimize impacts from hazards or hazardous materials have been included as part of the project design or would be incorporated per regulation and SCE standard construction, operation, and maintenance procedures. A hazardous substance management, handling, storage, disposal and emergency response plan would be prepared, implemented, and kept on site (or in vehicles) during construction and maintenance of the project. To minimize, avoid and/or clean up any hazardous material, should an unforeseen spill occur, SCE and its contractors would be responsible for following SCE's Storm Water Pollution Prevention Plan (SWPPP).

The majority of the proposed transmission line project construction would be located within SCE fee-owned rights-of-way or easements granted to SCE. Within areas subject to new right-of-way acquisition, SCE would conduct an Environmental Site Assessment (ESA). The ESA (also

known as a Phase I review) includes a review of published information, aerial photographs, and environmental databases; interviews with persons knowledgeable about the area; and site inspections to identify sites located within or near the designated area of construction that have a potential to release hazardous materials to the subsurface in actionable concentrations. Further investigation in the form of a Preliminary Site Investigation would be performed within areas of concern if and where warranted by the findings of the ESA.

5.1.13.2 School Facilities

Project construction and operations would not occur on any school sites. There would be a very low risk of emitting hazardous materials, substances, or waste within ¼ mile of an existing or proposed school. No schools were identified within ½ mile from the project right-of-way, and no temporary construction areas would be located within ¼ mile of any existing school site.

5.1.13.3 Airport and Airstrip Operations

The proposed transmission line would not impact operation of any airport or private airstrip. The proposed route is located adjacent to an existing 500kV transmission line and would therefore not create a new safety hazard for people residing or working in the project area.

5.1.13.4 Emergency Response or Evacuation Plans

The risk of wildland fires in the project area is possible given the dry climate and vegetation in the existing rights-of-way. The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or evacuation plan, nor would it cause people or structures to be exposed to wildland fires. SCE would minimize fire risk of loss,

injury, or death as a result of fire during construction by maintaining brush clearance in accordance with applicable local, state, and federal laws.

5.2 WEST OF DEVERS 230kV TRANSMISSION UPGRADE

5.2.1 Introduction

The proposed DPV2 project would require upgrades to SCE's existing 230kV transmission system west of Devers. The existing 230kV system west of Devers includes two 230kV circuits connecting Devers and Vista substations and two circuits connecting Devers with the San Bernardino Substation located at the San Bernardino Generating Station (see Figure 3-7a). San Bernardino Junction is the term used to identify the intersection of the 230kV transmission line corridors that meet 3.4 miles south of the San Bernardino Substation. This section includes the summary of impacts that would occur for each affected resource with respect to the 230kV upgrade for the DPV2 project. Potentially significant impacts are described in Chapter 6.

5.2.2 Land Use

The proposed transmission corridor upgrade involves four transmission lines, the Devers-San Bernardino No. 1 and No. 2 230kV, and the Devers-Vista No. 1 and No. 2 230kV transmission lines. The upgrade would utilize existing access roads. The transmission lines are located within an existing transmission corridor; therefore, the majority of impacts to land use are expected to be minimal.

The corridor has been established and therefore would not cause a divide within an existing or planned community. No conflicts would occur with existing general plans for communities within the study area. Additionally, no conflicts with habitat conservation plans or natural

community conservation plans would occur. However, land uses may be affected by the construction and operational phases of the proposed project, described as follows.

5.2.2.1 Construction

Since no additional right-of-way would be required for the 230kV upgrade project, there would be no direct impacts to existing residences.

Link 102 would cross a cemetery at Milepost 1 in Banning. Impacts to the cemetery would be less than significant because the cemetery would be spanned by the conductors and ground disturbance would be avoided during construction.

Mileposts 3.5 and 8 of Link 101 cross existing material extraction mines. Temporary impacts may occur during construction if mining operations are impeded but would be of short duration and therefore would be less than significant.

Using the acreage assumptions described in Section 3.5.5.2, approximately 0.8 acre of agricultural land would be temporarily disturbed during construction of the project along Links 102 and 104. Potential impacts during the construction phase to irrigated cropland within the right-of-way would result from the temporary removal of cropland from production and interference with tilling/irrigation patterns and potential conflict with agricultural aviators due to temporary laydown areas, tensioning, and pulling sites. Additional impacts could occur due to restricted agricultural vehicular access.

Various parks and recreational facilities located within the right-of-way may be affected by construction activities. Noble Creek Regional Park (Link 102, Milepost 7), Oak Valley Golf Course (Link 102, Mileposts 7.5 and 8), and the Pacific Crest Trail (Link 100, Milepost 7) would incur temporary impacts during construction. The impacts are associated with a temporary disruption of recreation activities in these areas.

5.2.2.2 Operation

Long-term operational impacts would occur along Links 102 and 104 where transmission line structure foundations would permanently remove active agricultural land out of production and interfere with tilling and irrigation patterns. Additional impacts would occur if towers are placed within an orchard. However, if the orchards are spanned and the clearances maintained, minimal impacts would occur.

Operational impact also would occur in the vicinity of the extraction mines located under Link 101. However, no long-term operational impacts would occur if the material extraction mines can be spanned.

5.2.3 Socioeconomics, Population, and Housing

The construction of the proposed project would not have a significant impact on the population or housing of the communities through which it passes west of Devers. The construction industry has an adequate local workforce in Riverside and San Bernardino counties, and much of the labor force may commute locally, alleviating the need for temporary housing. The total workforce would be less than 0.1 percent of the Riverside or San Bernardino county employment base.

The construction workforce for the west of Devers 230kV transmission upgrade project is expected to be contractors who may reside in southern California. Construction worker immigration to the area is expected to be a minor component of the total labor force. Should temporary housing be needed, the area is highly developed and has adequate housing facilities.

Any worker expenditures in these communities would represent a small, short-term benefit to some businesses in the vicinity of the proposed corridor.

According to the analysis conducted for this study, property tax revenues paid in California for the 230kV upgrade project would be less than one percent of the total assessed valuation in 2003 (refer to previous Section 5.1.3.2).

5.2.4 Geology and Soils

5.2.4.1 Geology

No potentially significant impacts were identified for geology within the west of Devers 230kV upgrade study corridor. The proposed route would follow an existing transmission corridor and would utilize existing access roads. Except for potential upgrades to existing tower sites and select new tower locations, construction of the proposed transmission line would not require grading that would result in modifications to ground surface features.

To mitigate potential impacts to geology that might result from construction of the proposed upgrade, mitigation measures specified in Section 6.2.4 of this PEA would be applied.

5.2.4.2 Soils

No significant impacts were identified to soils within the west of Devers 230kV transmission upgrade study corridor. Since the proposed project would utilize existing access roads, and the major portion of the proposed route crosses relatively low relief terrain, the erosion impacts due to select new tower pads would be less than significant.

To mitigate potential impacts to soils that might result from construction of the proposed upgrade, mitigation measures specified in Section 6.2.4 of this PEA would be applied.

