6. ENVIRONMENTAL IMPACTS

6.1 AESTHETICS

6.1.1 Introduction

This section describes the potential project-related impacts to visual resources in the Miguel–Mission 230kV #2 Project area. Visual impacts occur when changes in the landscape are noticeable to viewers looking at the landscape from homes, parks, recreation, or preservation area viewpoints, travel routes, and important cultural features and historic sites. Potential visual impacts are most substantial when viewers are sensitive to perceptible changes in the landscape. Refer to Section 5.1 for a detailed visual resources inventory and a Visual Study Area Map (Figure 5-1). Appendix D contains a Visual Impact Data Table.

The construction, operation, and maintenance aspects of the Miguel–Mission 230kV #2 Project, specifically, the existing and new 230kV circuits, the relocated 138kV/69kV circuits, their tower and pole support structures, and the associated conductors, insulators, and other related hardware, may have potential adverse impacts to visual resources in the project area. However, implementation of SDG&E's Project Protocols would reduce potential impacts to a level of insignificance.

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
1. Have a substantial adverse effect on a scenic vista?	☐	☐	☑	☐
2. Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☑	☐
3. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☑	☐
4. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☑	☐

6.1.2 Impact Assessment Methods

Significance Criteria

Standards of significance were derived from Appendix G of the CEQA Guidelines. Visual impacts that could potentially result from construction, operation, and maintenance of the project

are direct and long term. This analysis considers the potential visual impacts of changes in the landscape on views from:

- residences;
- parks, recreation, and preservation area viewpoints;
- scenic highways/recreation destination routes;
- planned land use features such as residences and parks; and
- sensitive cultural sites (e.g., sites listed or eligible for listing on the National Register of Historic Places).

The visual impact assessment for the project is based on the guidelines in the BLM's Visual Resource Management 8400 system and previous transmission line impact assessment methods that have been completed for similar areas and projects. The methods and procedures described in Section 5.1 guided the visual resource inventory and were adapted to address the specific visual issues related to the construction, operation, and maintenance of the Miguel–Mission 230kV #2 Project.

The visual impact analysis also used Environmental Systems Research Institute ArcView 3.2 GIS software loaded with Spatial Analyst 2.0 to model the seen area, to derive maps and data tables of initial visual impacts, and to document the effects of the project. Several of the inventory maps were derived through computer models that used the ground disturbance model (see Section 6.3), vegetation communities, and land use. For example, to determine project visibility from sensitive viewpoints, view shed mapping was derived from a GIS model that "looked out" from selected viewpoints over terrain modeled from USGS digital elevation terrain models to establish the portion of the landscape that would be visible from various viewpoints. Vegetation mapping, SDG&E transmission line inventory, and soils data were also used in the visual contrast models.

Visual Contrast

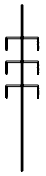
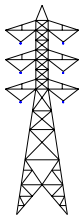
Visual contrast is the measure of physical change in the existing landscape that would result from introduction of the project. The addition of new pole support structures, conductors, insulators, and access roads would cause visible change in the landscape. Potential visual impacts were determined by analyzing how visual contrasts are perceived from sensitive viewpoints. Visual contrast mapping was derived through a series of GIS models that generated mapping for three contrast components:

- landform contrast,
- vegetation contrast, and
- structure contrast.

Structure contrast was emphasized over landform and vegetation contrast due to the presence of existing transmission facilities in the right-of-way, the presence of numerous existing access roads, and diminished vegetation found within the existing project right-of-way. Structure contrast examines the compatibility of transmission facilities with the existing landscape setting, and is strongest where there are no other structures (e.g., buildings or existing transmission

structures) in the landscape. Structure contrast is generally determined by the presence or absence of existing parallel transmission facilities. The structure contrasts of the project with transmission facilities in the existing right-of-way are illustrated in Table 6-1. This table examines the visual contrast levels where proposed structures are placed adjacent to existing structures within the existing project right-of-way. Visual contrast levels of "strong," "moderate," and "weak" were delineated on maps for each component. These levels were derived in GIS by combining the maps of landform, vegetation, and structure contrast.

Table 6-1: Structure Contrast—230kV and 69kV/138kV Transmission Lines

		Proposed Structures	
		Steel[1]	**Wood[2]**
Existing Structures			
230kV steel lattice tower structure		Moderate	Moderate to weak
69kV/138kV double-circuit lattice tower structure		Moderate	Moderate
Other structures: Cell towers Wood-pole distribution		Strong	Strong to moderate

[1] Proposed as replacement structure for approximately 10 of the existing 69kV/138kV structures and for approximately 6 new structures in the vicinity of Miguel, Los Coches, and Mission Substations.
[2] Proposed as support structures for relocated 69kV/138kV circuits.

Photo Simulations

Views and areas where issues of potential visual impacts of concern were further evaluated using photographic simulation techniques. Simulations were used to evaluate potential visual impacts, to determine the effectiveness of Project Protocols, and to illustrate the potential impacts. One view from each of the simulations that were prepared include the:

- Existing right-of-way seen from Santee Lakes Regional Park
- Existing right-of-way seen from Santee neighborhood areas
- Existing right-of-way seen from Lake Jennings County Park campground
- Glenview neighborhood area looking south toward the existing right-of-way
- Cottonwood neighborhood area looking north toward the existing right-of-way
- Cottonwood at Rancho San Diego Golf Club looking north to northeast toward the existing right-of-way

These photo simulations were created using a combination of computer digital imaging and Computer Aided Drafting and Design (CADD) software. Accurate perspective drawings (three-dimensional CADD models) of the modifications to the transmission corridor were completed using AutoCAD software. The three-dimensional drawings were combined with a three-dimensional model of the terrain to create an accurate representation of the scale and the perspective of the transmission project and the physical changes in the landscape directly into digital photographs of the view. Renderings, using brush and artistic techniques within the computer program Photoshop, created the "realistic" representation of project features in their respective colors, texture, lighting, and visual setting. The photo simulations appear as Figure 6-1.

6.1.3 Impact Assessment Mitigation Planning Process

The potential effects of the visual contrasts associated with the project are described in terms of visual impacts to viewers. The initial visual impact assessment was determined by analyzing the visibility of contrasts that would be caused by the project from sensitive viewpoints. See Tables 6-2 and 6-3 for a summary of the impact assessment process. The viewer impacts in Table 6-3 are reflected as high, moderate, or low.

Figure 6-1
Visual Simulation Photographs
(not available online)

Table 6-2: Distance Zones

Distance Zone	Distance	Visibility Threshold
Foreground (FG)	0–500 feet	High
Middle ground (MG)	500–1000 feet	Moderate
Background (BG)	1000–1,500 feet	Low

Table 6-3: Visual Sensitivity

	Visual Contrast Level								
	Strong			Moderate			Weak		
	Distance Zone			Distance Zone			Distance Zone		
Viewer Impacts	FG	MG	BG	FG	MG	BG	FG	MG	BG
H	H	H	M	M	M	L	M	M	L
M	M	M	L	M	M	L	L	L	L
L	M	M	L	M	L	L	L	L	L

DISTANCE ZONE: FG=foreground; MG=middle ground; BG=background
VIEWER IMPACT: H=high; M=moderate; L=low

6.1.4 Impact Assessment Results

In applying the CEQA Checklist criteria to determine if an impact was significant, a variety of factors were taken into account, including: (a) the extent of project visibility from parks, cultural sites, residential areas, and scenic highway/recreation destination routes; (b) the degree to which various project elements would contrast with or be integrated into the existing landscape; (c) the number and sensitivity of viewers. The project's consistency with public policies regarding visual quality was also considered.

During construction, temporary short-term visual impacts would result from the presence of equipment, materials, and work crews. Although these temporary impacts are short term and are considered low, they would be noticeable to local residents.

Upon construction completion, long-term visual impacts may result from the presence and foreground visibility of new and upgraded pole and tower support structures, conductors, insulators, new access roads. Potential long-term visual impacts would last for the life of the project.
Potential impacts at cleared set up sites around transmission structures, including pulling and tensioning sites, would be temporary and short term because Project Protocols for revegetation and restoration would be implemented.

Starting from Miguel Substation and heading northeast along structure sequence numbers 65 through 54, there are currently no sensitive viewers. The land crossed between these sequence numbers includes the San Diego National Wildlife Refuge Otay-Sweetwater Unit. No developed or concentrated recreational uses occur within the refuge. Consequently, the project would not result in a residual visual impact along sequence numbers 65 through 54.

Interconnection with the Miguel Substation occurs west of sequence number 65. Middle ground views of the interconnection would be visible to residential viewers located in the Sunnyside community. These middle ground views combined with the moderate visual contrast results in a low residual impact when Project Protocols 3, 4, 5, 37, 40, 48, 49, 61, and 62 are applied.

As the existing project right-of-way continues northeast, interspersed rural residential areas would have foreground and middle ground visibility of the project at sequence number 52 and between sequence numbers 50 through 46 within Jamul and Indian Springs. Farther northeast, residential areas south of the Cottonwood at Rancho San Diego Golf Club would have foreground views of sequence numbers 42 through 45. Continuing directly north across the golf course, the golfers would have foreground views of sequence 41. Continuing north, residential viewers located in the Cottonwood community would have foreground visibility of sequence number 39 through 36. Users of a recreation destination road (Willow Glen Drive) would have foreground visibility of sequence number 38. Farther north, residential viewers located in the Dehesa community would have foreground visibility of sequence numbers 28 through 27 and 32 through 31. Continuing directly north, residential viewers located in the Crest community south of La Cresta Road would have foreground visibility of sequence numbers 24 and 23. These foreground and middle ground views combined with the moderate visual contrast results in a low residual impact when Project Protocols 3, 4, 5, 36, 37, 40, 48, 49, 61, and 62 are applied.

Continuing north near Interstate 8, residential viewers located in the Johnstown community would have foreground visibility of sequence number 13 and 12. Travelers using Interstate 8 (eligible for State Scenic Highway designation), as well as residential viewers in the Lakeview community, would have foreground visibility of sequence number 10. Crossing Interstate 8, travelers along the recreation destination road Lake Jennings Park Road and residential viewers in Lakeview community would have foreground visibility of sequence numbers 9 through 5. As the project approaches the Los Coches Substation, travelers along the recreation destination road Lake Jennings Park Road would have middle ground visibility of sequence numbers 4 and 2. These foreground views combined with the moderate visual contrast results in a low residual impact when Project Protocols 3, 4, 5, 36, 37, 40, 48, and 49 are applied.

Departing from the Los Coches Substation and heading north, park viewers from Lake Jennings County Park would have foreground visibility of sequence numbers 39 and 38. The project then changes direction and heads northwest. Travelers along Willow Road (eligible for designation San Diego County Scenic Highway) would have foreground and middle ground views of sequence number 37. The next structure heading west from sequence number 37 is sequence numbers 35 and 34. Recreationists using trails in Louis A. Stelzer County Park would have middle ground views of sequence number 35. Travelers using the recreation destination road Wildcat Canyon Road would have foreground visibility of sequence number 34. These foreground views combined with the moderate visual contrast results in a low residual impact when Project Protocols 37, 40, 48, 49, 61, and 62 are applied.

Park and recreational viewers at both Louis A. Stelzer County Park and Lake Jennings County Park have a moderate to high use volume, high user attitude, and moderate to low durations of view. These sensitivity criteria result in high sensitivity for parks and recreation users near sequence numbers 35 and 34. This high sensitivity combined with the foreground views and moderate visual contrast results in a low residual impact when Project Protocols 3, 4, 5, 37, 40, 48, 49, 61, and 62 are applied.

Continuing west along the project, residences located in the community of Lakeside would have both foreground and middle ground visibility of sequence number 33. Residences located in the community of Lakeside and travelers along State Route 67 (eligible for State Scenic Highway designation) would have both foreground and middle ground visibility of sequence numbers 32 and 30. Scenic highway viewers have a high level use, high to moderate user attitude with a short duration of view resulting in an overall high visual sensitivity level. Foreground visibility combined with moderate visual contrast results in a low residual impact when Project Protocols 3, 4, 5, 37, 40, 48, 49, 61, and 62 are applied.

Continuing eastward along the project, residences located in the City of Santee would have both foreground and middle ground visibility of sequence numbers 29 through 25 as well as 19 through 21. Foreground visibility combined with moderate visual contrast results in a low residual impact when Project Protocols 3, 4, 5, 36, 37, 40, 48, 49, 61, and 62 are applied.

As the project continues west toward Fanita Junction along SDG&E sequence numbers 16 through 14, residential and park viewers would see the project from viewpoints located in or near the Santee Lakes Regional Park and Campground. These residential viewers and park viewers have a high sensitivity due to their long to moderate duration of view and high user attitude associated with residential housing and recreational parks areas. Combining the high sensitivity of these viewers along with a moderate visual contrast that would be created from paralleling existing 230kV or 69kV/138kV transmission circuits along these structures, the highest residual impact found along structures through 14 would be low when Project Protocols 3, 4, 5, 36, 37, 40, 48, 49, 61, and 62 are applied.

6.1.5 Project Protocols

Potential initial visual impacts could be effectively reduced through implementation of Project Protocols, such as nonspecular conductors and dull-finish pole support structures, that would

reduce visibility of the project from sensitive viewpoints and/or the visual contrasts associated with installation of the new line (e.g., towers and conductors, access roads). For a complete list of Project Protocols, see Appendix A. In all cases, initial potentially significant visual impacts for all structure sequence numbers could be reduced to no impact or less than significant impact with the application of the following Project Protocols.

- (3) Project construction activities shall be designed and implemented to avoid or minimize new disturbance, erosion on manufactured slopes, and off-site degradation from accelerated sedimentation, and to reduce maintenance and repair costs. Maintenance of cut and fill slopes created by project construction activities would consist primarily of erosion repair. In situations where revegetation would improve the success of erosion control, planting or seeding with native hydroseed mix may be done on slopes.
- (4) In areas where recontouring is not required, vegetation would be left in place wherever feasible and original ground contour would be maintained to avoid excessive root damage and allow for resprouting.
- (5) In areas where ground disturbance is substantial or where recontouring is required (e.g., marshaling yards, tower sites, spur roads from existing access roads), surface restoration would occur as required by the governmental agency having jurisdiction. The method of restoration normally would consist of returning disturbed areas to their original contour, reseeding (if required), installing cross drains for erosion control, placing water bars in the road and filling ditches for erosion control. Erosion would be minimized on access roads and other locations primarily with water bars. The water bars would be constructed using mounds of soil shaped to direct the flow of runoff and prevent erosion. Soil spoils created during ground disturbance or recontouring shall be disposed of only on previously disturbed areas, or used immediately to fill eroded areas. However, material for filling in eroded areas in roads or road ruts should never be obtained from the sides of the road that contain habitat without the approval of the on-site biological resource monitor. Cleared vegetation would be hauled off-site to a permitted disposal location. To limit impact to existing vegetation, appropriately sized equipment (e.g., bulldozers, scrapers, backhoes, bucket-loaders, etc.) would be used during all ground disturbance and recontouring activities.
- (36) Environmentally sensitive tree trimming locations for the project would be identified in SDG&E's existing vegetation management tree trim database utilized by tree trim contractors. The biological field construction monitor shall be contacted prior to trimming in environmentally sensitive areas. Whenever feasible, trees in environmentally sensitive areas, such as areas of riparian or native scrub vegetation, would be scheduled for trimming during non-sensitive (i.e., outside breeding or nesting) times. Where trees cannot be trimmed during non-sensitive times, SDG&E would perform three site surveys to determine presence or absence of endangered nesting bird species in riparian or native scrub vegetation. Endangered nesting bird species for which surveys would be performed include the least Bell's vireo, coastal California gnatcatcher, Southern California rufous-crowned sparrow, grasshopper sparrow, coastal cactus wren, Cooper's hawk, and golden eagle. SDG&E would submit results of those surveys to the USFWS and CDFG in accordance with its NCCP and consult on mitigation measures for potential impacts, prior to tree trimming in environmentally sensitive areas. However, these site surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocol 43. Where riparian areas with overstory vegetation are crossed, tree removal (i.e., clear-cut) widths

would be varied where feasible to minimize visual landscape contrast and to maintain habitat diversity at established wildlife corridor edges. Where tree removal widths cannot be varied, SDG&E would consult with the USFWS and CDFG to develop alternative tree removal options that could reasonably maintain edge diversity.

- (37) All new access roads constructed as part of the project that are not required as permanent access for future project maintenance and operation would be permanently closed. Where required, roads would be permanently closed using the most effective feasible and least environmentally damaging methods appropriate to that area with the concurrence of the underlying landowner and the governmental agency having jurisdiction (e.g., stock piling and replacing topsoil or rock replacement). This would limit new or improved accessibility into the area. Mowing of vegetation can be an effective method for protecting the vegetative understory while at the same time creating access to the work area. Mowing should be used when permanent access is not required since, with time, total revegetation is expected. If mowing is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential, it should be recognized that periodic mowing would be necessary to maintain permanent access. The project biological construction monitor shall conduct checks on mowing procedures to ensure that mowing for temporary or permanent access roads is limited to a 12-foot-wide area on straight portions of the road (slightly wider on turns), and that the mowing height is no less than 4 inches from finished grade.
- (40) To minimize ground disturbance and/or reduce scarring (visual contrast) of the landscape, the alignment of any new access roads (i.e., bladed road) or cross-country route (i.e., unbladed route) would follow the landform contours in designated areas to the extent feasible, providing that such alignment does not additionally impact sensitive features (e.g., riparian area, habitat of sensitive species, cultural site). To the extent feasible, new access roads shall be designed to be placed in previously disturbed areas and areas that require the least amount of grading in sensitive areas. Whenever feasible, in areas where there are existing access roads, preference shall be given to the use of new spur roads rather than linking facilities tangentially with new, continuous roads. Where it is infeasible to locate roads along contours, or in previously disturbed areas, or use spur roads to limit grading, the revegetation/seeding plans for the project would incorporate plant species in areas adjacent to access roads that are capable of screening the visual impacts of the roads.
- (48) Non-specular conductors would be used to reduce visual impacts
- (49) Dull-finish poles may be used to reduce visual impacts.
- (61) To reduce visual contrast, new pole locations would correspond with spacing of existing transmission line structures where feasible and within the limit of pole design. The normal span would be modified to correspond with existing towers, where feasible, but not necessarily at every new pole location.
- (62) To reduce potential visual impacts at highway, canyon, and trail crossings, poles would be placed at the maximum feasible distance from the crossing within limits of pole design.

6.2 AIR QUALITY

6.2.1 Introduction

This chapter describes potential impacts to air quality as a result of construction activities in the Miguel–Mission 230kV #2 Project right-of-way. Construction of the project would result in short-term, temporary impacts to air quality (primarily from fugitive dust, or PM_{10}). These impacts are not expected to exceed air quality standards, and are considered to be less than significant. SDG&E is committed to implementing industry BMPs during construction to reduce air emissions and control fugitive dust. Operation and maintenance of the project would not result in impacts to air quality.

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☑	☐
3. Result in a cumulatively considerable 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 thresholds for ozone precursors)?	☐	☐	☑	☐
4. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
5. Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☑

6.2.2 Impact Assessment Methods

Significance Criteria

Standards of significance were derived from Appendix G of the CEQA Guidelines. Federal, state, and regional regulations and policies were consulted to determine the project's level of compliance with and impact, if any, to applicable air quality plans and/or standards. Generally, during construction of a project, PM_{10} is the pollutant of concern.

6.2.3 Impact Assessment Results

Construction

Construction of the project would result in short-term, temporary emissions that are not expected to violate air quality standards, would not conflict with or obstruct implementation of San Diego's air quality attainment plans, would not contribute significantly to a cumulative effect to air quality in the project area. These impacts are considered less than significant, but would be further reduced by the implementation of Project Protocols during construction.

The primary source of air pollutants would be from the generation of fugitive dust during construction activities. Dust emissions would vary on a day-to-day basis, depending on the specific type of construction operations and prevailing weather and winds. Construction activity that could potentially generate fugitive dust would include clearing the immediate area where pole support structures would be installed; drilling foundation holes for the pole support structures; removing excavated material; travel to, from, and along the existing right-of-way; and the use of helicopters for installation of pole support structures and/or stringing of conductor. Additional air emissions are expected from the operation of internal combustion construction equipment, including earth-moving and stringing equipment, and transport of crews, equipment, and supplies. Typical air emissions produced during the construction process include ozone, carbon monoxide, unburned hydrocarbons, sulfur dioxide, and nitrogen dioxide. However, these emissions would be temporary and short term and are not anticipated to exceed the air quality standards for the SDAB.

Sensitive air quality receptors are defined as facilities or land uses that include people who are especially susceptible to the effects of air pollution, including children, the elderly, and people with illness. Temporary construction emissions would not result in levels of pollutants sufficient to create significant exposure to sensitive receptors. There are two schools several hundred feet from the existing project right-of-way; however, the installation of new transmission structures and stringing of conductor in the vicinity of the schools would be short term and would move at a sufficiently rapid pace to minimize the potential air quality impact to sensitive receptors. Project Protocols would further reduce impacts. As a result, impacts would be less than significant.

