Proponent's Environmental Assessment for the

TL 6931 FIRE HARDENING/ WIND INTERCONNECT PROJECT

December 2012

SDGE

A Sempra Energy® utility

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CHAPTER 1
PEA Summary

1.0 Introduction

In accordance with California Public Utilities Commission (CPUC) General Order 131-D, San Diego Gas & Electric Company (SDG&E) is submitting this Proponent's Environmental Assessment (PEA) as part of its application for a Permit to Construct the TL 6931 Fire Hardening / Wind Interconnect Project (Project).

1.1 Project Components

The Proposed Project consists of the following primary components:

1. On the west end of the project, at the Campo Reservation boundary on private property, a double circuit steel pole deadend structure (Pole 1) will be installed.
2. Approximately 5.2 miles of TL 6931 from the Campo Reservation boundary to the Boulevard Substation will be fire hardened by replacing or modifying approximately 49 existing wood, single-circuit 69 kV poles with approximately 53 double-circuit dull galvanized steel poles. Additionally, two temporary wood poles will be installed for the interconnection of TL 6931 to the Boulevard East Substation until the existing Boulevard Substation is demolished at which time the two temporary wood poles would be removed. The proposed new steel poles will include 138 kV class insulators and vertical spacing and will provide for a second circuit on the rebuilt TL 6931. The new second circuit would be either a 138 kV generation interconnection circuit for the proposed Shu'luuk Wind Project (in the event that project is constructed) or a vacant position for a second circuit to be installed as needed in the future.
3. On the east end of the project, a new double circuit steel cable pole (Pole 52) will be installed. From Pole 52 to the Boulevard East Substation the 138 kV line will be constructed underground and the 69kV line will be constructed overhead. The approximately 750 foot underground 138 kV line will be generally constructed under existing roads, while a temporary 730 foot long 69 kV line will be built overhead and used as the interconnection to the Boulevard East Substation until the Boulevard Substation is demolished. Once the Boulevard East Substation is constructed, new ROW for the permanent 550 foot long 69 kV overhead line will be required.
4. Other ancillary facilities required to implement the Proposed Project, including 13 new permanent access roads and 3 permanent helicopter landing zones to facilitate on-going

maintenance of the Proposed Project, and any temporary facilities required for construction (e.g., staging areas, guard structures, and temporary wood poles to accommodate TL 6931 interconnection to the Boulevard East Substation).

The Proposed Project will also result in modifications to existing 12kV distribution facilities including the installation of one new steel distribution pole between Pole 22 and 23.

SDG&E notes that the project description may continue to evolve after the Proposed Project has been approved and construction has commenced. As discussed in Section 3.8, the Proposed Project will be constructed in compliance with the SDG&E Natural Communities Conservation Plan (NCCP). The NCCP requires SDG&E to avoid and minimize impacts to biological resources. Under the NCCP, SDG&E is not required to stay within specific work areas identified prior to construction; rather, SDG&E may modify construction work areas as necessary in the field. The actual impacts of construction are documented and mitigated after construction is complete.

1.2 Project Location

The Proposed Project is located south of I-8 and Old Highway 80 and traverses the Live Oak Springs and the Boulevard community areas in southeast San Diego County (see Figures 3-2 through 3-2D).

1.3 Project Need and Alternatives

The Proposed Project is needed to meet the following objectives identified by both SDG&E and CPUC.

1. Fire harden the existing system by replacing the existing 69 kV wood pole structures with steel poles that include 138 kV class insulators and vertical spacing.

2. Provide the interconnection facilities for the Shu'luuk Wind Project or a vacant position to allow for the addition of a second circuit when needed in the future.

3. Maximize the use of existing utility ROWs and access roads and follow Garamendi Principles[1] for the interconnection facilities of the Proposed Project.

Although various transmission route alternatives and system alternatives were considered during the development of the Project, the Project described in this PEA was ultimately selected because it will result in the fewest potential environmental impacts and is more technically feasible and cost effective than the alternatives.

[1] Encourage the use of existing ROW by upgrading existing transmission facilities within those existing corridors where technically and economically justifiable.

1.4 Agency Coordination

1.4.0 U.S. Fish and Wildlife Service

SDG&E has been engaged in informal discussions with the U.S. Fish and Wildlife Service (USFWS) regarding the potential for sensitive species in the Project area. On July 9, 2010, AECOM, Inc submitted a 45-Day Summary Report of Focused Surveys for the Quino Checkerspot Butterfly (QCB) for the Manzanita Wind Energy Project to USFWS. As per USFWS protocol, AECOM submitted a letter to the USFWS Carlsbad field office notifying the agency of the 2010 habitat assessment before proceeding with focused QCB surveys. Similarly, on August 8, 2011, Forde Biological Consultants submitted a 45-Day Survey Report for 2011 Survey Results for the QCB for the Manzanita Wind Energy Project. Surveys were performed by qualified, permitted biologists approved by the USFWS to conduct QCB habitat assessments and protocol-level surveys. Upon follow up, the USFWS had no conflicts with the findings of these surveys and agreed to discuss and evaluate the Project as part of the Section 7 consultation under the federal Endangered Species Act (FESA).

The Proposed Project is engaging in a joint Section 7 consultation via the Bureau of Indian Affairs with the interrelated Shu'luuk Wind Energy Project. The Proposed Project will submit a Biological Assessment (BA) to the USFWS as an attachment to the Shu'luuk Wind Energy Project BA.

1.4.1 Native American Heritage Commission

A Sacred Lands File (SLF) search with the Native American Heritage Commission (NAHC) was requested on February 9, 2012, by Tierra Environmental. This initial SLF search request was for an area much larger than the current Project area. On March 23, 2012, a revised Project area (which reflects the current Project area) was sent to the NAHC for an updated SLF search.

Contact letters to the individuals and groups indicated by the NAHC as having affiliation with the Project area were prepared and mailed on March 23, 2012. The letters described the Project and included a map indicating the location of the Project area. Recipients were requested to reply with any information they are able to share about Native American resources that might be affected by the Project.

1.5 PEA Contents

This PEA, which was prepared in accordance with the PEA Checklist issued by the CPUC, is divided into five sections:

Chapter 2 – Project Purpose and Need outlines the Project's primary objectives.

Chapter 3 – Project Description includes specifics regarding the Project location, the existing system, the Project components, permanent and temporary land/ROW requirements, construction methods, construction schedule, anticipated operations and maintenance activities, federal and local permits that will be obtained for the Project.

Chapter 4 – Environmental Impact Assessment includes an environmental impact assessment summary and a discussion of the existing conditions and potential and anticipated impacts of the Project for each of the following resource areas:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Mineral Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

The CPUC's PEA Checklist indicates that the environmental setting section can be provided separately or combined with the impacts and APMs. SDG&E has elected to combine the existing conditions, impacts, and APMs for each resource area in Chapter 4. Chapter 4 also includes a Cumulative Analysis, which discusses past, present, and reasonably foreseeable future projects within the Project area and the Project's potential to contribute a significant cumulative effect.

Chapter 5 – Detailed Discussion of Significant Impacts identifies the potentially significant impacts resulting from the Project and justifications for the APMs that will be implemented to reduce these impacts, evaluates alternatives to the Project and describes the justification for the preferred alternative, and discusses the Project's potential to induce growth in the area.

Throughout the PEA, SDG&E has addressed all items requested in the CPUC's PEA Checklist. To facilitate confirmation of this required information and review of the PEA, Table 0-1 PEA Checklist Key has been included at the end of this section.

1.6 PEA Conclusions

The PEA analyzes the potential environmental impacts associated with construction and operation and maintenance of the Project. Nine resource areas will not be impacted by the Project or will experience less-than-significant impacts. These resource areas include:

- Aesthetics
- Agriculture and Forest Resources
- Greenhouse Gas Emission
- Land Use and Planning
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Although potentially significant impacts could occur from the Project to the seven remaining resource areas, these impacts will remain at less-than-significant levels with the implementation of APMs. These impacts are summarized below by resource area.

- Air Quality – Emissions modeling indicates that construction phase emissions would create less than significant impacts with implementation of project APMs.
- Biological Resources –The project would impact QCB habitat. Direct impacts to the federally listed QCB would be considered take under FESA, as well as a significant impact under CEQA. These impacts would be less than significant following the implementation of project APMs.
- Cultural Resources - Fourteen archaeological sites are located within or adjacent to the Project area and potential impacts to these resources would be less than significant with implementation of project APMs.
- Geology, Soils, Seismicity, and Mineral Resources – Permanent impacts associated with expansive soils would be less than significant following the implementation of project APMs.
- Hazards and Hazardous Materials – Following the implementation of project APMs, construction impacts related to hazardous materials will be less than significant. Fire potential in the Proposed Project area is very high and construction activities could pose a potential wildfire threat. With implementation of project APMs impacts associated with wildfires will be less than significant.

- Hydrology and Water Quality – With the implementation of project APMs, impacts to water quality from pollution runoff during construction will be less than significant.
- Noise – Construction activities will require the use of various types of noise-generating construction equipment and noise will generally occur continuously throughout each day of construction. With the implementation of the APMs, which limit construction activities to the hours and sound levels permitted by the San Diego County Noise Ordinance, impacts to sensitive noise receptors due to construction noise will be less than significant.

The APMs that will be implemented to avoid, minimize, and/or ensure that impacts remain at a less-than-significant level are discussed in detail in their respective sections, as well as summarized in Table 5-1: Applicant-Proposed Measures in Chapter 5 – Detailed Discussion of Significant Impacts.

1.7 Public Outreach Efforts

Because the interconnection facilities will serve the Shu'luuk Wind Project on the Campo Reservation, SDG&E has consulted with the Campo Kumeyaay Nation concerning the location of the proposed facilities. In addition, property owners were notified prior to any survey work along the interconnection alignment. During construction, SDG&E will make every effort to minimize disruptions such as construction traffic, dust, and noise. SDG&E will inform the County of San Diego, Border Patrol, Bureau of Land Management and others of project activities and address any concerns.

TABLE 0-1
PEA CHECKLIST KEY

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
Chapter 1: PEA Summary		
	Include major conclusions of the PEA.	Section 1.6 PEA Conclusions
	List any areas of controversy.	Section 1.6 PEA Conclusions Public outreach efforts for the project have not resulted in any areas of controversy.
	Identify any major issues that must be resolved, including the choice among reasonably feasible alternatives and mitigation measures, if any.	Section 1.6 PEA Conclusions Public outreach efforts have not resulted in any major issues with the project.
	Include a description of inter-agency coordination if any.	Section 1.4 Agency Coordination
	Include a description of public outreach efforts, if any.	Section 1.7 Public Outreach Efforts

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
Chapter 2: Project Purpose and Need		
2.1 Overview	Include an analysis of Project objectives and purpose and need that is sufficiently detailed so that the Commission can independently evaluate the Project need and benefits in order to accurately consider them in light of the potential environmental impacts.	Section 2.1 Overview
	Explain the objective(s) and/or purpose and need for implementing the Project.	Section 2.1 Overview
2.2 Project Objectives	Include an analysis of the reason why attainment of these objectives is necessary or desirable. Such analysis must be sufficiently detailed to inform the Commission in its independent formulation of project objectives, which will aid any appropriate CEQA alternatives screening process.	Section 2.2 Project Objectives
Chapter 3: Project Description		
3.1 Project Location	Identify geographical location: County, City (provide Project location map[s]).	Section 3.1 Project Location Figure 3-1: Project Location Map
	Provide a general description of land uses within the Project site (e.g., residential, commercial, agricultural, recreation, vineyards, farms, open space, number of stream crossings, etc.).	Section 3.1 Project Location
	Determine whether the Project is located within an existing property owned by the Applicant, traverses existing ROWs, or requires new ROWs. Provide the approximate area of the property or the length of the project that is in an existing ROW or which requires new ROWs.	Section 3.1 Project Location
3.2 Existing System	Describe the local system to which the Project relates. Include all relevant information about substations, transmission lines, and distribution circuits.	Section 3.2 Existing and Proposed System
	Provide a schematic diagram and map of the existing system.	SDG&E considers a system diagram as confidential information and is not included in the PEA
	Provide a schematic diagram that illustrates the system as it would be configured with the implementation of the Project.	SDG&E considers a system diagram as confidential information and is not included in the PEA
3.4 Project	Describe the whole of the Project. Is it an upgrade, a new line, new substations, etc.?	Section 3.3 Proposed Project
	Describe how the project fits into the regional system. Does it create a loop for reliability, etc.?	Section 3.2 Existing and Proposed System
	Describe all reasonably foreseeable future phases, or other reasonably foreseeable consequences of the Project.	Section 2.2 Project Objectives
	Provide the capacity increase in megawatts (MW). If the Project does not increase capacity, state that.	Section 3.3 Proposed Project
	Provide geographic information system (GIS) (or equivalent) data layers for the Project's preliminary engineering, including estimated locations of all physical components of the Project, as well as those related to construction.	A CD containing the relevant GIS data for the Project will be provided under separate cover.

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
3.5 Project Components 3.5.1 Transmission Line	Describe what type of line exists and what type of line is proposed (e.g., single-circuit, double-circuit, upgrade 69kV to 115kV).	Section 3.2 Existing and Proposed System
	Identify the length of the upgraded alignment, the new alignment, etc.	Section 3.3 Proposed Project
	Describe whether construction would require one-for-one pole replacement, new poles, steel poles, etc.?	Section 3.3 Proposed Project
	Describe what would happen to other lines and utilities that may be collocated on the poles to be replaced (e.g., distribution, communication, etc.).	Section 3.3 Proposed Project
3.5.2 Poles/Towers	Provide information for each pole/tower that would be installed and for each pole/tower that would be removed.	Section 3.3 Proposed Project Figure 3-2 Proposed Alignment
	Provide a unique identification number to match GIS database information.	A CD containing the relevant GIS data, which includes unique identification numbers for poles, will be submitted separately to CPUC staff.
	Provide a structural diagram and, if available, photos of existing structure. Preliminary diagram or "typical" drawings and, if possible, photos of proposed structure. Also provide a written description of the most common types of structures and their use (e.g., tangent poles would be used when the run of poles continues in a straight line, etc.). Describe if the pole/tower design meets raptor safety requirements.	Figure 3-4 Structure 1 138kV Deadend Steel Pole with 69kV Underbuild and Fiber Optic (OPGW) Figure 3-5 Cross Section A-A Typical 138 kV Double Circuit Tangent Steel Pole 12kV Underbuild
	Provide the type of pole (e.g., wood, steel, etc.) or tower (e.g., self supporting, lattice, etc.). Identify typical total pole lengths, the approximate length to be embedded, and the approximate length that would be above ground surface; for towers, identify the approximate height above ground surface and approximate base footprint area.	Section 3.3 Proposed Project Figure 3-4 Structure 1 138kV Deadend Steel Pole with 69kV Underbuild and Fiber Optic (OPGW) Figure 3-5 Cross Section A-A Typical 138 kV Double Circuit Tangent Steel Pole 12kV Underbuild
	Describe any specialty poles or towers; note where they would be used (e.g., angle structures, heavy angle lattice towers, stub guys, etc.); make sure to note if any guying would likely be required across a road.	Section 3.3 Proposed Project Figure 3-4 Structure 1 138kV Deadend Steel Pole with 69kV Underbuild and Fiber Optic (OPGW) Figure 3-5 Cross Section A-A Typical 138 kV Double Circuit Tangent Steel Pole 12kV Underbuild
	If the Project includes pole-for-pole replacement, describe the approximate location of where the new poles would be installed relative to the existing alignment.	Section 3.3 Proposed Project
	Describe any special pole types (e.g., poles that require foundations, transition towers, switch towers, microwave towers, etc.) and any special features.	Section 3.3 Proposed Project Figure 3-4 Structure 1 138kV Deadend Steel Pole with 69kV Underbuild and Fiber Optic (OPGW) Figure 3-5 Cross Section A-A Typical 138 kV Double Circuit

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
		Tangent Steel Pole 12kV Underbuild
3.5.3 Conductor/Cable	Describe the type of line to be installed on the poles/tower (e.g., single-circuit with distribution, double circuit, etc.).	Section 3.3 Proposed Project
3.5.3.1 Above-Ground Installation	Describe the number of conductors required to be installed on the poles or tower and the number on each side including applicable engineering design standards.	Section 3.3 Proposed Project
	Provide the size and type of conductor (e.g., aluminum conductor, steel reinforced, non-specular, etc.) and insulator configuration.	Section 3.3 Proposed Project
	Provide the approximate distance from the ground to the lowest conductor and the approximate distance between the conductors (i.e., both horizontally and vertically). Provide specific information at highways, rivers, or special crossings.	Section 3.3 Proposed Project
	Provide the approximate span lengths between poles or towers, note where different if distribution is present or not if relevant.	Section 3.3 Proposed Project
	Determine whether other infrastructure would likely be collocated with the conductor (e.g., fiber optics, etc.); if so, provide conduit diameter of other infrastructure.	Section 3.3 Proposed Project
3.5.3.2 Below Ground Installation	Describe the type of line to be installed (e.g., single circuit cross-linked polyethylene-insulated solid-dielectric, copper-conductor cables).	3.2 Existing and Proposed System 3.5.3 Methods
	Describe the type of casing the cable would be installed in (e.g., concrete-encased duct bank system); provide the dimensions of the casing.	
	Provide an engineering 'typical' drawing of the duct bank and describe what types of infrastructure would likely be installed within the duct bank (e.g., transmission, fiber optics, etc.).	
3.5.4 Substations	Provide "typical" plan and profile views of the proposed substation and the existing substation if applicable.	There is no substation proposed as part of this project.
	Describe the types of equipment that would be temporarily or permanently installed and provide details as to what the function/use of said equipment would be. Include information such as, but not limited to mobile substations, transformers, capacitors, and new lighting.	
	Provide the approximate or "typical" dimensions (width and height) of new structures including engineering and design standards that apply.	
	Describe the extent of the Project. Would it occur within the existing fence line, existing property line or would either need to be expanded?	
	Describe the electrical need area served by the distribution substation.	
3.6 Right-of-Way Requirements	Describe the ROW location, ownership, and width. Would the existing ROW be used or would a new ROW be required?	3.4 Permanent Land/Right-of-Way Requirements
	If a new ROW is required, describe how it would be acquired and approximately how much land would be required (length and width).	3.4 Permanent Land/Right-of-Way Requirements

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
	List the properties likely to require acquisition.	3.4 Permanent Land/Right-of-Way Requirements
3.7 Construction	Where would the main staging area(s) likely be located?	Section 3.5.2 Workspace
3.7.1 For All Projects 3.7.1.1 Staging Areas	Approximately how large would the main staging area(s) be?	Section 3.5.2 Workspace
	Describe any site preparation required, if known, or generally describe what might be required (i.e., vegetation removal, new access road, installation of rock base, etc.).	Section 3.5.2 Workspace
	Describe what the staging area would be used for (e.g., material and equipment storage, field office, reporting location for workers, parking area for vehicles and equipment, etc.).	Section 3.5.2 Workspace
	Describe how the staging area would be secured, would a fence be installed? If so, describe the type and extent of the fencing.	Section 3.5.2 Workspace
	Describe how power to the site would be provided if required (e.g., tap into existing distribution, use of diesel generators, etc.).	Section 3.5.2 Workspace
	Describe any grading activities and/or slope stabilization issues.	Section 3.5.2 Workspace Section 3.5.3 Methods
3.7.1.2 Work Areas	Describe known work areas that may be required for specific construction activities (i.e., pole assembly, hill side construction, etc.).	Section 3.5.2 Workspace
	For each known work area, provide the area required (include length and width) and describe the types of activities that would be performed.	Section 3.5.2 Workspace Table 3-3: Temporary Workspace Requirements
	Identify the approximate location of known work areas in the GIS database.	Section 3.5.2 Workspace
	Describe how the work areas would likely be accessed (e.g., construction vehicles, walk-in, helicopter, etc.).	Section 3.5.2 Workspace
	If any site preparation is likely required, generally describe what and how it would be accomplished.	Section 3.5.3 Methods
	Describe any grading activities and/or slope stabilization issues.	Section 3.5.3 Methods
	Based on the information provided, describe how the site would be restored.	Section 3.5.3 Methods
3.7.1.3 Access Roads and/or Spur Roads	Describe the types of roads that would be used and/or would need to be created to implement the project. Road types may include, but are not limited to: new permanent road; new temporary road; existing road that would have permanent improvements; existing road that would have temporary improvements; existing paved road; existing dirt/gravel road; and overland access.	Section 3.5.1 Access Roads Section 3.5.3 Methods
	For road types that require preparation, describe the methods and equipment that would be used.	Section 3.5.1 Access Roads Section 3.5.3 Methods Section 3.5.5 Equipment
	Identify approximate location of all access roads (by type) in the GIS database.	A CD containing the relevant GIS data for the Project will be provided under separate cover.

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
	Describe any grading activities and/or slope stabilization issues.	Section 3.5.3 Methods
3.7.1.4 Helicopter Access	Identify which proposed poles/towers would be removed and/or installed using a helicopter.	Section 3.5.3 Methods
	If different types of helicopters are to be used, describe each type (e.g., light, heavy, or sky crane) and what activities they would be used for.	Section 3.5.3 Methods
	Provide information as to where the helicopters would be staged, where they would refuel, where they would land within the project site.	Section 3.5.2 Workspace Section 3.5.3 Methods
	Describe any Best Management Practices (BMPs) that would be employed to avoid impacts caused by use of helicopters, for example: air quality and noise considerations.	Section 3.5.3 Methods Table 5-1: Applicant-proposed Measures
	Describe flight paths, payloads, hours of operations for known locations, and work types.	Section 3.5.3 Methods
3.7.1.5 Vegetation Clearance	Describe the types of vegetation clearing that may be required (e.g., tree removal, brush removal, flammable fuels removal) and why (e.g., to provide access, etc.).	Section 3.5.3 Methods
	Identify the preliminary location and provide an approximate area of disturbance in the GIS database for each type of vegetation removal.	Section 3.5.3 Methods A CD containing the relevant GIS data for the Project will be provided under separate cover.
	Describe how each type of vegetation removal would be accomplished.	Section 3.5.3 Methods
	For removal of trees, distinguish between tree trimming as required under GO-95D and tree removal.	No trees are slated for removal.
	Describe the types and approximate number and size of trees that may need to be removed.	
	Describe the type of equipment typically used.	Section 3.5.3 Methods Section 3.5.5 Equipment 3.6 Operation and Maintenance
3.7.1.6 Erosion and Sediment Control and Pollution Prevention during Construction	Describe the areas of soil disturbance including estimated total areas and associated terrain type and slope. List all known permits required. For project sites of less than 1 acre, outline the BMPs that would be implemented to manage surface runoff. Things to consider include, but are not limited to: Erosion and sedimentation BMPs, vegetation removal and restoration, and/or hazardous waste, and spill prevention plans.	Section 3.5.3 Methods Section 3.7 Anticipated Permits and Approvals Table 5-1: Applicant-proposed Measures
	Describe any grading activities and/or slope stabilization issues.	Section 3.5.3 Methods
	Describe how construction waste (i.e., refuse, spoils, trash, oil, fuels, poles, pole structures, etc.) would be disposed.	Section 3.5.3 Methods
3.7.1.7 Cleanup and Post-Construction Restoration	Describe how cleanup and post-construction restoration would be performed. (i.e., personnel, equipment, and methods). Things to consider, but are not limited to, restoration of natural drainage patterns, wetlands,	Section 3.5.3 Methods

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
	vegetation, and other disturbed areas (i.e., staging areas, access roads, etc.).	
3.7.2 Transmission Line Construction (Above Ground) 3.7.2.1 Pull and Tension Sites	Provide the general or average distance between pull and tension sites.	Section 3.5.2 Workspace
	Provide the area of pull and tension sites including the estimated length and width.	Section 3.5.2 Workspace
	According to the preliminary plan, identify the number of pull and tension sites that would be required, and their locations. Provide the location information in GIS.	Section 3.5.2 Workspace A CD containing the relevant GIS data for the Project will be provided under separate cover.
	Describe the type of equipment that would be required at these sites.	Section 3.5.3 Methods Section 3.5.5 Equipment
	If conductor is being replaced, describe how it would be removed from the site.	Section 3.5.1 Access Roads Section 3.5.2 Workspace
3.7.2.2 Pole Installation and Removal	Describe how the construction crews and their equipment would be transported to and from the pole site locations. Provide vehicle type, number of vehicles, estimated number of trips, and hours of operation.	Section 3.5.1 Access Roads Section 3.5.2 Workspace Section 3.5.3 Methods
	Describe the process of removing the poles and foundations.	Section 3.5.3 Methods
	Describe what happens to the holes that the poles were in (i.e., reused or backfilled)?	Section 3.5.3 Methods
	If the holes are to be backfilled, what type of fill would be used and where would it come from?	Section 3.5.3 Methods
	Describe any surface restoration that would occur at the pole sites.	Section 3.5.3 Methods
	Describe how the poles would be removed from the sites.	Section 3.5.3 Methods
	If topping is required to remove a portion of an existing transmission pole that would now only carry distribution lines, describe the methodology to access and remove the tops of these poles. Describe any special methods that would be required to top poles that may be difficult to access, etc.	Section 3.5.3 Methods
	Describe the process of how the new poles/towers would be installed; specifically identify any special construction methods (e.g., helicopter installation) for specific locations or for different types of poles/towers.	Section 3.5.3 Methods
	Describe the types of equipment and their use as related to pole/tower installation.	Section 3.5.3 Methods Section 3.5.5 Equipment 3.6 Operation and Maintenance
	Describe the actions taken to maintain a safe work environment during construction (e.g., covering of holes/excavation pits, etc.).	Section 3.5.3 Methods 3.6 Operation and Maintenance Section 3.5.5 Equipment
	Describe what would be done with soil that is removed from a hole/foundation site.	Section 3.5.3 Methods

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
	For any foundations required, provide a description of the construction method(s), approximate average depth and diameter of excavation, approximate volume of soil to be excavated, approximate volume of concrete or other backfill required, etc.	Section 3.5.3 Methods
	Describe briefly how poles/towers and associated hardware are assembled.	Section 3.5.3 Methods
	Describe how the poles/towers and associated hardware would be delivered to the site; would they be assembled off-site and brought in or assembled on site?	Section 3.5.3 Methods
	Provide the following information about pole/tower installation and associated disturbance area estimates: pole diameter for each pole type (e.g., wood, self-supporting steel, lattice, etc.), base dimensions for each pole type, auger hole depth for each pole type, permanent footprint per pole/tower, number of poles/towers by pole type, average work area around poles/towers by pole type (e.g., for old pole removal and new pole installation), and total permanent footprint for poles/towers.	Section 3.5.3 Methods
3.7.2.3 Conductor/Cable Installation	Provide a process-based description of how new conductor/cable would be installed and how old conductor/cable would be removed, if applicable.	Section 3.5.3 Methods
	Generally describe the conductor/cable splicing process.	Section 3.5.3 Methods
	If vaults are required, provide their dimensions and approximate location/spacing along the alignment.	Section 3.5.3 Methods
	Describe in what areas conductor/cable stringing/installation activities would occur.	Section 3.5.2 Workspace
	Describe any safety precautions or areas where special methodology would be required (e.g., crossing roadways, stream crossing, etc.).	Section 3.6 Operation and Maintenance
3.7.3 Transmission Line Construction (Below Ground) 3.7.3.1 Trenching	Describe the approximate dimensions of the trench (e.g., depth, width).	Section 3.5 Construction
	Describe the methodology of making the trench (e.g., saw cutter to cut the pavement, backhoe to remove, etc.).	Section 3.5.3 Methods
	Provide the total approximate cubic yardage of material to be removed from the trench, the amount to be used as backfill and the amount to subsequently be removed/disposed of off-site.	Section 3.5.3 Methods
	Provide off-site disposal location, if known, or describe possible option(s).	Section 3.5.3 Methods
	If engineered fill would be used as backfill, provide information as to the type of engineered backfill and the amount that would be typically used (e.g., top two feet would be filled with thermal-select backfill).	Section 3.5.3 Methods
	Describe if dewatering would be anticipated, if so, how the trench would be dewatered, what the anticipated flows of the water are, whether there would be treatment, and how the water would be disposed.	Section 3.5.3 Methods
	Describe the process for testing excavated soil or groundwater for the presence of pre-existing environmental contaminants that could be exposed as a result of trenching operations.	Chapter 4.6 Geology, Soils, Seismicity, and Mineral Resources Table 5-1 Applicant Proposed Measures

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
	If pre-existing hazardous waste was encountered, describe the process of removal and disposal.	Chapter 4.6 Geology, Soils, Seismicity, and Mineral Resources Table 5-1 Applicant Proposed Measures
	Describe any standard BMPs that would be implemented.	Table 5-1 Applicant Proposed Measures
3.7.3.2 Trenchless Techniques: Microtunnel, Bore and Jack, Horizontal Directional Drilling	Provide the approximate location of the sending and receiving pits.	Section 3.5 Construction
	Provide the length, width and depth of the sending and receiving pits.	Section 3.5 Construction
	Describe the methodology of excavating and shoring the pits.	Section 3.5 Construction
	Describe the methodology of the trenchless technique.	Section 3.5 Construction
	Provide the total cubic yardage of material to be removed from the pits, the amount to be used as backfill and the amount to subsequently be removed/disposed of off-site.	Section 3.5 Construction
	Describe the process for safe handling of drilling mud and bore lubricants.	Table 5-1 Applicant-Proposed Measures
	Describe the process for detecting and avoiding "fracturing-out" during horizontal directional drilling operations.	Section 3.5 Construction Chapter 4.6 Geology, Soils, Seismicity, and Mineral Resources Table 5-1 Applicant Proposed Measures
	Describe the process for avoiding contact between drilling mud/lubricants and stream beds.	Section 3.5 Construction Table 5-1 Applicant Proposed Measures
	If engineered fill would be used as backfill, provide information as to the type of engineered backfill and the amount that would be typically used (e.g., top two feet would be filled with thermal-select backfill).	Section 3.5 Construction Chapter 4.6 Geology, Soils, Seismicity, and Mineral Resources Table 5-1 Applicant Proposed Measures
	If dewatering is anticipated, describe how the pit would be dewatered, what the anticipated flows of the water are, whether there would be treatment, and how the water would be disposed.	Section 3.5 Construction Table 5-1 Applicant Proposed Measures
	Describe the process for testing excavated soil or groundwater for the presence of pre-existing environmental contaminants.	Section 3.5 Construction Chapter 4.6 Geology, Soils, Seismicity, and Mineral Resources Table 5-1 Applicant Proposed Measures
	If a pre-existing hazardous waste was encountered, describe the process of removal and disposal.	Section 3.5 Construction Chapter 4.6 Geology, Soils, Seismicity, and Mineral Resources Table 5-1 Applicant Proposed

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
		Measures
	Describe any grading activities and/or slope stabilization issues.	Section 3.5 Construction Chapter 4.6 Geology, Soils, Seismicity, and Mineral Resources Table 5-1 Applicant Proposed Measures
	Describe any standard BMPs that would be implemented.	Section 3.5 Construction Chapter 4.6 Geology, Soils, Seismicity, and Mineral Resources Table 5-1 Applicant Proposed Measures
3.7.4 Substation Construction	Describe any earth moving activities that would be required; what type of activity and, if applicable, estimate cubic yards of materials to be reused and/or removed from the site for both site grading and foundation excavation.	No substation is proposed
	Provide a conceptual landscape plan in consultation with the municipality in which the substation is located.	No substation is proposed
	Describe any grading activities and/or slope stabilization issues.	No substation is proposed
	Describe possible relocation of commercial or residential property, if any.	No substation is proposed
3.7.5 Construction Workforce and Equipment	Provide the estimated number of construction crew members.	Section 3.5 Construction
	Describe the crew deployment, whether crews would work concurrently (i.e., multiple crews at different sites), if they would be phased, etc.	Section 3.5 Construction
	Describe the different types of activities to be undertaken during construction, the number of crew members for each activity (i.e., trenching, grading, etc.), and the number and types of equipment expected to be used for said activity. Include a written description of the activity.	Section 3.5 Construction
	Provide a list of the types of equipment expected to be used during construction of the project as well as a brief description of the use of the equipment.	Section 3.5 Construction
3.7.6 Construction Schedule	Provide a preliminary project construction schedule; include contingencies for weather, wildlife closure periods, etc.	Section 3.5.4 Schedule
3.8 Operation and Maintenance	Describe the general system monitoring and control (i.e., use of standard monitoring and protection equipment, use of circuit breakers and other line relay protection equipment, etc.).	Section 3.6 Operation and Maintenance
	Describe the general maintenance program of the Project include timing of inspections (i.e., monthly, every July, as needed), type of inspection (i.e., aerial inspection, ground inspection), and a description of how the inspection would be implemented. Things to consider: who/how many crew members, how would they access the site (i.e., walk to site, vehicle, all terrain vehicle), would new access be required, would restoration be required, etc.), type of inspection,	Section 3.6 Operation and Maintenance

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
	and a description of how the inspection would be implemented.	
	If additional full time staff would be required for operation and/or maintenance, provide the number of workers and for what purpose they are required.	Section 3.6 Operation and Maintenance No new full-time staff will be required for operation and/or maintenance of the project.
3.9 Applicant Proposed Measures	If there are measures that the Applicant would propose to be part of the Project, include those measures and reference plans or implementation descriptions.	Table 5-1Applicant-Proposed Measures
Chapter 4: Environmental Setting		
	For each resource area discussion within the PEA, include a description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.), including the local environment (site-specific) and regional environment.	Section 4.X.3 under each resource area provides a discussion of both the physical environment in the vicinity of the Project and the regulatory environment.
	For each resource area discussion within the PEA, include a description of the regulatory environment/context (federal, state, and local).	Section 4.X.3 under each resource area provides a description of the regulatory environment/context
	Limit detailed descriptions to those resource areas which may be subject to a potentially significant impact.	Chapter 5 Detailed Discussion of Significant Impacts
Chapter 5: Environmental Impact Assessment Summary		
5.1 Aesthetics	Provide visual simulations of prominent public view locations, including scenic highways, to demonstrate the views before and after Project implementation. Additional simulations are highly recommended.	Section 4.1 Aesthetics
5.2 Agriculture Resources	Identify the types of agricultural resources affected.	Section 4.2 Agricultural and Forest Resources
5.3 Air Quality	Provide supporting calculations/spreadsheets/technical reports that support emission estimates in the PEA.	Appendix A: CalEEMod Simulation Input and Output
	Provide documentation of the location and types of sensitive receptors that could be impacted by the project (e.g., schools, hospitals, houses, etc.). Critical distances to receptors are dependent on type of construction activity.	Section 4.3 Air Quality
	Identify project greenhouse gas (GHG) emissions.	Section 4.7 Greenhouse Gases
	Quantify GHG emissions from a business as usual snapshot. That is, what the GHG emissions will be from the project if no mitigations were used.	Section 4.7 Greenhouse Gases
	Quantify GHG emission reductions from every APM that is implemented. The quantifications will be itemized and placed in tabular format.	Section 4.7 Greenhouse Gases
	Identify the net emissions of the project after mitigation have been applied.	Section 4.3 Air Quality
	Calculate and quantify GHG emissions (CO_2 equivalent) for the Project, including construction and operation.	Section 4.7 Greenhouse Gases
	Calculate and quantify the GHG reduction based on reduction measures proposed for the Project.	Section 4.7 Greenhouse Gases

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
	Propose APMs to implement and follow to maximize GHG reductions. If sufficient, CPUC will accept them without adding further mitigation measures.	Section 4.7 Greenhouse Gases
	Discuss programs already in place to reduce GHG emissions on a system-wide level. This includes the Applicant's voluntary compliance with the U.S. Environmental Protection Agency (EPA) SF_6 reduction program, reductions from energy efficiency, demand response, long-term procurement plan, etc.	Section 4.7 Greenhouse Gases
5.4 Biological Resources	Provide a copy of the Wetland Delineation and supporting documentation (i.e., data sheets). If verified, provide supporting documentation. Additionally, GIS data of the wetland features should be provided as well.	Wetland delineations were not required for the project.
	Provide a copy of special-status surveys for wildlife, botanical and aquatic species, as applicable. Any GIS data documenting locations of special-status species should be provided.	A CD containing the relevant GIS data for the Project will be provided under separate cover.
5.5 Cultural Resources	Cultural Resources Report documenting a cultural resources investigation of the project. This report should include a literature search, pedestrian survey, and Native American consultation.	Cultural Technical Report will be submitted under separate cover due to its confidential nature.
	Provide a copy of the records found in the literature search.	The cultural records found during the literature search have been submitted under separate cover due to their confidential nature.
	Provide a copy of all letters and documentation of Native American consultation.	Native American Consultation will be submitted under separate cover due to its confidential nature.
5.6 Geology, Soils, and Seismic Potential	Provide a copy of the geotechnical investigation if completed, including known and potential geologic hazards such as ground shaking, subsidence, liquefaction, etc.	4.6 Geology, Soils, Seismicity, and Mineral Resources
5.7 Hazards and Hazardous Materials	Include the Environmental Data Resources report.	Appendix B: EDR Corridor Study
	Include a Hazardous Substance Control and Emergency Response Plan, if required.	Due to the size and nature of the Project, it was determined that a Hazardous Substance Control and Emergency Response Plan is not required.
	Include a Health and Safety Plan, if required.	Due to the size and nature of the Project, it was determined that a Health and Safety Plan is not required.
	Describe the Worker Environmental Awareness Program	Table 5-1 Applicant Proposed Measures
	Describe which chemicals would be used during construction and operation of the Project. For example, fuels for construction, naphthalene to treat wood poles before installation, etc.	Section 4.8 Hazards and Hazardous Materials
5.8 Hydrology and Water Quality	Describe impacts to groundwater quality including increased runoff due to construction of impermeable surfaces, etc.	Section 4.9 Hydrology and Water Quality
	Describe impacts to surface water quality including the potential for accelerated soil erosion, downstream	Section 4.9 Hydrology and

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
	sedimentation, and reduced surface water quality.	Water Quality
5.9 Land Use and Planning	Provide GIS data of all parcels within 300 feet of the Project with the following data: APN number, mailing address, and parcel's physical address.	The property owner information has been submitted under separate cover due to its confidential nature.
5.10 Mineral Resources	Data needs already specified under Chapter 3 would generally meet the data needs for this resource area.	Not Applicable
5.11 Noise	Provide long term noise estimates for operational noise. (e.g., corona discharge noise, and station sources such as substations, etc.)	Section 4.11 Noise
5.12 Population and Housing	Data needs already specified under Chapter 3 would generally meet the data needs for this resource area.	Section 4.12 Population and Housing
5.13 Public Services	Data needs already specified under Chapter 3 would generally meet the data needs for this resource area.	Section 4.13 Public Services
5.14 Recreation	Data needs already specified under Chapter 3 would generally meet the data needs for this resource area.	Section 4.14 Recreation
5.15 Transportation and Traffic	Discuss traffic impacts resulting from construction of the Project including ongoing maintenance operations.	Section 4.15 Transportation
	Provide a preliminary description of the traffic management plan that would be implemented during construction of the Project.	A specific Traffic Management Plan is not proposed for this project. Encroachment permits from local and state jurisdictional agencies will provide guidance on required traffic management measures.
5.16 Utilities and Services Systems	Describe how treated wood poles would be disposed of after removal, if applicable.	Section 3.5.3 Methods
5.17 Cumulative Analysis	Provide a list of projects (i.e., past, present, and reasonably foreseeable future projects) within the project area that the applicant is involved in.	Table 4.17-1: Foreseeable Projects
	Provide a list of projects that have the potential to be proximate in space and time to the project. Agencies to be contacted include, but are not limited to, the local planning agency, Caltrans, etc.	Table 4.17-1: Foreseeable Projects
5.18 Growth-Inducing Impacts, If Significant	Provide information on the Project's growth-inducing impacts, if any.	Section 5.4 Growth-Inducing Impacts
	Provide information on any economic or population growth in the surrounding environment that will, directly or indirectly, result from the Project.	Section 5.4 Growth-Inducing Impacts
	Provide information on any increase in population that could further tax existing community service facilities (e.g., schools, hospitals, fire, police, etc.), that will directly or indirectly result from the Project.	Section 5.4 Growth-Inducing Impacts
	Provide information on any obstacles to population growth that the Project would remove.	Section 5.4 Growth-Inducing Impacts
	Describe any other activities, directly or indirectly encouraged or facilitated by the Project, that would cause population growth that could significantly affect the environment, either individually or cumulatively.	Section 5.4 Growth-Inducing Impacts

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
Chapter 6: Detailed Discussion of Significant Impacts		
6.1 Mitigation Measures Proposed to Minimize Significant Effects	Discuss each mitigation measure and the basis for selecting a particular mitigation measure should be stated.	Chapter 5 Detailed Discussion of Significant Impacts
6.2 Description of Project Alternatives and Impact Analysis	Provide a summary of the alternatives considered that would meet most of the objectives of the project and an explanation as to why they were not chosen as the Project.	Chapter 5 Detailed Discussion of Significant Impacts
	Alternatives considered and described by the Applicant should include, as appropriate, system or facility alternatives, route alternatives, route variations, and alternative locations.	Chapter 5 Detailed Discussion of Significant Impacts
	A description of a "No Project Alternative" should be included.	Chapter 5 Detailed Discussion of Significant Impacts
	If significant environmental effects are assessed, the discussion of alternatives shall include alternatives capable of substantially reducing or eliminating any said significant environmental effects, even if the alternative(s) substantially impede the attainment of the Project objectives and are more costly.	Chapter 5 Detailed Discussion of Significant Impacts
6.3 Growth-Inducing Impacts	Discuss if the Project would foster economic or population growth, either directly or indirectly, in the surrounding environment.	Section 5.4 Growth-Inducing Impacts
	Discuss if the Project would cause an increase in population that could further tax existing community services (e.g., schools, hospitals, fire, police, etc.).	Section 5.4 Growth-Inducing Impacts
	Discuss if the Project would remove obstacles to population growth.	Section 5.4 Growth-Inducing Impacts
	Discuss if the Project would encourage and facilitate other activities that would cause population growth that could significantly affect the environment, either individually or cumulatively.	Section 5.4 Growth-Inducing Impacts
6.4 Suggested Applicant Proposed Measures to address GHG Emissions	Address GHG emissions. Suggested APMs include, but are not limited to: 1. If suitable park-and-ride facilities are available in the Project vicinity, construction workers will 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. 2. To the extent feasible, unnecessary construction vehicle and idling time will 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 warm-up times following start-up 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 will apply a "common sense" approach to vehicle use; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off.	Table 5-1 Applicant-Proposed Measures

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
	Construction foremen will include briefings to crews on vehicle use as part of pre-construction conferences. Those briefings will include discussion of a "common sense" approach to vehicle use. 3. Use low-emission construction equipment. Maintain construction equipment per manufacturing specifications and use low emission equipment described here. All off-road construction diesel engines not registered under the California Air Resources Board (CARB) Statewide Portable Equipment Registration Program shall meet at a minimum the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, Sec. 2423(b)(1). 4. Diesel Anti-Idling: In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling. 5. Alternative Fuels: CARB would develop regulations to require the use of one to four percent biodiesel displacement of California diesel fuel. 6. Alternative Fuels: Ethanol, increased use of ethanol fuel 7. Green Buildings Initiative. 8. Facility wide energy efficiency audit. 9. Complete GHG emissions audit. The audit will include a review of the GHG emitted from those facilities (substations), including carbon dioxide, methane, CFC, and HFC compounds (SF6). 10. There is an EPA approved SF6 emissions protocol (http://www.epa.gov/electricpowersf6/resources/index.html#three). 11. SF6 program wide inventory. For substations, keep inventory of leakage rates. 12. Increase replacement of breakers once leakage rates exceed one percent within 30 days of detection. 13. Increased investment in current programs that can be verified as being in addition to what the utility is already doing. 14. The SF_6 Emission Reduction Partnership for the Electric Power Systems was launched in 1999 and currently includes 57 electric utilities and local governments across the U.S. 15. SF6 is used by this industry in a variety of applications, including that of dielectric insulating material in electrical transmission and distribution equipment, such as circuit breakers. Electric power systems that join the Partnership must, within 18 months, establish an emission reduction goal reflecting technically and economically feasible opportunities within their company. They also agree to, within the constraints of economic and technical feasibility, estimate their emissions of SF6, establish a strategy for replacing older, leakier pieces of equipment, implement SF6 recycling, establish and apply proper handling techniques, and report annual emissions to the EPA. The EPA works as a clearinghouse for technical information, works to obtain commitments from all electric power system operators and will be sponsoring an international conference in 2000 on SF6 emission reductions.	

Location in CPUC Checklist	Checklist Item	Location in PEA and any Associated Notes
	16. Quantify what comes into the system and track programmatically SF6.	
	17. Applicant can propose other GHG reducing mitigations.	
Chapter 7: Other Process-Related Data Needs		
	Include an Excel spreadsheet that identifies all parcels within 300 feet of any Project component with the following data: APN number, owner mailing address, and parcels physical address.	The property owner information has been submitted under separate cover due to its confidential nature.

CHAPTER 2
Purpose and Need

This section defines the objectives, purpose, and need for the proposed San Diego Gas & Electric Company (SDG&E) TL 6931 Fire Hardening / Wind Interconnect Project (Proposed Project), as required by the California Public Utilities Commission's (CPUC) Proponent's Environmental Assessment Guidelines (CPUC Information and Criteria List, Appendix B, Section V) and the California Environmental Quality Act (CEQA) Guidelines (Section 15126.6(a)). Additional information regarding the Proposed Project's purpose and need is provided in SDG&E's application to the CPUC, in accordance with CPUC General Order 131-D.

2.1 Overview

SDG&E is a regulated public utility that provides electric service to 3.4 million customers within a 4,100-square-mile service area that encompasses 25 cities throughout San Diego and southern Orange counties. The utility is proposing this Project to fire harden an existing 69 kilovolt (kV) wood pole power line (TL 6931) located within a high fire risk area and to provide the interconnection facilities necessary for the Shu'luuk Wind Project. The Shu'luuk Wind Project is proposed to be constructed on the Campo Indian Reservation and is currently being reviewed pursuant to the National Environmental Policy Act (NEPA) with the Bureau of Indian Affairs (BIA) in the role of lead agency. The BIA is drafting an Environmental Impact Statement (EIS), which was anticipated to be released for public review in December 2012.

In the event the Shu'luuk Wind Project is not constructed, then TL 6931 will be rebuilt with a vacant position to allow for the addition of a second circuit when needed in the future. For ease of reference and in order to provide a conservative analysis of potential impacts, this PEA assumes that the Shu'luuk Wind Project is constructed and that the installation of the generation interconnection circuit occurs concurrent with the fire hardening of TL 6931.

2.2 Project Objectives

The Proposed Project is being proposed to meet the following fundamental objectives:

1. Fire harden the existing system by replacing the existing 69 kV wood pole structures with steel poles that include 138 kV class insulators and vertical spacing.
2. Provide the interconnection facilities for the Shu'luuk Wind Project or a vacant position to allow for the addition of a second circuit when needed in the future.

3. Maximize the use of existing utility rights-of-way (ROWs) and access roads and follow Garamendi Principles[1] for the interconnection facilities of the Proposed Project.

The Proposed Project components, their locations, preliminary configuration, and the existing and proposed system configuration, are presented in Chapter 3 – Project Description. Each of the Proposed Project objectives is more thoroughly described as follows.

Fire harden the existing system by replacing the existing 69 kV wood pole structures with steel poles.

As a result of the fires in San Diego County in 2003, 324 wood transmission poles and 45 miles of transmission line were repaired at a cost of approximately $7 million. As a result of the fires in 2007, 309 wood transmission poles were replaced, and 56 miles of transmission line were repaired at a cost of approximately $16 million. Transmission line outages due to fires have a serious impact on utility electric system reliability and the resulting loss of electric service can debilitate emergency services and SDG&E customers' abilities to cope during a fire emergency. SDG&E previously identified TL 6931 to be rebuilt from wood poles to steel poles as part of SDG&E's ongoing efforts to replace existing wood poles with steel poles in high risk fire areas. TL 6931 feeds the Crestwood and Boulevard Substations, as well as distribution circuits 444, 445, and 1215 which provide power to approximately 1,400 customers. Customers fed by these distribution circuits include Mountain Empire Unified School District, AT&T, Cingular, Sprint PCS, T-Mobile, and Verizon as well as local government, fire, and law enforcement. As such, safe and reliable operation of TL 6931 is a priority.

The immediate and long-term benefits from these pole replacements include improved electric reliability available for company substations and the above-mentioned critical community infrastructure. Additionally, the average age of the poles being replaced is 35 years, and the majority of these poles have exceeded their expected useful life (30 years). During this pole replacement work, phase spacing will be increased and longer polymer insulators will be installed, thus reducing outage potential, improving contamination resistance, reducing estimated facility maintenance, maximizing equipment life span potential, and providing superior avian protection. Therefore, regardless of whether the other components of the Proposed Project are approved and constructed, the existing wood poles along this ROW would be rebuilt in the future with steel poles of similar configuration as envisioned under the Proposed Project. If constructed as a separate project, the rebuild of TL 6931 would likely either be coordinated with the CPUC through an Advice Letter or proceed as a categorically exempt activity.

Provide the Interconnection Facilities for the Shu'luuk Wind Project or a Second Circuit to Be Installed in the Future When Necessary.

A primary purpose of the Proposed Project is to provide the interconnection facilities for the Shu'luuk Wind Project. The Wind project's Interconnection request to the CAISO is for 138 kV voltage at the Boulevard East Substation. Also note that a lower voltage interconnection would

[1] Encourage the use of existing ROW by upgrading existing transmission facilities within those existing corridors where technically and economically justifiable.

not efficiently deliver the Shu'luuk Wind Project's output; the circuit to accommodate the interconnect has been proposed at 138 kV (one of the standard voltage classes in SDG&E's system). The proposed approximately 5.2-mile-long interconnection circuit would connect the Shu'luuk Wind Project to the existing Boulevard Substation and serve as the interconnect to the SDG&E electric grid.

SDG&E is obligated to interconnect/accommodate interconnection of generation projects that submit an interconnection request subject to the CAISO's Federal Energy Regulatory Commission (FERC) approved tariff.

In the event the Shu'luuk Wind Project is not constructed, TL 6931 will be rebuilt with a vacant position, which will facilitate the addition of a second circuit when needed in the future.

Maximize the use of existing utility rights-of-ways (ROWs) and access roads and follow Garamendi Principles for the interconnection facilities of the Proposed Project.

SDG&E has designed the Proposed Project to use existing transmission lines and ROWs to the greatest extent feasible. The new 138 kV circuit to be added to the TL 6931 rebuild would utilize approximately 5.2 miles of the existing 69 kV line for the proposed double circuit 138 kV configuration.

2.3 Other Benefits

By providing renewable generation interconnection facilities for the proposed Shu'luuk Wind Project, the Proposed Project will result in benefits other than those identified above, such as:

1. Help achieve California's renewable energy goals. On April 12, 2011, Governor Jerry Brown signed into law SB2, which requires 33 percent RPS by 2020.
2. Contribute to the reduction of greenhouse gas emissions by offsetting the need to utilize fossil fuel based electrical generation. Assembly Bill 32, California's Global Warming Solutions Act of 2006, mandates the reduction of greenhouse gas emissions to 1990 levels by 2020.
3. Facilitate the ability of the Campo Band of Mission Indians of the Kumeyaay Nation to receive the economic benefits that would be provided through the Shu'luuk Wind Project proposed on their land.

California's Renewables Portfolio Standard (RPS), established in 2002 under Senate Bill 1078, accelerated in 2006 under Senate Bill 107, and expanded in 2011 under Senate Bill 2, is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.

In 2003, the three key energy agencies in California—the California Energy Commission (CEC), the California Power Authority, and the CPUC—came together to adopt an Energy Action Plan

that identifies joint goals for California's energy future and sets forth a commitment to achieve these goals through specific actions. In 2005, the CEC and the CPUC adopted a second plan, Energy Action Plan II, to reflect policy changes and actions that had ensued over the previous two years. In 2008, an Energy Action Plan Status Update was released to incorporate the CEC's 2007 Integrated Energy Policy Report (IEPR), reflecting the passage of Assembly Bill 32, the California Global Warming Solutions Act of 2006. The IEPR includes advanced policies, intended to enable California to meet its energy needs in a carbon-constrained world. The report also provides a comprehensive set of recommended actions to achieve the goals outlined in these policies. On November 17, 2008, the Governor issued Executive Order S-14-08, which sets a further target of 33 percent renewable energy by 2020. On April 12, 2011, Governor Jerry Brown signed into law Senate Bill (SB) 2 ("SB2"), which requires 33 percent RPS by 2020.

To further support renewable energy targets, Governor Brown's Clean Energy Jobs Plan set a goal of adding 20,000 megawatts (MW) of renewable generating capacity by 2020, including 12,000 MW of localized electricity generation—small, on-site residential and business systems and intermediate-sized energy systems close to existing consumer loads and transmission lines as well as 8,000 MW of large-scale wind, solar, and geothermal energy systems. In addition, renewable energy is also a key strategy in achieving GHG emission reductions.

On February 22, 2012, the CEC issued its 2012 Integrated Energy Policy Report Scoping Order, directing the CEC to prepare a plan for renewable energy development to support Governor Brown's Clean Energy Jobs Plan expediting the highest priority renewable generation and transmission projects in the state.

With the advent of new technology, wind energy has become a more viable renewable resource in certain areas of California. The Department of Energy's Wind Program and the National Renewable Energy Laboratory (NREL) recently published a wind resource map for California identifying several key areas in southeastern California and Baja Norte for utility-scale wind development. These key wind resource areas are shown on Figure 2-1. According to the research, notable good-to-excellent resource regions include the mountains east of San Diego, which are within the service area of the Proposed Project.

The May 2010 Renewable Energy Transmission Initiative (RETI) Phase 2B Final Report identified the San Diego and Imperial Counties / Baja California Mega-Region as one of the top locations in the United States for renewable energy. Recent studies indicate this Mega-Region could become a global showcase for clean energy with a potential of more than 17,600 megawatts (MW) of renewable electricity: Solar Energy – 6,870 MW; Wind Energy – 9,302 MW including Baja California; Geothermal Energy – 1,434 MW; and Biomass Energy – 66 MW.

Help achieve California's renewable energy goals. On April 12, 2011, Governor Jerry Brown signed into law SB2, which requires 33 percent RPS by 2020.

The Shu'luuk Wind Project would generate up to 160 MW of renewable energy. By enabling the transmission of the renewable energy from the Shu'luuk Wind Project, the Proposed Project will help California meet the RPS mandates.

Contribute to the reduction of greenhouse gas emissions by offsetting the need to utilize fossil fuel based electrical generation. Assembly Bill 32, California's Global Warming Solutions Act of 2006, mandates the reduction of greenhouse gas emissions to 1990 levels by 2020.

The Proposed Project would provide the interconnection facilities for the Shu'luuk Wind Project. Wind-generated power technology is a 100 percent renewable energy source that does not produce greenhouse gas or other air emissions and does not require the use of fossil fuels. By providing the necessary interconnection facilities for renewable energy projects, the Proposed Project would facilitate decreasing California's reliance on natural gas for electricity generation, and will help reduce the need for construction of fossil-fueled power plants, which would therefore incrementally help California meet the greenhouse gas emissions mandate established in Assembly Bill 32.

Facilitate the ability of the Campo Band of Mission Indians of the Kumeyaay Nation to receive the economic benefits that would be provided through the Shu'luuk Wind Project proposed on their land.

The Campo Band of Mission Indians of the Kumeyaay Nation would derive economic benefits from the lease of their land. The Band would also likely benefit from the creation of short-term construction and development and long-term Project-related jobs on the reservation. The Tribal Company may also have additional benefits as a result of the Proposed Project such as employment and training in the renewable energy field. This project is consistent with the Band's assertions of sovereignty to launch sustainable tribal economies; to alleviate poverty and unemployment; and to create an environment where public affairs and private commerce can flourish in Indian Country.

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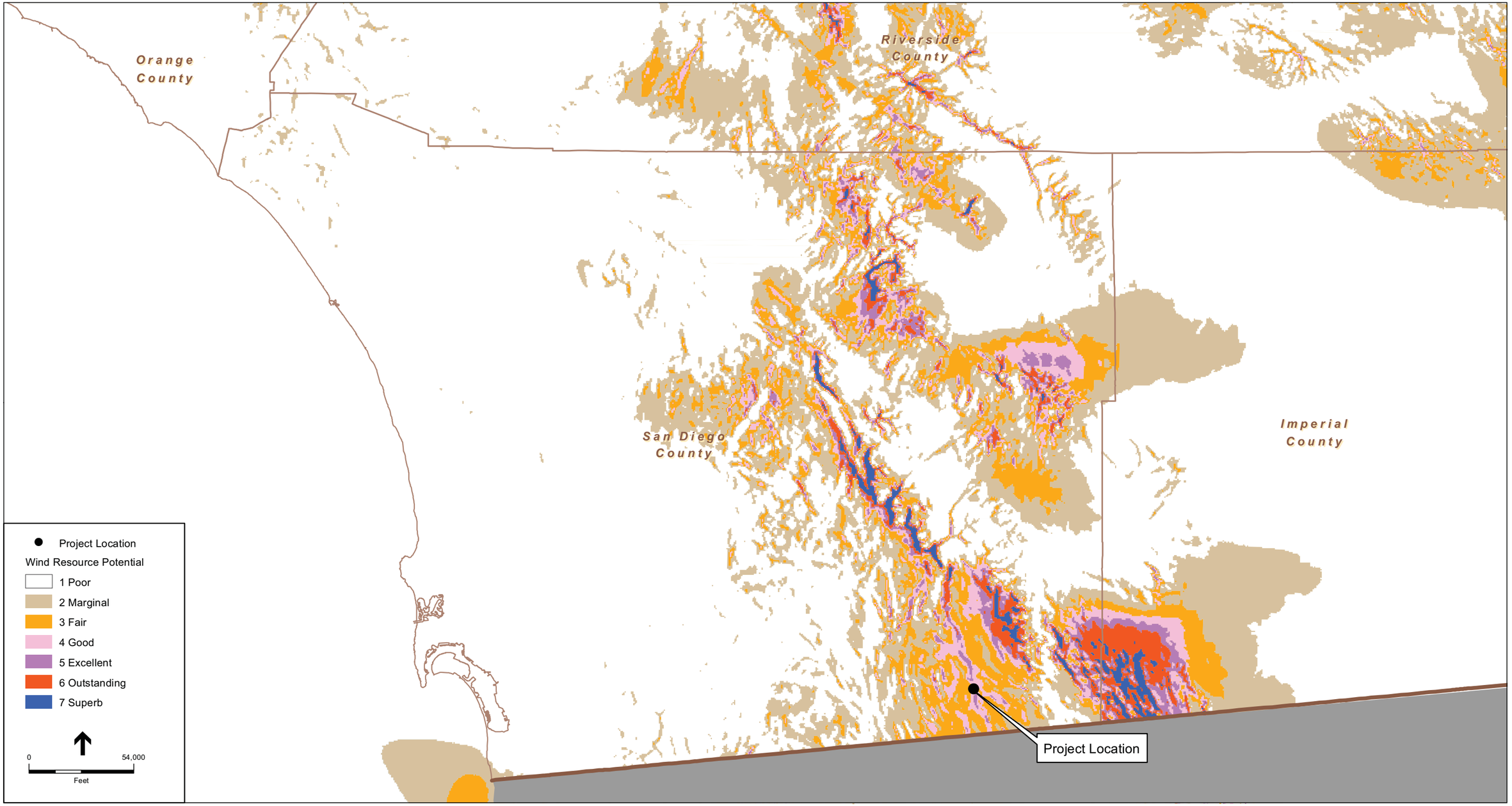


Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010); NREL (2003)

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 2-1

NREL Wind Resources Map

CHAPTER 3
Project Description

The Proposed Project is located in the Boulevard area of southeastern San Diego County, California, approximately 10 miles north of the United States (U.S.)-Mexico border, 15 miles west of the Imperial County border, and 50 miles east of downtown San Diego, as shown on Figure 3-1. The Proposed Project consists of the following primary components:

1. On the west end of the project, at the Campo Reservation boundary on private property, a double circuit steel pole deadend structure (Pole 1) will be installed.
2. Approximately 5.2 miles of TL 6931 from the Campo Reservation boundary to the Boulevard Substation will be fire hardened by replacing or modifying approximately 49 existing wood, single-circuit 69 kV poles with approximately 53 double-circuit dull galvanized steel poles. Additionally, two temporary wood poles will be installed for the interconnection of TL 6931 to the Boulevard East Substation until the existing Boulevard Substation is demolished at which time the two temporary wood poles would be removed. The proposed new steel poles will include 138 kV class insulators and vertical spacing and will provide for a second circuit on the rebuilt TL 6931. The new second circuit would be either a 138 kV generation interconnection circuit for the proposed Shu'luuk Wind Project (in the event that project is constructed) or a vacant position for a second circuit to be installed as needed in the future.
3. On the east end of the project, a new double circuit steel cable pole (Pole 52) will be installed. From Pole 52 to the Boulevard East Substation the 138 kV line will be constructed underground and the 69kV line will be constructed overhead. The approximately 750 foot underground 138 kV line will be generally constructed under existing roads, while a temporary 730 foot long 69 kV line will be built overhead and used as the interconnection to the Boulevard East Substation until the Boulevard Substation is demolished. Once the Boulevard East Substation is constructed, a new right-of-way (ROW) for the permanent 550 foot long 69 kV overhead line will be required.
4. Other ancillary facilities required to implement the Proposed Project, including 13 new permanent access roads for access and 3 permanent helicopter landing zones to facilitate on-going maintenance of the Proposed Project, and any temporary facilities required for construction (e.g., staging areas, guard structures, and temporary wood poles to accommodate TL 6931 interconnection to the Boulevard East Substation).

The Proposed Project will also result in modifications to existing 12kV distribution facilities including the installation of one new steel distribution pole between Pole 22 and 23.

The locations of these components are shown on Figure 3-1 and described in more detail below.

SDG&E notes that the project description may continue to evolve after the Proposed Project has been approved and construction has commenced. As discussed in Section 3.8, the Proposed Project will be constructed in compliance with the SDG&E Natural Communities Conservation Plan (NCCP). The NCCP requires SDG&E to avoid and minimize impacts to biological resources. Under the NCCP, SDG&E is not required to stay within specific work areas identified prior to construction; rather, SDG&E may modify construction work areas as necessary in the field. The actual impacts of construction are documented and mitigated after construction is complete.

3.1 Project Location

The Proposed Project would generally extend to the southeast from Pole 1 and terminate at the Boulevard East Substation once constructed[1] for a distance of approximately 5.2 miles.

Geographical Location: The Proposed Project is located south of I-8 and Old Highway 80 and traverses the Live Oak Springs and the Boulevard community areas in southeast San Diego County (see Figures 3-2 through 3-2D).

General Land Use: The route of the Proposed Project generally follows the existing 69 kV ROW of TL 6931, which is adjacent to and comprised of undeveloped rural land with an occasional nearby residence. The route generally parallels Old Highway 80 to the north and crosses Highway 94 roughly 2,000 feet west of Tierra del Sol Road.

Property Description: The proposed Project generally follows and parallels the alignment of the existing TL 6931. It traverses 29 privately owned parcels. The 29 parcels are owned by 15 individual owners. The parcel sizes range between 0.3 acres to 80 acres. A majority of the properties are vacant and those that are used are occupied by small single-family residences or mobile homes. The Proposed Project area is characterized as a desert transition region of southern California with elevation ranging from approximately 4,000 feet above mean sea level (amsl) at Pole 1 to approximately 3,400 feet amsl at the Boulevard Substation. Seven dominant vegetation communities occur within the Proposed Project area: Big Sagebrush Scrub, Chamise Chaparral, Upper Sonoran Subshrub Scrub, Redshank Chaparral, Non-native Grassland, Southern Willow Scrub, and Coast Live Oak Woodland.

3.2 Existing and Proposed System

The existing system in this area is comprised of a 69 kV wood power line (TL 6931) that connects the existing Boulevard 69/12 kV Substation to the existing Crestwood 69/12 kV Substation. After the construction of the proposed East County Substation (ECO) (500/230/138 kV), Boulevard East Substation (138/69/12 kV), and the 138 kV circuit interconnecting the Boulevard East Substation to the ECO Substation, the 69 kV TL 6931 rebuild will be operated as normally open (de-energized) at

[1] SDG&E plans to demolish the existing Boulevard Substation and replace it with the new Boulevard East Substation as part of the previously-approved ECO Substation Project.

the Boulevard East Substation end to prevent overload and damage to the line. The 69 kV connection between Crestwood and Boulevard East Substations will be closed (energized) to maintain the service to the customers that are being served from the Boulevard East Substation in the event SDG&E loses the Boulevard East Substation connection to the ECO Substation for any unforeseen reason such as a forced outage.

TL 6931, an existing 69 kV power line between the Crestwood and Boulevard East Substations (described above), will be rebuilt as a double circuit power line with one circuit installed and operated at 69 kV in place of the existing TL 6931 69 kV circuit. The second circuit will either remain vacant at this time or be installed and operated at 138 kV to facilitate the interconnection of the proposed Shu'luuk Wind Project into the Boulevard East Substation. The 69 kV circuit terminates at the Crestwood Substation at the west end and at the Boulevard East Substation at the east end. However, only the segment between Pole 1 (at the border of the Campo Reservation) and the Boulevard East Substation will be rebuilt at this time. If the Shu'luuk Wind Project is approved and constructed, SDG&E will install a new 138 kV circuit to serve as the generation interconnection for the Shu'luuk Wind Project. If constructed, the 138 kV circuit will terminate at the boundary of the Campo Reservation on the west end and at the Boulevard East Substation at the east end.

3.3 Proposed Project

As previously noted, the primary objectives of the Proposed Project include fire hardening an approximately 5.2 mile segment of existing TL 6931 and providing a generation interconnection circuit to Boulevard East Substation for the Shu'luuk Wind Project, assuming the Shu'luuk Wind Project is approved and constructed.

The existing TL 6931 will be rebuilt for approximately 5.2 miles with double circuit structures between Pole 1 and the new Boulevard East Substation in order to accommodate the existing 69 kV power line and the new 138 kV generation interconnection circuit for the Shu'luuk Wind Project. TL 6931 will be rebuilt in a double circuit configuration from Pole 1 adjacent to the Campo Reservation boundary to the Boulevard East Substation with TL 6931 on one side and the new 138 kV generation interconnection circuit on the other. In the event the Shu'luuk Wind Project is not constructed, then only one 69 kV circuit will be built at this time, leaving an open position for a future second circuit. For ease of reference and in order to provide a conservative analysis of potential impacts, this PEA assumes that the Shu'luuk Wind Project is constructed and that the installation of the 138 kV generation interconnection circuit occurs concurrent with the fire hardening of TL 6931.