5.2.5 Hydrology

No potentially significant impacts were identified for hydrology. The proposed west of Devers transmission upgrade would be built within an existing corridor with tower placements designed to avoid washes, where possible. The transmission upgrades would not deplete groundwater supplies or alter the drainage pattern of an area.

To mitigate potential impacts to hydrology that might result from construction of the proposed upgrade, mitigation measures specified in Section 6.2.5 of this PEA would be applied.

5.2.6 Air Quality

5.2.6.1 Construction

Based on the construction plan for the proposed west of Devers upgrade (Section 3.5.2.2), a variety of truck auxiliary vehicles would be used over a 24-month period of construction. Construction would occur in phases, and would include structure removal, material processing, roads, foundations, tower assembly/erection, and conductor operations. As work on any one phase is completed, the construction crew moves on to the next segment and is followed by the crew responsible for the next phase of construction. The construction of the west of Devers 230kV transmission upgrade would produce emissions in the form of fugitive dust and exhaust from heavy equipment and support vehicles. Equipment used for the construction of the west of Devers portion of the proposed DPV2 project was assumed to be the same as that of the Devers-Harquahala 500kV portion.

Based on the total number of acres developed and the amount of fuel consumption per day, the total amount of PM_{10} fugitive dust emissions were calculated to be 114 lbs/day as an unmitigated worse case for the west of Devers 230kV portion of the project (see Table 5-2, Section 5.1.6.1). The estimate assumes that there would be grading operations performed on all areas disturbed by

construction activities. The estimated PM_{10} cumulative dust emissions for California are 454 lbs/day. The calculated value would exceed the SCAQMD construction emission threshold of 113 lbs/day. Implementation of the BACM would be utilized in order to further reduce dust emissions, reducing the cumulative impact of the project to 109 lbs/day (see Table 5-3).

The cumulative exhaust emissions produced from the vehicles and equipment used for the project were also calculated. A summary of the estimated levels of vehicle and equipment emissions are provided in Table 5-4. The work schedule and total amount of fuel consumed were used to calculate emissions levels and the emission rates were taken from the CEQA Air Quality Handbook (SCAQMD 1993). Cumulative daily exhaust emissions for California are shown on Table 5-4.

5.2.6.2 Operation

Operation of the 230kV upgrade would not produce significant emissions. There would be minute amounts of ozone produced due to corona discharge at the hardware/insulator assemblies. Minimal fugitive dust and vehicle emissions would be produced by maintenance activities. Overall, impacts to air quality due to the operation and maintenance of the transmission line would be less than significant.

5.2.7 Traffic and Transportation

Construction workers and supply vehicles would generate an insignificant amount of additional traffic in the area in which they are working. Because the workforce would be divided into crews working on different portions of the line, the additional traffic generated in any one area would be small and would occur for short periods of time. In addition, I-10 and numerous major arterials designed to accommodate large volumes of traffic are located near the proposed route, and new access roads would not be required for construction of the proposed project. Since

construction would not require new access roads, new access for off-road vehicles through undeveloped areas would not be promoted. Road closures, if necessary, would be limited to short durations and periods of low volume traffic or in accordance with state departments of transportation policies. No additional long-term traffic from project operation would occur.

5.2.8 Biology

Vegetation

Possible impacts associated with construction of the proposed west of Devers 230kV transmission upgrade are summarized below. The segment includes approximately 40 miles of existing right-of-way from Devers to San Bernardino Junction within which new tower construction and tower removals are planned. This area would include approximately 73 acres of habitat for plants and wildlife that may be disturbed. Areas disturbed during construction may be less than estimated based on the specific locations of new structures determined in final design, and potential utilization of existing access roads for construction. No new access roads would be required for reconductoring activities between San Bernardino Junction and Vista Substation, or between San Bernardino Junction and San Bernardino Substation, resulting in a minimal level of potential disturbance.

Table 5-7 summarizes the potentially affected area by vegetation associations where the proposed west of Devers upgrade from Devers to San Bernardino Junction may cause a loss of habitat. Approximately 35 acres (48 percent) are characterized as ruderal and degraded areas, or non-native grasslands, unlikely to support sensitive species or native vegetation. The remaining 38 acres are mainly chaparral or scrub habitats, with the exception of 1.3 acres (1.8 percent) of riparian habitat types and 1.9 acres (2.6 percent) of Riversidean sage scrub chaparral. The latter habitat types may support several sensitive plant and wildlife species, including coastal California gnatcatchers, a federally threatened species.

TABLE 5-7
POTENTIAL DIRECT TEMPORARY IMPACTS TO VEGETATION ASSOCIATIONS WITHIN THE PROPOSED WEST OF DEVERS TRANSMISSION UPGRADE STUDY CORRIDOR

Dominant Vegetation Type	Miles crossed from Devers to San Bernardino Junction	Area potentially affected (acres)[1]
Catclaw scrub	3.8	6.9
Catclaw/grassland/valley cholla	0.5	1.0
Chaparral	2.0	3.7
Creosote bush scrub	2.6	4.7
Desert willow/scalebroom	0.6	1.0
Grassland	2.4	4.4
Grassland scrub mosaic	2.0	3.6
Grassland/chaparral	3.7	6.7
Mixed scrub oak/chaparral	1.5	2.6
Non native grassland	5.0	9.2
Riparian	0.4	0.7
Riparian willow	0.3	0.6
Riversidean sage scrub chaparral	1.1	1.9
Ruderal/chaparral mosaic	1.0	1.8
Ruderal/degraded scrub	10.2	18.7
Ruderal/non native grassland	2.8	5.2
Total[2]	**39.8**	**72.7**

Source: BioResource Consultants 2003
Note:
[1] Potentially affected area was calculated assuming approximately 1.8 acres/mile of total disturbance (includes spur roads, structure removal, structure installation, and other construction areas.)
[2] Totals may not check due to rounding.

Southern sycamore alder riparian is a CNDDB sensitive habitat that occurs in the general region, but none was encountered in the study corridor. This is true also for southern riparian scrub habitat.

Wildlife

Some impacts to most classes of wildlife can be expected as a result of construction activities within the proposed west of Devers corridor. Small, fossorial forms may be crushed in their burrows by heavy equipment and others may be inadvertently run over by construction vehicles. The presence of men and equipment would result in a disturbance impact to many animals.

Depending on the season of construction, it is also possible that nesting birds could be disturbed or their nests destroyed.

Sensitive Plants and Wildlife

Based on CNDDB occurrences and other historical information that was reviewed for this project, there are at least 16 sensitive plant and wildlife species with CNDDB occurrence records in the study corridor, or in the general region of the project. Of those 16 species, no more than 53.3 acres of suitable habitat for four sensitive wildlife species are likely to be impacted (Table 5-6). Of these, impacts at most locations can be reduced to less than significant levels by avoiding and minimizing impacts during construction. This is true for habitat that potentially supports sensitive plants along the right-of-way.