Operations

Operation and maintenance of the project would not result in significant impacts to air quality. The only source of project-related emissions during the operations phase would result from routine maintenance of the transmission line/substations, using smaller internal combustion construction equipment, such as pickups. The 35-mile transmission line would be inspected by the air or on the ground a minimum of once per year. The Miguel and Mission Substations would be inspected once per week by a one to two-person crew in a light utility truck. Six times per year, a four-person crew would inspect and perform maintenance on the substations, and once per year, a 20-person crew would perform maintenance at each substation for approximately one week. The emissions from the vehicles of these crews would be minimal and would not result in significant impacts to air quality.

6.2.4 Project Protocols

To further reduce construction-related impacts on air quality, SDG&E would implement Project Protocols relevant to air quality protection. These protocols would be employed as necessary and appropriate, through project design, construction, and operations, to avoid or minimize environmental impacts. Some of these Project Protocols have been incorporated into the project for general application. The air quality-specific protocols would be applied on a case-by-case basis to the extent feasible and consistent with the project's purpose and need and required in-service date.

The following Project Protocols would be implemented to further reduce potential impacts to air quality.

- (56) Although the release of PM_{10} associated with construction is insignificant relative to ambient PM_{10} levels, the following protocols would be employed.

    1. Prohibiting construction grading on days when the wind is significant, where feasible
    2. Covering all trucks hauling soil and other loose material, or require at least 2 feet of freeboard
    3. Erecting snow-fence type windbreaks in areas identified as needed by SDG&E
    4. Limiting vehicle speeds to 15 mph on unpaved roads
    5. Treating unpaved roads with chemical stabilizers or by watering as necessary
    6. Applying soil stabilizers to inactive construction areas on as-needed basis
    7. Placing perimeter silt fencing, watering as necessary, or adding soil binders to exposed stockpiles of soil and other excavated materials

- (57) To minimize mud and dust from being transported onto paved roadway surfaces, pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
- (58) To the extent feasible, any other air pollution control measures approved by the district and the EPA as equivalent may be used.
- (59) If suitable park-and-ride facilities are available in the project vicinity construction workers would be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the project would depend upon the proximity of carpool facilities to the job site, the geographical commute departure points of construction workers, and the extent to which carpooling would not adversely affect worker show-up time and the project's construction schedule.
- (60) To the extent feasible, unnecessary construction vehicle and idling time would be minimized. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warmup times following startup that limits their availability for use following startup. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The project would apply a "common sense" approach to vehicle use, if a vehicle is not required for use immediately or continuously for construction activities, its

engine would be shut off. Construction foremen would include briefings to crews on vehicle use as a part of preconstruction conferences. Those briefings would include discussion of a "common sense" approach to vehicle use.

6.3 BIOLOGICAL RESOURCES

6.3.1 Introduction

This section describes the types of potential impacts that may occur to biological resources as a result of construction, operation, and maintenance of the Miguel–Mission 230kV #2 Project. Potential impacts to biological resources are separated into those likely to occur from construction (both short- and long-term impacts) and those that could occur as a result of powerline operation and maintenance.

Permanent habitat loss is not considered a significant impact to sensitive species (other than for listed or candidate species under the state and federal endangered species acts) unless extensive areas of suitable habitat are degraded or somehow made unsuitable, or unless areas supporting a large proportion of the species population are substantially and adversely impacted.

Also discussed in this section are the SDG&E Project Protocols specific to biological resources (see Appendix A for a complete list) incorporated into the project that reduce potential impacts to biological resources to less than significant levels, and proposed mitigation measures at the end of this Biological Resources section that reduce otherwise potentially significant impacts to biological resources to less than significant levels.

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
1. 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 California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☑	☐	☐
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☑	☐	☐

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. 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?	☐	☐	☑	☐
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridor, or impede the use of native wildlife nursery sites?	☐	☐	☑	☐
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

6.3.2 Impact Assessment Summary

(1) The project may have a potentially significant impact on the federally listed Quino checkerspot butterfly. In the limited locations where this species occurs, it is a year-round resident and therefore potential impacts to this species during construction may be difficult to avoid. However, with the application of Project Protocols and the implementation of the mitigation measures proposed in this section, potential impacts to this resident species should be reduced to a less than significant level.

(2) The existing project right-of-way traverses native habitat, including numerous areas that support sensitive Diegan coastal sage scrub habitats and several drainages that support riparian habitat. The existing project right-of-way also crosses designated critical habitat for the arroyo southwestern toad, San Diego fairy shrimp, and the Quino checkerspot butterfly, as well as proposed critical habitat for the Otay tar plant. Because implementation of the Project Protocols and SDG&E's NCCP would allow for the avoidance or the minimization of

any permanent loss of these habitats, and because mitigation would be provided for all unavoidable losses, potential impacts to these habitats would be less than significant.

(3) The existing project right-of-way traverses at least one known fenced and protected vernal pool complex. Application of Project Protocols, where feasible, would avoid or minimize the permanent loss of jurisdictional wetlands, drainages, and vernal pool habitat. Where avoidance of those areas is not feasible and work is required in jurisdictional areas, SDG&E would obtain and comply with all necessary ACOE and CDFG permits under CWA 404 and CDFG 1600. Adherence to the Project Protocols and any applicable regulatory requirements would reduce any potential impacts to less than significant levels.

(4) Public utility and electric transmission facilities are compatible with sensitive wildlife movement corridors (i.e., stream channels). Sufficiently wide natural areas would remain to allow the continued unobstructed movement of wildlife in the region. The project would not traverse large waterbodies and therefore, there would be no potential impact to migratory waterfowl. Because regional wildlife movement would not otherwise be significantly affected through significant loss of protective vegetation cover, roosts, or foraging habitat, the potential effect of the project on existing wildlife movement would be less than significant.

(5) The project does not conflict with known local policies, or ordinances protecting biological resources; therefore, no impacts are expected.

(6) Because SDG&E would ensure that the proximity (within or adjacent) of the project with established conservation areas complies with the conservation measures established for these areas, the project would not conflict with adopted HCPs, NCCPs or other conservation plans; therefore, no impacts are expected.

6.3.3 Impact Assessment Methods

Standards of impact significance were derived from the CEQA Guidelines listed above. Field reconnaissance and habitat assessment surveys, aerial photos, and existing documentation were used to help determine the potential presence and location of sensitive biological resources within the existing project right-of-way and the immediate project vicinity. This information was then used to assess potential impacts to biological resources as a result of project construction, operation, and maintenance.

Ground disturbance and impacts to vegetation communities were calculated using preliminary project design information to estimate the initial potential impacts that could occur to vegetation communities within the existing project right-of-way and the immediate project vicinity as a result of project construction, operation, and maintenance. These numbers are preliminary and may be subject to adjustment upon implementation of Project Protocols and the completion of final project design.

6.3.4 Impact Assessment Results

The following describes assumptions that were made to calculate the estimated potential vegetation impacts due to project construction, operation, and maintenance. The estimated acreages for potential permanent and temporary impacts due to project construction, operation, and maintenance are detailed in the following sections.

Ground Disturbance

Although focused species surveys are currently ongoing and would not be completed until 2002 (to coincide with appropriate survey windows), an initial biological impacts assessment was performed, based on the potential for listed species to be impacted by the ground disturbance-related activities associated with the project. The potential impacts were then assessed taking into account the implementation of SDG&E's Project Protocols and NCCP avoidance and minimization measures. As described below, implementation of the Project Protocols and the NCCP would reduce potential biological impacts associated with the project to a less than significant level.

230kV Transmission Circuit

From Fanita Junction to the Mission Substation, a new 230kV circuit would be added to a vacant 230kV position on approximately 42 existing structures. To perform the necessary operations to stringing of the new 230kV conductors along this segment of the project, it is anticipated that 6 pulling and tensioning sites would be required. An estimated area of 1 to 2 acres would need to be cleared for each pulling and tensioning site. Conductor stringing activities require pulling and tensioning sites for the set up and staging of the tractors and trailers with the spooled reels that hold the conductors, as well as the tensioning trucks. Because the estimated area to be cleared varies from 1 to 2 acres, 1.5 acres per site was used to calculate ground disturbance impacts to vegetation communities found at these sites. All impacts due to pulling and tensioning sites are considered temporary, and cleared areas would be allowed to revegetate and/or would be actively restored in accordance with the Project Protocols, SDG&E's NCCP, and proposed mitigation measures discussed in this section. In addition, approximately one or two new steel pole structures would be installed in the vicinity of Mission Substation to interconnect the new 230kV circuit with the Mission Substation. For these new support structures, a work area of approximately 150 feet by 150 feet (0.52 acre) would need to be cleared. These cleared areas would be allowed to revegetate and/or would be actively restored in accordance with the Project Protocols, SDG&E's NCCP, and proposed mitigation measures discussed in this section. However, for each new steel pole, approximately 0.09 acre of the cleared area would be permanently impacted. It was estimated that approximately 20 percent of this area is already cleared around the base of each structure as existing workspace. Therefore, an estimated 0.36 acre around each existing structure would be temporarily impacted. These cleared areas would be allowed to revegetate and/or would be actively restored in accordance with the Project Protocols, SDG&E's NCCP, and proposed mitigation measures discussed in this section.

From Miguel Substation to Fanita Junction, the new 230kV circuit would be added to a vacant position on 90 existing structures (previously supporting the 69kv/138kV circuits). Of these 90 existing structures, 80 would have modifications made to the existing steel lattice structure and

10 would be replaced with a steel pole support structure. To modify the existing structures to support the new 230kV circuit, it is anticipated that an area approximately 150 feet by 150 feet (0.52 acre) would need to be cleared. It was estimated that approximately 20 percent of this area is already cleared around the base of each structure as existing workspace. Therefore, an estimated 0.36 acre around each existing structure would be temporarily impacted. These cleared areas would be allowed to revegetate and/or would be actively restored in accordance with the Project Protocols, SDG&E's NCCP, and proposed mitigation measures discussed in this section.

For the Miguel Substation to Fanita Junction segment of the project, to perform the necessary operations to stringing of the new 230kV conductors, it is anticipated that 15 pulling and tensioning sites would be required. An estimated area of 1 to 2 acres would need to be cleared for each pulling and tensioning site. Because the estimated area to be cleared varies from 1 to 2 acres, 1.5 acres per site was used to calculate ground disturbance impacts to vegetation communities found at these sites. All impacts due to pulling and tensioning sites are considered temporary, and cleared areas would be allowed to revegetate and/or would be actively restored in accordance with the Project Protocols, SDG&E's NCCP, and proposed mitigation measures discussed in this section. In addition, approximately two new steel pole structures would be installed in the vicinity of Los Coches Substation (to enable the new 230kV circuit to pass by the substation) and approximately four new steel pole structures would be installed in the vicinity of Miguel Substation to interconnect the new 230kV circuit with the Miguel Substation. For these new support structures, a work area of approximately 150 feet by 150 feet (0.52 acre) would need to be cleared. These cleared areas would be allowed to revegetate and/or would be actively restored in accordance with the Project Protocols, SDG&E's NCCP, and proposed mitigation measures discussed in this section. However, for each new steel pole, approximately 0.09 acre of the cleared area would be permanently impacted. In addition, approximately 10 of the existing 90 138kV steel lattice tower structures may need to be replaced by steel pole structures to allow for higher conductor tension loads. For these replacement structures, the same work area would be used as for the modifying of the existing structures discussed above.

Relocation of the 69kV and 138kV Circuit

In addition to the 6 to 10 new 230kV pole structures to be installed at the Mission, Los Coches, and Miguel Substations, approximately 129 new wood and steel pole locations, based on preliminary project designs and drawings, were used to calculate estimated potential ground disturbance due to new pole installation for the relocation of the existing 69kV and 138kV circuits. SDG&E would need to clear an area approximately 100 by 100 feet (0.23 acre) for construction activities at each new pole location for the relocated 69kV and 138kV circuits. For each new steel pole, approximately 0.09 acre of the cleared area at each new steel pole location would be permanently impacted, and the remaining 0.14 acre would be restored following construction. For each new wood pole, approximately 0.009 acre of cleared area at each new wood pole location is estimated to result in permanent impacts, and impacts to the remaining 0.22 acre would be temporary and restored following construction. Estimated potential ground disturbance impacts for new wood and steel pole locations were calculated using the above assumptions. Because the project design has not been finalized, the number of new pole support structures and their locations have not been conclusively determined; estimates of impacts from the final design of new steel and wood pole support structures construction may change.

For the new 230kV circuit, existing access roads and spur roads would be used to access the existing tower and pole locations. SDG&E is anticipating regrading existing access and spur roads, as necessary, to facilitate entry to the project site and existing structure locations. Grading activities would remain within the existing roadbed. Some ruderal vegetation may have encroached onto the existing access and spur roads, but it is expected that regrading activities would impact very little native vegetation. Therefore, no impacts to vegetation communities were calculated for regrading activities along existing roads. For new structures associated with the 230kv circuit (in the vicinity of Mission, Los Coches, and Miguel Substations) and the relocated 69kV/138kV circuits, new access and/or spur roads may be required to access such structures. New access and spur roads are needed to access the new pole support structures for construction and long-term maintenance of the new 230kV circuit and the relocated 69kV/138kV circuits. These impacts are considered permanent, though such access and spur roads retain some habitat value, such as for wildlife movement. The new spur roads branch off of the existing access roads located along the existing project right-of-way. Spur roads are typically 12 feet wide, with wider areas at curves to allow safe movement of construction equipment and vehicles. Using the preliminary project design for new pole locations, permanent impacts to vegetation communities due to new access and spur roads would total approximately 1.54 acres. Because the project design has not been finalized, estimates of impacts from construction of new access and spur roads may change.

It is anticipated that several staging areas approximately 2 acres each in area would be required for storing materials, construction equipment, and construction vehicles. Staging areas likely would be located at already disturbed/developed areas, such as existing substations, or in other disturbed/developed areas near the center and the endpoints of the project line route.

Table 6-4 details the potential ground disturbance impact assessment results for both the temporary and permanent potential impacts to the vegetation communities associated with construction of the new 230kV circuit and the relocation of the existing 69kV/138kV lines.

The initial estimation of total temporary impacts for the entire project scope to all vegetation types is approximately 102.71 acres. Of that, the initial estimation of temporary impacts to coastal sage scrub is approximately 54.98 acres. The initial estimation of temporary impacts to disturbed coastal sage scrub is approximately 19.42 acres, 2.55 acres to chaparral, 0.37 acre to mixed riparian woodland, and 4.35 acres to annual grasslands. The impact to ruderal vegetation and developed areas is 21.04 acres.

The initial estimation of total permanent impacts for the entire project scope to all vegetation types is 10.34 acres. The initial estimation of permanent impacts to coastal sage scrub vegetation is approximately 6.12 acres and approximately 1.2 acres for disturbed coastal sage scrub. The remainder of the initial estimate of permanent impacts to chaparral is 0.13 acre, to mixed riparian woodland is 0.07 acre, to annual grasslands is 0.21 acre, to ruderal/disturbed is 2.23 acres, and to developed is 0.39 acre. Non-paved disturbed areas such as access and spur roads retain important habitat values, including wildlife movement.

Table 6-4: Estimated Potential Temporary and Permanent Impacts to Vegetation Communities (Acres)

Vegetation Communities	New 230kV Transmission Circuit		Relocation of 69kV/138kV Transmission Circuits		Pulling Sites*
	Temporary	**Permanent**	**Temporary**	**Permanent**	**Temporary**
Scrub and Chaparral					
Chaparral	1.44	Not applicable (N/A)	0.36	0.13	0.75
Coastal sage scrub	27.15	0.47	12.08	5.65	15.75
Disturbed coastal sage scrub	11.03	0.24	3.14	0.96	5.25
Total scrub and chaparral	39.62	0.71	15.37	6.60	21.75
Riparian Woodland					
Riparian oak woodland	0.27	N/A	0.10	0.07	N/A
Total riparian woodland	0.27	N/A	0.10	0.07	N/A
Annual Grassland and Ruderal					
Annual grassland	1.58	0.12	0.14	0.09	2.63
Ruderal/disturbed	6.45	0.12	4.8	2.11	7.13
Total annual grassland and ruderal	8.03	0.24	4.87	2.15	9.76
Total developed	1.44	N/A	1.15	0.35	N/A

*Pulling sites would be used for both the 230kV transmission circuit and the relocation of the 69kV and 138kV transmission circuit.

6.3.5 Construction Impacts

Botanical Resources

Native Scrub Communities, Woodland, and Annual Grassland

The vegetation communities that occur within the existing right-of-way of the project would be potentially impacted to varying degrees by construction, operation, and maintenance of the project. The potential impacts associated with construction activities have been estimated based on preliminary engineering design. The final ground disturbance and acreages may change after final engineering design for specific siting of the new pole locations, access and spur roads, staging areas, and pulling/tensioning sites, etc., has been completed. Upon completion of final design the potential vegetation impacts would be recalculated and adjusted to be consistent with the final design. The application of Project Protocols and mitigation measures would be adjusted or revised as necessary and appropriate based on the re-calculated potential vegetation impacts.

SDG&E anticipates that with completion of the final project design, the actual ground disturbance would be reduced from the above estimates. This would likely occur because the implementation of the avoidance and minimization measures contained in Project Protocols 34–37, 39–43, and 52–54 (see Appendix A). All Project Protocols developed for the project would be consistent with SDG&E's NCCP. In addition, SDG&E's NCCP and this section provide for mitigation, such as habitat enhancement (restoration/revegetation) and/or the utilization of mitigation credits, where impacts to habitat cannot be avoided. Application of the Project Protocols and the mitigation measures contained in the NCCP would reduce potential habitat impacts to a less than significant level.

Riparian, Wetlands, and Open Waters

Project-related construction activities could result in potential direct impacts to riparian vegetation in the project area. Riparian vegetation and trees may require trimming to provide clearance for the construction of the new 230kV circuit and the relocation of the existing 69kV/138kV circuits SDG&E's existing right-of-way and along existing access roads. Existing access roads located through several ephemeral drainages and creeks contain potential wetlands. These ephemeral drainages and creeks may be regraded, if necessary, to improve construction access. However, access roads would not be widened as a result of this activity.

Because existing access roads and public roads are available on both sides of the riparian vegetation on the San Diego River and the Sweetwater River it is anticipated that those existing roads would allow construction to avoid impacts to wetland and riparian vegetation. In addition, the location of new steel and wood pole sites and access and spur roads for the relocation of the existing 69kV/128kV lines is somewhat flexible, allowing SDG&E to avoid or minimize their placement in riparian corridors.

SDG&E would avoid physical disturbance in wetlands, streams, and riparian areas to the extent feasible by applying Project Protocols 34 through 45, and 52 through 55 that provide measures to minimize impacts to riparian vegetation and wetlands, and sensitive species associated with these habitats where avoidance is not feasible. Upon completion of final design of the project, SDG&E would reassess whether or not potential impacts to wetland or riparian vegetation would occur.

With effective implementation of these Project Protocols and the implementation of any necessary mitigation measures pursuant to SDG&E's NCCP or in accordance with this section, potential direct (i.e., removal of riparian vegetation) and indirect (i.e., siltation and erosion) impacts to riparian or wetland vegetation would be eliminated or reduced to a level of insignificance. In addition, SDG&E would comply with any further mitigation measures that may be required by applicable state or federal agencies that have jurisdiction over the project.

Vernal Pools

An existing vernal pool complex and San Diego fairy shrimp critical habitat unit are located within the existing project right-of-way east of Interstate 15 and south of Santo Road. The vernal pools that make up this complex are fenced off and located outside of the existing access road. The existing access road occurs along the existing project right-of-way, and can be used to avoid any new disturbance to the vernal pools. Construction equipment would not have to drive over the pools to access the existing pole support structures and to install the new 230kV circuit. Construction equipment would not need to drive outside of existing access roads and cleared work areas around the base of the existing 230kV pole support structures because no new pole support structures or spur roads would be installed along this portion of the existing project right-of-way. Because SDG&E would stay within existing access roads and apply Project Protocols that provide measures to protect sensitive vernal pools and their associated plant species (refer to Project Protocols 17, 21, 34, 37, 39, 40, 41, 44, 50, 52, 53, and 54 in Appendix A), there would be no impacts to vernal pools from the installation of the new 230kV circuit. On the mesa north and south of the existing vernal pool complex, there are several small, low-quality seasonal depressions adjacent to the existing access road. These areas would be flagged or marked off-limits and avoided entirely; therefore, there would be no impacts to vernal pools.