More specifically, the Proposed Project will include the following activities. An approximately 5.2-mile-long power line will be constructed from Pole 1, as shown in Figure 3-1. The line will travel southeast from Pole 1 in a double circuit 69/138 kV configuration with the rebuilt TL 6931 on one side of the poles and the new 138 kV circuit on the other side of the steel poles (see Figures 3-3 through 3-5). The 138 kV circuit will transition from overhead to underground via a cable pole (Pole 52) then terminate at the Boulevard East Substation, while the 69 kV circuit

(TL 6931) will terminate overhead at the Boulevard East Substation. See Figures 3-2 to 3-2E for a depiction of the route.

In addition, the Proposed Project includes construction of three approximately 30 feet by 30 feet permanent helicopter landing zones and 13 access roads ranging from approximately 15 to 810 feet-long by approximately 14 feet-wide. These facilities will remain in place following construction of the Proposed Project. For more detailed information about these facilities, refer to Section 3.5.1.

The new 69/138 kV power line will require an approximately 100-foot-wide permanent ROW (50 feet on either side of the centerline) for approximately 5.2 miles, generally along the same alignment as the existing TL 6931 69 kV line. TL 6931 is currently located on privately owned land that is generally undeveloped except for the existing power line and adjacent residences. For more detailed information about the temporary ROW requirements, refer to Section 3.5.2.

3.4 Permanent Land/Right-of-Way Requirements

The following discussion describes the land and ROW requirements for each Project component. These requirements are also summarized in Table 3-1: New Permanent Land/ROW Requirements.

TABLE 3-1
NEW PERMANENT LAND/ROW REQUIREMENTS

Project Component[a]	Approximate Dimensions	Area (acres)
TL 6931 Rebuild/138 kV ROW	5.2 miles by 100 feet	63.0
New 138 kV Underground ROW	250 linear feet by 100 feet	0.58
New Access Roads outside of ROW	980 total linear feet by 14 feet	0.31
Helicopter Landing Zones (3 total, 2 outside ROW)	30 feet by 30 feet	0.041

[a] See Table 3-3 for access road acreages

The Proposed Project will require a 100-foot-wide permanent ROW for approximately 5.2 miles. A typical drawing of the 69/138 kV power line ROW is shown on Figures 3-4 and 3-5. Wood poles to be removed and the corresponding new structure numbers are provided in Table 3-2.

TABLE 3-2
NEW STRUCTURES AND WOOD POLES TO BE REMOVED

New Structure Number	Current Wood Pole Number
1	44246
2	New pole location
3	44247
4	44248
5	44249
6	44250
7	44251
8	44252
9	44253
10	44254
11	44255
12	44256
13	44257
14	44258
15	44259
16	41713
17	44260
18	New pole location north of existing Pole 44261, which will be topped but not removed in order to retain the 12 kV
19	New pole location northeast of existing Pole 44262, which will be topped but not removed in order to retain the 12 kV
20	New pole location northeast of existing Pole 46044, which will be topped but not removed in order to retain the 12 kV
21	New pole location northeast of existing Pole 44263, which will be topped but not removed in order to retain the 12 kV
22	New pole location northeast of existing Pole 44264, which will be topped but not removed in order to retain the 12 kV
23	New pole location
24	44265
25	44266
26	44267
27	44268
28	44269
29	44270
30	44271
31	44272
32	44273

New Structure Number	Current Wood Pole Number
33	44274
34	44275
35	44276
36	44277
37	44278
38	44279
39	44280
40	44281
41	44282_83
42	New pole location
43	44284_85
44	44286
45	44287
46	New pole location south of existing Pole 44288, which will be topped but not removed in order to retain the 12 kV
47	New pole location south of existing Pole 44289, which will be topped but not removed in order to retain the 12 kV
48	New pole location south of existing Pole 44290, which will be topped but not removed in order to retain the 12 kV
49	New pole location south of existing Pole 44291, which will be topped but not removed in order to retain the 12 kV
50	New pole location south of existing Pole 44292, which will be topped but not removed in order to retain the 12 kV
51	New pole location south of existing Pole 44293, which will be topped but not removed in order to retain the 12 kV
52	44294
53	New Pole Location

3.5 Construction

This section describes the required access, anticipated temporary workspace requirements, and the methods that will be employed to construct the facilities of the Proposed Project.

3.5.1 Access Roads

Information regarding types and dimensions of proposed new permanent access roads is summarized in Table 3-3.

TABLE 3-3
PROPOSED NEW PERMANENT ACCESS ROADS

Location	Length (feet)	Total Acreage
Pole 1	650	0.21
Pole 17	115	0.04
Poles 18-20	810	0.26
Pole 21-23	500	0.16
Pole 27	40	0.01
Pole 34	80	0.03
Pole 36	95	0.03
Pole 38	15	<0.01
Pole 40	20	<0.01
Pole 43	35	0.01
Pole 44	85	0.03
Pole 47	80	0.03
Pole 48	80	0.03
Total	2,605	0.84

Access to the Proposed Project would generally rely on existing roads. However, the project includes the construction of 13 new access roads ranging from 15 to 810 feet long by 14 feet wide where use of existing access roads is not feasible.

3.5.2 Workspace

The Proposed Project workspace includes all staging areas, temporary work areas at each of the structures, and the conductor pull sites. These anticipated temporary workspace requirements are described here in detail and summarized in Table 3-4.

TABLE 3-4
TEMPORARY WORKSPACE REQUIREMENTS

Workspace Description	Number	Required Improvements	Approximate Dimensions (feet)	Total Acreage
Staging Areas (including one helicopter staging yard)	3	Clearing and Grading	5 acres each	15.00
Steel Pole Work Areas	53	Clearing, Grading, and Excavation	115 by 115[a]	16.09
Wood Pole Work Areas	2[b]	Clearing, Grading, and Excavation	30 by 30	0.04
Steel Distribution Pole Work Area	1	Clearing, Grading, and Excavation	30 by 30	0.02
Pull Sites	10	Clearing and Grading	35 by 150	1.20
Guard Structure Locations	7	Clearing and Excavation	30 by 30 (On each side of the road)	0.28

[a] Included within the 115 foot by 115 foot work area is an approximate 75 foot by 50 foot of permanent cleared work area.

[b] In the event the Boulevard East Substation is not in service then two 69 kV temporary wood poles would be installed adjacent to the existing Boulevard Substation.

Staging Areas

During construction, three five-acre temporary staging areas will be developed to store and stage power line parts and equipment (for locations of staging areas see Figures 3-2A through 3-2D). The staging area located in the north of the Proposed Project area is currently used as a motocross track and was previously used by SDG&E as a staging area for replacement of wood distribution poles. The second staging area, located in the central portion of the Proposed Project area, is located on undeveloped land and a portion of the staging area will also serve as the helicopter staging yard. The third staging area is located at the eastern end of the project alignment near the Boulevard Substation. Clearing and grading will be required to use these staging areas. The staging areas will be fenced to secure materials being stored. Temporary fencing will be installed around the perimeter of the staging areas. Temporary staging areas will also be used for construction employee parking. Development activities for these areas will be similar to those of roadway construction such as surveying, clearing, and grading. These areas will be returned to pre-construction conditions once construction activities have been completed.

Helicopter Landing Zones

Light- or medium-lift helicopters will be used to fly equipment and workers to three landing zones adjacent to Poles 12, 13, and 14 that are being installed using micropile construction techniques (for a description of micropile construction techniques see Section 3.5.3, Methods). Helicopter use will also be necessary intermittently for approximately one week to fly in the sock line for stringing the conductor. Helicopters would originate from a commercial heliport and utilize the helicopter staging yard to access the project alignment and to refuel.

Temporary Work Areas

In addition to the staging areas discussed in the previous section, work areas will be required at each new structure location and at intervals along the power lines to pull and tension conductor (see Table 3-3). These areas are described in more detail in the section that follows.

In order to accommodate construction equipment and activities during construction of the 69/138kV power line, temporary construction areas of approximately 0.3 acre (115-foot by 115-foot) will be required at each of the 53 permanent steel structure locations. Included within this area will be up to approximately 75-foot by 50-foot of permanent cleared work area. The one steel distribution pole and the two temporary wood poles to be installed will each require up to 900 square feet (30-foot by 30-foot) of cleared work area.

Pull Sites

Ten pull sites will be required for the installation of the new 69/138kV conductor. These pull sites are located on previously disturbed access roads to the extent feasible and are depicted in Figures 3-2A through 3-2C. In general, the pull sites will be approximately 150 feet by 35 feet, resulting in temporary disturbance of approximately 0.12 acre per site. Grading of the pull sites is not anticipated but may be necessary.

3.5.3 Methods

Construction methods are described in this section for each Project component. No dewatering is anticipated during construction of the Proposed Project. Refer to Section 4.6 Hazards and Hazardous Materials for information regarding handling and disposal of contaminated materials.

Water Use

Approximately 2.3 million gallons of water will be required during project construction and will be obtained from one, or a combination of the following sources: purchasing and transporting water from local (small) water districts, purchasing and transporting water from private commercial well owners, or purchasing and transporting water from large water districts in the San Diego Metropolitan area. Until the final water acquisition scenario is chosen, the Proposed Project's water use evaluation will be based on water deliveries from sources in the City of San Diego and the San Carlos area, which are approximately 50 miles west of the Proposed Project.

Project water use for earthwork, dust-control, and concrete batching is anticipated to range from 7,600 gallons per day to a maximum of 15,300 gallons per day or an average of approximately 10,500 gallons per day. Based on these estimates, there would be an average of 1.5 daily water truck deliveries to the Proposed Project during construction.

It is anticipated that up to three (3) 12,000 gallon temporary water storage tanks will be placed at one or more of the temporary staging areas described in Section 3.5.2. Water delivery to individual work sites is anticipated to be accomplished with 3,000 gallon capacity water distribution trucks for earthwork and dust control purposes, or by volumetric concrete trucks for foundation concrete placement.

Concrete Placement

The concrete needed to construct foundations is anticipated to be delivered to individual work sites by volumetric concrete trucks. Volumetric concrete trucks transport cement, coarse and fine aggregates, and water in separate tanks or bins, then mix (batch) the specified concrete mixture at each of the foundation sites. Storage of the concrete batching materials is anticipated to be located at one or more of the temporary staging areas described in Section 3.5.2. Materials storage may include a mobile tank for cement storage, stockpiles of coarse and fine aggregates, and drum storage of specified admixtures (if any). All storage associated with concrete supplies will comply with best management practices for materials storage and storm water quality.

Access Road Construction

The first step in constructing the overhead line will be to improve the existing roads and construct unpaved access roads to the new structure sites (see Table 3-2). These roads will be graded generally 14 foot wide for straight sections and up to 20 foot wide at curves to safely allow movement of construction equipment and vehicles to each site. Typically, each access road will first be cleared of vegetation by a bulldozer. A motorgrader will then be used to grade and level the road in accordance with the engineered specifications. The road will then be compacted by a roller compactor to a predetermined level. All access road construction will follow the specifications outlined in SDG&E Design and Procedure Manual for Transmission Line Access Roads.

Clearing and Grading

Once access to each structure location has been established, the work area will be cleared of vegetation. More detailed information regarding the vegetation and habitat communities to be impacted by clearing is provided in Section 4.4 Biological Resources.

Pole Installation

Installation of tangent, straight, or dead-end poles, will be on drilled pier or micropile foundations.

Drilled pier foundations begin with the excavation of holes ranging from approximately six to ten feet in diameter, and approximately 20 to 40 feet deep. Precise diameter and depth are dependent on the type and height of the pole. Holes are excavated using an auger mounted on a large truck or tracked vehicle. Reinforcing steel cages and anchor bolt cages are set in the open hole, and concrete poured to a level approximately two feet above grade.

If rock is encountered during pole excavation, a hydraulic rock drilling and splitting procedure (rock-splitting) may potentially be used to minimize drilling time, depending on site specific conditions. The procedure involves drilling a hole in the rock and inserting a non-blasting cartridge of propellant. The cartridge is mechanically initiated by an impact generation device. This hydro-fracturing effect causes controlled tensile crack propagation in the rock and does not result in flyrock, noxious fumes, or ground vibrations.

In the event that rock blasting may potentially be used to excavate pole locations along the power line that are solid rock, and where the hydraulic rock drilling and splitting procedure would be

ineffective, the following procedure would be utilized. The procedure would minimize both drilling time and noise impacts. The blasting involves drilling 3-inch-diameter blast holes to the full depth of the shaft and inserting explosives. Blasting caps are connected, and a non-electric detonator is employed. Flyrock protection is installed prior to blasting, and seismographs are placed to measure and record peak particle velocity and air blast levels at various distances from the blast site. Dust control would include a combination of steel plate covering, geo-textile fabric with chain link fence covering, and wetting the blasting surface. If blasting is utilized with the project, the blasting contractor will be required to obtain a blasting permit and explosive permit per the San Diego County Regulatory Ordinances. The appropriate BMPs will be used before, during, and after all project-related construction activities where necessary to prevent erosion and offsite sedimentation.

Alternatively, micropile foundations may be used. Micropile foundations are well-suited for inaccessible locations, or areas underlain by rock. Micropile foundations typically consist of a series of 4 to 12 small diameter piles arranged in a circular array and connected directly to a steel transition plate or concrete pile cap. Each micropile consists of a small drilled hole ranging from approximately 6 to 10 inches in diameter, and excavated to a depth typically ranging from 10 to 40 feet depending on the underlying properties of the soil. A steel rod is inserted in the hole, grouted, and connected to the transition plate or pile cap. The drilling process is powered by generators or compressors supported by a small platform. Equipment used for the micropile installations is smaller and more portable than truck-mounted drill rigs used for drilled pier excavation. As currently designed, it is anticipated that micropile construction would occur at Poles 12, 13, and 14.

Underground Service Alert (USA) will be notified a minimum of 48 hours in advance of excavating or conducting other ground-disturbing activities in order to identify buried utilities. Exploratory excavation (potholing) will be conducted to verify the locations of existing underground utilities in close proximity to foundations.

Surplus soil from the foundation excavations will be placed on the graded pad around the foundation or spread onto adjacent access roads or other areas within the Proposed Project limits.

Conductor Installation

Prior to stringing the new overhead 69/138 kV double circuit line, temporary guard structures typically consisting of vertical wood poles with cross arms will be installed at road crossings and crossings of energized electric and communication lines, preventing the conductors from sagging onto roadways or other lines during the conductor installation. In some cases, bucket trucks may also be used for guard structures. As an alternative to using temporary guard structures, SDG&E may use flaggers to temporarily halt traffic for brief periods of time while the overhead conductor is installed at road crossings.

Conductor and fiber optic ground wire stringing will begin with the installation of insulators and stringing sheaves during the pole installation. Sheaves are rollers that are temporarily attached to the lower end of the insulators to allow the conductor to be pulled along the line. A rope will then be pulled onto the rollers from structure to structure using a helicopter traveling along the ROW.

Once the rope is in place, it will be attached to a steel cable and pulled back through the sheaves. The conductor will then be attached and pulled back through the sheaves and into place using conventional tractor-trailer pulling equipment located at pull and tension sites along the line. The pulling through each structure will be done under a controlled tension to keep it elevated and away from obstacles, thereby minimizing third-party damage to the line and protecting the public.

Work area sites will be required in order to tension the conductor to a pre-calculated level. The sites will be needed to set up the tractors and trailers with reels of conductors, and the trucks with the tensioning equipment.

After the conductor has been pulled into place, the sag between the structures will be adjusted to a pre-calculated level. The line will be installed with a minimum ground clearance of 30 feet. The conductor will then be attached to the end of each insulator, the sheaves will be removed, and vibration dampers and other accessories will be installed.

Distribution Line Modification

While much of the 12 kV distribution line that exists between Pole 1 and the Boulevard Substation will remain unchanged during construction of the Proposed Project, some portions of the line will be altered. At Pole location 16 an anchor pole will be constructed where the distribution line crosses the new power line. Further south on the line, the existing TL 6931 wood poles between Poles 18 and 23 will be topped to remove the 69kV portion of the pole, leaving the 12 kV distribution underbuild infrastructure in this section. One steel distribution pole with guy wires will be constructed between Poles 22 and 23 to reroute the underbuild distribution to the proposed alignment approximately 50 feet south. The proposed double circuit steel poles from Poles 23 to 30 will be constructed with distribution underbuild. Further east, the existing TL 6931 wood poles will be topped from between Poles 46 to 51 to remove the 69kV portion of the pole, leaving the 12 kV distribution underbuild infrastructure in this section. Refer to Figure 3-2 for the general locations of the modified distribution poles.

Cleanup and Post-Construction Restoration

All areas that are temporarily disturbed around each structure, as well as areas used for conductor pulling and tensioning, and staging will be restored to preconstruction conditions, to the extent practical, following the installation of the line. This will include removal of all wood pole butts, construction materials and debris, returning areas to their original contours, and reseeding.

3.5.4 Schedule

As presented in Table 3-5, construction of the entire Project is anticipated to require approximately 9 months from the initial site development through energization. Construction activities will generally be limited to no more than 12 hours per 24-hour period, six days per week, as needed. On occasion, construction activities may be required at night or on weekends to minimize impacts on schedules and facilitate cutover[2] work, and as required by other property owners or agencies, such as the California Department of Transportation (Caltrans) and the

[2] Cutover is a term that means to move service from one circuit to another.

CAISO, which may require outages of certain portions of the electric system. If construction occurs outside of hours allowed by San Diego County, SDG&E will follow its established protocols and will provide advance notice by mail to all property owners within 300 feet of planned construction activities. The announcement will state the construction start date, anticipated completion date, and hours of construction.

TABLE 3-5
PROPOSED CONSTRUCTION SCHEDULE

Project Component	Activity	Approximate Number of Months	Anticipated Start Date
TL 6931 Rebuild and 138 kV Interconnection	Site Grading	3	April 2014
	Pole Foundation Installation	3	September 2014
	Pole Installation	3	September 2014
	Conductor Stringing and Sagging	2	October 2014

SDG&E anticipates that rebuild of TL 6931 and construction of the 138 kV interconnection will take approximately 9 months, with procurement of equipment requiring approximately 6 months.

3.5.5 Equipment

In addition to construction equipment, pick-up trucks and worker vehicles are expected to travel daily to and from each Project work site. Maintenance and delivery trucks will likely travel to and from the staging areas once or twice a week, or up to four times a week during peak activities. Water trucks will be required to deliver water to the Proposed Project site for dust control, compaction, and fire protection.

3.5.6 Personnel

Personnel anticipated to be onsite for each Project component during peak construction conditions is shown in Table 3-6. Each component of the Proposed Project will go out to bid separately; however, construction will be timed for common in-service completion.

TABLE 3-6
PEAK CONSTRUCTION PERSONNEL

Project Component	Activity	Number
TL 6931 Rebuild and 138 kV Interconnection	Site Preparation	24
	Below Grade	23
	Above Grade	21
	Test and Energize	10

3.6 Operation and Maintenance

The Proposed Project will rebuild an approximately 5.2 mile segment of TL 6931, an existing 69 kV power line that SDG&E has continuously operated and maintained for decades to the Boulevard and Jacumba communities. SDG&E operates and maintains these facilities consistent with SDG&E's standard protocols and procedures, including SDG&E's *Natural Communities Conservation Plan* (NCCP), which is described in greater detail in Section 4.4.3. No change in SDG&E's operations and maintenance protocols is anticipated or included as part of the Proposed Project. SDG&E's existing protocols and procedures, including SDG&E's NCCP, have been incorporated into the design of the Proposed Project and are also reflected in the baseline from which impacts of the Proposed Project have been evaluated.

This section describes the operation and maintenance activities that SDG&E currently conducts and will continue to conduct once the Proposed Project has been constructed and is in service.

Right-Of-Way Repair

ROW repair methods include grading previously built roads (re-establishment) and existing maintenance access roads and spot-repair of erosion sites subject to scouring. Repairs are performed as necessary, usually following seasonal rains, and may require the use of a four-wheel-drive pick-up truck, a motor grader, a backhoe, and/or a cat-loader. The cat-loader has steel tracks while the remaining equipment has rubber tires.

Pole or Structure Brushing

Certain poles or structures such as those with fuses, switches, hot tap clamps, split bolts or other similar types of equipment, require the removal of vegetation to increase aerial patrol effectiveness or to reduce fire danger. Vegetation is removed using mechanical equipment consisting of chain saws, weed trimmers, rakes, shovels, and brush hooks. Three-man crews typically conduct this work. Normally, a 10-foot radius is cleared around the pole base. Poles are typically inspected on an annual basis to determine if brushing is required.

Application of Herbicides

Application of herbicides sometimes follows the mechanical clearing of vegetation to prevent vegetation from re-occurring. SDG&E normally utilizes one or more of 16 herbicides. This activity generally requires one person in a pick-up truck and takes only minutes to spray around the base of the pole within a radius of approximately 10 feet. The employee will either walk from the nearest access road to apply the herbicide or drive a pick-up truck directly to each pole location as access permits. All herbicides will be administered in accordance with existing laws and regulations.

Equipment Repair and Replacement

Poles or structures may support a variety of equipment such as conductors, insulators, switches, transformers, lightning arrest devices, line junctions, and other electrical equipment. This type of equipment may need to be added, repaired, or replaced in order to maintain uniform, adequate, safe, and reliable service. An existing transmission structure may be removed and replaced with a

larger/stronger structure at the same location or a nearby location, due to damage or changes in conductor size. Equipment repair or replacement generally requires a crew to gain access to the location of the equipment to be repaired or replaced. This is normally a four-man crew with two to three trucks, a boom or line truck, an aerial lift truck, and an assistant truck. If no vehicle access exists, the crew and material have to be flown in by helicopter.

Insulator Washing

Insulators are subject to airborne contaminants; if not cleaned routinely, they may flashover and cause a short circuit. The process of washing insulators involves driving a water truck to within six feet of the facility. A high-pressure hose is used to spray water at the insulators. A two-man crew is needed for this operation. The space needed at each location is the size of the truck—approximately 30 by 40 feet. Typically, a half hour is required for set up and washing of each insulator pole set. Washing consists of spraying the insulators with deionized water. Insulators are typically inspected on an annual basis to determine if washing is required. The 69/138kV power line will utilize polymer insulators that do not require washing. Insulator washing may also occur at each of the substations depending on the type of insulators used and the level of particulate (dust) contamination.

Tree Trimming

Tree trimming plays a critical role in maintaining reliable electrical power. Tree limb contact with electrical lines may cause power outages. Regular inspection, regardless of habitat type, is necessary to maintain proper line clearances. Tree trimming activities are conducted with a two-man crew, a one-man aerial lift truck, and a chipper trailer. In most cases, the crew has vehicle access. If vehicle access is not available, the crew walks to the location to conduct the trimming. Although the time required to complete tree trimming varies by the location, most tree trimming activity can be completed in one day. Trees where electric facilities exist are inspected annually in SDG&E's service area.

Use of Helicopters

Helicopters are used in the visual inspection of overhead facilities. Each electric power line is inspected several times a year via helicopter. SDG&E's Transmission and Distribution Departments use helicopters for patrolling transmission and distribution lines during trouble jobs (outages/service curtailments) in areas that have no vehicle access or rough terrain. For patrolling during such jobs, the helicopter either picks up the patrolman at the district yard or in the field. For either new construction or maintenance, the helicopter needs a flat staging area for fueling and picking up material, equipment, and personnel. The Proposed Project includes three permanent helicopter landing sites to facilitate access for operation and maintenance activities. The size of the required workforce varies from four to 10 crewmembers, two helicopter staff, and a water truck driver to apply water for dust control at the staging area. Most helicopter operations take only one day.

3.7 Anticipated Permits and Approvals

The California Public Utilities Commission (CPUC) is the lead state agency for this Project under the California Environmental Quality Act (CEQA) because a Permit to Construct (PTC) is required in accordance with the CPUC's General Order No. 131-D Section III.B (GO 131-D), which contains the permitting requirements for the construction of transmission and power line facilities. SDG&E will obtain all relevant permits for the Proposed Project from federal, state, and local agencies. Refer to Table 3-7 for a list of potential permits and approvals that may be required for construction.

TABLE 3-7
ANTICIPATED PERMITS AND APPROVALS

Agency	Permit/Consultation/Approval	Jurisdiction/Purpose
Federal Agencies		
United States Fish and Wildlife Service (USFWS)	Endangered Species Act Consultation	Activities that may affect federally listed species or its habitat (Quino Checkerspot Butterfly)
FAA	Permission to Fly Helicopters	Activities that may affect air traffic
State Agencies		
CPUC	PTC	Construction of a power line under 200kV
California State Water Resources Control Board (SWRCB)	National Pollutant Discharge Elimination System–Construction Stormwater Pollution Prevention Plan	Stormwater discharges associated with construction activities disturbing more than 1 acre of land
California Department of Transportation	Encroachment Permit	Construction of facilities within, under, or over state highway ROW
Local Agencies		
San Diego County	Encroachment Permit	Construction of facilities within, under, or over county road ROWs
	Grading Plan Review	Grading of more than one acre in San Diego County
	Traffic Control Plan	Construction affecting San Diego County roads

3.8 Applicant-Proposed Measures

As part of the Proposed Project, SDG&E plans to incorporate the applicant-proposed measures (APMs) into the Proposed Project design to avoid or minimize potential impacts to sensitive resources. SDG&E will conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. All project-related activities are subject to the APMs ultimately authorized by the CPUC. The various resource sections detail how and when the APMs will be applied to avoid or minimize impacts to a less-than-significant level.

The Proposed Project includes the reconstruction of linear electric infrastructure that traverses multiple jurisdictional boundaries, natural resource features, and habitat types. Until final design, and in some cases until installation, the ultimate configuration and placement of facilities will not be known. The Proposed Project may encounter unique topographical and natural features along the existing ROW, engineering challenges, and a variety of existing and proposed land uses. The APMs take into consideration the potential for the Proposed Project to encounter such features and enhance SDG&E's ability to modify the final design during the installation phase to maximize overall project feasibility, while avoiding or minimizing impacts on sensitive environmental resources.

The APMs are designed to take advantage of project design flexibility, by avoiding or minimizing environmental impacts to the extent feasible. As defined in the CEQA, "feasible" means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors," while attaining the Proposed Project's basic objectives, purpose, and need.[3]

The Proposed Project will avoid and minimize impacts to biological resources through implementation of SDG&E's NCCP. The NCCP establishes a mechanism for addressing biological resource impacts incidental to the development, maintenance, and repair SDG&E facilities within the NCCP coverage area. The Proposed Project is located within the NCCP coverage area.

The NCCP includes an Endangered Species Act (ESA) Section 10(A) permit and a California Endangered Species Act (CESA) Section 2081 memorandum of understanding (for incidental take) with an Implementation Agreement with the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG), respectively, for the management and conservation of multiple species and their associated habitats, as established according to the Federal and State Endangered Species Acts and California's Natural Community Conservation Planning Act. The NCCP is a comprehensive program of measures to protect and enhance the recovery of species covered by CDFG and USFWS. The NCCP's Implementing Agreement confirms that the mitigation, compensation, and enhancement obligations contained in the Agreement and the NCCP meet all applicable standards and requirements of the California Endangered Species Act, the federal Endangered Species Act, the Natural Communities Conservation Plan Act, and the Native Plant Protection Act with regard to SDG&E's activities in the Subregional Plan Area.

Pursuant to the NCCP, SDG&E will conduct pre-construction studies for all activities occurring off of existing access roads in natural areas. An independent biological consulting firm will survey all Proposed Project impact areas and prepare a Pre-activity Study Report (PSR) outlining all anticipated impacts related to the Proposed Project. The PSR will also include project specific avoidance and minimization measures, which are in addition to the standard operational protocols outlined in the NCCP. The Proposed Project will include monitoring for all project components, as recommended by the PSR, as well as other avoidance and minimization measures. The PSR will then be submitted to the CDFG and the USFWS.

[3] Public Resources Code, Section 21061.1 and California Code of Regulations Title 14, Section 15126.6.

Biological monitors will be present during construction to assure implementation of the avoidance and minimization measures. If the previously-delineated work areas must be expanded or modified during construction, the monitors will survey the additional impact area to determine if any sensitive resources will be impacted by the proposed activities, to identify avoidance and minimization measures, and to document any additional impacts. Any additional impacts are included in a Post-Construction Report (PCR) for purposes of calculating the appropriate mitigation, which generally includes site enhancement or credit withdrawal from the SDG&E mitigation bank. When construction is complete, the biological monitor will conduct a survey of the entire line to determine actual impacts from construction. The PCR will determine how much site enhancement and credit withdrawal from the SDG&E mitigation bank will be required to mitigate for all impacts from project related activities. These impact and mitigation numbers are submitted to the USFWS and the CDFG as part of the NCCP Annual Report pursuant to requirements of the NCCP and the NCCP Implementing Agreement.

3.9 Implementation of Applicant-Proposed Measures

Prior to the start of construction, SDG&E will assemble the construction and environmental teams responsible for implementing and overseeing the APMs. Contractors and subcontractors working on the Proposed Project will be contractually bound to the requirements and stipulations of the APMs to ensure that the measures are implemented as proposed. SDG&E has developed an environmental compliance management program in order to track, document, and enforce implementation of APMs throughout each phase of the Proposed Project. Key components of the program are described in the following sections.

3.9.1 Environmental Compliance Management

SDG&E's environmental compliance team will include an environmental project manager, resource specialists, and environmental monitors to inspect, document, and report on compliance with APMs, as well as any mitigation measures that are identified. SDG&E will assign specialists in water quality, hazardous materials, and natural resources to ensure proper implementation of the APMs and Mitigation Measures and evaluate the effectiveness during construction. Onsite monitors will be familiar with the requirements and intent of each APM or Mitigation Measure and will verify implementation in the field on a daily basis. The status and effectiveness of APMs and Mitigation Measures will be discussed during regularly scheduled construction meetings.

3.9.2 Environmental Training

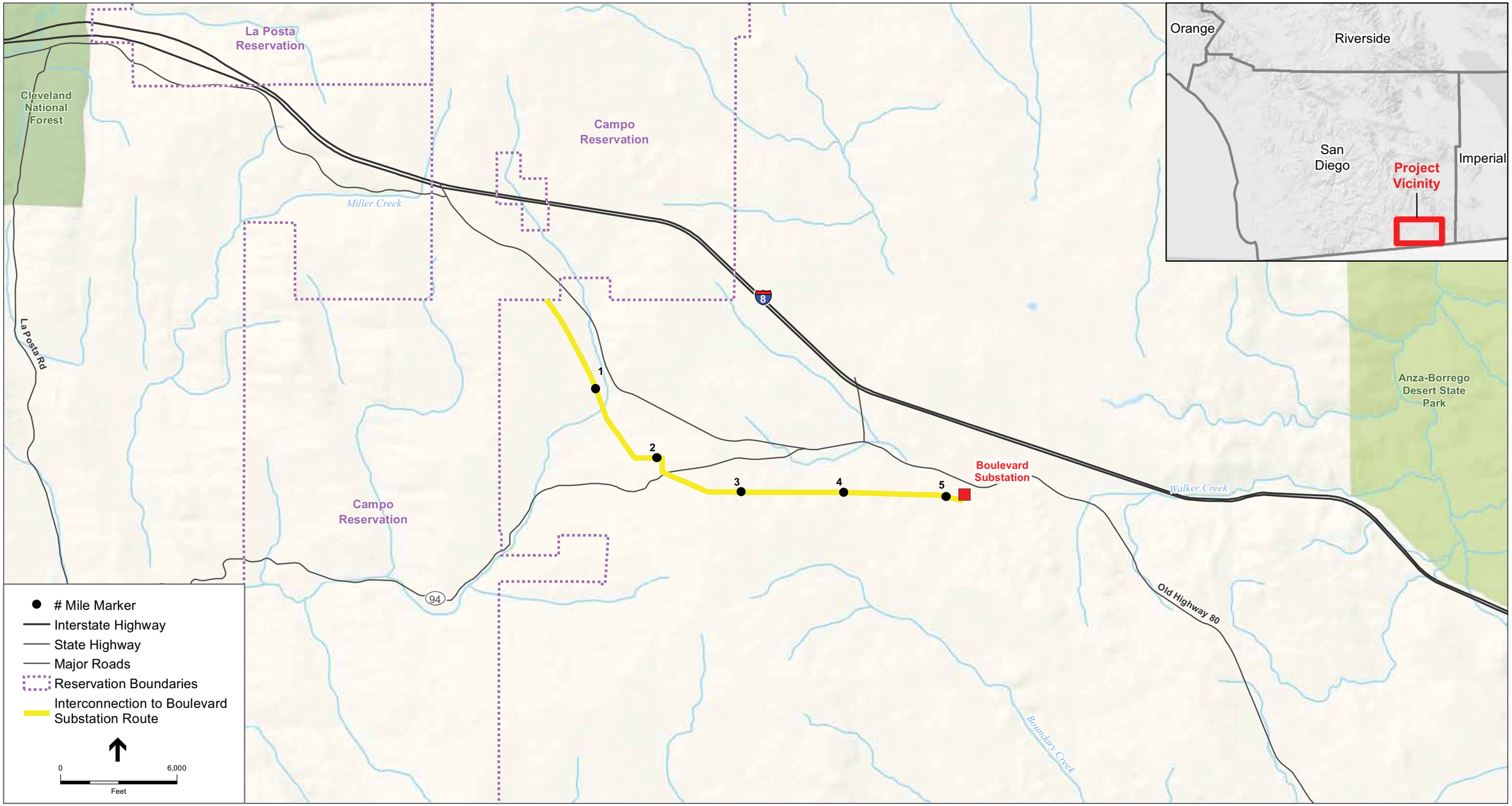
Construction worker training will occur as part of a Project-specific environmental training program developed by SDG&E. The program will include a multi-level approach that is commensurate to each workers role on the Proposed Project. Supervisors, including construction foreman, will participate in an in-depth training session to review the requirements of each APM, permit condition, and/or mitigation plan. Crews and other staff will also receive training and review of Project requirements. All Project personnel working on the ROW will attend SDG&E's training program prior to starting work.

3.9.3 Monitoring and Inspection

Environmental monitors and contract administrators will be onsite during all phases of construction to verify that APMs and other Project specifications are adhered to. Issues or concerns related to implementation of the APMs will be addressed in the field and/or communicated to the environmental project manager for corrective action. The environmental monitors and contract administrators will have stop work authority if construction activities threaten a sensitive resource or seriously deviate from Project requirements.

3.9.4 Reporting and Documentation

Implementation of the APMs will be tracked and documented on a daily basis by SDG&E's environmental monitors. The monitors will use field notes and digital photographs to document and communicate the status of APMs.

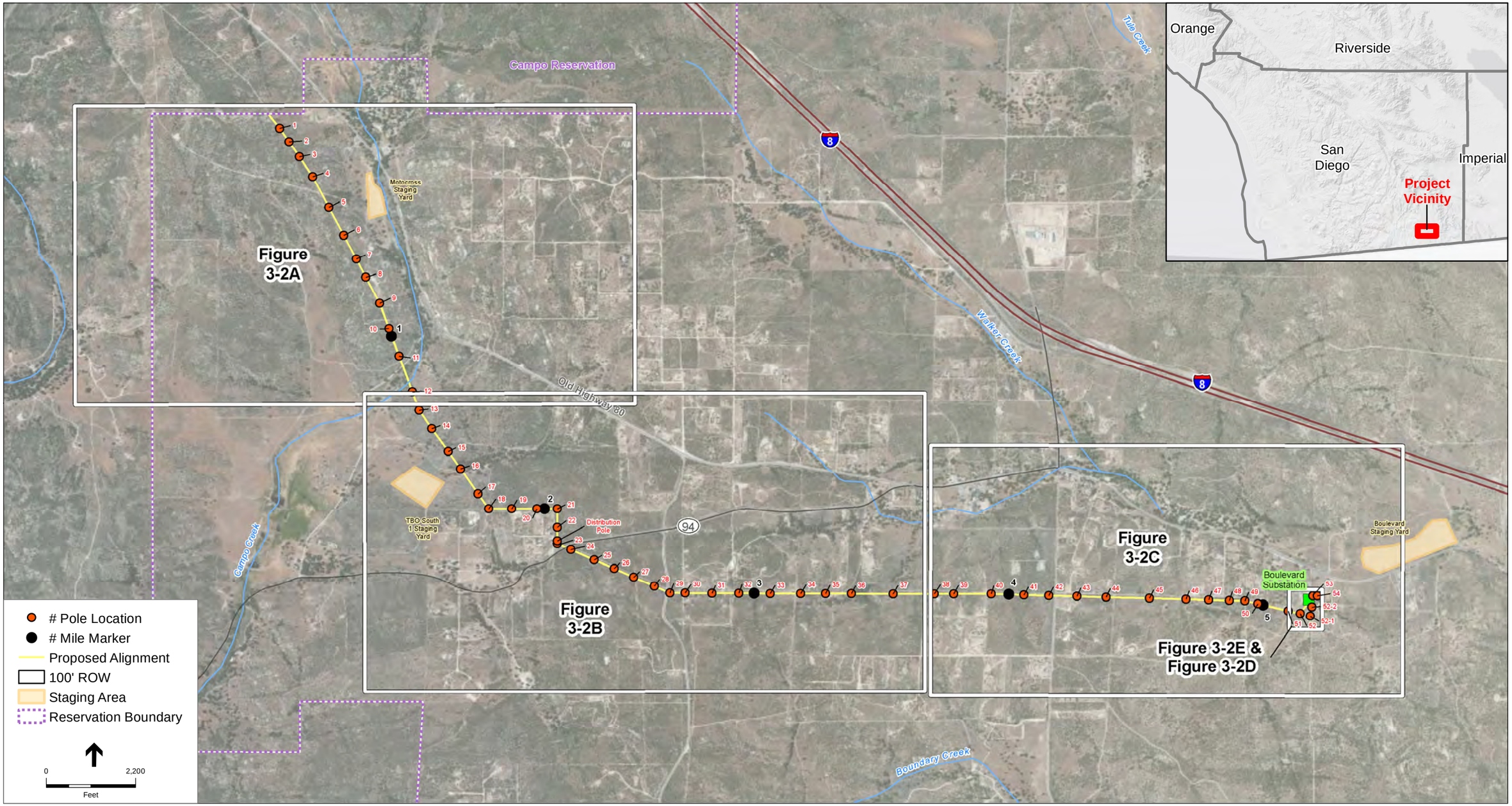


SOURCE: Sempra Utilities (2011), ESRI (2010), USGS (2010)

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

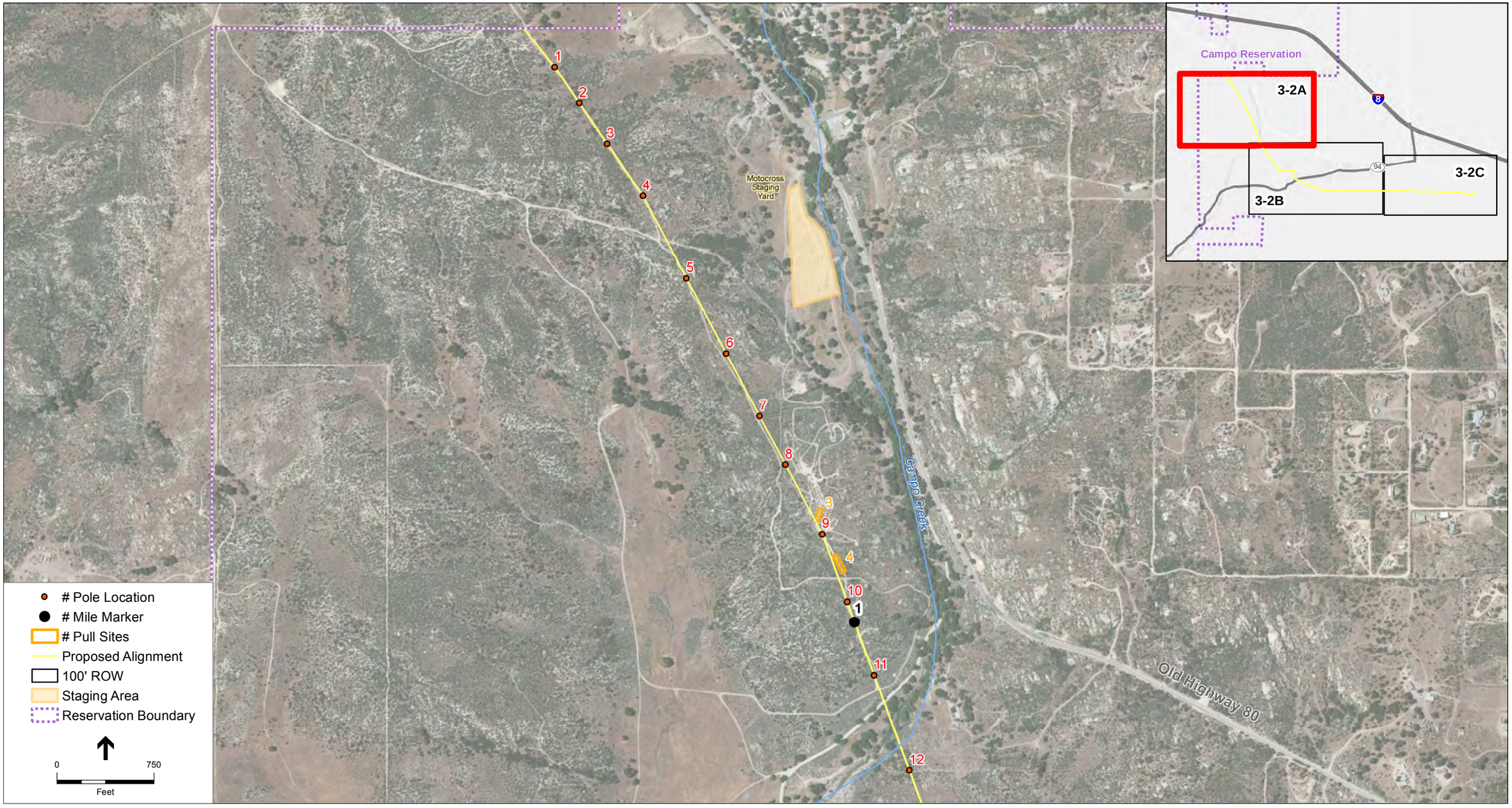
Figure 3-1

Project Location Map



SOURCE: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010)

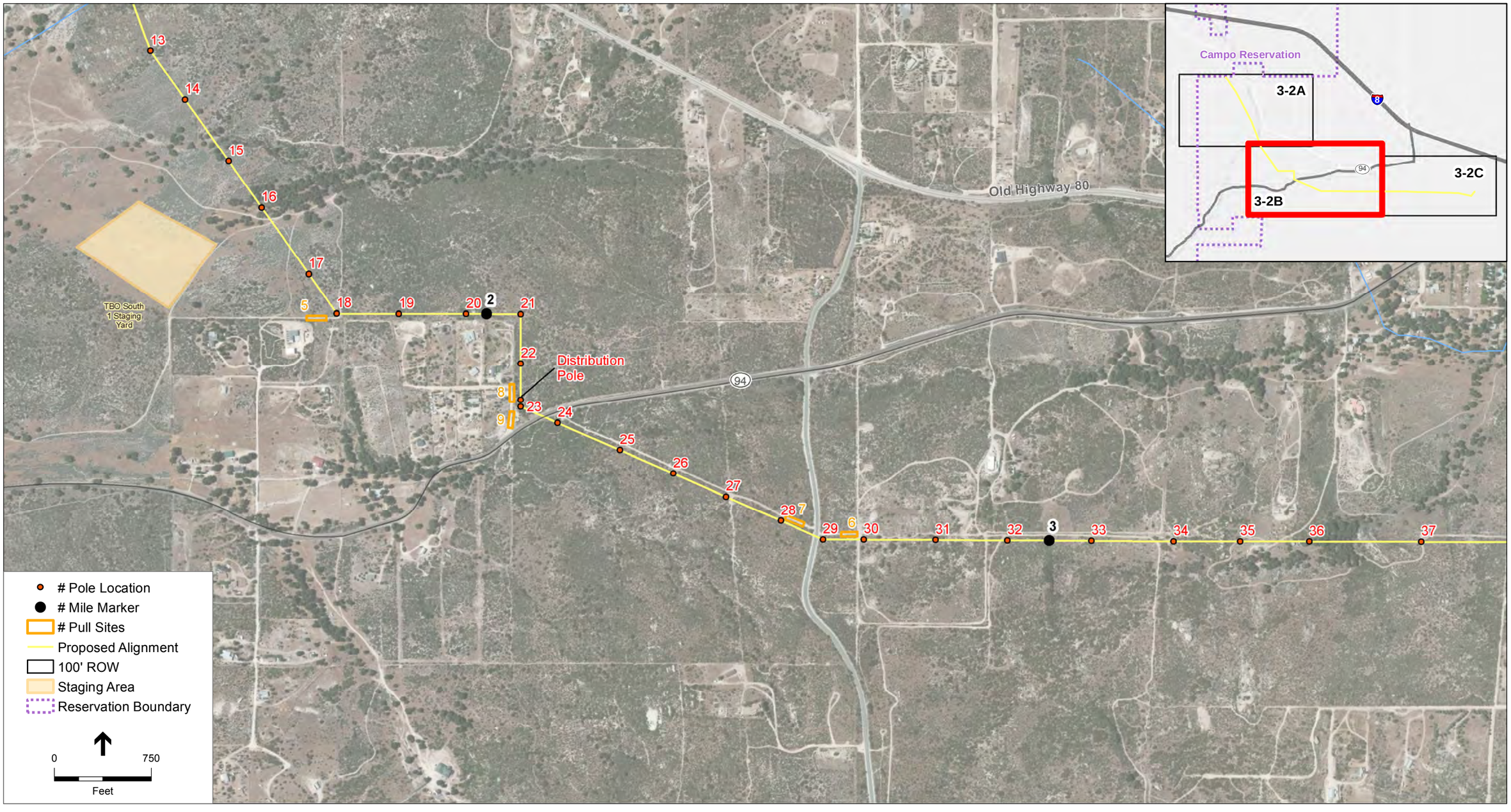
Figure 3-2
Proposed Alignment



SOURCE: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010)

Figure 3-2A

Interconnection to Boulevard East Substation – Str 1-12



SOURCE: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010)

Figure 3-2B

Interconnection to Boulevard East Substation – Str 13-37

SOURCE: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010)

Figure 3-2C

Interconnection to Boulevard East Substation – Str 38-54

Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010)

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 3-2D

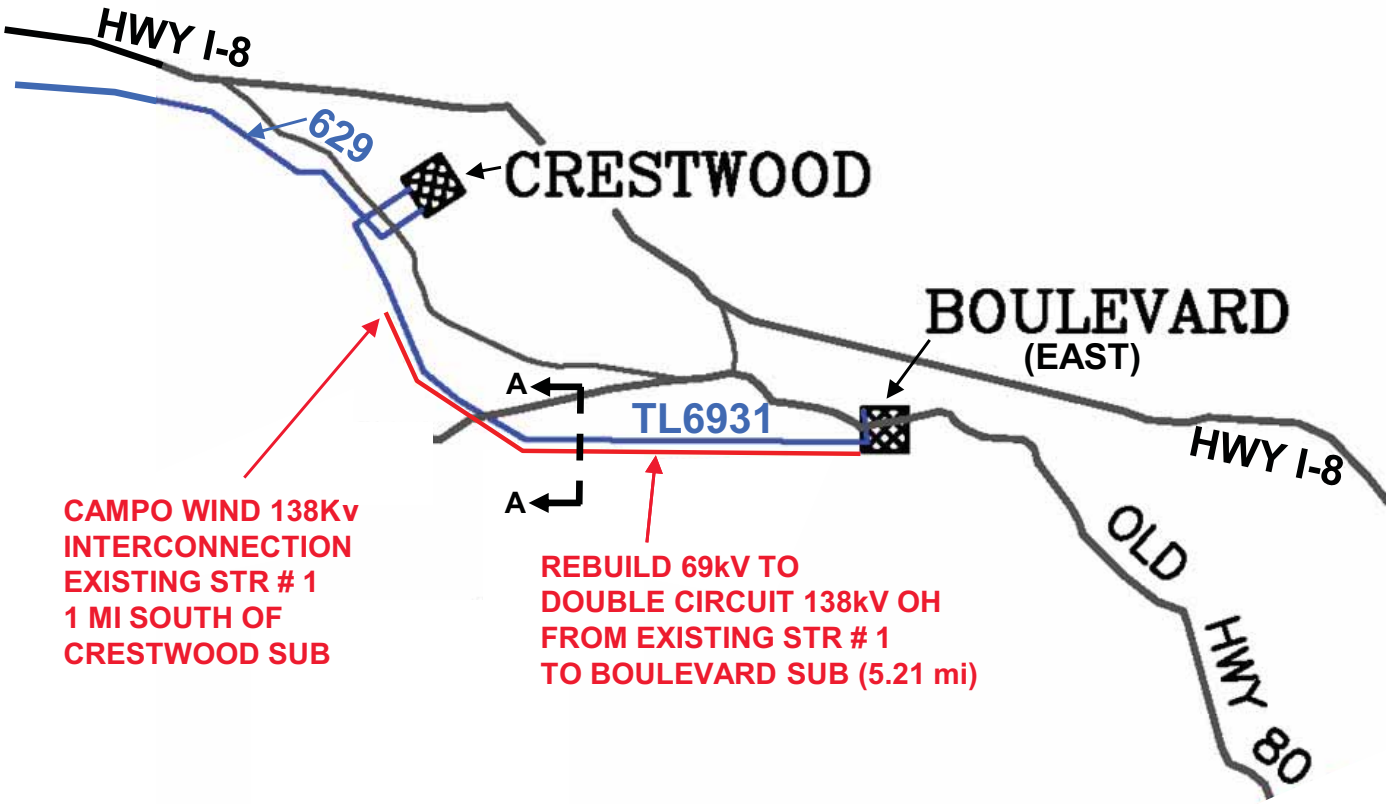
Interconnection to Boulevard East Substation - Temporary 69kV Configuration

Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010)

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

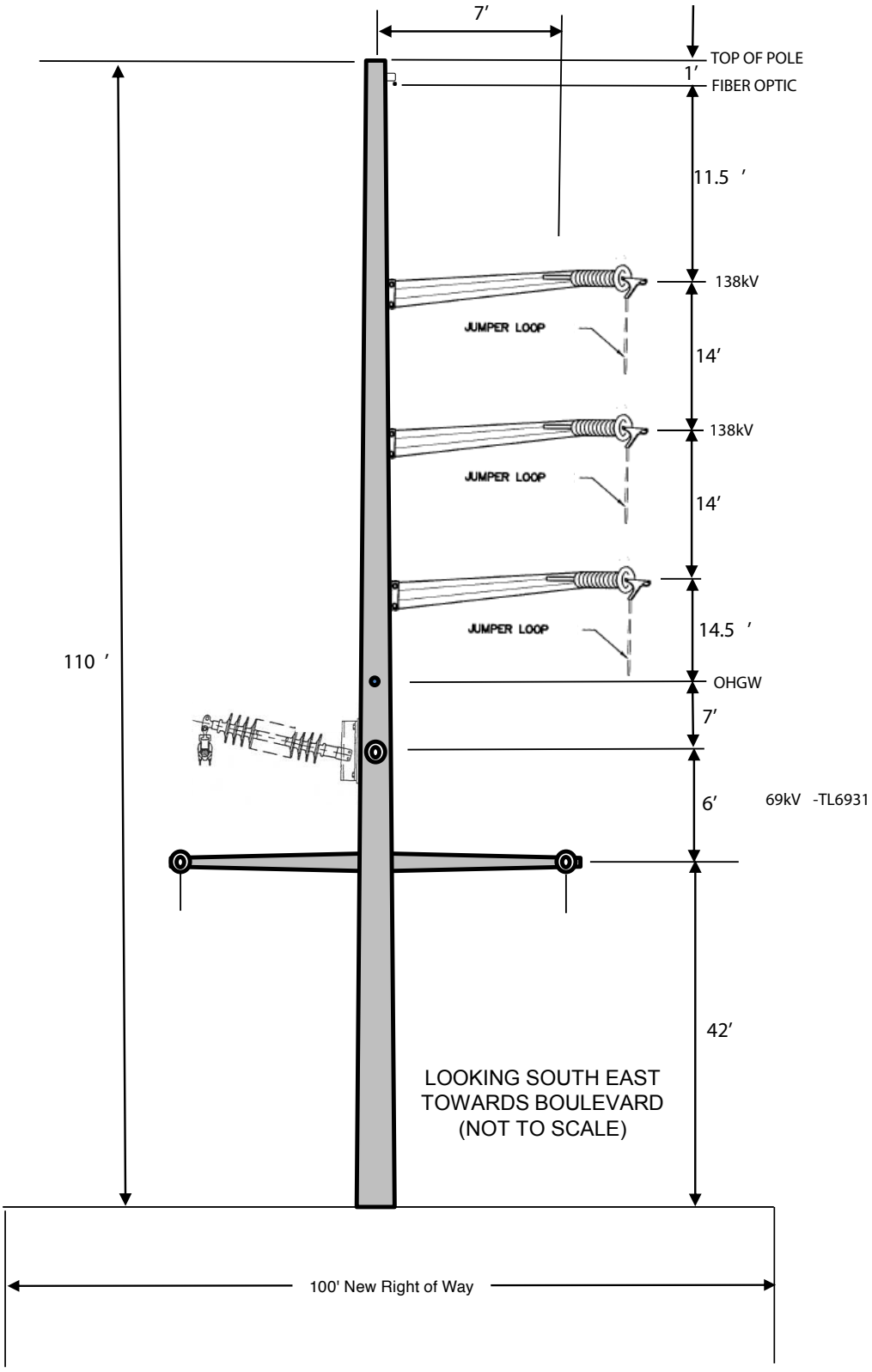
Figure 3-2E

Interconnection to Boulevard East Substation - Permanent 69kV Configuration



SOURCE: SDG&E, 2012.

Figure 3-3
Interconnection to Boulevard East Substation
Cross Section Layout Map

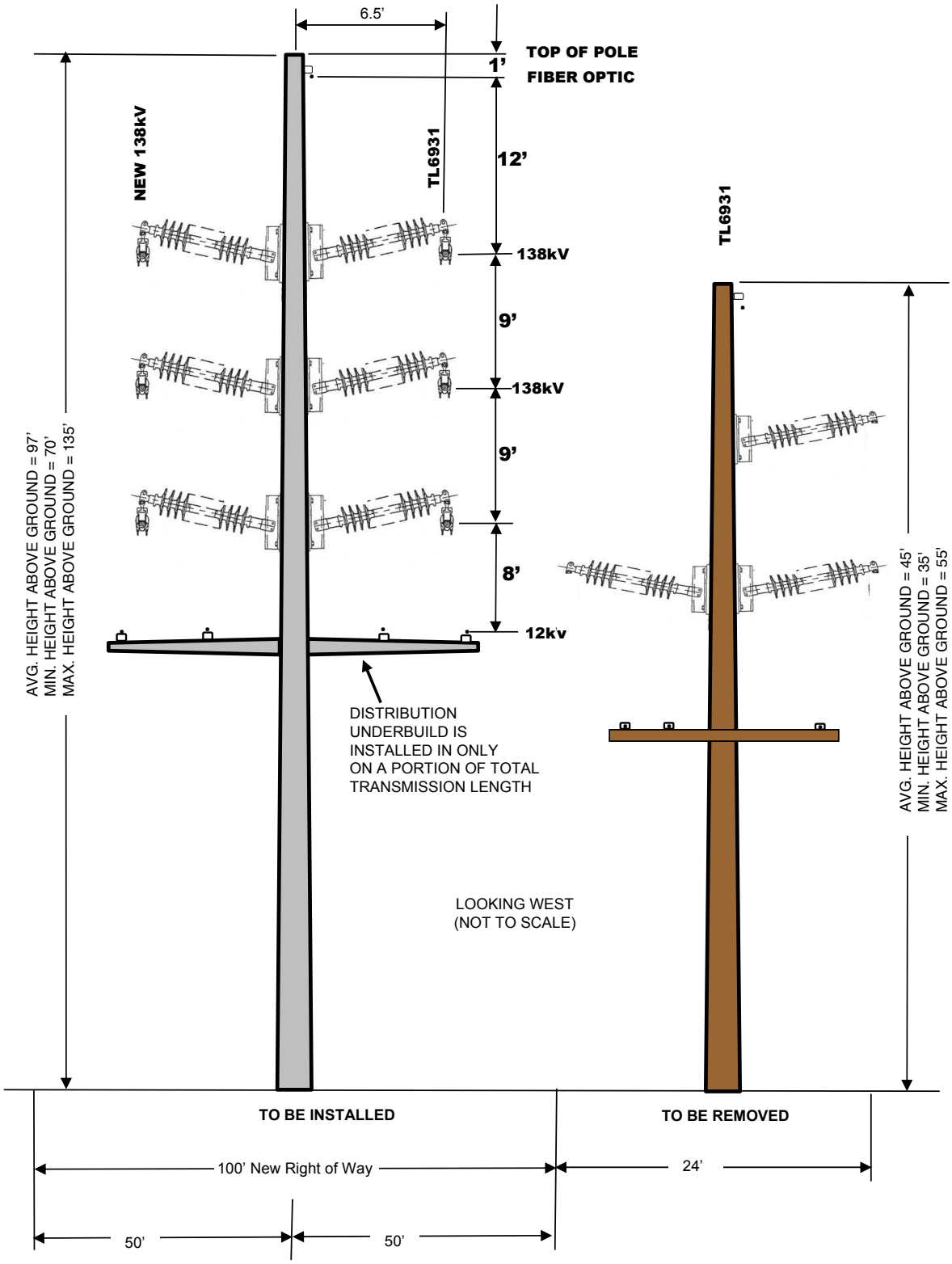


SOURCE: SDGE, 2012.

NOTE: Dimensions are approximate subject to final detail design.

Figure 3-4

Structure 1 138kV Deadend Steel Pole with 69kV Underbuild and Fiber Optic (OPGW)



SOURCE: SDGE, 2012.

NOTE: Dimensions are approximate subject to final detail design.

Figure 3-5
Cross Section A-A
Typical 138 kV Double Circuit Tangent Steel Pole
12kV Underbuild

CHAPTER 4
Environmental Impact Assessment

Introduction

The following sections (4.1 through 4.16) evaluate the potential environmental impacts from construction and operation of the Proposed Project. In accordance with CEQA, the environmental impacts associated with the project components are evaluated for the following resource areas:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Mineral Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Sections 4.1 through 4.16 include discussions of the existing conditions as they pertain to each resource area, as well as the project's potential impacts to these resources. Additionally, within each section, a checklist is provided summarizing the level of impact (i.e., No Impact, Less-Than-Significant Impact, Less-Than-Significant Impact with Mitigation Measures, and Significant Impact) to these resource areas, according to the significance criteria used for analysis. Cumulative impact assessment for each resource category is provided in Section 4.17.

With the incorporation of APMs, the project will result in less than significant impacts in all resource categories. APMs to be implemented to ensure that all potential impacts are less than significant are discussed in their relevant sections, as well as summarized in Table 5-1 Applicant-Proposed Measures.

4.1 Aesthetics

4.1.1 Introduction

The following describes existing conditions and potential visual impacts on aesthetic resources resulting from the construction, operation, and maintenance of the Proposed Project. Visual or aesthetic resources are generally defined as both the natural and built features of the landscape that contribute to the public's experience and appreciation of the environment. Visual resource or aesthetic impacts are generally defined in terms of a project's physical characteristics, potential visibility, and the extent to which its presence will alter the perceived visual character and quality of the environment. In general, the Proposed Project will involve incremental and minor changes to a sparsely inhabited landscape setting that already includes existing electrical infrastructure facilities. With the implementation of the applicant-proposed measures (APMs), it is anticipated that visual impacts associated with replacing existing facilities will be less than significant.

4.1.2 Methodology

The analysis of potential visual effects associated with the Proposed Project is based on site reconnaissance and review of technical data, including maps and drawings provided by SDG&E. The analysis is also based on a review of aerial and ground-level photographs of the Proposed Project area, local planning documents, and computer-generated visual simulations, which show the Proposed Project's appearance. Field observations were conducted in June 2011, and February 2012, to document existing visual conditions in the Proposed Project vicinity, to take representative photographs, and to identify potentially affected scenic viewing locations.

This visual study employs assessment methods based, in part, on the U.S. Department of Transportation (DOT), Federal Highway Administration (FHWA), and other accepted visual analysis techniques as summarized by Smardon, et al. (1986). This study also addresses the California Environmental Quality Act (CEQA) Guidelines for visual impact analysis. Included are systematic documentation of the visual setting and an evaluation of visual changes associated with the Proposed Project. In order to convey a sense of existing visual conditions, a set of 12 photographs depict representative public views of the Proposed Project area. As illustrated in these photographs, public views of the Proposed Project area currently include electric transmission, distribution, substation, and other utility structures. These existing conditions constitute the baseline from which visual impacts are evaluated.

Consistent with FHWA methods, this impact analysis describes change to existing visual resources and assesses viewer response to that change. Central to this assessment is an evaluation of representative views from which the Proposed Project will be visible to the public. In order to document the visual change that will occur, visual simulations, presented as "before" and "after" images, show the Proposed Project from key representative public viewpoints, or Key Observation Points (KOPs). The visual impact assessment is based on evaluation of the changes to the existing visual resources that will result from construction and operation of the Proposed

Project. These changes were assessed, in part, by evaluating the “after” views provided by the computer-generated visual simulations and comparing them to the existing visual environment.

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional APMs were identified to avoid or minimize potential impacts.

Visual Simulation Methods

As part of the aesthetic impact evaluation of the Proposed Project, visual simulations were produced using computer modeling and rendering techniques. The simulations illustrate the visual change associated with the Proposed Project as seen from publicly accessible KOPs within the Proposed Project area. The visual simulations are the results of an objective computer modeling process; the technical methods employed for producing the computer-generated simulation images are outlined below.

Digital photographs and computer modeling and rendering techniques were employed to produce a set of images that illustrate "before" and "after" visual conditions of the Proposed Project’s power line features. Photographs were taken using a digital single lens reflex (SLR) camera with a 50 millimeter (mm) equivalent lens, which represents a horizontal view angle of 40 degrees. The simulations portray the location, scale, and appearance of the Proposed Project as seen from selected KOPs.

Three-dimensional modeling for proposed transmission structures was developed using engineering design data supplied by SDG&E and combined with geographic information system (GIS), engineering data, and digital aerial photographs of the existing site to produce digital modeling for visual analysis and simulation of the Proposed Project. For the simulation viewpoints, photograph locations were incorporated based on global positioning system (GPS) field data, using five feet as the assumed eye level.

Computer "wireframe" perspective plots were overlaid on the photographs to verify scale and viewpoint locations. Digital visual simulation images were then produced based on computer renderings of the 3-D modeling combined with selected digital site photographs. The final "hardcopy" visual simulation images contained in this visual analysis were printed from the digital image files and produced in color on 11x17 inch sheets. The simulation figures present two images per sheet—an existing view with a simulation below that portrays the project from the corresponding KOP. A summary of the three simulation views and a description of the particular Proposed Project changes portrayed in each of the three simulations are included in Section 4.1.4.4.

4.1.3 Existing Conditions

Regulatory Background

Federal

Bureau of Indian Affairs

The Proposed Project passes near the Campo Kumeyaay Indian Reservation. The tribe has its own regulatory agency, the Campo Environmental Protection Agency (CEPA) to address environmental and public health concerns. There are, however, no specific Bureau of Indian Affairs (BIA) or tribal policy documents related to aesthetic resources that pertain to the Proposed Project (Campo Kumeyaay website, 2012).

State

California Public Utilities Commission General Order 131-D

California Public Utilities Commission (CPUC) General Order 131-D states that local governments have no discretionary authority over construction of utility power line or substation projects. However, as part of the environmental review process, SDG&E has considered relevant land use plans and policies that pertain to visual quality for the jurisdictions crossed by the Proposed Project route. As noted below at the end of each policy discussion, the construction and operation of the Proposed Project does not conflict with any environmental plans, policies, or regulations pertinent to aesthetics.

California Department of Transportation: Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change that will diminish the aesthetic value of lands adjacent to highways. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a state scenic highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation (CalTrans) for scenic highway approval, and receives the designation. A city or county may propose adding routes with outstanding scenic elements to the list of eligible highways; however, state legislation is required for them to become designated.

There are no designated state scenic highways in the area; therefore, the project is not visible from a state scenic highway. Both Interstate 8 (I-8) and State Route 94 (SR-94) are eligible state scenic highways. The Proposed Project crosses SR-94 and may also be seen briefly from I-8. The Proposed Project area includes electric transmission, distribution, and substation facilities that are visible within the public viewshed, and these existing facilities constitute the baseline from which impacts are measured. Given the presence of these existing transmission elements and given partial screening provided by intervening vegetation and topography, the Proposed Project represents a minor incremental change that will not substantially affect views from these roadway corridors.

Old Highway 80

Old Highway 80 is a designated California State Historic Route. The state legislature granted this designation in 2006 in recognition of the roadway's "outstanding natural, cultural, historic, and scenic qualities." This designation included installing signage along the route. According to the legislation, however, this designation does not affect the "future planning or development of adjacent private and public properties" (Assembly Concurrent Resolution [ACR] 123, 2006).

The interconnection power line parallels Old Highway 80 approximately 600 feet to a half mile from the roadway. While portions of the Proposed Project will be visible from Old Highway 80, the historic designation of this roadway does not preclude development (ACR, 2006). Furthermore, because the Proposed Project area includes existing transmission lines and other utility structures, these existing facilities are included in the baseline from which impacts are measured. Therefore, the Proposed Project's minor incremental change will not have a substantial effect on views from Old Highway 80.

Local

San Diego County General Plan

The Conservation and Open Space Element of the San Diego County General Plan (2011) contains a section that addresses visual resources. Additionally, the Mountain Empire Subregional Plan contains policies regarding light pollution in the project area.

Figure C-5 of the Conservation and Open Space Element (p. 5-28) depicts County Designated Scenic Highways. In the project area, I-8, SR-94, and Old Highway 80 are listed as county scenic highways.