The areas of potentially affected wildlife species are summarized in Table 5-8. If some loss of habitat for sensitive wildlife cannot be avoided, depending on the specific tower and construction site layouts, then suitable mitigation for sensitive species habitat losses would need to be determined to reduce impact levels to less than significant. It is possible that there would be some loss of potential habitat for desert tortoises, though there are very few recent records for this species within the study corridor, which is at the edge of the species' current known distribution. For this reason, impacts to desert tortoise are considered to be less than significant. As much as 19.1 acres of potential coastal California gnatcatcher habitat may be affected; however, much of this would likely be avoided or the impacts would be minimized so as to not cause a significant loss of suitable habitat. If habitat losses occur, mitigation would be warranted. Less than 1 acre of suitable habitat for least Bell's vireo may be affected; however, there are no recent records for this species in the project area where habitat loss is expected to occur. For this reason, impacts to least Bell's vireo are expected to be less than significant. Approximately 27 acres of potential habitat for Stephens' kangaroo rats may be impacted. Much of this area will either have no impact to potential habitat for this species, or impacts can be avoided entirely and

are, therefore, considered less than significant. Final areas identified for construction and tower placements would determine the actual habitat loss for this species.

TABLE 5-8
SENSITIVE SPECIES HABITAT POTENTIALLY AFFECTED BY NEW TOWER CONSTRUCTION

Species Habitat	Miles crossed from Devers to San Bernardino Junction	Area potentially affected (acres)
Desert tortoise	3.3	6.0
Coastal California gnat catcher	10.5	19.1
Least Bells vireo	0.5	0.8
Stephens' kangaroo rat	15.0	27.4
Total	**29.2**	**53.3**

Note:
[1]Potentially affected area was calculated assuming approximately 1.8 acres/mile of total disturbance (includes spur roads, structure removal, structure construction, and other construction areas.)
[2]Totals may not check due to rounding.

Indirect Impacts

Indirect impacts associated with construction within the proposed west of Devers upgrade corridor could include an increase in non-native weed establishment and recruitment, particularly at tower sites, crane pads, materials stockpile yards, and concrete batch plants. It is at these sites that soil surface disturbance is likely to be greatest, thus encouraging establishment of invasive, weedy species.

5.2.9 Noise

5.2.9.1 Construction

The noise associated with the construction activities would be primarily generated by the equipment involved. The noise levels produced within the corridor would depend on the number of operating machines and the distance to the nearest sensitive receiving source property line.

Typical noise levels associated with construction equipment fall in the range of 80 to 100 dBA (at a range of 50 feet from the active construction site). Most of the west of Devers upgrade corridor is within vacant land; however, there are some residences within 350 feet of construction. Noise associated with construction may be masked by other sources of noise (i.e., I-10, aircraft flyovers, local traffic, and activities at nearby businesses).

The proposed west of Devers 230kV transmission upgrade would comply with local noise ordinances. Typical municipal ordinances stipulate that activities producing ambient noise should not exceed 55-50 dBA during nighttime hours (10 p.m. to 7 a.m.) and 60-55 dBA during daytime hours (7 a.m. to 10 p.m.) at receiving residential property lines or sensitive areas. However, exemptions include temporary construction during daytime hours except on Sundays and federal holidays. There may be a need to work outside of the aforementioned local ordinances in order to take advantage of low electricity use during nighttime hours. SCE would comply with variance procedures established by local authorities if a variance is necessary.

5.2.9.2 Operation

The major sources of ambient noise in the area are due to traffic on I-10 and I-15, local traffic, aircraft flyovers, activities at business locations, various recreational activities, and the existing transmission lines. The proposed transmission line upgrade would not increase noise levels within the corridor. No noise impacts are anticipated to occur.

5.2.10 Public Services and Utilities

Since most community services are provided to local residences and employee relocation and project construction would be temporary, no impacts on public services including medical, police, fire, and emergency are anticipated. Services to construction workers would not exceed the level for which local facilities are equipped to provide for visitors or temporary workers in

the area. In addition to medical facilities available in the smaller communities near the proposed west of Devers upgrade corridor, numerous medical facilities equipped to handle all levels of emergency medical situations also are available in the larger metropolitan area of San Bernardino, near Vista Substation. These include the cities of Redlands and Loma Linda; Loma Linda has the premier University Medical Center that draws patients from around the country.

5.2.11 Visual Resources

The impact analysis was based on the BLM's VRM System 8400 series (BLM 1984) as well as previous transmission line visual impact assessments in response to CEQA environmental criteria for aesthetics. This section focuses on impacts resulting from the construction and operation of the proposed west of Devers 230kV transmission upgrade. Visual impacts include short-term impacts resulting from the presence of vehicles and equipment during construction, and long-term impacts resulting from the presence of transmission lines facilities over their lifetime.

The measure of potential adverse impact on visual resources is based on visual contrast. Visual contrast is a measure of the degree of perceived change that would occur in the landscape due to the construction and operation of the proposed west of Devers 230kV transmission upgrade. Visual contrast typically results from (1) landform modifications that are necessary to upgrade and construct new access roads and tower pad sites, (2) removal of vegetation to construct roads and maintain right-of-way and ground clearance zones associated with the conductors and towers, and (3) introduction of new structures in the landscape.

The visual contrast assessment was performed by comparing landscape elements (form, line, color, and texture) of the existing landscape with the elements associated with the proposed transmission line facilities including new structures (towers, hardware, equipment, and conductors) and new or improved access. In this regard, landform, vegetation, and structural elements in the landscape were evaluated in conjunction with the proposed (newly introduced)

transmission line, and assigned degrees of change/contrast ranging from strong to moderate, weak, or none. Contrast evaluations were performed from key viewing areas representing typical views to the project, including the documentation of existing and simulated conditions are illustrated in Figures 5-4 through 5-7.

According to the CEQA criteria for aesthetics, significant visual impacts could occur if the project would:

- substantially degrade the existing visual quality of the site and its surroundings
- have a substantial adverse effect on a scenic vista
- substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway
- create a new source of substantial light or glare adversely impacting day or nighttime views in the area

Following is a summary of visual impacts based on the CEQA criteria.

Substantially Degrade the Existing Visual Quality of the Site and Its Surroundings

There is no Class A scenery adjacent to, or crossed by, the proposed 230kV upgrade corridor, and all Class B landscapes are crossed within an existing modified utility corridor. Therefore, impacts to existing scenic quality are anticipated to be less than significant.

The proposed west of Devers 230kV transmission upgrade would cross or be adjacent to the following image types: agriculture, open space/park, industrial, commercial, institutional, and residential. The existing condition of these image types has already been highly modified by the

presence of two single-circuit 230kV lines and one double-circuit 230kV transmission line. Construction of the proposed 230kV transmission line would be limited to the existing utility corridor in these areas and would not affect the current or future development pattern and visual character of these and other areas, due to the presence of the existing utility corridor.

In general, an adverse impact is a result of high to moderate visibility (foreground to middleground views) and strong or moderate project/setting contrast from residential, recreation or travel route views. The proposed west of Devers 230kV transmission upgrade would occur in an existing transmission line corridor, and consists of upgrading an existing line and matching existing tower types (Links 100-102) or simply reconductoring with selective tower replacement (Links 103 and 104). Therefore, the visual contrast created by the proposed west of Devers upgrade would be minimal to indiscernible. In addition, the number of structures that occur within the corridor would be reduced from three to two structures for portions of the proposed route, or from four to three in others, resulting in an overall reduction of towers visible to sensitive viewers. Overall, impacts to sensitive viewers are anticipated to be less than significant.