Sensitive Plants

Several sensitive plant species are known both to occur in the vicinity of the project's existing right-of way, and to have the potential to occur within the existing project right-of-way. The potential presence of these plant species is based on their known or recorded occurrence within the region and/or their association with the vegetation communities that occur in the vicinity of the project area. Focused sensitive plant surveys would be conducted, as required by USFWS or CDFG, to determine presence of sensitive plant species in the project right-of-way during the spring and summer of 2002. The project crosses proposed critical habitat for the Otay tar plant near the Miguel Substation and a population of Otay tar plant is known within the substation property boundary. Because SDG&E would apply Project Protocols that provide measures that would protect sensitive plant species (refer to Project Protocols 17, 21, 34, 37, 39, 40, 41, 50, 53, and 54 in Appendix A), which include preconstruction surveys, avoidance and minimization of resources to the extent feasible, applicable mitigation measures under SDG&E's NCCP and in this chapter, impacts to sensitive plants are expected to be less than significant.

Invasive Plant Species

Any temporary, project-related surface disturbance could lead to invasion of the newly disturbed area by exotic weed species. In particular, in areas where potential ground disturbance is substantial or where recontouring is required, aggressive non-native weed species could establish

in areas where such species are not currently present. Once established, aggressive weedy species can invade adjacent native habitats and degrade the condition of the surrounding area. Due to the small amount of disturbance and the revegetation measures that would occur at each existing tower site and new wood and steel pole site, the risk of exotic species invasion as a result of project construction, operation, and maintenance is expected to be less than significant.

However, the increase in exotic species invasion that could occur due to disturbance associated with the access and spur roads, could potentially be considered a moderate or potentially significant impact if these areas were left in a disturbed condition. However, because SDG&E would implement Project Protocols 34, 37, 39, 40, 53, and 55 (see Appendix A) and would incorporate postconstruction revegetation and restoration measures as required, the direct and indirect impacts to adjacent native plant communities as a result of project construction, operation, and maintenance would be less than significant.

General Wildlife Resources

Raptors Activities

Potential impacts to avian species, raptors, passerines, and other sensitive bird species include the potential for destruction of individuals, if present, and the loss of suitable habitat. Active raptor nests were observed during project surveys on several towers within the existing right-of-way. There is the potential for individual raptors, their young, and their eggs to be destroyed or nests abandoned. Because SDG&E would apply Project Protocols that provide measures to protect breeding and nesting raptors and other avian species (20, 30, 36, 43, 52, 50, 53, and 54 in Appendix A), the impacts to breeding and nesting birds are expected to be less than significant.

Trimming or Removal of Nest Trees

Preconstruction surveys would be conducted for tree trimming activities that occur during the nesting season to determine presence of nests and nesting activities that would potentially be affected by the project. Because SDG&E would apply Project Protocols (20, 30, 36, 43, 52, 50, 53, and 54) that provide measures that would protect breeding and nesting bird species, the impacts to breeding and nesting birds are expected to be less than significant.

Sensitive Wildlife Species

Least Bell's Vireo and Other Riparian-dependent Migratory Sensitive Wildlife

The existing project right-of-way crosses several drainages that support riparian vegetation, which include the San Diego River, Forester Creek, Los Coches Creek, and a patch of riparian vegetation south of the Sweetwater River. However, these areas are small, narrow, and isolated from larger, contiguous stretches of riparian habitat. Therefore, these riparian areas do not provide suitable habitat for the least Bell's vireo.

However, any potential impacts to the least Bell's vireo are avoidable or would be minimized by applying Project Protocol 43, which limits construction within riparian habitats to periods outside of the breeding season for riparian-dependent bird species to the extent feasible. Where it is not feasible to avoid construction during the breeding season, Project Protocol 43 requires

SDG&E to conduct pre-project surveys to determine the presence or absence of sensitive riparian bird species in suitable habitat along the existing project right-of-way. If present, appropriate federal and state lead agencies would be consulted to determine appropriate mitigation measures. Project Protocol 54 requires that any mitigation developed during federal or state consultation be adhered to.

Finally, SDG&E would also apply the Project Protocols discussed in this section for other sensitive or covered species, which would minimize potential impacts to less than significant.

With incorporation of the Project Protocols noted above, the potential impact to least Bell's vireo and other riparian-dependent migratory bird species is expected to be reduced to less than significant. Indirect impacts from new perch sites on pole or tower support structures, such as increased avian predation or nest parasitism, are also unlikely because many perch sites already occur in existing utility towers and poles within the existing right-of-way and in trees within the small habitat patches currently supporting riparian-dependent wildlife within the vicinity of the existing right-of-way.

Arroyo Southwestern Toad and Other Riparian-dependent Resident Wildlife

The existing project right-of-way crosses or approaches riparian areas potentially occupied by the arroyo southwestern toad (including federally designated critical habitat for this toad along a portion of the San Diego River and the Sweetwater River). The project's potential impacts to the toad and riparian dependent wildlife include potential habitat loss, habitat disturbance, or species mortality during construction. Impacts to riparian habitat occupied by the federally listed arroyo southwestern toad would constitute an incidental take under ESA. Additionally, impacts to designated critical habitat would require consultation with the USFWS.

Designated critical habitat for the arroyo southwestern toad is located within the existing project right-of-way along the San Diego River and Sweetwater River and the adjoining upland habitat. However, the sections of the San Diego River and the Sweetwater River crossed by the project's right-of-way do not provide suitable habitat for arroyo southwestern toad. Therefore, arroyo southwestern toads are not expected to occur in these areas, and potential impacts to the toad are not expected in construction, operation, or maintenance of the project.

Potential incidental take of the arroyo southwestern toad as a result of the project would be considered significant due to their protection under ESA and require consultation with the USFWS, as appropriate. However, potential impacts would be avoided or minimized through implementation of SDG&E's Project Protocols, and implementation of SDG&E's NCCP and its associated incidental take permits.

Potential disturbance of some resident riparian wildlife could occur during construction and to a lesser extent during long-term operation and maintenance of the project. Project Protocol 42 and the SDG&E NCCP require SDG&E to conduct focused surveys to determine the presence or absence of the arroyo toad in suitable habitat along the existing project right-of-way and in the immediate vicinity, and if present, coordinate with USFWS and CDFG in accordance with its NCCP to determine whether additional avoidance or mitigation measures for the construction

and long-term maintenance and operation of the project would be necessary to reduce potential impacts to a less than significant level. Furthermore, Project Protocol 54 requires adherence to any mitigation developed during such coordination.

Coastal California Gnatcatcher

Large areas of the existing project right-of-way cross coastal sage scrub habitat that is either occupied or has the potential to be occupied by the coastal California gnatcatcher. The project's potential impacts to the gnatcatcher include habitat loss, and disturbance or mortality during construction during the breeding season. Direct impacts to or the incidental take of the federally listed threatened coastal California gnatcatcher would be considered significant due to the species' protection under ESA. Formal prior authorization from the USFWS would be required for any take, at which time any necessary measures would be determined to avoid or minimize the degree of impact.

Project Protocol 43 requires that SDG&E restrict vegetation clearing and construction, to the extent feasible, to the non-breeding season of the gnatcatcher, if focused surveys determine the presence of the coastal California gnatcatcher in suitable habitat within and along the existing right-of-way and associated access roads. If it is determined that it is not feasible to avoid habitat during the breeding season, SDG&E would consult with the applicable resource agencies in accordance with the NCCP to determine specific alternative mitigation measures. Focused California gnatcatcher surveys are currently being conducted to determine presence and location of gnatcatchers in the project area. After the gnatcatcher surveys have been completed, SDG&E would consult with USFWS to determine whether any additional measures for the construction and long-term maintenance and operation of the project (Project Protocol 54) may be necessary. With incorporation of any additional USFWS measures, proposed mitigation measures, applicable Project Protocols, and the protective and mitigation provisions of the NCCP, the impact to California gnatcatcher would be reduced to less than significant.

With incorporation of the Project Protocols noted above and the NCCP provisions, the proposed mitigation measures contained later in this section, and any additional mitigation measures developed in consultation with the USFWS the potential impact to coastal California gnatcatcher and other coastal sage scrub-dependent bird species is expected to be reduced to a less than significant level. Potential indirect impacts from new perch sites on pole support structures, including increased avian predation or nest parasitism, are also unlikely because many perch sites already occur in existing tower and pole support structures within the existing project right-of-way.

Quino Checkerspot Butterfly

The existing project right-of-way crosses habitat that has been historically occupied or has the potential for occupation by the Quino checkerspot butterfly. Potential impacts to the Quino checkerspot butterfly due to project construction, operation, and maintenance activities include potential habitat loss, habitat disturbance or species mortality during construction. Direct impacts to the federally listed Quino checkerspot butterfly would constitute a take under ESA.

Impacts to Quino checkerspot butterfly as a result of the project would be considered significant due to the species protected status under the ESA and would require an incidental take permit/authorization from the USFWS under Section 10 or 7 of the ESA. In that regard, an amendment to the NCCP is being prepared and evaluated to include the Quino checkerspot butterfly as a covered species in consultation with the USFWS under Section 10. Project Protocol 42 requires SDG&E to conduct focused surveys to determine the presence or absence of the Quino checkerspot butterfly in suitable habitat along the existing project right-of-way and in the immediate project vicinity. If present, SDG&E would consult with USFWS to determine whether any additional Project Protocols or additional mitigation measures for the construction and long-term maintenance and operation of the project are necessary and appropriate. Project Protocol 54 requires that any such additional mitigation measures developed during federal consultation be adhered to.

Due to the vulnerable and complex reproductive cycle of the Quino checkerspot butterfly, it is difficult to survey population occurrences and densities and assess the likely impacts for the project. Protocol surveys for the Quino checkerspot butterfly in suitable habitat along the existing project right-of-way were conducted this season (late winter–early spring 2002). Further site-specific studies would be conducted prior to starting construction on the existing project right-of-way as necessary, and as determined through consultation with the USFWS. Therefore, it is expected that with the effective implementation of Project Protocols, proposed mitigation measures contained later in this section, and any additional mitigation measures developed in consultation with the USFWS, potential impacts to the Quino checkerspot butterfly would be reduced to less than significant.

San Diego Fairy Shrimp

The existing project right-of-way crosses a designated critical habitat unit for the San Diego fairy shrimp with a vernal pool complex located within and adjacent to the existing right-of-way. Potential impacts to listed fairy shrimp species within in the existing project right-of-way, that are resident and dependent on ephemeral wetlands (in particular vernal pools), could result from direct loss of a vernal pool, or from indirect effects to the basin from impacts within the watershed of the pool.

Impacts to the federally listed San Diego fairy shrimp would constitute an incidental take under the ESA. The incidental take of this listed species would be considered significant due to its protection under ESA, and would require consultation with the USFWS in accordance with the NCCP. However, potential impacts would be avoided or minimized as the project would include implementation of the SDG&E Project Protocols 41 and 44 and the SDG&E NCCP and its associated incidental take permits. In addition, Project Protocol 54 requires that any additional mitigation developed during federal consultation be adhered to. SDG&E would identify and avoid the vernal pool system during construction and reconductoring activities. As a result, the project's potential impact to listed fairy shrimp species and/or vernal pools would be reduced to less than significant.

Raptors

The project could potentially impact nesting raptors due to disturbance from construction and long-term maintenance and operations activities. Direct impacts to raptors would constitute a take under the federal MBTA. The MBTA implements the Convention for the Protection of Migratory Birds (the Convention) for the purpose of protecting migratory bird species. Potential impacts to raptor species would be considered significant due to their protection under the MBTA and the Convention, and would therefore need to be avoided. Project Protocol 53 requires that biological resources would be inventoried and evaluated prior to the implementation and construction of the project. In addition, focused surveys planned along the existing project right-of-way and the immediate vicinity can determine whether raptor nest sites may occur along the right-of-way, at which point Project Protocols can be applied where needed to avoid disturbance of nesting raptors during construction (Project Protocols 36 and 43). Applying Project Protocols noted above and complying with the MBTA would reduce the potential impact to raptors during construction and maintenance operations of the project to less than significant.

Indirect Noise Impacts from Construction

Construction noise may cause potential short-term indirect impacts to nesting bird species, including the least Bell's vireo (if present) and the coastal California gnatcatcher. Increased ambient noise levels during temporary short-term construction activities may mask the breeding songs utilized by sensitive riparian and upland birds. Additionally, intermittent loud noises from short-term construction activities may also cause nesting birds to startle and abandon their nest. These potential temporary short-term impacts may be considered a take of listed species. Indirect noise impacts to these species would potentially be considered significant if construction-related noise levels cause abandonment of nests.

Project Protocol 43 requires SDG&E to conduct focused surveys in suitable habitat along the existing project right-of-way and the immediate vicinity to determine the presence or absence of these noise sensitive bird species. If sensitive bird species are present, SDG&E would consult with USFWS or CDFG in accordance with the NCCP to determine if any additional Project Protocols or mitigation would be appropriate for the construction and long-term maintenance and operation of the project, and to minimize temporary, short-term construction noise impacts. Project Protocol 54 requires that any additional mitigation developed during federal or state consultation be adhered to. Indirect temporary short-term construction noise impacts would not be considered significant if Project Protocol 43 and additional protocols or mitigation measures developed during federal consultation are followed. Therefore, the project's potential indirect noise impact to nesting bird species would be reduced to less than significant.

Predation

Transmission lines and support structures provide potential perching opportunities for raptor predation. In areas where current perching sites are few or rare, the construction of a new transmission line increases the potential for perching and hence, predation opportunities in the area. Because the Miguel–Mission 230kV #2 Project is located in SDG&E's existing right-of-way, installation of new steel and wood pole support structures for the relocation of the existing 69kV/138kV lines, and the upgrading of existing steel pole support and steel lattice tower

structures for the new 230kV circuit would not significantly increase perching opportunities for raptors in the area.

Because SDG&E is using steel pole support structures in relocating the 69kV/138kV and replacing 10 steel lattice tower structures with steel pole support structures, the project would not significantly increase raptor perching opportunities.

Regional Wildlife Movement

Wildlife movement through the region is facilitated by the presence of natural drainages and large bodies of water and also the presence of utility rights-of-way. The existing project right-of-way crosses several drainages and is located near three open bodies of water. The proposed new 230kV circuit and the relocation of the existing 69kV/138kV lines would occur within SDG&E's existing right-of-way and, like the existing tower and pole support structures, would span existing drainages. Placement of new steel and wood pole support structures for the relocation of the existing 69kV/138kV lines within the existing project right-of-way would allow sufficiently wide natural areas to remain within the right-of-way to allow for the continued movement of wildlife species through the region.

Furthermore, the existing right-of-way does not cross any major waterbodies; therefore, continued use of the lakes in the project area and within the Pacific Flyway would not be impacted. It is expected that regional wildlife movement would not be significantly impacted by the project through loss of any protective cover, roosts, forage habitat, or movement corridors. As such, there is no identifiable potential environmental impact to regional wildlife movement from construction or long-term maintenance and operation of the project.

6.3.6 Operations

Wildlife Electrocution

Concerns regarding potential electrocution impacts to wildlife are primarily focused on avian species. Potential electrocution of bird species on electrical transmission lines occurs when the animal touches at the same time, either two conductors, or a positive conductor and a ground. The 230kV portion of the project would be constructed with energized components (conductors) and grounding structures in excess of 8 feet apart, effectively preventing most local or migratory bird species from extending their maximum wingspan to simultaneously contact a positive conductor and a ground completing the electrical circuit. Because relocation of the existing 69kV/138kV lines would utilize post insulators and a single conductor, any avian contact would not complete an electric circuit; therefore, there is no risk of electrocution from the relocation 69kV/138kV lines.

Electrocution of non-avian species is rare. When it occurs, it is generally caused by climbing animals that come into contact with energized components at substations rather than at transmission lines. Typical non-avian electrocution impacts could occur to several non-sensitive wildlife species, including squirrel (*Spermophilus* sp.), raccoon (*Procyon lotor*), and domestic cat (*Felis domesticus*). Infrequent electrocution of non-sensitive wildlife species would not be considered a significant impact.

Collision

Collision impacts of avian species with existing transmission facilities typically occur to migratory bird species and are generally due to poor visibility of electrical lines. Factors leading to avian collisions with existing transmission lines include a lack of visual cues making the lines stand out against the surrounding environment. Disorientation of avian species can be caused by "light dazzle" from city/industrial light sources during evening hours, and by spatial configuration of the electrical lines. As the project's proposed facilities are located within an existing SDG&E existing right-of-way, these facilities when added to the right-of-way would play only a minor role in any increased potential for avian collision impact over and above the potential already presented by existing facilities in the right-of-way.

Even though causes of avian collision would be minimized by the project's design, it is likely that some avian collisions could occur along the existing project right-of-way. Although avian collisions cannot be completely avoided, certain project design features can minimize these potential impacts. Although the existing project right-of-way crosses open fields that provide foraging habitat for generally solitary raptors, the existing project right-of-way does not cross directly over large bodies of water, such as Lake Jennings, Santee Recreation Lakes, and Sweetwater Reservoir, where flocks of bird species tend to congregate.

Several studies have indicated that avian collisions are not biologically significant. Other studies have even shown that the benefits to bird species from increased perching, nesting, and hunting sites on existing transmission towers outweighs any negative impacts from collisions with electrical lines. Such findings indicate that one would not expect collision impacts to be significant along the existing project right-of-way, as long as all recommended design features are implemented. Therefore, the potential impacts of increased avian collisions are anticipated to be less than significant.

Electric and Magnetic Fields

A six-year study conducted by the National Institute of Environmental Health Sciences (NIEHS) determined that a causal link between EMF exposure from electrical transmission lines and deviations in the health of wildlife species could not be established.

It has also been documented that several species of birds, including Neotropical migrants (i.e., birds that migrate to the United States or Canada to nest but spend the winter in Mexico, the Caribbean, or areas farther south), navigate by natural EMF patterns along the Earth's surface.

Although it has been shown that artificial EMF signals, in the range of 40 to 80 hertz, has the potential to change the flight patterns of migratory bird species on a local scale, there is no evidence to indicate that these EMF sources disrupt large-scale avian migratory patterns. Since no scientific evidence exists to indicate that EMF cause significant negative impacts to the health or behavior of wildlife species, it is expected that no identifiable effect would occur to wildlife species from construction, operation, and maintenance of the Miguel–Mission 230kV #2 project.

6.3.7 Project Protocols

As detailed in Appendix A, SDG&E would implement numerous design measures, construction procedures, operation procedures, maintenance procedures, and policies that would avoid or minimize the project's potential impacts to biological resources, along with other environmentally important resources. For the purposes of this document, these measures are referred to as Project Protocols. In addition, SDG&E would implement the proposed mitigation measures discussed in this section and comply with all applicable conditions or additional mitigation measures that may be required by federal and state resource agencies to assure that the project's potentially significant impacts are mitigated to a less than significant level. Because SDG&E would apply the Project Protocols where necessary, appropriate, and feasible, they are considered part of the utility's standard construction practice, and are therefore included in Appendix A.

The Project Protocols would reduce the effects of the project construction, operation, and maintenance on biological resource; the specific Project Protocols that would benefit biological resources are discussed in this section.

- (1) Except when not feasible, all project vehicle movement would be restricted to existing access roads and access roads constructed as a part of the project and determined and marked by SDG&E in advance for the contractor, contractor-acquired accesses, or public roads. New access road construction for the project would be allowed year-round. However, when feasible every effort would be made to avoid constructing roads during the nesting season. When it is not feasible to keep vehicles on existing access roads or to avoid constructing new access roads during the nesting, breeding, or flight season, SDG&E would perform three site surveys in the area where the work is to occur. The surveys would be performed to determine presence or absence of endangered nesting birds, or other endangered species in the work area. Endangered species for which surveys would be performed include; the least Bell's vireo, arroyo southwestern toad, coastal California gnatcatcher, Quino checkerspot butterfly, San Diego fairy shrimp, southern California rufous-crowned sparrow, grasshopper sparrow, coastal cactus wren, Cooper's hawk, golden eagle, western burrowing owl, orange-throated whiptail, and San Diego horned lizard. SDG&E would submit results of those surveys to the USFWS and CDFG in accordance with its NCCP and consult on reasonable mitigation measures to avoid or minimize for potential impacts, prior to vehicle use off existing access roads or the construction of new access roads. However, these site surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocols 20, 21, 42, 43, and 44. Parking or driving underneath oak trees is not allowed in order to protect root structures. In addition to regular watering to control fugitive dust created during clearing, grading, earth-moving, excavation, and other construction activities which could interfere with plant photosynthesis, a 15 mile per hour speed limit shall be observed on dirt access roads to allow reptiles and small mammals to disperse and reduce dust.
- (2) The area limits of project construction and survey activities would be predetermined based on the temporary and permanent disturbance areas noted on the final design engineering drawings to minimize environmental effects arising from the project, with activity restricted to and confined within those limits. Survey personnel shall keep survey vehicles on existing roads. During project surveying activities, brush clearing for footpaths,

line-of-sight cutting, and land surveying panel point placement in sensitive habitat would require prior approval from the project biological resource monitor in conformance with Protocol 20 and 21. Hiking off roads or paths for survey data collection is allowed year-round as long as other Protocols are met. Stringing of new wire and reconductoring for the project would be allowed year-round in sensitive habitats if the conductor is not allowed to drag on the ground or in brush and all vehicles used during stringing remain on project access roads. Where stringing requires that conductor drag on the brush or ground or vehicles leave project access roads, SDG&E would perform three site surveys to determine presence or absence of endangered nesting birds or other endangered species in the work area. Endangered species for which surveys would be performed include; the least Bell's vireo, arroyo southwestern toad, coastal California gnatcatcher, Quino checkerspot butterfly, San Diego fairy shrimp, Cooper's hawk, southern California rufous-crowned sparrow, grasshopper sparrow, golden eagle, coastal cactus wren, western burrowing owl, orange-throated whiptail, and San Diego horned lizard. SDG&E would submit results of those surveys to the USFWS and CDFG in accordance with its NCCP and consult on reasonable and feasible mitigation measures for potential impacts, prior to dragging wire on the ground or through brush, or taking vehicles off project access roads. However, these site surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocols 20, 21, 42, 43, and 44. No paint or permanent discoloring agents would be applied to rocks or vegetation to indicate limits of survey or construction activity where any sensitive cultural resources or wildlife habitats are encountered in the field.