The Proposed Project crosses SR-94, and near Boulevard Substation, it is located approximately 0.6 mile from I-8 and within 500 feet of Old Highway 80. Brief views of the Proposed Project may be seen from these roadways. Because the Proposed Project area includes existing transmission lines and other utility structures, these existing facilities are included in the baseline from which impacts are measured. Therefore, the Proposed Project's minor incremental change will not have a substantial effect on views from these roadway corridors.

The Conservation and Open Space Element calls for the preservation of ridgelines and hillsides as well as undergrounding utilities in new developments (pp. 5-29 to 5-30). The Proposed Project is not a new development and will not substantially affect views of ridgelines and hillsides; therefore, it conforms with these policies.

The Element also includes policies designed to preserve dark skies and restrict light and glare (pp. 5-30 to 5-31). The Proposed Project does not include lighting. Therefore, it conforms with these policies.

Mountain Empire Subregional Plan

The Conservation Element of the Mountain Empire Subregional Plan of the San Diego County General Plan (2011) contains policies regarding light pollution in the area. It recommends that

appropriate steps be taken to preserve the dark night sky as it is a significant resource for the area. (p. 23). The Proposed Project does not include lighting. Therefore, it conforms with this policy.

Boulevard Subregional Planning Area

The Boulevard Subregional Planning Area (2011) of the Mountain Empire Subregional Plan contains provisions aimed at maintaining the rural community character of the area by preserving dark skies and visual resources including scenic viewsheds and ridgelines. The Proposed Project will not substantially affect views of ridgelines and does not include lighting. Therefore, it conforms with these policies.

Regional and Local Landscape Setting

The Proposed Project is situated in southeastern San Diego County near the U.S.-Mexico border in an undulating landscape straddling the Tecate Divide, which is an outlying landform of the Peninsular Ranges with a north-south orientation that separates the comparatively wetter plains and foothills that drain westward to the Pacific Coast from the noticeably more arid land of the Colorado River Basin to the south and east (see Figure 4.1-1: Regional Landscape Context). Ranging in elevation from almost 4,000 feet in the west to approximately 3,300 feet at its eastern extremity, the Project area is surrounded by the pronounced topography of the In-Koh-Pah Mountains to the north, the Jacumba Mountains to the east, and the rugged peaks of the Hauser Wilderness to the west. Distant mountain backdrops appear in many views within the Project area.

Compared to areas farther west, rainfall in this part of the county is limited, a condition that is evident in the comparatively low density and stature of the vegetation and amount of exposed rock and underlying soil that is visible, particularly in the eastern portion of the area. Dark green chaparral dominates the landscape in the western part of the Project area. This vegetation pattern gives way to desert scrub and chamise with its characteristic grey coloration as the route descends toward the arid landscape of the Colorado River Basin to the east. Few large trees are found in this landscape, and those that exist are found in limited areas along riparian corridors and near isolated rural residences, the latter comprised of a mix of native and non-native species.

The region’s diverse natural landscape scenery attracts seasonal recreational visitors, including cyclists who travel along SR-94, an eligible state scenic highway, and the historic Old Highway 80, a two lane east-west thoroughfare that runs approximately parallel to the Project alignment to the north and east. The newer I-8, connecting San Diego to El Centro in Imperial County and beyond, lies between 0.6 mile and two miles north of the Project alignment. Intervening terrain blocks most views of the Project from this roadway.

The general vicinity is largely undeveloped and sparsely populated, particularly in the western portion of the Project area. Agricultural areas, primarily consisting of grazing, occur north of Old Highway 80 and south of the Project alignment between Rancho Manzanita Drive and Boulevard, an area that is bisected by numerous small, primarily unpaved roads with their characteristic disturbed roadside vegetation and exposed soil. The majority of the area’s residences are

concentrated in clusters near the eastern portion of the Project alignment, which passes near and through the unincorporated communities of Live Oak Springs and Boulevard. The Proposed Project begins at the border of the Campo Kumeyaay Indian Reservation in the west and is located approximately one mile from the tribe's Golden Acorn Casino, situated along I-8.

Other built elements that define the landscape setting in the area include the SDG&E Boulevard Substation, numerous utility poles and overhead power lines, and in the distance, wind turbines and cellular phone towers.

Due to the scattered population and limited development, sources of nighttime lighting are localized and sparse, mainly found along paved roadway junctions along I-8 (particularly at the Golden Acorn Casino complex at the Crestwood Road junction) and in the vicinity of the communities of Live Oak Springs and Boulevard.

Proposed Project Viewshed

A viewshed is defined as the general area from which a project is visible or can be seen. For purposes of describing a project's visual setting and assessing potential visual impacts, the viewshed can be broken down into distance zones of foreground, middleground, and background. The foreground is defined as the zone within a quarter to a half-mile from the viewer. Landscape detail is most noticeable and objects generally appear most prominent when seen in the foreground. The middleground can be defined as a zone that extends from the foreground up to three to five miles from the viewer, and the background extends from about three to five miles to infinity.

For the purpose of this analysis, the potential effects on foreground viewshed conditions are emphasized, particularly those areas within 0.25 mile of the Proposed Project. Given topographic conditions and the presence of intervening vegetation as well as the length of the overall Project alignment, the Proposed Project will not be visible in its entirety from any single viewing location. Portions of the Proposed Project will be visible primarily from public roadways and also from limited rural residential and commercial areas and/or open space. However, as seen from many places within the surrounding area, intervening landform and vegetation will partially or fully screen views of the Proposed Project.

Within the Proposed Project area, electric transmission and other utility structures, including steel and wood poles and overhead conductors, associated with the existing TL 6931 and distribution lines, are among established features seen within the landscape setting.

4.1.3.4 Potentially Affected Viewers

Accepted visual assessment methods, including those adopted by FHWA and other federal agencies, establish sensitivity levels as a measure of public concern for changes to scenic quality. Viewer sensitivity, one of the criteria used to evaluate visual impact significance, can be divided into high, moderate, and low categories. Factors considered in assigning a sensitivity level include viewer activity, view duration, viewing distance, adjacent land use, and special

management or planning designation. According to the U.S. Department of Transportation *Visual Impact Assessment for Highway Projects* (1988), research on the subject suggests that certain activities tend to heighten viewer awareness of visual and scenic resources, while others tend to be distracting. The primary potentially affected viewer groups within the Project area are described briefly below.

Motorists

Motorists or roadway travelers are the largest viewer group in the Project area. Included in this group are motorists traveling on regional roadways, such as I-8, SR-94 and Old Highway 80. Motorists include a variety of roadway travelers––both local and regional travelers who are familiar with the visual setting, and travelers using the roadway on a less regular basis. Local and regional travelers include commuters and local residents as well as truck drivers and recreational visitors. Depending upon the travel route and particular Project component, the duration of motorists' views will typically be a few seconds, although could be intermittently up to several minutes. Viewer sensitivity is considered low to moderate.

Residents

The second viewer group includes a limited number of residents who border the project corridor. Residential views tend to be long in duration, and the sensitivity of this viewer group is considered moderate to high.

Existing Visual Character and Representative Views of the Project Area

The following section and subsections describe visual character of the Proposed Project area. Figure 4.1-2 delineates the Proposed Project and photograph viewpoint (VP) locations. Figure 4.1-3 presents a set of 12 photographs that show representative visual conditions and public views within the Proposed Project area. Each of the 12 photographs include views of existing distribution and transmission infrastructure, similar to what would be built under the Proposed Project. This discussion, along with the accompanying photographs, begins with the western end of the route near the community of Live Oak. Table 4.1-1 summarizes the Proposed Project components in terms of their approximate length, potentially affected viewers, and representative photographic views.

TABLE 4.1-1
SUMMARY OF PROJECT COMPONENTS AND AFFECTED VIEWERS

Project Component (Approximate length/size)	Primary Affected Viewers	Representative Photographs (Visual Simulation)
Pole 1	• Motorists on Old Highway 80 • Residents	1
TL 6931 Fire Hardening/Wind Interconnection Line (5.2 miles)	• Motorists on Old Highway 80 and local roads • Residents	1 through 12 (VP 4, and 7; Figures 4.1-4 and 4.1-5)

Project Component (Approximate length/size)	Primary Affected Viewers	Representative Photographs (Visual Simulation)
Connecting Poles at Boulevard East Substation (from Pole 52 to the Substation)	• Motorists on Old Highway 80 and local roads • Limited Residents	9 through 12 (VP 10, Figure 4.1-6)
Ancillary Facilities	• Motorists on Old Highway 80 and local roads • Limited Residents	1, 4, and 7 show permanent access road locations

TL 6931 Fire Hardening/Wind Interconnection Line (Photographs 1-12)

The Project alignment runs southeast from the border of the Campo Kumeyaay Reservation land. It parallels and crosses Campo Creek within view of Old Highway 80 to where it crosses SR-94, at which point it gradually turns east to connect with the Boulevard East Substation outside the unincorporated community of Boulevard.

The line originates at Pole 1 approximately a quarter mile from the community of Live Oak Springs. Although mature trees line Old Highway 80 near Live Oak Springs, partially screening views of the Project alignment, limited views are available from residences in the Live Oak Springs area and from Old Highway 80 (Photograph 1). Built features, such as transmission poles, wind turbines located to the north of I-8, scattered residences with their associated utility structures and fenced lots used for grazing, are among the more noticeable landscape elements visible in this comparatively flat riparian valley.

South of Live Oak Springs, the Proposed Project alignment crosses Campo Creek, and passes through a residential cluster near SR-94 and Rancho Manzanita Drive occupying undulating terrain that limit views across the landscape. Photograph 2 shows the transmission line passing in close proximity to one of the residences. The view of the fenced lot from the unpaved roadway cresting a low hill is partially obscured by tall shrubs and a row of conifers that partially screen the structure from the adjacent unpaved roadway. The trees moderate the vertical scale of the transmission poles and their visibility is further reduced by their similarity in color to the surrounding terrain. (In this area, the Proposed Project involves rerouting the line around the cluster of residences, and existing poles will be topped off leaving the 12kV distribution under-build infrastructure in place.) Photograph 3 from SR-94, a county scenic roadway, shows a residence with its associated outbuildings and utility structures partially hidden by a dense stand of tall shrubs and small trees overlooking the road. Two poles of the Project alignment are visible in the background, one of which is almost completely obscured by a stand of trees and the intervening topography. Photograph 4 depicts the route crossing SR-94 near the Tecate Divide in an open landscape of chaparral and desert scrub. Discrete clusters of ornamental trees set back from the roadway are associated with rural residences. In this motorist's view, wood utility poles are visible along both sides of the road. The poles in the foreground appear prominently silhouetted against the sky while those in the background are less noticeable due to the landscape

backdrop and intervening vegetation as well as the route's alignment where it veers north, away from the roadway.

At Tierra Del Sol Road, the alignment of the Project shifts to an east-west orientation in its approach to the Boulevard East Substation, through an increasingly arid landscape. Photograph 5 shows a view from this road looking north as it winds uphill toward SR-94 and Old Highway 80, visible in the middle distance. Compared to areas along the route further west and north, the vegetation is notably thinner and increasingly dominated by desert scrub and large areas of exposed soil. Numerous residences are visible below the ridgeline, contributing to the landscape's mottled appearance. Wind turbines situated approximately three miles north stand out dramatically against the darker colored In-Koh-Pah Mountains beyond. In comparison, the wood poles and conductors of the Project alignment crossing the roadway in the foreground appear less noticeable when seen against this backdrop. The alignment runs south of Old Highway 80 where it passes through the unincorporated community of Boulevard. The landscape is more open along this portion of the Project alignment, with vegetation appearing in widely scattered clusters and underlying soil and rock formations becoming increasingly visible. From Old Highway 80, where the alignment enters Boulevard near the junction with SR-94, the dominant view is of residences, fences, utility poles, and other structures in the foreground. Open views of the transmission poles of the Project alignment across sparse grass and scrubland are possible on the ridge-top some half mile away above an intervening riparian tree-line; at this distance, however, they are at best faintly visible (Photograph 6). From Jewel Valley Road looking toward a residence at the outskirts of Boulevard, the alignment includes double wood pole structures as seen in Photograph 7. In this view, a dense stand of trees partially screen lower portions of the poles.

Photograph 8 shows the alignment as it traverses a low rise along Ross Avenue, with widely scattered rural residences accessed by several unpaved roadways that branch off the paved road seen in the foreground. From this vantage point, the poles and overhead lines are seen prominently in the immediate foreground; their visibility decreases with distance as the structures blend with the backdrop of open terrain and mixed roadside vegetation. The existing Boulevard Substation is located just beyond the point where the roadway crests the low hill in the middle distance; from this location, it is largely screened by the roadside vegetation beyond the wood poles in the foreground. A small portion of the existing Boulevard Substation can be seen above the tree-line; however, it is barely visible against the backdrop of the distant mountains, which provide a focal point.

Boulevard Substation Connection (Photographs 9-12)

Photographs 9 through 12 depict views of the Proposed Project alignment where it connects with the Boulevard East Substation. The substation will be situated at 3,375 feet in elevation and is located approximately 250 feet south of Old Highway 80, near several residences. The rolling topography and intermittent tree cover provide partial screening of some views toward the substation while more open views are available from other locations.

Photograph 9 is a view toward the existing Boulevard Substation from Eady Lane near Tule Jim Lane several hundred feet further east along the route, taken near a residential property. This

elevated vantage point affords an open view of the substation with distant peaks of the Jacumba Mountains providing a dramatic backdrop to the desert landscape scenery. Lattice steel towers of a transmission line are visible in the middleground on the other side of I-8. Substation structures are only partially screened by scattered shrubs in the foreground in this view, while the angular light grey transformers, poles, graded substation pad and adjacent buildings appear in sharp contrast to the more muted coloration and rounded forms of the surrounding terrain. By comparison, in a lower elevation perspective looking north along Tule Jim Lane, the surrounding vegetation provides more effective screening of the substation transformers and adjacent paving and utility structures associated with the substation. Wood poles of the existing transmission line and an adjacent distribution line, along with utility structures associated with a residential property and the unpaved road surface are comparatively prominent mid- and foreground elements in this otherwise largely unobstructed landscape view (Photograph 10).

Views of the substation from Old Highway 80 are depicted in Photographs 11 and 12. Photograph 11 shows a view looking south from the access road into the substation. As seen from the highway, the substation with its associated transmission and distribution structures, situated on a low rise above the highway, is largely visible against the sky backdrop. From this perspective, looking upslope from the highway, the scattered shrubs and trees in the background partially screen views of the substation structure as well as the bases of the utility poles. Photograph 12, taken a few hundred feet farther east along Old Highway 80, shows a characteristically more open view of the substation available from the westbound perspective along the historic roadway. In this view, vegetation provides only intermittent screening of the facility.

Viewers of the transmission line alignment and the existing Boulevard Substation are rural residents and motorists along local and regional roadways. In locations where the project site is visible to residences, views are generally of long duration. By contrast, travelers along I-8, SR-94, and Old Highway 80, and some local roadways in the vicinity of the Project route are more typically afforded intermittent, brief views of the route and substation.

4.1.4 Impacts

Significance determinations of impacts to aesthetics are summarized below. Potential aesthetics impacts are discussed in detail in the following sections. Impacts to aesthetics from the Proposed Project will be less than significant.

Would the Project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒

c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare that will adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Significance Criteria

The significance criteria for assessing the impacts to aesthetics are based on the CEQA Environmental Checklist. According to this checklist, a project will cause a potentially significant impact if it will:

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

In applying these criteria to determine significance, the extent of the Proposed Project's visibility from sensitive viewing locations, the degree to which the various Proposed Project elements will contrast with or be integrated into the existing landscape, the extent of change in the landscape's composition and character, and the number and sensitivity of viewers were taken into account. Project conformance with public policies regarding visual quality was also considered.

Impact Evaluation

Question 4.1a – Scenic Vista Effects – No Impact

The Proposed Project is the reconstruction of an existing 69kV powerline. As such, the Proposed Project area currently includes electric transmission, distribution, substation, and other utility facilities that are seen within the public viewshed and these existing facilities constitute the baseline from which impacts are measured. For purposes of this evaluation, a scenic vista is defined as a distant public view along or through an opening or corridor that is recognized and valued for its scenic quality. There are no recognized scenic vistas within the Proposed Project viewshed. Therefore, the Proposed Project will not obstruct or substantially affect a scenic vista in the area.

The discussion under Section 4.1.4.4 provides detailed evaluation that indicates that the Proposed Project will not substantially alter existing views of the open hillsides and ridgelines that are currently experienced by the public.

Question 4.1b – Scenic Resource Damage within a State Scenic Highway – No Impact

The Proposed Project area includes electric transmission, distribution, and substation facilities that are visible within the public viewshed. These existing facilities constitute the baseline from which impacts are measured.

The Proposed Project will not be visible from a designated state scenic highway; therefore, it will not damage scenic resources within a state scenic highway.

Distant views of the Proposed Project will be available from I-8, an eligible state scenic highway and a San Diego County designated third-tier scenic highway. The Proposed Project will cross SR-94, an eligible state scenic highway and a San Diego County designated third-tier scenic highway. The Proposed Project will also be visible from portions of Old Highway 80. Given the presence of existing transmission and utility structures and given partial screening provided by intervening vegetation and topography, the Proposed Project represents a minor incremental change that will not substantially affect views from these roadway corridors.

Question 4.1c – Visual Character Degradation – Less-than-Significant Impact

Construction-related visual impacts associated with the Proposed Project will not substantially degrade the existing visual character or quality of the site and its surroundings. Construction-related visual impacts will result from the presence of equipment, materials, and work crews along the Proposed Project alignment. Although these effects are relatively short-term, they will be most noticeable to residents who live in close proximity to the Proposed Project and motorists traveling along adjacent roadways. While construction activities along the alignment will take place over a nine-month period, construction at specific locations along the route will take considerably less time. In addition, all areas that are temporarily disturbed will be restored to preconstruction conditions, to the extent practical, following the installation of the line. This will include removal of all wood pole butts, construction materials and debris, returning areas to their original contours, and reseeding. These temporary construction-related visual impacts will be less than significant.

The Proposed Project area currently includes TL 6931 and other electric transmission and utility structures such as power poles, overhead conductors, and substation facilities that are seen within the public viewshed. The existing access roads and pads of TL 6931 are also seen within this viewshed. The baseline from which impacts are measured includes these existing facilities. To varying degrees, portions of the Proposed Project will be visible; however, all of the new and replacement structures will be located within an area in which electric facilities are currently seen by the public. The Proposed Project includes replacing existing wood pole structures with new dulled galvanized steel poles. The new poles will be approximately 52% taller than existing poles, on average. Although taller than the existing structures that they will replace, the appearance of the new poles is generally comparable to existing structures that are currently seen in the Project area. New project access roads and 3 permanent helicopter landing zones will not generally be seen from public locations and will be similar in appearance to existing landscape features.

Therefore, these minor incremental changes will not have a substantial effect on the public viewshed.

Close-range, unobstructed views of the Proposed Project will occur from limited places along public roadways and from a limited number of nearby residences. However, existing topography and vegetation in the Proposed Project area provides considerable screening with respect to public and residential views toward the Proposed Project. The Proposed Project's effect on existing vegetation will be minimal, consisting primarily of vegetation clearing in limited areas along the ROW. Additionally, the Proposed Project will not obstruct views toward distant ridgelines and mountains.

A set of three visual simulations depict the Proposed Project's appearance as seen from key public viewpoints within the project area. Table 4.1-2, Summary of Simulation Views, presents an overview of the visual simulations in terms of the location of each viewpoint, visual change depicted, and approximate viewing distance to the Proposed Project. As described in the following subsections and as shown on Figures 4.1-4 through 4.1-6, the Proposed Project represents an incremental visual change that will not substantially alter the existing landscape setting. In light of the effects described above and, as demonstrated in the set of six before and after visual simulations from key public viewpoints, the overall change brought about by the Proposed Project will not substantially degrade the existing visual character or quality of the landscape setting.

TABLE 4.1-2
SUMMARY OF SIMULATION VIEWS

Location-VP (Simulation Figure #)	Project-related Change and Visual Effect
SR-94 VP 4 (Figure 4.1-4)	Three, somewhat taller, dull galvanized steel poles replace one wood pole and one new steel distribution pole. Two wood poles shortened to the distribution level. Given presence of existing utility structures change will be incremental.
Jewel Valley Road VP 7 (Figure 4.1-5)	Somewhat taller, dull galvanized steel pole replaces one H-frame wood poles. Change will be minor and not particularly noticeable; overall reduction of visual presence of transmission structures represents an incremental change in the landscape character.
Tule Jim Road near Eady Lane VP 10 (Figure 4.1-6)	A somewhat taller, dull galvanized steel cable pole replaces one existing wood support pole. The visual change will not substantially alter the existing landscape setting.

Figure 4.1-4 shows comparative photographs of the existing TL6931 and a simulation of the Proposed Project as they cross SR-94 near a cluster of approximately a dozen residences. The existing power line currently bisects the community, which can be seen on a low rise amidst groups of mature trees that are visible on the horizon near the center right of the photograph. The Project proposes re-routing the power line around the community. The simulation image shows the line re-routed to the east and north of the residences, along with the existing poles being "topped", leaving a distribution line in this area.

The simulation portrays a new steel transmission pole that replaces an existing transmission pole previously situated farther west in the foreground to the left of the roadway and also shows two new steel poles on the right (north) side of the road. One new steel distribution pole is shown near the center of the simulation image. The simulation demonstrates that the new poles will be similar in form and scale to the existing poles. Because the power line crosses the highway closer to the viewpoint location and more or less perpendicular to the roadway, the new power poles to the north are somewhat more visible in comparison to the existing poles, which cross the highway diagonally and recede behind the distant trees. The new alignment around the residences is the only portion of the new power line that deviates from the existing TL 6931 ROW. Although noticeable from this highway viewpoint, the introduction of 0.4 miles of new utility poles does not substantially alter the visual character of the setting given the presence of existing utility poles in the landscape. At the same time, the topping of the remaining transmission poles represents a slight reduction in their visibility. As such, the Proposed Project elements overall represent an incremental change to the view.

Figure 4.1-5 shows a view from Jewel Valley Road looking northeast where the Project alignment crosses this primary north-south access road to the Boulevard community. Miscellaneous built structures, including a chain link fence, a low concrete block wall and a wood utility pole with conductors dominate the immediate foreground of this sparsely vegetated landscape; on the right side of the photograph a residence is perched atop a flat graded surface together with two mature deciduous trees that stand out prominently against the sky. A dense stand of low trees in the foreground of the photo partially obstructs the view of an existing double pole “H-frame” structure located on a low ridge in the background.

The simulation portrays the visual change associated with replacing the existing structure with a dull galvanized steel single pole structure. In this area, the proposed realigned power line moves approximately 50 to 75 feet to the south and, consequently, the new steel pole is closer to the viewpoint location compared to the existing H-frame wood structure. As a result the new pole appears noticeably taller from this viewing location. At the same time, compared to the existing structure, the new single pole structure more closely resembles the form and scale of the existing mature trees seen in the foreground. In addition, these trees will partially screen the new pole when viewed from along Jewel Road to the south of this vantage point. A comparison of the existing view and visual simulation image indicates that the replacement of the double pole structure with the new pole represents an incremental change that does not substantially alter the visual setting of this largely disturbed landscape.

Figure 4.1-6 is a view from near Tule Jim Road looking north, at the point where the east-west alignment of the Project makes a 90 degree turn to connect with Boulevard East Substation. This viewpoint is located near a rural residence and the substation lies less than 500 feet away. The simulation shows a new dull galvanized steel transmission riser pole replacing the existing wood pole visible to the right (east) of the unpaved roadway in the photograph. The new pole is situated to the west of the original location on a low rise in the undulating terrain covered with mature chaparral and desert scrub. Because of the slightly elevated location, the new pole appears taller than the original wood pole. While similar in overall form, the steel pole’s circumference is

somewhat greater and unlike the latter and includes horizontal cross arms and equipment to accommodate the transition to the underground connection with Boulevard East Substation.

While the replacement steel poles will appear different in color than the existing wood poles, where seen against the sky, the gray color will reduce potential visual contrast of the new poles. The change to the replacement structure from the original pole is an incremental effect to the existing view and, due to its proximity to the existing Boulevard Substation, the visual character of the surrounding landscape is not substantially altered and impacts would be less than significant.

Question 4.1d – New Light or Glare – Less-than-Significant Impact

Minor nighttime construction activity and associated lighting may be required along the route. There are a limited number of residences in close proximity to the Proposed Project. In addition, Old Highway 80, SR-94, and I-8 motorists could briefly see the construction lighting. Given the limited number of potentially affected residences, because affected motorists' views will be brief in duration, and because this impact is temporary in nature these visual effects are considered less than significant.

Neither the existing nor proposed power line facilities include any permanent lighting. Therefore, the Proposed Project will not introduce new sources of lighting to the area.

4.1.6 References

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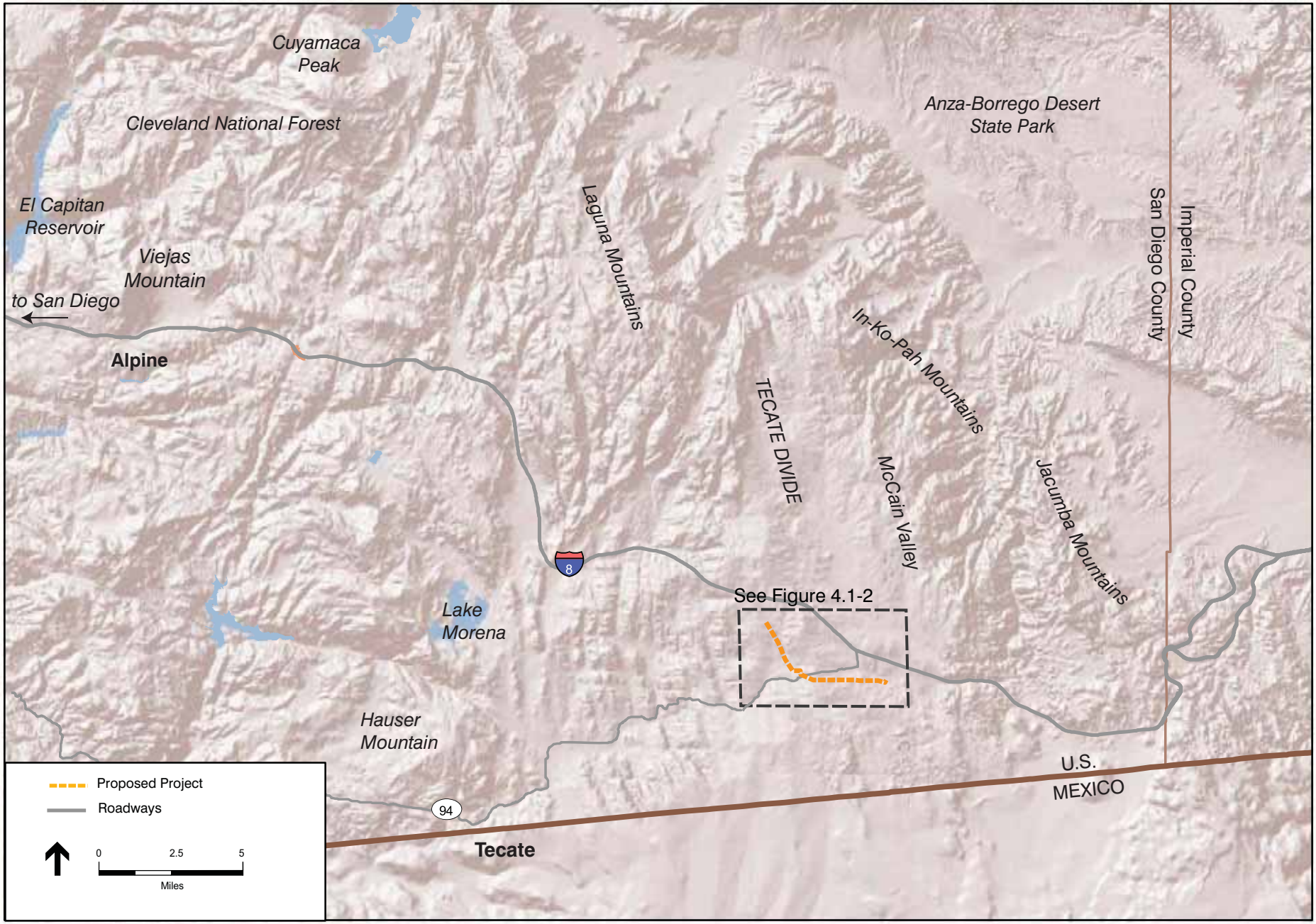

TL 6931 Fire Hardening / Shu'luuk Wind Interconnect Project . 210582

Basemap Source: ESRI (2012)
Source: Environmental Vision

Figure 4.1-1
Regional Landscape Context

Source: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010), Environmental Vision (2012)

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 4.1-2
Photograph Viewpoint Locations

1. Old Highway 80 near Live Oak Springs looking southwest

2. Residence near SR-94 and Rancho Manzanita Drive looking northeast

Refer to Figure 4.1-2 for photograph viewpoint locations

Source: Environmental Vision

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 4.1-3a
Photographs of the Project and Vicinity

3. SR-94 looking north

4. SR-94 looking west *

* Simulation viewpoint

Refer to Figure 4.1-2 for photograph viewpoint locations

Source: Environmental Vision

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 4.1-3b

Photographs of the Project and Vicinity

5. Tierra Del Sol Road looking north

6. Old Highway 80 near SR 94 looking southeast

Refer to Figure 4.1-2 for photograph viewpoint locations

Source: Environmental Vision

Figure 4.1-3c
Photographs of the Project and Vicinity

7. Jewel Valley Road looking northeast*

8. Ross Avenue at McCain Lane looking east

* Simulation viewpoint
Refer to Figure 4.1-2 for photograph viewpoint locations

Source: Environmental Vision

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 4.1-3d
Photographs of the Project and Vicinity

9. Eady Lane near Tule Jim Lane looking northeast

10. Tule Jim Lane near Eady Lane looking north*

* Simulation viewpoint
Refer to Figure 4.1-2 for photograph viewpoint locations

Source: Environmental Vision

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 4.1-3e
Photographs of the Project and Vicinity

11. Old Highway 80 at Ozz Road looking south

12. Old Highway 80 looking southwest

Refer to Figure 4.1-2 for photograph viewpoint locations

Source: Environmental Vision

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 4.1-3f
Photographs of the Project and Vicinity

Existing View from SR-94 looking west (VP 4)

Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2 for photograph viewpoint location.
Preliminary, subject to change based upon final engineering.

Figure 4.1-4
Existing View and Visual Simulation from SR-94

Source: Environmental Vision
120512

Existing View from Jewel Valley Road looking northeast (VP 7)

Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2 for photograph viewpoint location.
Preliminary, subject to change based upon final engineering.

Figure 4.1-5

Existing View and Visual Simulation from Jewel Valley Road

Source: Environmental Vision
120512

Existing View from Tule Jim Road looking north (VP 10)

Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2 for photograph viewpoint location.
Preliminary, subject to change based upon final engineering.

Figure 4.1-6
Existing View and Visual Simulation from Tule Jim Road

Source: Environmental Vision
120512

4.2 Agricultural and Forestry Resources

4.2.1 Introduction

This section describes the existing agricultural and forestry resources in the vicinity of the project site and evaluates potential impacts to these resources that may result from construction or operation and maintenance of the Project. Although the project site is adjacent to approximately 335 acres of Farmland of Local Importance, as shown in Figure 4.2-1, the Proposed Project will not result in any permanent impacts on land designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance, nor will it cross any land under a Williamson Act contract. A temporary five acre staging area will be located on Farmland of Local Importance but will not remove any active agricultural land from production and will be restored to its original landscape upon completion of the Project. Additionally, the Proposed Project will not cross land that is zoned for agricultural or timber production. The Project will not occupy forest land or timberland, as the vegetation surrounding the site primarily consists of shrubs rather than native tree species. As a result, the Proposed Project will not impact agriculture or forest resources.

4.2.2 Methodology

The project site analysis involved review of the San Diego County General Plan, the Mountain Empire Subregional Plan, as well as the Project's plant survey report. The analysis also included review of aerial photographs and relevant maps, including the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) map, the Williamson Act map for San Diego County, and San Diego County Land Use Designation and Zoning maps. The size and locations of Important Farmland designations were verified using Geographic Information System (GIS) mapping software.

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional Applicant Proposed Measures were identified to avoid or minimize potential impacts.

4.2.3 Existing Conditions

Regulatory Background

Federal and State

Department Of Conservation Farmland Mapping and Monitoring Program Important Farmland Designations

The DOC Division of Land Resource Protection FMMP generates maps depicting Important Farmlands. These farmlands are categorized according to specific criteria, including soil quality and irrigation conditions. Approximately 94 percent of the FMMP study area is based on the United States Department of Agriculture Natural Resource Conservation Service (NRCS) soil classification system, which evaluates both physical and chemical conditions, including soil temperature, moisture regime, pH, flooding, groundwater depth, erodibility, permeability, and sodium content. FMMP maps are updated every two years using aerial imagery review, field reconnaissance, computer mapping analyses, and public input. The minimum land use mapping unit is 10 acres; smaller units of land are generally incorporated into surrounding map classifications.

The extent of farmland designation coverage in California is relative to the availability of NRCS soil survey data. In areas for which data is not available, a series of Interim Farmland definitions have been established to allow land use monitoring to occur until soil data is available.

The DOC has established eight land use classifications. A brief summary of each designation is as follows:

- Prime Farmland: Prime Farmland has the optimum combination of physical and chemical conditions that are able to sustain long-term agricultural production. The soil quality, growing season, and moisture supply on Prime Farmlands provides conditions to produce sustained high yields. Prime Farmlands must have been used for irrigated production within four years of the mapping date.
- Farmland of Statewide Importance: Farmland of Statewide Importance is similar to Prime Farmland; however, these farmlands have minor shortcomings, such as a higher slope or decreased ability to store soil moisture. Similar to Prime Farmlands, Farmlands of Statewide Importance must have been used for irrigated production within four years of the mapping date.
- Unique Farmland: Unique Farmlands have lower quality soils and are used for the production of California's leading agricultural products. Unique Farmlands are typically irrigated but may also include non-irrigated vineyards or orchards found in certain climatic zones. Unique Farmlands must have been cropped within four years of the mapping date.
- Farmland of Local Importance: Farmlands of Local Importance are farmlands that are vital to the local agricultural economy, as identified by each county's local advisory committee and board of supervisors.

- Grazing Land: Grazing Land is land on which existing vegetation is suitable for livestock grazing.
- Urban and Built-Up Land: Urban and Built-Up Land is defined as land that is occupied by buildings or other structures at a minimum density of one unit to 1.5 acres (or approximately six structures to 10 acres). This land is used for development purposes, including residential, commercial, industrial, construction, public administration, institutional, transportation yards, airports, cemeteries, golf courses, sewage treatment, sanitary landfills, and water control structures.
- Other Land: Other Land includes all lands that are not in any other map category, such as water bodies smaller than 40 acres; low-density rural developments; confined livestock, poultry, or aquaculture facilities; and brush, timber, wetland, and riparian areas not suitable for livestock grazing.
- Water: Water includes all perennial water bodies that are a minimum of 40 acres.

For the purposes of this section, "Important Farmlands" include Prime Farmland, Unique Farmland, Farmland of Statewide Importance, and Farmland of Local Importance. Approximately 223,326 acres of Important Farmlands are located within San Diego County and 335 acres of Farmland of Local Importance are west of Poles 6 through 16 (California Division of Land Resource Protection, 2012, DOC 2010a).

Williamson Act Land Designations

The Williamson Act, also known as the California Land Conservation Act of 1965 (California Government Code [CGC] § 51200 et seq.), preserves agricultural and open space lands from conversion to urban land uses by establishing a contract between local governments (i.e., city and county governments) and private landowners to voluntarily restrict their land holdings to agricultural or open space use. In return, landowners receive property tax assessments based on farming or open space use rather than assessments based on the full market property value, which is typically 20 percent to 75 percent higher. Williamson Act contracts are valid for a minimum of 10 years and are automatically renewable after each 10-year term (DOC, 2012).

The Williamson Act also allows local governments to establish Agricultural Preserves, parcels of land for which cities or counties are willing to enter into Williamson Act contracts. Agricultural Preserves must include a minimum of 100 acres and typically avoid areas in which public utility improvements and associated land acquisitions may be necessary (CGC § 51230) (DOC, 2012). Although the Williamson Act does not specify compatible land uses for property located adjacent to contract lands or Agricultural Preserves, it does state that cities and counties must determine compatible land use types while recognizing that temporary or permanent population increases frequently impair or hamper agricultural operations (CGC § 51220.5). In 2008, approximately 61,873 acres were under a Williamson Act contract in San Diego County (DOC, 2010b). The Proposed Project is approximately 4 miles north from the nearest parcel of land under a Williamson Act Contract (DOC, 20009).

Local

County of San Diego

Farmland of Local Importance is identified by each county, based on specific criteria established by that county's board of supervisors and local advisory committee. In San Diego County, Farmlands of Local Importance include lands that meet the criteria of Prime Farmland and Farmland of Statewide Importance (with the exception of irrigation requirements), as well as farmlands that are not included by the aforementioned categories but are economically important to the county. These lands have historically experienced productive yields for locally adapted crops. Soils within Farmlands of Local Importance in San Diego County are categorized by types suitable for truck crops, such as strawberries, potatoes, cucumbers, squash, romaine lettuce, celery, and cauliflower, as well as soils suitable for orchard crops, such as citrus and avocados.

Although the Proposed Project will not permanently occupy or traverse any farmland, approximately 335 acres of designated Farmland of Local Importance lie just west of the proposed right-of-way (ROW) between Pole 6 and 16. The San Diego County General Plan and Mountain Empire Subregional Plan were reviewed for agricultural resource policies relevant to protecting the nearby farmland from development such as the Proposed Project and only one relevant agricultural resource policy was found. Policy 6.2 in the Conservation of Open Lands Element of the San Diego County General Plan states the following:

Protection of Agricultural Operations. Protect existing agricultural operations from encroachment of incompatible land uses by doing the following:

- Limiting the ability of new development to take actions to limit existing agricultural uses by informing and educating new projects as to the potential impacts from agricultural operations.
- Encouraging new or expanded agricultural land uses to provide a buffer of non-intensive agriculture or other appropriate uses (e.g., landscape screening) between intensive uses and adjacent non-agricultural land uses.
- Allowing for agricultural uses in agricultural areas and designing development and lots in a manner that facilitates continued agricultural use within the development.
- Requiring development to minimize potential conflicts with adjacent agricultural operations through the incorporation of adequate buffers, setbacks, and project design measures to protect surrounding agriculture.
- Supporting local and State right-to-farm regulations.
- Retain or facilitate large and contiguous agricultural operations by consolidation of development during the subdivision process.

Agricultural Setting

San Diego County

Agriculture in San Diego County covers 302,713 acres and is a key contributor to the County's economy (San Diego County, 2010). The County of San Diego is the only major urban county

with a farm gate value, ranking the eighth highest agricultural County in California for several years in a row (San Diego County, 2011a).

Farming in San Diego is dependent upon the region's unusual microclimates and often has very little relationship to the quality of the soils. Much of the County's climate supports a year-round growing season that facilitates successful small farms and crop diversification, allowing farmers to produce over 200 agricultural commodities (San Diego County, 2011b). The small percentage of prime soils, small farm size, and high value of agriculture all make San Diego County's farms unique (San Diego County, 2011b).

Mountain Empire

The Mountain Empire Community Planning Area is primarily made up of rural open lands but is generally not suitable for large-scale agricultural use due to unsuitable topography, lack of water and poor soil quality (San Diego County, 2011b).

There are currently 55,578 acres of small-scale Agricultural Preserves that are scattered throughout the Mountain Empire Planning Community. These small-scale operations include orchards, chicken ranches, and grazing operations (San Diego County, 2011b).

Proposed Project Site

The proposed interconnection facilities will not cross any Important Farmland or land under a Williamson Act contract; however, 335 acres of land designated as Farmland of Local Importance lie less than 0.2 miles west of the proposed ROW between Poles 6 and 16. During construction a temporary staging area will be located on the land designated as Farmland of Local Importance but will not remove any active farmland from production. Once construction is complete the staging area will be restored to its original landscape.

Forest Land Setting

San Diego County and particularly the Mountain Empire Community Planning Area are not generally characterized as having forest land or timberland, as defined by Public Resources Code PRC § 12220(g), PRC § 4526 or CGC § 51104(g).

Proposed Project Site

Biologists surveyed the entire project site and did not identify any areas that would be considered forest land, as defined by PRC § 12220(g) since the site and surrounding areas do not support a 10 percent coverage of native tree species. Additionally, the project site and surrounding areas area not zoned as Timber Production or characterized as timberlands, as defined by CGC § 51104(g) and PRC § 4526 respectively, because no timber growth or production exists in this area.

4.2.4 Impacts

Significance determinations of impacts to agricultural and forestry resources are summarized below. Potential impacts are discussed in detail in the following sections. Impacts to agricultural and forestry resources from the Proposed Project will be less than significant.

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a)	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?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code 12220(g)), timberland (as defined by Public Resources Code 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☒	☐

Significance Criteria

Standards of significance were derived from Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Impacts to agricultural or forestry resources will be considered significant if the Proposed Project:

- Converts Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use for a long period of time or permanently;
- Conflicts with existing zoning for agricultural use, or a Williamson Act contract;
- Conflicts with existing zoning for, or causes rezoning of, forest land, timberland, or timberland zoned Timberland Production;
- Results in the loss of forest land or conversion of forest land to non-forest use; or

- Involves other changes in the existing environment which, due to their location or nature, could result in permanent or long-term conversion of Farmland to non-agricultural use.

Question 4.2a – Farmland Conversion – No Impact

The Proposed Project is not located on land designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance. During construction, a temporary five acre staging area will be located on land designated as Farmland of Local Importance, but no active farmland will be removed from production and the land will be restored to its original landscape following construction. Therefore, the Proposed Project will not permanently convert any Farmland to non-agricultural uses and no impact will occur.

Question 4.2b – Agricultural Zoning or Williamson Act Contract Conflicts – No Impact

The Proposed Project will not be located on land zoned for agricultural uses (the project site crosses two different land zone designations, including: rural residential and general residential), nor will it be located on land under a Williamson Act Contract. As mentioned in Impact 4.2a, a temporary staging area will be located on the Farmland of Local Importance adjacent to the site. The staging area will not conflict with existing agricultural zoning and will be restored to its original landscape following construction. Therefore, no impacts to agriculturally zoned land will result.

Question 4.2c – Forest Land Zoning Conflicts – No Impact

Construction of the Proposed Project will not occur on land identified as forest land or timberland. The vegetation on the project site primarily consists of shrubs and would not be defined as forest land under PRC§ 12220(g), as it does not support a 10 percent coverage of native tree species. Additionally, the project site is not zoned for “timberland production”. Consequently, there will be no impact to forest land, timberland or land zoned as “timberland production”.

Question 4.2d – Loss or Conversion of Forest Land – No Impact

Construction of the Proposed Project will not result in the conversion or loss of forest land. According to the biological surveys conducted onsite, native tree species exist on and around the Project’s ROW but the coverage is not dense enough to be defined as “forest land” under PRC § 12220(g). Therefore, no impact will result.

Question 4.2e – Other Farmland Conversion – Less than Significant Impact

As previously mentioned, construction of the Proposed Project will cause temporary impacts to the five acres of Farmland of Local Importance that will be used as a staging area. However, this farmland is not currently in crop production and will be restored to its original landscape following construction; therefore, the Project’s impact during construction will be less than significant.

The interconnection facility’s onsite operations and maintenance activities would be similar to those that already occur along the proposed ROW to maintain the existing TL 6931 line. Similar

to the existing TL 6931, maintenance crew members would only visit the project site several times each year for maintenance and repair purposes. Additionally, all maintenance and repair activities will be completed within the Project's ROW boundaries, as to not impact surrounding lands and land use designations. As a result, there would be no significant change in the existing maintenance and repair tasks that would impact or pose a significant threat to the adjacent Farmlands of Local Importance.

4.2.5 Applicant Proposed Measures

Because the Proposed Project will have less-than-significant impacts on agricultural resources, no avoidance or minimization measures are proposed.

4.2.6 References

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DOC, Williamson Act Program – Basic Contract Provisions, www.conservation.ca.gov/dlrp/lca/basic_contract_provisions/Pages/Index.aspx, accessed March 1, 2012.

DOC, Farmland Mapping & Monitoring Program, ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/statewide/2008/fmmp2008_20_23.pdf, published December 2010a.

DOC, The California Land Conservation (Williamson) Act 2010 Status Report, www.conservation.ca.gov/dlrp/lca/stats_reports/Documents/2010%20Williamson%20Act%20Status%20Report.pdf, Published November 2010b.

DOC, San Diego Williamson Act Lands 2008, ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Map%20and%20PDF/San%20Diego/SanDeigoWA_08_09.pdf, published on April 16, 2009.

indLaw, California Government Code Section 51104, codes.lp.findlaw.com/cacode/GOV/1/5/d1/1/6.7/1/s51104, accessed on March 2, 2012.

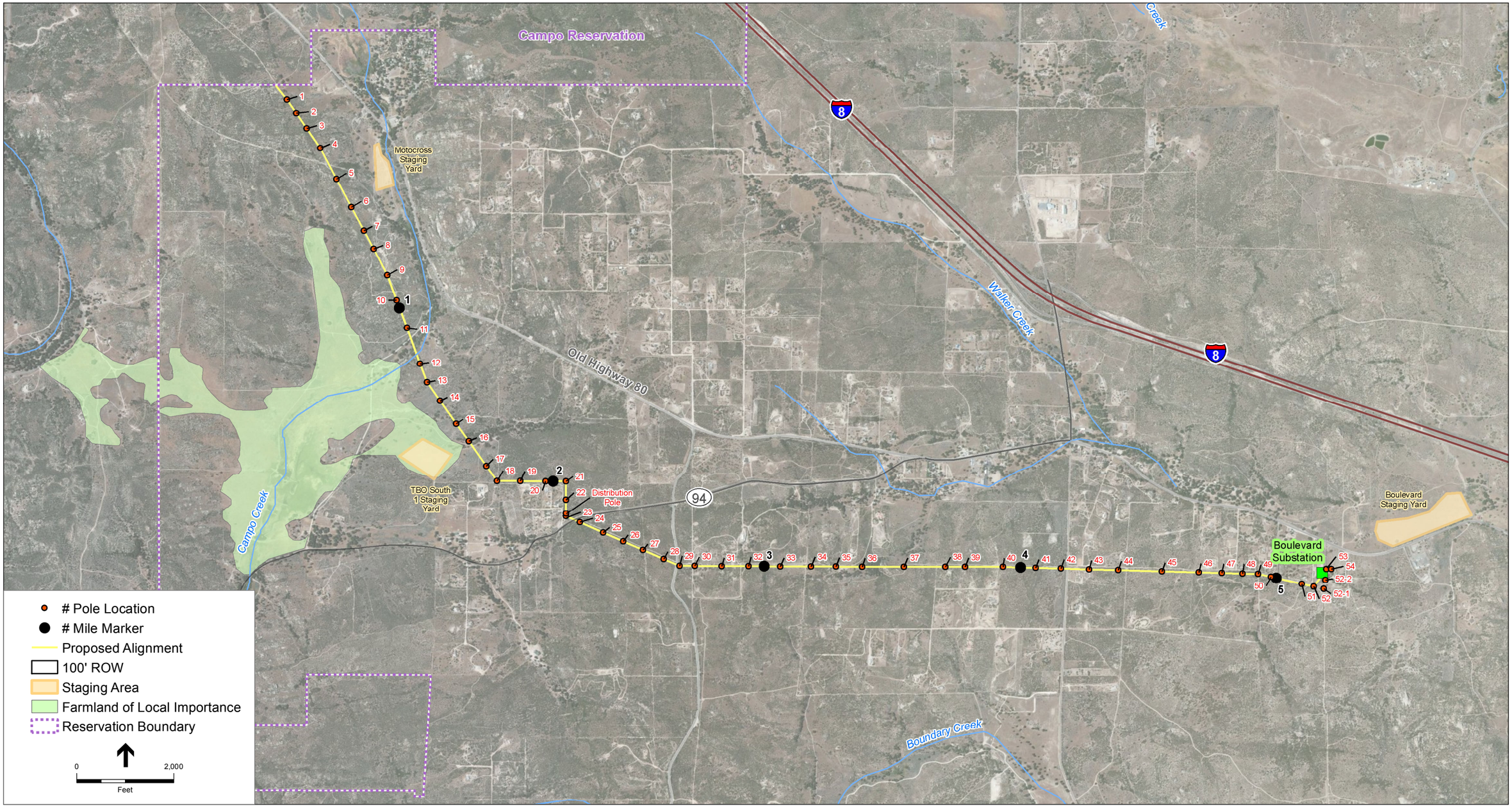
Justia Company, 2010 California Public Resources Code Article 3. Definitions – Public Resources Code Section 12220, law.justia.com/codes/california/2010/prc/12220.html, accessed on March 2, 2012.

Onecle, California Public Resources Code Section 4526, http://law.onecle.com/california/public-resources/4526.html, accessed March 2, 2012.

San Diego County General Plan, Chapter 5 – Conservation and Open Space Element, http://www.sdcounty.ca.gov/dplu/gpupdate/docs/BOS_Aug2011/C.1-4_Conservation_and_Open_Space.pdf, adopted August 3, 2011a (originally published in January 3, 1979).

San Diego County, San Diego County General Plan - Mountain Empire Subregional Plan, http://www.sdcounty.ca.gov/dplu/gpupdate/docs/BOS_Aug2011/C.2_10_MTN_EMPIRE__08_03_11.pdf, adopted August 3, 2011b (originally published in January 3, 1979).

San Diego County, Department of Agriculture, Weights and Measures – 2010 Crop Statistics & Annual Report, published in 2010.



SOURCE: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010)

Figure 4.2-1

Farmland of Local Importance

4.3 Air Quality

4.3.1 Introduction

This section describes the existing air quality within the project area and evaluates the potential air quality impacts associated with construction and operation of the Proposed Project. Some temporary impacts will result during construction, operation, and maintenance activities. Implementation of the Applicant-Proposed Measures (APMs) listed in Section 4.3.5, however, will reduce the potential air quality impacts from the Proposed Project to less than significant.

4.3.2 Methodology

The majority of the Proposed Project's air emissions were assessed by estimating emissions from construction, operation, and maintenance activities and then comparing them to established significance criteria. In other cases, such as the odor and sensitive receptor analysis, the impact assessment was based on subjective criteria, including experience with similar projects.

The Proposed Project's construction air pollutant emissions were modeled using the California Emissions Estimator Model (CalEEMod), Version 2011.1.1, which is a computer program that can be used to estimate air pollution emissions for various land uses, area sources, construction projects, and project operations. The program also produces estimates of air pollution emissions from vehicle travel. Mitigation measures can also be specified and their emission reductions calculated. Using CalEEMod, the short-term construction and long-term operations-related emissions of criteria air pollutants associated with the Proposed Project were generated and evaluated to determine whether the emissions would exceed applicable regional thresholds and if mitigation would be required. As CalEEMod does not have a land use category for a transmission line project, the "user defined industrial" land use category was selected as a surrogate. Modeling was based on project-specific data, when available. Where project-specific information was not available, reasonable assumptions and default settings were used to estimate criteria air pollutant emissions, such as modeling helicopter emissions based on the Other General Industrial Equipment category with increased horsepower and load factor. The modeling input and output files are provided in Appendix A. Construction and operational emissions were compared with applicable San Diego County Air Pollution Control District (SDAPCD) regional thresholds for determination of significance.

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional APMs were identified to avoid or minimize potential impacts.

4.3.3 Existing Conditions

This section describes the regulations and regulatory agencies that have jurisdiction over the Proposed Project, regional climate and meteorology, and existing air quality conditions in the area.

Regulatory Background

The Proposed Project is located within the San Diego Air Basin (SDAB). Air quality in the project area is regulated by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (ARB), and SDAPCD. The *County of San Diego General Plan Conservation and Open Space Element* (County of San Diego, 2011) also contains a component related to air quality.

Federal

Criteria Air Pollutants

At the federal level, EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which Congress enacted in 1970. Congress made the most recent major amendments to the CAA in 1990.

The CAA requires EPA to establish National Ambient Air Quality Standards (NAAQS). EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead. Table 4.3-1: Ambient Air Quality Standards for Criteria Pollutants shows the NAAQS for these pollutants.

The CAA also requires each state to prepare an air quality control plan, referred to as State Implementation Plan (SIP). The federal Clean Air Act Amendments of 1990 (CAA Amendments) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the state's air basins, as reported by each basin's jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and to determine whether implementing the SIPs will achieve air quality goals. If EPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary sources of air pollution in the air basin.

EPA has regulatory and enforcement jurisdiction over emission sources beyond state waters (outer continental shelf) and emission sources that are under the exclusive authority of the federal government, such as aircraft, locomotives, and interstate trucking. EPA's primary role at the state level is to oversee state air quality programs. EPA sets federal vehicle and stationary source emissions standards and provides research and guidance in air pollution programs.

TABLE 4.3-1
AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time	California Standard	Federal Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone (O_3)	1 hour	0.09 ppm	---	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Motor vehicles.
	8 hours	0.07 ppm	0.075 ppm		
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Classified as a chemical asphyxiant, CO interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9 ppm	9.0 ppm		
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.03	0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm		
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	---	0.03 ppm	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	75 ppb		
	3 hours	---	0.50 ppm		
	24 hours	0.04 ppm	0.14 ppm		
Suspended Particulate Matter (PM_{10}, $PM_{2.5}$)	Annual Geometric Mean	20 µg/m^3 (PM_{10})	---	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).
	Annual Arithmetic Mean	20 µg/m^3 (PM_{10})	None for PM_{10}		
		12 µg/m^3 ($PM_{2.5}$)	15 µg/m^3 ($PM_{2.5}$)		
	24 hours	50 µg/m^3 (PM_{10})	150 µg/m^3 (PM_{10})		
		None for $PM_{2.5}$	35 µg/m^3 ($PM_{2.5}$)		
Lead (Pb)	30 Day Average	1.5 µg/m^3	---	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurologic dysfunction (in severe cases).	*Present source*: lead smelters, battery manufacturing and recycling facilities. *Past source*: combustion of leaded gasoline.
	Calendar Quarter	---	1.5 µg/m^3		
	Rolling 3-month Average	---	0.15 µg/m^3		
Hydrogen Sulfide	1 hour	0.03 ppm	---	Nuisance odor (rotten egg smell), headache and breathing difficulties (higher concentrations).	Geothermal power plants, petroleum production and refining.
Sulfates (SO_4)	24 hours	25 µg/m^3	---	Decrease in ventilatory functions; aggravation of asthmatic symptoms; aggravation of cardio-pulmonary disease; vegetation damage; degradation of visibility; property damage.	Industrial processes.
Visibility Reducing Particles	8 hour	Extinction of 0.23/km; visibility of 10 miles or more	---	Reduces visibility, reduced airport safety, lower real estate value, and discourages tourism.	See $PM_{2.5}$.

ppm parts per million
µg/m^3 micrograms per cubic meter

SOURCE: ARB, 2012a; ARB, 2009.

Hazardous Air Pollutants

EPA has programs for identifying and regulating hazardous air pollutants (HAPs). Title III of the CAA Amendments directed EPA to promulgate National Emissions Standards for Hazardous Air Pollutants (NESHAP). The NESHAP may differ for major sources of HAPs than for area sources of HAPs. Major sources are defined as stationary sources with potential to emit more than 10 tons per year (tpy) of any HAP or more than 25 tpy of any combination of HAPs. All other sources are considered area sources.

The CAA Amendments directed EPA to promulgate the emissions standards in two phases. In the first phase, EPA developed technology-based NESHAP designed to produce the maximum emission reduction achievable. These standards are generally referred to as requiring Maximum Achievable Control Technology (MACT). For area sources, the standards may be different, based on generally available control technology. In the second phase, EPA must assess and report on the risk remaining after implementing the technology-based NESHAP. Based on this assessment, EPA may implement additional standards to address any significant remaining, or residual, health or environmental risks.

The CAA Amendments also required EPA to promulgate vehicle or fuel standards containing reasonable requirements that at a minimum control toxic emissions of benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1,3-butadiene. In addition, Section 219 of the CAA required using reformulated gasoline in selected areas with the most severe ozone nonattainment conditions to reduce mobile source emissions further.

The Proposed Project does not propose any stationary sources of HAPs. Mobile source trips associated with the Proposed Project would comply with the regulations mentioned above.

State

Criteria Air Pollutants

ARB, a department of the California Environmental Protection Agency, oversees air quality planning and control throughout California. ARB is responsible for coordination and oversight of state and local air pollution control programs in California and for implementation of the California Clean Air Act (California CAA). The California CAA, which was adopted in 1988, requires ARB to establish the California Ambient Air Quality Standards (CAAQS). ARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. Applicable CAAQS are shown in Table 4.3-1.

The California CAA requires all local air districts in the state to endeavor to achieve and maintain the CAAQS by the earliest practical date. The California CAA specifies that local air districts shall focus particular attention on reducing the emissions from transportation and area-wide emission sources, and provides local air districts with the authority to regulate indirect sources.

Among ARB's other responsibilities are overseeing compliance by local air districts with California and federal laws; approving local air quality plans; submitting the SIP to EPA;

monitoring air quality; determining and updating area designations and maps; and setting emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels.

Toxic Air Contaminants

Air quality regulations also focus on Toxic Air Contaminants (TACs), or HAPs in federal terminology. A TAC is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air. Their high toxicity or health risk may pose a threat to public health even at low concentrations.

In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no safe level of exposure. This contrasts with the criteria air pollutants, for which acceptable levels of exposure can be determined and for which the ambient standards have been established. EPA and ARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require limiting emissions and using the MACT or best available control technology (BACT) for toxics. These statutes and regulations, in conjunction with additional rules set forth by the local air districts, establish the regulatory framework for TACs.

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807 [Chapter 1047, Statutes of 1983]) and the Air Toxics Hot Spots Information and Assessment Act (Hot Spots Act) (AB 2588 [Chapter 1252, Statutes of 1987]). AB 1807 sets forth a formal procedure for ARB to designate substances as TACs. This includes research, public participation, and scientific peer review before ARB can designate a substance as a TAC. To date, ARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, diesel particulate matter (DPM) was added to the ARB list of TACs. Once a TAC is identified, ARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate BACT to minimize emissions.

The Air Toxics Hot Spots Information and Assessment Act requires existing facilities emitting toxic substances above a specified level to prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

ARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* (ARB, 2005), which provides guidance concerning land use compatibility with TAC sources. Although it is not a law or adopted policy, the Handbook offers advisory recommendations for the siting of sensitive receptors near uses associated with TACs, such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries, dry cleaners, gasoline stations, and industrial facilities.

Local

The air districts are primarily responsible for regulating stationary emission sources at industrial and commercial facilities within their respective geographic areas and for preparing the air quality plans that are required under the federal CAA and California CAA. SDAPCD is the primary agency responsible for planning, implementing, and enforcing federal and state ambient standards in San Diego County. SDAPCD regulates most air pollutant sources, except for motor vehicles, marine vessels, aircrafts, and agricultural equipment, which are regulated by ARB or EPA. State and local government projects, as well as projects proposed by the private sector, are subject to SDAPCD requirements if the sources are regulated by SDAPCD. Additionally, SDAPCD, along with ARB, maintains and operates ambient air quality monitoring stations at numerous locations throughout San Diego County. These stations are used to measure and monitor criteria and toxic air pollutant levels in the ambient air.

SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1992 and is updated on a triennial basis. The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for ozone. The 2009 RAQS Revision, which is the most recent update to the RAQS, scheduled rule development for seven emission control measures and recommended deleting three previously proposed control measures. SDAPCD has also developed the SDAB's input to the SIP, which is required under the CAA for pollutants that are designated as non-attainment for NAAQS for SDAB.

The RAQS relies on information from ARB and SANDAG on mobile and area source emissions and projected growth in San Diego County to project future emissions and establish strategies to reduce emissions through regulatory controls. The ARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by San Diego County as part of the development of San Diego County's General Plan.

Projects that propose development that is consistent with the growth anticipated in the San Diego County General Plan would be consistent with the RAQS and SIP. If a project proposes development that is less dense than anticipated in the San Diego County General Plan, then the project would also be consistent with the RAQS. If a project proposes development that is greater than anticipated in the San Diego County General Plan and SANDAG's growth projections, then the project might conflict with the RAQS and SIP and might have a significant impact on air quality. The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for SDAB.

The plans, rules, and regulations presented as follows apply to all sources in the jurisdiction of SDAPCD.

SDAPCD Air Quality Plans

SDAPCD's air quality plans collectively provide an overview of the region's air quality and air pollution sources and identify the pollution-control measures needed to expeditiously attain and maintain air quality standards. As discussed above, SDAPCD's air quality plans include the

RAQS, addressing State requirements, and the San Diego portion of the California SIP, addressing federal requirements.

Ozone Air Quality Management Plan

Consistent with SDAPCD's *Eight-Hour Ozone Attainment Plan for San Diego County* (SDAPCD, 2007), the SDAB recently achieved attainment with EPA's 1997 8-hour ozone standard of 0.08 ppm. The SDAB currently has a designation of marginal nonattainment for EPA's 2008 8-hour ozone standard of 0.075 ppm. This the least severe nonattainment designation. SDAPCD must submit an updated attainment plan to address the 2008 8-hour ozone standard.

SDAPCD also maintains the RAQS, which acts as a road map demonstrating how SDAPCD will meet the state ozone ambient air quality standard. The RAQS details the measures and regulations for managing and reducing ozone precursors, such as NO_x and volatile organic compounds (VOCs). The RAQS control measures concentrate on stationary sources under SDAPCD's jurisdiction. The RAQS control measures, however, also cover all other emission sources and control measures, including those under ARB's jurisdiction (e.g., on-road motor vehicles, off-road vehicles and equipment, and consumer products) and EPA's jurisdiction (e.g., aircraft, ships, trains, and pre-empted off-road equipment). The RAQS also establish incentive programs for reducing emissions from heavy-duty diesel vehicles, off-road equipment, and school buses.

Particulate Matter Air Quality Management Plan

SDAPCD issued *Measures to Reduce Particulate Matter in San Diego County* (SCAPCD, 2005) in December 2005 to address San Diego County's implementation of Senate Bill 656, which requires additional controls to reduce ambient concentrations of PM_{10} and $PM_{2.5}$. In the report, SDAPCD proposed measures to further evaluate reducing PM emissions from residential wood combustion and from fugitive dust from construction sites and unpaved roads.

SDAPCD Regulation II – Permits, Rule 10 – Permits Required

This rule requires permits from SDAPCD called an Authority to Construct and a Permit to Operate for building, altering, or replacing any article, machine, or equipment that may discharge air contaminants.

SDAPCD Regulation IV – Prohibitions, Rule 50 – Visible Emissions

This rule prohibits any activity that will create air contaminant emissions darker than 20 percent opacity for more than an aggregate of three minutes in any consecutive 60-minute time period. Rule 50 also prohibits any diesel pile-driving hammer activity that would cause air contaminant emissions for periods aggregating more than four minutes during the driving of a single pile.

SDAPCD Regulation IV – Prohibitions, Rule 51 – Nuisance

This regulation prohibits any activity that will discharge air contaminants that cause or have a tendency to cause injury, detriment, nuisance, or annoyance to people and the public or damage to any business or property.

SDAPCD Regulation IV – Prohibitions, Rule 55 – Fugitive Dust

This rule regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site.

SDAPCD Regulation IV – Prohibitions, Rule 67.0 – Architectural Coatings

This regulation requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

SDACPD Rule XV – Federal Conformity

The federal conformity rule prohibits any federal actions that may be inconsistent with SDAPCD efforts to achieve attainment with the NAAQS.

Regional Climate and Meteorology

The Proposed Project is located in San Diego County and is under the jurisdiction of SDAPCD within the SDAB. The boundaries of the SDAB are contiguous with the political boundaries of San Diego County, including the incorporated cities, and encompass approximately 4,260 square miles. The County is divided by the Laguna Mountain Range with peaks that exceed 6,000 feet, which runs approximately parallel to the coast about 45 miles inland and separates the coastal area from the desert. To the north of the County are the Santa Ana Mountains, which run along the Orange County coast, turning east to join with the Laguna Mountains near the San Diego-Orange County border.

The climate of the SDAB is dominated by a semi-permanent high pressure cell located over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The combination of topography and climate influence air quality in the SDAB and constrain efforts to reduce air pollution in the region. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. This warm upper layer forms a cap over the cool marine layer and inhibits pollutants in the marine layer from dispersing away from the surface. In addition, light winds during the summer further limit ventilation. The SDAB experiences more days of sunlight than many other urban areas in the nation, and sunlight triggers the photochemical reactions that produce ozone, which is a criteria pollutant.

The project area is located east of the Laguna Mountain Range in the Boulevard area of southeastern San Diego County. The nearest climatological monitoring station to the Proposed Project that has recorded temperature and precipitation data is located in the Campo area, approximately 12 miles southeast of the Boulevard area. Based on the data collected by this climatological monitoring station from 1948 to 2012, the average maximum temperature is 93.8 degrees Fahrenheit (°F) in July, and the average minimum temperature is 32.7 °F in

December (WRCC, 2012). The highest monthly average precipitation in the Campo area occurs in January with 2.99 inches, while the annual average precipitation is 14.78 inches.

The levels of ozone, PM, and other air quality constituents within the project area are influenced by the climate in San Diego County, the Anzo-Borrego Desert, and the Imperial Valley. Throughout the summer, high levels of PM exist in the region, along with ground-level ozone. The typical sunny climate, warm temperatures, and westerly winds cause ozone from San Diego's coastal and urban airshed to be transported inland, leading to generally high ozone levels in the vicinity of the project area during the summer season.

Air Quality

Criteria Pollutants

ARB and EPA focus on the following air pollutants as indicators of ambient air quality: ozone, CO, NO_2, SO_2, PM_{10}, and $PM_{2.5}$, and lead. The pollutants are referred to as "criteria air pollutants" since they are the most prevalent air pollutants known to be injurious to human health and extensive health-effects criteria documents are available about their effects on human health and welfare. These criteria pollutants and their effects on humans are discussed below.

Ozone

Ozone, the main component of photochemical smog, is primarily a summer and fall pollution problem. Ozone is not emitted directly into the air but is formed through a complex series of chemical reactions involving other compounds that are directly emitted. These directly emitted pollutants (also known as ozone precursors) include VOCs or reactive organic gases (ROGs) and oxides of nitrogen (NOx). While both ROGs and VOCs refer to compounds of carbon, ROG is a term used by ARB and is based on a list of exempted carbon compounds determined by ARB. VOC is a term used by EPA and is based on EPA's own exempt list. The time period required for ozone formation allows the reacting compounds to spread over a large area, producing regional pollution problems. Ozone concentrations are the cumulative result of regional development patterns rather than the result of a few significant emission sources.