Residential Viewers

The majority of the views of the west of Devers upgrade corridor from residential viewers are screened by topography, vegetation, and/or buildings, and may occur from the foreground into the background. As a result of distance, screening, and existing corridor conditions, the visual impact to these viewers would be less than significant, as illustrated on Figures 5-4 and 5-7. In some locations, the proposed transmission upgrade would result in an improvement on visual quality based on a reduction in the number of towers.

Figure 5-4

Figure 5-5

Figure 5-6

Figure 5-7

Where residential units occur immediately adjacent to the proposed 230kV transmission upgrade, adverse impacts may occur where the newly located towers could be situated in the unobstructed immediate foreground distance zone of individual residences (Link 102). Visual simulations depicting existing and proposed conditions from key residential areas are also shown on Figures 5-4 and 5-5.

Travelway Viewers

Less than significant impacts are expected along moderate or low sensitivity travel routes. The majority of the views of the proposed 230kV transmission upgrade corridor from these local travel routes are partially screened or screened by topography, vegetation and/or buildings.

Impacts to views from travelways are largely dependent upon distance, the setting, and orientation to the proposed transmission line corridor (i.e., either parallel or perpendicular to the roadway). A scenic highway, which offers scenic views to distant or local natural features such as the San Bernardino or San Jacinto mountains, constitutes high sensitivity travelways. The transmission line corridor crosses State Scenic Highway CA 62 west of the Devers Substation (Link 100), which provides access to Joshua Tree National Park. From I-10 northbound on CA 62, the contrast created by the line is negligible in this area because the proposed transmission upgrade would occur in an existing transmission line corridor and would consist of replacing an existing transmission line. The proposed route also crosses CA 62 at an approximately 90-degree angle, which results in a relatively short viewing duration. Impacts created by the proposed west of Devers 230kV transmission upgrade would be minimal or indiscernible to southbound travelers on CA 62 because of the existing utility corridor, in addition to the presence of wind generator towers scattered across the landscape, and the proposed perpendicular crossing.

West of Beaumont, the proposed transmission upgrade crosses I-10 (designated scenic) just west of Milepost 26. Impacts at the crossing would be less than significant, based on the existing

modified corridor setting, and the replacement of the existing transmission line with a double-circuit tower that matches the existing tower types.

Recreation/Open Space Viewers

Impacts to recreation viewers from golf courses and existing trails (including utility line trails in the cities of Beaumont, Banning, Calimesa, Redlands, and Loma Linda) are anticipated to be less than significant due to the full to partial localized screening associated with the presence of the highly modified corridor setting. In addition selective cities have incorporated the existing utility corridor in their open space trails network. Open space views associated with cemeteries and parkland adjacent to the proposed transmission upgrade also would have less than significant impacts. Visual simulations depicting the existing conditions and proposed west of Devers 230kV upgrade from typical recreation use areas are shown on Figures 5-4 and 5-5.

Substantial Adverse Effect on Scenic Vistas

There are no state designated scenic vistas within the proposed west of Devers 230kV transmission upgrade study corridor. Therefore, impacts to scenic vistas would not occur.

Substantially Damage Scenic Resources Including, But Not Limited to, Trees, Rock Outcroppings, and Historic Buildings Within a State Scenic Highway.

Because the proposed west of Devers transmission upgrade would be constructed to span the highway, and towers would be installed on either side of the roadway, the impact on trees, rock outcroppings, and historic buildings or other sensitive features within the scenic highway would be less than significant.

Create a New Source of Substantial Light or Glare Adversely Impacting Views

Construction of the west of Devers 230kV transmission upgrade would normally occur during daylight hours. No additional sources of light would be created and glare would not adversely impact views, as non-specular conductors would be utilized and the finish on towers would be dulled.

5.2.12 Cultural Resources

Archaeology

A Class III archaeological survey of the 300-foot-wide project APE within the proposed west of Devers 230kV study corridor identified two archaeological resources within the APE (Eckhardt and Walker 2004b). These resources are P33-13429 and P33-13430. Neither P33-13429 nor P33-13430 appear eligible for the NRHP. No impacts to NRHP eligible archaeological resources are anticipated as a result of construction and operation of the proposed west of Devers transmission upgrade.

Ethnography

Apart from the recorded archaeological sites and the portion of the west of Devers corridor that crosses the Morongo Indian Reservation, there are no known areas of ethnographic sensitivity within the project APE. In addition, Native American groups have an interest in the disposition of prehistoric archaeological sites as evidence of the presence of their ancestors.

Construction and operation of the proposed transmission upgrade is not expected to have effects on Native American TCPs or other resources of cultural value. BLM staff has indicated that they would consult with appropriate Native American groups regarding this process in the context of

the BLM's government-to-government responsibility with Native American tribes (personal communication, Wanda Raschkow 2004).

History

The Class III archaeological survey of the 300-foot-wide project APE resulted in the identification of nine historic-era sites in the APE: RIV-7462H/P33-13427, P33-13428, RIV-2262H, RIV-4768H/SBR-7168H/P36-007168, SBR-11624H/P36-011624, P33-13431, P33-13434, P33-007888, P36-020240. Three of these resources—RIV-4768H/SBR-7168H/P36-007168, RIV-2262H, and P33-007888—are assessed potentially eligible for listing on the NRHP (Eckhardt and Walker 2004b). These resources are subject to potential effects from project construction and operation.

Paleontology

Between Devers and Vista substations (Links 100, 101, 102, 103, and 104) the proposed west of Devers corridor traverses approximately 25.9 miles of high or undetermined areas of paleontological sensitivity. The undetermined or high sensitivity areas include Pleistocene older alluvium in Links 102 and 103, Canebrake Conglomerate or Palm Springs Formation in Link 102, and San Timoteo Formation in Links 102 and 103. Potentially significant paleontological specimens may be impacted by excavation of tower footings and grading of access spur roads in these areas (Scott 2003).

5.2.13 Public Health and Safety

5.2.13.1 Hazardous Materials

The potential for impacts to public health and safety from hazardous materials that could occur during construction or operation of the proposed transmission upgrade west of Devers, and the means by which SCE would attempt to minimize those potential impacts, would be the same as described in Section 5.1.13.1.

5.2.13.2 School Facilities

Project construction and operations would not occur on any school sites. There would be a very low risk of emitting hazardous materials, substances, or waste within ¼ mile of an existing or proposed school. There are eight existing schools located within approximately ¼ mile of the existing west of Devers right-of-way, as identified in Section 4.2.13.1 (Table 4-55). Impacts to school facilities that would result from construction and operation of the proposed west of Devers transmission upgrade would be less than significant.

5.2.13.3 Airport and Airstrip Operations

The proposed west of Devers 230kV transmission line upgrade would not impact west of Devers operation of any airport or private airstrip. Construction and operation of the proposed upgrade would be located within an existing right-of-way, and would therefore not create a new safety hazard for people residing or working in the project area.