- (6) Potential hydrologic impacts would be minimized through the use of BMPs, such as water bars, silt fences, staked straw bales, and mulching and seeding of all disturbed areas. These measures would be designed to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water.
- (7) Prior to construction, all SDG&E, contractor and subcontractor project personnel would receive training regarding the appropriate work practices necessary to effectively implement the Project Protocols and to comply with the applicable environmental laws and regulations including, without limitation, hazardous materials spill prevention and response measures, erosion control, dust suppression and appropriate wildlife avoidance, impact minimization procedures, and SWPPP BMPs. To assist in this effort, the training would address: (a) federal, state, local, and tribal laws regarding antiquities, fossils, plants and wildlife, including collection and removal; (b) the importance of these resources and the purpose and necessity of protecting them; and (c) methods for protecting sensitive cultural, paleontological, and ecological resources.
- (11) To the extent feasible, access roads would be built at right angles to the streambeds and washes. Where it is not feasible for access roads to cross at right angles, SDG&E would limit roads constructed parallel to streambeds or washes to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on "waters of the U.S." or waters of the state. Streambed crossings and roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. Culverts would be installed where needed for right angle crossings, but rock crossings would be utilized across most right angle drainage crossings. All construction and maintenance activities would be conducted in a manner that would minimize disturbance to vegetation, drainage channels and streambanks (e.g., towers would not be located within a stream channel, construction

activities would avoid sensitive features). Prior to construction in streambeds and washes, SDG&E would perform three pre-activity surveys to determine the presence or absence of endangered riparian species. Endangered riparian species for which surveys would be performed include the least Bell's vireo, arroyo southwestern toad, and San Diego fairy shrimp. However, these site surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocols 20, 21, 42, 43, and 44. In addition, road construction would include dust-control measures (e.g., watering of construction areas to suppress dust) during construction in sensitive areas, as required. Erosion control during construction in the form of intermittent check dams and culverts should also be considered to prevent alteration to natural drainage patterns and prevent siltation.

- (12) In the construction, operation, and maintenance of the project, SDG&E would comply with all applicable environmental laws and regulations, including, without limitation, those regulating and protecting air quality, water quality, wildlife and its habitat, and cultural resources.
- (14) Littering is not allowed. Project personnel would not deposit or leave any food or waste in the project area, and no biodegradable or nonbiodegradable debris would remain in the right-of-way following completion of construction.
- (17) Prior to construction, the boundaries of plant populations designated as sensitive by USFWS or CDFG, cultural resources, and other resources designated sensitive by SDG&E and the resource agencies would be clearly delineated with clearly visible flagging or fencing. The flagging and fencing shall remain in place for the duration of construction. Flagged areas would be avoided to the extent practicable during construction and maintenance activities. Where these areas cannot be avoided, focused surveys for covered plant species shall be performed in conformance with Protocol 21, below, and the responsible resource agency(s) would be consulted for appropriate mitigation and/or revegetation measures prior to disturbance. Notification of the presence of any covered plant species to be removed in the work area would occur within ten (10) working days prior to the project activity, during which time the USFWS or CDFG may remove such plant(s) or recommend measures to minimize or reduce the take. If neither USFWS nor CDFG has removed such plant(s) within the ten (10) working days following the written notice, SDG&E may proceed with the work and cause a take of such plant(s), if minimization measures are not implemented.
- (20) Brush clearing around any project facilities (e.g., towers, poles, substations) for fire protection, visual inspection or project surveying, in areas which have been previously cleared or maintained within a two-year or shorter period shall not require a pre-activity survey. In areas not cleared or maintained within a two-year period, brush clearing shall not be conducted during the breeding season (March through August) without a pre-activity survey for vegetation containing active nests, burrows, or dens. The pre-activity survey performed by the on-site biological resource monitor would make sure that the vegetation to be cleared contains no active migratory bird nests, burrows, or active dens prior to clearing. If occupied migratory bird nests are present, fire protection or visual inspection brush clearing work would be avoided until after the nesting season, or until the nest becomes inactive. If no nests are observed, clearing may proceed. Where burrows or dens are identified in the reconnaissance-level survey, soil in the brush clearing area would be sufficiently dry before clearing activities occur to prevent mechanical damage to burrows that may be present.

- (21) In the event that SDG&E identifies a (threatened, endangered, or species of special concern) species of plant not previously identified in surveys for the project within the 10-foot radius for brush clearing around project facilities, SDG&E shall 1) notify the USFWS (for ESA listed plants) and CDFG (for CESA listed plants) in writing of that plant's location and identity and 2) the nature of the project activity that may affect the plant. Notification would occur within ten (10) working days prior to the project activity, during which time the USFWS or CDFG may remove such plant(s) or recommend measures to minimize or reduce the take. If neither USFWS nor CDFG has removed such plant(s) within the ten (10) working days following the written notice, SDG&E may proceed with the brush clearing for fire protection purposes or visual inspection and cause a take of such plant(s), if minimization measures are not implemented.
- (22) No wildlife, including rattlesnakes, may be harmed except to protect life and limb. Firearms shall be prohibited in all project areas except for those used by security personnel.
- (24) Feeding of wildlife is not allowed.
- (25) Project personnel are not allowed to bring pets to any project area in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive animal diseases to native wildlife populations.
- (26) Plant or wildlife species may not be collected for pets or any other reason.
- (27) Project supplies or equipment (e.g., foundation excavations, steel pole sections) where wildlife could hide shall be inspected prior to moving or working on them, to reduce the potential for injury to wildlife. Supplies or equipment that cannot be inspected or from which wildlife cannot escape or be removed, shall be covered or otherwise made secure from wildlife intrusion or entrapment at the end of each work day. Supplies or excavations that have been left open shall not be covered or otherwise made secure from wildlife intrusion or entrapment until inspected and any wildlife found therein allowed to escape. If any wildlife are found entrapped in supplies, equipment or excavations, those supplies, equipment or excavations shall be avoided and the wildlife left to leave on their own accord, except as otherwise authorized by the USFWS and CDFG. Where project construction activities require that supplies, equipment or excavations proceed despite the presence of hiding or entrapped wildlife, SDG&E may request that the USFWS and CDFG allow the on-site biological resource monitor, or a recognized wildlife rescue agency (such as Project Wildlife) to remove the wildlife and transport them safely to other suitable habitats.
- (28) All steep-walled trenches or excavations used during construction shall be inspected twice daily (early morning and evening) to protect against wildlife entrapment. If wildlife is located in the trench or excavation, the on-site biological resource monitor shall be called immediately to remove them if they cannot escape unimpeded. The on-site biological resource monitor would make the required contacts with the USFWS and CDFG resource personnel and obtain verbal approval prior to removing any entrapped wildlife. If the biological resource monitor is not qualified to remove the entrapped wildlife, a recognized wildlife rescue agency (such as Project Wildlife) may be employed to remove the wildlife and transport them safely to other suitable habitats.
- (29) SDG&E, its contractors and subcontractors, and their respective project personnel, shall refer all environmental issues, including wildlife relocation, sick or dead wildlife, hazardous waste or questions about environmental impacts to the on-site biological construction monitors. Experts in wildlife handling (such as Project Wildlife) may need to be brought in by the project biological construction field monitor for assistance with wildlife relocations.

- (30) Emergency repairs may be required during the construction and maintenance of the project to address situations (e.g., downed lines, slides, slumps, major subsidence, etc.) that potentially or immediately threaten the integrity of the project facilities. During emergency repairs the Project Protocols shall be followed to the fullest extent practicable. Once the emergency has been abated, any unavoidable environmental damage would be reported to the project biological construction monitor, who would promptly submit a written report of such impacts to the USFWS and CDFG and any other government agencies having jurisdiction over the emergency actions. If required by the government agencies, the biological construction monitor would develop a reasonable and feasible mitigation plan consistent with the Project Protocols and any permits previously issued for the project by the governmental agencies.
- (31) When critical habitat exists on either side of the existing right-of-way, SDG&E would not oppose dedication by the fee owner of the underlying property for conservation purposes, provided that it shall acknowledge and except them from SDG&E's continued use of the property in a manner sufficient to reliably install, operate, maintain, and repair its existing and necessary public utility facilities within the right-of-way.
- (34) In areas where soils and vegetation are particularly sensitive to disturbance (as defined in this PEA), existing access roads would be repaired only in areas where they are otherwise impassable or unsafe.
- (35) To minimize ground disturbance impacts to streams in steep canyon areas, access roads in these areas would avoid streambed crossings to the extent feasible. Where it is not feasible for access roads to avoid streambed crossings in steep canyons, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, SDG&E would limit roads constructed parallel to streambeds, to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on "waters of the U.S." Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB.
- (36) Environmentally sensitive tree trimming locations for the project would be identified in SDG&E's existing vegetation management tree trim database utilized by tree trim contractors. The biological field construction monitor shall be contacted prior to trimming in environmentally sensitive areas. Whenever feasible, trees in environmentally sensitive areas, such as areas of riparian or native scrub vegetation, would be scheduled for trimming during non-sensitive (i.e., outside breeding or nesting) times. Where trees cannot be trimmed during non-sensitive times, SDG&E would perform three site surveys to determine presence or absence of endangered nesting bird species in riparian or native scrub vegetation. Endangered nesting bird species for which surveys would be performed include the least Bell's vireo, coastal California gnatcatcher, southern California rufous-crowned sparrow, grasshopper sparrow, coastal cactus wren, Cooper's hawk, and golden eagle. SDG&E would submit results of those surveys to the USFWS and CDFG in accordance with its NCCP and consult on mitigation measures for potential impacts, prior to tree trimming in environmentally sensitive areas. However, these site surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocol 43. Where riparian areas with overstory vegetation are crossed, tree removal (i.e., clear-cut) widths would be varied where feasible to minimize visual landscape contrast and to maintain habitat diversity at established wildlife corridor edges. Where tree removal widths cannot be varied,

SDG&E would consult with the USFWS and CDFG to develop alternative tree removal options that could reasonably maintain edge diversity.

- (37) All new access roads constructed as part of the project that are not required as permanent access for future project maintenance and operation would be permanently closed. Where required, roads would be permanently closed using the most effective feasible and least environmentally damaging methods appropriate to that area with the concurrence of the underlying landowner and the governmental agency having jurisdiction (e.g., stockpiling and replacing topsoil or rock replacement). This would limit new or improved accessibility into the area. Mowing of vegetation can be an effective method for protecting the vegetative understory while at the same time creating access to the work area. Mowing should be used when permanent access is not required since, with time, total revegetation is expected. If mowing is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential, it should be recognized that periodic mowing would be necessary to maintain permanent access. The project biological construction monitor shall conduct checks on mowing procedures to ensure that mowing for temporary or permanent access roads is limited to a 12-foot-wide area on straight portions of the road (slightly wider on turns), and that the mowing height is no less than 4 inches from finished grade.
- (39) To the extent feasible, where the construction of access roads would disturb sensitive features, the route of the access road would be adjusted to avoid such impacts. Examples of sensitive features include, without limitation, cultural sites, identified habitats of endangered species, and streambeds. As another alternative, construction and maintenance traffic would use existing roads or cross-country access routes (including the right-of-way), which avoid impacts to the sensitive feature. To minimize ground disturbance, construction traffic routes must be clearly marked with temporary markers, such as easily visible flagging. The authorized officer or landowner must approve construction routes, or other means of avoidance, before use. When it is not feasible to avoid constructing access roads in sensitive habitats, SDG&E would perform three site pre-activity surveys to determine the presence or absence of endangered or threatened species, or species of special concern, in those sensitive habitats. SDG&E would submit results of those surveys to the USFWS and CDFG in accordance with its NCCP and consult on reasonable and feasible mitigation measures for potential impacts, prior to access road construction. However, these pre-activity surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocols 20, 21 42, 43, and 44. Where it is not feasible for access roads to avoid streambed crossings in steep canyons, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, SDG&E would limit roads constructed parallel to streambeds, to a maximum length of 500 feet at any, one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on “waters of the U.S.” Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. When it is not feasible to avoid cultural sites, SDG&E would consult with the appropriate federal and state SHPO and local (indigenous Native American tribes) cultural resource agencies and specialists to either develop alternative construction techniques to avoid cultural resources or develop appropriate mitigation measures. Appropriate mitigation measures may include actions such as removal and cataloging and/or removal and relocation.

- (40) To minimize ground disturbance and/or reduce scarring (visual contrast) of the landscape, the alignment of any new access roads (i.e., bladed road) or cross-country route (i.e., unbladed route) would follow the landform contours in designated areas to the extent feasible, providing that such alignment does not additionally impact sensitive features (e.g., riparian area, habitat of sensitive species, cultural site). To the extent feasible, new access roads shall be designed to be placed in previously disturbed areas and areas that require the least amount of grading in sensitive areas. Whenever feasible, in areas where there are existing access roads, preference shall be given to the use of new spur roads rather than linking facilities tangentially with new, continuous roads. Where it is infeasible to locate roads along contours, or in previously disturbed areas, or use spur roads to limit grading, the revegetation/seeding plans for the project would incorporate plant species in areas adjacent to access roads that are capable of screening the visual impacts of the roads.
- (41) In areas designated as sensitive by SDG&E or the resource agencies (see Section 6.3), to the extent feasible structures and access roads would be designed to avoid sensitive features and/or to reduce visual contrast. These areas of sensitive features include but are not limited to high-value wildlife habitats and cultural sites, and/or to allow conductors to clearly span the features, within limits of standard tower or pole design (see Protocol 52 for avoidance of sensitive water resource features). If the sensitive features cannot be completely avoided, poles and access roads would be placed to minimize the disturbance to the extent feasible. When it is not feasible to avoid constructing poles or access roads in high value wildlife habitats, SDG&E would perform three site surveys to determine presence or absence of endangered species in those sensitive habitats. SDG&E would submit results of those surveys to the USFWS and CDFG in accordance with its NCCP and consult on mitigation measures for potential impacts, prior to constructing poles or access roads. However, these site surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocols 20, 21 42, 43, and 44. Where it is not feasible for access roads to avoid sensitive water resource features, such as streambed crossings, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, roads constructed parallel to streambeds would be limited to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on “waters of the U.S.” Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. When it is not feasible for poles or access roads to avoid cultural sites, SDG&E would consult with the appropriate federal and state SHPO and local (indigenous Native American tribes) cultural resource agencies and specialists to either modify the project or develop alternative construction techniques to avoid cultural resources or develop appropriate mitigation measures. Appropriate mitigation measures may include actions such as data recovery studies, cultural resource removal and cataloging, and/or cultural resource removal and relocation.
- (42) Conduct detailed on-the-ground surveys (focused or protocol surveys), as required by the applicable government environmental resource agencies, to determine whether the Quino checkerspot butterfly and/or arroyo southwestern toad habitat is present within the project’s route. If these species habitat are determined to be potentially affected by project activities, specific alternative strategies to avoid such habitat and, where avoidance of such impacts is unavoidable, specific mitigation measures would be determined through consultation, in accordance with the NCCP, with the USFWS and CDFG. If it is determined that it is not

feasible to avoid such habitat impacts, the project biologist would recommend mitigation in consultation with applicable resource agencies. In those situations where more than one site visit may be necessary to identify a given species, no more than three site visits shall be required. Permanent or temporary disturbance of habitat would be rehabilitated or mitigated according to the biological resource proposed mitigation.

- (43) Conduct surveys as required by the applicable government environmental resource agencies to determine whether least Bell's vireo, coastal California gnatcatcher, southern California rufous-crowned sparrow, grasshopper sparrow, coastal cactus wren, western burrowing owl, Cooper's hawk, and golden eagle are present within the project's route. If these species are present and unavoidable impacts to suitable habitat would occur, SDG&E would, to the extent feasible, cause such impacts to suitable habitat to occur during the non-breeding season for each species. Specific alternative mitigation measures (e.g., offsite restoration or enhancement of these species' habitats) would be determined through consultation, in accordance with its NCCP, with the USFWS and CDFG. If it is determined that it is not feasible to avoid habitats during the breeding season, the project biologist would recommend an alternative mitigation approaches to SDG&E, and a decision would be made how to proceed in consultation with the applicable resource agencies. In those situations where more than one site visit may be necessary to identify a given species or its habitat, such as certain birds, no more than three site visits shall be required. Permanent or temporary disturbance of habitat would be rehabilitated or mitigated according to the biological resource proposed mitigation.
- (44) Conduct surveys as required by the applicable government environmental resource agencies to determine whether vernal pools containing San Diego fairy shrimp are present within the project's route. If vernal pools and/or San Diego fairy shrimp are determined to be potentially affected by project activities, specific avoidance strategies and mitigation measures would be identified through consultation, in accordance with its NCCP, with the USFWS and CDFG and ACOE if necessary. Project facilities and activities shall be planned to avoid disturbance to vernal pools, their watersheds, or impacts to their natural regeneration. Continued maintenance of the project's facilities, utilizing existing access roads and access routes constructed as a part of the project, are allowed to continue in areas containing vernal pool habitats. Construction and maintenance of the project's facilities, which span vernal pool habitats, are allowed as long as the placement of the facilities or location of associated construction activities in no way impacts vernal pools.
- (50) Where necessary to avoid significant protected environmental land use impacts, limit potential visual impacts and reduce the footprint of structures, use single-pole steel support structures in place of steel lattice tower structures.
- (51) To minimize perching opportunities for raptors near habitats supporting sensitive prey species, select structures incorporating a design to discourage raptor perching.
- (52) To the extent feasible, design structure locations to avoid wetlands, streams, and riparian areas. These sensitive water resource features include riparian areas, habitats of endangered species, streambeds, cultural resources, and wetlands. If these areas cannot be avoided, a qualified biological contractor shall conduct site-specific assessments for each affected site. These assessments shall be conducted in accordance with ACOE wetland delineation guidelines, as well as CDFG streambed and lake assessment guidelines, and shall include impact minimization measures (e.g., creation and restoration of wetlands) to reduce wetland impacts to a less than significant effect. Though construction or maintenance vehicle access

through shallow creeks or streams is allowed, staging/storage areas for equipment and materials shall be located outside of riparian areas. Construction of new access through streambeds that require filling for access purposes would require a Streambed Alteration Agreement from CDFG and/or consultation with the ACOE. Where filling is required for new access, the installation of properly sized culverts and the use of geotextile matting should be considered in the CDFG/ACOE consultation process.

- (53) Known and potential cultural and biological resources, which may be affected by the project, would be monitored during project implementation. This would involve pedestrian surveys (i.e., Class III) to inventory and evaluate these resources along the selected route and any impacted area (e.g., access roads, substation sites, staging areas, etc.) beyond the right-of-way. In consultation with appropriate land managing agencies, SHPO officers, and applicable resource agencies, specific avoidance strategies and mitigation measures would be developed and implemented to avoid or mitigate identified adverse impacts on private, state, BLM, tribal, or other lands. The primary goal is to avoid impacts to environmental resources and secondarily to mitigate for unavoidable impacts. These may include project modifications to avoid adverse impacts, monitoring construction activities, or data recovery studies.
- (54) Restoration and habitat enhancement and mitigation measures developed during the consultation period under Section 7 or 10A of the ESA (1973) as amended would be implemented and complied with as specified in the BO of the USFWS.
- (55) An *Erosion Control and Sediment Transport Control Plan* would be included with the project grading plans submitted to San Diego County for review and comment. The sediment transport control plan would be prepared in accordance with the standards provided in the Manual of Erosion and Sedimentation Control Measures and consistent with practices recommended by the Resource Conservation District of San Diego County. Implementation of the plan would help stabilize soil in graded areas and waterways, and reduce erosion and sedimentation. The plan would designate BMPs that would be implemented during construction activities. Erosion control efforts, such as hay bales, water bars, covers, sediment fences, sensitive area access restrictions (e.g., flagging), vehicle mats in wet areas, and retention/settlement ponds, would be installed before extensive soil clearing and grading begins. Mulching, seeding, or other suitable stabilization measures would be used to protect exposed areas during construction activities. Revegetation plans, the design and location of retention ponds, and grading plans would be submitted to the CDFG and ACOE for review in the event of construction near waterways.