Once ozone is formed, it remains in the atmosphere for one or two days. Ozone is then eliminated through reaction with chemicals on the leaves of plants, attachment to water droplets as they fall to earth ("rainout"), or absorption by water molecules in clouds that later fall to earth with rain ("washout").

Short-term exposure to ozone can irritate the eyes and cause constriction of the airways. In addition to causing shortness of breath, ozone can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

Carbon Monoxide

CO, a colorless and odorless gas, is a non-reactive pollutant that is a product of incomplete combustion and mostly associated with motor vehicles. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood.

This results in reduced oxygen reaching the brain, heart and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia. CO measurements and modeling were important in the early 1980s when CO levels were regularly exceeded throughout California. In more recent years, CO measurements and modeling have not been a priority in most California air districts due to the retirement of older polluting vehicles, lower emissions from new vehicles, and improvements in fuels.

Nitrogen Dioxide

NO_2 is a reddish-brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2. The combined emissions of NO and NO_2 are referred to as NOx, which are reported as equivalent NO_2. Aside from its contribution to ozone formation, NO_2 can increase the risk of acute and chronic respiratory disease and reduce visibility. NO_2 may be visible as a coloring component of a brown cloud on high pollution days, especially in conjunction with high ozone levels.

Sulfur Dioxide

SO_2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal, and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfur trioxide (SO_3). Collectively, these pollutants are referred to as sulfur oxides (SOx).

Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of SO_2 aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in people with asthma and people involved in moderate to heavy exercise. SO_2 potentially causes wheezing, shortness of breath, and coughing. Long-term SO_2 exposure has been associated with increased risk of mortality from respiratory or cardiovascular disease.

Particulate Matter

PM_{10} and $PM_{2.5}$ consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively (a micron is one-millionth of a meter). PM_{10} and $PM_{2.5}$ represent fractions of particulate matter that can be inhaled into the air passages and the lungs and can cause adverse health effects. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis and respiratory illnesses in children. Recent mortality studies have shown an association between morbidity and mortality and daily concentrations of particulate matter in the air. ARB has estimated that achieving the ambient air quality standards for PM_{10} could reduce premature mortality rates by 6,500 cases per year (ARB, 2002). Particulate matter can also damage materials and reduce visibility. One common source of $PM_{2.5}$ is diesel exhaust emissions.

PM_{10} consists of particulate matter emitted directly into the air, such as fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires, and natural windblown dust; and particulate matter formed in the atmosphere by condensation and/or transformation of

SO_2 and ROG. Traffic generates particulate matter emissions through entrainment of dust and dirt particles that settle onto roadways and parking lots. PM_{10} and $PM_{2.5}$ are also emitted by burning wood in residential wood stoves and fireplaces and open agricultural burning. PM_{10} can remain in the atmosphere for up to seven days before gravitational settling, rainout, and washout remove it.

Odorous Emissions

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Offensive odors are unpleasant and can lead to public distress generating citizen complaints to local governments. Although unpleasant, offensive odors rarely cause physical harm. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source, wind speed, direction, and the sensitivity of receptors.

Existing Air Quality

SDAPCD monitors air quality conditions at 10 locations throughout the San Diego Air Basin. The Proposed Project is located in southeastern San Diego County, and the nearest air quality monitoring station to the Proposed Project is the Alpine-Victoria Drive station (2300 Victoria Drive) located approximately 28 miles northwest of the project site. Air quality in the project area can be characterized by ambient air quality data collected at this station. However, this station currently only monitors ambient concentrations of ozone, NO_2, and $PM_{2.5}$. For ambient concentrations of CO, the nearest monitoring station that monitors this pollutant is the Otay Mesa-Paseo station that is located approximately 36 miles southwest from the Proposed Project. Additionally, the nearest monitoring station to the Proposed Project that monitors ambient concentrations of PM_{10} is the El Cajon-Redwood Avenue station that is located approximately 35 miles northwest from the Proposed Project. The historical data from these three monitoring stations for the most recent three years (2009 – 2011) are shown in Table 4.3-2: Air Quality Data Summary (2009-2011).

Both ARB and EPA use this type of monitoring data to designate areas according to their attainment status for criteria air pollutants. The purpose of these designations is to identify the areas with air quality problems and thereby initiate planning efforts for improvement. Three air quality designations can be given to an area for a particular pollutant:

- Nonattainment: This designation applies when air quality standards have not been consistently achieved.
- Attainment: This designation applies when air quality standards have been achieved.
- Unclassified: This designation applies when insufficient monitoring data exists to determine a nonattainment or attainment designation.

In addition, the California designations include a subcategory of nonattainment – transitional, which is given to nonattainment areas that are progressing and nearing attainment.

TABLE 4.3-2
AIR QUALITY DATA SUMMARY (2009–2011)

Pollutant	Standard[a]	Monitoring Data by Year 2009	2010	2011
Ozone[b]				
Highest 1 Hour Average (ppm)		0.119	0.105	0.114
Days over State Standard	0.09 ppm	6	4	4
Highest 8 Hour Average (ppm)		0.098	0.088	0.093
Days over National Standard	0.075 ppm	22	12	10
Days over State Standard	0.070 ppm	43	20	30
Carbon Monoxide[c]				
Highest 1 Hour Average (ppm)		-	-	-
Days over National Standard	35 ppm	-	-	-
Days over State Standard	20 ppm	-	-	-
Highest 8 Hour Average (ppm)		3.06	2.21	*
Days over National Standard	9 ppm	0	0	0
Days over State Standard	9.0 ppm	0	0	0
Particulate Matter (PM_{10})[d]				
Highest 24 Hour Average ($\mu g/m^3$)		57.0	42.0	41.9
Days over National Standard (measured)	150 $\mu g/m^3$	0	0	*
Days over State Standard (measured)	50 $\mu g/m^3$	6	0	0
Annual Average ($\mu g/m^3$)[b]	20 $\mu g/m^3$	25.3	21.3	23.7
Particulate Matter ($PM_{2.5}$)[b]				
Highest 24 Hour Average ($\mu g/m^3$)		29.7	23.4	25.5
Days over National Standard (measured)	35 $\mu g/m^3$	*	*	*
Annual Average ($\mu g/m^3$)	12 $\mu g/m^3$	*	*	*
Nitrogen Dioxide[b]				
Highest 1 Hour Average (ppm)		0.056	0.052	0.040
Days over National Standard	0.10 ppm	0	0	0
Days over State Standard	0.18 ppm	0	0	0
Annual Average (ppm)		0.008	0.008	0.007
Days over National Standard	0.053 ppm	0	0	0
Days over State Standard	0.03 ppm	0	0	0

ppm = parts per million; µg/m3 = micrograms per cubic meter.
– = No data available.
* = There was insufficient (or no) data available to determine the value.
[a] Generally, state standards and national standards are not to be exceeded more than once per year.
[b] Data from Alpine-Victoria Drive monitoring station.
[c] Data from Otay Mesa-Paseo monitoring station.
[d] Data from El Cajon-Redwood Avenue monitoring station.

SOURCE: ARB, 2012b.

The current attainment status for the San Diego Air Basin is provided in Table 4.3-3: San Diego Air Basin Attainment Status.

TABLE 4.3-3
SAN DIEGO AIR BASIN ATTAINMENT STATUS

	Attainment Status	
Pollutant	**California Standards**	**Federal Standards**
Ozone	Serious Nonattainment	– – Nonattainment
CO	Attainment	Unclassified/ Attainment
NO_2	Attainment	Unclassified/ Attainment
SO_2	Attainment	Attainment
PM_{10}	Nonattainment	Unclassified
$PM_{2.5}$	Nonattainment	Unclassified/ Attainment

SOURCE: ARB, 2011

Sensitive Land Uses

Land uses such as schools, children's daycare centers, hospitals, and convalescent homes are considered to be more sensitive to poor air quality than the general public because the population groups associated with these uses have increased susceptibility to respiratory distress. In addition, residential uses are considered more sensitive to air quality conditions than commercial and industrial uses, because people generally spend longer periods of time at their residences, resulting in greater exposure to ambient air quality conditions. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution, even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation.

The 5.2-mile Proposed Project alignment traverses undeveloped rural land with an occasional residence adjacent to the proposed route. The nearest sensitive receptors to the proposed interconnection power line would be the group of residences located just north of Campo Road, as the power line route would run adjacent to the property line of these residences. Additionally, there are three residences that are located adjacent to the existing Boulevard Substation, which is where the proposed interconnection power line would end.

4.3.4 Impacts

Significance determinations of impacts to air quality are summarized below. Potential impacts are discussed in detail in the following sections. Impacts to air quality from the Proposed Project will be less than significant.

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c)	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 that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e)	Create objectionable odors affecting a substantial number of people?	☐	☒	☐	☐

Significance Criteria

San Diego Air Pollution Control District Thresholds

To determine whether a significant impact would occur during construction and operation, SDAPCD informally recommends quantifying these emissions and comparing them to significance thresholds (pounds per day) found in SDAPCD regulations for stationary sources (pursuant to Rule 20.2) and shown in Table 4.3-4: Air Quality Significance Thresholds. If emissions during Proposed Project construction and operation would exceed the thresholds that apply to stationary sources, then construction activities would have the potential to violate air quality standards or contribute substantially to existing violations.

TABLE 4.3-4
AIR QUALITY SIGNIFICANCE THRESHOLDS

Pollutant	Pounds per day
$PM_{2.5}$	55
PM_{10}	100
NO_x	250
SO_x	250
CO	550
VOCs (or ROG)	75

NOTE: In the absence of pounds per day $PM_{2.5}$ and VOC significance thresholds in the SDAPCDs rules, the $PM_{2.5}$ and VOC thresholds from the County of San Diego *Department of Planning and Land Use, Guidelines for Determining Significance and Report Format and Content Requirements, Air Quality* document were used.

SOURCE: SDAPCD, 1998; County of San Diego, 2007

CEQA Guidelines

In addition to the previously mentioned criteria, Appendix G of the California Environmental Quality Act (CEQA) Guidelines treats project impacts as significant if they will:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

Question 4.3a – Applicable Air Quality Plan Conflicts – Less Than Significant Impact

The Proposed Project consists of the installation of a power line and the rebuilding of an existing power line. The Proposed Project does not include residential development or large local or regional employment centers and thus, would not result in population or employment growth that may serve to exacerbate local concentrations of air pollutants. The Proposed Project is intended to serve the existing and intended future demand of the regional population and would be consistent with the County of San Diego General Plan's designations. The Proposed Project would also not result in the violation of air quality standards after implementation of APMs, as discussed in Question 4.3b below. Therefore, the Proposed Project would also be consistent with applicable SDAPCD plans. This would be a less than significant impact.

Question 4.3b – Air Quality Standard Violations – Less Than Significant Impact

Construction emissions for the Proposed Project were quantified using the CalEEMod model and site-specific information to generate emission rates based on the Proposed Project's anticipated size, schedule, land use, and construction methods. A summary of the maximum daily emission rates for construction of the Proposed Project is presented below in Table 4.3-5: Peak Daily Construction Emissions. CalEEMod model input and output are provided in Appendix A.

The results of this simulation indicate that, with the implementation of appropriate dust control and minimization measures (as described in Section 4.3.5 Applicant Proposed Measures), emissions of all pollutants would be below SDAPCD's recommended threshold levels and the Proposed Project impacts would be less than significant.

TABLE 4.3-5
PEAK DAILY CONSTRUCTION EMISSIONS

	Peak Daily Construction Emissions			
Pollutant	**Uncontrolled Emissions**	**Emissions after APMs**	**Significance Threshold**	**Significant? (Yes or No)**
$PM_{2.5}$	32	8	55	No
PM_{10}	**266**	11	100	No
NO_x	156	156	250	No
SO_x	<1	<1	250	No
CO	91	91	550	No
ROG	21	21	75	No

NOTES: All numbers recorded in pounds per day. **Bold** values exceed the applicable SDAPCD threshold;

Operational emissions were quantified using the CalEEMod model for right-of-way (ROW) repair, pole brushing, application of herbicides, equipment repair or replacement, insulator washing, tree trimming, and helicopter inspection activities. Assumptions were developed based on the equipment and crew descriptions in the Project Description, and specific model inputs and outputs are included in Appendix A. A summary of the maximum daily emission rates for operation of the Proposed Project is presented below in Table 4.3-6: Peak Daily Operational Emissions.

TABLE 4.3-6
PEAK DAILY OPERATIONAL EMISSIONS

	San Diego County		
Pollutant	**Uncontrolled Emissions**	**Significance Threshold**	**Significant? (Yes or No)**
$PM_{2.5}$	7	55	No
PM_{10}	58	100	No
NO_x	30	250	No
SO_x	<1	250	No
CO	15	550	No
ROG	4	75	No

NOTE: All numbers recorded in pounds per day. **Bold** values exceed the applicable SDAPCD threshold

These increases in emissions are well below the acceptable significance thresholds. Operational emissions would be less than significant and would not conflict with any applicable air quality plans.

Question 4.3c – Cumulative Criteria Pollutant Increases – Less Than Significant Impact

As described above, the construction and operational impacts of the Proposed Project would not exceed SDAPCD thresholds, and therefore are not expected to be cumulatively considerable. Per CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the Proposed Project's incremental effects are cumulatively considerable. Development of the Proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant, and would be less than significant.

Question 4.3d – Sensitive-Receptor Exposure – Less Than Significant Impact

As described previously, there are residential sensitive receptors in the vicinity of the Proposed Project, which are likely to be affected by the PM and DPM emitted during the construction phase. Exposure of sensitive receptors is the primary factor used to determine health risk. Exposure is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. A longer exposure period would result in a higher exposure level. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the Proposed Project. Thus, the duration of the proposed construction activities (less than one year) would only constitute a small percentage of the total 70-year exposure period. DPM from construction activities are not anticipated to result in the exposure of sensitive receptors to levels that exceed applicable standards. However, with implementation of the APMs listed in Section 4.3.5, including limiting idling time and controlling dust emissions from earth-disturbing activities, this would be a less than significant impact.

While pollutant emissions will occur during Proposed Project operations, these activities will be periodic and short-term and will not likely expose receptors for more than brief periods of time (up to approximately one or two days per site). As a result, impacts to sensitive receptors due to operation and maintenance activities will be less than significant.

Question 4.3e – Odor – Less Than Significant Impact

Due to the nature of the Proposed Project, odor impacts are unlikely. Typical odor nuisances include hydrogen sulfide, ammonia, chlorine, and other sulfide-related emissions. No significant sources of these pollutants will exist during construction, operation, or maintenance. An additional potential source of Proposed Project-related odor is diesel engine emissions during construction. However, diesel-powered equipment idling times will be limited to five minutes (per Section 4.3.5 Applicant-Proposed Measures), which will reduce any potential impact to less than significant.

4.3.5 Applicant-Proposed Measures

The following APM will ensure that any potential air quality impacts will be less than significant. The APMs have been developed by reviewing the applicable control measures included in the CPUC's Working Draft Proponent's Environmental Assessment Checklist for Transmission Line and Substation Projects and the CalEEMod emissions results. In addition, many of the APMs reflect SDG&E's standard practices for construction.

- APM-AIR-01: Rock aprons or rattle plates will be installed, as needed, at the intersection of dirt access roads and paved public roadways to clean the tires of equipment prior to leaving the site.
- APM-AIR-02: All active construction areas, unpaved access roads, parking areas, and staging areas will be watered or stabilized with non-toxic soil stabilizers as needed to control fugitive dust.
- APM-AIR-03: All public streets will be swept or cleaned with mechanical sweepers if visible soil material is carried onto them by construction activities or vehicles.
- APM-AIR-04: Exposed stockpiles (e.g., dirt, sand, etc.) will be covered and/or watered or stabilized with non-toxic soil binders as needed to control emissions.
- APM-AIR-05: Trucks transporting bulk materials will be completely covered unless two feet of freeboard space from the top of the container is maintained with no spillage and loss of material. In addition, the cargo compartment of all haul trucks will be cleaned and/or washed at the delivery site after removal of the bulk material.
- APM-AIR-06: Traffic speeds on unpaved roads and the ROW will be limited to 15 mph.
- APM-AIR-07: Vehicle idling time will be limited to a maximum of five minutes for vehicles and construction equipment, except where idling is required for the equipment to perform its task.
- APM-AIR-08: If suitable park-and-ride facilities are available in the project vicinity, construction workers will 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 Proposed Project's construction schedule.

4.3.6 References

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4.4 Biological Resources

4.4.1 Introduction

This section describes biological resources occurring within the Proposed Project area. Also described are the potential adverse impacts to habitats and species that could result from associated construction and operational activities, including potential impacts to riparian communities, wetlands, and wildlife movement corridors. Finally, this section includes a discussion of applicant-proposed measures (APMs) to that will be implemented to insure that potential impacts to biological resources will be less than significant. The information presented here is summarized from the Biological Technical Report (ESA, 2012).

4.4.2 Methodology

Preliminary investigations were conducted by Environmental Science Associates (ESA) and included a review of aerial photographs, United States Geological Survey (USGS) topographic maps, National Wetland Inventory (NWI) maps; and literature and database searches that included a review of the San Diego County General Plan, the Mountain Empire Subregional Plan, San Diego Gas & Electric Company (SDG&E) Subregional Natural Community Conservation Plan (NCCP), and the San Diego County Draft East County Multiple Species Conservation Program Plan (MSCP). Databases queried included the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California and the California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDB). These databases were queried for special-status species records in the Live Oak Springs USGS 7.5-minute quadrangle and included the seven surrounding quadrangles (Sombrero Peak, Sweeney Pass, Jacumba, Tierra Del Sol, Campo, Cameron Corners, and Mount Laguna). From these queries, a list of target special-status species was developed for the Proposed Project area. Target special-status species were defined as having a geographic range and habitat similar to those found within the Proposed Project and, thus, have potential to occur on the Proposed Project.

Additionally, the U.S. Fish and Wildlife Service's (USFWS) recovery plans for the federally endangered arroyo toad (*Anaxyrus californicus*), peninsular bighorn sheep (*Ovis canadensis* spp. *nelsonii*), southwestern willow flycatcher (*Empindonax traillii extimus*), and Quino checkerspot butterfly (QCB) (*Euphydryas editha quino*) were reviewed.

A number of focused studies were conducted for a separate project known as the Manzanita Wind Energy Project located near the Proposed Project on the Manzanita Band of the Kumeyaay Nation Reservation. These field studies also covered the majority of the Proposed Project area and therefore were reviewed and analyzed for this section. These studies are listed below.

- Biological Resources Technical Report for the SDG&E Wind Interconnection Project (ESA, 2012);
- 45-Day Summary Report of Focused Surveys for the Quino Checkerspot Butterfly for the Manzanita Wind Energy Project. (AECOM, 2010a);

- 30-Day Summary Report of 2010 Focused Surveys for the Arroyo Toad for the Manzanita Energy Project. (AECOM, 2010b);
- Feasibility Study and Constraints Analysis for the Manzanita Wind Energy Project. (AECOM, 2010d);
- Golden Eagle Surveys Surrounding Manzanita Wind Project. (Wildlife Research Institute, 2010);
- Draft Baseline Avian Use and Risk Assessment for the Manzanita Wind Project. (Bloom Biological, 2012), and;
- Draft Bat Use of Manzanita Wind Energy Project Area Interim Report. (BioResource Consultants, Inc., 2011).

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional APMs were identified to avoid or minimize potential impacts.

Biological Resource Surveys

General biological reconnaissance surveys were conducted by AECOM in support of the Feasibility Study and Constraints Analysis (FSCA) for the Manzanita Wind Energy Project submitted to SDG&E in October 2010 (AECOM, 2010d). These surveys included the Proposed Project area. The FSCA was prepared to identify potential environmental and regulatory constraints associated with development of wind turbines and associated facilities including access roads, sub-station sites, and the interconnection power line to the Boulevard East Substation. The FSCA included methodology discussion and results of field surveys, record searches, and examinations of previous studies and technical reports.

In 2011 and 2012, ESA also conducted several field surveys and attended numerous field meetings within the Proposed Project area that included documentation of wildlife observations, vegetation mapping, rare plant surveys, and jurisdictional assessments (i.e., waters of the U.S. and State protected waterways). These studies are described in more detail below. ESA biologists attended several field meetings to assist SDG&E in siting the Proposed Project in avoiding sensitive biological resources to the greatest extent feasible, which primarily included field identification of native oak trees, jurisdictional waters, and natural vegetation communities (e.g., chamise scrub, coast live oak woodland).

Vegetation Mapping

ESA biologists Darren Burton and Jon West characterized and mapped plant communities within and adjacent to the Proposed Project area (i.e., proposed interconnection alignments, access roads, and Boulevard Substation area) in June 2011. All staging yards within the Proposed Project were mapped by ESA biologists Joe Henry and Dallas Pugh in August 2012. AECOM conducted vegetation mapping for the Manzanita Wind Energy Project, which included the Proposed Project area, during 2010. Plant communities were characterized based on the *List of California Terrestrial Natural Communities* (CDFG, 2010) and common plant names were taken from *The Jepson Manual: Higher Plants of California* (Hickman, 1993). Plant communities were mapped within and surrounding the Proposed Project area in the field, and field maps were later digitized accordingly in ArcGIS.

Rare Plant Surveys

Survey methods for rare plants were based on the CDFG Guidelines and CNPS Botanical Survey Guidelines (CDFG, 2009; CNPS, 2001). Survey dates were chosen to encompass the maximum chance of observing the blooming periods of the annual species (note: perennial species, such as shrubs and trees, can generally be located and positively identified at any time of year). Although the average blooming periods for most of the target species identified as potentially occurring within the Proposed Project area was March through May, surveys were scheduled to begin in April and conducted through mid-June to coincide with the relatively late blooming periods that occurred in 2011. The decision to conduct the rare plant surveys later in the season than typical was based on the persistence of snowpack within the Proposed Project area, which was present until mid-March, and generally lower temperatures during the spring of 2011. Sources utilized for identification of rare plant species included *The Jepson Manual: Higher Plants of California* (Hickman, 1993), the *Checklist of Vascular Plants of San Diego County* (Simpson and Rebman, 2006), and the Calflora wild California plants database (Calflora, 2012); the online database for identification of plants of California.

Rare plant surveys were conducted by Mr. Burton and Mr. West between April and June, 2011. Multiple visits were made in order to maximize coverage of applicable blooming periods for potentially-occurring special-status plant species. These plant surveys were focused within and adjacent to the Proposed Project's interconnection alignments (as well as with the Manzanita Wind Energy Project). An additional fall rare plant survey was conducted in September 2011, by Mr. West and ESA's senior biologist Greg Ainsworth in search of Tecate tarplant (*Deinandra floribunda*), which has a typical blooming period from August to November. The staging yards were also surveyed for Tecate tarplant in August 2012 by Mr. Henry and Mr. Pugh. Additionally, AECOM conducted rare plant surveys for the Manzanita Wind Energy Project, which included the Proposed Project area, during 2010.

Botanical surveys were conducted on foot, with surveyors walking transects within suitable habitat areas that included the 100-foot corridor along the proposed interconnection alignment, as

well as existing pole locations and proposed access roads, stringing sites, staging yards, and other areas of proposed (permanent and temporary) construction identified by SDG&E.

Jurisdictional Assessment

To identify potential jurisdiction resource areas, ESA conducted a review of available background information pertaining to the Proposed Project layout and geography prior to conducting site visits. Site maps were generated with aerial photographs and potentially jurisdictional features overlain to assist in field verification. The Proposed Project area was assessed for potentially jurisdictional wetlands or waters of the U.S./State based on the presence of hydrophytic vegetation, stream geomorphology, ordinary high water mark (OHWM), connectivity to traditionally navigable waters (TNWs), and appropriate hydrologic indicators.

ESA's senior regulatory specialist Mark Tucker and biologist Darren Burton conducted a jurisdictional assessment of the Proposed Project area on January 26, March 1, and March 8, 2011, to identify and document any indicators of onsite or adjacent wetlands, riparian habitats, and/or drainages (perennial and seasonal) having potential to be regulated by the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and/or the CDFG. The limits of potential jurisdictional features were recorded in the field with a hand-held Trimble™ Geo XHGPS with sub-foot accuracy.

All potentially jurisdictional features were evaluated in the field based on protocols and methods specified by the Regional Supplement to the USACE *Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE, 2008a), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual* (USACE, 2008b). The OHWM of onsite channels was determined based on observations of physical evidence of flow such as direct observations of flow, scour marks, and drift lines of debris. The top of bank was assessed to establish the limits of waters of the State (CDFG), whereas the OHWM is considered to be the jurisdictional limit of the waters of the U.S. (USACE). At the scale of the mapping these boundaries are essentially the same within the Project area.

Quino Checkerspot Butterfly Surveys

A focused habitat assessment for QCB was conducted for the Manzanita Wind Energy Project, which included the limits of the Proposed Project area on March 17, 18 and 19, 2010, by AECOM permitted biologists. During the habitat assessments, most areas were mapped as suitable, with the exception of developed areas completely void of vegetation, closed canopy forests or riparian areas, and dense areas of chaparral. AECOM's QCB habitat assessment was conducted in accordance with the most current protocol *"Quino Checkerspot Butterfly, (Euphydryas editha quino), Survey Protocol Information"* prepared and published by the USFWS, February 2002 (USFWS, 2002). The survey protocol recommends excluding "dense chaparral" and "small openings (less than an acre) completely enclosed within dense chaparral." It further defines "dense chaparral" as "vegetation so thick that it is inaccessible to humans except by destruction of woody vegetation for at least 100 meters." The habitat assessment found that the

majority of the Proposed Project area contained suitable habitat for QCB. Areas of suitable habitat, as well as the locations of QCB host plants, were mapped during the habitat assessment.

USFWS protocol-level surveys for QCB were subsequently conducted in the spring of 2010, by AECOM biologists. As per USFWS protocol, AECOM submitted a letter to the USFWS Carlsbad Field Office notifying the agency of the 2010 habitat assessment before proceeding with focused QCB surveys. The habitat assessments and surveys were conducted using the methodology described in protocol (USFWS, 2002). Surveys were performed by qualified, permitted biologists approved by the USFWS to conduct QCB habitat assessments and protocol-level surveys.

The start date for focused adult QCB surveys was determined based on the following: (1) the first detection of QCB during surveys conducted the previous year for another project on the Campo Indian Reservation in the vicinity of the Proposed Project area; (2) conditions in the Proposed Project area relative to the previous year; and (3) conditions at the Jacumba reference site monitored by USFWS. Based on these conditions, protocol-level QCB surveys were initiated on March 24, 2010. In accordance with USFWS protocol, a total of five surveys were conducted throughout the flight season on non-consecutive days within non-excluded areas. Surveys were conducted at an average rate of 10 to 15 acres per hour using parallel transects along power line corridors and roughly parallel meandering transects in other areas. Surveyors walked within five meters of excluded areas such as closed-canopy shrublands. All surveys were conducted in periods without inclement weather and with sustained winds less that 15 miles per hour measured at four to six feet above ground level. Temperature conditions were above 60 degrees Fahrenheit on clear days and above 70 degrees Fahrenheit on overcast or cloudy days. A written report based on the terms and conditions of the QCB recovery permit and signed by the permitted biologists who conducted the surveys was submitted to the USFWS within 45 days of survey completion. The complete methodology and results of QCB studies conducted are included in the 45-Day Summary Report of Focused Surveys for the Quino Checkerspot Butterfly (ESA, 2012).

Arroyo Toad Surveys

Reconnaissance surveys conducted for the Proposed Project found several areas containing potentially suitable habitat for the federally endangered arroyo toad. A focused habitat assessment for arroyo toad was therefore conducted by AECOM in April 2010 (AECOM, 2010b). Prior to field site visits, biologists reviewed aerial photos to identify riparian areas with potentially suitable arroyo toad habitat. The riparian areas within the Proposed Project area were characterized based on presence of predominantly sandy substrates in the channel, flat sandy terraces adjacent to the channel (upland habitat), and a watercourse of braided channels. Water was present within some stream channels; however, characterization of habitat was not contingent on the amount of water present in the channel. After field verification of these potential habitat areas, biologists determined that there was 0.42 acre of potential arroyo toad breeding habitat within Campo Creek, which crosses the interconnection alignment adjacent to Live Oak Springs Road, approximately 0.15 mile southwest of Old Highway 80.

Protocol-level arroyo toad presence/absence surveys were performed by AECOM biologists in accordance with the 1999 USFWS survey protocol for conducting arroyo toad surveys. Surveys

were conducted over six survey sessions, each including one day and one night survey component. At least seven days separated each survey session. Surveys occurred from April 25 through June 10, 2010. Visual encounter surveys based on the area of known suitable habitat were used to detect arroyo toad.

During diurnal surveys, pools and still eddies at the water's edge were surveyed for the presence of egg masses or tadpoles. Surveys included walking slowly along stretches of potentially suitable habitat. Headlamps and flashlights were used during nocturnal surveys to slowly scan the ground within potentially suitable habitat. All nocturnal surveys were conducted between one hour after dusk and midnight, and were conducted when temperature at dusk was 55 degrees Fahrenheit or greater. Riparian and adjacent upland trails were surveyed at night within the floodplain. Surveyors periodically stopped and remained still and silent for up to approximately 15 minutes to wait for arroyo toad calling, as per USFWS protocol. The complete methodology and results for arroyo toad surveys conducted for the Proposed Project area were submitted to the USFWS and are included in the 30-Day Summary Report of 2010 Focused Surveys for the Arroyo Toad, which is included as Attachment B to the Biological Technical Report (ESA, 2012).

4.4.3 Existing Conditions

Regulatory Background

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects plants and wildlife that are listed as endangered or threatened by the USFWS and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries). The FESA prohibits take of endangered wildlife, where "take" is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (16 U.S. Code [U.S.C.] Sections 1532(19), 1538). For plants, this statute governs removing, possessing, maliciously damaging, or destroying endangered plants on federal land and removing, cutting, digging-up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S.C. Section 1538(c)).

Under Section 7 of the FESA, federal agencies are required to consult with the USFWS and/or NOAA Fisheries if their actions, including permit approvals or funding, may affect a listed species (including plants) or its critical habitat. Through consultation and the issuance of a Biological Opinion, the USFWS and/or NOAA Fisheries may issue an incidental take statement, allowing take of the wildlife species that is incidental to an otherwise lawful activity, provided that the action is not likely to jeopardize the continued existence of the species.

In a Section 7 consultation, the action agency prepares a Biological Assessment (BA) that analyzes whether the project is likely to adversely affect listed wildlife or plant species or their critical habitat, and proposes suitable avoidance, minimization, or compensatory mitigation measures. If the action would adversely affect the species, USFWS then has 90 days to conduct

formal consultation and 45 days to respond to the BA by issuing its Biological Opinion (BO) determining whether the project is likely to jeopardize the species or result in the destruction or adverse modification of critical habitat. If a "no jeopardy" opinion is issued, the project may proceed. If a jeopardy or adverse modification opinion is issued, the USFWS may suggest "Reasonable and Prudent Alternatives" that would result in no jeopardy.

The Proposed Project is engaging in a joint Section 7 consultation via the Bureau of Indian Affairs with the interrelated Shu'luuk Wind Energy Project. The BA for the Proposed Project will be submitted as an attachment to the Shu'luuk Wind Energy Project BA.

Section 10 of the FESA provides for issuance of incidental take permits to private parties with the development of a habitat conservation plan (HCP). USFWS previously issued take authorization to SDG&E for the development, installation, maintenance, operation and repair of SDG&E facilities when it approved the SDG&E Subregional HCP/NCCP and the Low-Effect HCP for the QCB.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) domestically implements a series of treaties between the United States and other countries that provide for international migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds; the act provides that it shall be unlawful, except as permitted by regulations, "to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird…" (U.S. Code Title 16, Section 703).

The regulations governing migratory bird permits can be found in 50 Code of Federal Regulations (CFR) Part 13 (General Permit Procedures) and 50 CFR Part 21 (Migratory Bird Permits). The USFWS is responsible for enforcing the MBTA and has discretion to apply the MBTA in the context of electric and other energy facilities. USFWS has worked with the Avian Power Line Interaction Committee (APLIC) to develop and release voluntary design guidelines to reduce avian electrocution and collision mortality associated with electric transmission facilities. These guidelines were released in 2005.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) was established in 1940 to protect bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) from any actions that may take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald or golden eagle, alive or dead, or any part, nest, or egg thereof. Under the BGEPA, take of an eagle is defined as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb." On September 11, 2009, the USFWS published a Final Eagle Permit Rule under the BGEPA authorizing limited issuance of permits to take bald and golden eagles where take is associated with, but not the purpose of otherwise lawful activities.

Clean Water Act

The purpose of the Clean Water Act (CWA) is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge

of fill material into waters of the U.S. without a permit from the Corps. The definition of waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR § 328.3(b)). The U.S. Environmental Protection Agency also has authority over wetlands and non-wetland waters and may override a Corps permit.

Substantial impacts to wetlands may require an Individual Permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions. For the Proposed Project, this certification or waiver will need to be issued by the RWQCB for the Colorado River Basin.

State

California Endangered Species Act

The California Endangered Species Act (CESA), adopted in 1984, generally parallels the main provisions of the FESA. Section 2080 of the Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the Fish and Game Code as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful projects.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act (NCCPA) provides for a voluntary, alternative approach to obtaining exemption from the CESA prohibition on take by establishing a process to allow for comprehensive, regional multi-species planning. The NCCPA program has provided the framework for innovative efforts by the State of California, local governments, and private interests to plan for the protection of regional biodiversity and the ecosystems upon which it depends. The CDFG is authorized to issue permits under section 2835 of the Fish and Game Code to authorize the Take of any species, whether or not it is listed as an endangered, threatened or candidate species under State law, where the conservation and management of the species is provided for in an NCCP approved by the CDFG.

Fully Protected Species

The State of California first began to designate species as "fully protected" prior to the creation of the CESA and the FESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, including fish, amphibians, reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the CESA and/or the FESA. Fully protected species may not be taken or possessed at any time (Fish and Game Code § 4700) (CDFG, 2006).

Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (Fish and Game Code §§ 1900–1913) was created with the intent to "preserve, protect, and enhance rare and endangered plants in this State." The NPPA is administered by the CDFG. The Fish and Game Commission has the authority to designate native plants as "endangered" or "rare" and to protect them from take (CDFG, 2006).

Fish and Game Code Section 1600

Under Section 1600 et seq. of the Fish and Game Code (Streambed Alteration), the CDFG regulates activities that "will substantially divert, obstruct, or substantially change the natural low or bed, channel or bank, of any river, stream, or lake designated by the CDFG in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit." The CDFG takes jurisdiction to the top of bank of the stream, or the limit of the adjacent associated vegetation, referred to in this report as "streambed and associated riparian habitat."

Section 1602 of the California Fish and Game Code requires any entity (e.g., person, state or local government agency, or public utility) who proposes a project that will substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, it must first notify the CDFG of the proposed project. In the course of this notification process, the CDFG will review the proposed project as it affects streambed habitats within the project area. The CDFG may then place conditions on a Streambed Alteration Agreement issued under Section 1603 to avoid, minimize, and mitigate the potentially significant adverse impacts within CDFG jurisdictional limits.

Local

San Diego County General Plan

The vegetation and wildlife section of the Conservation Element (Part X) of the San Diego County General Plan includes biological resource policies relevant to the Proposed Project. These policies include:

- Policy 5 (X-47): San Diego County shall encourage the use of native plant species in review of landscaping and erosion control plants for public and private projects.
- Policy 6 (X-47): If a project is determined to have significant adverse impacts on plants or wildlife, an acceptable mitigating measure may be voluntary donation of land or monies for acquisition of land of comparable value to wildlife.
- Policy 9 (X-52): When significant adverse habitat modification is unavoidable, San Diego County will encourage project designers to provide mitigating measures in their design to protect existing habitat.
- Policy 16 (X-54): The County will regulate major land-clearing projects to minimize significant soil erosion, and the destruction of archaeological, historic, and scientific resources and endangered species of plants and animals (County, 2011).

San Diego County Code of Regulatory Ordinances

The San Diego County Code of Regulatory Ordinances (Code) does not include any specific measures or ordinances protecting specific tree species (e.g., heritage trees, historic trees, landmark trees, specimen trees, etc.), nor does the Code include any other biological resource-related ordinances applicable to the Proposed Project (County, 2012).

Existing and Proposed Plans

San Diego Gas & Electric Company Sub-Regional Natural Community Conservation Plan

Under FESA and the NCCPA, SDG&E developed a comprehensive subregional HCP/NCCP to effectively preserve and enhance covered sensitive species and their native habitats during operation, maintenance, and expansion of its electric and natural gas transmission system (16 U.S.C. § 1539). USFWS issued an Incidental Take Permit under FESA, and CDFG issued a Take Authorization under the NCCPA to SDG&E for the development, installation, maintenance, operation and repair of SDG&E facilities in accordance with the provisions of the HCP/NCCP.

The purpose of the Subregional HCP/NCCP is to establish and implement a long-term agreement between SDG&E, USFWS, and the CDFG for the preservation and conservation of sensitive species and their habitat while allowing SDG&E to develop, install, maintain, operate, and repair its facilities necessary to provide energy services to customers living within SDG&E's service area. The HCP/NCCP does not cover major expansions of SDG&E's electric system and only covers new electric substations that will result in up to 20 acres of habitat disturbance. The Proposed Project is covered by the HCP/NCCP, and several measures to minimize potential impacts to sensitive species within the HCP/NCCP will be utilized during the construction of the Proposed Project. Once the Proposed Project is completed, SDG&E will implement the HCP/NCCP for maintenance and operational activities associated with all of the Proposed Project components (SDG&E, 1995)..

San Diego Gas & Electric Company's Low-Effect Habitat Conservation Plan for the Quino Checkerspot Butterfly

SDG&E prepared a Low-Effect HCP to minimize and mitigate the effects of its activities on the federally endangered QCB and to obtain incidental take authorization for QCB from the USFWS. The HCP addresses potential impacts to the QCB from the use, maintenance, and repair of existing gas and electric facilities and allows for typical expansions to those systems. Other than maintenance of existing access roads, SDG&E activities include, without limitation, all current and future actions arising out of, or in any way connected with, the siting, design, installation, construction, use, maintenance, operation, repair, and removal of facilities within SDG&E's service territory. The HCP emphasizes protection of habitat through impact avoidance and use of operational protocols designed to avoid or minimize impacts to the QCB. The HCP was prepared in consultation with the USFWS to fulfill the requirements of Section 10(a)(1)(B) permit application for the aforementioned proposed activities. Once the Proposed Project is completed, SDG&E will implement the HCP for maintenance and operational activities associated with all of the Proposed Project components (SDG&E, 2007).

San Diego County Draft East County Multiple Species Conservation Program Plan

The Proposed Project area falls within the proposed planning area of the San Diego County Draft East County MSCP. This subarea plan of the current MSCP is currently on hold due to budgetary constraints. The description of the MSCP is included for completeness, but the proposed MSCP is not applicable to the Proposed Project (County, 2008).

The HCP/NCCP expressly supersedes any other MCSPs or HCPs. The purpose of this provision in the HCP/NCCP is to harmonize areas of overlap such that there is no conflict with other plans.

Biological Setting

The Proposed Project is located in the southeastern portion of San Diego County, within a desert transition region of southern California. The region receives an average of 17.51 inches of precipitation per year, with the majority of precipitation accumulated between the months of November and May (WRCC, 2011). Elevation in the Proposed Project area ranges from approximately 4,000 feet above mean sea level (amsl) at Pole 1 to approximately 3,400 feet amsl at the Boulevard Substation (Google Earth, 2012). All habitats and plant communities that are located within the Proposed Project area are described below, with distributions throughout the Proposed Project areas mapped in Figure 4.4-1.

Plant Communities and Associated Wildlife

Seven dominant plant communities occur within the Proposed Project area: big sagebrush scrub, chamise chaparral, redshank chaparral, upper Sonoran subshrub scrub, non-native grassland, southern willow scrub, and coast live oak woodland. Also found within the Proposed Project area are disturbed areas and developed areas. General descriptions of these communities and habitats are described below. Also described are commonly associated wildlife species. See Results Section for a discussion of these plant communities on the Proposed Project site.

Big Sagebrush Scrub (35210)

Big sagebrush scrub is a low-growing scrub community of soft, woody shrubs and subshrubs, and is generally dominated by big sagebrush (*Artemisia tridentata*). Within the Proposed Project area, it is secondarily dominated by rubber rabbitbrush (*Ericameria nauseosa*) and interior goldenbush (*Ericameria linearifolia*), and to a lesser extent by California buckwheat (*Eriogonum fasciculatum* var. *polifolium*).

Wildlife species observed within the Proposed Project area and commonly associated with big sagebrush scrub consist of bird species including western scrub-jay (*Aphelocoma californica*), California quail (*Callipepla californica*), common raven (*Corvus corax*), and red-tailed hawk (*Buteo jamaicensis*); mammal species including California ground squirrel (*Spermophilus beecheyi*) and desert cottontail (*Sylvilagus audubonii*); and reptile species including western fence lizard (*Sceloporus occidentails*).

Chamise Chaparral (37000)

Chamise chaparral is a dense aggregation of tall, sclerophyllous shrubs and subshrubs typically growing on well-drained foothills, coastal areas, and north-facing slopes at lower elevations, dominated by chamise (*Adenostoma fasciculatum*). Other notable species found within this community within the Proposed Project area include yerba buena (*Eriodictyon trichocalyx*), coast monkey flower (*Mimulus aurantiacus*), manzanita (*Arctostaphylos* spp.), toyon (*Heteromeles arbutifolia*), California buckwheat, broom baccharis (*Baccharis sarothroides*), coyotebush (*Baccharis pilularis*), and occasional open patches of smaller, more herbaceous perennials such as bedstraw (*Galium angustifolium*), foothill needlegrass (*Nassella pulchra*), sand aster (*Corethrogyne filaginafolia*), and peony (*Paeonia californica*). Annuals observed in these communities include goldfields (*Lasthenia californica*), tidy tips (*Layia* spp.), chia (*Salvia columbarae*), and desert pincushion (*Cheanactus freemontii*).

Wildlife species observed within the Proposed Project area and commonly associated with chamise chaparral includes a number of bird species such as bushtit (*Psaltriparus minimus*), California towhee (*Melozone crissalis*), western scrub-jay, and mourning dove (*Zenaida macroura*); mammal species including California ground squirrel; and reptile species including western fence lizard, southern Pacific rattlesnake (*Crotalus oreganus helleri*) and side-blotched lizard (*Uta stansburiana*).

Redshank Chaparral (37300)

Within the Proposed Project area, redshank chaparral is most common on south and west-facing slopes with superficial soils and low accumulation of organic material. This vegetation community is typically found in Mediterranean-type climates with annual precipitation averaging between 12 and 15 inches per year and less than 20 percent of total precipitation occurring in summer. Typical dominant species include redshank (*Adenostoma sparsifolium*), chamise, whitebark ceanothus (*Ceanothus leucodermus*), manzanitas, sugarbush (*Rhus ovata*), laurel sumac (*Rhus laurina*), and scrub oak (*Quercus* spp.).

Wildlife species observed within the Proposed Project area and commonly associated with redshank chaparral are similar to the wildlife species commonly associated with chamise chaparral, as the two plant communities often intergrade across much of their respective ranges.

Upper Sonoran Subshrub Scrub (39000)

Within the Proposed Project area, this community is a low-growing, moderately open scrub of soft-wooded, summer-dormant, drought-tolerant shrubs. Dominance varies highly among regions, but common dominant species include interior goldenbush, California buckwheat, bladderpod (*Isomeris arborea*), desert tea (*Ephedra californica*), and big sagebrush.

Wildlife species observed within the Proposed Project area and commonly associated with upper Sonoran subshrub scrub typically consist of bird species including common raven, California thrasher (*Toxostoma redivivum*), western scrub-jay, and red-tailed hawk; mammal species including black-tailed jackrabbit (*Lepus californicus*) and coyote (*Canis latrans*); and reptile species including southern Pacific rattlesnake.

Non-Native Grassland (42200)

Non-native grassland with the Proposed Project is generally dominated by invasive, non-native annual herbaceous species, and may contain remnant patches of native scrub species. This community usually occurs in areas of previous disturbance, sometimes associated with grazing and fallow agricultural fields, located on fine-textured, well-drained soils that are moist in winter but very dry during the summer months and frequently intermediates with disturbed habitats or native scrubs.

Wildlife species observed within the Proposed Project area and commonly associated with non-native grassland include a number of bird species such as mourning dove and red-tailed hawk; mammal species including California ground squirrel and coyote; and reptile species including southern Pacific rattlesnake and side-blotched lizard.

Southern Willow Scrub (63320)

Southern willow scrub is a deciduous, riparian community dominated by dense thickets of one or more willow (*Salix* spp.) tree species and various other scattered shrubs and larger emergent trees. Dominance can vary highly across the range of this community, but common dominant species include arroyo willow (*S. lasiolepis*), yellow willow (*S. lutea*), red willow (*S. laevigata*), and Goodding's willow (*S. gooddingii*), often intermixed with stands of mule fat (*Baccaris salicifolia*) and arrowleaf (*Pluchea sericea*). Within the Proposed Project area this community is dominated by arroyo willow, and occurs only where the interconnection line crosses Campo Creek.

Wildlife species observed within the Proposed Project area and commonly associated with southern willow scrub may consist of several bird species including black phoebe (*Sayornis nigricans*) and western scrub-jay; and amphibian species including Pacific chorus frog (*Pseudacris regilla*).

Coast Live Oak Woodland (71160)

Coast live oak woodland is dominated by coast live oak (*Quercus agrifolia*), which can grow to over 60 feet in height. This community usually occurs on north-facing slopes and within shaded ravines, valleys, and stream terraces. This plant community often has an underdeveloped shrub component and a minimal herbaceous layer, primarily in areas of dense canopy cover. Within the Proposed Project, areas of more open canopy often have a well developed herbaceous layer of non-native grasses (e.g. *Bromus* spp.)

Wildlife species commonly associated with coast live oak woodland consist of the following bird species oak titmouse (*Baeolophus inornatus*), spotted towhee (*Pipilo maculatus*), western bluebird (*Sialia mexicana*), red-tailed hawk, and great-horned owl (*Bubo virginianus*); mammal species including California ground squirrel; and reptile species including and western fence lizard.

Disturbed Areas (11300)

Disturbed areas generally include lands on which the native vegetation has been significantly altered by human activities, which have directly or indirectly resulted in a non-native dominated

species composition. Within the Proposed Project area, disturbed habitat often occurs as graded patches of bare or sparsely vegetated footpaths, unpaved access roads, margins surrounding development, and regions affected by recreational Off-Highway Vehicle (OHV) disturbance. Vegetation found associated with disturbed habitats or in their margins within the Proposed Project area consists of non-native species such as wild mustards (*Brassica nigra* and *Hirshfeldia incana*), tocolote (*Centauria melitensis*), yellow star-thistle (*C. solstitialis*), redstem filaree (*Eroidium cicutarium*), and Mediterranean schismus (*Schismus barbatus*).

Wildlife species commonly associated with disturbed areas consist of bird species including killdeer (*Charadrius vociferus*) and burrowing owl (*Athene cunicularia*); mammal species including California ground squirrel and coyote; and reptile species including western fence lizard.

Developed Areas (12000)

Developed areas contain commercial or residential buildings, paved roads and landscaped surfaces, and generally do not support natural plant communities or wildlife species.

Biological Survey Results

The habitat types described above occur within the Proposed Project as a mosaic with relative variations of presence and dominance. A complete list of plant species observed is included in the Species Compendia, which an Attachment to the Biological Technical Report (ESA, 2012). A set of maps depicting the plant communities within the Proposed Project area is provided in Figures 4.4-1 through 4.4-1U.

Onsite Plant Communities

Big sagebrush scrub occupies several scattered areas throughout the Proposed Project, including in the immediate vicinity of Pole 10, 13, 14, 16, and 46, as well as within the boundaries of the TBO South 1 and Boulevard Staging Yards. This community was observed to be generally dense with little to no undergrowth. In regions where it appeared less dense to open due to apparent previous disturbances, it had a poorly developed herbaceous layer between widely spaced shrubs of non-native grasses and annual weeds, such as Mediterranean schismus and redstem filaree.

Chamise chaparral is dominant throughout the entirety of the Proposed Project area, primarily so within the western portion of the power line corridor. In the eastern portion of the power line corridor chamise chaparral intergrades and becomes co-dominant with redshank chaparral. Other shrubs observed within chamise chaparral communities in the Proposed Project area include California buckwheat, redshank, mountain mahogany (*Cercocarpus betuloides*), manzanita, cholla (*Cylindropuntia* sp.), and scrub oak.

Redshank chaparral occurs regularly throughout the central and eastern portion of the Proposed Project, from Pole 18 to Pole 49, increasing in dominance in the eastern portion of the Proposed Project area. Other shrubs observed within redshank chaparral communities in the Proposed Project area include chamise, California buckwheat, manzanita, sugar bush, and scrub oak.

Upper Sonoran subshrub scrub occurs as scattered patches throughout the Proposed Project between Pole 1 and Pole 41, often intergrading with chamise chaparral. Within the Proposed Project area this community is co-dominated by interior goldenbush, California buckwheat, and to a lesser extent bladderpod, desert tea, and big sagebrush. A variety of annuals derived from nearby grasslands were observed filling the open areas between shrubs.

Non-native grassland occurs in three isolated portions of the Proposed Project; at the northwestern limit of the Proposed Project area within an access road, within the TBO South 1 Staging Yard and within the Boulevard Staging Yard, often associated with areas of previous disturbance. Within the Proposed Project area, this habitat mainly consists of exotic, invasive grasses dominated by Mediterranean schismus, bromes, and wild oats (*Avena barbata*).

Southern willow scrub is limited to the riparian corridor along Campo Creek which crosses a portion of the interconnection alignment adjacent to Live Oak Springs Road. This habitat within the Proposed Project and is dominated by arroyo willow and Goodding's willow, mixed with patches of mule fat and arrowleaf.

Coast live oak woodland occurs as scattered patches throughout much of the Proposed Project area, specifically in the vicinity of Pole 1, 10, 14, 15, 34, and 35, as well as associated with the Boulevard Staging Yard. Within the Proposed Project area this habitat was observed to have a sparsely developed understory and a minimal herbaceous layer in areas of dense canopy cover, but had a well developed herbaceous layer of non-native grasses in areas where the canopy was generally open. Coast live oak woodland within the Proposed Project area consists of both open and closed-canopy woodland on generally flat areas associated with stream terraces and north facing slopes.

Disturbed areas occur throughout the Proposed Project areas, often associated with areas of development. Within the Proposed Project area, disturbed habitat often occurs as graded patches of bare soil, footpaths, unpaved roadways, margins surrounding existing development, and areas of OHV disturbance. Vegetation found on disturbed habitats or at their margins typically consisted of weedy, introduced annuals such as wild mustards, tocolote, redstem filaree, and Mediterranean schismus.

Developed areas occur as scattered patches throughout the Proposed Project area. Within the Proposed Project area, developed areas consist primarily of private residences and various associated structures, roadways, storage facilities, and paved areas.

Common Wildlife Species

Wildlife species observed in the Proposed Project area include California towhee, spotted towhee, western scrub-jay, Steller's jay, yellow-rumped warbler (*Dendroica coronata*), American crow (*Corvus brachyrhynchos*), black-throated sparrow (*Amphispiza bilineata*), common raven, California quail, Cooper's hawk (*Buteo cooperii*), red-tailed hawk, red-shouldered hawk (*Buteo lineatus*), great-horned owl, northern flicker (*Colaptes auratus*), Nuttall's woodpecker (*Picoides nuttallii*), mourning dove, California ground squirrel, antelope ground squirrel, black-tailed jackrabbit, woodrat (*Neotoma* sp.), side-blotched lizard, and western fence lizard. A complete list

of wildlife species observed is included in the Species Compendia, which is Attachment C to the Biological Technical Report (ESA, 2012).

Special-Status Species

Special-status species are those plants and animals that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by federal, state, or other agencies as under threat from human-associated developments. Some of these species receive specific protection that is defined by federal or state endangered species legislation. Others have been designated as special-status on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. Special-status species include:

- Species listed or proposed for listing as threatened or endangered, or are candidates for possible future listing as threatened or endangered, under FESA or CESA;
- Species protected under the Federal Bald and Golden Eagle Protection Act;
- Species that meet the definitions of rare or endangered under the California Environmental Quality Act (CEQA) (*CEQA Guidelines* Section 15380);
- Plants listed as rare under the California NPPA (CDFG Code 1900 et seq.);
- Plants considered by the CNPS to be rare, threatened, or endangered (List 1B and 2 plants) in California (Skinner and Palvik, 1994);
- Plants listed by the CNPS as plants in which more information is needed to determine their status and plants of limited distribution (List 3 and 4 plants) (Skinner and Palvik, 1994);
- Species covered under an adopted NCCP/HCP;
- Species considered “sensitive” by the U.S. Forest Service (USFS);
- Wildlife species of special concern to CDFG; and/or
- Wildlife fully protected in California (CDFG Code Sections 3511, 4700, and 5050).

Based on habitat suitability and documented occurrences (e.g., CNDDB search results) in the region, several special-status species, as described in the following subsections, are known, or have the potential to occur in the Proposed Project area. CNDDB recorded occurrences, with additional CNPS and USFWS data, within five miles of the Proposed Project for special -status plants and wildlife are depicted in Figures 4.4-2 and 4.4-3, respectively.

The “Potential for Occurrence” category referenced in Tables 4.4-1 and 4.4-2 is defined as follows:

- **Present:** The species was observed within the Proposed Project area and/or immediate vicinity during relevant biological surveys.

- **Not Expected:** The Proposed Project area and/or immediate vicinity do not support suitable habitat for a particular species, and therefore the Proposed Project is unlikely to impact this species.
- **Low Potential:** The Proposed Project area and/or immediate vicinity only provide limited habitat for a particular species and impacts to this species from the Proposed Project are unlikely. In addition, the known range for a particular species may be outside of the immediate vicinity.
- **Medium Potential:** The Proposed Project area and/or immediate vicinity provide suitable habitat for a particular species, and the Proposed Project may impact this species. Mitigation will likely avoid potential impacts.
- **High Potential:** The Proposed Project area and/or immediate vicinity provide ideal habitat conditions for a particular species and/or known populations occur in the Proposed Project area and/or immediate vicinity. The Proposed Project may impact this species. Mitigation will likely avoid potential impacts.

Special-Status Plants

Special-status plants include those listed, or candidates for listing, by the USFWS and CDFG as trustee agencies, and species considered sensitive by the CNPS (including Lists 1A, 1B, 2, 3, and 4 as defined above), and species covered under the NCCP/HCP. Special-status plant species with the potential to occur in the Proposed Project area listed in Table 4.4-1: Special-Status Plant Species with the Potential to Occur.

A total of nine special-status plant species have a medium to high potential to occur within the Proposed Project area, including two special-status plant species with a high potential to occur (Jacumba milk-vetch [*Astragalus douglasii* var. *perstrictus*] and sticky geraea [*Geraea viscida*]), and seven special-status plant species with a medium potential to occur (Payson's jewel-flower [*Caulanthus simulans*], Tecate tarplant [*Deinandra floribunda*], Colorado Desert larkspur [*Delphinium parishii* ssp. *subglobosum*], San Diego hulsea [*Hulsea californica*], Desert beauty [*Linanthus bellus*], Southern jewel-flower [*Streptanthus campestris*], and San Bernardino aster [*Symphotrichum defoliatum*]). An additional 13 special-status plant species have a low potential to occur based on species distribution and habitat types found within the Proposed Project area. Furthermore, 21 special-status plant species have been recorded in the region, but are not expected to occur within the Proposed Project area based on a lack of suitable habitat, known geographic and elevation distributions of the species, and results of botanical surveys.

TABLE 4.4-1
SPECIAL-STATUS PLANT SPECIES WITH THE POTENTIAL TO OCCUR

Species Name	Listing Status	Habitat Requirements	Potential to Occur
Pygmy lotus (*Acmispon haydonii*)	1B.3	Found between 1,900 and 4,000 feet in elevation. Inhabits Sonoran desert scrub, pinyon or juniper woodlands, and rocky sites.	Not observed during the 2011 or 2012 botanical surveys. No occurrences are located within five miles of the Proposed Project. Potential suitable habitat is located along the lower elevations of the Proposed Project area. **Low Potential.**
Jacumba milk-vetch (*Astragalus douglasii* var. *perstrictus*)	1B.2	Found between 2,900 and 4,500 feet in elevation. Inhabits chaparral, cismontane woodlands, riparian scrub, pinyon or juniper woodlands, valley or foothill grasslands, and rocky areas.	This species was not observed in the Proposed Project area during 2011 or 2012 botanical surveys. However, this species was observed southeast of the Proposed Project area during 2009 botanical surveys conducted for the ECO Substation Project. Additionally, the species was detected during AECOM's 2010 rare plant surveys that included, but were not limited to, the Proposed Project area. Suitable habitat is present within the Proposed Project area. Twelve occurrences are located within five miles of the Proposed Project area. **High Potential.**
Harwood's milk-vetch (Astragalus insularis var. harwoodii)	2.2	Found between 150 and 1,650 feet in elevation. Inhabits open sandy flats and sandy or stony washes; mostly in creosote bush scrub.	The Proposed Project area is outside of the known elevation range for the species. No recorded occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
California ayenia (*Ayenia compacta*)	2.3	Found between 490 and 3,600 feet in elevation. Inhabits sandy and gravelly washes in the desert as well as dry desert canyons.	Moderately suitable habitat is located throughout the Proposed Project area. No recorded occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Low Potential.**
Fremont barberry (*Berberis fremontii*)	3	Found between 2,755 and 6,100 feet in elevation. Inhabits dry rocky points and slopes within chaparral, pinyon and juniper woodlands, and Joshua tree woodlands.	Suitable habitat is present along the southeastern portion of the Proposed Project area. Four occurrences are located within five miles of the Proposed Project area. However, this species was not observed in the Proposed Project area during the 2011 or 2012 botanical surveys. **Low Potential.**
Orcutt's brodiaea (*Brodiaea orcuttii*)	1B.1	Found between 90 and 5,300 feet in elevation. Inhabits mesic, clay habitats; sometimes serpentine in vernal pools and small drainages within valley and foothill grasslands, closed-cone coniferous forest, cismontane woodland, chaparral, and meadows.	Potentially suitable habitat exists within wetland environments in the vicinity of the Proposed Project area. No occurrences are located within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Low Potential.**

Species Name	Listing Status	Habitat Requirements	Potential to Occur
Little-leaf elephant tree (*Bursera microphylla*)	2.3	Found between 650 and 2,300 feet in elevation. Inhabits hillsides, washes, canyon sides, and rocky sites within Sonoran desert scrub.	The Proposed Project area is outside of the known elevation range for the species. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Payson's jewel-flower (*Caulanthus simulans*)	4.2	Found between 295 and 7,250 feet in elevation. Frequently inhabits burned areas, or disturbed sites such as streambeds; also inhabits rocky, steep slopes within chaparral and coastal scrub.	Suitable habitat is present in the northern and western portions of the Proposed Project area. No occurrences are located within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. However, the species was observed on Campo Reservation during AECOM's 2010 surveys. **Medium Potential.**
Wart-stemmed ceanothus (*Ceanothus verrucosus*)	2.2	Found between 0 and 1,250 feet in elevation. Typically found within coastal chaparral habitat.	The Proposed Project area is outside of the known range for the species. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Pink cholla (*Cylindropuntia xfosbergii*)	3	Found between 1,350 and 2,000 feet in elevation. Typically found in Sonoran desert scrub habitat.	The Proposed Project area is outside of the known elevation range for the species. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Tecate tarplant (*Deinandra floribunda*)	1B.2	Found between 230 and 4,005 feet in elevation. Inhabits small drainages or disturbed area within chaparral and coastal sage scrub environments.	Suitable habitat is present within the southeastern portion of the Proposed Project area. Nine occurrences are located within five miles of the Proposed Project area. However, this species was not observed during 2011 or 2012 botanical surveys. **Medium Potential.**
Cuyamaca larkspur (*Delphinium hesperium* ssp. *cuyamacae*)	CR 1B.2	Found between 3,700 and 5,000 feet in elevation. Typical inhabits lower montane coniferous forests and meadows.	Suitable habitat is present along the higher elevations of the Proposed Project area. No occurrences are located within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Low Potential.**
Colorado Desert larkspur (*Delphinium parishii* ssp. *subglobosum*)	4.3	Found between 2,000 and 5,900 feet in elevation. Inhabits chaparral, cismontane woodlands, pinyon and juniper woodlands, and Sonoran desert scrub.	Suitable habitat is present throughout much of the Proposed Project area. No recorded CNDDB occurrences within five miles of the Proposed Project. However, the species was observed within the vicinity of the Proposed Project during AECOM's 2010 surveys, which included the Proposed Project area. **Medium Potential.**

Species Name	Listing Status	Habitat Requirements	Potential to Occur
Mount Laguna aster (*Dietaria asteroides* var. *lagunensis*)	CR 2.1	Found between 2,600 and 7,900 feet in elevation. Inhabits cismontane woodlands and lower montane coniferous forests.	Marginally suitable habitat is present within the southeastern portion of the Proposed Project area. No occurrences are located within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Low Potential.**
Laguna Mountain goldenbush (*Ericameria cuneata* var. *macrocephala*)	CR 1B.3	Found between 3,600 and 5,600 feet in elevation. Endemic to the Laguna Mountains; among boulders, within crevices and granite outcrops.	The Proposed Project area is outside of the known geographic range for the species. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Annual rock-nettle (*Eucnide rupestris*)	2.2	Found between 1,500 and 1,900 feet in elevation. Typically inhabits Sonoran desert scrub.	The Proposed Project area is outside of the known elevation range for the species. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
San Jacinto Mountains bedstraw (*Galium angustifolium)*	1B.3	Found between 5,350 and 6,500 feet in elevation. Typically inhabits open mixed forest or lower montane coniferous forest.	The Proposed Project area is outside of the known elevation and geographic range for the species. One occurrence is within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Sticky geraea (*Geraea viscida*)	2.3	Found between 1,480 and 5,580 feet in elevation. Typically inhabits chaparral and disturbed habitats.	Suitable habitat is found throughout the Proposed Project area. Twelve occurrences are within five miles of the Proposed Project area. Also, the species was detected during AECOM's 2010 surveys, which included the Proposed Project Area. However, this species was not observed in the Proposed Project area during the 2011 or 2012 botanical surveys. **High Potential.**
San Diego gumplant (*Grindelia halii*)	1B.2	Found between 570 and 5,000 feet in elevation. Inhabits meadows, valleys, foothill grasslands, chaparral, and lower montane coniferous forests.	Potential suitable habitat is present along the western portion of the Proposed Project area. No occurrences are located within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Low Potential.**
Tecate cypress (*Hesperocyparis forbesii*)	1B.1	Found between 820 and 5,000 feet in elevation. Primarily inhabits north-facing slopes in closed-cone coniferous forests often associated with chaparral.	Potential suitable habitat is present in rocky areas in the vicinity of the Proposed Project area. No occurrences are located within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. Additionally, growth pattern of species (tree) makes detection during surveys more likely than annual or herbaceous species. **Not Expected.**

Species Name	Listing Status	Habitat Requirements	Potential to Occur
Laguna Mountains alumroot (*Heuchera brevistaminea*)	1B.3	Found between 4,400 and 6,500 feet in elevation. Inhabits broadleaved upland forest, chaparral, montane woodlands, and riparian scrub.	Proposed Project area is outside of the known elevation range of the species. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
San Diego hulsea; San Diego sunflower (*Hulsea californica*)	1B.3	Found between 3,000 and 9,600 feet in elevation. Inhabits chaparral, lower montane coniferous forests, upper montane coniferous forest openings, and burned areas.	Suitable habitat occurs throughout the Proposed Project area. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. However, the species was observed on the during AECOM surveys for the Manzanita Wind Generation Project in the vicinity of the Proposed Project. **Medium Potential.**
Mexican hulsea (*Hulsea mexicana*)	2.3	Found between 1,800 and 3,600 feet in elevation. Inhabits chaparral and volcanic soils. Often occurs on burned or disturbed areas.	Marginally suitable habitat is present within the Proposed Project area. The Proposed Project is at the upper end of the species known elevation range. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Low Potential.**
Slender-leaved ipomopsis (*Ipomopsis tenuifolia*)	2.3	Found between 330 and 3,940 feet in elevation. Inhabits chaparral, Sonoran desert scrub, and pinyon or juniper woodlands; often associated with gravelly or rocky areas.	Potential suitable habitat is present in the lower elevations of the Proposed Project area. Two occurrences are within five miles of the Proposed Project area. This species was not observed during the 2011 or 2012 botanical surveys. **Low Potential.**
Robinson's pepper grass (*Lepidium virginicum* var. *robinsonii)*	1B.2	Found from 0 to 2,900 feet in elevation. Typically inhabits chaparral and coastal scrub.	The Proposed Project area is outside of the known elevation range for the species. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Parish's meadowfarm (*Limnanthes gracilis* ssp. *parishii*)	CE 1B.2	Found between 1,900 and 5,300 feet in elevation. Inhabits vernally moist areas and temporary seeps in highland meadows and plateaus.	Marginally suitable habitat exists within grassland communities in the Proposed Project area. No occurrence is within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Low Potential.**
Desert beauty (*Linanthus bellus*)	2.3	Found between 3,280 and 4,595 feet in elevation. Inhabits ephemeral drainages within chaparral environments with sandy soils.	Suitable habitat is present in drainages and ephemeral features occurring within the Proposed Project area. Twenty-one occurrences are within five miles of the Proposed Project area. The species was detected during AECOM's 2010 surveys, which included the Proposed Project area. However, this species was not observed during the 2011 or 2012 botanical surveys. **Medium Potential.**

Species Name	Listing Status	Habitat Requirements	Potential to Occur
Mountain Springs bush lupine (*Lupinus excubitus* var. *medius*)	1B.3	Found between 1,394 and 4,495 feet in elevation. Typically inhabits Sonoran desert scrub and pinyon or juniper woodlands.	No suitable habitat is present within the Proposed Project area. One occurrence is within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Parish's desert-thorn (*Lycium parishii)*	2.3	Found between 950 and 3,000 feet in elevation. Typically inhabits desert scrub and coastal scrub.	The Proposed Project area is outside of the known elevation range for the species. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Brown turbans (*Malperia tenuis*)	2.3	Found between 40 and 1,100 feet in elevation. Inhabits sandy places and rocky slopes within Sonoran desert scrub.	The Proposed Project area is outside of the known elevation range for the species. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Hairy stickleaf (*Mentzelia hirsutissima*)	2.3	Found between 0 and 2,450 feet in elevation. Inhabits fans, slopes, coarse rubble, and talus slopes within creosote bush scrub.	The Proposed Project area is outside of the known elevation range for the species. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Thurber's pilostyles (*Pilostyles thurberi*)	4.3	Found between 150 and 1,200 feet in elevation. Inhabits sandy alluvium within Sonoran desert scrub. The species is a parasite on *Psorothamnus* sp. within its range.	The Proposed Project area is outside of the known elevation range for the species. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Arizona pholistoma (*Pholistoma auritum* var. *arizonicum*)	2.3	Found between 975 and 2,300 feet in elevation. Typically restricted to Arizona, although isolated individuals are present in California. Inhabits Mojavean desert scrub.	The Proposed Project area is outside of the known elevation range for the species. One occurrence is within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Southern mountains skullcap (*Scutellaria bolanderi* ssp. *austromontana*)	1B.2	Found between 1,375 and 6,600 feet in elevation. Inhabits gravelly soils on streambanks or in mesic sites with chaparral, oak and pine woodlands	Marginally suitable habitat is present in the western portion of the Proposed Project area. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical survey. **Low Potential.**
Desert spike-moss (*Selaginella eremophila)*	2.2	Found between 660 and 3,000 feet in elevation. Inhabits gravelly and rocky soils within Sonoran desert scrub.	The Proposed Project area is outside of the known elevation range for the species. One occurrence is within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**

Species Name	Listing Status	Habitat Requirements	Potential to Occur
Chaparral ragwort (*Senecio aphanactis*)	2.2	Found between 40 and 2,650 feet in elevation. Inhabits chaparral, cismontane woodlands, and coastal scrub.	The Proposed Project area is outside of the known elevation range for the species. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Laguna Mountains jewel-flower (*Streptanthus bernardinus*)	4.3	Found between 4,700 and 8,250 feet in elevation. Inhabits clay or decomposed granite soils within chaparral and lower montane coniferous forests; sometimes found in disturbed areas such as streamsides or roadcuts.	The Proposed Project area is outside of the known elevation range for the species. One occurrence is within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Southern jewel-flower (*Streptanthus campestris*)	1B.3	Found between 2,955 and 7,550 feet in elevation. Inhabits chaparral, lower montane coniferous forests, rocky areas, and pinyon or juniper woodlands.	Suitable habitat is present within the Proposed Project area. Four occurrences are within five miles of the Proposed Project area. However, this species was not observed during the 2011 or 2012 botanical surveys. **Medium Potential.**
San Bernardino aster (*Symphotrichum defoliatum)*	1B.2	Found between 0 and 6,700 feet in elevation. Inhabits vernally mesic grasslands; found near ditches, streams and springs, and disturbed areas within meadows, marshes, coastal scrub, cismontane woodlands, lower montane coniferous forests and grasslands.	Potentially suitable habitat is present in the southeast portion of the Proposed Project area, particularly in the vicinity of Campo Creek. Two occurrences are located within five miles of the Proposed Project area, with one of these within ¼ mile of the Proposed Project. However, this species was not observed during the 2011 or 2012 botanical surveys. **Medium Potential.**
Parry's tetracoccus (*Tetracoccus dioicus*)	1B.2	Found between 545 and 3,300 feet in elevation. Typically inhabits chaparral and coastal scrub.	Marginally suitable habitat is present at the extreme lower elevations of the southeastern portion of the Proposed Project area. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Low Potential.**
Velvety false lupine (*Thermopsis californica* var. *semota*)	1B.2	Found between 3,100 and 6,150 feet in elevation. The species is endemic to San Diego County and is restricted to wet, open meadows around Cuyamaca Lake, and within the Laguna Meadows.	The Proposed Project area is outside of the known range for the species. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**
Rigid fringepond (*Thysanocarpus rigidus*)	1B.2	Found between 1,950 and 7,250 feet in elevation. Inhabits dry, rocky slopes and ridges of oak and pine woodlands in arid mountain ranges.	Marginally suitable habitat is present at the extreme southeastern portion of the Proposed Project area. No occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Low Potential.**

Species Name	Listing Status	Habitat Requirements	Potential to Occur
Orcutt's woody-aster (*Xylorhiza orcuttii)*	1B.2	Found between 850 and 1,200 feet in elevation. Inhabits arid canyons and washes within Sonoran desert scrub.	The Proposed Project area is outside of the known elevation range for the species. No CNDDB occurrences are within five miles of the Proposed Project area. Not observed during the 2011 or 2012 botanical surveys. **Not Expected.**

Botanical species that have a medium to high potential to occur within the Proposed Project area are discussed in detail, below.