5.2.13.4 Emergency Response or Evacuation Plans

Construction or operation of the proposed west of Devers transmission upgrade would not impair implementation of or physically interfere with an adopted emergency response plan or evacuation plan.

5.3 SUBALTERNATE TRANSMISSION LINE ROUTES

5.3.1 Land Use

5.3.1.1 Harquahala-West Subalternate Route

The majority of the approximately 21.1-mile-long Harquahala-West Subalternate Route crosses vacant/undeveloped land as it parallels section lines to the existing El Paso Natural Gas pipeline corridor, where it turns northwest and parallels the pipeline corridor to the existing DPV1 corridor next to the Wenden Pump Station 4126. As the subalternate route crosses approximately 4.5 miles of land subdivided as Eagle Ranch, potential impacts could occur if the plots were sold for residential use. Immediately west of the Harquahala Switchyard, the subalternate route crosses approximately 3 miles of agricultural land. Approximately 14 new single-circuit, tubular steel poles would be constructed through the agricultural land, which would result in a loss of approximately 0.03 acre of agricultural land. Farming operations could resume after construction. Tubular steel poles also would be used for approximately ½ mile west of the agricultural land.

The subalternate route would utilize the existing access road within the pipeline corridor. Approximately 9 miles of new access road would be constructed for the subalternate route, disturbing approximately 17.8 acres of undeveloped land. The total permanent disturbance along the Harquahala-West Subalternate Route would be approximately 18.9 acres. Table 5-9 shows the estimated amount of potential ground disturbance for the Harquahala-West Subalternate

Route compared to the proposed Devers-Harquahala route from Harquahala to a common endpoint, as indicated on Map 3-2a. The subalternate route would not physically divide any established community and would not conflict with existing general plans for the study corridor. The El Paso Natural Gas pipeline corridor is identified in the Lower Gila South RMP as a designated BLM utility corridor.

TABLE 5-9
PERMANENT GROUND DISTURBANCE FOR THE PROPOSED DEVERS-HARQUAHALA ROUTE AND HARQUAHALA-WEST SUBALTERNATE ROUTE

	Structure Footprint (acres)	Access and Spur Roads (acres)	Total Disturbance (acres)
Proposed Devers-Harquahala Route	1.1	5.0	6.1
Harquahala-West Subalternate Route	0.6	17.8	18.9

Notes:
1. Harquahala Switchyard and the junction with DPV1 near Wenden Pump Station are used as common endpoints for the proposed and subalternate routes.
2. Disturbance areas estimate based on tower span distances: Lattice towers—3.4 towers per mile, tubular steel poles—4 per mile.
3. Lattice towers permanent disturbance—0.01 acre, tubular steel poles permanent disturbance—100 square feet.
4. Access road permanent disturbance estimate based on 14-foot-wide roadway.

During construction, temporary construction and laydown areas along the first 3 miles of the subalternate route could potentially impact agricultural lands. Assuming 0.4 acre of disturbance per mile for pulling/tensioning and splicing sites, and approximately 0.9 acre at each new structure location, approximately 12 acres of agricultural land could be temporarily disturbed during construction. Including temporary disturbance to undeveloped and agricultural land, a total area of approximately 18.9 acres could be disturbed during construction.

5.3.1.2 Palo Verde Subalternate Route

The majority of the Palo Verde Subalternate Route would be located adjacent to the existing DPV1 transmission line right-of-way within the designated BLM utility corridor. The remainder of the subalternate route, which crosses undeveloped state and private land, is located in an

existing 500kV utility corridor. A total of approximately 50 lattice steel towers would be constructed for the 15-mile subalternate route, or 27 more towers than the proposed Devers-Harquahala 500kV route. Existing access along the DPV1 transmission line corridor would be utilized for construction and maintenance. Overland travel would be used to access tower locations via extensions of spur roads from the existing DPV1 access road. During construction, temporary construction and laydown areas and structure assembly sites would potentially disturb approximately 8.9 acres. The Palo Verde Subalternate Route would result in approximately 2 acres of permanent ground disturbance.

5.3.2 Socioeconomics, Population, and Housing

5.3.2.1 Harquahala-West and Palo Verde Subalternate Routes

The construction of either of the subalternate routes would not impact the population or housing of the area through which they pass. As noted in Section 5.1.3.1, some of the labor force would likely be drawn from the greater Phoenix area, in which case the workers would commute and would not require housing. Labor force statistics described in Section 5.1.3.1 would be applicable to these subalternates.

5.3.3 Geology and Soils

5.3.3.1 Harquahala-West Subalternate Route

No significant impacts to geology and soils are expected from the construction or operation of the Harquahala-West Subalternate Route. Approximately 15 acres of disturbance would occur to soils during the construction of approximately 9 miles of access roads. Impacts to soils would be mitigated using erosion control measures described in Section 6.1.4.

5.3.3.2 Palo Verde Subalternate Route

Impacts to geology and soils are expected to be less than significant from the construction or operation of the Palo Verde Subalternate Route. A minimal level of new access would be required along the subalternate route, as existing access would be used for construction and operation. Impacts to soils would be mitigated using erosion control measures described in Section 6.1.4.

5.3.4 Hydrology

5.3.4.1 Harquahala-West and Palo Verde Subalternate Routes

The construction and operation of either of the subalternate routes would not be expected to violate water quality standards or waste discharge requirements. No groundwater would be used for construction or operation of either subalternate route; therefore, no impacts are expected to aquifer volume. Washes would be spanned where possible; therefore, impacts to washes are expected to be less than significant.

5.3.5 Air Quality

5.3.5.1 Harquahala-West and Palo Verde Subalternate Routes

Impacts to air quality from the construction and operation of the proposed project using either of the subalternate routes would be similar to the impacts described for the Arizona portion of the proposed Devers-Harquahala route in Section 5.1.6.1.

5.3.6 Traffic and Transportation

5.3.6.1 Harquahala-West and Palo Verde Subalternate Routes

Impacts to traffic and transportation from the construction and operation of the subalternate routes would be less than significant. Impacts to the project from either of the subalternates would be similar to the impacts described for the Arizona portion of the proposed route in Section 5.1.7.1.

5.3.7 Biology

5.3.7.1 Harquahala-West Subalternate Route

Vegetation

Construction and operation of the Harquahala-West Subalternate Route would result in the removal of, or damage to, a number of species of native plants. Construction of spur roads would cause the removal of shrubs, cacti, and, possibly, some trees. Vegetation also is likely to be crushed in at tower site construction areas, in pulling areas, and in equipment storage and laydown areas.

Sensitive Plant Species

There are no federally listed threatened or endangered plant species that have been documented within the study corridor for this subalternate route. A number of plant species that are listed under the ANPL are present within the corridor, however it is highly unlikely that any plant species listed as Highly Safeguarded Protected Native Plants are present. Crested or fan-top forms of saguaro cactus could be present; however, no individuals of this form were observed

during site reconnaissance. There are a number of Salvage Restricted Protected Native Plants present including all agaves, cacti, and ocotillo. Salvage Assessed and Harvest Restricted species present include ironwood, blue and foothill paloverde, and mesquite. Plants protected under the ANPL, other than those that are highly safeguarded, can be offered for salvage, or salvage assessed.