6.3.8 Proposed Mitigation Measures

The standards, concepts, and principles underlying the development of these proposed mitigation measures are substantially derived from a December 1995 agreement that SDG&E entered into with the USFWS and CDFG with appropriate modifications to address project-specific conditions. The agreement established and implemented SDG&E's NCCP.[3] The NCCP provides for long-term comprehensive management of wildlife species and their habitat to ensure the

[3] Pursuant to California Fish and Game Code § 2800 et seq., Endangered Species Act § 10(a) (16 USC §1531 et seq.); and the federal "No Surprises" policy (now codified at 50 CFR § 17,222), and covering 110 listed and sensitive species.

survivability and conservation of covered species and their habitat. The habitat-based NCCP also prescribes SDG&E's obligations to implement mitigation and conservation measures as necessary and appropriate in relation to SDG&E activities covered by the plan. The NCCP authorizes the incidental take of covered species, through a USFWS incidental take permit and a CDFG management authorization, arising from the continuation of SDG&E's utility activities, subject to determined conditions. The establishment of these conditions and the incorporation of the federal "No Surprises" policy into the plan[4] provides long-term certainty to SDG&E for planning and operational purposes and effectively provides for the long-term conservation of the species and their habitat covered under the NCCP.

SDG&E has designed and incorporated Project Protocols into the Miguel–Mission 230kV #2 Project construction, operation, and maintenance procedures to avoid or minimize potential impacts to biological resources. This section prescribes further mitigation measures to further reduce any potential unavoidable impacts to less than significant levels.

Mitigation measures proposed here focus on impacts to biological resources that are unavoidable even after the application of Project Protocols listed in this section and in Appendix A. Mitigation measures include monitoring of sensitive resources, documentation of pre- and postconstruction habitat conditions, habitat enhancement (e.g., vegetation restoration and habitat reclamation), and the application of Mitigation Credits to offset any permanent impacts associated with the project where the application of Project Protocols and/or the use of habitat enhancement measures are ineffective, as provided in the NCCP. Therefore, the following mitigation measures would be incorporated into the project, and implemented to avoid or minimize impacts to biological resources.

- A biological monitor would be on-site during any construction activity near sensitive habitat and would have the authority to stop activities and determine alternative work practices in consultation with construction personnel, if construction activities are likely to fail to adhere to Project Protocols, the NCCP, or any other adopted mitigation measures.

- Photo documentation of preconstruction habitat conditions at all tower, new pole, and pulling-site locations within sensitive habitat would occur prior to the start of work, as well as immediately after construction activities are concluded to confirm the quality and quantity of the mitigation required.

- SDG&E would make diligent efforts to protect the existing plant community and wetlands and to keep temporary impacts to a minimum. However, temporary impacts to habitat would be addressed through a habitat enhancement (revegetation/restoration) plan described below and application of Mitigation Credits.

As provided in its NCCP, SDG&E would, as its primary mitigation strategy, provide habitat enhancement measures as mitigation for potential project impacts. As its secondary strategy, SDG&E would provide sufficient Mitigation Credits to mitigate for impacts where habitat enhancement measures, described below, are not successful. Under its NCCP, SDG&E acquired

[4] Codified at 50 CFR 17,222

by enabling the USFWS and CDFG, or their designee, in the acquisition/conveyance of high quality habitat lands, the location and configuration of which benefits region-wide wildlife/habitat conservation goals, to resource agencies or their designees, for conservation. Under SDG&E's NCCP, Mitigation Credits are intended to provide mitigation for both in-kind and out-of-kind species and habitat impacts, without regard to the type of habitat or its biological value. However, for potential impacts to wetlands falling within the jurisdiction of the ACOE pursuant to Section 403 and 404 of the CWA, SDG&E holds separate wetlands Mitigation Credits. Under the NCCP, SDG&E may provide existing Mitigation Credits or procure new Mitigation Credits for use as mitigation for potential project impacts, as necessary and appropriate. The following sections provide greater detail on SDG&E's mitigation strategies.

Habitat Enhancement

All habitat areas disturbed by the project, which do not need to be maintained in a cleared state, would be enhanced either through vegetation restoration, habitat reclamation, or a combination of the two, as described below.

For project activities occurring within existing or proposed preserves, and for project activities affecting certain riparian/wetland areas, SDG&E would submit its proposed enhancement methodology to USFWS and CDFG for review and approval prior to implementation. For all areas outside of an existing or proposed preserve and outside riparian wetland areas, SDG&E may at its discretion, select an appropriate enhancement method. If a habitat enhancement measure is not successful, a deduction would be made from SDG&E's existing Mitigation Credits in accordance with ratios determined through consultation with USFWS and CDFG, or from new Mitigation Credits obtained from the acquisition of any further quality habitat lands, as necessary and appropriate.

When implementing mitigation measures, SDG&E's habitat enhancement program prescribes the appropriate mitigation ratios, which is the area subject to mitigation relative to the actual area of the project's temporary or permanent impacts.

Vegetation Restoration

Ranges of vegetation restoration techniques are available. Each would meet the following specifications:

Hydroseeding

Vegetation restoration would be conducted from mid-November through mid-January to take advantage of rainy season precipitation, and would not be artificially irrigated.

Vegetation restoration would typically be conducted using a native seed mix obtained from a commercial seed provider and would be applied by hydroseeding. For hydroseeding inside existing or proposed reserve areas, seed would be obtained from the local gene pool and have a similar composition to the reference site.

Seed mix specifications and application techniques would be provided by a Habitat Restoration Specialist, who would be an acknowledged specialist in native habitat restoration or a plant ecologist with experience developing native restoration plans in Southern California. The Habitat Restoration Specialist would be responsible for restoration plans outside and within existing or proposed preserves.

If restoration lands contain areas used for temporary roads, staging areas, or other intensive activities, the soil may become so compacted that revegetation is difficult. In such cases, disking and plowing the compacted soil would loosen it and improve the success of hydroseed revegetation. Disking may also foster weed growth and should only be used where an influx of weeds would not adversely affect adjacent native plant communities.

Consideration would be given to supplemental planting of sensitive plant species in areas where it is desirable to expand existing colonies. Supplemental planting and plant relocation would only be done in disturbed areas that are thought to be suitable.

Hand-seeding

Seed may be applied by hand and raked into the top inch of soil. This method is best suited for small areas and areas that are inaccessible to a hydroseed truck. Hand seeding would be conducted form mid-November through mid-January to take advantage of rainy season precipitation, and would not be artificially irrigated.

Imprinting

Imprinting is the mechanical formation of smooth-walled, V-shaped furrows in the soil surface, application of seed and injection of beneficial mycorrhizal fungi into the soil surface. This method is best suited for areas accessible by bulldozer and where there is a potential problem with weeds.

Soil and Plant Salvage

In some locations, soil and plant salvage may enhance habitat revegetation techniques and increase potential for successful impact mitigation. In these cases, native vegetation from the impacted project area would be removed, mulched and stockpiled separately. The removal of native vegetation and topsoil, as well as the temporary storage of this native material, would be conducted under the direction of a Habitat Restoration Specialist. Topsoil would also be removed and stockpiled separately. Following construction and other project activities, the topsoil should be replaced and covered with the mulch. The topsoil and mulch both have native propagules and the mulch reduces erosion potential. This method is well suited for temporary roads, staging areas, or other intense activities that have temporary impacts.

Quality Assurance

One year after first revegetation efforts, monitoring of habitat revegetation mitigation areas, which includes visual inspection, would be conducted on project restoration sites. Following the visual inspection, a second round of revegetation methods may be implemented by SDG&E. If restoration is deemed unsuccessful after an additional year, the wildlife resource agencies, in

cooperation with SDG&E, would determine whether the remaining loss shall be mitigated. Options for mitigation would include a deduction from SDG&E's Mitigation Credits or a third (and final) seeding application with extended monitoring.

Coverage standards would be based on comparisons with established stands of target vegetation set for the impact area or for another reference area. The means of determining success should be based on estimates of cover by native species, cover of exotic species, and diversity of native species. The cover of native species should increase and the cover of weed species should decrease, eventually approximating the reference area. The reference areas would be a nearby stand of vegetation that the restoration is attempting to emulate. It would have (as much as possible) a similar aspect, slope, and soil type.

Cover for the restoration and reference areas should be estimated using repeatable cover classes. One tested system is as follows:

Cover Class	**1**	**2**	**3**	**4**	**5**	**6**
Percent cover	0–5	5–25	25–50	50–75	75–95	95–100
Mean cover	2.5	15	37.5	62.5	85	97.5

Targets for the success criteria are as follows:

Criteria*	**Year 1**	**Year 2**
Cover by exotic species**	140 percent	130 percent
Cover by native species (trees, shrubs, and herbaceous species	60 percent	70 percent

*Values are relative to reference area
**Percent total cover

Habitat Reclamation

Habitat reclamation techniques shall be considered when re-seeding is likely to be an ineffective habitat enhancement due to the presence of stronger and more prolific exotic vegetation in the proximity.

Habitat reclamation involves the elimination of existing exotic vegetation (weed abatement) to facilitate the natural re-colonization of a native habitat. An example of where habitat reclamation would be appropriate is in wetland areas containing tamarisk or giant reed. Wetland habitat reclamation would be implemented in instances where project access roads or facilities would impact wetland areas, such as streams or creeks.

In order to avoid net loss of wetland and riparian habitat as a result of project activities, exotic species in the vicinity of project impacts would be removed at a 2:1 ratio within existing or proposed preserve areas and at a 1:1 ratio outside of preserve areas (with a further 1:1 off-site mitigation by habitat enhancement or Mitigation Credit reduction for impacts outside preserved areas). Exotics would be removed from the site and disposed of off-site. Soil would be prepared for new native growth to occur. In areas larger than 500 square feet, re-seeding may be appropriate to supplement exotic removal and the recovery of existing native vegetation

Reclamation shall be limited to initial removal, and if necessary, one-time removal of new exotic growth within one year. In certain cases, such as with Arundo removal, it may be necessary to clear invasive vegetation a third time. Once weeds are controlled, if extensive reclamation is undertaken, supplemental planting may be necessary to keep weeds out.

Habitat reclamation for the project would be done under the direction of a Habitat Restoration Specialist who would determine the appropriate abatement technique, and would locate an area in the vicinity of the project site where abatement would be most effective in facilitating habitat reclamation. The habitat reclamation approach would be reviewed and approved by the USFWS and CDFG for application in existing or proposed preservation or wetland/riparian areas.

6.3.9 Mitigation Ratios

Mitigation would be provided for any project-related impacts to the following vegetation communities.

- Scrub/Chaparral: includes chaparral and Diegan coastal sage scrub
- Riverine/Wetlands: includes freshwater marsh, southern riparian forest, southern sycamore/alder woodland, southern riparian scrub, and disturbed wetland
- Woodlands/Forests: includes oak woodland and oak forest
- Grass/Herb Communities: non-native grassland, native grassland, and southern vernal pool
- Ruderal Areas: disturbed habitat, eucalyptus woodlands, and field croplands

Mitigation for unavoidable impacts to such vegetation communities would be implemented at the ratios described in the following tables.

Table 6-5: Scrub/Chaparral Mitigation Ratios

Activity	Location	Duration	Ratio
New facilities	Inside preserve*	Permanent	2:1
	Inside preserve	Temporary	(a)(b)
	Outside preserve	Permanent	1:1
	Outside preserve	Temporary	(a)
Maintenance**	Inside preserve	Permanent	2:1
		Temporary	(a)(b)
	Outside preserve	Not applicable	(b)

Table 6-6: Riparian/Wetland: Riparian Forest/Woodland (Oak, Sycamore, Willow) Mitigation Ratios

Activity	Location	Duration	Ratio
New facilities	Inside preserve*	Permanent	3:1
	Inside preserve	Temporary	(a)(b)
	Outside preserve	Permanent	3:1
	Outside preserve	Temporary	(a)
Maintenance**	Inside preserve	Permanent	3:1
		Temporary	(a) (b)
	Outside preserve	Not applicable	(b)

Table 6-7: Riverine/Wetland: Riparian Scrub/Freshwater Marsh Mitigation Ratios

Activity	Location	Duration	Ratio
New facilities	Inside preserve*	Permanent	2:1
	Inside preserve	Temporary	(a)(b)
	Outside preserve	Permanent	2:1***
	Outside preserve	Temporary	(a)
Maintenance**	Inside preserve	Permanent	2:1
	Inside preserve	Temporary	(a)(b)
	Outside preserve	Not applicable	(b)

Table 6-8: Upland Woodland/Forest Mitigation Ratios

Activity	Location	Duration	Ratio
New facilities	Inside preserve*	Permanent	2:1
	Inside preserve	Temporary	(a)(b)
	Outside preserve	Permanent	1:1
	Outside preserve	Temporary	(a)
Maintenance**	Inside preserve	Permanent	2:1
		Temporary	(a)(b)

For impacts to woodland or forest habitats, SDG&E shall have the option of providing mitigation as provided in the mitigation ratio tables or by meeting the following tree planting requirements for oak or sycamore tree removals.

- Trees less than 5 inches in diameter at breast height (DBH) should be replaced at 3:1,
- Trees between 5 and 12 inches DBH should be replaced at 5:1,
- Trees between 12 and 36 inches DBH should be replaced at 10:1, and
- Trees greater than 36 inches DBH should be replaced at 20:1.

Table 6-9: Grass and Herb Community—Native and Non-Native Grassland Mitigation Ratios

Activity	Location	Duration	Ratio
New facilities	Inside preserve*	Permanent	2:1
	Inside preserve	Temporary	(a)(b)
	Outside preserve	Permanent	1:1
	Outside preserve	Temporary	(a)
Maintenance**	Inside preserve	Permanent	2:1
		Temporary	(a)(b)
	Outside preserve	Not applicable	(b)

Note: Mitigation for Southern vernal pool components would be at a 3:1 ratio.

Table 6-10: Ruderal Revegetation Ratios

Activity	Location	Duration	Ratio
New facilities	Inside preserve*	Permanent	2:1****
	Inside preserve	Temporary	(a)(b)
	Outside preserve	Permanent	1:1
	Outside preserve	Temporary	(a)
Maintenance**	Inside preserve	Permanent	2:1****
		Temporary	(a)(b)
	Outside preserve	Not applicable	(b)

Note: Revegetation, not mitigation, is proposed for all ruderal areas.

(a) Temporary impacts are mitigated through basic vegetation restoration, which includes native hydroseed for erosion control. However, if roots are not grubbed during temporary impacts, the hydroseeding may not be necessary. Mitigation is only required for areas of temporary impact greater than 500 square feet. For all temporary impacts greater than 500 square feet, acreage not meeting success criteria shall be deducted from SDG&E Mitigation Credits at a 1:1 ratio.

(b) Same as (a), except that any portion of the temporarily impacted area that does not revegetate in accordance with the mitigation flow chart not meeting success criteria shall be deducted from the SDG&E Mitigation Credits.

* The term "preserve" in the above mitigation tables means the area encompassed by the MSCP, the San Diego County Multiple Habitat Conservation Program (MHCP), and the San Diego National Wildlife Refuge Otay-Sweetwater Unit. If no preserve areas are formally delineated, those areas that are designated moderate, high, and very high quality habitat on habitat on evaluation maps prepared for the respective planning areas are considered the "preserve."

** SDG&E may acquire fee-owned rights-of-way for the project that contain sensitive species habitat, connect fragmented sensitive species habitat areas, or contribute to sensitive species habitat carrying capacity of existing or proposed preserves in the project area, and may agree to limit its and others' use of such fee-owned rights-of-way to utility activities. Such an event would constitute mitigation for any temporary impacts arising from SDG&E's maintenance of the project facilities, whether inside or outside preserve areas.

*** Mitigation would be provided on or proximal to the site to achieve the "no net loss of function and value" policy at a 1:1 ratio, through utilization of habitat enhancement measures. In addition, SDG&E would provide off-site mitigation at a 1:1 ratio, either as habitat enhancement or by a reduction from its existing wetlands Mitigation Credits.

**** Provided, however, that no mitigation is required for impacts to livestock feed yards.

6.4 CULTURAL RESOURCES

6.4.1 Introduction

A substantial adverse change in the significance of an historical resource or archaeological resource, under CEQA, means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired. No significant impacts to cultural resources are expected on the Miguel–Mission 230kV #2 Project.

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5 of the CEQA Guidelines?	☐	☐	☑	☐
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5 of the CEQA Guidelines?	☐	☐	☑	☐
3. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☑	☐

6.4.2 Impact Assessment Methods

Cultural resource information was compiled from existing cultural resource documentation from RECON, among other resources. Construction information (refer to Chapter 1) was used to determine what activities could be expected along the existing project right-of-way. In general, cultural resources are not impacted unless the project involves ground disturbance. Therefore, the most likely areas for this project to incur impacts are boring or excavation sites for new pole footings, grading for new access roads, and grading for work areas or pulling sites. New ground disturbance may occur at several (locations not yet finalized) points along the existing project right-of-way, and could involve one or more of the following activities.

- Clearing of line pulling sites every 1 to 4 miles along the existing project right-of-way, requiring clearing of 1 to 2 acres of workspace, and some pulling locations outside the right-of-way.

- Development or upgrade of access and/or spur roads to provide access to all new pole site locations, particularly along the Miguel Substation to Los Coches Substation segment, where

both steel and wood poles would be installed as part of the relocation of the existing 69kV/138kV circuits. The spur roads would be approximately 12 feet wide, with wider sections at curves are required to allow safe movement of construction equipment and vehicles. Some of the roads may occur outside of the existing right-of-way.

- Installation of new 69kV/138kV steel pole support structures adjacent to existing towers span along the Los Coches Substation to Fanita Junction segment only, with clearing of 100 by 100 feet for a work area at each structure site.

- Installation of new wood or steel pole support structures for the relocation of the existing 69kV/138kV circuits between spans along the Miguel Substation to Los Coches Substation segment only, with clearing of 100 by 100 feet for a work area at each structure site.

- Modification or replacement of existing steel lattice 69kV/138kV tower structures for the new 230kV circuit between Fanita Junction and Miguel Substation or installation of new 230kV steel pole support structures, with clearing of 150 feet by 150 feet for a work area at each structure.

- Clearing of 150 by 150 feet for a work area at existing 230kV tower structures between Fanita Junction and Mission Substation.

6.4.3 Impact Assessment Results

With the exception of potential new access roads or spur roads, construction activities for the 230kV circuit would be conducted within SDG&E's existing right-of-way. The relocation of the existing 69kV/138kV circuits would also occur in the existing right-of-way, but would require installation of new wood or steel pole support structures. To determine the potential for any impacts associated with installation of the poles for the project, cultural resource field surveys are being conducted in summer 2002.

In addition to the cultural resource surveys, SDG&E would implement Project Protocols that would further protect and minimize potential impact to cultural resources identified in the project area. Protocols include cultural resource awareness training; survey, inventory, and evaluation of known and potential cultural resources in areas of new disturbance; consultation with applicable agencies as necessary; demarcation and avoidance of known sites; and mitigation for sites that cannot be avoided.

By conducting the cultural investigations described in this section and implementing the relevant Project Protocols, construction of the project would result in less than significant impacts to cultural resources.

Historical Resources

The existing records search for the project found no sites or structures listed on the California Register of Historic Resources located within a 0.25-mile radius of the existing project right-of-way. However, during upcoming cultural field surveys, sites may be discovered that are eligible

for listing. If historic resources are found, impacts to them would be avoided or minimized through implementation of Project Protocols.

Archaeological Resources

Seven archaeological resources were previously identified in the vicinity of the project. If upcoming cultural surveys discover additional potential cultural sites in the project work areas, including the right-of-way, an evaluation by a professional archaeologist is necessary to determine if the sites are unique, as outlined in the CEQA Guidelines. If unique archaeological resources are identified, they can then be marked and avoided, as outlined in the Project Protocols. Impacts to non-unique archaeological resources are considered insignificant and would require no additional consideration.

Native American Human Remains

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie the adjacent human remains until the remains have been investigated, as listed in the Project Protocols and outlined in Section 10564.5 of the CEQA Guidelines and the Native American Grave Protection Act and its implementing regulations. SDG&E and its contractors also would comply with state laws applicable to the discovery of human remains, including California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98.

6.4.4 Project Protocols

The following protocols would be implemented by SDG&E to minimize or avoid potential impacts to cultural resources from the Miguel–Mission 230kV #2 Project.