Jacumba Milk-Vetch

Jacumba milk-vetch is a perennial herb in the Fabaceae family that inhabits chaparral, cismontane woodland, pinyon-juniper woodland, riparian scrub, rocky areas, and valley/foothill grassland. This species typically occurs between 2,900 and 4,500 feet in elevation and blooms from April through June. Jacumba milk-vetch has a CNPS Rare Plant Rank of 1B.2, which denotes that the species is considered fairly threatened in California. Threats to this species include loss of habitat from development and impacts associated with grazing.

Suitable habitat is present within most vegetated plant communities occurring in the Proposed Project area. Although not detected during 2011 or 2012 rare plant surveys, twelve occurrences were recorded to the CNDDB within five miles of the Proposed Project area, with the closest of these occurrences located in the vicinity of Pole 1 and Pole 41 (Figure 4.4-2). Additionally, this species was observed during rare plant surveys conducted in 2009 for SDG&E's East County Substation Project southeast of the Proposed Project area, as well as during AECOM's 2010 surveys for the Manzanita Wind Generation Project, which included the Proposed Project area. Isolated populations of this species were observed within the vicinity of the existing Boulevard Substation and along the proposed alignment immediately to the south and east of the substation.

Payson's Jewel-Flower

Payson's jewel-flower is an annual herb in the Brassicaceae family that blooms from February through June. This species inhabits chaparral and coastal scrub communities, typically within sandy or granitic soils. Payson's jewel-flower is typically found between 295 and 7,200 feet in elevation. This species has a CNPS Rare Plant Rank of 4.2, which denotes that the species is considered uncommon and fairly endangered in California.

Suitable habitat is present in the northern and western portions of the Proposed Project area associated with chaparral habitats. There are no recorded CNDDB or CNPS occurrences within five miles of the Proposed Project site, although the species was observed during AECOM's 2010 surveys for the Manzanita Wind Generation Project, which included the Proposed Project area. Focused plant surveys conducted in 2011 or 2012 did not reveal the species within the Proposed Project.

Tecate Tarplant

Tecate tarplant is an annual herb in the Asteraceae family that blooms from August to October. This species inhabits chaparral and coastal scrub in San Diego County and Baja California, Mexico. The species is typically found between 230 and 4,005 feet in elevation. Tecate tarplant has a CNPS Rare Plant Rank of 1B.2, which denotes that the species is considered fairly threatened in California. Threats to this species include loss of habitat from development and impacts associated with grazing.

Suitable habitat is present within the chaparral communities found within the Proposed Project area, and nine occurrences have been recorded within five miles of the area; with occurrences approximately one half mile northeast of Pole 1, approximately two miles southwest of Pole 16, and three additional occurrences that are approximately one mile north, one and a half mile south, and two miles southeast of Pole 51 (Figure 4.4-2). A species-specific rare plant survey was conducted for Tecate tarplant in October of 2011 and another in August of 2012, neither of which identified any occurrences of the species within the Proposed Project site.

Colorado Desert Larkspur

Colorado Desert larkspur is a perennial herb in the Ranunculaceae family that blooms from March through June. This species inhabits chaparral, cismontane woodland, pinyon and juniper woodland, and Sonoran Desert scrub habitats. The species is typically found between 2,000 and 5,900 feet in elevation. Colorado Desert larkspur has a CNPS Rare Pant Rank of 4.3, which denotes that the species is considered uncommon, but not very endangered in California. Threats to this species include competition with non-native species.

Suitable habitat is present within the chaparral communities found within the Proposed Project area. No recorded CNDDB or CNPS are within five miles of the Proposed Project. However, the species was observed during AECOM's 2010 surveys for the Manzanita Wind Generation Project, which included the Proposed Project area. Focused plant surveys conducted in 2011 or 2012 did not reveal the species within the Proposed Project.

Sticky Geraea

Sticky geraea is a perennial herb in the Asteraceae family that blooms from May through June. This species inhabits chaparral and disturbed communities in southern California and Baja California, Mexico. Sticky geraea is typically found between 1,480 and 5,580 feet in elevation. This species has a CNPS Rare Plant Rank of 2.3, which denotes that the species is considered rare but not very threatened in California and more common elsewhere. Development is considered to be a threat to this species.

Suitable habitat for this species is found throughout the Proposed Project area with a total of 12 occurrences recorded occurrences within five miles of the Proposed Project; approximately one mile west of Pole 1, approximately a half mile north of Pole 28, and approximately a quarter mile south, one and a half mile northeast, and two and a half miles northeast of Pole 51 (Figure 4.4-2). This species was also detected southeast of the Proposed Project area during rare plant surveys conducted in 2009 for SDG&E's East County Substation Project; as well as during AECOM's 2010 surveys for the Manzanita Wind Generation Project, which included the

Proposed Project area. This species was observed scattered along the proposed alignment adjacent to and east of the existing Boulevard Substation. However, focused plant surveys conducted in 2011 or 2012 did not reveal the species within the Proposed Project.

San Diego Hulsea

San Diego hulsea, also known as San Diego sunflower is a perennial herb in the Asteraceae family that blooms from April through June. This species inhabits openings, disturbed, and burned areas within chaparral, lower montane coniferous forest, and upper montane coniferous forest communities. San Diego hulsea is typically found between 3,000 and 9,500 feet in elevation. This species has a CNPS Rare Plant Rank of 1B.3, which denotes that the species is considered rare in California and elsewhere but not very threatened in California. Threats to the species include impacts competition from non-native plants and fire suppression.

Suitable habitat is present throughout the Proposed Project area within chaparral communities, particularly in areas of lower vegetation density and disturbance. There are no CNDDB or CNPS occurrences recorded within five miles of the Proposed Project. However, the species was detected during AECOM's 2010 surveys for the Manzanita Wind Generation Project, which included the Proposed Project area. Focused plant surveys conducted in 2011 or 2012 did not reveal the species within the Proposed Project.

Desert Beauty

Desert beauty is an annual herb in the Polemoniaceae family that blooms from April through May. This species inhabits chaparral communities in San Diego County and Baja California, Mexico. Desert beauty is typically found between 3,280 and 4,595 feet in elevation. This species has a CNPS Rare Plant Rank of 2.3, which denotes that the species is considered rare but not very threatened in California and more common elsewhere. Development is considered to be a threat to this species.

Suitable habitat is present in washes that cross several areas of the Proposed Project area. Twenty-one (21) occurrences were recorded within five miles of the Proposed Project area; with occurrences within a quarter mile northwest of Pole 1, approximately a half mile west of Pole 8, approximately two miles southwest of Pole 28, and approximately a quarter mile east, two locations approximately one and a half miles north, approximately one and a half miles northeast, approximately two and a half miles northeast, and two miles southeast of Pole 51 (Figure 4.4-2). Although this species was detected just south of the Boulevard Substation during the 2009 rare plant surveys conducted for SDG&E's East County Substation Project, as well as during AECOM's 2010 surveys for the Manzanita Wind Generation Project, which included the Proposed Project area, focused plant surveys conducted in 2011 or 2012 did not reveal the species within the Proposed Project area.

Southern Jewel-Flower

Southern jewel-flower is a perennial herb in the Brassicaceae family that blooms from May through July. This species inhabits chaparral, pinyon-juniper woodland, and lower montane coniferous forest communities in Riverside, Santa Barbara, San Bernardino, San Diego, and Ventura counties and Baja California, Mexico. Southern jewel-flower is typically found between

2,955 and 7,550 feet in elevation and is associated with gravelly areas. This species has a CNPS Rare Plant Rank of 1B.3, which denotes that the species is considered rare in California and elsewhere but not very threatened in California. Threats to the species include impacts associated with urban development.

Suitable habitat is present throughout the Proposed Project area and four occurrences were recorded within five miles of the Proposed Project area; with occurrences within close proximity of the Proposed Project mapped approximately one mile west of Pole 2, approximately two and a half miles southwest of Pole 28, approximately three miles east of Pole 51 (Figure 4.4-2). However, focused plant surveys conducted in 2011 or 2012 did not reveal the species within the Proposed Project.

San Bernardino Aster

San Bernardino aster is a perennial herb in the Asteraceae family that blooms from May through June. This species inhabits vernally mesic grasslands and is often found near ditches, streams, and springs. This species can also be found in disturbed areas within meadows, marshes, coastal scrub, cismontane woodland, lower montane coniferous forests, and grasslands. San Bernardino aster is typically found from sea level to 6,700 feet in elevation. This species has a CNPS Rare Plant Rank of 1B.2, which denotes that the species is fairly threatened in California.

Suitable habitat for this species is present in the Proposed Project area within drainages and in disturbed areas. Although two occurrences have been recorded within five miles of the Proposed Project area; within a quarter mile northeast of Pole 51, and approximately one and a half miles south of Pole 37 (Figure 4.4-2); this species was not detected within the Proposed Project during the 2011 or 2012 rare plant surveys.

Special-Status Wildlife

Special-status wildlife species with the potential to occur within the Proposed Project area are identified below in Table 4.4-2: Special-Status Wildlife Species with the Potential to Occur. Four species (QCB, San Diego coast horned lizard [*Phrynosoma coronatum blainvillii*], Cooper's hawk [*Accipiter cooperii*], and San Diego black-tailed jackrabbit [*Lepus californicus bennettii]*) were determined to be present within the Proposed Project area, due to detection during Project-related surveys. Four special-status wildlife species (coastal whiptail [*Aspidoscelis tigris stejnegeri*], rosy boa [*Charina trivirgata*], red-diamond rattlesnake [*Crotalus ruber*], and San Diego desert woodrat [*Neotoma lepida intermedia*]) were determined to have a high potential to occur, and nine special-status species (pallid bat [*Antrozous pallidus*], Dulzura pocket mouse [*Chaetodipus californicus femoralis*], Townsend's big-eared bat [*Corynorhinus townsendii*], western mastiff bat [*Eumops perotis californicus*], western red bat [*Lasiurus blossevillii*], western yellow bat [*Lasiurus xanthinus]*, California leaf-nosed bat [*Macrotus californicus*], western small-footed myotis [*Myotis ciliolabrum*], fringed myotis [*Myotis thysanodes*], big free-tailed bat [*Nyctinomops macrotis*], and southern grasshopper mouse (*Onychomys torridus ramona),*) were determined to have a medium potential to occur.

Additionally, seven special-status species have been determined to have a low potential to occur. Also, six special-status species are not expected to occur within the Proposed Project area.

TABLE 4.4-2
SPECIAL-STATUS WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR

Species Name	Listing Status	Habitat Requirements	Potential to Occur
Invertebrates			
Quino checkerspot butterfly (*Euphydryas editha quino)*	FE	Sunny openings within chaparral and coastal sage shrublands. Host plants include dwarf plantain (*Plantago virginica*), desert Indianwheat (*Plantago insularis*), and owl clover (*Orthocarpus purpurascens*).	Five QCB observations were recorded within the Proposed Project area during protocol-level surveys conducted in spring 2010. Nearly 50 recorded observations are within five miles of the Proposed Project. Suitable habitat is present throughout much of the Proposed Project area, with secondary host plant species abundant in several different areas. **Present.**
Amphibians			
Arroyo toad (*Anaxyrus californicus)*	FE CSC	Semi-arid regions near washes or intermittent streams, including valley - foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores, loose gravelly areas of streams in drier parts of range.	Low-quality habitat for this species is present within the Proposed Project area where Campo Creek crosses the proposed interconnection alignment adjacent to Live Oak Springs Road. Focused presence/absence surveys conducted in 0.45 acres of suitable habitat in this area in April, 2010, were negative. The species has been observed historically within approximately two miles of the Proposed Project area. No occurrences have been documented within five miles of the Proposed Project area. **Low Potential.**
Reptiles			
Coastal whiptail (*Aspidoscelis tigris stejnegeri)*	SDC2	Inhabits low elevation coastal scrub, chaparral and valley-foothill hardwood habitats. Prefers washes and other sandy areas. Perennial plants necessary for major food, which is termites.	Suitable habitat is present throughout the Proposed Project area. One occurrence is within close proximity of the Proposed Project area. However, this species was not observed during Project-related surveys. **High Potential.**
Rosy boa (*Charina trivirgata)*	BLMS USFSS	Inhabits areas with a mix of moderate to dense brushy cover and rocky soil, such as coastal canyons and hillsides, desert canyons, washes and mountains. Found in desert and chaparral from the coast to the Mojave and Colorado deserts.	Suitable habitat is present throughout the Proposed Project area. One occurrence is within close proximity of the Proposed Project area. Although not observed, this species is expected to occur in suitable habitat in the Proposed Project area. **High Potential.**
Barefoot gecko (*Coleonyx switaki)*	CT	Found below 2,200 feet elevations, in areas of massive rock and rock outcrops at the heads of canyons.	The Proposed Project area is outside of the known elevation range for the species. No occurrences are within five miles of the Proposed Project area. Not observed during the Project-related surveys. **Not Expected.**
Red-diamond rattlesnake (*Crotalus ruber)*	CSC	Typically occurs in chaparral, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Often associated with rodent burrows and areas of dense vegetation.	Suitable habitat is present throughout the Proposed Project area. Three occurrences are within five miles of the Proposed Project area, all located to the east of the Proposed Project. Although not observed, this species is expected to occur in suitable habitat in the Proposed Project area. **High Potential.**
California (San Diego) mountain kingsnake (*Lampropeltis*	CSC	Restricted to the San Gabriel and San Jacinto mountains of southern California. Inhabits a variety of habitats including	The Proposed Project area is outside of the known range for the species. No occurrences are within five miles of the Proposed Project area. **Not Expected.**

Species Name	Listing Status	Habitat Requirements	Potential to Occur
zonata pulchra)		valley-foothill hardwood, chaparral, riparian, and wet meadows.	
Coast (San Diego) horned lizard (*Phrynosoma coronatum blainvillii*)	CSC	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate. Typically prefers friable, rocky, or shallow sandy soils.	Suitable habitat is present throughout the Proposed Project area. Seven occurrences are within five miles of the Proposed Project area. Sign of the species was identified during 2012 rare plant surveys within the vicinity of the Boulevard Staging Yard. **Present.**
Flat-tailed horned lizard (*Phtynosoma mcalli)*	BLMS CSC	Very limited distribution. Found in the extreme southwest corner of Arizona, southeast corner of California, and adjoining portions of Sonora and Baja California.	The Proposed Project area is outside of the known range for the species. No occurrences are within five miles of the Proposed Project area. **Not Expected.**
Two-striped garter snake (*Thamnophis hammondii)*	BLMS CSC	Typically found in or near permanent fresh water, often associated with streams with rocky beds and dense riparian growth.	Potentially suitable habitat is present within the Proposed Project within Campo Creek. However, no recorded occurrences are within five miles of the Proposed Project area. **Low Potential.**
Birds			
Cooper's hawk (*Accipiter cooperii*)	CSC	Inhabits open, interrupted, or marginal type woodland habitats. Nests in riparian growths of deciduous trees and coast live oaks.	Suitable foraging habitat and nesting sites are present within the Proposed Project area. One recorded occurrence is within five miles of the Proposed Project area. The species was observed within the Proposed Project area during biological surveys **Present.**
Tricolored blackbird (*Agelaius tricolor)*	BLMS CSC	Highly colonial species that requires habitat consisting of open water, protected nesting areas, and foraging areas with a substantial insect base nearby.	No suitable foraging or nesting habitat is present within the Proposed Project area. No occurrences are within five miles of the Proposed Project location. Not observed during the Project-related surveys. **Not Expected.**
Golden eagle (*Aquila chrysaetos*)	BLMS CFP	Species forages over large areas of grasslands, relatively open chaparral or sage scrub habitats. Species is an uncommon resident in San Diego County.	Marginally suitable foraging habitat is present is areas of non-native grassland and relatively open scrub habitats within the Proposed Project area. No recorded CNDDB occurrences within five miles of the Proposed Project. Species was observed during Bloom Biological, Inc. surveys within the vicinity of the Proposed Project. **Low Potential.**
Prairie falcon (*Falco mexicanus)*	CSC	Inhabits dry, open, hilly, or level terrain. Typically nests on cliffs. Known to forage far afield.	Suitable foraging habitat and limited nesting sites are present within the Proposed Project area. Species was observed during Bloom Biological, Inc. surveys within the vicinity of the Proposed Project. **High Potential.**
Least Bell's vireo (*Vireo bellii pusillus*)	FE CE	Inhabits riverine and floodplain habitats and adjacent coastal sage scrub, chaparral, or other upland plant communities.	Limited suitable habitat is present within the plant communities in the vicinity of Campo Creek. No occurrences are within five miles of the Proposed Project area. **Low Potential.**
Mammals			
Pallid bat (*Antrozous pallidus)*	CSC	Inhabits low elevation rocky arid deserts and canyon-lands, and shrub-steppe	Moderately suitable foraging habitat is present within the Proposed Project area. Species known to occur in the general region. No documented

Species Name	Listing Status	Habitat Requirements	Potential to Occur
		grasslands. Roosts in caves, rock crevices, mines, hollow trees, and buildings.	roosting occurrences are within five miles of the Proposed Project area. Hollow trees in the area may provide roosting habitat; however, none were documented within or immediately adjacent to the Proposed Project. **Medium Potential.**
Dulzura pocket mouse (*Chaetodipus californicus femoralis)*	CSC	Inhabits a variety of habitats, including coastal sage scrub, chaparral, and grasslands within San Diego County.	Suitable habitat is present within the chaparral habitats of the Proposed Project area. One occurrence is within five miles of the Proposed Project area. **Medium Potential.**
Townsend's big-eared bat (*Corynorhinus townsendii)*	BLMS CSC	Found throughout California in a variety of habitats, but most common in mesic sites. Roosts in open, hanging from walls and ceilings. Species is extremely sensitive to human disturbance.	Moderately suitable foraging habitat is present within the Proposed Project area, but no suitable roosting habitat exists. Species known to occur in the general region. No occurrences are within five miles of the Proposed Project area. **Medium Potential (foraging only).**
Western mastiff bat (*Eumops perotis californicus)*	BLMS CSC	Open, semi-arid to arid habitats including conifer and deciduous woodlands, coastal scrub, chaparral. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Moderately suitable foraging habitat and marginal roosting habitat is present within the Proposed Project area. No occurrences are within five miles of the Proposed Project area. **Medium Potential.**
Western red bat (*Lasiurus blossevillii)*	BLMS CSC	Wide range of habitats, sea level to mixed conifer forests. Roosts in trees, prefers habitat edges and mosaics with open areas for foraging.	Moderately suitable foraging habitat and marginal roosting habitat is present within the Proposed Project area. No occurrences are within five miles of the Proposed Project area. **Medium Potential.**
Western yellow bat (*Lasiurus xanthinus)*	CSC	Valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms, forages over water and among trees.	Moderately suitable foraging and roosting habitat is present near riparian areas of the Proposed Project area. No occurrences are within five miles of the Proposed Project area. **Medium Potential.**
San Diego black-tailed jackrabbit (*Lepus californicus bennettii)*	CSC	Inhabits intermediate canopy stages of coastal sage scrub habitats in southern California.	Suitable habitat is present throughout much of the Proposed Project area. One CNDDB occurrence is within five miles. The species was observed in close proximity of the Proposed Project area during Project-related surveys. **Present.**
California leaf-nosed bat (*Macrotus californicus)*	BLMS CSC	Inhabits desert riparian, desert wash, desert scrub, desert succulent scrub, alkali scrub and palm oasis. Rocky rugged terrain, with mines or caves.	Moderately suitable foraging and roosting habitat is present near riparian areas of the Proposed Project. No occurrences are within five miles of the Proposed Project area and no suitable roosting sites were documented within or adjacent to the Proposed Project. **Medium Potential (foraging only).**
Western small-footed myotis (*Myotis ciliolabrum)*	BLMS	Inhabits a wide range of arid, wooded, and brushy uplands near water. Seeks cover in caves, buildings, mines and crevices.	Moderately suitable foraging and roosting habitat is present within the Proposed Project area. Species known to occur in the general region. No occurrences are within five miles of the Proposed Project area and no suitable roosting sites were documented within or adjacent to the Proposed Project. **Medium Potential (foraging only).**
Long-eared myotis (*Myotis*	BLMS	Inhabits predominately coniferous forests, typically only between 7,000 to 8,500	Species known to occur in the region, however, the Proposed Project is approximately 3,000 feet below the documented elevation range for the species. No

Species Name	Listing Status	Habitat Requirements	Potential to Occur
evotis)		feet in elevation.	occurrences are within five miles of the Proposed Project area. **Not Expected.**
Fringed myotis (*Myotis thysanodes)*	BLMS	Inhabits caves, mines, building or crevices within pinyon or juniper woodlands, valley foothill hardwoods, and hardwood or conifer forests.	Moderately suitable roosting habitat (buildings) and foraging habitat is present within the Proposed Project area. Species known to occur in the general region. No occurrences are within five miles of the Proposed Project area. **Medium Potential.**
Long-legged myotis (*Myotis volans)*	SDC2	Inhabits woodland and forest habitats above 4,000 feet in elevation. Roosts in trees during the daytime and in caves and mines during the nighttime.	Species known to occur in the region, however, the Proposed Project is at the low end of the documented elevation range of the species. No occurrences are within five miles of the Proposed Project area. **Low Potential.**
Yuma myotis (*Myotis yumanensis)*	SDC2	Inhabits open forests and woodlands with bodies of water over which to feed. Maternity colonies found in caves, mines, buildings, or crevices.	The Proposed Project area lacks open water source necessary for foraging. Marginally suitable roosting habitat is present in building located within developed areas of the Proposed Project. No recorded occurrences are within five miles of the Proposed Project area. **Low Potential.**
San Diego desert woodrat (*Neotoma lepida intermedia)*	CSC	Inhabits coastal scrub of southern California, San Diego to San Luis Obispo Counties. Moderate to dense canopies preferred, abundant in areas with rock outcrops and rocky cliffs and slopes.	Suitable habitat is present within the Proposed Project area and two occurrences are within five miles of the Proposed Project site. Although this species was not positively identified, a number of woodrat nests were observed within the Proposed Project area during surveys. **High Potential.**
Pocketed free-tailed bat (*Nyctinomops femorosaccus)*	SDC2	Inhabits a variety of arid areas in southern California, including pinyon-juniper woodlands, desert scrub, palm oasis, desert wash and desert riparian. Roosting habitat is typically cliffs, crevices, and rocky outcrops.	Proposed Project lacks suitable roosting habitat for the species. Marginally suitable foraging habitat is present in scrub areas within the Proposed Project area. No occurrences are within five miles of the Proposed Project area. **Low Potential (foraging only).**
Big free-tailed bat (*Nyctinomops macrotis)*	SDC2	Inhabits low-lying arid areas in southern California; needs high cliffs or rocky outcrops for roosting sites. Feeds primarily on large moths.	Marginally suitable foraging habitat, however, no roosting habitat is present within, or adjacent to the Proposed Project. No occurrences are within five miles of the Proposed Project area. **Medium Potential (foraging only).**
Southern grasshopper mouse (*Onychomys torridus ramona)*	CSC	Inhabits desert area, especially scrub habitats with friable soils for digging.	Suitable habitat is present within the Proposed Project area. One occurrence is within five miles of the Proposed Project area. **Medium Potential.**
Peninsular bighorn sheep (*Ovis canadensis nelsoni)*	FE CT	Inhabits desert slopes below 4,000 feet in elevation from San Gorgonio Pass south into Mexico.	Critical habitat for the species has been defined as the San Jacinto Mountains, northern Santa Rosa Mountains, southern Santa Rosa Mountains south to Vallecito Mountains, and the Carrizo Canyon, which is outside the Proposed Project area. I-8 acts as a major barrier to the northern distribution of the species. Most importantly, suitable habitat requirements are absent on the project site and no occurrences have been recorded within five miles of the Proposed Project. **Not Expected.**

Species that are present, have a high potential to occur, or for which protocol level surveys were conducted, within the Proposed Project area are discussed in detail, below.

Quino Checkerspot Butterfly

The QCB is a member of the brush-footed butterfly family (Nymphalidae). This species has a range extending from British Columbia and Alberta, Canada, south including Colorado and Utah, and west along the coast to northern Baja California, Mexico. QCB has been divided into at least 20 subspecies, with varying localized ranges and biological and morphological characteristics. All of the subspecies utilize plants in the Plantaginaceae and Orobanchaceae families for larval food. There are three subspecies of *Euphydryas editha* within southern California (*E. e. augustinaa, E. e. editha, and E. e. quino*). Historically, *E. e. quino* has been found in Los Angeles, Orange, western Riverside, southwestern San Bernardino, and San Diego counties in addition to northern Baja California, Mexico. Within southern California, *E. e. augustinaa* is restricted to the yellow pine forests of the San Bernardino Mountains. The range of *E. e. editha* within southern California is limited to the far northern portion of the region, specifically within the Piute Mountains. *E.e. quino* is the only subspecies expected to occur within the vicinity of the Proposed Project.

E .e. quino is associated with a variety of habitats that include clay soil meadows, grassland, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland and semi-desert (Ballmer et al., 2000). It ranges in elevation from sea level up to 5,000 feet. Despite association with a wide range of habitat types, distribution of this species is restricted to areas that support larval host plants. The primary host plant for QCB is California plantain (*Plantago erecta)*. Other host plants include woolly plantain (*Plantago patagonica),* Coulter's snapdragon (*Antirrhinum coulterianum),* and Chinese houses (*Collinsia* spp.; Pratt, 2010). Owl's clover (*Castilleja exserta*), and rigid bird's beak (*Cordylanthus rigidus*) are considered secondary hosts (USFWS, 2002). Chinese houses may serve as the primary larval host plant for QCB at higher elevations (Pratt, 2010), such as those within the Proposed Project area. Hatching is from eggs usually laid on the host plant itself, then the early larvae feed and will enter a physiological dormancy known as diapause during periods of poor host plant conditions. During these periods, they often rest under vegetation and rocks. If adverse conditions occur, the larvae may reenter diapause multiple times, emerging after fall or winter rains. Generally the flight season for the QCB occurs from late February through April, with peak activity typically occurring in March and April.

Although once common in southern California, QCB populations have rapidly declined to a few isolated areas of Orange, western Riverside, and San Diego counties along with areas of northern Baja California, Mexico. Reasons for the decline of the species may include habitat loss due to degradation and fragmentation caused by urban and rural development, agricultural conversion, OHV use, the invasion of non-native plants and insects, fire management practices, over-collecting, and adverse weather conditions (USFWS, 2002). The USFWS officially listed the QCB as endangered on January 16, 1997 (USFWS, 2002).

Focused QCB surveys were conducted for the Proposed Project (and also included the Manzanita Wind Generation Project site) in the spring of 2010. After five weeks of focused QCB surveys, it was determined that a sixth week of focused QCB surveys at the sites was necessary, based on continued observations of QCB individuals during the fifth week on the adjacent Campo Wind Generation Project. One of the individuals observed during the fifth week of surveys on the Campo Wind Generation Project site was determined to be in good condition, with bright wing color and no fraying of wing edges. Potential larval host plants, including Chinese houses, were blooming with increasing abundance throughout the entire survey area during the fifth week of surveys. While the actual blooms of Chinese houses do not benefit QCB larvae, the blooming cycle indicated that Chinese houses were still green and supple, and had not yet dried up during the QCB survey season. Thus, the host plants were still available for QCB larvae to feed on during the QCB survey season. Based on the continued presence of adult QCB and the blooming stage of potential larval host plants during the fifth week of surveys, a sixth week of focused adult QCB surveys for the entire survey area (not limited to the Proposed Project area) was added to the season.

A total of 66 butterfly species and several moth species were detected within the 2010 survey area (including the Manzanita Wind Generation Project site and proposed alignment connecting the Manzanita Wind Generation Project south to the Crestwood substation) with peak numbers generally occurring during the third and fourth weeks of the surveys. Generally, nectaring plants increased in diversity and abundance during the third and fourth weeks of the surveys, which coincided with the times that QCB and other checkerspots were observed in greatest abundance. Five QCB observations were made during the protocol survey period within the Proposed Project area. Additionally, nearly 50 recorded CNDDB and USFWS observations are within five miles of the Proposed Project.

Coastal Whiptail

The coastal whiptail, a Group II species on San Diego County's Sensitive Animal List, is a small lizard that occurs throughout most of the southwestern United States. This species can be found in a variety of habitats throughout its range, including deserts and semi-arid shrublands with sparse vegetation and open areas of bare ground. This species is also known to inhabit woodland and riparian areas. Coastal whiptail requires microhabitats that include small burrows within firm, sandy, or rocky substrates. Coastal whiptail has the potential to occur in suitable habitat throughout the Proposed Project area.

Based on the presence of suitable habitat and the presence of a recorded occurrence within five miles of the Proposed Project (Figure 4.4-3), the coastal whiptail has a high potential to occur.

Rosy Boa

The rosy boa, a Bureau of Land Management (BLM) and USFS Sensitive Species, is a relatively small snake with a range extending from the southwestern U.S. south to Baja California and Sonora, Mexico. This species is known for its rosy or salmon coloration that is common along the ventral area. The species prefers areas with a mix of moderate to dense brushy cover and rocky soil, such as coastal canyons and hillsides. In southern California, the species is often found in desert and chaparral habitats from the Pacific coast to the Mojave and Colorado deserts.

Suitable habitat for the rosy boa is present throughout the Proposed Project area. One occurrence has been recorded within approximately one-half mile of the Proposed Project (Figure 4.4-3).

Red-Diamond Rattlesnake

The red-diamond rattlesnake, a CDFG Species of Special Concern, is one of the largest rattlesnakes in the region, with individuals measuring approximately 2.5 feet to 3.5 feet long. This species ranges from San Bernardino County south to Baja California Sur, Mexico. Within the northern part of its range, the species occupies varied environments from the Pacific coast to the desert slopes of the mountains; however, the species generally avoids the lower desert flats and elevations above 5,000 feet. In Mexico, the species inhabits most of the Baja California peninsula, from the Pacific Ocean to the Gulf of California (Sea of Cortez), including some of the islands within the Gulf.

Regionally, red-diamond rattlesnakes typically occur in chaparral, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. The species can often be found in rodent burrows and areas of dense vegetation. Suitable habitat is present throughout the Proposed Project area. No CNDDB occurrences were recorded within five miles of the Proposed Project area and the species was not observed during Proposed Project-related surveys and site visits.

Coast (San Diego) Horned Lizard

The coast (San Diego) horned lizard, a CDFG Species of Special Concern, is typically found in open coastal sage scrub, chaparral, grasslands, and juniper and oak woodland habitats. The species commonly occurs in open, sandy washes, where it uses scattered shrubs for cover. Other requirements generally include fine, loose, sandy soils where the lizard can bury itself, an abundance of native ants as a food source, and open areas for basking.

Suitable habitat is present throughout the Proposed Project area, and seven occurrences have been recorded within five miles of the Proposed Project area (Figure 4.4-3). Scat of the species was identified just outside of the Boulevard Staging Yard during the 2012 rare plant survey; the species is expected to be present within suitable habitat in the Proposed Project area.

Arroyo Toad

The arroyo toad, a federally endangered and CDFG Species of Special Concern, is a relatively small (50 to 75 millimeter snout-vent length) toad, with females larger than males at maturity. Coloration ranges from olive green or gray to light brown. The species can be distinguished from other toads by non-paired, symmetrical dorsal blotches, bicolored parotid glands that are dark posteriorly and light anteriorly, a light spot on the sacral humps, as well as a prominent white "V-shaped" stripe crosses the top of the head between the eyes. The species prefers sandy washes and creeks with swift currents and large sedimentary deposits. Arroyo toads are habitat specialists often located in third to sixth order floodplains that support dynamic fluvial processes providing open riparian habitats. Foraging occurs on open sandy banks and adjacent elevated terraces with a low to moderate cover composed predominantly of cottonwoods (*Populus* spp.), sycamores (*Platanus* spp.), willows, and coast live oaks.

The arroyo toad was historically present from the upper Salinas River system in Monterey County to approximately nine miles southeast of San Quintin, Baja California, Mexico (Sweet, 1992). Arroyo toads are primarily documented within coastal drainages including the Santa Ynez, Santa Clara, and Los Angeles River Basins and drainages of Orange, Riverside, and San Diego counties to the Arroyo San Simeon system.

Arroyo toad was not detected during protocol-level presence/absence surveys for the Proposed Project conducted in the spring and summer of 2010. Protocol surveys focused on suitable habitat within the Proposed Project area where Campo Creek crosses the proposed interconnection alignment adjacent to Live Oak Springs Road. The nearest known documented locations of arroyo toad populations are within the Cleveland National Forest (CNF) approximately 8.5 miles to the west of the Proposed Project area where Cottonwood Creek intersects with Buckman Springs Road. These documented occurrences of the species in Cottonwood Creek were used as a reference site for the potential presence of the species within the Proposed Project area. Arroyo toad habitat within the Proposed Project is generally fragmented by topographical features (e.g., mountains) from known arroyo toad locations.

Cooper's Hawk

Cooper's hawk, a CDFG Species of Special Concern, is a breeding and foraging resident throughout most of the wooded portions of California. Its preferred nesting habitat is characterized by dense stands of coast live oak, riparian or other forest habitat near water. Breeding Cooper's hawks are widespread over coastal slopes within San Diego County, wherever dense stands of trees exist. This species forages on small birds and mammals in open woodlands and edge habitats.

Cooper's hawks were observed within the Proposed Project area on several occasions, including during the 2010 Bloom Biological, Inc. surveys, and most often observed foraging near coast live oak woodland and riparian habitats.

Prairie Falcon

Prairie falcon, a CDFG Species of Special Concern, inhabits arid, open country in the summer, including alpine tundra, shortgrass prairie, and high desert. This species nests on the ledges of cliffs or bluffs and forages in open desert or grassland habitats. The species eats primarily small mammals and birds caught in flight. Within San Diego County, the species is known to inhabit inland areas, with documented nesting sites occurring within roughly 23 miles of the coast.

Suitable foraging habitat and limited nesting sites are present within, and adjacent to the Proposed Project area. The species was observed in the vicinity of the Proposed Project during the 2010 Bloom Biological, Inc. surveys. Additionally, there is one CNDDB occurrence recorded within five miles of the Proposed Project (Figure 4.4-3). Based on observation within the vicinity of the Proposed Project and the presence of suitable nesting and foraging habitat, the species has a high potential to occur.

San Diego Black-Tailed Jackrabbit

The San Diego black-tailed jackrabbit, a CDFG Species of Special Concern, is a species of hare within the Leporidae family found in southern California and Baja California, Mexico. This species can reach a length of approximately two feet and typically weighs three to six pounds. San Diego black-tailed jackrabbit occurs in coastal sage scrub habitats and prefers intermediate canopy stages of scrub habitats and open shrub/herbaceous and tree edges.

Suitable habitat is present throughout much of the Proposed Project area. Several black-tailed jackrabbits were observed in several locations within the Proposed Project area during Proposed Project-related surveys; however, these individuals could not be confirmed as the subspecies *bennetti*. Nonetheless, one occurrence was recorded within five miles of the Proposed Project area, with one reported sighting during Proposed Project-related surveys (Figure 4.4-3). Due to presence of suitable habitat and known occurrences of the species in the vicinity of the Proposed Project area, San Diego black-tailed jackrabbit is considered present within the Proposed Project area.

San Diego Desert Woodrat

The San Diego desert woodrat, a CDFG Species of Special Concern, occurs in coastal sage scrub and chaparral habitats within San Diego County. The species typically make middens (nests) of twigs, sticks, cactus parts, and rocks, depending on the availability of building materials. San Diego desert woodrat is known to forage within coast live oak, chamise, and California buckwheat.

Suitable habitat is present throughout the Proposed Project area and two occurrences were recorded within five miles (Figure 4.4-3). Several desert woodrat middens were observed within the Proposed Project area at various locations. The species has a high potential to occur within the Proposed Project area due to the availability of suitable habitat and known occurrences within the vicinity of the Proposed Project area.

Critical Habitat

Under the FESA, to the extent prudent and determinable, the USFWS is required to designate critical habitat for endangered and threatened species (16 U.S.C. § 1533 (a)(3)). Critical habitat delineates areas determined to be essential to the conservation of the species. Designated critical habitat includes sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter.

The Proposed Project area does not cross into any USFWS-designated critical habitats. However, critical habitat for three species is located within the vicinity of the Proposed Project area. Designated critical habitat for QCB occurs approximately 3.5 miles to the west of the Proposed Project area and approximately five miles east of the Boulevard Substation (USFWS, 2009a). Designated critical habitat for peninsular bighorn sheep occurs in the mountains approximately eight miles to the northeast of the Proposed Project area (USFWS, 2009b). Arroyo toad designated critical habitat occurs approximately five miles to the west of the Proposed Project area within the CNF (USFWS, 2011).

Migration Corridors

Habitat linkages are contiguous areas of open space that connect two larger habitat areas. Linkages provide for both diffusion and dispersal for a variety of species within the landscape. In addition, linkages can serve as primary habitat for some smaller species. Corridors are linear linkages between two or more habitat patches. Corridors provide for movement and dispersal, but do not necessarily include habitat capable of supporting all life history requirements of a species (SC Wildlands, 2012).

There are no major terrestrial migration corridors that are known to cross through the Proposed Project area (SC Wildlands, 2012). A major avian migration route, the Pacific Flyway, is located approximately 45 miles east of the Proposed Project area, with significant numbers of migratory birds utilizing the Salton Sea during annual migrations. It is estimated that more than 50 percent of Pacific Flyway migratory birds visit the Salton Sea region and its associated marshes each year.

Sensitive Natural Communities

The Proposed Project crosses riparian plant communities, most notably southern willow scrub, within the vicinity of Campo Creek (see Figure 4.4-1). The Proposed Project will span the entirety of Campo Creek, and construction-related activities are not proposed to occur within the creek at any point during the Proposed Project. No CDFG Sensitive Natural Communities occur within the vicinity of the Proposed Project.

4.4.4 Impacts

Significance determinations of impacts to biological resources are summarized below. Potential impacts are discussed in detail in the following sections. Impacts to biological resources from the Proposed Project will be less than significant.

Would the Proposed Project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a) 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 United States (U.S.) Fish and Wildlife Service?	☐	☒	☐	☐
b) 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?	☐	☐	☐	☒
c) 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	☐	☐	☒	☐

Would the Proposed Project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
removal, filling, hydrological interruption, or other means?				
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

This section analyzes the Proposed Project's potential to impact sensitive biological resources. Potential impacts are distinguished by those that may occur during construction (both short- and long-term impacts) and those that may result from ongoing operational and maintenance activities associated with the Proposed Project. SDG&E has designed and incorporated APMs into the Proposed Project to avoid or minimize (to the greatest extent feasible) potential impacts to biological resources. These APMs are derived in part from SDG&E's Operational Protocols taken from the Subregional HCP/NCCP, the QCB Low-Effect HCP, and past SDG&E projects that have been approved by the regulatory agencies.

Significance Criteria

Standards of impact significance were derived from Appendix G of the CEQA Guidelines. Under these Guidelines, the Proposed Project may have a potentially significant impact if it will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations. Or by the CDFG or USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, or other wetland areas) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted HCP, NCCP, or other approves local, regional, or state HCP.

Question 4.4a – Sensitive Species – Less Than Significant Impact

Sensitive Plant Species

Construction associated with the Proposed Project is likely to affect approximately 40.32 acres of undisturbed habitat, including 16.01 acres of big sagebrush scrub, 6.97 acres of chamise chaparral, 1.01 acre of redshank chaparral, 0.29 acre of upper Sonoran subshrub scrub, 15.59 acres of non-native grassland, 0.45 acre of coast live oak woodland, as well as disturbed areas, and developed areas. Several special-status plant species are known to occur within the project vicinity, and six were determined to have a medium to high potential to occur within the Proposed Project due to the presence of suitable habitat and known populations (i.e. seed sources) occurring in close proximity (see Table 4.4-1).

No special-status plant species were identified within the Proposed Project during focused surveys that were conducted between 2010 and 2012. No rare plant surveys have been conducted in the TBO South 1 and Boulevard Staging Yards prior to this submission. APM-BIO-1 includes spring plant surveys within these staging areas prior to construction or vegetation clearing and avoidance if any special-status plants are identified. Spring rare plant surveys are not recommended for the Motocross staging yard, as this area is considered disturbed habitat with little potential to support special-status species. With the incorporation of APM-BIO-1, impacts to special-status plants are considered less than significant.

Quino Checkerspot Butterfly

Focused protocol-level QCB surveys conducted in spring 2010 found five QCB adults within the Proposed Project area along the proposed interconnection alignment.

The majority of the Proposed Project crosses through QCB habitat. As shown in tables 4.4-3 and 4.4-4, respectively, a total of 9.75 acres of temporary and 3.46 acres of permanent impacts are anticipated to occupied QCB habitat as a result of construction of the Proposed Project. Direct impacts to the federally listed QCB would be considered take under FESA, as well as a significant impact under CEQA. With the implementation of APM-BIO-2 through APM-BIO-4, which includes preconstruction surveys, purchasing of mitigation habitat, and construction monitoring, potential impacts to QCB and its habitat would be less than significant.

TABLE 4.4-3
QCB HABITAT TEMPORARY IMPACTS (ACRES) INCLUDING 1 KM SUITABLE HABITAT RADIUS AROUND OCCUPIED AREAS

Impact	Chamise Chaparral	Upper Sonoran Subshrub Scrub	Big Sagebrush Scrub	Redshank Chaparral	Total
Temporary	1.60	0.01	8.04	0.10	9.75
Mitigation Ratio 1:1					9.75

TABLE 4.4-4
QCB HABITAT PERMANENT IMPACTS (ACRES) INCLUDING 1 KM SUITABLE HABITAT RADIUS AROUND OCCUPIED AREAS

Impact	Chamise Chaparral	Upper Sonoran Subshrub Scrub	Big Sagebrush Scrub	Redshank Chaparral	Total
Permanent	2.94	0.01	0.20	0.31	3.46
Mitigation Ratio 2:1					6.92

Sensitive Reptile Species

Construction of the Proposed Project could potentially impact special-status reptile species, including coastal whiptail, rosy boa, and San Diego coast horned lizard. Approximately 40.32 acres of suitable, undisturbed habitat that includes all of the vegetated areas found within the limits of the Proposed Project would be disturbed. Direct impacts (i.e., mortality) may occur during construction and operations by vehicles and the permanent removal of occupied burrows during grading. Indirect impacts during construction and operations associated with noises, ground vibration, and increased human presence could disrupt hibernation and behavior including feeding and breeding cycles. Compliance with the operational protocols of the HCP/NCCP would reduce potential impacts to reptile species to a less than significant level.

Sensitive Amphibian Species

Low-quality arroyo toad habitat was identified within the Proposed Project associated with Campo Creek, adjacent to Live Oak Springs Road. The nearest known documented locations of arroyo toad populations are located approximately 8.5 miles to the west. No high quality habitat to support arroyo toads is present within the limits of the Proposed Project and no arroyo toads were detected on the Proposed Project site during protocol surveys. Therefore, construction and operation of the Proposed Project would not impact arroyo toads.

Avian Species

Activities associated with construction of the Proposed Project may potentially impact nesting raptors, passerines, and other bird species. SDG&E will comply with the MBTA and Fish and Game Code and implement APM-BIO-5, APM-BIO-6, and APM-BIO-7, which include nesting bird surveys, nesting season restrictions and raptor avoidance measures. Impacts to birds and their nests would be less than significant.

Concerns regarding potential electrocution impacts to wildlife are primarily centered on avian species. Electrocutions with avian species can occur from the three following events:

- Phase to phase contact when a bird that is perched, landing, or taking off from a utility pole cross-arm comes into contact with two conductors completing an electrical circuit.
- Simultaneous contact with energized phase conductors and other equipment.
- Simultaneous contact with an energized wire and a grounded wire or other grounded device or neutral wire.

Most bird electrocutions occur on distribution systems at relatively lower voltages. This is due primarily to the spacing of the electrical conductors. On transmission poles, the wires are separated by eight to 30 feet. In distribution systems, the spacing is two to six feet. The closer spacing is more of a potential hazard to raptors and other large birds because their body size and wingspan are large enough to span the distance between the conductor wires, completing the electrical circuit.

The basic approach to minimize electrocutions is twofold—isolation and insulation. The term isolation refers to providing a minimum separation of 60 inches between the phase conductors or a phase conductor and grounded hardware/conductor. The term insulation refers to covering phases or grounds where adequate separation is not feasible. The Proposed Project will be constructed with energized components (conductors) and grounding structures in excess of eight feet apart, effectively preventing most local or migratory bird species from extending their maximum wingspan to simultaneously contact a positive conductor and a ground wire to complete the electrical circuit. Additionally, SDG&E will ensure that the power line structures are spatially configured and designed in accordance with the Avian Power Line Interaction Committee's Suggested Practices for Avian Protection on Power Lines in order to minimize the potential for avian electrocutions. Therefore, the potential impacts of increased wildlife electrocution are anticipated to be less than significant.

Collision impacts of avian species with existing interconnection facilities can be a significant impact. Collision impacts typically occur to migratory bird species and are generally due to poor visibility of electrical lines. Factors leading to avian collisions with existing power lines include a lack of visual cues that make 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, by spatial configuration of the electrical lines, and proximity to heavily used major avian flyways. The Proposed Project is not located within a major flyway for migratory birds and is not located proximate to a significant light dazzle source; thus, collision impacts to avian species are anticipated to be less than significant.

Open grasslands primarily exist where staging yards would be located. Temporary impacts associated with the staging yards could indirectly impact raptor species by reducing foraging habitat. In addition, disturbance of existing plant communities can decrease common prey species (e.g., burrowing mammals) in the area. However, given the amount of available habitat, these temporary impacts are not considered significant.

Sensitive Mammal Species

Construction activities associated with the Proposed Project may potentially impact special-status mammal species, including San Diego desert woodrat, Dulzura pocket mouse, and San Diego black-tailed jackrabbit. Potential indirect impacts to mammal species include the temporary loss of habitat and noise pollution from an increase in vehicle and equipment use. Direct impacts include permanent removal of habitat and morality from construction vehicles and equipment. With implement of APM-BIO-9 as well as the operational protocols stipulated in the NCCP, potential impacts will be less than significant.

The introduction of new poles and power lines (and other tall structures) in an area that otherwise does not contain these structures, may increases the amount of predation of mammals by raptors. Because the majority of the interconnection power line will generally parallel the existing TL 6931 power line, the installation of new steel poles will not significantly increase perching opportunities for raptors in the area. The potential increase in predation from adding new perch sites in areas that did not previously contain any would be minimal and less than significant.

Critical Habitat

The Proposed Project will not occur within critical habitat, including QCB, arroyo toad, and Peninsular bighorn sheep. No impacts to designated critical habitat of any species would occur as a result of the Proposed Project.

Plant Communities

Several plant and wildlife species are dependent on the plant communities found within the Proposed Project for foraging and shelter. The Proposed Project will permanently remove 8.59 acres of big sagebrush scrub, 4.52 acres of chamise chaparral, 0.70 acre of redshank chaparral, 0.17 acre of upper Sonoran subshrub scrub, 0.22 acre of coast live oak woodland, as well as disturbed areas, and developed areas. Tables 4.4-5 and 4.4-6 provide a summary of each Proposed Project feature that would temporarily and permanently impact a plant community.

TABLE 4.4-5
TEMPORARY VEGETATION IMPACTS (ACRES)

Proposed Project Component	*Coast Live Oak Woodland	Non-Native Grassland	Chamise Chaparral	Upper Sonoran Subshrub Scrub	Big Sagebrush Scrub	Redshank Chaparral	Total
Interconnection/TL6931	0.03	0.00	1.67	0.01	0.25	0.31	**2.27**
Staging Yards	0.17	15.59	0.00	0.00	7.17	0.00	**22.93**
Access Roads/ Landing Zones	0.03	0.00	0.78	0.11	0.00	0.00	**0.92**
Total	**0.23**	**15.59**	**2.45**	**0.12**	**7.42**	**0.31**	**26.12**

*No coast live oak trees would be impacted. Therefore, impacted areas within this community include associated species, such as grasses and shrubs that are a component of the woodland.

TABLE 4.4-6
PERMANENT VEGETATION IMPACTS (ACRES)

Proposed Project Component	*Coast Live Oak Woodland	Non-Native Grassland	Chamise Chaparral	Upper Sonoran Subshrub Scrub	Big Sagebrush Scrub	Redshank Chaparral	Total
Interconnection/TL6931	0.16	0.00	3.74	0.01	8.59	0.70	**13.20**
Access Roads/ Landing Zones	0.06	0.00	0.78	0.16	0.00	0.00	**1.00**
Total	**0.22**	**0.00**	**4.52**	**0.17**	**8.59**	**0.70**	**14.20**

*No coast live oak trees would be impacted. Therefore, impacted areas within this community include associated species, such as grasses and shrubs that are a component of the woodland.

As previously indicated, 3.46 acres of existing (onsite) vegetation will be mitigated for as a result of permanent impacts to occupied QCB habitat. However, 10.74 acres of vegetation that is not considered occupied QCB habitat would be permanently impacted, none of which is considered a Sensitive Natural Community or suitable habitat for supporting other listed species. The plant communities found within the Proposed Project are widespread throughout the region. SDG&E will generally follow the habitat enhancement and reclamation measures described within the HCP/NCCP in order to reduce impacts to biological resources to a less than significant level. Therefore, the permanent removal of 10.74 acres of vegetation would not be considered a significant impact.

Common Wildlife Species

A number of common wildlife species are expected to occur within the limits of the Proposed Project, including (but not limited to) gopher snake, red coachwhip, granite spiny lizard (*Sceloporus orcutti*), western fence lizard, western scrub-jay, Bewick's wren, phainopepla (*Phainopepla nitens*), mourning dove, black-throated sparrow, California squirrel, black-tailed jackrabbit, and coyote Permanent disturbances to habitat that supports common wildlife will displace many species and mortality may occur to some common species during construction activities. . However, with implementation of the operational protocols of the NCCP combined with APM-BIO-5 through APM-BIO-11, impacts to common animal species would be less than significant.

Question 4.4b – Sensitive Natural Communities – No Impact

Sensitive natural communities include riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations, or designated by the CDFG and USFWS. Southern willow scrub occurs within the Proposed Project associated with Campo Creek, but will not be impacted by construction-related activities as the power line will span the entirety of the creek. Several additional USACE and CDFG jurisdictional features; as defined by Fish and Game Code Section 1602, CWA Section 404, and Rivers and Harbors Act Section 10; exist within the Proposed Project, but will not be impacted by Proposed Project-related activities. Of the six plant communities impacted by the Proposed Project—chamise chaparral, big sagebrush scrub, coast live oak woodland, redshank chaparral, non-native grassland, and upper Sonoran subshrub scrub—none are specifically designated protection under local or regional plans. No impacts to sensitive natural communities would occur as a result of the Proposed Project.

Question 4.4c – Effects on Wetlands – Less Than Significant Impact

Several potentially USACE and CDFG jurisdictional drainages (including Campo Creek, which is considered under the jurisdiction of the USACE, CDFG, and the RWQCB) occur within vicinity of the Proposed Project (Figure 4.4-4). Many of these features have defined bed and bank, hydrologic indicators, and connectivity to tributaries of TNWs. The majority of the drainages within the project footprint are ephemeral non-wetland waters of the U.S., none of which will be impacted by the Proposed Project, despite their proximity to proposed construction limits. Several of these features cross existing maintenance access roads, and direct impacts to the bed and bank will be avoided during construction activities by the use of steel plates spanning over the

drainage. Several areas that provided evidence of hydrology (based mostly on presence of erosion) were observed within the redshank chaparral, upper Sonoran subshrub scrub, big coastal sage scrub, coast live oak woodland, non-native grassland, and chamise chaparral communities, but lacked appropriate hydrologic indicators to have the potential to be regulated by agencies (e.g., USACE and CDFG); including a defined bed and bank or OHWM. Impacts to wetlands will be less than significant.

Question 4.4d – Interfere with Native Wildlife Movement – Less Than Significant Impact

The Proposed Project would not create barriers that would impede the local or regional movement of wildlife in the area. The Proposed Project is not located with a known wildlife movement corridor and wildlife will be able to pass through the site during the operational phase. During the construction phase, wildlife will be able to move though the site during periods when no activities are occurring (e.g., after hours). Impacts to wildlife passing through the area would be minimized by reducing nighttime light spillage (See APM BIO-8). Impacts to native wildlife movement during construction and operational activities would therefore be less than significant.

Question 4.4e – Conflict with Local Policies – No Impact

Construction and operation of the Proposed Project will not conflict with any local environmental policies or ordinances promulgated to protect biological resources, as discussed below.

- *Policy 5: San Diego County shall encourage the use of native plant species in review of landscaping and erosion control plans for public and private projects.*

The Proposed Project does not propose any landscaped features. However, as previously indicated, vegetated areas that will be subjected to temporary impacts will be reseeded with a suitable six mix.

- *Policy 6: If a project is determined to have significant adverse impacts on plants or wildlife, an acceptable mitigation measure may be voluntary donation of land or monies for acquisition of land of comparable value to wildlife.*

Impacts to occupied QCB habitat will be mitigated at a 2:1 ratio for permanent impacts and a 1:1 ratio for temporary impacts.

- *Policy 9: When significant adverse habitat modification is unavoidable, San Diego County will encourage project designers to provide mitigating measures in their design to protect existing habitat.*

The Proposed Project is consistent with this policy with the implementation of the operational protocols of the NCCP and the project's proposed APMs.

- *Policy 16: The County will regulate major land-clearing projects to minimize significant soil erosion; destruction of archaeological, historic, and scientific resources; and endangered species of plants and animals.*

The Proposed Project does not involve major land-clearing. SDG&E will obtain all applicable ministerial permits from San Diego County for the Proposed Project to ensure that destruction of archaeological, historic, and scientific resources and impacts to soil erosion and endangered plants and animals are minimized and in compliance with San Diego County regulations. Further, SDG&E's APMs will ensure impacts will be minimized to the extent feasible. The Proposed Project is consistent with this policy.

No other local ordinances protecting biological resources have been identified.

Question 4.4f – Conflict with Conservation Plan – No Impact

SDG&E's existing HCP/NCCP applies to the Proposed Project area. The APMs that will be implemented as part of the Proposed Project will be consistent with the operational protocols in the NCCP. Additionally, SDG&E will generally follow the habitat enhancement and reclamation measures described within the HCP/NCCP in order to minimize impacts to biological resources. As noted above, the HCP/NCCP expressly supersedes any other MCSPs or HCPs. The purpose of this provision in the HCP/NCCP is to harmonize areas of overlap such that there is no conflict with other plans. Thus, under CEQA, there is no conflict with other conservation plans. In addition, the East County MSCP remains in draft form and has yet to reach a stage where it is relevant to the analysis. Therefore, the Proposed Project will not conflict with any applicable conservation plans.

4.4.5 Applicant Proposed Measures

The following APM will ensure that impacts associated with biological resources will be less than significant:

- APM-BIO-1: SDG&E will conduct focused surveys for special-status plants within the TBO South 1 and Boulevard Staging Yards prior to any ground-disturbing activities. Focused surveys will coincide with the known blooming period for potentially occurring species. If a special-status species is encountered during the survey, the localities will be flagged and preserved by erecting a perimeter fence around the plants during all ground disturbing activities that would occur in the immediate vicinity.
- APM-BIO-2: SDG&E will conduct protocol-level surveys for QCB prior to construction (including the TBO South 1 and Boulevard staging yards which have not been surveyed for QCB to date). Surveys are not required for the Motocross staging yard, as the area is disturbed and has little potential to support QCB. The surveys will be conducted within the QCB 2013 flight season, or the flight season prior to construction, as designated by the USFWS. Once the surveys have been completed, a 45-day report will be submitted to the USFWS and CPUC.
- APM-BIO-3: Subsequent to approval from USFWS through Section 7 consultation, temporary and permanent impacts to QCB habitat will be mitigated at a 1:1 ratio and a 2:1 ratio, respectively, through the in-perpetuity management of 13.21 "acre credits" from the acquired Recht property. The Recht property is part of the mitigation program for the East County (ECO) Substation whereby only a portion of the property is required

to be managed for QCB, and voluntary management of the remainder for QCB is available to SDG&E as credits.

- APM-BIO-4: SDG&E will mitigate for all permanent impacts to suitable QCB habitat at a 2:1 ratio.
- APM-BIO-5: If feasible, SDG&E will avoid construction during the nesting or breeding season (February 1 through August 31). When it is not feasible to avoid construction during the nesting or breeding season, SDG&E will perform a site survey in the area where the work is to occur. This survey will be performed to determine the presence or absence of nesting birds or other species in the work area. However, if an active nest is identified, a biological monitor and SDG&E biological lead will determine a suitable construction buffer, if necessary, to ensure that the birds are not disturbed. If the birds are federal or state-listed species, SDG&E will consult with the USFWS and CDFG as necessary to determine the construction buffer. Monitoring of the nest shall continue until the birds have fledged.
- APM-BIO-6: Prior to construction, all inactive raptor nests within 250 feet (or a distance determined to be appropriate by the biological monitor) of Project construction will be dismantled and removed from the site. Removal of inactive nests should occur outside the raptor breeding season (January to July). However, if it is necessary to remove an inactive raptor nest during the breeding season, a qualified biologist will supervise removal.
- APM-BIO-7: Structures will be constructed to conform to the Avian Power Line Interaction Committee's *Suggested Practices for Avian Protection on Power Lines* to minimize impacts to raptors.
- APM-BIO-8: Construction night lighting in sensitive habitats will be minimized to the extent feasible. Exterior lighting within the Project area and adjacent to undisturbed habitat will be the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from preserved habitat to the maximum extent practicable.
- APM-BIO-9: Nighttime vehicle traffic volume associated with Project activities will be kept to a minimum and speeds will be limited to 10 mph to prevent mortality of nocturnal wildlife species.
- APM-BIO-10: At the completion of the Project, all construction materials will be removed from the site.
- APM-BIO-11: All new access roads constructed as part of the Project that are not required as permanent access for future Project operation and maintenance will either be restored or permanently closed. Where required, roads will be permanently closed using the most effective feasible and least environmentally-damaging methods appropriate to that area (e.g., stockpiling and replacing topsoil or replacing rock), with the concurrence of the underlying landowner and the governmental agency having jurisdiction.

4.4.6 References

AECOM, Inc. 2010a. *45-Day Summary Report of Focused Surveys for the Quino Checkerspot Butterfly for Manzanita Wind Energy Project*. Prepared for SDG&E.