Wildlife

Permanent impacts such as injury, mortality, and permanent displacement of wildlife during construction of tower footings, spur roads, crane pads, and staging areas could occur. Temporary impacts such as disturbance and temporary displacement of wildlife also could occur during construction.

Sensitive Wildlife

No federally listed species are likely to be present within the Harquahala-West Subalternate Route study corridor. There is some possibility of the southwestern willow flycatcher being present along wooded washes during spring or fall migration, but there is no possibility of the species nesting within the corridor due to lack of acceptable habitat. The loggerhead shrike, a federal species of concern and BLM sensitive species, may be present within the corridor occasionally. The California leaf-nosed bat, also a federal species of concern and BLM sensitive species, could be present within the corridor during nocturnal foraging. However, because this species does not generally forage far from its roost in caves or mines, such roosts would have to be immediately adjacent to the project corridor for this species to be present. The pale big-eared bat, a federal species of concern, could be present as a nocturnal forager along the portion of the corridor that skirts the Eagletail Mountains if suitable mine or cave roost habitat is present. Desert bighorn sheep, a big game species in Arizona, resides in the Eagletail Mountains and may occasionally wander downslope within the vicinity of the corridor.

The burrowing owl, a federal species of concern and a BLM sensitive species, is recorded in Maricopa County and could be present anywhere within the corridor where suitable habitat is present, including the agricultural and ruderal areas at the east end of the study corridor.

Other sensitive species that are likely to occur within the Harquahala-West study corridor include Sonoran population desert tortoises, Arizona chuckwalla, banded Gila monster, and desert rosy boa. The desert tortoise and chuckwalla are most likely to be found in rocky upland areas along the eastern slope of the Eagletail Mountains, and the Gila monster may be present anywhere within the native desert lands along the corridor, particularly in the vicinity of washes.

Indirect Impacts

Indirect impacts associated with the construction of the Harquahala-West Subalternate Route transmission line could include an increase in non-native weed establishment and recruitment, particularly at tower sites, crane pads, materials stockpile yards, and concrete batch plant sites.

Overall impacts to sensitive plant and animal species on the Harquahala-West Subalternate Route are expected to be less than significant.

5.3.7.2 Palo Verde Subalternate Route

Vegetation

Construction of the Palo Verde Subalternate Route would result in the removal of, or damage to, a number of species of native plants. Construction of spur roads would cause the removal of shrubs, cacti, and, possibly, some trees. Vegetation is also likely to be crushed in at tower site construction areas, in pulling areas, and in equipment storage and laydown areas.

Sensitive Plant Species

There are no federally listed threatened or endangered species of plants that have been documented in the Arizona portion of Devers-Harquahala study corridor, including the study corridor for the Palo Verde Subalternate Route. Sensitive plants known or likely to be found include straw-top cholla (*Opuntia echinocarpa*) and the suite of species listed under the ANPL.

Wildlife

Permanent impacts including injury, mortality, and permanent displacement of wildlife during construction of tower footings, spur roads, crane pads, and staging areas could occur. Temporary impacts such as disturbance and temporary displacement also are likely to occur during construction.

Sensitive Wildlife

Sensitive reptile species that may be present within the study corridor of the Palo Verde Subalternate Route include Sonoran desert tortoise (*Gopherus agassizi*), Arizona chuckwalla (*Sauromalus ater*), and desert rosy boa (*Charina trivirgata gracia*). All three of these reptiles may be encountered in rocky, upland areas as opposed to lowland, alluvial sites. Among birds, there is a remote possibility that burrowing owls (*Athene cunicularia hypugaea*) could occur within the corridor. It also is possible that the federally listed southwestern willow flycatcher (*Empidonax traillii extimus*) could be present in dense mesquite growth along Winters Wash during periods of spring or fall migration. Sensitive mammals that may be present within the corridor from time to time include California leaf-nosed bat (*Macrotus californicus*) and desert bighorn sheep (*Ovis canadensis mexicana*).

Indirect Impacts

Indirect impacts associated with construction within this proposed corridor could include an increase in non-native weed establishment and recruitment, particularly at tower sites, crane pads, materials stockpile yards, and concrete batch plants. It is at these sites that soil surface disturbance is likely to be greatest, thus encouraging establishment of invasive, weedy species.

Impacts to sensitive plant and animal species on the Palo Verde Subalternate Route are expected to be less than significant.

5.3.8 Noise

5.3.8.1 Harquahala-West and Palo Verde Subalternate Routes

Construction or operation of the transmission line along either of the subalternate routes would result in less than significant noise impacts. Both of the subalternate routes are located in rural areas with no immediately adjacent residences. Construction and operation of either of the subalternate routes would comply with local noise standards, as described in Section 5.1.9.1.

5.3.9 Public Services and Utilities

5.3.9.1 Harquahala-West and Palo Verde Subalternate Routes

Impacts to public services and utilities from the construction or operation of either of the subalternate routes would be less than significant. Impacts expected are similar to those for the proposed route, as described in Section 5.1.10.1.

5.3.10 Visual

5.3.10.1 Harquahala-West Subalternate Route

Several residences occur within 1 mile of the Harquahala-West Subalternate Route with open views of the subalternate transmission line (Link HW, Mileposts 8 and 9). Because this route would not parallel an existing vertical linear facility, the impacts to those residential viewers would be potentially significant. Additional impacts could occur to sensitive viewers using the trail in the Eagletail Wilderness. However, the views of the subalternate route are partially screened and backdropped, and would occur approximately 1 mile away from the trail, resulting in less than significant impacts. A simulation was prepared to depict the project as it would appear from the trail viewpoint (Figure 5-8). Impacts to scenic quality are anticipated to be minimal because the subalternate route would occur in a Class C landscape.

5.3.10.2 Palo Verde Subalternate Route

Impacts to residential viewers (one residence) adjacent to this subalternate route would be less than significant because the transmission line along this subalternate route would parallel two existing 500kV transmission lines at the viewpoint. Additional impacts would occur to travelers on the Salome Highway, but would be minimal because the new line would parallel existing 500kV transmission lines. Impacts to scenic quality (primarily Class C landscape) are anticipated to be minimal because the existing conditions along the route include existing transmission lines and the associated access road.

5.3.11 Cultural Resources

5.3.11.1 Harquahala-West Subalternate Route

Archaeology

In addition to the records search, a Class II sample archaeological survey was conducted within the study corridor for this subalternate route. No NRHP eligible or potentially eligible archaeological resources were identified in the 300-foot-wide corridor (Luhnow 2004). The discovery of only two isolated archaeological occurrences in the areas of the 2-mile-long survey transects suggests that the archaeological sensitivity of this area is only moderate, and potential impacts to NRHP eligible resources would be less than significant.

Ethnography

No TCPs or potential TCPs have been identified within the project APE (defined as the 300-foot-wide study corridor for the Class II study). Apart from archaeological sites that may occur within the APE, about which Native Americans have expressed a general concern, no significant ethnographic values have been identified that could be affected by the project. BLM staff has indicated that they would consult with appropriate Native American groups regarding project effects on traditional cultural values within the context of the BLM's government-to-government responsibility with Native American tribes (personal communication, Wanda Raschkow 2004).