- (7) Prior to construction, all SDG&E, contractor and subcontractor project personnel would receive training regarding the appropriate work practices necessary to effectively implement the Project Protocols and to comply with the applicable environmental laws and regulations, including, without limitation, hazardous materials spill prevention and response measures, erosion control, dust suppression and appropriate wildlife avoidance, impact minimization procedures, and SWPPP BMPs. To assist in this effort, the training would address: (a) federal, state, local, and tribal laws regarding antiquities, fossils, plants and wildlife, including collection and removal; (b) the importance of these resources and the purpose and necessity of protecting them; and (c) methods for protecting sensitive cultural, paleontological, and ecological resources.
- (39) To the extent feasible, where the construction of access roads would disturb sensitive features, the route of the access road would be adjusted to avoid such impacts. Examples of sensitive features include, without limitation, cultural sites, identified habitats of endangered species, and streambeds. As another alternative, construction and maintenance traffic would use existing roads or cross-country access routes (including the right-of-way), which avoid impacts to the sensitive feature. To minimize ground disturbance, construction traffic routes must be clearly marked with temporary markers, such as easily visible flagging. The authorized officer or landowner must approve construction routes or other means of

avoidance before use. When it is not feasible to avoid constructing access roads in sensitive habitats, SDG&E would perform three site pre-activity surveys to determine the presence or absence of endangered or threatened species, or species of special concern, in those sensitive habitats. SDG&E would submit results of those surveys to the USFWS and CDFG in accordance with its NCCP and consult on reasonable and feasible mitigation measures for potential impacts, prior to access road construction. However, these pre-activity surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocols 20, 21 42, 43, and 44. Where it is not feasible for access roads to avoid streambed crossings in steep canyons, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, SDG&E would limit roads constructed parallel to streambeds, to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on "waters of the U.S." Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. When it is not feasible to avoid cultural sites, SDG&E would consult with the appropriate federal and state SHPO and local (indigenous Native American tribes) cultural resource agencies and specialists to either develop alternative construction techniques to avoid cultural resources or develop appropriate mitigation measures. Appropriate mitigation measures may include actions such as removal and cataloging and/or removal and relocation.

- (40) To minimize ground disturbance and/or reduce scarring (visual contrast) of the landscape, the alignment of any new access roads (i.e., bladed road) or cross-country route (i.e., unbladed route) would follow the landform contours in designated areas to the extent feasible, providing that such alignment does not additionally impact sensitive features (e.g., riparian area, habitat of sensitive species, cultural site). To the extent feasible, new access roads shall be designed to be placed in previously disturbed areas and areas that require the least amount of grading in sensitive areas. Whenever feasible, in areas where there are existing access roads, preference shall be given to the use of new spur roads rather than linking facilities tangentially with new, continuous roads. Where it is infeasible to locate roads along contours, or in previously disturbed areas, or use spur roads to limit grading, the revegetation/seeding plans for the project would incorporate plant species in areas adjacent to access roads that are capable of screening the visual impacts of the roads.
- (41) In areas designated as sensitive by SDG&E or the resource agencies, to the extent feasible, structures and access roads would be designed to avoid sensitive features and/or to reduce visual contrast. These areas of sensitive features include but are not limited to high-value wildlife habitats and cultural sites, and/or to allow conductors to clearly span the features, within limits of standard tower or pole design (also see Protocol 52 for avoidance of sensitive water resource features). If the sensitive features cannot be completely avoided, poles and access roads would be placed to minimize the disturbance to the extent feasible. When it is not feasible to avoid constructing poles or access roads in high value wildlife habitats, SDG&E would perform three site surveys to determine presence or absence of endangered species in those sensitive habitats. SDG&E would submit results of those surveys to the USFWS and CDFG in accordance with its NCCP and consult on mitigation measures for potential impacts, prior to constructing poles or access roads. However, these site surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocols 20, 21 42, 43, and 44. Where it is not feasible for access roads to avoid

sensitive water resource features, such as streambed crossings, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, roads constructed parallel to streambeds would be limited to a maximum length of 500 feet at any, one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on "waters of the U.S." Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. When it is not feasible for poles or access roads to avoid cultural sites, SDG&E would consult with the appropriate federal and state SHPO and local (indigenous Native American tribes) cultural resource agencies and specialists to either modify the project or develop alternative construction techniques to avoid cultural resources or develop appropriate mitigation measures. Appropriate mitigation measures may include actions such as data recovery studies, cultural resource removal and cataloging, and/or cultural resource removal and relocation.

- (53) Known and potential cultural and biological resources, which may be affected by the project, would be monitored during project implementation. This would involve pedestrian surveys (i.e., Class III) to inventory and evaluate these resources along the selected route and any impacted area (e.g., access roads, substation sites, staging areas, etc.) beyond the right-of-way. In consultation with appropriate land managing agencies, SHPO officers, and applicable resource agencies, specific avoidance strategies and mitigation measures would be developed and implemented to avoid or mitigate identified adverse impacts on private, state, BLM, tribal, or other lands. The primary goal is to avoid impacts to environmental resources and secondarily to mitigate for unavoidable impacts. These may include project modifications to avoid adverse impacts, monitoring construction activities, or data recovery studies.
- (63) In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie the adjacent human remains until the remains have been investigated as outlined in Section 10564.5 of the CEQA Guidelines, the Native American Grave Protection Act and its implementing regulations, California Health and Safety Code 7050.5, and California Public Resources Code Section 5097.98.

6.5 GEOLOGY, SOILS, MINERAL RESOURCES, AND PALEONTOLOGY

6.5.1 Introduction

This chapter describes the potential impacts from construction, operation, and maintenance activities of the Miguel–Mission 230kV #2 Project to geology and soils and to mineral and paleontological resources. The project would not significantly impact or be impacted by these resources. The project would not expose people to impacts relating to geologic hazards, including fault rupture, seismic shaking, landslides, liquefaction, or subsidence.

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
Geology and Soils				
1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
a. 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? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☑	☐
b. Strong seismic ground shaking?	☐	☐	☑	☐
c. Seismic-related ground failure, including liquefaction?	☐	☐	☑	☐
d. Landslides?	☐	☐	☑	☐
2. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☑	☐

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☑	☐
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑
5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑
Mineral Resources				
1. 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?	☐	☐	☐	☑
2. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☑
Paleontological Resources				
1. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☑	☐

6.5.2 Impact Assessment Methods

CEQA Guidelines, Appendix G, was used to derive standards of significance for project impacts. The following methods were also used: investigation of local and state thresholds of significance; review of soil, aerial, and other maps; and from consulting published sources, including previous environmental impact reports.

Paleontological resource information was compiled from existing documentation form a variety of sources. Construction information from the Project Description—Chapter 1 was used to determine what activities could be expected along the existing project right-of-way. Relevant published and unpublished geologic reports, unpublished paleontological, and museum paleontological site records from the San Diego Natural History Museum's Department of Paleontology were also used. This method was followed in recognition of the direct relationship between paleontological resources and the geologic formations that entomb them. Knowing the geology of a particular area and the fossil productivity of particular formations that occur in that area make it possible to predict where fossils will, or would not, be encountered.

6.5.3 Impact Assessment Results

Project Protocols for the Miguel–Mission 230kV #2 Project include avoidance and minimization of ground disturbance, erosion, and siltation (3, 5, 6, 11, 34, and 55); erosion control awareness training (7); survey, inventory, and evaluation of known and potential paleontological resources in areas of new disturbance (15); and consultation with applicable agencies as necessary (15 and 55). Potential erosion impacts would be further reduced by implementation of BMPs. Incorporation of these Protocols would result in less than significant impacts to geology and soils, and mineral and paleontological resources. Once new pole site locations are determined and prior to construction, a further design-level geotechnical investigation would be conducted, as necessary, in areas with potential geological concerns. The electric transmission line installation would be designed and constructed to reduce the risk of damage to the facilities from geologic hazards, as well as the potential impact to soils, mineral resources, and paleontological resources.

Geology and Soils

Seismicity

Because transmission lines and substation equipment are typically designed to accommodate significant seismic events, in the event of such an earthquake, there would no impact to people or structures as a result of the project.

Generally, transmission lines and pole lines can accommodate strong ground shaking and moderate ground deformations.

Liquefaction

Liquefaction and lateral spreading resulting from a large earthquake could affect pole support structures in saturated cohesionless soils, which are most commonly observed in low-lying areas near bodies of water such as rivers, lakes, bays, and oceans underlain by recently deposited sand and/or silty sand. Potentially, the support structures could lean, thus requiring repair or replacement. All attempts would be made to avoid areas with potentially liquefiable soils and typical setbacks for river and stream crossings would be enforced, thus reducing potential impacts to a less than significant level. If pole support structures must be placed in areas potentially susceptible to liquefaction, SDG&E would conduct design-level geotechnical

investigations and determine appropriate design and construction measures (e.g., soil treatment or replacement, efficient drainage) to eliminate or minimize potential for damage.

Subsidence and Expansive Soils

As described in Section 5.5, the hydro-geologic conditions of the project area are not conducive to ground subsidence. If pole support structures would be located in areas with the potential for expansive soils, SDG&E would conduct design-level geotechnical investigations to determine appropriate measures to protect the facilities from potential damage.

Landslides

Although several areas of the project have been classified as "Most Susceptible" to landsliding, there are two locations known to have produced landslides along the existing project right-of-way. The Friars Formation on the western portion of the existing project right-of-way underlies both known sites. Although existing lines in this area have not experienced damage from landslides, SDG&E would implement Project Protocols that outline construction techniques to avoid potential risks due to landslides.

Soils

Earth-disturbing activities at the structure sites, spur roads, and staging areas would increase the soil's susceptibility to wind and water erosion. These impacts are considered less than significant with implementation of standard Project Protocols 3, 5, 6, 34, and 35. In areas where grading is required to create a level work surface, there is a risk of mixing topsoil with subsoil. Project Protocols and Proposed Mitigation Measures to reduce impacts to topsoil are included in the Biological Resources section, which recommends topsoil and plant salvage in some areas. Construction equipment may also cause soil compaction in some areas; however, implementation of Project Protocol 65 would reduce this potential impact to a level of insignificance, enhance revegetation, and reduce potential for erosion.

The construction, operation, and maintenance of the project would not require modifications or additions to its current wastewater disposal systems.

Mineral Resources

Although the Mission Substation is located immediately east of a gravel pit, gravel extraction operations would not be impacted by the project. The existing project right-of-way does not cross any known sand or gravel extraction operations or any known unique geologic features. Because construction activities would be conducted mostly in existing rights-of-way, the project would result in less than significant impacts to mineral resources.

Paleontology

Installation of new structures would affect a very small excavation area at each structure site. Footing excavations for the construction of new 230kV steel pole support structures are typically 9 feet in diameter and 20 to 40 feet deep. Footing excavations for the relocation of the

69kV/138kV line are typically 8 to 9 feet in diameter and 20 to 40 feet deep for steel pole support structures, and 3 feet in diameter and 8 to 12 feet deep for wood pole support structures. Further, these pole footing excavations would be spread over long distances, ranging from 300 feet to 3,500 feet apart. As a result of this infrequent spacing, the potential for significant adverse impact to paleontological resources resulting from pole footing excavations is limited. With implementation of Project Protocols (7 and 15), these impacts are considered less than significant. As described in these protocols, workers would be trained on methods to protect paleontological resources. If fossil remains are observed during excavation activities, work would halt until the find can be evaluated and recovered by qualified personnel (15).

6.5.4 Project Protocols

The following protocols would be implemented by SDG&E to minimize or avoid potential impacts to geology, soils, mineral resources, and paleontology from the Miguel–Mission 230kV #2 Project.

- (3) Project construction activities shall be designed and implemented to avoid or minimize new disturbance, erosion on manufactured slopes, and off-site degradation from accelerated sedimentation. Maintenance of cut and fill slopes created by project construction activities would consist primarily of erosion repair. In situations where revegetation would improve the success of erosion control, planting or seeding with native hydroseed mix may be done on slopes.
- (5) In areas where ground disturbance is substantial or where recontouring is required (e.g., marshaling yards, tower sites, spur roads from existing access roads), surface restoration would occur as required by the governmental agency having jurisdiction. The method of restoration normally would consist of returning disturbed areas to their original contour, reseeding (if required), installing cross drains for erosion control, placing water bars in the road, and filling ditches for erosion control. Erosion would be minimized on access roads and other locations primarily with water bars. The water bars would be constructed using mounds of soil shaped to direct the flow of runoff and prevent erosion. Soil spoils created during ground disturbance or recontouring shall be disposed of only on previously disturbed areas, or used immediately to fill eroded areas. However, material for filling in eroded areas in roads or road ruts should never be obtained from the sides of the road that contain habitat without the approval of the on-site biological resource monitor. Cleared vegetation would be hauled off-site to a permitted disposal location. To limit impacts to existing vegetation, appropriate sized equipment (e.g., bulldozers, scrapers, backhoes, bucket-loaders, etc.) would be used during all disturbance and recontouring activities.
- (6) Potential hydrologic impacts would be minimized through the use of BMPs, such as water bars, silt fences, staked straw bales, and mulching and seeding of all disturbed areas. These measures would be designed to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water.
- (7) Prior to construction, all SDG&E, contractor and subcontractor project personnel would receive training regarding the appropriate work practices necessary to effectively implement the Project Protocols and to comply with the applicable environmental laws and regulations, including, without limitation, hazardous materials spill prevention and response measures, erosion control, dust suppression and appropriate wildlife avoidance, impact minimization

procedures, and SWPPP BMPs. To assist in this effort, the training would address: (a) federal, state, local, and tribal laws regarding antiquities, fossils, plants, and wildlife, including collection and removal; (b) the importance of these resources and the purpose and necessity of protecting them; and (c) methods for protecting sensitive cultural, paleontological, and ecological resources.

- (11) To the extent feasible, access roads would be built at right angles to the streambeds and washes. Where it is not feasible for access roads to cross at right angles, SDG&E would limit roads constructed parallel to streambeds or washes to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on "waters of the U.S." or waters of the state. Streambed crossings and roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. Culverts would be installed where needed for right angle crossings, but rock crossings would be utilized across most right angle drainage crossings. All construction and maintenance activities would be conducted in a manner that would minimize disturbance to vegetation, drainage channels, and streambanks (e.g., towers would not be located within a stream channel, construction activities would avoid sensitive features). Prior to construction in streambeds and washes, SDG&E would perform three pre-activity surveys to determine the presence or absence of endangered riparian species. Endangered riparian species for which surveys would be performed include the least Bell's vireo, arroyo southwestern toad, and San Diego fairy shrimp. However, these site surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocols 20, 21, 42, 43, and 44. In addition, road construction would include dust-control measures (e.g., watering of construction areas to suppress dust) during construction in sensitive areas, as required. Erosion control during construction in the form of intermittent check dams and culverts should also be considered to prevent alteration to natural drainage patterns and prevent siltation.
- (15) If paleontological resources were encountered, appropriate field mitigation efforts would be implemented to protect the resources. For example, if significant resources were discovered, such as vertebrate fossils, construction would be stopped in this area while SDG&E and its designated paleontologist determine the appropriate method and schedule to recover or protect the resource. When it is not feasible to avoid paleontological sites, SDG&E would consult with the appropriate federal, state, and resource agencies and specialists to either develop alternative construction techniques to avoid paleontological resources or develop appropriate mitigation measures. Appropriate mitigation field measures may include actions such as protection-in-place by covering with earthen fill, removal, and cataloging and/or removal and relocation.
- (34) In areas where soils and vegetation are particularly sensitive to disturbance (as defined in this PEA), existing access roads would be repaired only in areas where they are otherwise impassable or unsafe.
- (38) Secure any required NPDES permit authorization from the SWRCB and/or the RWQCB to conduct construction-related activities to build the project and establish and implement SWPPP erosion control measures during construction to minimize hydrologic impacts in areas sensitive from flooding or siltation into water bodies.
- (55) An *Erosion Control and Sediment Transport Control Plan* would be included with the project grading plans submitted to San Diego County for review and comment. The sediment transport control plan would be prepared in accordance with the standards provided in the

Manual of Erosion and Sedimentation Control Measures and consistent with practices recommended by the Resource Conservation District of San Diego County. Implementation of the plan would help stabilize soil in graded areas and waterways, and reduce erosion and sedimentation. The plan would designate BMPs that would be implemented during construction activities. Erosion control efforts, such as hay bales, water bars, covers, sediment fences, sensitive area access restrictions (e.g., flagging), vehicle mats in wet areas, and retention/settlement ponds, would be installed before extensive soil clearing and grading begins. Mulching, seeding, or other suitable stabilization measures would be used to protect exposed areas during construction activities. Revegetation plans, the design and location of retention ponds, and grading plans would be submitted to the CDFG and the ACOE for review in the event of construction near waterways.

- (64) During construction, SDG&E would remove boulders uphill of structures that pose potentially high risk of landslide damage to those structures, and would position structures to span over potential landslide areas to the greatest extent feasible.
- (65) In disturbed areas where construction equipment has caused compaction of soils (e.g., staging areas, structure sites, temporary spur roads), soils would be decompacted as necessary prior to seeding and reclamation to enhance revegetation and reduce potential for erosion.

6.6 HAZARDS AND HAZARDOUS MATERIALS

6.6.1 Introduction

This section describes the potential impacts from hazards and hazardous materials related to construction, operation, and maintenance of the Miguel–Mission 230kV #2 Project. Potential impacts due to hazards and hazardous materials would be either less than significant or without impact, as described below.

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☑	☐
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☑	☐
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	☑	☐
4. Lie on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☑	☐
5. Lie 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, as a result, would it result in a safety hazard for people residing or working in the project area?	☐	☐	☑	☐

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
6. Lie within the vicinity of a private airstrip and, as a result, would it result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
8. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☑	☐

6.6.2 Impact Assessment Methods

Standards of significance were derived from the previously listed CEQA Guidelines. Field reconnaissance surveys and aerial photos helped determine the location of potential conductors for induced current, dry, fire-prone areas, and locations of hazardous materials sites.

6.6.3 Impact Assessment Results

Hazards

With the exception of certain access roads, the project would be located within SDG&E's existing right-of-way. Large permanent structures capable of capacitating induced current are typically not permitted within the right-of-way. As a result, no impacts associated with induced current are anticipated.

Montgomery Field, located approximately 1.75 mile north of the Mission Substation, is the only public airport located within 2 miles of the project. Therefore, the project would not result in a safety hazard, and would have a less than significant impact to people residing or working in the project area. Although no effect is expected on the operation of Montgomery Field airport, information about the project would be brought to the attention of the Federal Aviation Administration for a hazard determination. Furthermore, as no private airstrips located in the project area, the project would not result in a safety hazard for people residing or working in the project area.

Construction, operation, and maintenance of the project would not impair or interfere with any existing emergency response or evacuation plans. In addition, 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.

Project construction may create a temporary, short-term increase in the risk of wildland fires in unimproved areas along the right-of-way. SDG&E Project Protocol 19 would be implemented to minimize the risk of loss, injury, or death as a result of fire during construction. As a result, impacts would be less than significant.

Hazardous Materials

Construction activities for the project could cause potential, temporary, short-term hazardous materials impacts. Construction equipment would require the use of potentially hazardous materials, such as fuels, lubricating oils, and hydraulic fluid. These materials could be accidentally released during construction. SDG&E Project Protocols would be implemented to ensure the lawful and proper storage and use of these materials and to ensure prompt and effective cleanup if materials are spilled during construction. Implementation of SDG&E Project Protocol 7, 14, 16, 29, 32, and 33 would result in impacts that are less than significant.

Two schools lie within 0.25 mile of the project right-of-way; however, construction is not expected to result in impacts from hazards or hazardous materials at either site. The implementation of SDG&E Project Protocol 16, 32, and 33 with regard to hazardous materials containment, control, and transport would result in a less than significant impact to schools in the vicinity of the project.

Because no known hazardous materials sites exist within the project right-of-way, according to a CERCLA database search in March 2002, the likelihood of encountering hazardous materials is low. As a result, impacts associated with the project would be less than significant.

6.6.4 Project Protocols

The following Project Protocols would further reduce impacts to the environment due to hazards and hazardous materials.

- (7) Prior to construction, all SDG&E, contractor and subcontractor project personnel would receive training regarding the appropriate work practices necessary to effectively implement the Project Protocols and to comply with the applicable environmental laws and regulations including hazardous materials spill prevention and response measures and impact minimization procedures. To assist in this effort, the training would address: (a) federal, state, local, and tribal laws regarding antiquities, fossils, plants, and wildlife, including collection and removal; (b) the importance of these resources and the purpose and necessity of protecting them; and (c) methods for protecting sensitive cultural, paleontological, and ecological resources.
- (19) Wildfires shall be prevented or minimized by exercising care when operating utility vehicles within the right-of-way and access roads and by parking vehicles away from dry vegetation. In times of high fire hazard, it may be necessary for construction vehicles to carry

water and shovels or fire extinguishers. Fire protective mats or shields would be used during grinding or welding to prevent or minimize the potential for fire.