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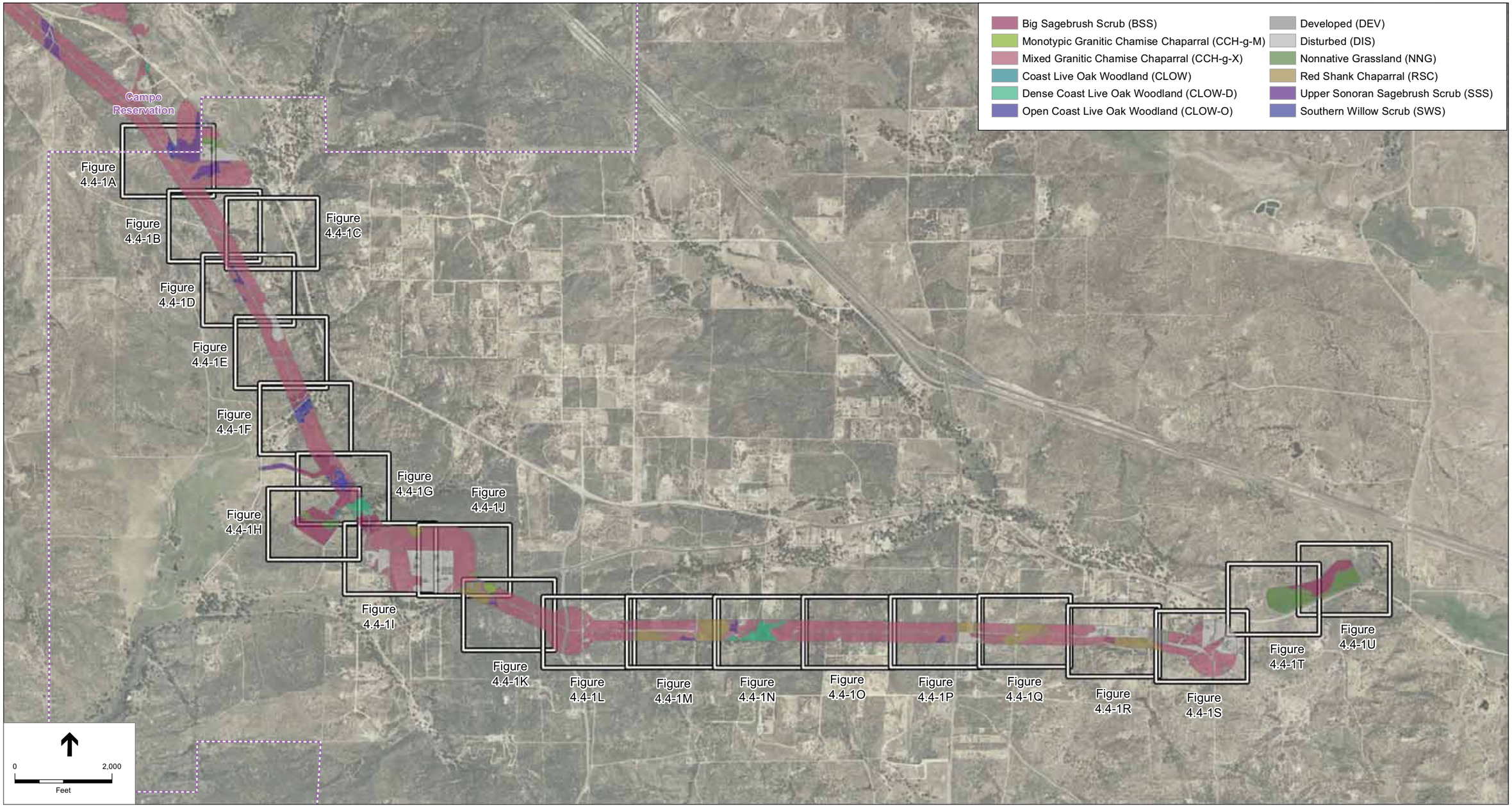

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Figure 4.4-1

Plant Communities

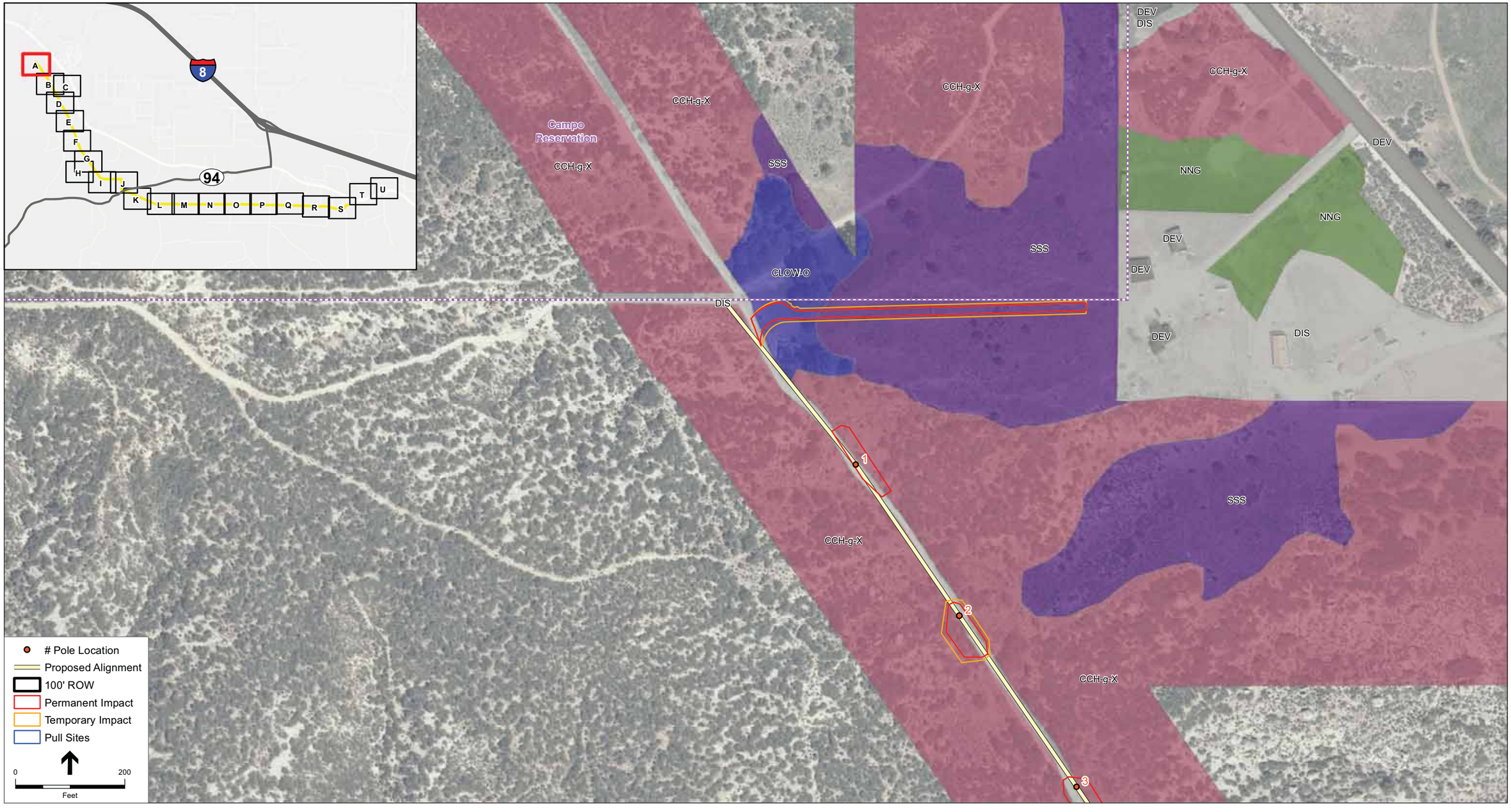

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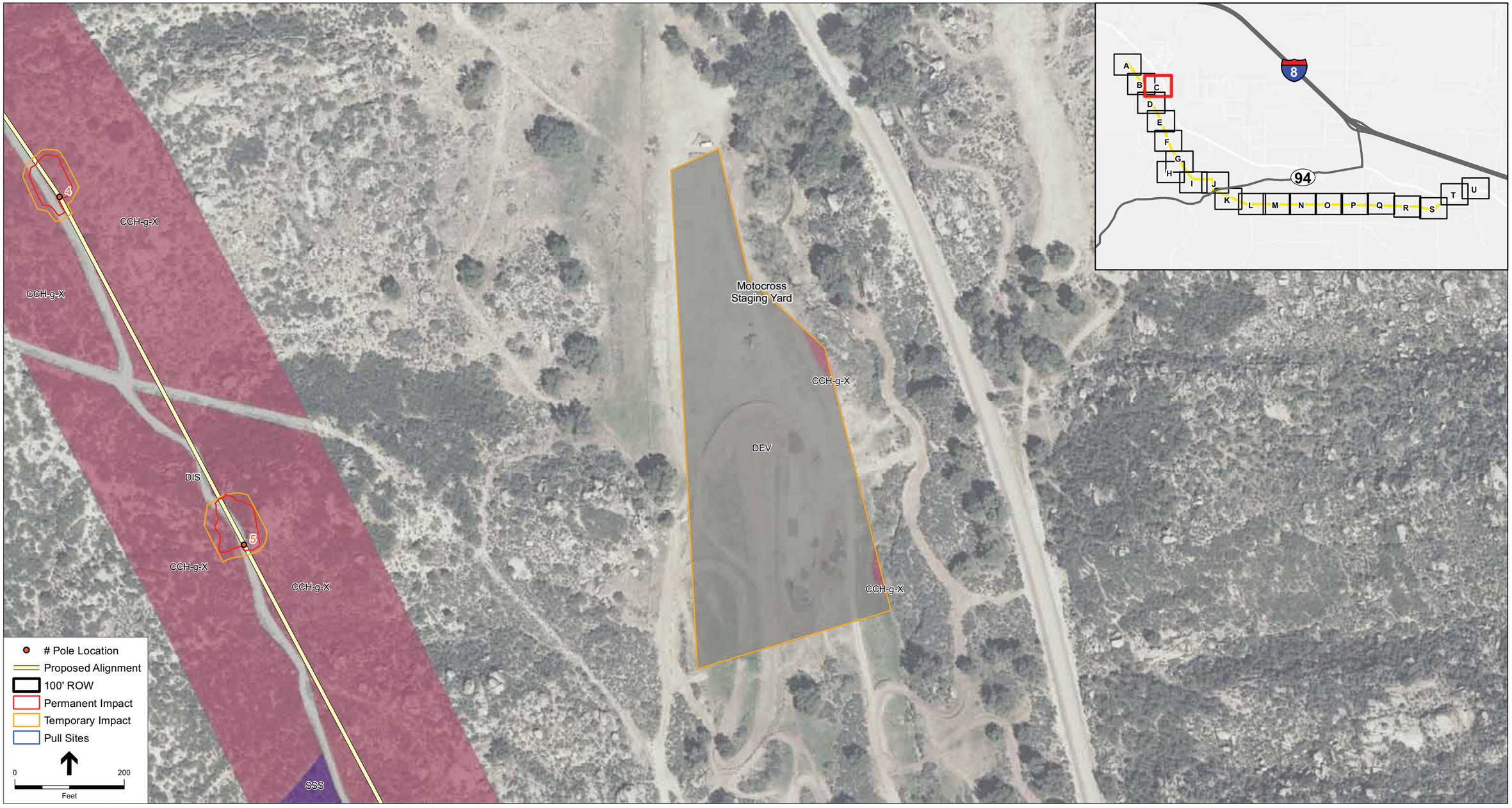
Figure 4.4-1 A

Plant Communities

SOURCE: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010)

Figure 4.4-1 B
Plant Communities



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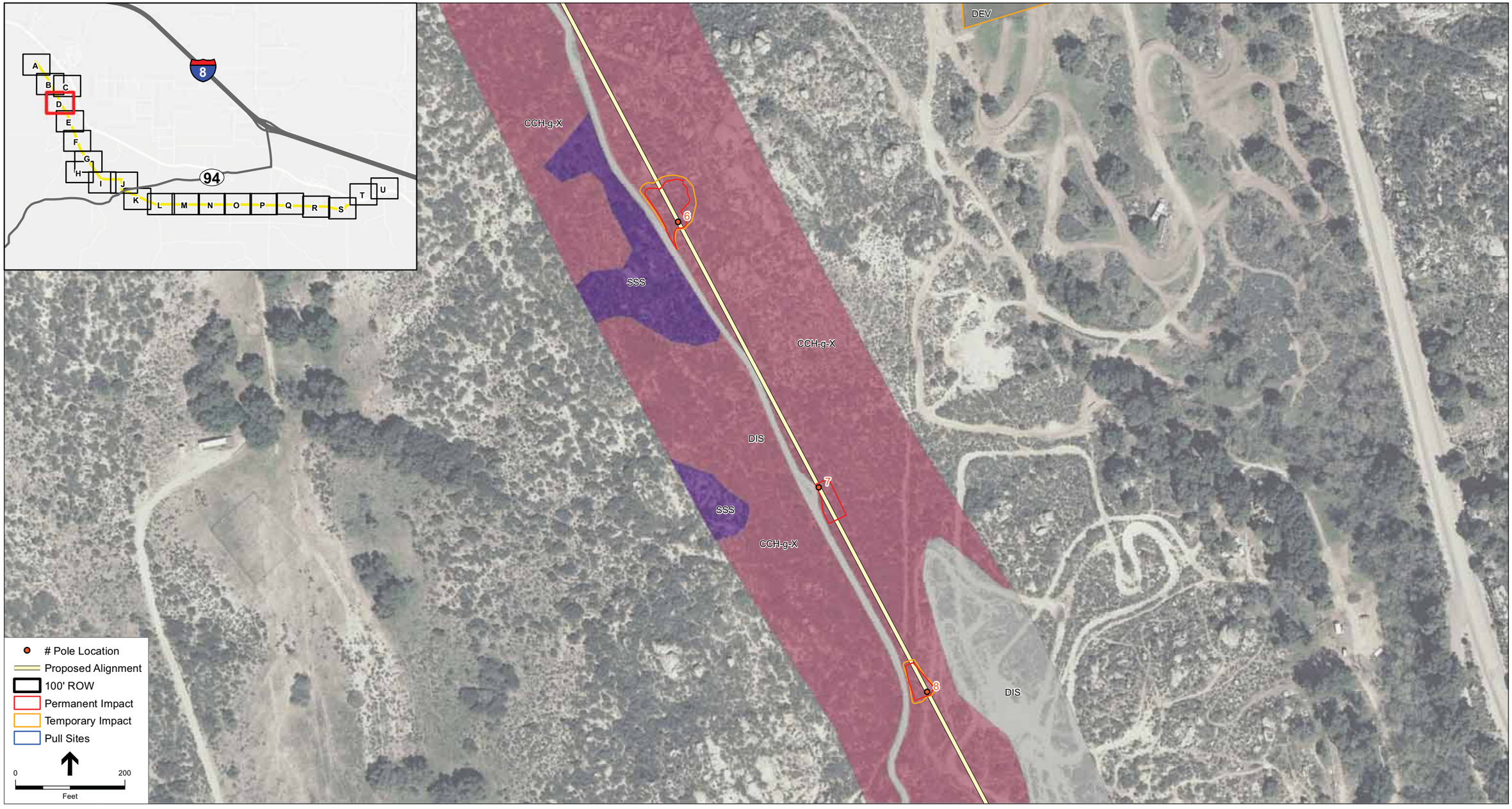

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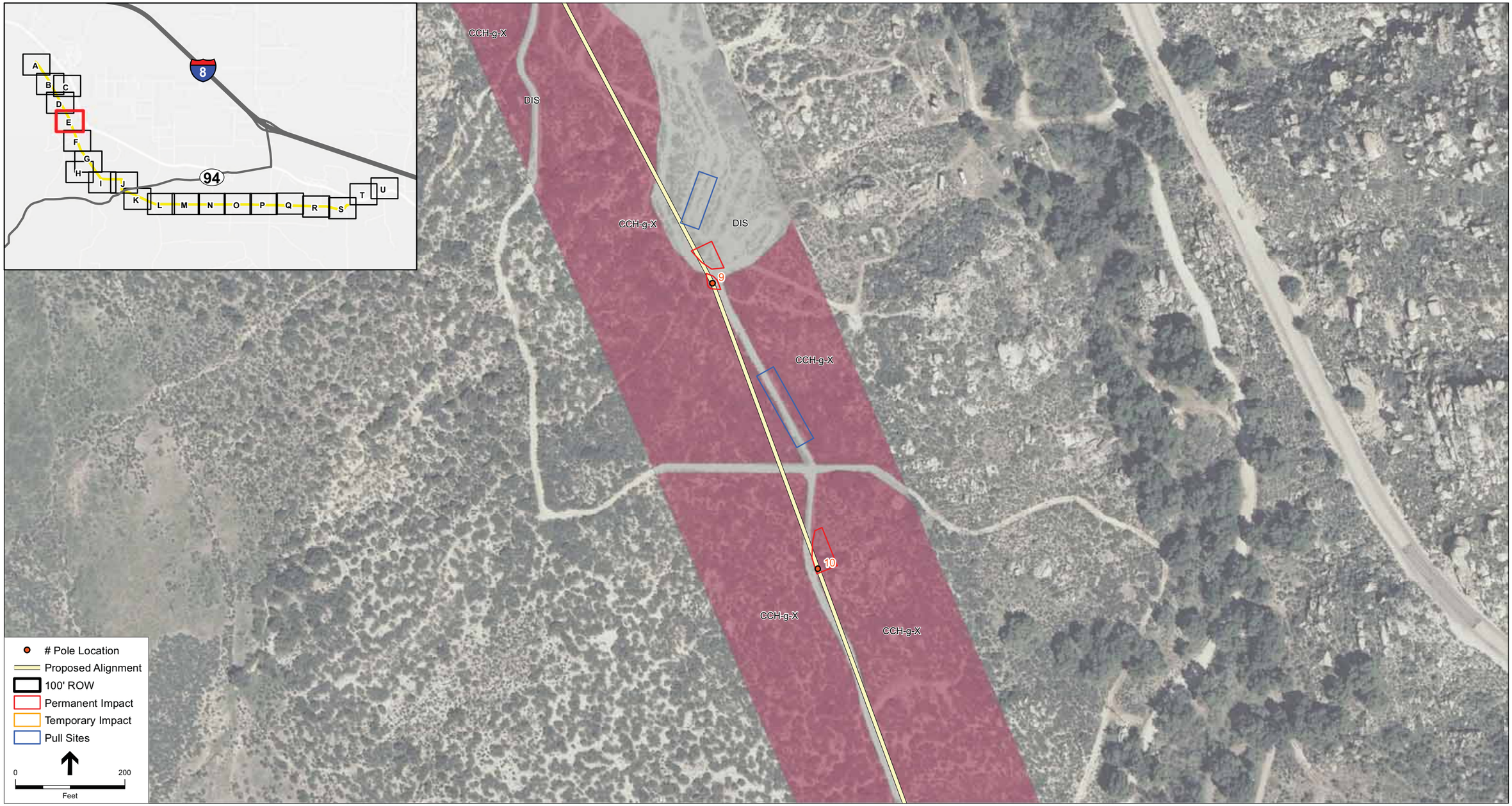

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Figure 4.4-1 E

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TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 4.4-1 F

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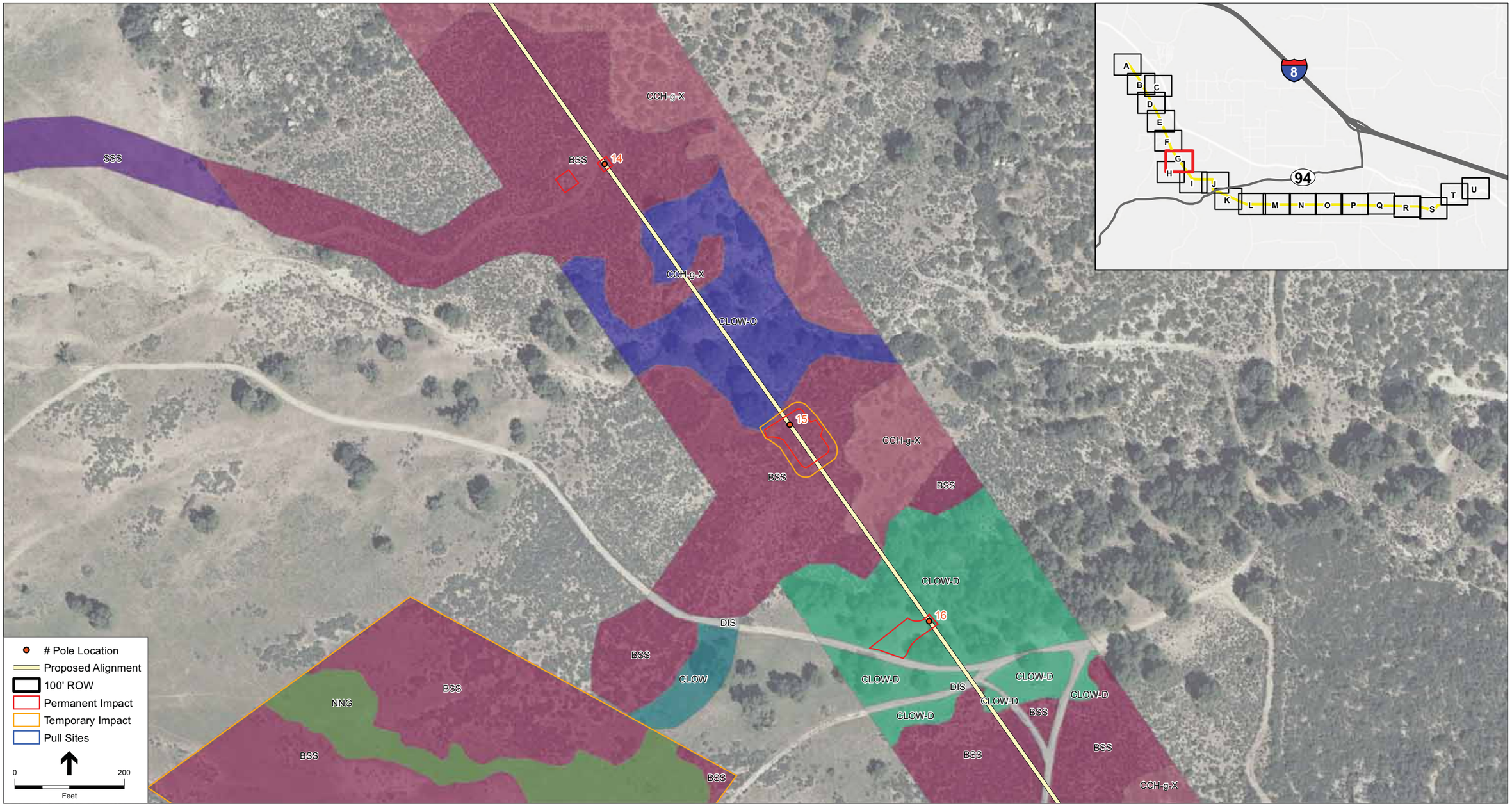

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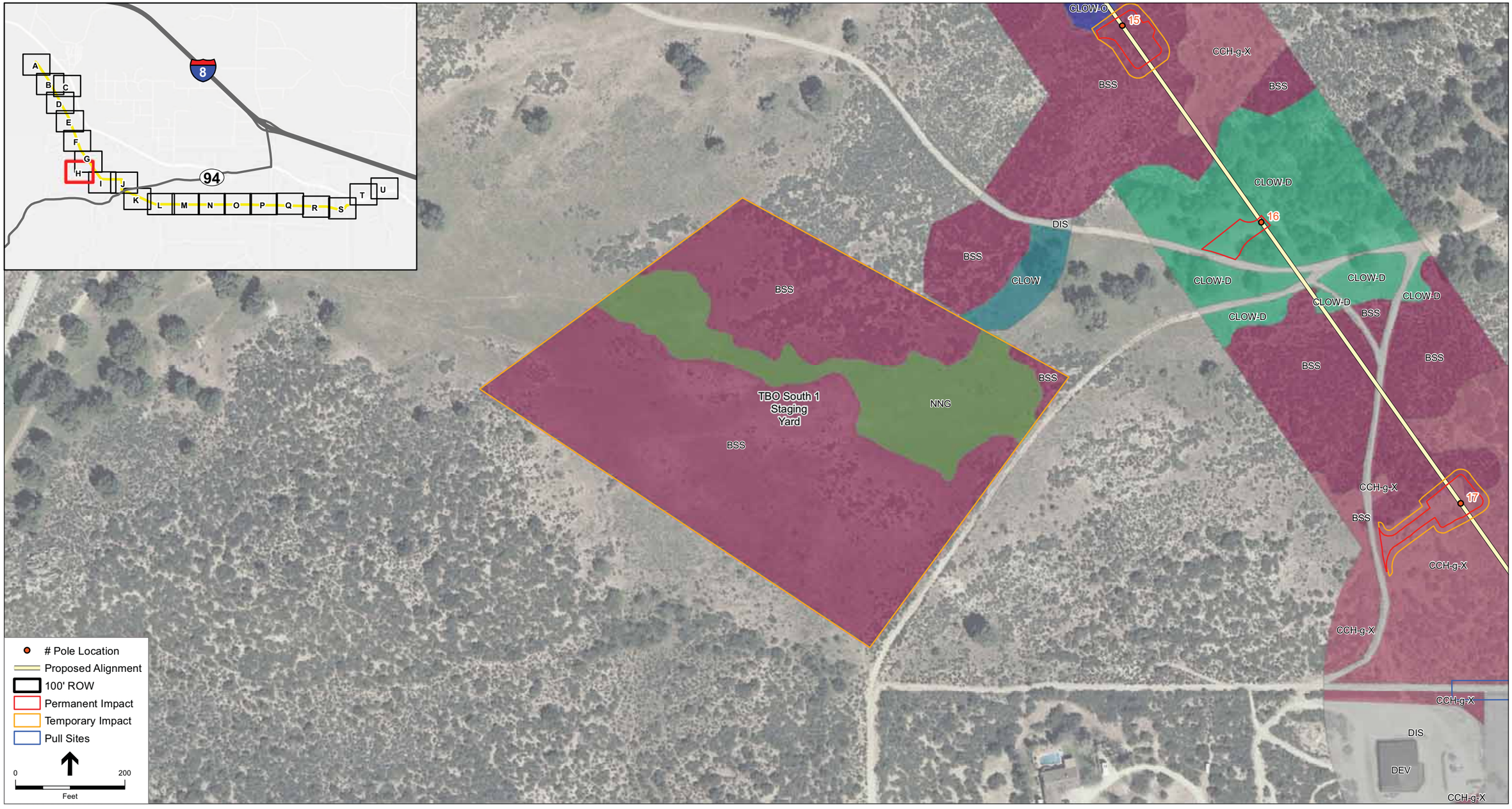

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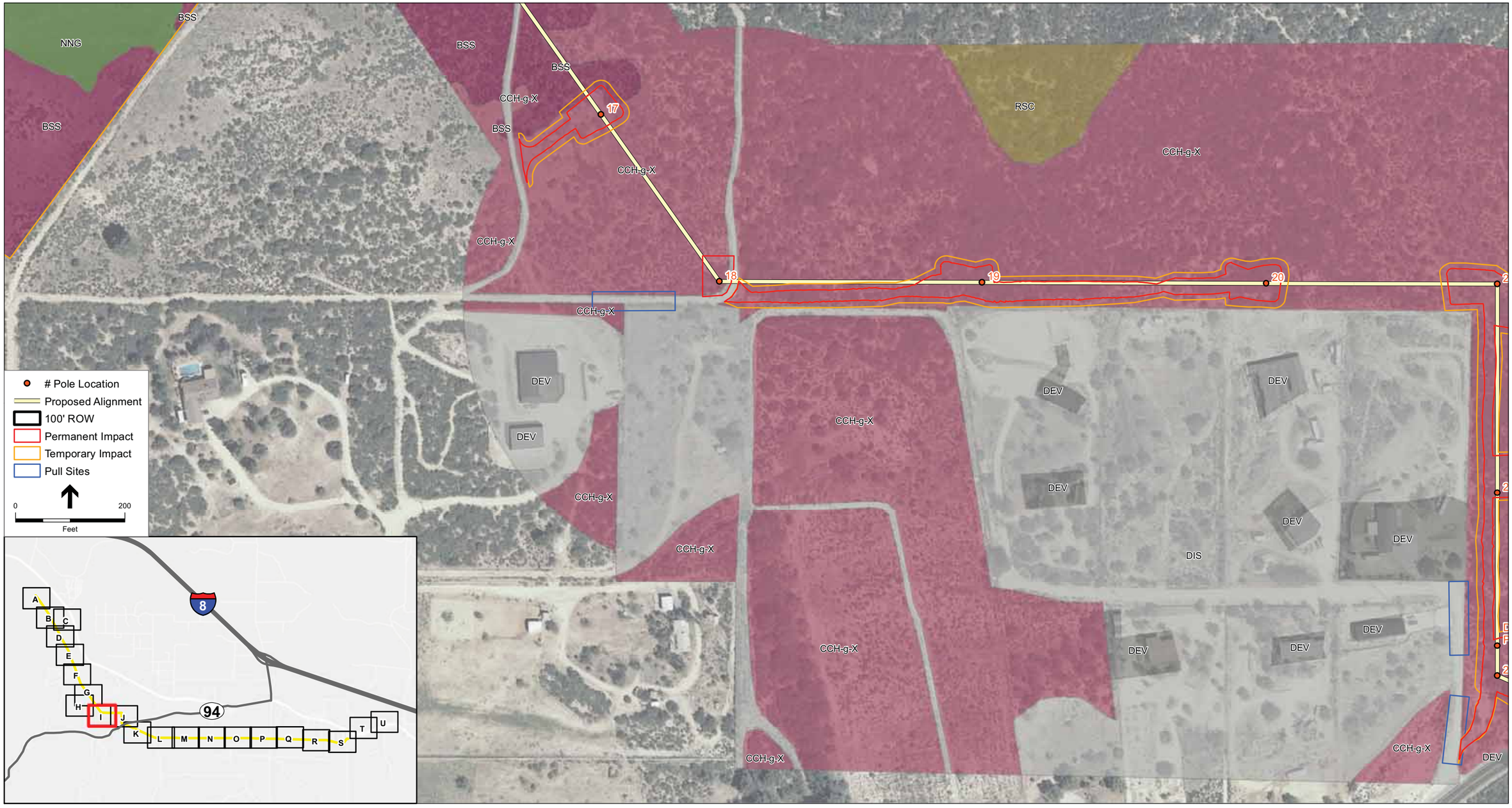

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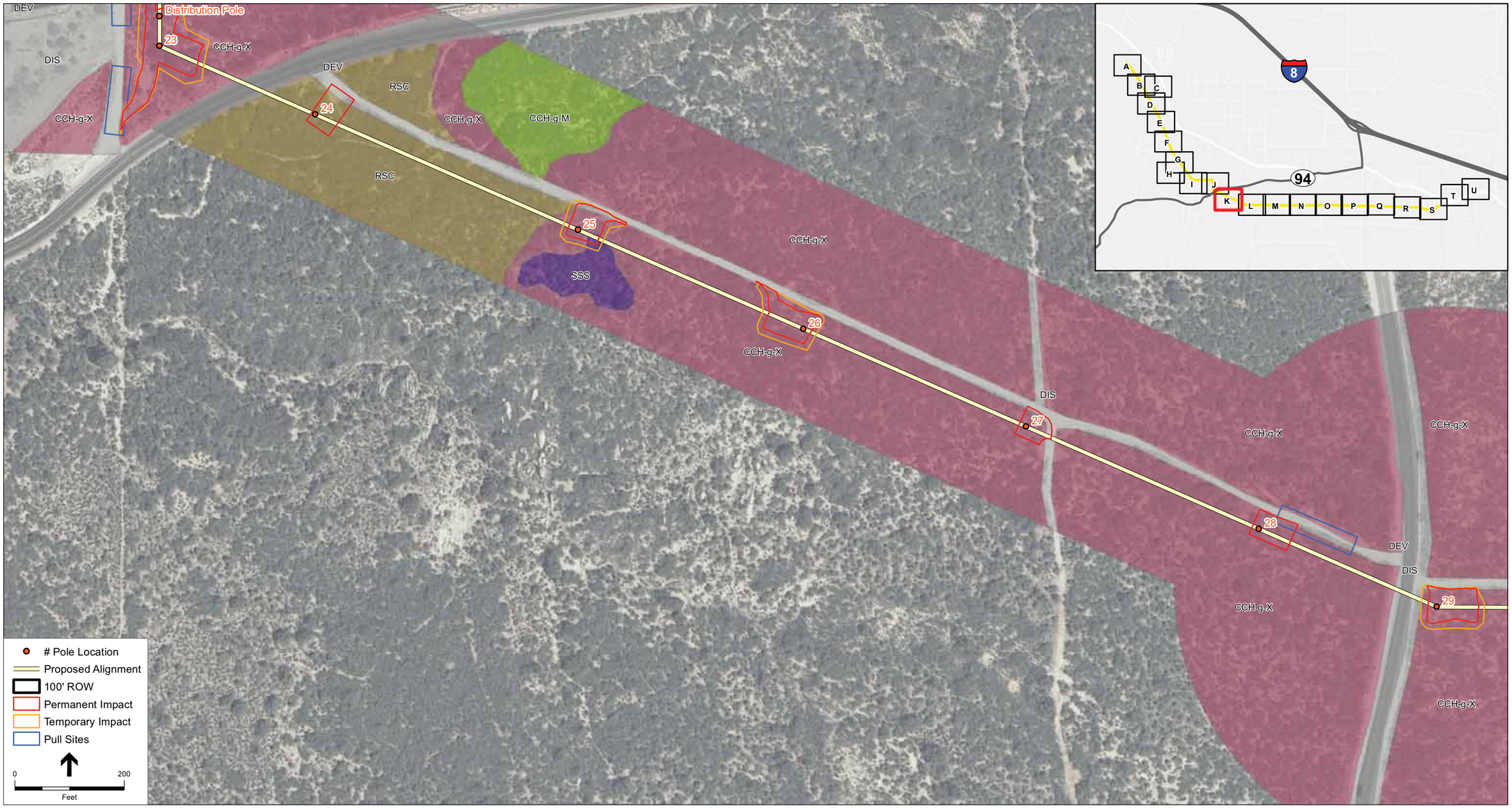
Figure 4.4-1 J

Plant Communities



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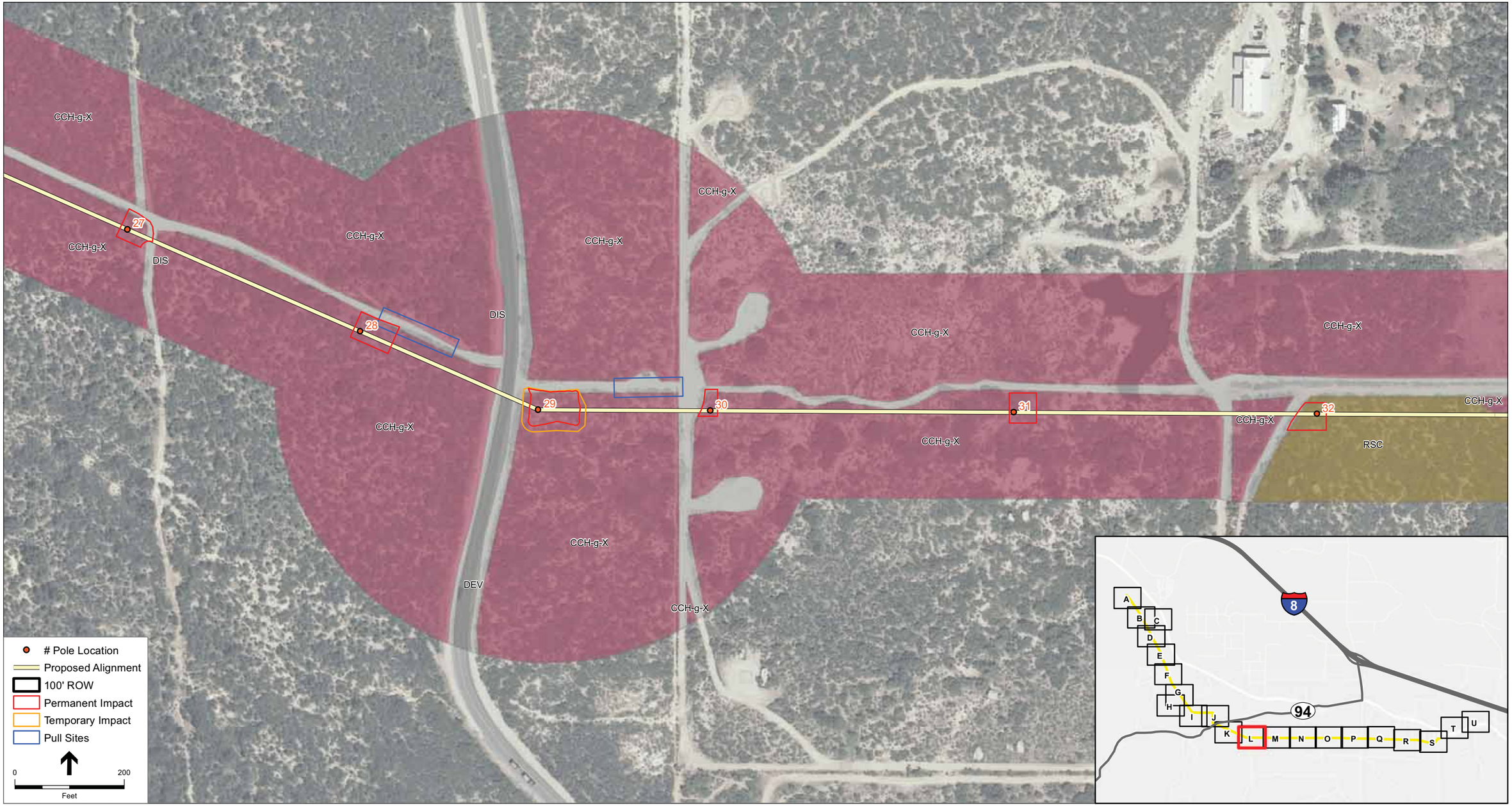

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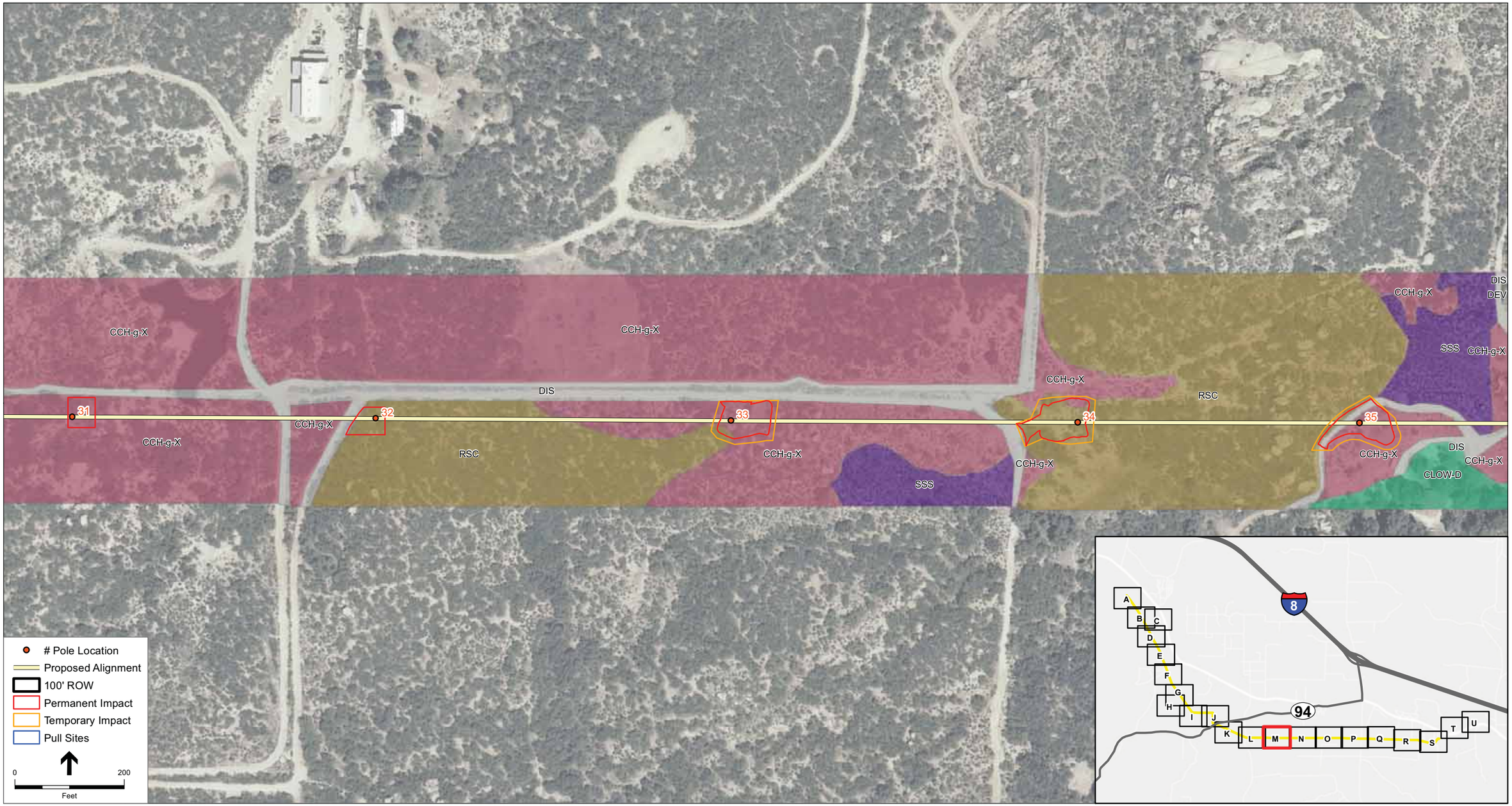

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Figure 4.4-1 M

Plant Communities

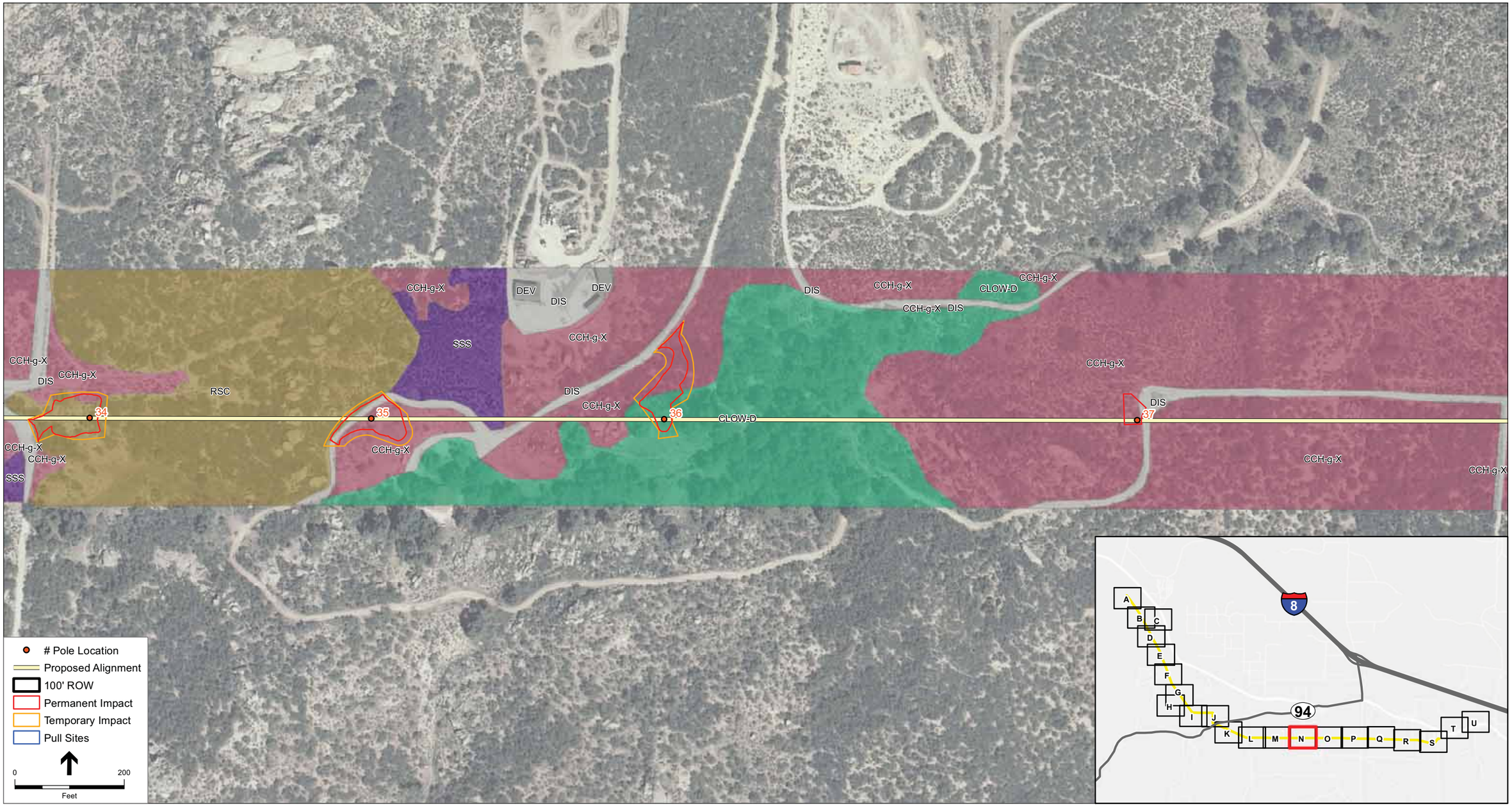

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Figure 4.4-1O
Plant Communities

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Figure 4.4-1 P

Plant Communities

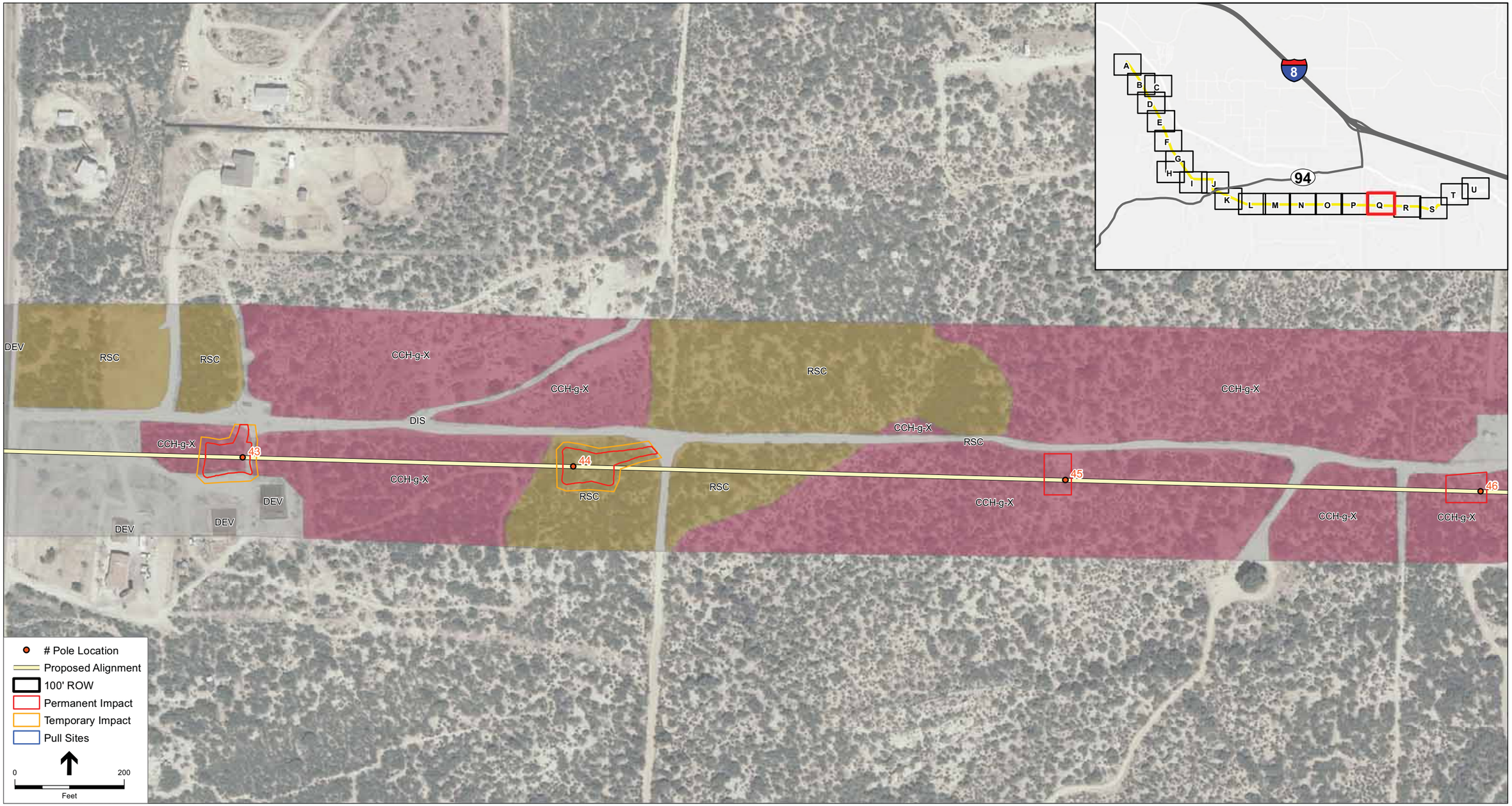

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Figure 4.4-1 Q

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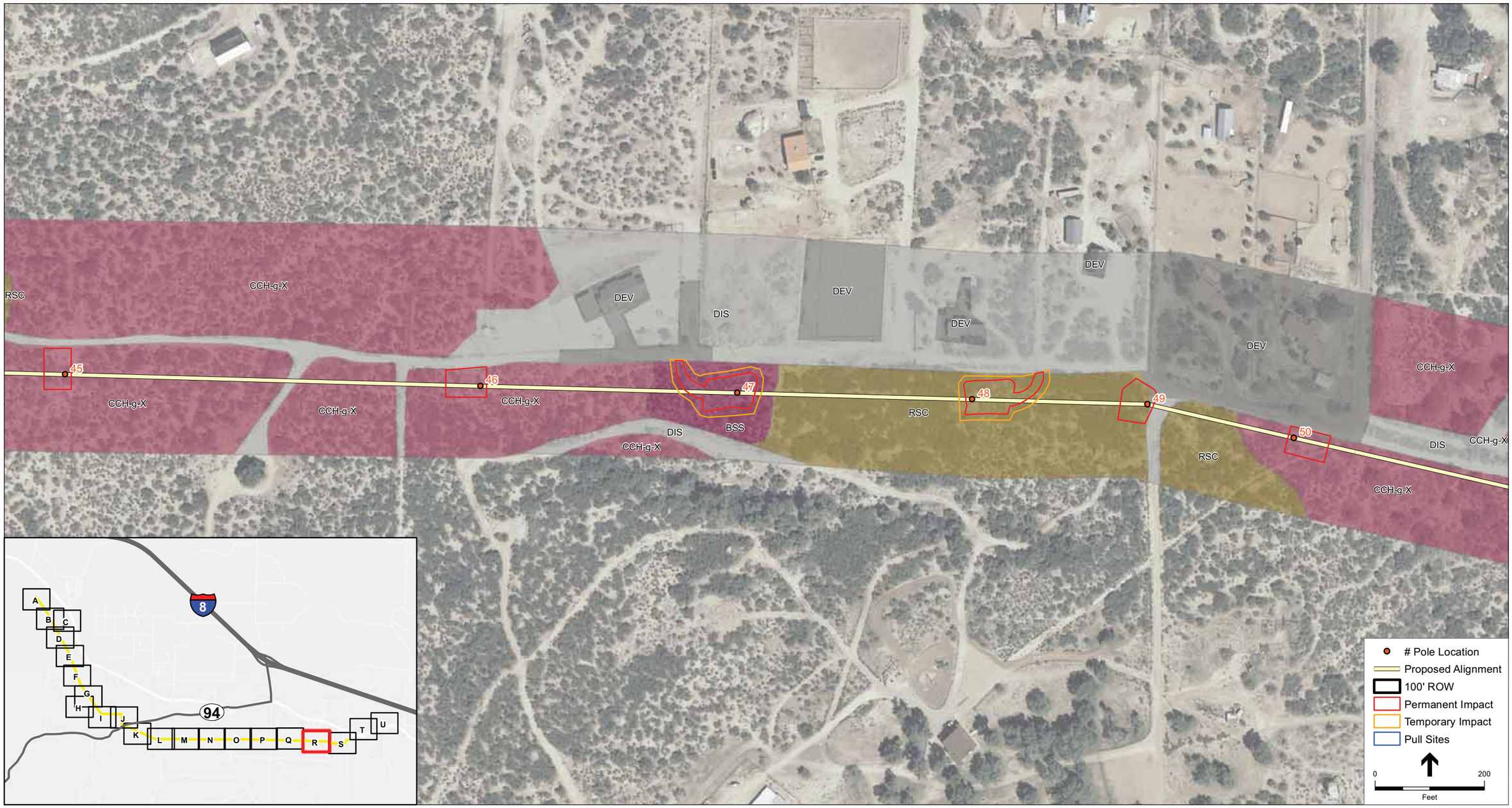

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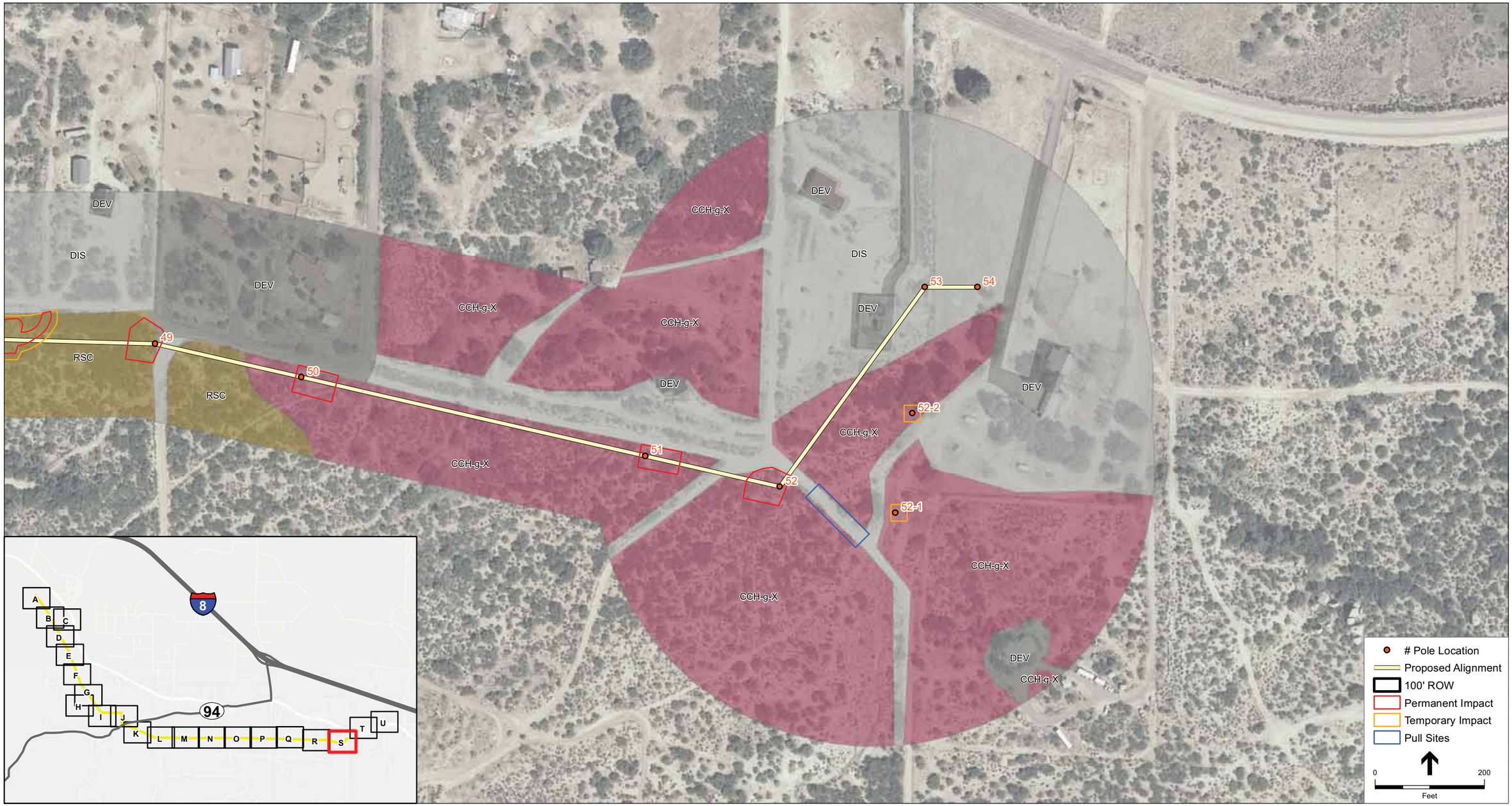

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Plant Communities

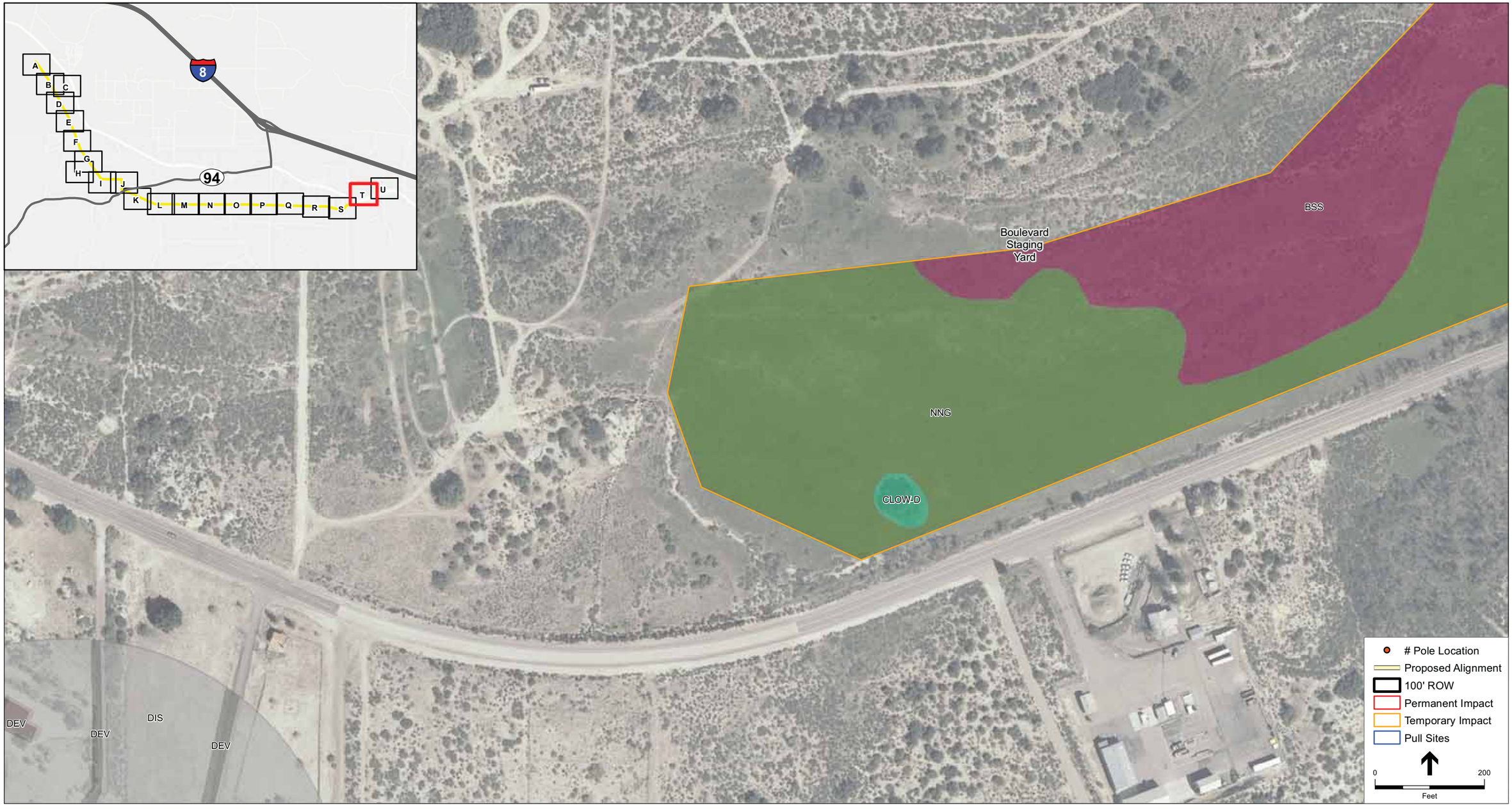

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Figure 4.4-1T

Plant Communities

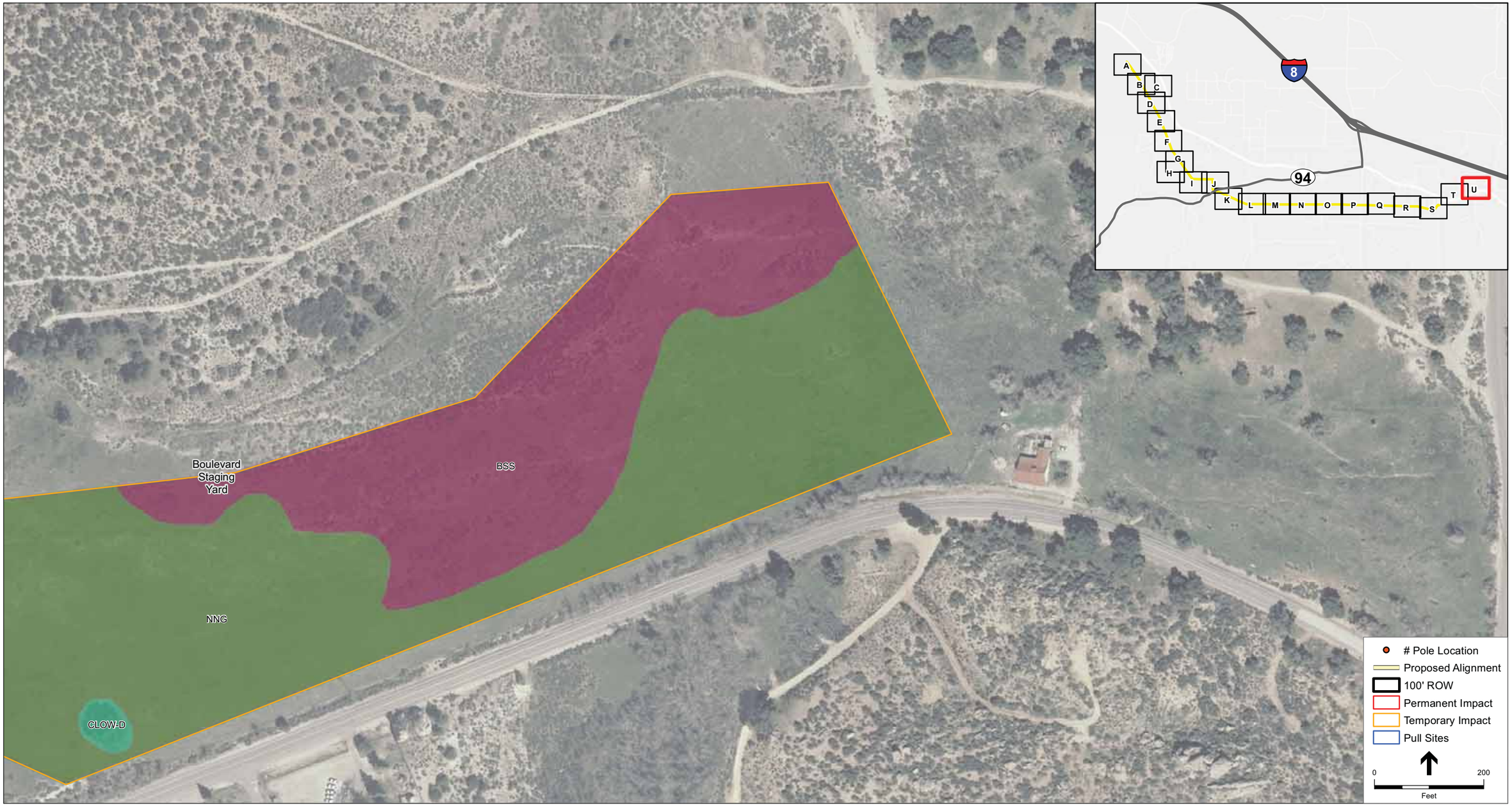

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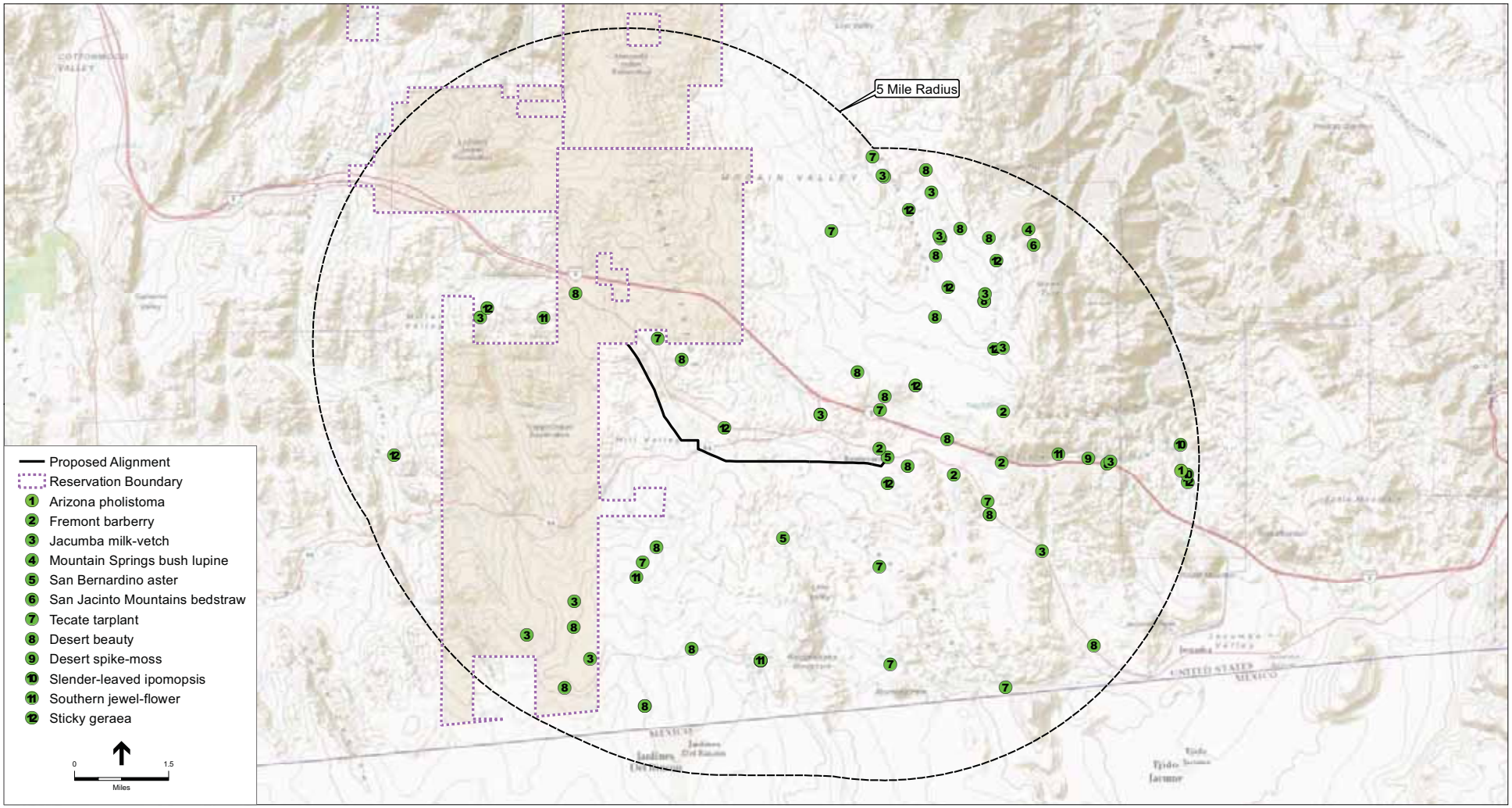
Figure 4.4-1 U

Plant Communities



SOURCE: Sempra Utilities (2011), ESRI (2010), CNDDB

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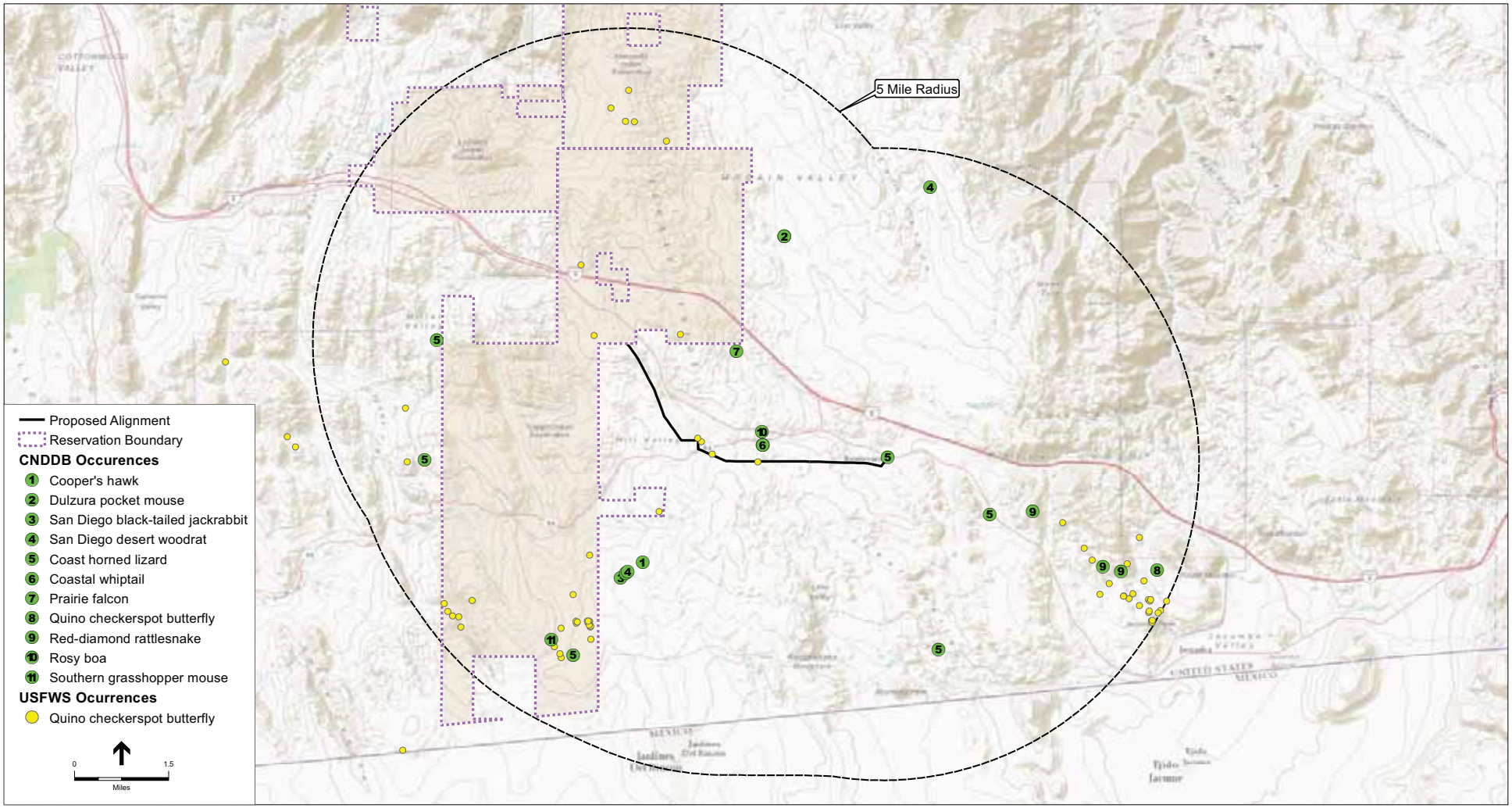
Figure 4.4-2

Special-Status Plant Species Occurrences
Within 5-Mile Radius of the Project Site



SOURCE: Sempra Utilities (2011), ESRI (2010), CNDDB, USFWS

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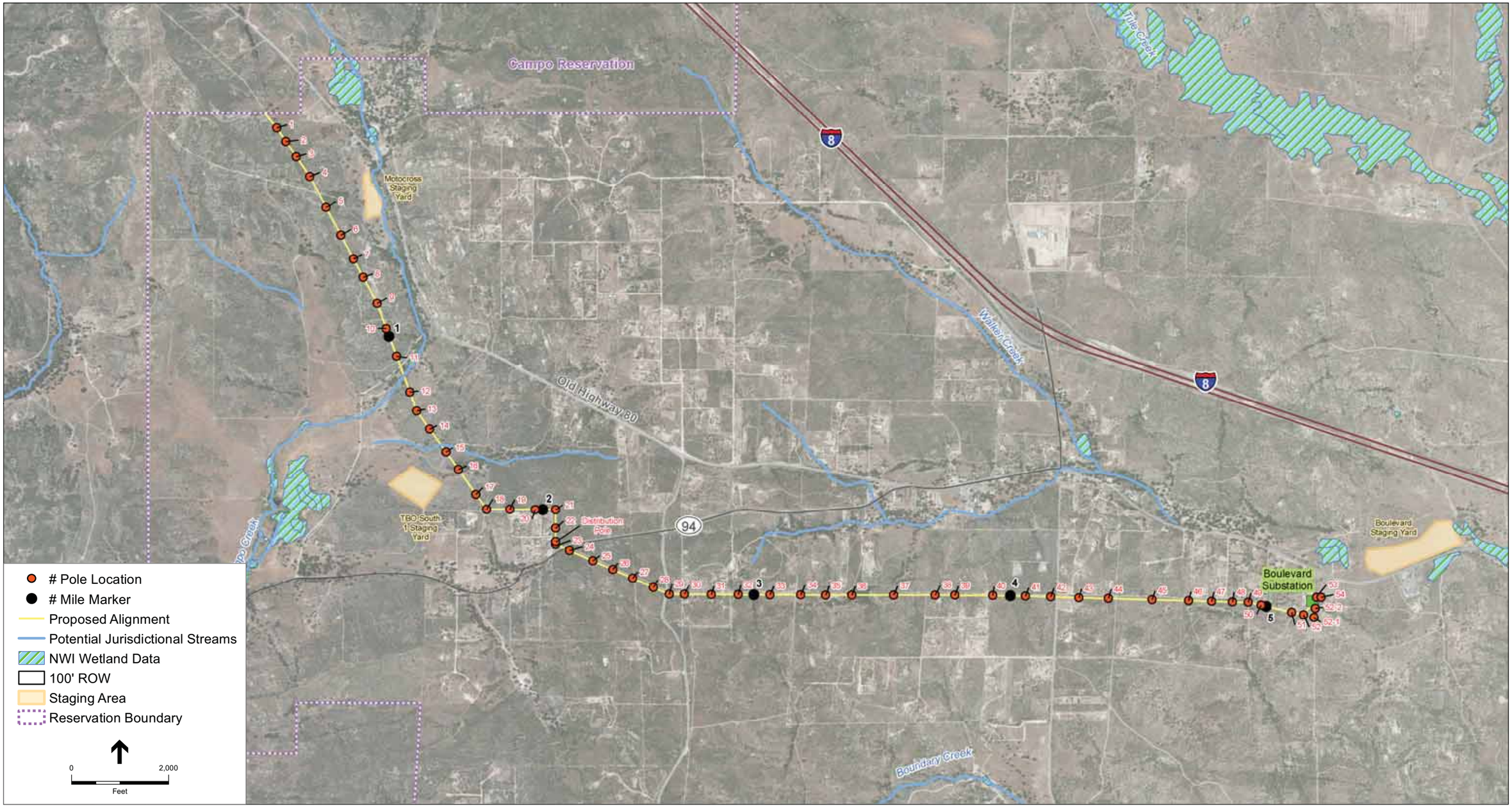
Figure 4.4-3

Special-Status Wildlife Species Occurrences
Within 5-Mile Radius of the Project Site



SOURCE: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010), NWI, NHD

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Figure 4.4-4

Potential Jurisdictional Wetlands and Waters

4.5 Cultural Resources

4.5.1 Introduction

This section describes cultural resources identified within the Proposed Project site and identifies potential impacts that could result from construction or operation and maintenance. This section provides contextual background information on cultural resources in the Project area, including the area's prehistoric, ethnographic, and historical settings. This section also summarizes the results of preliminary cultural surveys of the project site, analyzes the Proposed Project's potential impacts on cultural resources, and identifies measures to address adverse impacts, where applicable. This section is based on technical studies prepared by Tierra Environmental Services (Shaver and Baksh, 2012).