FIGURE 5-8

History

The Class 1 records search and the Class II sample survey of the Harquahala-West Subalternate Route resulted in the identification of no historic-era sites and one isolated historic-era occurrence (a rock cairn that may be associated with a mining claim) within the 300-foot-wide project corridor (Luhnow 2004). At this time there are no known historic-era resources in the project area that are listed on or potentially eligible for listing on the NRHP (ibid). Therefore, there are no known NRHP eligible historic-era resources in the APE threatened by potential construction and operation effects of the Harquahala-West Subalternate Route.

Paleontology

Virtually the entire length of the Harquahala-West Subalternate Route crosses undifferentiated Pleistocene older alluvium and Holocene alluvium in the Harquahala Plain. The Pleistocene older alluvium has a high paleontological sensitivity ranking (Scott 2003).

5.3.11.2 Palo Verde Subalternate Route

Archaeology

Seven archaeological sites have been identified within the project APE; AZ S:12:35 (ASM), AZ T:9:12 (ASM), AZ T:9:13 (ASM), AZ T:9:21 (ASM), AZ T:9:64 (ASM), AZ T:9:86 (ASM), and AZ T:9:87 (ASM). Of these sites, AZ T:9:12 (ASM), AZ T:9:13 (ASM), AZ T:9:21 (ASM), and AZ T:9:64 (ASM) are assessed NRHP eligible or potentially eligible.

Ethnography

Because the Palo Verde Subalternate Route would be constructed adjacent to existing transmission lines, indirect effects to TCPs or potential TCPs are considered negligible. No TCPs or potential TCPs have been identified within the project APE (defined as within 100 feet of project tower pads and access roads). Apart from archaeological sites within the APE, about which Native Americans have expressed a general concern, no significant ethnographic values have been identified that could be affected by the project. BLM staff has indicated that they would consult with appropriate Native American groups regarding project effects on traditional cultural values within the context of the BLM's government-to-government responsibility with Native American tribes (personal communication, Wanda Raschkow 2004).

History

Three historic-era sites were identified in the Class III survey as occurring within or immediately adjacent to the project APE (defined as a 300- to 600-foot-wide corridor encompassing the proposed tower and access road locations). These resources are recorded as AZ T:9:65 (ASM), AZ S:12:32 (ASM), and AZ S:12:36 (ASM). All three are recommended not eligible for the NRHP. Potential effects could occur to AZ T:9:65 (ASM) as a result of construction and operation of the Palo Verde Subalternate Route.

Paleontology

Approximately 8 miles of the Palo Verde Subalternate Route traverse areas of high paleontological sensitivity. Potentially significant paleontological specimens may be impacted by excavation of tower footings and grading of access spur roads in these areas (Scott 2003).

5.3.12 Public Health and Safety

5.3.12.1 Harquahala-West and Palo Verde Subalternate Routes

Hazardous Materials

The potential for impacts to public health and safety from hazardous materials that could occur during construction or operation of either subalternate route, and the means by which SCE would attempt to minimize those potential impacts would be the same as described in Section 5.1.13.1.

School Facilities

Project construction and operation would not occur on any school sites. There would be a very low risk of emitting hazardous materials, substances, or waste within ¼ mile of an existing or proposed school. No schools were identified within ½ mile of either of the subalternate routes, and no temporary construction areas would be located within ¼ mile of any existing school sites.

Airport and Airstrip Operations

Disturbance resulting from construction or operation of the transmission line located on either of the subalternate routes would not impact operation of any airport or private airstrip. Neither of the subalternate routes would create a new safety hazard for people residing or working in the project area.

Emergency Response or Evacuation Plans

The potential for impacts to emergency response or evacuation plans that could occur during construction or operation of either of the subalternate routes would be less than significant.

5.4 MIDPOINT SUBSTATION ALTERNATIVES

5.4.1 Land Use

Impacts to land use are expected from the construction and operation of the Midpoint Substation, at the preferred site or either of the alternative sites, would be less than significant. As shown on Map 4-3c, all three sites are located on vacant/undisturbed land, and construction of the Midpoint Substation would not conflict with general plans.

5.4.2 Socioeconomics, Population, and Housing

Impacts to socioeconomics, population, or housing as a result of construction and operation of the Midpoint Substation preferred or alternative sites would be less than significant. Tax revenue contributions to Riverside County would represent a negligible portion of the county's assessed valuation.

5.4.3 Geology and Soils

Impacts to geology and soils are expected from the construction or operation of the Midpoint Substation at any of the preferred or alternative sites would be less than significant. Approximately 44 acres of permanent ground disturbance would occur on the footprint of the substation, and additional temporary ground disturbance would occur in construction areas. Less

than 1 acre of permanent disturbance from construction of an access road would occur at the Wiley Well site. Permanent disturbance resulting from the access road at the preferred site would be about 10 acres, and about 15 acres at the Mesa Verde site. Impacts to soils would be mitigated using erosion control measures described in Section 6.1.4.

5.4.4 Hydrology

The construction and operation of the Midpoint Substation at the preferred or alternative sites would not be expected to violate water quality standards or waste discharge requirements. No groundwater would be used; therefore, impacts to washes are expected to be less than significant.

5.4.5 Air Quality

Less than significant impacts to air quality are expected from the construction or operation of the Midpoint Substation at the preferred or alternative sites. Impacts to air quality would be mitigated using measures described in Section 6.1.6.

5.4.6 Traffic and Transportation

Impacts to traffic and transportation from the construction and operation of the Midpoint Substation at the preferred site or alternatives would be less than significant. Impacts resulting from the Midpoint Substation would be similar to those of the proposed route as described in Section 5.1.7.

5.4.7 Biology

Impacts to biological resources would be expected to be less than significant for the preferred Midpoint Substation site or either of the alternatives.

5.4.7.1 Sensitive Plant Species

There are no federally listed threatened or endangered species of plants that have been documented in the vicinity of the preferred site or alternative sites. Harwood's milkvetch, a CNPS List 2 species, was documented in the area during surveys in April 2004. No other sensitive species were found.

5.4.7.2 Wildlife

Permanent impacts including injury, mortality, and permanent displacement of wildlife during construction could occur. Temporary impacts such as disturbance and temporary displacement are also likely to occur during construction.

Sensitive Wildlife

The only sensitive species that is likely to occur on the preferred site at either of the alternative sites is the Colorado Desert fringe-toed lizard. This species would utilize aeolian sands within the project area. The sands are too fine to comprise good habitat for the desert tortoise.

5.4.7.3 Indirect Impacts

Indirect impacts associated with construction of the Midpoint Substation could include an increase in non-native weed establishment and recruitment, especially in areas of soil disturbance.

5.4.8 Noise

Equipment operation is the primary noise source associated with construction activities. Noise levels are dependent on several factors including the number of machines operating within an area at a given time and the distance between the source(s) and receiving properties. Typically, noise generated from construction activities ranges between 80 and 90 dBA 500 feet from an active construction area. The nearest residential properties are located approximately 1 mile east of the preferred site, and greater than 1 mile from either of the alternative sites, and therefore would not likely be impacted by noise from operation of the substation.