- (20) Brush clearing around any project facilities (e.g., towers, poles, substations) for fire protection, visual inspection or project surveying, in areas which have been previously cleared or maintained within a two-year period or shorter shall not require a pre-activity survey. In areas not cleared or maintained within a two-year period, brush clearing shall not be conducted during the breeding season (March through August) without a pre-activity survey for vegetation containing active nests, burrows, or dens. The pre-activity survey performed by the on-site biological resource monitor would make sure that the vegetation to be cleared contains no active migratory bird nests, burrows, or active dens prior to clearing. If occupied migratory bird nests are present, fire protection or visual inspection brush clearing work would be avoided until after the nesting season, or when the nest becomes inactive. If no nests are observed, clearing may proceed. Where burrows or dens are identified in the reconnaissance-level survey, soil in the brush clearing area would be sufficiently dry before clearing activities occur to prevent mechanical damage to burrows that may be present.
- (23) Firearms shall be prohibited in all project areas except for those used by security personnel.
- (29) SDG&E, its contractors and subcontractors, and their respective project personnel shall refer all environmental issues, including wildlife relocation, sick or dead wildlife, hazardous waste, or questions about environmental impacts to the on-site biological construction monitors. Experts in wildlife handling (such as Project Wildlife) may need to be brought in by the project biological construction field monitor for assistance with wildlife relocations.
- (30) Emergency repairs may be required during the construction and maintenance of the project to address situations (e.g., downed lines, slides, slumps, major subsidence, etc.) that potentially or immediately threaten the integrity of the project facilities. During emergency repairs, the Project Protocols shall be followed to the fullest extent practicable. Once the emergency has been abated, any unavoidable environmental damage would be reported to the project biological construction monitor, who would promptly submit a written report of such impacts to the USFWS and CDFG and any other government agencies having jurisdiction over the emergency actions. If required by the government agencies, the biological construction monitor would develop a reasonable and feasible mitigation plan consistent with the Project Protocols and any permits previously issued for the project by the governmental agencies.
- (32) 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.
- (33) Hazardous materials spill kits for small spills would be maintained at each substation and in construction maintenance vehicles.

6.7 HYDROLOGY AND WATER QUALITY

6.7.1 Introduction

This section describes potential impacts to hydrology and water resources as a result of the Miguel–Mission 230kV #2 Project. Impacts would occur due to temporary, short-term construction and long-term operation and maintenance activities. However, through the use of standard SDG&E Project Protocols and the observance of applicable regulations, and the implementation of BMPs, all potential impacts would be less than significant.

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Violate any water quality standards or waste discharge requirements?	☐	☐	☑	☐
2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☑
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☑	☐
4. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☑	☐

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☑	☐
6. Otherwise substantially degrade water quality?	☐	☐	☑	☐
7. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
8. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☑
9. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☑
10. Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑

6.7.2 Impact Assessment Methods

Significance Criteria

Significance criteria were derived from Appendix G of the revised CEQA Guidelines. In evaluating the significance of potential surface and groundwater quality impacts, it was assumed that SDG&E would comply with all relevant federal, state, and local regulatory requirements designed to protect surface and groundwater quality.

6.7.3 Impact Assessment Results

The potential impacts on hydrology and water quality of greatest concern involve the negative effects due to ground disturbance (erosion and sedimentation), potential storm runoff as a result of construction activities, and the use of hazardous materials.

Erosion and Sedimentation

Potential increased rates of soil erosion, resulting downstream sedimentation, and reduced surface water quality could occur due to short-term construction activities and long-term operation and maintenance activities. The construction process would include clearing, grading, and excavation work at each new or existing structure location at temporary work areas, access roads, pulling sites, and staging areas. Construction activities adjacent to ephemeral waterways have the potential to result in erosion and sediment flow into these waterways. Construction activities conducted when the ground is wet may also result in increased runoff. However, most cleared areas for each specific new pole or upgraded tower would be separated from the next cleared area by a minimum of 300 feet to a maximum of 3,500 feet. Potential erosion and increased runoff during rain events could occur on new road surfaces and construction areas and contribute to sedimentation of watercourses. Potential impacts from new road or spur road building would be localized. As noted in 5.7, pursuant to the federal CWA and California's Porter-Cologne Water Quality Control Act, SDG&E would obtain coverage under the SWRCB's General Permit for stormwater discharges associated with construction activity. Prior to initiating construction, a Notice of Intent (NOI) would be submitted to the SWRCB for coverage under the General Permit. Under the General Permit, SDG&E would implement a SWPPP, which would include:

- specifications for best management practices (BMPs) that would be implemented during project construction to minimize the potential for accidental releases and to minimize runoff from the construction areas, including storage and maintenance areas, and building materials laydown areas;

- a plan for communicating appropriate work practices to field workers; and

- a plan for monitoring, inspecting, and reporting any release of hazardous materials.

With implementation of Project Protocols and the BMPs contained in the SWPPP, the potential for impacts to water quality as a result of erosion and sedimentation would be reduced to less than significant.

During construction, the San Diego RWQCB oversees and inspects projects utilizing SWRCB NPDES stormwater permits.

Groundwater Withdrawal

Groundwater supplies and recharge would not be impacted because no removal or addition of groundwater is involved with the project.

Stormwater Runoff

Grading of new spur roads at various pole locations would require the removal of vegetation and disturbance to the soil surface, resulting in a possible reduction in the infiltration and absorption capacity of the affected areas. However, the project would not involve any paving or significant changes of grade. Tower or pole sites and temporary construction areas would also be graded.

Construction of new 230kV or 69kV/138kV pole support structures, upgrades to existing 230kV steel lattice tower structures and spur roads, modifications to substations, and associated clearing and grading would not significantly alter existing drainage patterns or result in substantial erosion or siltation, runoff, or flooding on- or off-site. The new wood or steel pole support structures would be widely spaced and occupy only small areas. Therefore, the project would not be expected to significantly impede or redirect runoff flows.

By implementing Project Protocols, and the SWPPP and BMPs noted in the above Erosion and Sedimentation subsection, the potential for hydrologic and water quality impacts as a result of stormwater runoff would be minimized a level of insignificance.

Flooding, Seiche, Tsumani, and Mudflow

Because the project does not involve housing, there would be no impacts associated with flooding of residences, including exposure of people or structures to a significant risk of loss, injury, or death involving flooding. The project is not located in an area where people or structures may be exposed to a seiche, tsunami, or mudflow.

Hazardous Materials

Potential, temporary, short-term impacts to surface water and groundwater quality could occur during construction on access roads, at structure locations, and at pulling sites/staging areas by: 1) an accidental release of diesel fuel, gasoline, lubrication oil, hydraulic fluid, antifreeze, transmission fluid, or lubricating grease from a vehicle or construction equipment; or 2) from a release of materials during concrete preparation or placing of the steel pole foundations. Such spills could wash into nearby drainages or infiltrate into the soil and surface or groundwater quality could be degraded. These potential, temporary, short-term indirect impacts would be minimized given compliance with applicable federal, state, and local laws and the proper implementation of the Project Protocols listed at the end of this section.

6.7.4 Project Protocols

The following operation protocols would be implemented by SDG&E to minimize impacts to water quality on the project.

- (6) Potential hydrologic impacts would be minimized through the use of BMPs, such as water bars, silt fences, staked straw bales, and mulching and seeding of all disturbed areas. These measures would be designed to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water.
- (11) To the extent feasible, access roads would be built at right angles to the streambeds and washes. Where it is not feasible for access roads to cross at right angles, SDG&E would limit roads constructed parallel to streambeds or washes to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on “waters of the U.S.” or waters of the state. Streambed crossings and roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. Culverts would be installed where needed for right angle crossings, but rock crossings would be utilized across

most right angle drainage crossings. All construction and maintenance activities would be conducted in a manner that would minimize disturbance to vegetation, drainage channels and stream banks (e.g., towers would not be located within a stream channel, construction activities would avoid sensitive features). Prior to construction in streambeds and washes, SDG&E would perform three pre-activity surveys to determine the presence or absence of endangered riparian species. Endangered riparian species for which surveys would be performed include the least Bell's vireo, arroyo southwestern toad, and San Diego fairy shrimp. However, these site surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocols 20, 21, 42, 43, and 44. In addition, road construction would include dust-control measures (e.g., watering of construction areas to suppress dust) during construction in sensitive areas, as required. Erosion control during construction in the form of intermittent check dams and culverts should also be considered to prevent alteration to natural drainage patterns and prevent siltation.

- (16) Hazardous materials would not be disposed of or released onto the ground, the underlying groundwater, or any surface water. Totally enclosed containment would be provided for all trash. All construction waste, including trash and litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials, would be removed to a hazardous waste facility permitted or otherwise authorized to treat, store, or dispose of such materials.
- (35) To minimize ground disturbance impacts to streams in steep canyon areas, access roads in these areas would avoid streambed crossings to the extent feasible. Where it is not feasible for access roads to avoid streambed crossings in steep canyons, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, SDG&E would limit roads constructed parallel to streambeds to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on "waters of the U.S." Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB.
- (38) Secure any required NPDES permit authorization from the SWRCB and/or the RWQCB to conduct construction-related activities to build the project and establish and implement SWPPP erosion control measures during construction to minimize hydrologic impacts in areas sensitive from flooding or siltation into waterbodies.
- (39) To the extent feasible, where the construction of access roads would disturb sensitive features, the route of the access road would be adjusted to avoid such impacts. Examples of sensitive features include, without limitation, cultural sites, identified habitats of endangered species, and streambeds. As another alternative, construction and maintenance traffic would use existing roads or cross-country access routes (including the right-of-way), which avoid impacts to the sensitive feature. To minimize ground disturbance, construction traffic routes must be clearly marked with temporary markers, such as easily visible flagging. Construction routes, or other means of avoidance, must be approved by the authorized officer or landowner before use. When it is not feasible to avoid constructing access roads in sensitive habitats, SDG&E would perform three site pre-activity surveys to determine the presence or absence of endangered or threatened species, or species of special concern, in those sensitive habitats. SDG&E would submit results of those surveys to the USFWS and CDFG in accordance with its NCCP and consult on reasonable and feasible mitigation measures for potential impacts, prior to access road construction. However, these pre-activity surveys

would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocols 20, 21 42, 43, and 44. Where it is not feasible for access roads to avoid streambed crossings in steep canyons, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, SDG&E would limit roads constructed parallel to streambeds, to a maximum length of 500 feet at any, one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on Waters of the U.S. Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG and RWQCB. When it is not feasible to avoid cultural sites, SDG&E would consult with the appropriate federal, state SHPO and local (indigenous Native American tribes) cultural resource agencies and specialists to either develop alternative construction techniques to avoid cultural resources or develop appropriate mitigation measures. Appropriate mitigation measures may include actions such as removal and cataloging and/or removal and relocation.

- (40) To minimize ground disturbance and/or reduce scarring (visual contrast) of the landscape, the alignment of any new access roads (i.e., bladed road) or cross-country route (i.e., unbladed route) would follow the landform contours in designated areas to the extent feasible, providing that such alignment does not additionally impact sensitive features (e.g., riparian area, habitat of sensitive species, cultural site). To the extent feasible, new access roads shall be designed to be placed in previously disturbed areas and areas that require the least amount of grading in sensitive areas. Whenever feasible, in areas where there are existing access roads, preference shall be given to the use of new spur roads rather than linking facilities tangentially with new, continuous roads. Where it is infeasible to locate roads along contours, or in previously disturbed areas, or use spur roads to limit grading, the revegetation/seeding plans for the Project would incorporate plant species in areas adjacent to access roads that are capable of screening the visual impacts of the roads.
- (41) In areas designated as sensitive by SDG&E or the resource agencies (refer to description in Chapter, Environmental Impacts) to the extent feasible structures and access roads would be designed to avoid sensitive features and/or to reduce visual contrast. These areas of sensitive features include, but are not limited to high- value wildlife habitats and cultural sites, and/or to allow conductors to clearly span the features, within limits of standard tower or pole design (also refer to Protocol 52 for avoidance of sensitive water resource features). If the sensitive features cannot be completely avoided, poles and access roads would be placed to minimize the disturbance to the extent feasible. When it is not feasible to avoid constructing poles or access roads in high value wildlife habitats, SDG&E would perform three site surveys to determine presence or absence of endangered species in those sensitive habitats. SDG&E would submit results of those surveys to the USFWS and CDFG in accordance with its NCCP and consult on mitigation measures for potential impacts, prior to constructing poles or access roads. However, these site surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocols 20, 21 42, 43, and 44. Where it is not feasible for access roads to avoid sensitive water resource features, such as streambed crossings, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, roads constructed parallel to streambeds would be limited to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on “waters of the U.S.” Streambed crossings or roads constructed

parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. When it is not feasible for poles or access roads to avoid cultural sites, SDG&E would consult with the appropriate federal and state SHPO and local (indigenous Native American tribes) cultural resource agencies and specialists to either modify the project or develop alternative construction techniques to avoid cultural resources or develop appropriate mitigation measures. Appropriate mitigation measures may include actions such as data recovery studies, cultural resource removal and cataloging, and/or cultural resource removal and relocation.

- (52) To the extent feasible, design structure locations to avoid wetlands, streams and riparian areas. These sensitive water resource features include riparian areas, habitats of endangered species, streambeds, cultural resources, and wetlands. If these areas cannot be avoided, a qualified biological contractor shall conduct site-specific assessments for each affected site. These assessments shall be conducted in accordance with ACOE wetland delineation guidelines, as well as CDFG streambed and lake assessment guidelines, and shall include impact minimization measures to reduce wetland impacts to a less than significant effect (e.g., creation and restoration of wetlands). Though construction or maintenance vehicle access through shallow creeks or streams is allowed, staging/storage areas for equipment and materials shall be located outside of riparian areas. Construction of new access through streambeds that require filling for access purposes would require a Streambed Alteration Agreement from CDFG and/or consultation with the ACOE. Where filling is required for new access, the installation of properly sized culverts and the use of geotextile matting should be considered in the CDFG/ACOE consultation process.
- (55) An *Erosion Control and Sediment Transport Control Plan* would be included with the project grading plans submitted to San Diego County for review and comment. The sediment transport control plan would be prepared in accordance with the standards provided in the Manual of Erosion and Sedimentation Control Measures and consistent with practices recommended by Resource Conservation District of San Diego County. Implementation of the plan would help stabilize soil in graded areas and waterways, and reduce erosion and sedimentation. The plan would designate BMPs that would be implemented during construction activities. Erosion control efforts, such as hay bales, water bars, covers, sediment fences, sensitive area access restrictions (e.g., flagging), vehicle mats in wet areas, and retention/settlement ponds, would be installed before extensive soil clearing and grading begins. Mulching, seeding, or other suitable stabilization measures would be used to protect exposed areas during construction activities. Revegetation plans, the design and location of retention ponds, and grading plans would be submitted to the CDFG and ACOE for review in the event of construction near waterways.

6.8 LAND USE, PLANNING, RECREATION, AND AGRICULTURAL RESOURCES

6.8.1 Introduction

This section describes the potential impacts to land use, planning, recreation, and agricultural resources as a result of construction activities in the Miguel–Mission 230kV #2 Project area. The project would neither conflict with existing land use policies nor adversely affect existing land use, planning, recreation, or agricultural resources.

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Physically divide an established community?	☐	☐	☐	☑
2. Conflict 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?	☐	☐	☐	☑
3. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑
4. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
5. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☑

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
6. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☑
7. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
8. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☑

6.8.2 Impact Assessment Methods

Potential impacts were identified via a review of general plans and land use maps and the MSCP.

6.8.3 Impact Assessment Results

Construction

Land Use and Planning

With the exception of certain potential access roads, the project would be located within an existing SDG&E right-of-way, so it would not displace any existing facilities or physically divide an established community. As a result, there would be no impact.

Pursuant to Article XII, Section 8, of the California Constitution, the CPUC has exclusive jurisdiction, in relation to local government, to regulate the design, site, installation, operation, maintenance, and repair of electric transmission facilities. Other state agencies have concurrent jurisdiction with the CPUC. Although local governments do not have the power to regulate such activities, the CPUC encourages, and SDG&E participates in, cooperative discussions with affected local governments to address their concerns where feasible.

The local plans of jurisdictional agencies do not contain specific policies regarding electric transmission lines. As a result, the project is not inconsistent with any plans, policies, or regulations.

The project would be consistent with the San Diego MSCP. With the exception of certain access roads, the project would be located within an existing SDG&E right-of-way. The project would be designed and sited to avoid and minimize effects to sensitive habitat. SDG&E anticipates that new access and spur roads, poles, or temporary construction areas would be within or in proximity to the existing disturbed right-of-way. As a result, the project would not conflict with or negatively impact applicable environmental conservation plans.

Recreation

The project would neither affect the use of or demand for existing parks and recreation facilities nor require the construction or expansion of recreational facilities. Although the existing project right-of-way crosses the Mission Trails Regional Park, Santee Lakes Regional Park and Campground, and runs adjacent to Louis A. Stelzer County Park and Lake Jennings County Park, no parks would be closed as a result of construction. However, some trails could be subject to short-term, temporary closure during construction.

Agricultural Resources

The project would not affect designated Farmland, conflict with zoning or Williamson Act contracts, nor result in the conversion of Farmland to other uses. Because the project would not cross Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, none of these lands would be converted to a non-agricultural use. While some existing (but not zoned) agricultural lands may be affected by the placement of utility structures or for temporary construction use, no designated Farmland would be affected. The project would not cross any land zoned for agricultural use, nor would it cross any Williamson Act contract parcels, therefore, there would be no impacts to these lands.

Operations

The occasional maintenance and routine inspections would be significantly increased from the existing practices required for the existing lines. As a result, the project would not affect land use and planning, recreation, or agricultural resources.

6.8.4 Project Protocols

SDG&E has proposed the following measures to reduce potential land use impacts.

- (18) To the extent feasible, transmission line facilities (e.g., transmission right-of-way, access roads, tower sites, and other facilities) would be designed to avoid or minimize impact to agricultural land operations and production. Where project facilities cannot be relocated or redesigned to avoid impacts to agricultural lands or operations, SDG&E would pay compensation to owners of agricultural lands where those lands or operations are permanently impacted (i.e., removed from practical use) by project facilities.
- (37) All new access roads constructed as part of the project that are not required as permanent access for future project maintenance and operations would be permanently closed. Where required, roads would be permanently closed using the most effective feasible and least environmentally damaging methods appropriate to that area with the concurrence of

the underlying landowner and the governmental agency having jurisdiction (e.g., stock piling and replacing topsoil or rock). This would limit new or improved accessibility into the area. Mowing of vegetation can be an effective method for protecting the vegetative understory, while at the same time creating access to the work area. Mowing should be used when permanent access is not required since, with time, total revegetation is expected. If mowing is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential, it should be recognized that periodic mowing would be necessary to maintain permanent access. The project biological construction monitor shall conduct checks on mowing procedures to ensure that mowing for temporary or permanent access roads is limited to a 12-foot-wide area on straight portions of the road (slightly wider on turns), and that the mowing height is no less than 4 inches from the finished grade.

- (45) To the extent feasible, project facilities would be installed along the edges or borders of private property, open space parks, and recreation areas. When it is not feasible to locate project facilities along property borders, SDG&E would consult with affected property owners to identify facility locations that create the least potential impact to property and are mutually acceptable to property owners. When SDG&E cannot mutually resolve facility locations with property owners, SDG&E would pay just compensation to those property owners based on the facility locations identified by SDG&E.
- (46) To the extent feasible during final engineering design, coordinate the installation location of the project facilities line with landowners and/or the government agency having jurisdiction and/or the local government having an interest in the location of the facilities. When SDG&E cannot resolve facility locations in coordination with affected property owners that create the least potential impact to property and that are mutually acceptable to property owners, SDG&E would pay just compensation to those property owners based on the facility locations identified by SDG&E.
- (50) Where necessary to avoid significant protected environmental land use impacts, limit potential visual impacts and reduce the footprint of structures, use single-pole steel support structures in place of steel lattice tower structures.

6.9 NOISE

6.9.1 Introduction

This section describes the potential noise impacts resulting from the construction, operation and maintenance of the Miguel–Mission 230kV #2 Project. Construction of the project would result in potential, temporary, short-term impacts to local noise levels. These impacts are not expected to violate city, county, state, or federal noise standards or to substantially increase noise levels above the existing noise setting. Long-term operation and maintenance of the project is expected to have no significant impacts to existing ambient noise levels.