For the purposes of the California Environmental Quality Act (CEQA), "cultural resources" generally refer to prehistoric and historic-period archaeological resources and the built environment. Cultural resources can also include areas of traditional importance to Native Americans. Paleontological resources are also considered within this section. With the implementation of applicant-proposed measures (APMs), potential impacts to cultural and paleontological resources that may result from the Proposed Project will be less-than-significant level.

4.5.2 Methodology

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional APMs were identified to avoid or minimize potential impacts.

Cultural Resources Archival Research

The archival research consisted of literature and records searches at local archaeological repositories, in addition to an examination of historic maps, aerial photographs, and historic site inventories. A records search for the Project was conducted on August 24, 2011, at the South Coast Information Center (SCIC). The records search included a review of all recorded archaeological sites within a 1/2-mile radius of the Project area, as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), the California Register of Historical Resources (California Register), the National Register of Historic Places (National Register), and the California State Historic Resources Inventory (HRI) listings were reviewed for properties within or adjacent to the Project area. Site records for previously recorded sites in the Proposed Project area were reviewed and analyzed.

Native American Consultation

A Sacred Lands File (SLF) search with the Native American Heritage Commission (NAHC) was requested on February 9, 2012. This initial SLF search request was for an area much larger than the current Project area. On March 23, 2012, a revised project area (which reflects the current Project area) was sent to the NAHC for an updated SLF search.

Contact letters to the individuals and groups indicated by the NAHC as having affiliation with the Project area were prepared and mailed on March 23, 2012. The letters described the Project and included a map indicating the location of the Project area. Recipients were requested to reply with any information they are able to share about Native American resources that might be affected by the Project.

Cultural Resources Survey

The Proposed Project area was subject to pedestrian field survey in January and April, 2012. Proposed staging areas were surveyed in August, 2012. The area surveyed was larger than, but included all of, the current Project area. The goal of the survey was to identify any potential cultural resources within the Project area. The survey was completed using pedestrian transects that did not exceed 15 meters in width. Surveyed areas were carefully inspected for surface evidence of archaeological materials, such as ceramics, debitage, ground stone, formal flaked-stone implements, agave roasting pits, and historic-era materials or features. Identified resources were recorded on the appropriate California Department of Parks and Recreation (DPR) 523 forms.

Paleontological Resources Records Search

The scope of the paleontological resources analysis included geologic map research, a review of pertinent scientific literature, and a review of museum data. The paleontological resource work was conducted in accordance San Diego County Guidelines (Department of Public Works (DPW), 2009). No field survey was completed for this analysis.

This impact analysis was based on a comparison of the amount of Project-related surface disturbance in underlying geologic formations. The greater the amount of surface disturbance in paleontologically sensitive formations (Moderate and High potential – DPW, 2009), the greater the potential for adverse impacts to scientifically significant fossils. Conversely, lesser amounts of disturbance in high potential geologic formations have a lower probability for resulting in adverse impacts to scientifically significant fossils.

The approach taken in the analysis was to: (1) determine if any paleontologically sensitive areas occur within the Project based on geologic mapping (Tan, 2002; Deméré and Walsh, 1993; DPW, 2009, and San Diego Natural History Museum (SDNHM), 2012) in order to assess the potential for impacts to paleontological resources; and (2) determine the number and locations of previously recorded fossil sites within the Project area that should be avoided or otherwise mitigated prior to surface disturbance (SDNHM, 2012). It is assumed that the surface geology and geographic distribution of geologic units as published are the same as will be encountered in the subsurface during construction excavations.

4.5.3 Existing Conditions

Regulatory Background

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966, as amended, requires federal agencies to consider the effects of their undertakings on historic properties. Historic properties are cultural resources (archaeological sites, historic built environment features, or Native American traditional cultural resources) that are listed in or determined to be eligible for listing in the National Register of Historic Places (National Register). The governing regulation, Section 106, 36 Code of Federal Regulations [CFR] Part 800, requires the project lead federal agency to consult with the State Historic Preservation Officer, local governments, and Indian Tribes regarding the resolution of adverse effects to historic properties. Section 106 of the NHPA applies only federal undertakings.

National Register of Historic Places

The National Register was established by the National Historic Preservation Act of 1966, as "an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment" (Code of Federal Regulations [CFR] 36 Section 60.2). The National Register recognizes both historical-period and prehistoric archaeological properties that are significant at the national, state, and local levels.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria (U.S. Department of the Interior, 1995):

A. Are associated with events that have made a significant contribution to the broad patterns of our history;

B. Are associated with the lives of persons significant in our past;

C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least fifty years old to be eligible for National Register listing (U.S. Department of the Interior, 1995).

In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as "the ability of a property to convey its significance" (U.S. Department of the Interior, 1995). The National Register recognizes seven qualities that, in various combinations, define integrity: location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus,

the retention of the specific aspects of integrity is paramount for a property to convey its significance.

State

California Register of Historical Resources

Created in 1992 and implemented in 1998, the California Register of Historical Resources (California Register) is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change." Certain properties, including those listed in or formally determined eligible for listing in the National Register and California Historical Landmarks numbered 770 and higher, are automatically included in the California Register. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys or designated by local landmarks programs, may be nominated for inclusion in the California Register. A resource, either an individual property or a contributor to a historic district, may be listed in the California Register if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on National Register criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. It is associated with the lives of persons important in our past.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
4. It has yielded, or may be likely to yield, information important in history or prehistory.

Furthermore, under PRC 5024.1, Title 14 CCR, Section 4852(c), a cultural resource must retain integrity to be considered eligible for the California Register. Specifically, it must retain sufficient character or appearance to be recognizable as a historical resource and convey reasons of significance. Integrity is evaluated with regard to retention of such factors as location, design, setting, materials, workmanship, feeling, and association.

Typically, an archaeological site in California is recommended eligible for listing in the California Register based on its potential to yield information important in prehistory or history (Criterion 4). Important information includes chronological markers such as projectile point styles or obsidian artifacts that can be subjected to dating methods or undisturbed deposits that retain their stratigraphic integrity. Resources such as these have the ability to address research questions.

California Public Resources Code

Several provisions of the PRC govern archaeological finds in terms of human remains, or any other related object of archaeological or historical interest or value. Procedures are detailed under PRC Section 5097.9 through 5097.996 for actions to be taken whenever Native American

remains are discovered. Furthermore, Section 7050.5 of the California Health and Safety Code states that any person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the PRC. Any person removing any human remains without authority of law or written permission of the person or persons having the right to control the remains under PRC Section 7100 has committed a public offense that is punishable by imprisonment.

Title 14 of the CCR, section 4308 concerns preservation law and states that "no person shall remove, injure, disfigure, deface, or destroy any object of archaeological or historical interest or value" within a state park.

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State and is codified at PRC Section 21000 et seq. CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical or archaeological resources.

Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. The CEQA Guidelines (Title 14 California Code of Regulations [CCR] Section 15064.5) recognize that an historical resource includes: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register; (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.5 of the *CEQA* Guidelines apply. If a project may cause a substantial adverse change (defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired) in the significance of an historical resource, the lead agency must identify potentially feasible measures to mitigate these effects (*CEQA* Guidelines Sections 15064.5(b)(1), 15064.5(b)(4)).

If an archaeological site does not meet the criteria for a historical resource contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of Section 21083, which is a unique archaeological resource. As defined in Section 21083.2 of CEQA a "unique"

archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site is to be treated in accordance with the provisions of Section 21083.2, which state that if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (Section 21083.1(a)). If preservation in place is not feasible, mitigation measures shall be required.

The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5(c)(4)).

Paleontological Resources

California PRC Chapter 1.7 Section 5097.5 and 30244, includes State-level requirements for the assessment and management of paleontological resources. These statutes require reasonable mitigation of adverse impacts to paleontological resources resulting from development on State lands, define the removal of paleontological "sites" or "features" from State lands as a misdemeanor, and prohibit the removal of any paleontological "site" or "feature" from State land without permission of the applicable jurisdictional agency. These protections apply only to State of California land, and thus apply only to portions of the proposed Project, if any, that occur on State land.

Local

San Diego County Local Register of Historical Resources

The County requires that resource importance be assessed not only at the State level as required by CEQA, but at the local level as well. If a resource meets any one of the following criteria as outlined in the Local Register, it will be considered an important resource.

1) Is associated with events that have made a significant contribution to the broad patterns of San Diego County's history and cultural heritage;
2) Is associated with the lives of persons important to the history of San Diego County or its communities;

3) Embodies the distinctive characteristics of a type, period, San Diego County region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4) Has yielded, or may be likely to yield, information important in prehistory or history.

San Diego County Resource Protection Ordinance

The San Diego County Resource Protection Ordinance (RPO) protects significant cultural resources, defined as follows:

1. Any prehistoric or historic district, site, interrelated collection of features or artifacts, building, structure, or object either:

   (a) Formally determined eligible or listed in the National Register of Historic Places by the Keeper of the National Register; or

   (b) To which the Historic Resource ("H" Designator) Special Area Regulations have been applied; or

2. One-of-a-kind, locally unique, or regionally unique cultural resources which contain a significant volume and range of data and materials; and

3. Any location of past or current sacred religious or ceremonial observances which is either:

   (a) Protected under Public Law 95-341, the American Indian Religious Freedom Act or PRC Section 5097.9, such as burial(s), pictographs, petroglyphs, solstice observatory sites, sacred shrines, religious ground figures or,

   (b) Other formally designated and recognized sites which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group.

The RPO does not allow non-exempt activities or uses damaging to significant prehistoric or historic lands on properties under County jurisdiction. The only exempt activity is scientific investigation authorized by the County. All discretionary projects are required to be in conformance with applicable County standards related to cultural resources, including the noted RPO criteria on prehistoric and historic sites. Noncompliance would result in a project that is inconsistent with County standards.

Paleontological Resources

The County of San Diego's Grading Ordinance addresses paleontological resources. Section 87.430 of the Grading Ordinance provides for the requirement of a paleontological monitor at the discretion of the County. In addition, the suspension of grading operations is required upon the discovery of fossils greater than 12 inches in any dimension. The ordinance also requires notification of the County Official (e.g., Permit Compliance Coordinator). The ordinance gives the County Official the authority to determine appropriate resource recovery operations, which the permittee shall carry out prior to the County Official's authorization to resume normal grading operations (DPW, 2009).

The County of San Diego has established significance criteria and impact mitigation requirements for paleontological resources (Deméré and Walsh, 1993). County of San Diego Guidelines for Establishing Paleontological Significance were modified in January, 2009, and include a map showing monitoring requirements by geographic location. The County of San Diego defines paleontological resources as the remains and/or traces of prehistoric life, exclusive of human remains, and including the localities where fossils were collected and the sedimentary rock formations from which they were obtained/derived (DPW, 2009). This document continues by defining fossils by their age, which is generally accepted to be in excess of 10,000 years old. Unique paleontological resources are defined as any fossil, or assemblage of fossils, or formation, or a paleontological resource site that meets certain criteria. Those criteria include:

- The best example of its kind, locally or regionally
- Illustrates a paleontological or evolutionary principle
- Provides a critical piece of paleobiological data
- Encompasses any part of a "type locality" of a fossil or formation
- Contains a unique or particularly unusual assemblage of fossils
- Occupies a unique position stratigraphically within a formation; or
- Occupies a unique position, proximally, distally, or laterally within a formation's extent or distribution.

Using these criteria, the County of San Diego has assigned Resource Potential Ratings to all major geologic formations within San Diego County. These ratings are High, Moderate, Low, Marginal, and No Potential. Adverse effects include direct impacts, occurring through the destruction or alteration of a paleontological resource or site by grading, excavation, trenching, boring, tunneling, or any other activity that disturbs the subsurface geologic formation. Indirect impacts are not specifically caused by a development project, but may be a reasonably foreseeable result of such a project. These types of indirect impacts include destruction or loss of fossils from increased erosion, and the non-scientific or unauthorized collection or subsurface excavation of a fossil or paleontological site. With the exception of No Potential geologic units, the County of San Diego requires construction. No Potential units are those comprised entirely of volcanic or plutonic igneous rocks, which have extremely low potential for producing recognizable fossil remains.

Prehistoric Overview

Southeastern San Diego County contains archaeological evidence of human use and occupation spanning thousands of years of prehistory. The chronology of coastal southern California is typically divided into three general time periods: the Early Holocene (11,000 to 7,600 Before Present [B.P.]), the Middle Holocene (7,600 to 3,600 B.P.), and the Late Holocene (3,600 B.P. to A.D. 1769). Within this timeframe, the archaeology of southern California is generally described in terms of cultural "complexes". A complex is a specific archaeological manifestation of a general mode of life, characterized archaeologically by technology, particular artifacts, economic systems, trade, burial practices, and other aspects of culture.

Early Holocene (11,000 to 7,600 B.P.)

While it is not certain when humans first came to California, their presence in southern California by about 11,000 B.P. has been well documented. At Daisy Cave, on San Miguel Island, cultural remains have been radiocarbon dated to between 11,100 and 10,950 B.P. (Byrd and Raab, 2007). On the mainland, radiocarbon evidence confirms occupation of the Orange County and San Diego County coast by about 9,000 B.P., primarily in lagoon and river valley locations (Gallegos, 2002). The earliest known sites in San Diego County are the Harris Site (CA-SDI-149), Agua Hedionda sites (CA-SDI-210/UCLJ-M-15 and CA-SDI-10695), Rancho Park North (CA-SDI-4392/SDM-W-49), and Remington Hills (CA-SDI-11069), dating between 9,500 to 8,000 B.P. (County of San Diego, 2007a). During the Early Holocene, the climate of southern California became warmer and more arid and the human population, residing mainly in coastal or inland desert areas, began exploiting a wider range of plant and animal resources (Byrd and Raab, 2007).

The primary Early Holocene cultural complex in coastal southern California was the San Dieguito Complex occurring between approximately 10,000 and 8,000 B.P. The people of the San Dieguito Complex inhabited the chaparral zones of southwestern California, exploiting the plant and animal resources of these ecological zones (Warren, 1967). Leaf-shaped and large-stemmed projectile points, scraping tools, and crescentics are typical of San Dieguito Complex material culture.

Middle Holocene (7,600 to 3,600 B.P.)

During the Middle Holocene, there is evidence for the processing of acorns for food and a shift toward a more generalized economy. The processing of plant foods, particularly acorns, increased, a wider variety of animals were hunted, and trade with neighboring regions intensified (Byrd and Raab, 2007).

The Middle Holocene La Jolla Complex (approximately 8,000–4,000 B.P.) is essentially a continuation of the San Dieguito Complex. La Jolla groups lived in chaparral zones or along the coast, often migrating between the two. Coastal settlement focused around the bays and estuaries of coastal Orange and San Diego counties. La Jolla peoples produced large, coarse stone tools, but also produced well-made projectile points, and milling slabs. The La Jolla Complex represents a period of population growth and increasing social complexity, and it was also during this time period that the first evidence of the grinding of seeds for flour, as indicated by the abundance of millingstones in the archaeological record, appears (Byrd and Raab, 2007). Contemporary with the La Jolla Complex, the Pauma Complex has been defined at inland sites in San Diego (True, 1958). The Pauma Complex is similar in technology to the La Jolla Complex; however, evidence of coastal subsistence is absent from Pauma Complex sites. The Pauma and La Jolla Complexes may either be indicative of separate inland and coastal groups with similar subsistence and technological adaptations, or, alternatively, may represent inland and coastal phases of one group's seasonal rounds. The latter hypothesis is supported by the lack of midden and deeply buried artifacts at Pauma sites, indicating that these sites may have been temporary camps for resource gathering and processing.

Late Holocene (3,600 B.P. to A.D. 1769)

During the Late Holocene, native populations of southern California were becoming less mobile and populations began to gather in small sedentary villages with satellite resource-gathering camps. Evidence indicates that the overexploitation of larger, high-ranked food resources may have led to a shift in subsistence, towards a focus on acquiring greater amounts of smaller resources, such as shellfish and small-seeded plants (Byrd and Raab, 2007). In coastal southern California, conditions became drier and many lagoons had been transformed into saltwater marshes. Because of this, populations abandoned mesa and ridge tops to settle nearer to permanent freshwater resources (Gallegos, 2002). While Late Holocene coastal sites are known, sites of this period are more common along river valleys and interior locations (Gallegos, 1995).

Although the intensity of trade had already been increasing, it now reached its zenith, with asphaltum (tar), seashells, and steatite being traded from southern California to the Great Basin. Major technological changes appeared as well, particularly with the advent of the bow and arrow, which largely replaced the use of the dart and atlatl. Small projectile points, ceramics, including Tizon brownware pottery, and obsidian from Obsidian Butte (Imperial County), are all representative artifacts of the Late Holocene. Cremation burials are also common in this period (County of San Diego, 2007a).

Ethnographic Overview

The greater San Diego area was inhabited by a group of people known as the *Kumeyaay*. The Kumeyaay were also known as the *Diegueño*, a term used to describe a number of linguistically and culturally related Native groups that came under the governance of the Mission San Diego de Alcalá after the mission was established in 1769 (Luomala, 1978). The Kumeyaay have also been referred to in the past as *Ipai-Tipai*. Diegueño groups residing in the Imperial Valley were sometimes known as the *Kamia* or Desert Kumeyaay (Luomala, 1978).

The Kumeyaay occupied an area that encompassed roughly southern present-day San Diego County, southern Imperial County, and northern Baja California (Kroeber, 1925: 709). Their territory ranged from the coast through the Peninsular Ranges to the Colorado Desert. To the east of the Kumeyaay and along the southern Colorado River area were the *Yuman* peoples (traditional *Quechan* tribal area). Kumeyaay territory was bordered on the north by the *Luiseño*, *Cupeño*, and *Cahuilla*.

The Kumeyaay language belonged to the Yuman language family, Hokan stock—the same family that includes the lower Colorado River tribes and other Arizona groups (Luomala, 1978). Culturally, however, the Kumeyaay also shared many similar traits with their northern neighbors, the Luiseño and Cahuilla. Within their cultural assemblage are numerous lithic tools such as projectile points, scrapers, baskets, pottery manufacture, twines for nets and other textile objects, houses of bulrush, the bow and arrow, and cremation burials. Subsistence strategy for the Kumeyaay involved small-game hunting and resource gathering, with a noted reliance upon marine resources near San Diego Bay and along the Pacific Coast. Inland Kumeyaay populations followed similar subsistence strategies to the Luisueño and the Cahuilla, with a primary reliance upon the exploitation of small game animals including insects, fish, birds, dove, rabbits, and

squirrels, as well as abundantly available vegetal resources such as many varieties of seeds, principally the acorn, cacti, and herbaceous plants. Studies indicate that the Kumeyaay divided their seasonal subsistence between the mountain and the desert ecological zones. With the seasons, the Kumeyaay moved in small bands from one productive area to another to ensure a near constant food supply (Luomala, 1978). The Kumeyaay were semi-sedentary and resided in politically autonomous villages, which were generally located in areas where water was easily accessible.

In 1769, the Mission San Diego de Alcala was founded and Kumeyaay were recruited, often forcibly, to live and work at the mission. The Kumeyaay resisted Mission control, and several violent uprisings occurred within the first decade of missionization. In 1775, about 800 Kumeyaay from at least 15 different villages came together to attack the Mission (Luomala, 1978). In 1834, Mexico secularized the missions and mission lands, although they were supposed to be transferred back to Native ownership, were sold to other Mexican or Euro-American settlers. When California became a part of the United States of America, the area saw an influx of settlers, particularly after gold was discovered in Julian in 1870. Many immigrants settled on Kumeyaay land and brought with them diseases such as smallpox and measles. In addition, the United States government failed to ratify the treaty that had been negotiated with representatives of the Kumeyaay in 1852. An executive order in 1875 established the first Kumeyaay reservations. However, many reservations were inadequate for the traditional lifestyle of the Kumeyaay, as overgrazing and water diversion had destroyed much of the natural environment (Luomala, 1978).

Today, Kumeyaay tribal members within the United States are divided into twelve federally-recognized bands: Barona, Campo, Ewiiaapaayp, Inaja-Cosmit, Jamul, La Posta, Manzanita, Mesa Grande, San Pasqual, Santa Ysabel, Sycuan, and Viejas. An additional San Diego County band, the Kwaaymii Laguna Band of Indians, is not currently federally recognized. Several more Kumeyaay communities are present in Mexico.

Historic Background

The first European presence near present-day San Diego came in 1542, when Juan Rodriguez Cabrillo led an expedition along the coast. Europeans did not return until 1769, when the expedition of Gaspar de Portola traveled overland from San Diego to San Francisco. In the late 18th century, the Spanish began establishing missions in California and forcibly relocating and converting native peoples (Horne and McDougall, 2003). The nearest mission to the Project area was Mission San Diego de Alcalá, founded in 1769 by Junipero Serra, at the present-day location of Presidio Park. The Mission was later moved inland to its present location after the original setting proved unsatisfactory.

Disease and hard labor took a toll on the native populations; by 1900, the Native Californian population had declined by as much as 95 percent (Chartkoff and Chartkoff, 1984). In addition, native economies were disrupted, trade routes were interrupted, and native ways of life were significantly altered.

In 1821, Mexico, which included much of present-day California, became independent from Spain, and during the 1820s and 1830s the California missions were secularized. Mission property, although it was supposed to have been held in trust for the Native Californians, was handed over to civil administrators and then into private ownership. After secularization, many former Mission Indians were forced to leave the Missions and seek employment as laborers, ranch hands, or domestic servants (Horne and McDougall, 2003).

In 1848, gold was discovered in California, leading to a huge influx of people from other parts of North America. In 1850 California became part of the United States of America. The opening of the Butterfield Overland Stage route in 1858 and later the California Southern Railroad line in 1882 greatly increased the number of people coming to southern California (Lowell, 1985).

Prior to the American period, the Milquatay Valley (now Campo area) was considered too remote, dangerous, and barren to have experienced significant interference from the Missions or military forces (Shaver and Baksh, 2012). However, the establishment in 1848 of a government mail route between Fort Yuma (Arizona) and San Diego, in the 1860s of a stage route, and the transportation corridors that were later created upon these routes, brought more Euro-Americans to the region. Treaties from the 1850s promising Kumeyaay land, educational services, food, and livestock, were never ratified, and non-native settlers trespassed onto and took control of native land. Through the 19th century, the Kumeyaay of the Campo area received little support from the United States government.

The 15,480-acre Campo Indian Reservation was established in 1893. The Indian Agency and a schoolhouse were constructed on the New Campo Reservation in the early 20th century. It is today the most populous of the five southern Kumeyaay reservations (Shaver and Baksh, 2012).

Cultural Resources

Record Search Results

The results of the SCIC record search indicated that five previous cultural resources investigations have been conducted within the Project area, of which four were archaeological surveys, and the fifth was a draft Environmental Impact Report (County of San Diego, 1975). Thirty-six studies have been conducted within ½-mile of the Project area.

Sixty-one resources were identified within ½-mile of the Project area. Of these, 36 are archaeological sites (24 prehistoric sites, 10 historic-period sites, and 2 sites with both historic and prehistoric components), and 25 are historic built architectural resources (which include a historic district and a segment of US Highway 80). One cultural resource, archaeological site CA-SDI-16824, has been previously recorded within the Project area.

In 2003, a crew from Brian F. Smith & Associates, recorded site CA-SDI-16824 as a "medium-sized" historic site measuring 250 feet (N/S) by 300 feet (E/W). The documented assemblage included three foundations, a well, and a sparse scattering of historic refuse. In 2010, a crew from ASM Affiliates revisited the site and expanded the description to include a dispersed scatter of ironstone, glass, and cans covering an area 265 feet by 330 feet.

TABLE 4.5 1
PREVIOUSLY RECORDED SITES WITHIN ½-MILE OF PROJECT AREA

Resource No.	Period	Description	Year Recorded
CA-SDI-00085	Prehistoric	Pottery Site	1940
CA-SDI-00087	Prehistoric	Pottery and Seed Cache	2005
CA-SDI-06895	Prehistoric	Large Campsite	2010
CA-SDI-06897	Prehistoric	Transient Camp	2010
CA-SDI-06899	Prehistoric	Milling Site	2003
CA-SDI-08217	Prehistoric	Lithic Scatter	1980
CA-SDI-08218	Prehistoric	Lithic Scatter	1980
CA-SDI-08939	Prehistoric	Milling and Campsite	1980
CA-SDI-08948	Prehistoric	Rock Enclosure	1981
CA-SDI-08951	Prehistoric	Temporary Campsite	2010
CA-SDI-08952	Prehistoric	Milling Site	1981
CA-SDI-08953	Prehistoric	Milling Site	1981
CA-SDI-08955	Prehistoric	Rock Enclosure	1981
CA-SDI-09054	Historic	Foundations, Walkways, and Refuse Deposit	1987
CA-SDI-09105	Prehistoric	Village Site	1975
CA-SDI-09522	Prehistoric	Bedrock Milling Site	2009
CA-SDI-13668	Prehistoric	Temporary Campsite and Yoni Feature	1994
CA-SDI-13669	Prehistoric	Temporary Campsite	1994
CA-SDI-13670	Prehistoric	Temporary Campsite and Yoni Feature	1994
CA-SDI-13671	Historic	Refuse Deposit	1994
CA-SDI-13672	Historic	Refuse Deposit	1994
CA-SDI-16026	Prehistoric	Temporary Campsite	2000
CA-SDI-16824*	Historic	Foundations and Refuse Scatter	2010
CA-SDI-16826	Historic	Refuse Deposit	2003
CA-SDI-17731	Historic	Refuse Deposit	2003
CA-SDI-17768	Prehistoric	Milling Site	2005
CA-SDI-17769	Historic	Homestead	2005
CA-SDI-17770	Prehistoric	Milling Site	2005
CA-SDI-18921	Historic	Refuse Deposit	2008
CA-SDI-20041	Prehistoric	Temporary Campsite	2010
CA-SDI-20042	Prehistoric/ Historic	Temporary Campsite and Historic Structural Remains	2010
CA-SDI-20049	Prehistoric	Artifact Scatter	2010
CA-SDI-20050	Prehistoric	Artifact Scatter	2010
CA-SDI-20368	Prehistoric/ Historic	Temporary Campsite and Historic Well Feature	2010
P-37-024023	Historic	Road – US Highway 80	2010
P-37-031579	Historic	Transmission Pole and Refuse Deposit	2010
P-37-031592	Historic	Structural Remains	2010
P-37-031594	Historic	Refuse Deposit	2010

Resource No.	Period	Description	Year Recorded
P-37-032133	Historic	Single Family Property	2011
P-37-032134	Historic	Single Family Property	2011
P-37-032135	Historic	Single Family Property	2011
P-37-032136	Historic	Single Family Property	2011
P-37-032137	Historic	Single Family Property	2011
P-37-032138	Historic	Commercial Building	2011
P-37-032139	Historic	Single Family Property	2011
P-37-032140	Historic	Commercial Building	2011
P-37-032141	Historic	Single Family Property	2011
P-37-032142	Historic	Single Family Property	2011
P-37-032143	Historic	Commercial Building	2011
P-37-032144	Historic	Single Family Property	2011
P-37-032145	Historic	Single Family Property	2011
P-37-032146	Historic	Single Family Property	2011
P-37-032147	Historic	Commercial Building	2011
P-37-032148	Historic	Commercial Building	2011
P-37-032149	Historic	Commercial Building	2011
P-37-032150	Historic	Single Family Property	2011
P-37-032151	Historic	Commercial Building	2011
P-37-032152	Historic	Ancillary Buildings	2011
P-37-032156	Historic	District – Calexico Lodge	2011
P-37-032157	Historic	Single Family Property and Commercial Building	2011
P-37-032158	Historic	Commercial Building	2011

* Resource located within the Project area. Source: Shaver and Baksh, 2012

NAHC and Native American Contact

Sacred Lands File search results prepared by the NAHC on February 14, 2012, in response to the original SLF search request indicated that Native American cultural resources were identified in the Project area. On March 23, 2012, a revised Project area, which reflected the current Project area, was sent to the NAHC for an updated SLF search. On April 18th, the NAHC responded to the revised Project area by stating that the Proposed Project "*does not impinge on the Native American cultural resources identified in the Sacred Lands Inventory*". Presumably, the Native American cultural resources identified in the first SFL search were located within areas that are no longer within the current Project area. To date, no responses to the letters of inquiry sent to Native American contacts have been received.

Cultural Resources Survey

As a result of the cultural resources pedestrian survey, 21 newly recorded archaeological resources were identified within or immediately adjacent to the Project area (Table 4.5-2). One previously recorded site, CA-SDI-16824, was relocated and updated.

Of the 21 newly identified resources, 8 consisted of isolated artifacts and 13 were archaeological sites (5 prehistoric sites, 7 historic-period sites, and 1 site with both historic and prehistoric components). The 14 archaeological sites within the Project area are described in detail below (Shaver and Baksh, 2012).

TABLE 4.5-2
CULTURAL RESOURCES WITHIN OR ADJACENT TO THE PROJECT AREA

Designation	Period	Description	Resource type
TES-PP-001H	Historic	Refuse deposit.	Archaeological Site
TES-PP-003	Prehistoric	Rockshelter with groundstone (metate and mano), associated pottery and bedrock milling features.	Archaeological Site
TES-PP-006	Prehistoric	Prehistoric bedrock milling features with groundstone (manos), associated pottery, and lithics.	Archaeological Site
TES-PP-007H	Historic	Refuse deposit.	Archaeological Site
TES-PP-008H	Historic	Refuse deposit.	Archaeological Site
TES-PP-009	Prehistoric	Sparse lithic scatter.	Archaeological Site
TES-PP-010	Prehistoric	Sparse lithic scatter.	Archaeological Site
TES-PP-011/H	Prehistoric / Historic	Historic water conveyance system and GLO survey marker with a prehistoric pottery sherd.	Archaeological Site
TES-PP-012	Prehistoric	Sparse lithic scatter.	Archaeological Site
CA-SDI-16824	Historic	Foundations and refuse scatter	
TES-PP-013H	Historic	General Land Office Survey marker	Archaeological Site
TES-PP-014H	Historic	General Land Office Survey marker	Archaeological Site
TES-PP-015H	Historic	Fence line	Archaeological Site
TES-PP-016H	Historic	Well head	Archaeological Site
TES-PP-001i	Prehistoric	Pottery sherd fragment.	Isolated artifact
TES-PP-002i	Prehistoric	Metavolcanic flake.	Isolated artifact
TES-PP-004i	Prehistoric	Metavolcanic flake.	Isolated artifact
TES-PP-006i	Prehistoric	Quartz flake.	Isolated artifact
TES-PP-007i	Prehistoric	Quartz flake.	Isolated artifact
TES-PP-010i	Prehistoric	Metavolcanic flake.	Isolated artifact
TES-PP-011i	Prehistoric	Two quartz flakes.	Isolated artifact
TES-PP-012i	Prehistoric	Two quartz flakes.	Isolated artifact

SOURCE: Shaver and Baksh, 2012

Site TES-PP-001H

This historic archaeological site consists of a historic refuse deposit extending in a north-northeasterly direction along a shallow drainage. The site measures approximately 15 by 30 feet and includes glassware, window pane, sanitary cans, coffee cans, condensed milk cans, tobacco tins, china, saw-cut large mammal (bovine) bone and miscellaneous metal. Observed glassware colors included clear, green, aqua, and sun-altered selenium. Based on the documented materials, the site appears to date to the late 1940s. The site is in fair condition.

Site TES-PP-003

This is a prehistoric archaeological site consisting of a prehistoric rockshelter with associated artifacts and features, located on the east side of a narrow granitic north-south trending finger ridge overlooking a seasonal drainage. The site measures 25 by 40 meters. In addition to the rockshelter, the site includes a bedrock milling feature with two slicks, a metate, two mano fragments, brownware pottery body and rim sherds, and a sparse assemblage of metavolcanic flakes. An existing utility pole is located adjacent to the northwestern corner of the site. Overall, the site is in fair condition, although the rockshelter appears to have been used in modern times as a temporary shelter, which has contributed to a light scatter of modern refuse and clothing across the site.

Site TES-PP-006

This is a prehistoric archaeological site consisting of a prehistoric bedrock milling feature and moderate density artifact assemblage. The site measures approximately 75 by 30 meters and is located on a small rise just southeast of a seasonal drainage. The three bedrock milling outcrops containing more than 30 slicks and mortars. Additionally, the site possesses a light density artifact assemblage extending south of the bedrock milling features with mano fragments, brownware pottery body and rim sherds, and a sparse assemblage of quartz and metavolcanic flakes. Rodent backfill visible on the surface of the site indicates there may be the potential for a subsurface prehistoric artifact component. Overall, the site is in good condition, with only natural erosional processes affecting the site.

Site TES-PP-007H

This historic-era archaeological site consists of a low density historic refuse deposit measuring approximately 10 by 6 feet, located two meters south of the east/west trending dirt pole line access road. The site is comprised primarily of cans including miscellaneous sanitary, oil, spice and a wooden 4-inches by 4-inches post. Due to the limited composition observed at the site, the age of the site is difficult to assess. The site is in fair condition.

Site TES-PP-008H

This historic-era archaeological site consists of a low density historic refuse deposit measuring approximately 5 by 10 feet. The site is comprised primarily of cans including miscellaneous sanitary and oil and a fragment of historic china. The site is in fair condition, although the lack of glassware may suggest opportunistic collection.

Site TES-PP-009

This prehistoric archaeological site is a low density lithic scatter containing six fragments of green and black metavolcanic material and a fragment of Santiago Peak volcanics. The site is largely within the disturbed portion and shoulders of the dirt pole line access road. The site measures 25 by 80 meters and is located along the western apex of the low finger ridge that overlooks Hill Valley and Campo Creek to the south. Overall, the site is in fair to poor condition, although surveyors noted that additional artifacts may be obscured by the dense chaparral in the vicinity.

Site TES-PP-010

Prehistoric archaeological site TES-PP-010 consists of a low density prehistoric lithic scatter containing four fragments of green and black metavolcanic and quartz material. The site is located on a low westward trending slope overlooking Campo Creek. The site measures 15 by 45 meters. Overall, the site is in good condition.

Site TES-PP-011/H

The site is a multicomponent site with two historic period features (a water conveyance feature and a GLO survey marker) and a fragment of prehistoric pottery. The site measures approximately 30 by 110 feet and is located on the western side of the east/west trending seasonal drainage. The water conveyance feature consists of a poured concrete structural component located within the active drainage bed. The feature appears to be missing additional components which might aid in the features identification. The second historic feature consists of a 1922 brass-capped GLO survey marker. The historic marker is in good shape and is located 90 feet west of the concrete structure. Overall, the site is in poor to fair condition due to the missing elements of the concrete structure.

Site TES-PP-012

Site TES-PP-012 is a prehistoric site that consists of a low density prehistoric lithic scatter containing five fragments of gray metavolcanic and quartz material and a unifacial mano fragment. The site measures 40 by 65 meters and appears to have been mechanically graded in the past. The middle of the site contains few large elements of chaparral except for scrub oak remaining. The southern and northern perimeter of the site still possesses the typical dense vegetation of the vicinity. Given the potential mechanical clearing of the parcel, it is hypothesized that the site would not retain good integrity and as such the site is considered to be in fair to poor condition.

Site TES-PP-013H

Site TES-PP-013H is a brass 1916 GLO section marker. The brass cap measures $2^{3}/_{8}$-inch diameter and is situated on top of a 1-inch diameter steel pipe that sticks up 3 inches. The text on the marker is standard with the inclusion of “CIR” designating Campo Indian Reservation. The feature is located at the southern border of the Campo Indian Reservation property fence line (See TES-PP-015H).

Site TES-PP-014H

The site consists of a brass 1916 GLO quarter section marker. The brass cap measures $2^{3}/_{8}$-inch diameter and is situated on top of a 1-inch diameter steel pipe that sticks up 2 inches. Six inches northwest of the marker is a 4-inch by 4-inch redwood obelisk-style post that is approximately 32 inches tall. The post appears to be an original or very early addition to the feature due to its weathered condition.

Site TES-PP-015H

The site consists of a predominately east/west segment of historic fence line demarcating the southern boundary of the Campo Indian Reservation. The four strand barbed wire fence is approximately 4 feet high and is in fair to poor condition with approximately 70 percent of its original split wood fence posts replaced with reused materials.

Site TES-PP-016H

Site TES-PP-016H is the extant remains of abandoned water well for field irrigation. The well consists of a $10^{7}/_{8}$-inch outside diameter pipe that sticks up 37¼ inches above a shallow depression. No foundations or pump stands appear to be associated with the well.

Site CA-SDI-16824

This previously recorded resource is a historic-era archaeological site originally recorded as foundations and a historic debris scatter. In 2010, ASM revisited the site and completed a site record update. During the current survey, Tierra personnel identified the site and recorded additional features, including an extant chimney at the western end of the primary residential foundation, a holding pond and earthen water conveyance systems. Also observed were the initials “RR” impressed into the hearth extension floor along with the use of California Highway “C-monuments” as footers around the main residential floor substrate. Four hundred feet northeast of the chimney is a raised earthen-walled holding pond. The site boundary was expanded to 750 feet by 350 feet.

Eight prehistoric isolates were also recorded within the Project area during the survey. These consist of one prehistoric pottery sherd and seven prehistoric lithic flakes. As isolated artifacts that lack archaeological context and data potential, these isolates recorded within the Project area are not considered eligible for the California Register or National Register. The 14 archaeological sites have not yet been formally evaluated for their eligibility to the California Register or National Register.

Paleontological Resources

This analysis for this PEA section is based on data obtained from two published geological maps and a records search with the SDNHM, as well as the County of San Diego Guidelines for Establishing Paleontological Significance (DPW, 2009).The Project is located wholly within the Pensinsular Range Geomorphic Province, a region characterized by late Mesozoic (120-85 million years old [Ma]) plutonic igneous rocks of the Peninsular Ranges Batholith, and related rocks. A notable exception to this general geologic setting occurs to the east-southeast of

this Project in the Jacumba area, where a sequence of mid-Cenozoic (18Ma) volcanic and sedimentary rocks have been preserved.

Based on the records review by the SDNHM, and on geologic map reviews (Tan 2002; Todd and Alvarez, 2004), the Project contains only one geologic unit. This unit, Tonalite of La Posta, consists of hornblende-biotite trondhjemite in the western part and biotite trondhjemite to granodiorite in the eastern part. As an intrusive igneous geologic unit, it is ranked by the County of San Diego as having No Potential for paleontological resources.

According to published geologic mapping (Tan, 2002; Todd and Alvarez, 2004), one geologic formation lies within the Project area. This unit, an intrusive igneous unit, the Tonalite of La Posta, consists of hornblende-biotite trondhjemite in the western part and biotite trondhjemite to granodiorite in the eastern part, and as an igneous intrusive unit has a PFYC ranking of 1, and is ranked by the County of San Diego as No Potential.

Based on the paleontological locality records maintained by the SDNHM, no fossil localities lie within one mile of the Project. The intrusive igneous rock unit within the Project area was formed deep underground at high temperatures and high pressures and contains no fossil remains. Therefore, the Project area has no paleontological potential.

4.5.4 Impacts

Significance determinations of impacts to cultural resources are summarized below. Potential impacts are discussed in detail in the following sections. Impacts to cultural resources from the Proposed Project will be less than significant.

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	☐	☒	☐	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Significance Criteria

Cultural Resources

A project would have a significant adverse effect on cultural resources if it would:

- Cause a substantial adverse change in the significance of a historical resource, as defined in CEQA Guidelines Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

According to CEQA Guidelines Section 15064.5(b), a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. The guidelines further state that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource would be materially impaired. Actions that would materially impair the significance of a historical resource are any actions that would demolish or adversely alter those physical characteristics of a historical resource that convey its historical significance and qualify it for inclusion in the California Register or in a local register or survey that meet the requirements of PRC Sections 5020.1(k) and 5024.1(g).

Construction-related subsurface and surface disturbances could result in a loss of integrity of cultural deposits, a loss of scientific information, and the alteration of archaeological site setting. Potential indirect impacts, such as vandalism, can result from increased access and use of the general area during construction and long-term operation and maintenance activities. The potential also exists for the inadvertent discovery of buried archaeological materials.

Paleontological Resources

Adverse impacts to paleontological resources occur with the damage or destruction of fossils that are scientifically significant and the loss of associated scientific information. This includes destruction as the result of surface and subsurface disturbance as well as unlawful vandalism and unauthorized collection of fossil remains. Implementing paleontological mitigation for known fossil sites and unknown subsurface fossil sites would ensure that potential adverse impacts on paleontological resources within the Project area are reduced or avoided. This includes collecting or avoiding scientifically significant fossils located on the ground surface and monitoring construction excavations in rocks and sediments with the potential to contain subsurface fossils so that they can be salvaged when they are uncovered.

Direct impacts to paleontological resources are the result of breakage and crushing as the result of disturbance to fossils that have eroded onto the surface and subsurface rocks and sediments in which fossils are entombed. Indirect impacts involve increased access to paleontological resources by construction personnel and recreational users of public lands as the result of Project-related construction, leading to vandalism and unauthorized collection (theft) of the resource.

Question 4.5a – Historical Resource Change – Less Than Significant Impact

Fourteen archaeological sites are located within or adjacent to the Project area. These 14 archaeological sites have not been evaluated for significance and may qualify as historical resources as defined in CEQA Guidelines Section 15064.5(a). For the purpose of this Project, these sites are being assumed to qualify as "historic resources" as defined by CEQA, and impacts to 13 of these sites will be avoided.

Site TES-PP-015H, a historic period fenceline, will be impacted by the Proposed Project, but impacts would be considered less than significant. In addition, a gate could be installed in the fence on private land, which marks the southern boundary of the Campo Indian Reservation. However, this modification to the resource would be consistent with the historic use of the resource, and would not be considered a significant impact.

Potential impacts to these 14 archaeological sites will less than significant with the implementation of Applicant Proposed Measures (APMs) CUL-1 through CUL-6, discussed in Section 4.5.4 Applicant-Proposed Measures. Preservation in-place is the preferred manner of mitigating impacts to archaeological sites. Known archaeological sites will be avoided during Project construction. Applicant-proposed measures include: demarcation of known resources, avoidance of these resources during Project construction, construction monitoring by a qualified archaeologist, and training of construction personnel.

To the extent operation and maintenance of the Proposed Project would occur in the same location as existing facilities and would have the same or substantially the same impacts, frequency and duration as operation and maintenance activities of the existing facilities, such activities are incorporated into the existing environmental setting and baseline for assessing impacts. Moreover, SDG&E already has standard internal programs and practices that avoid cultural impacts and those programs and practices would not change as a result of the Proposed Project. There would be no operational impacts on cultural resources along the Proposed Project once the Proposed Project is constructed. The only activities that would occur would be regular maintenance and repairs, such as structure and insulator replacements. These activities are the same as happen today under existing conditions, and would have no effect on historical resources. Therefore, no impacts to cultural resources are anticipated during the continuing operation and maintenance of the Proposed Project.

Question 4.5b – Archaeological Resource Change – Less Than Significant Impact

Fourteen archaeological sites are located within or adjacent to the Project area, and may be impacted by the Project. These 14 archaeological sites have not been evaluated for significance and may qualify as unique archaeological resources as defined in PRC Section 21083.2.

In addition, ground-disturbing construction activities, including grading of access roads and excavation of holes for the installation of power line poles, have the potential to impact currently unknown buried archaeological resources within the Proposed Project area by disturbing subsurface soils.

Potential impacts to archaeological resources will be less than significant with the implementation of Applicant Proposed Measures (APMs) CUL-1 through CUL-6, discussed in Section 4.5.4 Applicant-Proposed Measures. Preservation in-place is the preferred manner of mitigating impacts to archaeological sites. Known archaeological sites will be avoided during Project construction. Applicant-proposed measures include: demarcation of known resources, avoidance of these resources during Project construction, construction monitoring by a qualified archaeologist, and training of construction personnel.

To the extent operation and maintenance of the Proposed Project would occur in the same location as existing facilities and would have the same or substantially the same impacts, frequency and duration as operation and maintenance activities of the existing facilities, such activities are incorporated into the existing environmental setting and baseline for assessing impacts. Moreover, SDG&E already has standard internal programs and practices that avoid cultural impacts and those programs and practices would not change as a result of the Proposed Project. There would be no operational impacts on cultural resources along the Proposed Project once the Proposed Project is constructed. The only activities that would occur would be regular maintenance and repairs, such as structure and insulator replacements. These activities are the same as happen today under existing conditions, and would have no effect on historical resources. Therefore, no impacts to cultural resources are anticipated during the continuing operation and maintenance of the Proposed Project.

Question 4.5c – Paleontological Resource Destruction – No Impact

There is no potential for surface or subsurface occurrences of paleontological resources within the Project area because it contains only one geologic unit that has No Potential to contain fossils. Therefore, construction, operation, and maintenance activities for the Project will not result in any impacts to paleontological resources, and will not directly or indirectly destroy any unique paleontological resources or sites or unique geologic features.

Question 4.5d – Human Remains Disturbance – Less Than Significant Impact

No known cemeteries exist and no recorded Native American or other human remains have been found within or adjacent to the Proposed Project area. However, if human remain are encountered during the course of construction, SDG&E will implement the appropriate notification processes as required by law: work will be halted in the vicinity of the find and the county coroner will be notified as required by the PRC. As a result, potential impacts will be less than significant.

Because Proposed Project operation and maintenance activities will occur in the same areas disturbed by the existing TL 6931 operations and maintenance activities, they will not impact any human remains.

4.5.5 Applicant Proposed Measures

When implemented, the following APMs will reduce the potential adverse impacts to cultural resources to a less-than-significant level:

- APM-CUL-01: Archeological sites will be spanned or otherwise avoided through Project design and through routing during construction activities to the extent feasible. Known archaeological sites that can be avoided will be demarcated as Environmentally Sensitive Areas. Construction crews will be instructed to avoid disturbance of these areas. Monitoring by a qualified archaeologist will occur for all construction within 100 feet of the Environmentally Sensitive Areas.
- APM-CUL-02: Prior to construction, all SDG&E, contractor, and subcontractor Project personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs, including the potential for exposing subsurface cultural resources and paleontological resources. This training will include presentation of the procedures to be followed upon discovery or suspected discovery of archaeological materials, including Native American remains, as well as of paleontological resources.
- APM-CUL-03: A qualified archaeologist will be retained to monitor ground-disturbing activity during Project construction. The qualified archaeologist will attend preconstruction meetings, as needed, to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring will be noted on the construction plans. The archaeologist's duties will include monitoring, evaluation, analysis of collected materials, and preparation of a monitoring results report.
- APM-CUL-04: In the event that cultural resources are discovered, the archaeologist will have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist will contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The archaeologist, in consultation with SDG&E's Cultural Resource Specialist will determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. For significant cultural resources, preservation in-place will be the preferred manner of mitigating impacts. For resources that cannot be preserved in place, a Research Design and Data Recovery Program will be prepared and carried out to mitigate impacts.
- APM-CUL-05: All collected cultural artifacts will be cleaned, cataloged, and permanently curated with an appropriate institution. All artifacts will be analyzed to identify function and chronology as they relate to the history of the area. Faunal material will be identified as to species.
- APM-CUL-06: A monitoring results report (with appropriate graphics), which describes the results, analyses, and conclusions of the monitoring program, will be prepared and submitted to SDG&E's Cultural Resource Specialist and Environmental Project Manager following termination of the program. Any cultural sites or features encountered will be recorded with the SCIC at San Diego State University.

4.5.6 References

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4.6 Geology, Soils, Seismicity, and Mineral Resources

4.6.1 Introduction

This section describes existing geologic and pedogenic soil conditions related to the Proposed Project. Topography and mineral resources are also addressed. Potential geologic hazards, including those associated with strong seismic shaking, and the way these conditions and potential hazards could affect the Proposed Project are discussed. With the implementation of the applicant-proposed measures (APMs), impacts will be less than significant.

4.6.2 Methodology

Preparation of this section was primarily based on review of geologic and mineral resource literature and unpublished documents relevant to the Proposed Project area. This material included publications from the United States Geological Survey (USGS), the Natural Resource Conservation Service, and the California Geological Survey (CGS). Planning documents prepared by the County of San Diego were also reviewed.

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional APMs were identified to avoid or minimize potential impacts.

4.6.3 Existing Conditions

Regional Geology

The Proposed Project area, according to regional geologic mapping, is underlain primarily by bedrock known as the La Posta Pluton, which consists primarily of tonalite, an igneous rock. According to a geotechnical report for nearby locations, this region includes very little alluvial deposits and bedrock is generally found at or near the ground surface (VO Engineering, 2011).

Seismic Hazards

The site is located in a seismically active area, as is the majority of southern California. The most significant seismic hazard at the site is considered to be ground shaking caused by an earthquake occurring on a nearby active fault. No faults have been mapped within or in the immediate vicinity of the Proposed Project area. The closest active fault to the site is the Elsinore Fault Zone, located approximately 15 miles northeast of the Proposed Project area (Table 4.6-1). Other seismic hazards such as liquefaction, subsidence, and seiches will not impact the site.

TABLE 4.6-1
ACTIVE FAULTS

Fault	Approximate Closest Distance to the Proposed Project Area	Fault Length (miles)	Maximum Estimated Earthquake Magnitude	Approximate Slip Rate (millimeters/ year)
Elsinore	15	47	7.1	5.0
San Andreas: Coachella Segment	60	60	7.2	25.0
Brawley Seismic Zone	55	42	6.4	25.0
Imperial	50	38	7.0	5.0
Superstition Hills (part of the San Jacinto Fault Zone)	38	14	6.6	2.0
San Jacinto: Coyote Creek Segment	32	25	6.8	4.0
Laguna Salada	28	41	7.0	3.5
Rose Canyon	45	43	7.2	1.5

SOURCE: Jennings, 1994

Fault Rupture

The Alquist-Priolo Earthquake Fault Zoning Act of 1972, formerly known as the Special Studies Zoning Act, regulates construction and development of buildings intended for human occupancy to avoid rupture hazards from surface faults. Active faults have all been delineated as Alquist-Priolo Earthquake Fault Zones. This act does not specifically regulate overhead power lines, but it does aid in defining areas where fault rupture is likely to occur.

Earthquakes can occur anywhere along the various strands of the Elsinore Fault zones and other regional faults (including currently unknown faults), although only earthquakes of magnitude 6.0 or greater are likely to produce a noticeable or damaging surface fault rupture and slip (Petersen et al., 1996).

Strong Ground Motion

Strong ground motion or intensity of seismic shaking during an earthquake will be dependent on the distance from the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the Proposed Project area. Earthquakes on faults closest to the Proposed Project area or rupturing in the direction of the Proposed Project area will most likely generate the largest ground motion or shaking.

An earthquake is commonly described by the amount of energy released, which has traditionally been quantified using the Richter scale. However, seismologists have recently begun using a Moment Magnitude scale because it provides a more accurate measurement of a major earthquakes size. The Moment Magnitude and Richter Magnitude scales are almost identical for earthquakes of less than magnitude 7.0. Moment Magnitude scale readings are slightly greater than a corresponding Richter Magnitude scale reading for earthquakes with magnitudes greater than 7.0.

Review of historical earthquake activity from 1800 to 2005 indicates that many earthquakes of magnitude 6.0 or greater have occurred within 50 miles of the Proposed Project area. Table 4.6 2, Significant Historical Earthquakes, provides a summary of significant (magnitude 6.0 or greater) earthquake events and the relative distances of these events to the Proposed Project area.

TABLE 4.6 2
SIGNIFICANT HISTORICAL EARTHQUAKES

Event Date	Earthquake Name or General Location	Fault Involved (if known)	Magnitude
November 24, 1987	Superstition Hills Earthquake	Superstition Hills Fault	6.6
November 23, 1987	Elmore Ranch Fault	Elmore Ranch Fault Zone	6.2
October 15, 1979	1979 Imperial Valley Earthquake	Imperial, Brawley Fault Zone, Rico Faults	6.4
April 8, 1968	Borrego Mountain Earthquake	Coyote Creek segment of the San Jacinto Fault Zone	6.6
March 19, 1954	1954 San Jacinto Fault Earthquake	Clark Fault, part of the Anza segment of the San Jacinto Fault Zone	6.4
October 21, 1942	Fish Creek Mountains Earthquake	Coyote Creek segment of the San Jacinto Fault Zone	6.6
May 18, 1940	1940 Imperial Valley Earthquake	Imperial Fault	6.9
March 25, 1937	San Jacinto Fault (Terwilliger Valley) Earthquake	San Jacinto Fault	6.0
June 22, 1915	1915 Imperial Valley Earthquake (two strong shocks about an hour apart)	Imperial Fault	6.1 and 6.3
May 28, 1892	Borrego Mountains, aftershock of the Laguna Salada Earthquake	Coyote Creek, part of the San Jacinto Fault Zone	6.8
February 9, 1890	North end of the Borrego Desert	Assumed on the San Jacinto	6.8

SOURCE: SCEC, 2012

The intensity of ground motions induced by earthquakes can be described using peak site accelerations, represented as a fraction of the acceleration of gravity (g). California Geologic Survey (CGS) Probabilistic Seismic Hazard Assessment (PSHA) maps were used to estimate peak ground accelerations (PGAs) within the vicinity of the Proposed Project area. Considering the uncertainties regarding the size and location of potential earthquakes and resulting ground motions that can affect a particular site, PSHA maps show peak ground accelerations with 10 percent probability that they will be exceeded in 50 years, which equals an annual probability of one in 475 of being exceeded each year. Estimated PGAs for an area not far from the project site range from 0.31g to 0.32g (VO Engineering, 2011).

The Modified Mercalli Scale is another common measure of earthquake intensity, which is a subjective measure of earthquake strength at a particular place as determined by its effects on people, structures, and earth materials. Table 4.6 3, Earthquake Intensity Scale, presents the Modified Mercalli Scale for Earthquake Intensity, including a range of approximate average peak accelerations associated with each intensity value. Based on the approximate peak accelerations

provided, the Proposed Project area would fall within Intensity Range VII (refer to Table 4.6 3, Earthquake Intensity Scale).

TABLE 4.6-3
EARTHQUAKE INTENSITY SCALE

Intensity Value	Intensity Description	Average Peak Acceleration Range
I	Not felt except by very few people under especially favorable circumstances.	<0.0017 g
II	Felt only by a few people at rest, especially on upper floors on buildings. Delicately suspended objects may swing.	0.0017–0.014 g
III	Felt noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motor cars may rock slightly, vibration similar to a passing truck. Duration estimated.	
IV	During the day felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation is like a heavy truck striking building. Standing motor cars rock noticeably.	0.014–0.039 g
V	Felt by nearly everyone, many awakened. Some dishes and windows broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles may be noticed. Pendulum clocks may stop.	0.039–0.092 g
VI	Felt by all, many frightened and run outdoors. Some heavy furniture moves and plaster falls or chimneys are damaged. Damage slight.	0.092–0.18 g
VII	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by people driving motor cars.	0.18–0.34 g
VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. People driving motor cars disturbed.	0.34–0.65 g
IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	0.65–1.24 g
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.	
XI	Few, if any, masonry structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	>1.24 g
XII	Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.	

SOURCE: Bolt, 1988; Wald, 1999

Liquefaction

Liquefaction is the result of increased pore pressure in saturated granular soils due to strong seismic shaking. Higher pore pressure occurs as the soil attempts to compact in response to the shaking, resulting in less grain-to-grain soil contact and, therefore, loss of strength. Structures supported by a liquefying soil may sustain damage because of loss of foundation support. The

project sites are underlain by La Posta Tonalite bedrock. With the absence of alluvial and formational material, the project site is not considered to be susceptible to liquefaction (VO Engineering, 2011).

Slope Instability

Many major historical earthquakes in the Proposed Project region show correlation between the occurrence of damaging landslides and earthquake ground shaking. Strong ground motion can also result in rockfall hazards. The locations susceptible to earthquake-induced failure include highly weathered and unconsolidated materials on moderately steep slopes (especially areas of previously existing landslides). In general, the Proposed Project area has relatively gentle topography and is not located in a region that is generally susceptible to slope instability hazards.

Differential Settlement

If the soil beneath a structure settles non-uniformly, the structure can be damaged. The reasons for differential settlement are usually traced to differences in bearing characteristics of the soils. Alternatively, a portion of the soil beneath a structure may lose strength during an earthquake due to liquefaction. If liquefaction occurs non-uniformly, differential compaction will occur. As mentioned above, the Project area is predominantly underlain by bedrock at or near the surface such that differential settlement would not be anticipated to have any substantial effect.

Subsidence

Subsidence occurs most often when fluids are withdrawn from the ground, removing partial support for previously saturated soils. More rarely, subsidence occurs due to tectonic down-warping during earthquakes. Neither source of subsidence appears to be present in the Proposed Project area, making the probability of damage due to subsidence very low.

Soils

The soils in the vicinity of the Proposed Project area reflect the underlying rock type, the extent of weathering, and the topography, as well as the degree of human modification. Properties of soil that influence erosion by rainfall and runoff are ones that affect the infiltration capacity of soil, as well as the resistance of a soil to detachment and being carried away by flowing water. Soils with a high percentage of fine sands and silt that are also low in density are generally the most erodible. The potential for erosion decreases as organic matter and clay content increases.

Clay acts as a binder to soil particles and reduces the potential for erosion. Although clays tend to resist erosion, once they are eroded, they can be easily transported by water. Clean, well-drained, and well-graded gravels and sand-gravel mixtures are commonly the least erodible soils. Highly permeable soils and soils with high infiltration rates reduce the amount of runoff.

Soil corrosivity is related to the electrical resistivity of the soil, oxygen content, pH, and presence of chlorides and sulfates. The most corrosive soils typically have the lowest pH and highest concentration of chlorides and sulfates. Soils with high sulfate content are corrosive to concrete and may prevent adequate curing, which can considerably reduce strength. Low pH or low electrical resistivity (or both) soils may corrode buried or partially buried metallic structures.

Expansive Soils

Expansive soils are characterized by the ability to undergo significant volume change (shrink and swell) as a result of variation in soil moisture content. Soil moisture content can change due to many factors, including perched groundwater, landscape irrigation, rainfall, and utility leakage. Expansive soils are commonly very fine-grained with a high to very high percentage of clay.

Proposed improvements are anticipated to be underlain by bedrock at shallow depths. Any weathered soils that are generated from the bedrock are typically considered to have "very low" expansion indices and suitable for use as structural fills to develop the finished pad grades, if necessary.

Mineral Resources

The State Geologist has classified certain areas of the County as underlain by significant mineral deposits. These areas are identified as Mineral Resource Zone 2 (MRZ-2) on the maps prepared by the CGS (Figure C-4 [Mineral Resource Zones]). Some of these areas have also been designated by the State Mining and Geology Board as containing mineral resources of "statewide or regional significance."

The term "mineral resource" refers to a concentration or occurrence of a naturally occurring material in such form or amount that economic extraction of a commodity is currently potentially feasible. In San Diego County, there are three general categories of important mineral resources, including construction materials, industrial and chemical mineral materials, and metallic and rare materials. Although mineral resources of all types are economically important, the continued availability of construction aggregate for the development of roads, homes, buildings, and other infrastructure is essential to the economy of the County. While the County is underlain by vast quantities of mineral deposits from which aggregate can be produced, urban development has encroached upon many existing and potential future mining sites. This development and other non-compatible land uses has reduced or eliminated access to many of the local important mineral deposits.