5.4.9 Public Services and Utilities

Impacts to public services and utilities from the construction and operation of the Midpoint Substation at the preferred site or either of the alternatives would be less than significant. Impacts expected are similar to those for the proposed Devers-Harquahala line, as described in Section 5.1.10.2.

5.4.10 Visual Resources

5.4.10.1 Preferred Site

Visual impacts associated with the Midpoint Substation are not anticipated to occur except to the single residential viewer located about 1 mile east of the preferred site. However, because the resident's view of the site would be from a lower elevation, the impact is anticipated to be less than significant. Impacts to scenic quality are anticipated to be minimal because the preferred site is located on Class C landscape. The Midpoint Substation preferred site would comply with the VRM designation of Class 4.

5.4.10.2 Mesa Verde Alternative

Impacts to viewers from I-10 would be less than significant. This alternative site is approximately 1 mile from I-10 and would be partially screened by existing desert vegetation. Impacts to scenic quality are anticipated to be less than significant because the site would be located on Class C landscape.

5.4.10.3 Wiley Well Alternative

Potentially significant impacts could occur to travelers along I-10 with this site alternative. The site is located about ½ mile from I-10, resulting in unobstructed foreground views to the site in a landscape with little modification. Impacts to scenic quality are anticipated to be less than significant because the site is located on Class C landscape. The Wiley Well alternative site would comply with the VRM designation of Class 4.

5.4.11 Cultural Resources

5.4.11.1 Preferred Site

Archaeology

Archaeological survey identified three archaeological sites within the preferred substation site boundaries—RIV-775T, P33-13659, and P33-13660—and all of these resources appear potentially eligible to the NRHP. Earth-disturbing project construction and operation activities, such as site preparation grading and digging, could result in impacts to these resources but would be mitigated to less than significant levels.

Ethnography

Apart from the recorded archaeological sites there are no known areas of ethnographic sensitivity within the preferred substation site. Native American groups have expressed interest in the disposition of prehistoric archaeological sites as evidence of the presence of their ancestors.

Construction or operation of a substation on the preferred site is not expected to have effects on Native American TCPs or other resources of cultural value. BLM staff has indicated that they would consult with appropriate Native American groups regarding this process in the context of the BLM's government-to-government responsibility with Native American tribes.

History

An archaeological survey of the preferred Midpoint Substation site resulted in the identification of no historic-era resources. Therefore, no historic-era resources would be subject to direct effects from construction or operation of the substation at the preferred site.

Paleontology

The preferred site is located on Pleistocene older alluvium, which is considered to have a high paleontological sensitivity ranking (Scott 2003). Rock units composed of Holocene alluvium are located on either side of the site. Pleistocene alluvium has a low paleontological sensitivity ranking (ibid). Potentially significant paleontological specimens may be impacted by grading and excavation activities associated with site preparation and construction of the substation. A paleontological field survey would be conducted on the site prior to the start of any construction activities to determine the presence or extent of lithic units of high paleontological sensitivity in the project area.

5.4.11.2 Mesa Verde Alternative

Archaeology

Archaeological survey of the Mesa Verde alternative substation site resulted in the discovery of one previously unrecorded archaeological resource within the alternative site boundaries (P33-13672). P33-13672 is a lithic scatter of petrified wood flakes and is potentially eligible to the NRHP. Earth-disturbing project construction and operation activities, such as site preparation grading and digging, could result in impacts to this resource but would be mitigated to less than significant levels.

Ethnography

Apart from the recorded archaeological site, there are no known areas of ethnographic sensitivity within the Mesa Verde alternative site. Native American groups have expressed interest in the disposition of prehistoric archaeological sites as evidence of the presence of their ancestors.

Construction or operation of a substation on the Mesa Verde alternative site is not expected to have effects on Native American TCPs or other resources of cultural value. BLM staff has indicated that they would consult with appropriate Native American groups regarding this process in the context of the BLM's government-to-government responsibility with Native American tribes.

History

An archaeological survey of the Mesa Verde alternative site resulted in no historic-era resource discoveries. There are no known historic-era resources within the alternative site boundaries are expected to be subject to impacts from construction and operation of the proposed substation.

Paleontology

The Mesa Verde alternative site is located on Holocene alluvium and Holocene dune sand geological units. Neither of these geological units is conducive to the formation or preservation of fossils, and this alternative substation site is therefore given a low paleontological sensitivity ranking (Scott 2003). Potentially significant paleontological specimens may be impacted by grading and excavation activities associated with site preparation and construction of the new substation. No potentially significant paleontological specimens are expected on this site.

5.4.11.3 Wiley Well Alternative

Archaeology

An archaeological survey of the Wiley Well alternative site resulted in the identification of no known archaeological resources. Therefore, no archaeological resources are expected to be subject to impacts from construction or operation of the proposed substation.

Ethnography

Construction or operation of a substation on the Wiley Well alternative site is not expected to have effects on Native American TCPs or other resources of cultural value. BLM staff has indicated that they would consult with appropriate Native American groups regarding this process in the context of the BLM's government-to-government responsibility with Native American tribes.

History

An archaeological survey of the alternative site resulted in no resource discoveries within the site boundaries. No historic-era resources are therefore expected to be subject to impacts from construction or operation of the substation on the Wiley Well alternative site.

Paleontology

The Wiley Well alternative site is located on Holocene alluvium and Holocene dune sand geological units. Neither of these geological units is conducive to the formation or preservation of fossils, and this proposed substation site is therefore given a low paleontological sensitivity

ranking (Scott 2003). Potentially significant paleontological specimens may be impacted by grading and excavation activities associated with site preparation and construction of the new substation. No potentially significant paleontological specimens are expected on this site.

5.4.12 Public Health and Safety

5.4.12.1 Hazardous Materials

The potential for impacts to public health and safety from hazardous materials that could occur during construction or operation of the substation at the preferred site or at any of the alternative sites, and the means by which SCE would attempt to minimize those potential impacts would be the same as described in Section 5.1.13.1.

5.4.12.2 School Facilities

Project construction or operation would not occur on any school sites. There would be a very low risk of emitting hazardous materials, substances, or waste within ¼ mile of an existing or proposed school. No schools were identified within ½ mile from the preferred or alternative sites, and no temporary construction areas would be located within ¼ mile of any existing school sites.

5.4.12.3 Airport and Airstrip Operations

Construction or operation of the Midpoint Substation at the preferred site, or either of the alternative sites, would not impact operation of any airport or private airstrip. The sites are located in an existing right-of-way adjacent to the existing DPV1 transmission line, and would

therefore not create a new safety hazard for people residing or working in the project area. In addition, no airports or airstrips are located within 2 miles of the preferred or alternative sites.

5.4.12.4 Emergency Response or Evacuation Plans

Construction or operation of the preferred site or either of the alternative substation sites would not impair implementation of or physically interfere with an adopted emergency response or evacuation plan.