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Result in 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?	☐	☐	☑	☐
2. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☑	☐
3. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
5. Lie 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, as a result, would it expose people residing or working in the project area to excessive noise levels?	☐	☐	☑	☐
6. Lie in the vicinity of a private airstrip, and, as a result, would it expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

6.9.2 Definition and Use of Significance Criteria

Standards of significance were derived from Appendix G of the CEQA Guidelines. Impacts to noise levels would be significant if they resulted in any of the following:

- Exposure of persons to or generation of noise levels in excess of federal, state, county and local agency standards
- Exposure of persons to or generation of excessive groundborne vibration or ground-borne noise levels
- A substantial temporary or permanent increase in ambient noise levels in the project vicinity above levels existing without the project

6.9.3 Construction Impacts

Construction Noise

San Diego County sets no specific noise level limits for construction activities occurring within normal working hours (usually between 7:00 a.m. and 6:00 p.m.). It does, however, emphasize that construction operations should use available noise-suppression devices and techniques to minimize disturbance to nearby businesses and residences. In general, comprehensive significance criteria for temporary construction-related noise have not been established. The county does set a maximum limit of 75 dBA for an 8-hour work period. The San Diego County General Plan states "construction equipment cannot be operated to cause a noise level in excess of 75 dB for more than 8 hours during any 24-hour period in or near residential areas." Construction activities are not expected to exceed the maximums set for the county.

Construction activities would require the use of various noise-generating construction equipment. Equipment used to construct the project may include bulldozers, graders, backhoes, drill rigs, truck-mounted augers, flatbed trucks, boom trucks, rigging and mechanic trucks, air compressors and generators, small-wheeled cranes, concrete trucks, pole trailers, man lifts, and crew trucks. Stringing operations would require pullers, tensioners, and wire reel trailers. Helicopters may be used to string the sock line and to install pole or tower support structures where other access to pole and tower sites is unavailable. The Mission and Miguel Substations modifications would require the operation of backhoes, drill rigs, concrete trucks, flatbed trucks, crew trucks, cranes, man lifts, portable-welding units, line trucks, and mechanic trucks. All equipment used on the project would generate temporary, short-term additional noise. The stationary and earth-moving equipment proposed for use can produce noise levels ranging from approximately 69 dBA to 96 dBA from a distance of 50 feet (depending on the equipment in use). Table 6-11 lists the typical noise levels generated by some of the construction equipment that would be used on the project. Its data were adapted by Wilson, Ihrig & Associates, Inc. from Edward Magrab's *Environmental Noise Control*.

At structure sites where solid rock is encountered, additional equipment would be required to remove the rock from the desired excavation. This could include rock hauling equipment or blasting. Rock coring and blasting may be required to excavate to the required depths. Construction activities at the Los Coches and Miguel Substations and at Fanita Junction may require blasting to achieve the desired excavations. Appropriate construction controls during blasting would be specified to reduce potential noise impacts during blasting activities.

Table 6-11: Typical Noise Levels of Construction Equipment

Equipment	Noise Level (A-weighted sound level) Range at 50 Feet
Earth-moving	
Front loader	72–84
Backhoe	72–93
Tractor, dozer	76–96
Scraper, grader	80–93
Paver	86–88
Truck	82–94
Materials-handling	
Concrete mixer	75–88
Concrete pump	81–83
Crane (movable)	75–86
Crane (derrick)	86–88
Forklift	76–82
Stationary	
Pump	69–71
Generator	71–82
Compressor	74–86
Drill rig	70–85

Noise levels generally drop by approximately 6 dBA with each doubling of distance from the source. Therefore, for a piece of equipment generating a noise level of 85 dBA at 50 feet, noise levels would drop to 73 dBA at 200 feet (the minimum estimated distance from most sensitive noise receptors), which is below the 75 dBA county standard for 8 hours. For those land uses not greater than 200 feet, some temporary, short-term impact could occur.

A helicopter may be used during construction to access remote pole sites, or during stringing operations to install the initial sock line that would be used to pull back conductor. Helicopter(s) may be used during construction. This aircraft can generate noise typically from 80 to 87 dBA. Temporary noise impacts could occur near noise-sensitive receptors, such as residences, schools,

and hospitals located near the project, where activities may expose receptors to higher noise levels.

The duration of helicopter activity at any location would be temporary and short term, and would be limited to the hours of 7:00 a.m. and 7:00 p.m. Helicopter use at staging/landing sites could expose sensitive receptors to repeated episodes of elevated noise levels. Helicopter activities would be staged out of existing airports where possible, and helicopter landing/staging areas along the existing project right-of-way would be located away from residences and other land uses (generally at least 1mile from sensitive noise receptors).

Of the four public airports in the general project area, only Montgomery Field regional airport lies within 2 miles of the existing project right-of-way. Temporary, short-term noise generated from construction of the project is not expected to contribute significantly to elevated noise levels from aircraft operating in the area, and would not expose people residing or working in or in the vicinity of the project area to excessive noise levels. No private airstrips are located in the vicinity of the project area.

While noise generated during construction may affect some individuals in the vicinity of the existing project right-of-way, construction-related noise is temporary and short term in nature, and would return to preconstruction levels at the end of each workday and at the completion of construction. Construction of the project would not result in a permanent increase in ambient noise levels. Therefore, construction of the project with regard to noise would result in a less than significant impact.

Vibration

Vibration from earth-moving and transport equipment may be perceptible to residents in nearby areas. Vibration effects would be temporary and short term and would cease at the end of each workday and upon completion of construction. Although San Diego County has established limits on groundborne vibration impacts, the San Diego County Zoning Ordinance exempts vibration due to short-term, temporary construction from these limits. Vibration due to construction activities would not result in a significant impact.

6.9.4 Operational Impacts

Corona Effect

Corona is the term used to describe the partial electrical breakdown that results in a transformation of electrical energy into small amounts of sound, radio noise, light, and heat. The extent to which corona occurs is dependent upon the degree of the voltage gradient surrounding energized conductors or hardware. If the conductors or hardware are highly energized, the breakdown strength of the air is exceeded, and electricity is discharged in the forms listed above. The voltage gradient, and resulting corona effect is increased by contact with particles such as water droplets and insects. This contact is enhanced by any inconsistencies or cuts in the metal surface of the line itself. Corona discharge can be minimized to some extent in the design phase, by increasing the size of the conductor, by using bundled phase conductors, or by increasing the phase spacing.

The audible noise (corona effect) created by the operation of the new 230kV circuit of the project may result in a minimal, incremental increase in existing ambient noise levels, specifically during foul weather conditions associated with fog and/or rain. The new circuit would be designed to further minimize the level of audible noise generated; see Section 6.9.6. Simulations were performed at representative worst-case scenario segments of the project route using the Bonneville Power Authority (BPA) method for predicting audible noise from conductor corona (see Table 6-12). The levels of audible noise resulting from these calculations show the project to be in compliance with the audible noise requirements detailed in Section 5.9, even in the event of foul weather (i.e., rainy) conditions. The project would not result in a long-term, continuous, substantial or permanent increase in noise levels.

6.9.5 Other Operational Noise

Other potential sources of noise from operation and maintenance of the project include routine inspection and maintenance of the transmission lines and substations. Helicopter and/or ground-based inspections of the lines would occur annually at a minimum, with possible emergency maintenance when required. Regular inspection of the lines would occur according to ISO requirements. Routine operations visits to the Miguel and Mission Substations would require one visit per week by one to two workers in a light utility truck, and approximately six visits per year by a two-to-four person maintenance crew. Finally, a substation maintenance crew of 20 personnel would be required once per year, for a week of inspection work. Due to their infrequent nature, routine inspection and maintenance of the transmission lines and substations would have an insignificant effect on ambient noise levels.

Table 6-12: Noise Calculations

Case No.	Line Section	Edge of Right-of-way	Audible Noise		Radio Noise 1 Megahertz (MHz)		TVI 75 MHz
			L50 (rain) A-weighted sound level (dBA)	L50 (fair) dBA	L50 (rain) decibels per microvolt /meter (dBuV/m)	L50 (fair) dBuV/m	Rain dBuV/m
01	A2	West	34.7	9.7	51.1	34.1	11.0
		East	31.9	6.9	39.5	22.5	1.7
04	B1	West	35.2	10.2	53.0	36.0	12.1
		East	33.7	8.7	49.1	32.1	7.3
15	B2	West	35.4	10.4	53.1	36.1	12.2
		East	33.1	8.1	44.1	27.1	3.7
07	E	South	35.8	10.8	53.1	36.1	12.2
		North	34.1	9.1	47.5	30.5	6.4
10	F2	Southeast	28.7	3.7	38.8	21.8	2.2
		Northwest	31.8	6.8	46.3	29.3	6.9
13	F6	South	33.8	8.8	39.5	22.5	5.3
		North	40.7	15.7	62.6	45.6	20.4

6.9.6 Project Protocols

Noise from the temporary, short-term construction activities and the long-term operation and maintenance of the proposed project is not expected to result in a significant impact. However, the following Project Protocols would be implemented to further reduce the potential for impacts due to increased noise.

- (8) SDG&E would respond to third-party complaints of radio or television interference generated by operation of the transmission line by investigating the complaints and by implementing feasible and appropriate measures. As part of SDG&E's repair inspection and maintenance program, the transmission line would be patrolled and damaged insulators or

other transmission line materials, which could cause interference, would be repaired or replaced.

- (9) Bundled configuration conductors would be used on the 230kV circuit and relocated 69kV and 138kV lines to limit the audible noise, radio interference, and television interference due to corona. Caution would be exercised during construction to try to avoid scratching or nicking the conductor surface, which may provide points for corona to occur. In addition to the bundled configuration conductors, special hardware design-would be used to limit corona potential.
- (60) To the extent feasible, unnecessary construction vehicle and idling time would be minimized. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warmup times that limit their availability for use following startup. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The project would apply a “common sense” approach to vehicle use; if a vehicle is not required for use immediately or continuously for construction activities, its engine would be shut off. Construction foremen would include briefings to crews on vehicle use as a part of preconstruction conferences. Those briefings would include discussion of a “common sense” approach to vehicle use.

6.10 POPULATION AND HOUSING

6.10.1 Introduction

This section describes potential project-related impacts to population and housing in the Miguel–Mission 230kV #2 Project area. The project is proposed to reduce transmission constraints on the SDG&E system, and would have a net economic benefit to both local and statewide ratepayers. The project would not substantially induce population growth or significantly displace people and existing housing.

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☑
2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

6.10.2 Impact Assessment Methods

Standards of significance were derived from Appendix G of the CEQA Guidelines.

6.10.3 Impact Assessment Results

Construction

Construction activities would primarily occur within or adjacent to the existing right-of-way and approved work areas for approximately 24 months. No residences or businesses would be permanently displaced as a result of project construction.

SDG&E would employ approximately 25 to 35 workers throughout the construction period. It is anticipated that the majority of workers would come from the San Diego area, with the possible exception of some outside contract labor. With temporary housing (e.g., motel, hotels, apartments, etc.) readily available, the project would not adversely affect existing housing, therefore, the project would not cause a demand for housing that could not be accommodated by existing temporary housing in the project area.

Operations

Because the project would not require additional employees for operation, and would not displace existing residences or businesses, the project would not result in impacts to population or housing in the project area.

6.10.4 Project Protocols

Because the potential, temporary, short-term construction and long-term operation and maintenance of the project would not result in any impacts to population and housing, no project protocols are required.

6.11 PUBLIC SERVICES, UTILITIES, AND SERVICE SYSTEMS

6.11.1 Introduction

This section describes potential project-related impacts for public services, utilities, and service systems in the Miguel–Mission 230kV #2 Project area. The project is proposed to reduce transmission constraints on the SDG&E system and would have a net economic benefit to both local and statewide ratepayers. Though planned outages may be required during construction of the project, SDG&E would schedule such outages with the CAISO to ensure that the project would not interrupt or conflict with the existing public services, utilities, and local service systems services. However, SDG&E is committed to implementing BMPs during construction, operation, and maintenance to minimize disturbance to public services, utilities, and service systems to a less than significant level.

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
1. Result 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:				
e. Fire protection?	☐	☐	☐	☑
f. Police protection?	☐	☐	☐	☑
g. Schools?	☐	☐	☐	☑
h. Parks?	☐	☐	☐	☑
i. Other public facilities?	☐	☐	☐	☑
2. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☑

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
4. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☑	☐
5. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☑
6. Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑
7. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
8. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☑

6.11.2 Impact Assessment Methods

Standards of significance were derived from Appendix G of the CEQA Guidelines to assess the level of impact of the project to the relevant public services, utilities, and service systems.

6.11.3 Impact Assessment Results

Construction

Construction of the project would not result in any short- or long-term impacts to public services or utilities. However, the project would have a net, long-term benefit with regard to reducing transmission constraints.

Construction of the project may require planned outages. However, SDG&E would schedule such outages with the CAISO to ensure that the project would not interrupt or conflict with the existing public services, utilities, and local service systems services. A temporary shutdown of the SDG&E transmission line would not affect power supplied to the region because of the existence of a loop system that provides alternate feeds to the same area, allowing one line to be shut down while the alternate feed continues providing power.

Although the existing project right-of-way travels in the vicinity of a number of public facilities, including schools, hospitals, and parks, construction impacts would be short-term and temporary and would not affect the operations of these facilities. As a result, impacts would not be significant.

The project construction, maintenance and operation activities would not result in a significant increase in stormwater runoff from the site, therefore it would not require the construction of new stormwater drainage facilities or the expansion of existing facilities. With the application of implementation of Project Protocols and with the SDG&E's SWPPP and BMPs, potential stormwater runoff impacts of the project to the environment as a result of stormwater runoff are expected to be less than significant.

Sufficient sources of potable water are available are available to supply SDG&E's dust and fire suppressant activities, and for crew consumption during construction. Therefore, project construction would not tax existing local water supplies.

A small amount of wastewater may be collected as a result of project construction activities (primarily from dewatering) and would be managed in accordance with all federal, state and local laws. The lawful discharge of wastewaters would not exceed wastewater treatment requirements established by the RWQCB, and wastewater facilities would not be impacted.

Operations

Operation of the project would result in a net benefit to public services, utilities, and service systems by increasing transmission capacity in the area. The project would neither affect utility service to customers nor require service from police, fire, or waste or wastewater treatment beyond existing needs. The project would not result in permanent impacts to parks, schools, or hospitals because it lies within existing rights-of-way.

6.11.4 Project Protocols

The following protocols would be implemented by SDG&E to minimize or avoid potential impacts to public services, utilities, and service systems from the Miguel–Mission 230kV #2 Project.

- (3) Project construction activities shall be designed and implemented to avoid or minimize new disturbance, erosion on manufactured slopes, and off-site degradation from accelerated sedimentation, and to reduce maintenance and repair costs. Maintenance of cut and fill slopes created by project construction activities would consist primarily of erosion repair. In situations where revegetation would improve the success of erosion control, planting or seeding with native hydroseed mix may be done on slopes.
- (5) In areas where ground disturbance is substantial or where recontouring is required (e.g., marshaling yards, tower sites, spur roads from existing access roads), surface restoration would occur as required by the governmental agency having jurisdiction. The method of restoration normally would consist of returning disturbed areas to their original contour, reseeding (if required), installing cross drains for erosion control, placing water bars in the road and filling ditches for erosion control. Erosion would be minimized on access roads and other locations primarily with water bars. The water bars would be constructed using mounds of soil shaped to direct the flow of runoff and prevent erosion. Soil spoils created during ground disturbance or recontouring shall be disposed of only on previously disturbed areas, or used immediately to fill eroded areas. However, material for filling in eroded areas in roads or road ruts should never be obtained from the sides of the road that contain habitat without the approval of the on-site biological resource monitor. Cleared vegetation would be hauled off-site to a permitted disposal location. To limit impact to existing vegetation, appropriately sized equipment (e.g., bulldozers, scrapers, backhoes, bucket-loaders, etc.) would be used during all ground disturbance and recontouring activities.
- (6) Because SDG&E would ensure that the proximity (within or adjacent) of the project with established conservation areas complies with the conservation measures established for these areas, the project would not conflict with adopted HCPs, NCCPs, or other conservation plans; therefore, no impacts are expected
- (7) Prior to construction, all SDG&E, contractor and subcontractor project personnel would receive training regarding the appropriate work practices necessary to effectively implement the Project Protocols and to comply with the applicable environmental laws and regulations including, without limitation, hazardous materials spill prevention and response measures, erosion control, dust suppression and appropriate wildlife avoidance, impact minimization procedures, and SWPPP BMPs. To assist in this effort, the training would address: (a) federal, state, local, and tribal laws regarding antiquities, fossils, plants and wildlife, including collection and removal; (b) the importance of these resources and the purpose and necessity of protecting them; and (c) methods for protecting sensitive cultural, paleontological, and ecological resources.
- (16) Hazardous materials would not be disposed of or released onto the ground, the underlying groundwater, or any surface water. Totally enclosed containment would be provided for all trash. All construction waste, including trash and litter, garbage, other solid waste, petroleum products and other potentially hazardous materials, would be removed to a

hazardous waste facility permitted or otherwise authorized to treat, store, or dispose of such materials.

- (32) 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.
- (33) Hazardous materials spill kits for small spills would be maintained at each substation and in construction maintenance vehicles.

- (38) Secure any required NPDES permit authorization from the SWRCB and/or the RWQCB to conduct construction-related activities to build the project and establish and implement SWPPP erosion control measures during construction to minimize hydrologic impacts in areas sensitive from flooding or siltation into waterbodies.
- (66) Underground Service Alert would be notified a minimum of 48 hours in advance of earth-disturbing activities to identify buried utilities.

6.12 TRANSPORTATION AND TRAFFIC

6.12.1 Introduction

This section describes potential impacts to transportation and traffic as a result of the Miguel–Mission 230kV #2 Project. The project would neither conflict with existing transportation policies nor result in hazards to safety from design features or incompatible uses. Although construction activities could have temporary, short-term effects on existing traffic conditions, all potential transportation or traffic impacts would be less than significant.

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
1. 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, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☑	☐
2. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☑
3. 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 risks?	☐	☐	☑	☐
4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
5. Result in inadequate emergency access?	☐	☐	☐	☑
6. Result in inadequate parking capacity?	☐	☐	☐	☑
7. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☑

6.12.2 Impact Assessment Methods

Standards of significance were derived from Appendix G of the CEQA Guidelines. The San Diego County General Plan and SANDAG's 2020 Regional Transportation Plan were reviewed for local transportation policies. Project-related traffic numbers are based upon similar SDG&E projects.

6.12.3 Impact Assessment Results

Construction

Traffic Congestion

Traffic related to the construction of the project would be short term, temporary, and would not result in a substantial increase in existing traffic load. Construction traffic would occur throughout the day, and would not be concentrated during the peak hours. Construction traffic would include delivery of project materials, and specialized construction and crew trucks traveling to and from the pulling sites, staging areas, and substation locations.

Construction activities would involve fewer than 100 vehicle trips per day during the peak of construction. Projected level of project-related traffic is negligible when added to the existing daily traffic on freeways and arterial roadways, and would not exceed the established level of service standard for roads in the project area. Therefore, potential traffic impacts would be temporary, short term, and less than significant.

The Miguel and Mission Substations would be unmanned. Occasional maintenance and routine inspections would be required along the line and at the substations. It is anticipated that maintenance would require approximately six trips per year by a two- to four-person crew. Routine operations traffic consists of a light utility truck visiting the substations on a weekly basis. Typically, once per year a major maintenance inspection would take place requiring about 10 vehicles for one week. Because traffic generated during operation and maintenance of the project would be minimal, the project would not impact traffic levels.

Air traffic could potentially increase in certain areas where the construction contractor may choose to perform some or all of the structure erection activities with a helicopter. However, air traffic patterns are unlikely to be affected. Use of a helicopter for structure erection would be driven by various factors, including access to the structure locations, construction schedule, and/or construction economics. If utilized, helicopter construction activities would be based at existing project-material staging areas and would be coordinated with local air traffic control. Therefore, temporary, short-term impacts to air traffic patterns would be less than significant. If helicopters are not used, the project would not affect air traffic.

Transit and Rail Service

As noted in Section 5.12, the existing project right-of-way crosses several public transit routes but no railroads. Construction, operation, and maintenance of the project would not interfere with the operation of either passenger transit because no roadways would be closed. Because no railroads are crossed, freight or passenger services would not be affected.

Hazards

The project does not involve any design hazards or incompatible uses related to transportation. Therefore, there would be no temporary or permanent impacts.

Emergency Access

Access for emergency vehicles would be maintained throughout project construction. SDG&E project construction activities may require temporary road closures. In these cases, appropriate traffic control plans would be followed, and permits would be obtained from the relevant authority/authorities. Therefore, the project would not result in an adverse impact to emergency access.

Parking

Project personnel would park in designated areas and SDG&E's staging facilities. Construction workers would be encouraged to carpool to the job site if suitable park-and-ride facilities are available in the project vicinity. The project's short term, temporary construction activities would not displace any existing parking capacity; therefore, the project would have no impact on parking.

6.12.4 Project Protocols

SDG&E has proposed the following measures to reduce potential impacts from transportation and traffic.

- (59) If suitable park-and-ride facilities are available in the project vicinity, construction, workers would be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the project would depend upon the proximity of carpool facilities to the job site, the geographical commute departure points of construction workers, and the extent to which carpooling would not adversely affect worker show-up time and the project's construction schedule.