Two mineral classification reports have been completed for San Diego County; these include (1) Mineral Land Classification: Aggregate Materials in the Western San Diego County Production-Consumption Region, and (2) Update of Mineral Land Classification: Aggregate Materials in the Western San Diego County Production-Consumption Region. The Western San Diego County Production-Consumption Region lies west of the Proposed Project site and, therefore, there are no known mapped mineral resource zone areas that intersect the Project area.

4.6.4 Impacts

Significance determinations of impacts to geology, soils, seismicity, and mineral resources are summarized below. Potential impacts are discussed in detail in the following sections. Impacts to geology, soils, seismicity, and mineral resources from the Proposed Project will be less than significant.

Would the project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) 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?1	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) 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?	☐	☐	☒	☐
d) 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?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) 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?	☐	☐	☐	☒
g) 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?	☐	☐	☐	☒

Significance Criteria

Standards of significance were derived from Appendix G of the California Environmental Quality Act (CEQA) Guidelines. These standards are summarized as follows:

Geology and Soils

Impacts to geology and soils will be considered significant if the Proposed Project:

- Exposes people or structures to potential substantial adverse effects involving strong seismic ground shaking, fault rupture, liquefaction, or landslides;

1 Refers to Divisions of Mines and Geology Special Publication #42

- Results in substantial soil erosion or the loss of topsoil;
- Is located on a geologic unit or soil that is unstable, or that will become unstable as a result of the Proposed Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- Is located on expansive soil, as defined in Table 18-1-B of the UBC (1994), creating substantial risks to life or property; or
- Is located on 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

Impacts to mineral resources will be considered significant if the Proposed Project:

- Results in the loss of availability of a known mineral resource that may be of value to the region and the residents of the State; or
- Results in the loss of availability of a locally important mineral resource recovery site that is delineated on a local general plan, specific plan, or other land use plan.

Question 4.6a – Human Safety and Structure Integrity – Less Than Significant Impact

i. Earthquake Fault Rupture

The Proposed Project will not cross nor be in close proximity of any active faults. The nearest active fault, the Elsinore Fault, is located approximately 15 miles northeast, which is well outside of any area that would be expected to experience fault rupture. Therefore, the likelihood of fault rupture is anticipated to be less than significant.

ii. Strong Seismic Shaking

The Proposed Project area may be subject to relatively strong seismic shaking due to earthquakes. However, the Proposed Project will be engineered to withstand strong ground movement and moderate ground deformation. Incorporation of standard engineering practices will ensure that people or structures will not be exposed to hazards associated with strong seismic ground shaking. As a result, impacts will be less than significant.

iii. Ground Failure

Because of the relatively deep water table, presence of granite outcroppings, and well-graded alluvial deposits, ground failure and liquefaction are not considered potential hazards in the Proposed Project area. However, the potential exists for poorly graded soils and shallow water to be present within drainages that cross the proposed right-of-way (ROW). Although these conditions may exist, the possibility of ground failure resulting from them is considered unlikely due to the general coarse granular nature of the alluvium in the region. Therefore, impacts will be less than significant.

iv. Landslides

Hazards related to slope instability and landslides are generally associated with foothill areas and mountain terrain, as well as steep riverbanks and levees. The Proposed Project will predominantly be located in areas that contain flat to gently sloping terrain. Therefore, impacts associated with geologic unit and soil instability will be less than significant.

Question 4.6b – Soil Erosion or Topsoil Loss – Less Than Significant Impact

The area disturbed by construction activities would be greater than one acre. Grading and other ground disturbing activities will potentially expose soil to erosion by removing the vegetative cover and compromising the soil structure. Rain and wind may potentially further detach soil particles and transport them off site. With the implementation of the Proposed Project's Stormwater Pollution Prevention Plan (SWPPP) and Best Management Practices (BMP) Manual for Water Quality Construction (SDG&E, 2011), soil erosion will be minimized (refer to Section 4.8 Hydrology and Water Quality for more details regarding the SWPPP and Water Quality Construction BMP Manual). Potential impacts from erosion or topsoil loss will be temporary during construction activities and controlled through the use of BMPs, therefore, impacts will be less than significant.

Operation and maintenance of the Proposed Project components will not typically involve any further ground-disturbing activities or grading. In the unlikely event that any future grading is required, SDG&E will implement the Proposed Project SWPPP and associated BMPs. Additionally, existing access roads will be used for routine operation and maintenance activities. Therefore, impacts to soil erosion or topsoil will be less than significant.

Question 4.6c – Geologic Unit Instability – Less-than-Significant Impact

The Proposed Project area is subject to relatively strong seismic shaking due to earthquakes. However, as described previously in the response to Question 4.6a, overhead power facilities and substations are engineered to withstand strong ground movement and moderate ground deformation. The Proposed Project component sites are not located in an area with the potential for liquefaction and are not likely to be subject to subsidence because operation and maintenance activities at these sites will not involve the withdrawal of substantial groundwater that can cause subsidence.

The majority of the Proposed Project components will be located on relatively flat to gently sloping terrain; therefore, little potential exists for slope failure. The foundation design of the proposed improvements will be developed to minimize risks associated with slope failure or instability. As a result, impacts associated with geologic unit and soil instability will be less than significant.

Question 4.6d – Expansive Soils – Less-than-Significant Impact

As described in Section 4.6.3, Existing Conditions, bedrock is anticipated at shallow depths across the Project area. Extremely expansive soils may damage Proposed Project structures and facilities and can result in collapse. Power outages, damage to nearby roads or structures, and injury or death to nearby people may result from collapse of Proposed Project structures and facilities. While the soils in the Proposed Project areas are not anticipated to have enough clay

content to result in large expansions, implementation of APM-GEO-01 in Section 4.6.5 Applicant Proposed Measures, which includes the incorporation of design recommendations in accordance with a final Geotechnical Report to be prepared for the Proposed Project, will ensure that risks associated with expansive soils will be less than significant.

Question 4.6e – Soil Permeability – No Impact

Soil permeability is a consideration for projects that require septic system installation. Because the Proposed Project will not involve the installation of a septic tank or alternative wastewater disposal system, no impacts will occur.

Question 4.6f – Loss of Regional- or State-Valued Mineral Resources – No Impact

No active mining operations or known areas designated or delineated for mineral resource recovery are within the Proposed Project area. In addition, no known mineral resources that have noted value to the region and to the residents of the state will be impacted by the Proposed Project. As a result, the Proposed Project will have no impact on mineral resources.

Question 4.6g – Loss of Locally Important Mineral Resources – No Impact

No known mineral resources are locally important within the vicinity of the Proposed Project area; therefore, no impacts will occur.

4.6.5 Applicant Proposed Measures

The following APM will ensure that impacts associated with expansive soils or other geological hazards will be less-than-significant:

- APM-GEO-01: SDG&E will consider the recommendations and findings of the final Geotechnical Report in the final design of all Project components to ensure that the potential for expansive soils and differential settling is compensated for in the final design and construction techniques. In addition, SDG&E will comply with all applicable codes and seismic standards. The final design will be reviewed and approved by a Professional Engineer registered in the State of California prior to construction.

4.6.6 References

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San Diego Gas and Electric, Best Management Practices Manual for Water Quality Construction. December 2010, revised July 2011.

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4.7 Greenhouse Gas Emissions

4.7.1 Introduction

This section provides a discussion of global climate change, existing regulations pertaining to global climate change, and potential greenhouse gas (GHG) emissions resulting from construction and operation of the Proposed Project. Although GHG emissions will result during construction, operation, and maintenance activities, the potential GHG impacts from the Proposed Project will be less than significant.

4.7.2 Methodology

This section describes the methodologies and assumptions used for identifying and analyzing the Proposed Project's emissions of GHGs. As opposed to localized air quality effects of criteria air pollutants and toxic air contaminants, impacts of GHGs are borne globally. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known. However, it is clear that the quantity is enormous, and no single project would measurably contribute to a noticeable incremental change in the global average temperature, or to global, local, or micro climates. From the standpoint of the California Environmental Quality Act (CEQA), GHG impacts to global climate change are inherently cumulative. Thus, the analysis of emissions of GHGs associated with the Proposed Project is considered on a cumulative basis.

The San Diego County Air Pollution Control District (SDAPCD), which is the primary agency responsible for planning, implementing, and enforcing federal and state ambient standards in San Diego County, has not formally adopted a significance threshold for GHG emissions generated by a project or a uniform methodology for analyzing impacts related to GHG emissions on global climate change. Similarly, the County has not adopted any significance criteria or guidelines for GHG analysis. CEQA Guidelines Section 15064.4: "A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from a project." Consistent with this section, construction and operational emissions associated with the Proposed Project have been quantified using methods described below.

Construction-related GHG emissions were estimated using a similar methodology to that described for criteria air pollutants in Section 4.3 Air Quality of this PEA. The Proposed Project's construction and operational emissions were estimated using CalEEMod, which is a statewide land use emissions computer model that was designed to quantify potential criteria pollutant and GHG emissions associated with both construction and operational from a variety of land use projects. CalEEMod estimates the emissions of construction-related GHG sources such as off-road construction equipment, material delivery trucks, soil haul trucks, and construction worker vehicles.

Operational emissions of GHGs, including GHGs generated by direct and indirect sources, are also estimated using CalEEMod. Direct sources of GHGs for projects typically include emissions

from onsite stationary sources, vehicle trips, natural gas consumption, and landscape maintenance. Indirect sources include offsite emissions occurring as a result of a project's operations, such as electricity and water consumption. Under the Proposed Project, the proposed interconnection power lines would only serve to collect and transmit the electricity produced by the Shu'luuk Wind Project, as well as other future potential renewable energy projects in the area, to the Boulevard East Substation. As such, with the exception of vehicle trips, off-road equipment, and helicopter usage associated with routine maintenance, monitoring, and inspection activities, there would not be any other direct sources of GHG emissions generated during operation of the Proposed Project. In addition, as the Proposed Project is intended to provide interconnection facilities for wind energy in the area, the operation of the Proposed Project would not result in any indirect sources of GHG emissions since it would not require the provision of energy (electricity) by a separate electric utility provider.

Aside from evaluating the Proposed Project's GHG impact quantitatively, significance is also assessed by determining whether the Proposed Project is consistent with the Recommended Actions to reduce GHG emissions that the California Air Resources Board (ARB) identified in its Climate Change Scoping Plan under the California Global Warming Solutions Act (AB 32).

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional Applicant Proposed Measures (APMs) were identified to avoid or minimize potential impacts.

4.7.3 Existing Conditions

This section presents a discussion of the current GHG regulatory background, existing climate conditions, the current state of climate change science, and GHG emissions sources in California.

Regulatory Background

Federal

The federal Clean Air Act (CAA) requires the United States Environmental Protection Agency (EPA) to define national ambient air quality standards to protect public health and welfare in the U.S. The CAA does not specifically regulate GHG emissions; however, on April 2, 2007, the U.S. Supreme Court in *Massachusetts v. U.S. Environmental Protection Agency* determined that GHGs are pollutants that can be regulated under the CAA. Currently, there are no federal regulations that establish ambient air quality standards for GHGs.

On December 7, 2009, EPA adopted its Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the CAA (Endangerment Finding). The Endangerment Finding is based on Section 202(a) of the CAA, which states that the administrator of EPA should

regulate and develop standards for "emission[s] of air pollution from any class or classes of new motor vehicles or new motor vehicle engines, which in [its] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." The rule addresses Section 202(a) in two distinct findings. The first addresses whether the concentrations of the six key GHGs (carbon dioxide [CO_2], methane [CH_4], nitrous oxide [N_2O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF_6]) in the atmosphere threaten the public health and welfare of current and future generations. The second addresses whether the combined emissions of GHGs from new motor vehicles and motor vehicle engines contribute to atmospheric concentrations of GHGs and, therefore, contribute to the threat of climate change.

The Administrator of EPA found that atmospheric concentrations of GHGs endanger the public health and welfare within the meaning of Section 202(a) of the CAA. The evidence supporting this finding consists of human activity resulting in "high atmospheric levels" of GHG emissions, which are likely responsible for increases in average temperatures and other climatic changes. Furthermore, the observed and projected results of climate change (e.g., higher likelihood of heat waves, wildfires, droughts, sea level rise, and higher intensity storms) are a threat to the public health and welfare. Therefore, GHGs were found to endanger the public health and welfare of current and future generations.

The Administrator of EPA also found that GHG emissions from new motor vehicles and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHGs fit within the CAA's definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements but rather allow EPA to finalize the GHG standards proposed earlier in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation. These standards would apply to the Proposed Project and are described in detail in the next section. All mobile sources, including trips generated by the Proposed Project, would be required to comply with these regulations as they are implemented.

State

The California Air Resources Board (ARB) is the agency responsible for coordination and oversight of state and local air pollution control programs in California. Various statewide and local initiatives to reduce the State's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term. Because every nation emits GHGs and therefore makes an incremental cumulative contribution to global climate change, cooperation on a global scale will be required to reduce the rate of GHG emissions to a level that can help to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

There are currently no state regulations in California that establish ambient air quality standards for GHGs. However, California has passed laws directing ARB to develop actions to reduce GHG

emissions, and several state legislative actions related to climate change and GHG emissions have come into play in the past decade.

Assembly Bill 1493

In 2002, then-Governor Gray Davis signed Assembly Bill (AB) 1493. AB 1493 requires that ARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by ARB to be vehicles whose primary use is noncommercial personal transportation in the State."

To meet the requirements of AB 1493, in 2004, ARB approved amendments to the California Code of Regulations (CCR) adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR 1900, 1961), and adoption of Section 1961.1 (13 CCR 1961.1) require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily for the transportation of persons), beginning with the 2009 model year. For passenger cars and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 pounds or less, the GHG emission limits for the 2016 model year are approximately 37 percent lower than the limits for the first year of the regulations, the 2009 model year. For light-duty trucks with LVW of 3,751 pounds to gross vehicle weight (GVW) of 8,500 pounds, as well as medium-duty passenger vehicles, GHG emissions would be reduced approximately 24 percent between 2009 and 2016.

On September 15, 2009, EPA and the Department of Transportation's National Highway Safety Administration (NHTSA) proposed a national program to reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States. The combined EPA and NHTSA standards that make up the proposed national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon (mpg). Under the proposed national program, automobile manufacturers would be able to build a single light-duty national fleet that satisfies all requirements under both the national program and the standards of California and other states, while ensuring that consumers still have a full range of vehicle choices. In order to promote the adoption of the national program, ARB has adopted amendments to the GHG emissions standards for new passenger vehicles from 2009 through 2016. In December 2011, NHTSA and EPA issued a joint proposal to extend the national program to further improve fuel economy and reduce GHG emissions for passenger and light-duty vehicles for model years 2017 to 2025. This would be accomplished through new proposed Corporate Average Fuel Economy (CAFE) standards by NHTSA and new GHG emission standards by EPA. The proposed CAFE standards are projected to require, on an average industry-fleet-wide basis for cars and trucks combined, 40.1 mpg in model year 2021, and 49.6 mpg in model year 2025. EPA's proposed GHG standards, which would be harmonized with NHTSA's CAFE standards, are projected to require 163 grams/mile (54.5 mpg) of CO_2 in model year 2025. All mobile sources, including trips generated by the Proposed Project, would be required to comply with these regulations as they are phased in.

Executive Order S-3-05

Executive Order S-03-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total GHG emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The Executive Order directed the Secretary of California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary will also submit biannual reports to the Governor and State Legislature describing progress made toward reaching the emission targets, impacts of global warming on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of CalEPA created the California Climate Action Team (CCAT) made up of members from various state agencies and commissions. CCAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government, and community actions, as well as through State incentive and regulatory programs.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

In September 2006, Governor Arnold Schwarzenegger signed the California Global Warming Solutions Act (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished by enforcing a statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires ARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state reduces GHG emissions enough to meet the cap. AB 32 also includes guidance on instituting emissions reductions in an economically efficient manner, along with conditions to ensure that businesses and consumers are not unfairly affected by the reductions. According to the Scoping Plan (ARB, 2008), the 2020 target of 427 million metric tons (MMT) of CO_2e requires the reduction of 169 $MMTCO_2e$, or approximately 28.4 percent, from the state's projected 2020 business-as-usual (BAU) emissions level of 596 $MMTCO_2e$. However, ARB has discretionary authority to seek greater reductions in more significant and growing GHG sectors, such as transportation, as compared to other sectors that are not anticipated to significantly increase emissions. In August 2011, the Scoping Plan was re-approved by the ARB Board and includes the *Final Supplement to*

the Scoping Plan Functional Equivalent Document (ARB, 2011). This document includes expanded analysis of project alternatives as well as updates the 2020 emission projections in light of the current economic forecasts. Considering the updated 2020 BAU estimate of 507 $MMTCO_2e$, a 16 percent reduction below the estimated BAU levels would be necessary to return to 1990 levels by 2020. The document also excludes one measure identified in the Scoping Plan that has been adopted and one measure that is no longer under consideration by ARB (ARB, 2011).

Senate Bill 1368

SB 1368 (Perata, Chapter 598, Statutes of 2006) is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (CPUC) to establish a GHG emission performance standard for baseload generation from investor-owned utilities. CPUC adopted a GHG Emissions Performance Standard in January 2007. The California Energy Commission (CEC) adopted consistent regulations for implementing and enforcing SB 1368 for the state's publicly-owned utilities in August 2007. These standards cannot exceed the GHG emission rate from a baseload combined-cycle natural gas-fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the CPUC and CEC.

Executive Order S-1-07

Executive Order S-1-07, which was signed by then-Governor Schwarzenegger in 2007, proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least 10 percent by 2020. This order also directs ARB to determine whether this low carbon fuel standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009, ARB approved the proposed regulation to implement LCFS. LCFS will reduce GHG emissions from the transportation sector in California by about 16 MMT in 2020. LCFS is designed to reduce California's dependence on petroleum, create a lasting market for clean transportation technology, and stimulate the production and use of alternative, low-carbon fuels in California. LCFS is designed to provide a durable framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. One standard is established for gasoline and the alternative fuels that can replace it. A second similar standard is set for diesel fuel and its replacements.

Industry trade organizations representing ethanol producers, refiners, and truckers brought a lawsuit in federal trial court alleging that LCFS violates the federal Commerce Clause by unfairly prejudicing out-of-state commerce, since more carbon emissions would always result from transporting fuels from other states to California compared to carbon emissions generated by fuel in California. The industry trade organizations also allege that LCFS is preempted by the federal Renewable Fuel Standards. The federal trial court ruled in favor of the industry trade

organizations, and CARB has appealed to the federal appeals court. CARB continues to enforce LCFS during the litigation.

Senate Bill 97

SB 97, signed August 2007 (Chapter 185, Statutes of 2007; PRC Sections 21083.05 and 21097), acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. The bill directed the California OPR to prepare, develop, and transmit to the California Natural Resources Agency, guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Natural Resources Agency was required to certify or adopt those guidelines by January 1, 2010. On April 13, 2009, OPR submitted to the Secretary for Natural Resources its proposed amendments to the *CEQA Guidelines* for GHG emissions, as required by SB 97. On February 16, 2010, the Office of Administrative Law approved the amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The amendments became effective on March 18, 2010.

Senate Bills 1078 and 107 and Executive Order S-14-08

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, then-Governor Schwarzenegger signed Executive Order S-14-08, which expands the State's Renewables Energy Standard to 33 percent renewable power by 2020. In April 2011, Governor Jerry Brown signed SB 2X, which created a legislative mandate codifying the 33 percent Renewables Portfolio Standard.

Senate Bill 375

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan (RTP). ARB, in consultation with MPOs, has provided each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding programmed after January 1, 2012.

This law also extends the minimum time period for the regional housing needs allocation cycle from five years to eight years for local governments located within an MPO that meet certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

ARB Early Action Measures

In June 2007, ARB directed staff to pursue 37 early actions for reducing GHG emissions under AB 32 (California Health and Safety Code Division 25.5, Sections 38500 - 38599). The broad spectrum of strategies to be developed—including LCFS, regulations for refrigerants with high global warming potential, guidance and protocols for local governments to facilitate GHG reductions, and green ports—reflects the government's responsive actions to immediately address GHGs. In addition to approving the 37 GHG reduction strategies, ARB directed staff to further evaluate early action recommendations made at the June 2007 meeting, and to report back to ARB within six months. ARB's approach suggested a desire to try to pursue greater GHG emissions reductions in California in the near-term. ARB staff evaluated all recommendations submitted by several stakeholders and several internally-generated staff ideas, and published a draft list of early action measures in September 2007. The list was expanded to 44 measures in October 2007 (ARB, 2007). The Board has also identified nine Discrete Early Action measures to date, including potential regulations affecting landfills, motor vehicle fuels, refrigerants in cars, port operations, and other sources.

ARB Climate Change Scoping Plan

ARB's Scoping Plan (ARB, 2008) calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors, i.e., transportation, electrical power, commercial, residential, industrial etc. ARB used three-year average emissions, by sector, for 2002-2004 to forecast emissions to 2020. At the time ARB's Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available. The measures described in ARB's Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32 (discussed above).

ARB's Scoping Plan also breaks down the amount of GHG emissions reductions ARB recommends for each emissions sector of the state's GHG inventory. ARB's Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO_2e);
- LCFS (15.0 MMT CO_2e);
- Energy efficiency measures in buildings and appliances, and the widespread development of combined heat and power systems (26.3 MMT CO_2e); and
- A renewable portfolio standard for electricity production (21.3 MMT CO_2e).

ARB has identified a GHG reduction target of 5 MMT (of the 174 MMT total) for local land use changes (Table 2 of ARB's Scoping Plan), by Implementation of Reduction Strategy T-3 regarding Regional Transportation-Related GHG Targets. Additional land use reductions may be achieved as SB 375 is implemented. ARB's Scoping Plan states that successful implementation of the plan relies on local governments' land use, planning, and urban growth decisions because

local governments have primary authority to plan, zone, approve, and permit land development to accommodate population growth and the changing needs of their jurisdictions. ARB further acknowledges that decisions on how land is used will have large effects on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. ARB's Scoping Plan does not include any direct discussion about GHG emissions generated by construction activity.

ARB's Scoping Plan expands the list of nine Discrete Early Action Measures to a list of 39 Recommended Actions contained in Appendices C and E of ARB's Scoping Plan. These measures are presented in Table 4.7-1: Recommended Actions From ARB Climate Change Scoping Plan.

TABLE 4.7-1
RECOMMENDED ACTIONS FROM ARB CLIMATE CHANGE SCOPING PLAN

ID #	Sector	Strategy Name
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards
T-2	Transportation	LCFS (Discrete Early Action)
T-3	Transportation	Regional Transportation-Related GHG Targets
T-4	Transportation	Vehicle Efficiency Measures
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)
T-6	Transportation	Goods-movement Efficiency Measures
T-7	Transportation	Heavy Duty Vehicle GHG Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization
T-9	Transportation	High Speed Rail
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs More stringent Building and Appliance Standards
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh
E-3	Electricity and Natural Gas	Renewables Portfolio Standard
E-4	Electricity and Natural Gas	Million Solar Roofs
CR-1	Electricity and Natural Gas	Energy Efficiency
CR-2	Electricity and Natural Gas	Solar Water Heating
GB-1	Green Buildings	Green Buildings
W-1	Water	Water Use Efficiency
W-2	Water	Water Recycling
W-3	Water	Water System Energy Efficiency
W-4	Water	Reuse Urban Runoff
W-5	Water	Increase Renewable Energy Production
W-6	Water	Public Goods Charge (Water)
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission
I-4	Industry	Refinery Flare Recovery Process Improvements
I-5	Industry	Removal of CH_4 Exemption from Existing Refinery Regulations
RW-1	Recycling and Waste Management	Landfill CH_4 Control (Discrete Early Action)
RW-2	Recycling and Waste Management	Additional Reductions in Landfill CH_4 – Capture Improvements
RW-3	Recycling and Waste Management	High Recycling/Zero Waste
F-1	Forestry	Sustainable Forest Target

ID #	Sector	Strategy Name
H-1	High GWP Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)
H-2	High GWP Gases	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)
H-3	High GWP Gases	Reduction in Perfluorocarbons in Semiconductor Manufacturing (Discrete Early Action)
H-4	High GWP Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)
H-5	High GWP Gases	High GWP Reductions from Mobile Sources
H-6	High GWP Gases	High GWP Reductions from Stationary Sources
H-7[a]	High GWP Gases	Mitigation Fee on High GWP Gases
A-1	Agriculture	CH_4 Capture at Large Dairies

[a] This original measure in the 2008 Scoping Plan was subsequently excluded by ARB in the Final Supplement to the Scoping Plan Functional Equivalent Document in 2011, as ARB staff concluded that implementation of this measure would not be feasible.

SOURCE: ARB, 2008.

OPR's 2008 Technical Advisory

On June 19, 2008, OPR published a technical advisory on CEQA and Climate Change. The advisory provided OPR's perspective on the emerging role of CEQA in addressing climate change and greenhouse gas emissions, while recognizing that approaches and methodologies for calculating greenhouse gas emissions and addressing environmental impacts through CEQA review are rapidly evolving. The advisory recognized that OPR would develop amendments to the CEQA Guidelines pursuant to SB 97 as was done in 2010. The Natural Resources Agency would then adopt these amendments. The technical advisory pointed out that neither CEQA nor the CEQA Guidelines prescribe quantitative thresholds of significance or particular methodologies for performing an impact analysis by stating, "This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable" (OPR, 2008). This deference to lead agencies was memorialized in the CEQA Guidelines Section 15064.4 as discussed below. OPR recommended, at the time, that "the global nature of climate change warrants investigation of a statewide threshold of significance for GHG emissions" (OPR, 2008).

Until such a standard is established, OPR advises that each lead agency should develop its own approach to performing analyses for projects that generate GHG emissions (OPR, 2008). Agencies should then assess whether the emissions are "cumulatively considerable" even though a project's greenhouse gas emissions may be individually limited. OPR states, "Although climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment" (OPR, 2008). Based on this, individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice (OPR, 2008).

If the lead agency determines emissions are a cumulatively considerable contribution to a significant cumulative impact, then the lead agency must investigate and implement ways to mitigate the emissions (OPR, 2008). OPR states that "Mitigation measures will vary with the type of project being contemplated, but may include alternative project designs or locations that

conserve energy and water, measures that reduce vehicle miles traveled (VMT) by fossil-fueled vehicles, measures that contribute to established regional or programmatic mitigation strategies, and measures that sequester carbon to offset the emissions from the project" (OPR, 2008). OPR concludes that "a lead agency is not responsible for wholly eliminating all GHG emissions from a project; the CEQA standard is to mitigate to a level that is "less than significant" (OPR, 2008). The technical advisory includes a list of mitigation measures that can be applied on a project-by-project basis.

CEQA Guidelines Revisions

In 2007, the State Legislature passed SB 97, which required amendment of the CEQA Guidelines to incorporate analysis of, and mitigation for, GHG emissions from projects subject to CEQA. The California Natural Resources Agency adopted these amendments on December 30, 2009. They took effect on March 18, 2010, after review by the Office of Administrative Law and filing with the Secretary of State for inclusion in the California Code of Regulations.

The Guidelines revisions include a new section (Sec. 15064.4) that specifically addresses the potential significance of GHG emissions. Section 15064.4 calls for a "good-faith effort" to "describe, calculate or estimate" GHG emissions. Section 15064.4 further states that the analysis of the significance of any GHG impacts should include consideration of the extent to which the project would increase or reduce GHG emissions; exceed a locally applicable threshold of significance; and comply with "regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions." The new guidelines also state that a project may be found to have a less-than-significant impact on GHG emissions if it complies with an adopted plan that includes specific measures to sufficiently reduce GHG emissions (Sec. 15064(h)(3)). Importantly, however, the CEQA Guidelines do not require or recommend a specific analytical methodology or provide quantitative criteria for determining the significance of GHG emissions.

No quantitative significance threshold is included in the Amendments. The CEQA Guidelines afford the customary deference provided to lead agencies in their analysis and methodologies. OPR emphasizes the necessity of having a consistent threshold available to analyze projects, and the analyses should be performed based on the best available information. For example, if a lead agency determines that GHGs may be generated by a proposed project, the agency is responsible for assessing GHG emissions by type and source. The CEQA Guidelines Amendments provide the following recommendations for determining the significance of GHG emissions under Section 15064.4:

(a) The determination of the significance of GHG emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of GHG emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

    (1) Use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial

evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or

(2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency may consider the following when assessing the significance of impacts from GHG emissions on the environment:

(1) The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting;

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The Amendments also include a new Subdivision 15064.7(c) that clarifies that in developing thresholds of significance, a lead agency may appropriately review thresholds developed by other public agencies, or recommended by other experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.

In addition, the Amendments include a new Section 15183.5 that provides for tiering and streamlining the analysis of GHG emissions. Project-specific environmental documents may rely on an EIR containing a programmatic analysis of GHG emissions in the region over a specified time period.

Finally, the Amendments add a new set of environmental checklist questions (VII. Greenhouse Gas Emissions) to the CEQA Guidelines Appendix G.

Local

San Diego Association of Governments Climate Action Strategy

The San Diego Association of Governments (SANDAG), which is an association of local San Diego County governments, developed the Climate Action Strategy in 2010, as a tool to guide climate change policy. The Strategy identifies a range of potential policy measures for consideration as SANDAG updates long-term planning documents like the Regional Transportation Plan (RTP) and Regional Comprehensive Plan (RCP), and as local jurisdictions update their General Plans and other community plans. The Strategy helps SANDAG identify land use, transportation, and related policy measures and investments that could reduce GHGs from passenger cars and light-duty trucks as part of the development of a Sustainable Communities Strategy for the 2050 RTP in compliance with Senate Bill 375. Potential policy

measures also are identified for buildings and energy use, protecting transportation and energy infrastructure from climate impacts, and to help SANDAG and local jurisdictions reduce GHGs from their operations.

Affected Environment

Climate

Climate is the accumulation of daily and seasonal weather events over a long period of time, whereas weather is defined as the condition of the atmosphere at any particular time and place. The project area is located in the San Diego Air Basin (SDAB) with a distinctive climate determined by its terrain and geographic location. The climate of the SDAB is dominated by a semi-permanent high pressure cell located over the Pacific Ocean, which influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The combination of topography and climate influence air quality in the SDAB and are constraints to efforts to reduce air pollution in the region. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. This warm upper layer forms a cap over the cool marine layer and inhibits pollutants in the marine layer from dispersing away from the surface. In addition, light winds during the summer further limit ventilation.

Climate Change Overview

Various gases in the earth's atmosphere, classified as GHGs, play a critical role in determining its surface temperature. Solar radiation enters earth's atmosphere from space, and a portion of the radiation is absorbed by the earth's surface. Earth re-radiates this energy back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation (that otherwise would have escaped back into space) is now retained in the atmosphere, and results in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are CO_2, CH_4, N_2O, HFCs, CFCs, PFCs, and SF_6. Much of the scientific literature suggests that human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect and have led to a trend of unnatural warming of earth's climate, known as global climate change or global warming. While there is some debate regarding this issue, it is unlikely that global climate change of the past 50 years can be explained without contribution from human activities (IPCC, 2007).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one year to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be

pinpointed, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions, approximately 54 percent is sequestered through ocean uptake, uptake by northern hemisphere forest regrowth, and other terrestrial sinks within 1 year, whereas the remaining 46 percent of human-caused CO_2 emissions remains stored in the atmosphere (Seinfeld and Pandis, 1998).

As discussed previously, impacts of GHGs are borne globally, as opposed to localized air quality effects of criteria air pollutants and toxic air contaminants. While the quantity of GHGs that it takes to ultimately result in climate change is not precisely known, it is clear that no single project would measurably contribute to a noticeable incremental change in the global average temperature, or to global, local, or micro climates. Thus, from the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

Greenhouse Gas Emission Sources

According to much of the scientific literature on this topic, emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural sectors (ARB, 2010). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (ARB, 2010). Emissions of CO_2 are byproducts of fossil fuel combustion. Methane, a highly potent GHG, results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Nitrous oxide is also largely attributable to agricultural practices and soil management. Carbon dioxide sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution, respectively, two of the most common processes of CO_2 sequestration.

California is the 12th to 16th largest emitter of CO_2 in the world (CEC, 2006). California produced 478 million gross metric tons of CO_2 equivalent (CO_2e) in 2008 (ARB, 2010). CO_2e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. Expressing emissions in CO_2e takes the contributions to the greenhouse effect of all GHG emissions and converts them to the equivalent effect that would occur if only CO_2 were being emitted. This measurement, known as the global warming potential (GWP) of a GHG, is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, as described in Appendix C, Calculation References, of the General Reporting Protocol of the California Climate Action Registry (CCAR), one ton of CH_4 has the same contribution to the greenhouse effect as approximately 21 tons of CO_2 (CCAR, 2009). Therefore, CH_4 is a much more potent GHG than CO_2.

Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2008, accounting for 37 percent of total GHG emissions in the state (ARB, 2010). This sector was followed by the electric power sector (including both in-state and out-of-state sources) (25 percent) and the industrial sector (20 percent) (ARB, 2010).

SDG&E GHG Emissions Reduction Efforts

SDG&E has been a member of CCAR, which is a non-profit program of the Climate Action Reserve that served as a voluntary GHG registry to protect and promote early actions to reduce GHG emissions by organizations, since 2003 and has provided voluntary reports of "entity-wide" GHG emissions since 2004. SDG&E has also been engaged in programs to increase energy efficiency for many years and has increased the portion of its electricity generation portfolio devoted to renewable sources of energy. SDG&E is required to submit long-term procurement plans (LTPP) to the CPUC describing plans to meet forecasted load during the coming 10 years. These plans must be consistent with the CPUC-adopted Energy Action Plan[1] prescribed "loading order" to first meet growth with conservation, then with renewable sources of electricity and distributed generation (e.g., combined heat and power applications), and finally with new fossil fueled sources to the extent necessary (SDG&E, 2009). New generation sources must be consistent with the LTPP. SDG&E's LTPP was approved by the CPUC in September 2008, and provides for a substantial additional reduction in GHG emissions by 2016 through the following programs:

- Energy efficiency which will reduce needed capacity by 487 megawatts (MW)
- Demand response which will reduce needed capacity by 249 MW
- Renewables which will provide 318 MW in 2010 and 727 MW in 2016
- New peaker plants to back up intermittent renewables and support retirement of older plants

These programs allow for a reduction of greater than 1.5 $MMTCO_2E$ over the planning period and are summarized in Table 4.7-2: Summary of Planned CO_2 Reductions. These efforts will result in a carbon intensity reduction of one-third while accommodating continued population growth.

TABLE 4.7-2
SUMMARY OF PLANNED CO_2 REDUCTIONS

Year	Total CO_2 Emissions (1,000s of tons)	CO_2 Emission Rate (tons per gigawatt-hour)
2008	5,900	319
2009	5,150	274
2010	5,050	264
2011	4,650	240
2012	4,600	235
2013	4,500	228
2014	4,150	208
2015	4,150	206
2016	4,200	206

SOURCE: SDG&E, 2009.

[1] The Energy Action Plan, created in 2003, and subsequently updated in 2005 and 2008, by the CPUC and CEC, lays out a single, unified approach to meeting California's energy needs by focusing on energy efficiency, demand response, and renewable energy.

4.7.4 Impacts

Significance determinations of GHG impacts are summarized below. Potential impacts are discussed in detail in the following sections. GHG impacts from the Proposed Project will be less than significant.

Would the project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would have a significant adverse effect on GHG emissions if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

As noted above, the increased concentration of GHGs in the atmosphere has been linked to global warming, which can lead to climate change. Construction and operation of the Proposed Project would incrementally contribute to GHG emissions along with past, present and future activities. As such, impacts of GHG emissions are analyzed here on a cumulative basis.

Currently, there is no adopted state or local standard for determining the cumulative significance of the Proposed Project's GHG emissions on global climate change. As discussed previously, SDAPCD has not formally adopted a significance threshold for GHG emissions generated by a project or a uniform methodology for analyzing impacts related to GHG emissions on global climate change. However, the South Coast Air Quality Management District (SCAQMD), which serves to attain and maintain air quality conditions in the South Coast Air Basin, adopted an interim significance threshold in December 2008 of 10,000 MT CO_2e for industrial projects where the SCAQMD is the lead agency. This threshold was adopted to serve as an interim method for determining the significance of GHG emissions under CEQA until statewide significance thresholds are established.

Given that ARB has not officially adopted a GHG threshold, the SCAQMD significance threshold of 10,000 MT/year CO_2e for industrial projects is the most relevant GHG significance

threshold adopted by an air district that can be used as a benchmark for the Proposed Project. It is therefore reasonable for CPUC to use SCAQMD's GHG significance threshold as a benchmark to evaluate the potential GHG impact of the Proposed Project. It should be noted that the SCAQMD's adopted GHG significance threshold of 10,000 MT/year CO_2e for industrial projects is intended for long-term operational GHG emissions. However, the SCAQMD has developed guidance for the determination of the significance of GHG construction emissions that recommends that total emissions from construction be amortized over 30 years and added to operational emissions and then compared to the threshold. CEQA Guidelines Section 15064.4(a) states: "A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from a project." Consistent with this section, the construction and operational emissions associated with the Proposed Project have been quantified and evaluated against the 10,000 MT/year CO_2e threshold.

Question 4.7a – Generate Substantial GHGs – Less Than Significant Impact

GHGs would be generated during construction from the use of equipment, construction-related vehicular activity, construction worker automobile trips, and helicopters. These sources were modeled using CalEEMod and incorporating the Proposed Project's anticipated schedule and construction methods. Using this data, the annual emissions (2014 and 2015) of GHGs would total 1,181 MT of CO_2e. CalEEMod model input and output are provided in Appendix A. Amortized over 30 years, the Proposed Project would result in approximately 39 MT CO_2e/year.

Similar to the construction phase of the Proposed Project, GHG emissions during project operation would be generated from worker vehicle trips and the periodic operation of off-road construction equipment. Worker trips would be required for the periodic inspection and maintenance of the project facilities, as well as for activities such as pole brushing, application of herbicides, and insulator washing. Operation of off-road construction equipment would be required for activities such as right-of-way repair, equipment repair or replacement, and tree trimming. Additionally, GHG emissions would also be generated during occasional helicopter inspection activities. The Proposed Project's operational GHG emissions were quantified using the CalEEMod model.

The Proposed Project's construction and operational emissions are shown in Table 4.7-3: Estimated Proposed Project GHG Emissions. Assumptions were developed based on the equipment and crew descriptions in the Project Description, and specific model inputs and outputs are included in Appendix A.

TABLE 4.7-3
ESTIMATED PROPOSED PROJECT GHG EMISSIONS

Emission Source	GHG Emissions CO_2e (MT/yr)
Construction	
Total	1,181
Construction (Amortized over 30 years)	39
Operations	
Off-Road Equipment	84
Mobile Sources	5
Total Project Emissions (MT/yr)	**128**
Applicable GHG Threshold	10,000
Significant Impact?	No

NOTES: CO_2e= carbon dioxide equivalent; MT/yr = metric tons per year; see Appendix A for construction GHG emissions calculation details.

SOURCE: Data modeled by ESA 2012.

As shown in Table 4.7-3, the annual GHG emissions associated with maintenance and operational activities of the Proposed Project were estimated to be approximately 89 MT CO_2e/year. Summed with the amortized construction emissions, the Proposed Project would result in approximately 128 MT CO_2e/year, which would be well below the 10,000 MT CO_2e/year threshold. As a result, the impact of GHG emissions due to the operation and maintenance of the Proposed Project would be less than significant.

Question 4.7b – Conflict with GHG Plans – Less Than Significant Impact

As described previously, the construction and operation-related GHG emissions associated with the Proposed Project would be well below the 10,000 MT CO_2e/year threshold. Furthermore, the Proposed Project will be consistent with the approved LTPP and Scoping Plan adopted by the ARB because it will support the delivery of additional renewable energy generation. The implementation of applicant-proposed measures (APMs) will help further reduce the amount of GHG released during Proposed Project construction. The Proposed Project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. This impact would be less than significant.

4.7.5 Applicant-Proposed Measures

Several APMs identified in Section 4.3 Air Quality, specifically APM-AIR-07 and APM-AIR-08, would reduce vehicular GHGs during construction.

4.7.6 References

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4.8 Hazards and Hazardous Materials

4.8.1 Introduction

This section discusses potential hazards to public health and safety associated with construction, operation, and maintenance of the Proposed Project. This analysis addresses existing contamination of hazardous materials, fire potential, hazards to public and worker health and safety, and physical hazards.

4.8.2 Methodology

A corridor study of the Proposed Project alignment was prepared by Environmental Data Resources, Inc. (EDR). Searches for known hazardous material sites in the project vicinity included a thorough review of federal, state, local, and tribal record databases identifying sites located within a one-mile radius of the Project vicinity that are registered on one or more environmental oversight agency database lists. The EDR corridor study is included in Appendix B.

Eighty-one federal, state, local, and other databases were reviewed to determine areas where contamination might be encountered during construction. These databases included:

- National Priority List
- Federal Superfund Liens
- Comprehensive Environmental Response, Compensation, and Liability Information System
- San Diego Hazardous Materials Management Division (HMMD) Database
- Leaking Underground Storage Tank (LUST) Database
- DTSC Cortese List
- Statewide Spills, Leaks, Investigations, and Cleanups
- Corrective Actions Reports
- Tribal Records

This review identified hazardous materials and chemicals use, generation, storage, treatment or disposal, and release incidents of such materials that may impact the Proposed Project. In addition, emergency evacuation and response plans and Office of Emergency Services websites for the County of San Diego were reviewed. The Safety Element of the County of San Diego General Plan was reviewed for relevant hazards and hazardous materials policies, plans, and programs.

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have

been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional Applicant Proposed Measures (APMs) were identified to avoid or minimize potential impacts.

4.8.3 Existing Conditions

The following subsections describe sites with hazardous materials located within a one-mile radius of the Project vicinity. In addition, schools within 0.25 mile of the Proposed Project have been identified according to California Environmental Quality Act (CEQA) requirements. All Proposed Project components are located in a rural area of eastern San Diego County with limited development and industrial uses, where historical land use is not likely to contribute to hazardous materials contamination.

Regulatory Background

Federal

United States Environmental Protection Agency

The United States (U.S.) Environmental Protection Agency (EPA) has deemed specific wastes to be hazardous. These types of wastes are organized into three categories. These categories, as well as the types of materials each includes, are as follows:

- F-List: Non-specific source wastes common in manufacturing and industrial processes. Wastes from the F-list are published under Title 40 Code of Federal Regulations (CFR) Section 261.31.
- K-List: Source-specific wastes from specific industries, including pesticide manufacturing and petroleum refining. K-list wastes are published under 40 CFR Section 261.32.
- P-List and U-List: Discarded commercial chemical products in an unused form. Wastes from the P- and U-lists are published under 40 CFR Section 261.33.

Waste that has not been previously listed may still be considered hazardous if it exhibits one of the four characteristics stated in 40 CFR 261 Subpart C, namely ignitibility, corrosivity, reactivity, and toxicity.

Uniform Building Code and Uniform Fire Code

Federal fire protection codes are provided in the Uniform Building Code (UBC) and the Uniform Fire Code (UFC). The 1997 UBC established building materials, spacing, and other items or practices that must be used to minimize the risk of fires to structure and facilities. The 2006 edition of the UFC addresses fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards and safety measures, hazardous material storage and use, and other general and specialized fire-safety requirements.

Resource Conservation and Recovery Act

Developed by the U.S. EPA, RCRA regulates potential health and environmental problems associated with hazardous and non-hazardous waste. This law is implemented through Subtitle C,

42 United States Code (U.S.C.) Section 6921, et. seq., and its implementing regulations, 40 CFR Section 260, et seq. , Subtitle C of RCRA controls the generation, transportation, treatment, storage, and disposal of hazardous waste through a "cradle-to-grave" system of hazardous waste management techniques and requirements. Subtitle C applies to all states and to all hazardous waste generators. This law also specifies the quantity of waste that is governed under this regulation.

Comprehensive Environmental Response, Compensation, and Liability Act and Superfund Amendments and Reauthorization Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA) (an amendment to CERCLA) identify requirements for planning, reporting, and notification concerning hazardous materials and hazardous material releases into the environment. SARA and CERCLA regulations are presented in 40 CFR Sections 302 through 355.

Part 302 mandates immediate notification to the Local Emergency Planning Committee (LEPC) when a hazardous material above its reportable quantities (RQ) is released into the environment. Notification must also be provided to the National Response Center in Washington, D.C. if CERCLA hazardous materials above RQ are released. These CERCLA-regulated materials are listed in the table at 40 CFR Section 302.4.

Part 311 requires a facility to develop a list of and/or provide Material Safety Data Sheets of hazardous material stored, handled, or used at a facility. A copy of this information must be provided to the State Emergency Response Center, LEPC, and local fire departments.

42 U.S.C., Title 42, Section 11023 and 40 CFR Section 372.30 identify annual reporting requirements associated with hazardous material released into the environment. Reporting requirements include both routine discharges and spill releases. Title III of SARA (identified as the Emergency Planning and Community Right-To-Know Act of 1986) mandates that states develop local chemical emergency preparedness programs as well as provide information on hazardous materials used at facilities in local communities. Additionally, SARA identifies requirements for planning, reporting, and notification concerning hazardous materials.

Occupational Safety and Health Act

The Occupational Safety and Health Act (OSHA) hazardous material regulations govern worker safety. Separate OSHA standards have been developed for construction and industrial workers. Generally, 29 CFR Part 1926 governs construction worker safety, while 29 CFR Part 1910 applies to industrial workers.

U.S. Department of Transportation

The Department of Transportation regulations govern the interstate transport of hazardous materials and wastes through implementation of the Hazardous Materials Transportation Act (HMTA). The provisions of the HMTA contain requirements for hazardous materials shipments and packaging and guidelines for marking, manifesting, labeling, packaging, placarding, and spill reporting. Specific regulations dealing with hazardous materials are covered under 49 CFR

Section 173.50, et seq., 49 CFR 173.56 (Hazardous Material Regulations, Shippers – General Requirements for Shipping and Packaging), and 49 CFR Part 397 (Transportation of Hazardous Materials; Driving and Parking Rules).

State

Division of Occupational Safety and Health

Construction and industrial worker safety issues are covered under the California Occupational Safety and Health Act (Cal-OSHA) of 1970. Most of these regulations are provided in Title 8 of the California Code of Regulations (CCRs) and enforced by Cal-OHSA. Any explosives necessary for construction and other activities must comply with the Cal-OSHA regulations presented in Title 8 CCR Division 1, Chapter 4. Requirements for vehicles transporting explosives on public highways are provided in the California Vehicle Code, Division 14. A contractor with a valid California "Blaster License," pursuant to Cal-OSHA Article 8, Section 1550 through 1580, must conduct all blasting.

Department of Toxic Substances Control

The Department of Toxic Substances Control (DTSC) is responsible for regulating hazardous waste, cleaning up existing contamination, and identifying ways to reduce hazardous waste at the federal level, while the California EPA regulates hazardous wastes at the state level. The OSHA regulates hazards and hazardous materials in the workplace at the federal level, while the Cal-OSHA regulates them at the state level.

Regional Water Quality Control Board

The Regional Water Quality Control Board (RWQCB) develops and enforces water quality objectives and implementation plans that protect beneficial uses of the state's waters (Water Code § 13000, et seq.). The Proposed Project area is located within the jurisdictions of both the San Diego RWQCB and the Colorado Basin RWQCB. These RWQCBs are the primary regulatory agency with jurisdiction over stormwater discharges, as well as activities that have the potential to impact the quality of surface water or groundwater.

California Hazardous Materials and Waste Codes

California laws and regulations associated with the storage, handling, use, and/or disposal of hazardous materials are provided in various sections of California's Health and Safety Code (H&SC) and CCRs. The federal RCRA allows individual states to develop their own programs to regulate hazards waste discharges. The state program, however, must be at least as stringent as RCRA requirements.

California has developed its own hazardous waste control program through the passage of the California Hazardous Waste Control Law (HWCL). It should be noted, however, that the HWCL includes hydrocarbon waste (e.g., oils, lubricants, and greases) that are not classified as hazardous waste under the federal RCRA regulations. California regulations also cover generators of universal waste (e.g., batteries, mercury control devises, dental amalgams, aerosol cans, and lamps/cathode ray tubes) not specified in federal regulations. This regulation is found in Section

25100, et seq., of the H&SC. Administration and enforcement of the HWCL is the responsibility of the DTSC.

H&SC, Section 25500, et seq., known as the Hazardous Materials Release Response Plans and Inventory Act, and the regulations in Title 19 CCR Section 2620, et seq. require that local governments be responsible for the regulation of facilities that store, handle, or use hazardous materials above threshold quantities (TQs). The TQs for identified hazardous materials are 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for compressed gases measured at standard temperature and pressure. The law mandates that facilities storing these hazardous materials in excess of their TQs prepare a Hazardous Material Business Plan (HMBP). The HMBP must identify the facility's internal response requirements to accidental spills, such as emergency contacts, hazardous material inventory and quantities, control methods, emergency response, and training. The law also requires that the HMBP be submitted to the local administering agency (normally the local fire department or public health agency). All spills from a facility must be reported to both the local administrative agency and the Governor's Office of Emergency Services.

California H&SC, Section 25249.5, et seq., the Safe Drinking Water and Toxics Enforcement Act (Proposition 65), regulates cancer-causing and reproduction-impairing chemicals. Users of regulated chemicals identified under this law are responsible for issuing a clear and reasonable warning informing members of the public regarding potential exposure to such chemical materials above a threshold amount. (H&SC § 25249.6.) The law is also intended to prevent discharges or releases of specified hazardous materials into a "source of drinking water" and provides a periodically updated listing of chemicals of concern (Id. § 25249.5). Proposition 65 is administered through California's Office of Environmental Health Hazard Assessment.

The California Unified Hazardous Waste and Hazardous Material Management Regulatory Program Act is documented in California H&SC, Section 25404, et seq. This Act establishes requirements for dealing with hazardous waste locally by creating the Certified Unified Program Agency (CUPA). This responsibility is delegated through a Memorandum of Understanding between the California EPA and the local agency. The primary CUPA for the Proposed Project is the San Diego County Department of Environmental Health, HMMD for San Diego County. Currently, the Imperial County Office of the DTSC in Calexico administers the CUPA responsibilities in the region.

California Building Code

Most state fire regulations for structures and other facilities are covered in the California Building Code (CBC). The CBC specifies acceptable design and construction requirements associated with fire protection for various facilities or structures. The CBC augments the UBC and provides information for California-specific changes.

These regulations are enforced by county or city building departments. Fire-related concerns and regulations are administered by the California Department of Forestry and Fire Protection, the Office of the State Fire Marshal, and by local county or city fire chiefs or marshals.

Public Resource Code

Several regulations that have been adopted in the Public Resource Code (PRC) covers safety aspects of electrical power lines. The most notable examples of these regulations are as follows:

- PRC Section 4292 requires clearing of flammable vegetation to reduce fire hazards around specific structures that support certain connectors or types of electrical apparatus. This cleared area (10-foot radius) is required to be kept clear of flammable vegetation during the entire fire season.
- PRC Section 4293 requires specific clearance between conductors and vegetation. The clearance required increases as the line voltage increases. This code also requires the removal of trees adjacent to electrical power lines that may present a hazard if they fall on the line.

CPUC General Order 95

Rule 35 of the California Public Utilities Commission (CPUC) General Order 95, "Rules for Overhead Electric Line Construction" requires clearing of vegetation to reduce fire hazards around specific structures that support certain connectors or types of electrical apparatus. This cleared area (10-foot radius for conductors operating above 110 kV) is required to be kept clear of flammable vegetation for normal annual weather variations.

Local

San Diego County

The HMMD of San Diego County is the administrator for the CUPA. Hazardous materials are dealt with under various county codes and regulations. The HMMD hazardous material requirements include hazardous waste determination, storage and transportation of hazardous waste, treatment and disposal requirements, biennial reporting, emergency preparedness and prevention, emergency procedures, business plans, personnel training, and violation. The regulations for storage and use of explosives in the county are provided in San Diego County General Regulation, Section 6904. County fire codes are provided in Title 3, Division 5, Chapter 3, County Fire Code, Section 35, et seq.

The County Fire Code not only includes the CBC and UFC, but also other provisions, such as access road requirements, emergency access requirements, maintenance requirements for vacant property, disposal of wood chips and other organic materials, blasting, hazardous fire areas, use of spark arresters, open-flame equipment, and use of fire roads and firebreaks. In addition, the fire code provides requirements for brush and vegetative growth management along power line right-of-ways (ROWs). Brush clearance requirements for structures are identified in Section 16 of the Code, and brush clearance for roadways are described in Section 15. Other fire regulations for the county are provided in the San Diego County General Regulation, Section 6905.

Existing Hazardous Sites

The area in which the 5.2 mile-long interconnection facilities would be constructed between Pole 1 (south of the Campo Reservation border) and the Boulevard East Substation has not been identified as a site with past or current hazardous materials.

However, five sites with past or current hazardous materials cases were identified with a one-mile radius of the project site. These five sites are described below and summarized in Table 4.8-1. Forty-nine orphan sites were also identified. Orphan sites are those listed in various databases as being in the vicinity of the researched properties but do not have addresses designated on a map. Orphan sites are defined as sites that are contaminated by hazardous materials but the responsible parties are unknown or unwilling or unable to pay for cleanup.

TABLE 4.8-1
IDENTIFIED HAZARDOUS MATERIALS SITES WITHIN A ONE-MILE RADIUS

Hazardous Materials Site	Location / Distance from Project Site	Records	Type of Hazardous Materials Site
Caltrans District 11 Maintenance Station	40945 Old Highway 80, Boulevard, CA (0.34 miles west)	SWEEPS UST; HAZNET	Motor vehicle fuel; aged or surplus organics; contaminated soils from site clean-up; other organic solids
Caltrans Yard	40945 Old Highway 80, Boulevard, CA (0.34 miles west)	SWF/LF; HIST CORTESE; LUST	Benzene, toluene, xylene, diesel, fuel oxygenates, gasoline
Caltrans/Boulevard	40945 Old Highway 80, Boulevard, CA (0.34 miles west)	San Diego Co. SAM	Benzene, toluene, xylene, diesel, fuel oxygenates, gasoline
Mountain Top Market	39710 Old Highway 80, Boulevard, CA (0.47 miles north)	FINDS; LUST; San Diego Co. HMMD; EMI; San Diego Co. SAM	Regular gasoline
William Lee	40601 Old Highway 80, Boulevard, CA (0.15 miles north)	San Diego Co. SAM	Contaminated Soils
White Star Forest Fire Station	1684 Tierra del Sol Road, Boulevard, CA (1 mile, south)	HIST UST	Unleaded fuel

EMI – toxics and criteria pollutant emissions data collected by the Air Resources Board
FINDS – Facility Index System
HAZNET – Department of Toxic Substance Control database
HIST CORTESE – Historical CORTESE
HIST UST – Historical UST Underground Storage Tank Registered Database
INDIAN RESERV - Indian Reservation
LUST – Leaking Underground Storage Tank Incident Report
San Diego Co. HMMD - San Diego County Hazardous Materials Management Division
San Diego Co. SAM – San Diego County Site Assessment and Mitigation
SWEEPS UST – Statewide Environmental Evaluation and Planning System
SWF/LF – Solid Waste Facilities/Landfill Sites

SOURCE: EDR DataMap, 2012.

The Caltrans District 11 Maintenance Station site located approximately 0.34 mile east of the Project area was identified as containing fuel tanks and hazardous waste, including aged or surplus organics and contaminated soil from site clean-up. The hazardous waste will be disposed of through landfill or incineration. Due to its distance from the Proposed Project site, this site is not anticipated to impact the Proposed Project.

The Caltrans Yard site, located 0.34 mile east of the Project area, was identified as containing a leaking underground storage tank (LUST) and historical LUST. The site is listed as a LUST cleanup site and construction of the site remediation system is currently underway. Subsequent groundwater sampling indicated that groundwater was impacted beneath the former UST excavation area; however, the off-site drinking water supply was not impacted. Quarterly groundwater monitoring and sampling of the monitoring wells and off-site drinking water well has been performed through December 2009. As the site is currently being monitored and the Proposed Project would not traverse through the site, the site is not anticipated to impact the Proposed Project.

The Caltrans/Boulevard site, located 0.34 mile west of the site, was listed as containing a LUST and is indentified by the LUST database and San Diego County Site Assessment and Mitigation (SAM) Program. The drinking water aquifer has been impacted by the LUST and preliminary site assessment and a remedial investigation is in the process. As the site is currently going through remedial activities and the Proposed Project would not traverse the site, the site is not anticipated to impact the Proposed Project.

The Mountain Top Market site is a local market and gas station located approximately 0.47 mile north of the Project area. The site was identified as containing a LUST containing gasoline and seven underground storage tanks (UST). The LUST is currently being monitored and is an active case with the San Diego County HMMD. The Mountain Top Market was also part of the San Diego County SAM Program and Local Oversight Program that was under review for contaminated soils. The facility is now a closed case in regard to soils under the San Diego County SAM Program. The Proposed Project would not traverse through the site and the site is not anticipated to impact the Proposed Project.

The William Lee site, located approximately 0.15 mile north of the project area, contains contaminated soils and is listed under the San Diego County SAM Program. The site case was closed as of 2005. The Proposed Project would not traverse through the site; the site is not anticipated to impact the Proposed Project.

The White Star Forest Fire Station site contains a historical UST. As no LUSTs were found and the Proposed Project would not traverse through the site, the site is not anticipated to impact the Proposed Project.

Contaminated Soil and Groundwater

No soil or groundwater contamination was identified at any of the Proposed Project component locations.

Fire Hazards

The project site is located in east San Diego County, which is designated as very high risk for fire hazards by Cal Fire (SDG&E, 2011).

Schools

No schools are located within 0.25 mile of any of the Proposed Project components. The nearest school is Clover Flat Elementary School, located approximately 0.5 miles north of Pole 40.

Airports and Airstrips

The nearest airport or airstrip to the project vicinity is Jacumba Airport, located approximately seven miles southeast of the Project area.

Emergency/Evacuation Plans

The County of San Diego Office of Disaster Preparedness implements the San Diego County Operational Area Emergency Plan. The San Diego County Operational Area Evacuation Annex (Annex) was designed to be used as a template for preparation of other jurisdictional evacuation plans and to supplement or support the evacuation plans developed and implemented by local jurisdictions. The Annex provides strategies, protocol, organizational frameworks, and recommendations that may be used to implement a coordinated evacuation effort within the San Diego County Operational Area, which includes San Diego County, 18 cities, and all special districts such as school districts. The Annex also provides estimates on the resident population within each jurisdiction that may be impacted by certain hazards and will require evacuation, the number of residents that may need assistance securing shelter or transportation, and the estimated number of household pets that may need to be accommodated in the event of an evacuation effort. In addition, the Annex provides hazard-specific considerations, transportation routes, and capacities for general evacuation, shelter capacities throughout the county, locally available resources, resources available through mutual aid, and other special needs considerations.

The Annex includes hazard-specific evacuation routes for dam failure, earthquakes, tsunamis, floods, and wildfires. The primary evacuation routes consist of the major interstates, highways, and prime arterials within San Diego County.

4.8.4 Impacts

Significance determinations of impacts to hazards and hazardous materials are summarized below. Potential impacts are discussed in detail in the following sections. Impacts to hazards and hazardous materials from the Proposed Project will be less than significant.

Would the project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) 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?	☐	☒	☐	☐

Would the project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located 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, create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) If located within an airport land use plan or within two miles of a public airport or public use airport for which such a plan has not been adopted, result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) If located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) If located in an area in which wildlands are adjacent to urbanized areas or in which residences are intermixed with wildlands, expose people or structures to a significant risk of loss, injury, or death involving wildland fires?	☐	☒	☐	☐

Significance Criteria

Standards of significance were derived from Appendix G of the CEQA Guidelines. Proposed Project impacts will be considered significant if they:

- Create a hazard to public health or the environment by the routine transport, use, or disposal of hazardous materials;
- Create a hazard to the public or the environment by reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous materials within 0.25 mile of a school;
- Are located at 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 create a hazard to the public or the environment;
- Are located within two miles of a public or private airport and will result in a safety hazard for people residing or working in the Proposed Project area;

- Impair implementation of, or physically interfere with, an adopted emergency response or evacuation plan; or
- Expose people or structures to a risk of loss, injury, or death related to wildland fires.

Question 4.8a – Hazardous Material Transport, Use, or Disposal – Less Than Significant Impact

Construction of the Proposed Project would require the use hazardous materials including but not limited to petroleum products (i.e., oil and gasoline), paints, solvents, adhesives, and automotive fluids. Table 4.8-2 lists the general type of chemicals that may be used during construction. The most likely incidents involving these hazardous materials are associated with minor spills or drips. Such incidents associated with Project construction could occur during ground clearing and access road construction; steel pole erection; and wire and conductor pulling splicing, and tensioning for the installation of the interconnection power line to the Boulevard East Substation and rebuilding of the existing TL 6931 power line. Impacts could also occur during storage at temporary staging areas, transportation to the work site, and refueling and servicing of equipment.

TABLE 4.8-2
HAZARDOUS MATERIALS TYPICALLY USED FOR CONSTRUCTION

Hazardous Materials	
ABC fire extinguisher	Ammonium hydroxide
Air tool oil	Battery acid (in vehicles and in the meter house of the substations)
Automatic transmission fluid	Insect killer
Bottled oxygen	Puncture seal tire inflator
Canned spray paint	Chain lubricant (contains methylene chloride)
Diesel de-icer	Connector grease (penotox)
Diesel fuel	Diesel fuel additive
Eye glass cleaner (contains methylene chloride)	Contact cleaner 2000
Gasoline	Gasoline treatment
Hot stick cleaner (cloth treated with polydimethylsiloxane)	Lubricating grease
Hydraulic fluid	Starter fluid
Insulating oil (inhibited, non-PCB)	Methyl alcohol
Mastic coating	Paint thinner
Propane	WD-40
Safety fuses	ZIP (1,1,1-trichloroethane)
Sulfur hexafluoride (within the circuit breakers in the substations)	Brake fluid
Two-cycle oil (contains distillates and hydro-treated heavy paraffinic)	Acetylene gas
Wasp and hornet spray (1,1,1-trichloroethene)	Antifreeze (ethylene glycol)
ZEP (safety solvent)	Motor oils

Impacts from such incidents would be avoided by thoroughly cleaning up minor spills as soon as they occur. A site-specific Construction Storm Water Pollution Prevention Plan (see Section 4.9 Hydrology and Water Quality for more detail) would be followed to ensure quick response to minor spills and minimal impacts to the environment.

Worker safety regulations cover hazards related to exposure to hazardous materials, while best management practices (BMPs) are designed to prevent a release to the environment from hazardous materials use. BMPs include training of employees and contractors in proper hazardous materials storage and handling procedures and emergency response and cleanup procedures. As required by the federal OSHA, construction personnel handling hazardous materials would be trained to understand the hazards associated with these materials and would be instructed in the proper methods for storing, handling, and using these hazardous materials. The onsite construction foreman would ensure that all health and safety guidelines and regulations involving hazardous materials handling are followed during the construction phase of the Proposed Project.

Implementation of SDG&E APM-HAZ-01 would ensure the proper handling and disposal of hazardous materials and worker training. Therefore, impacts would be less than significant.

Operation and maintenance activities at the Proposed Project would be limited but would still pose health and safety hazards to workers on the site. Maintenance and operation activities on the interconnection facilities would consist of vegetation removal, tree trimming, and insulator washings. These activities would require mechanical equipment, the application of herbicides, and deionized water for the washings. The transportation, use or disposal of hazardous materials related to the maintenance and operation activities would be limited and BMPs are designed to prevent a release to the environment from hazardous materials use. Therefore, impacts would be less than significant.

Question 4.8b – Reasonably Foreseeable Upset and Accident Conditions – Less Than Significant Impact

Construction of the Proposed Project would involve the use of several hazardous materials that could accidentally be released during construction activities. The types of materials that could be released include diesel, gasoline, lubrication oil, hydraulic fluid, antifreeze, transmission fluid, and lubricating grease from vehicles or other motorized equipment. In addition, a release of liquid concrete during construction of the pole foundations is also possible.

If soil contamination were present within a construction area, the contaminated soils disturbed or excavated during construction activities could pose a potential health risk to construction workers and/or the public through airborne or physical exposure to contaminants. Contaminated soils must be handled and disposed of in accordance with local, State, and federal regulations. If soil contamination is discovered to be present in any construction areas, all excavation would proceed according to worker safety requirements of the federal OSHA and Cal-OSHA. If there is any site contamination that would require action, Cal-OSHA rules would require a site-specific Health and Safety Plan (HASP) to be prepared and implemented by SDG&E and its contractors to

minimize exposure of construction workers to potential site contamination and to dispose of construction-generated waste soil in accordance with local, State, and federal regulations. Additionally, APM-HAZ-01 requires training of employees and contractors in proper hazardous materials storage and handling procedures, emergency response and cleanup procedures. Therefore, implementation of APM-HAZ-01 and BMPs would ensure impacts associated with an accidental release of hazardous materials during construction of the Proposed Project would be less than significant.

Operation of the Proposed Project would not involve the use or storage of substantial amounts of hazardous materials and, therefore, the likelihood of a potential release of hazardous materials is considered extremely low. Nevertheless, operation activities and routine or emergency maintenance at the Proposed Project site could result in the accidental release of hazards materials into the environment. However, implementation of SDG&E's standard operations BMPs would minimize the potential for release of hazardous materials into the environment. Therefore, impacts would be less than significant.

Question 4.8c – Hazardous Substances in Close Proximity to Schools – No Impact

The closest school is Clover Flat Elementary School located approximately 0.5 mile north of the Proposed Project site. The Proposed Project will not be located within 0.25 mile of an existing or proposed school location. Thus, no impact will occur.

Question 4.8d – Existing Hazardous Materials Sites – No Impact

A review of environmental databases for the Proposed Project site identified five hazardous materials sites within a one-mile radius of the Proposed Project site. The Caltrans District 11 Maintenance Station site was identified as containing hazardous waste, but disposal through incineration or landfill is planned. The Caltrans Yard site was identified as a LUST cleanup site and no groundwater impacts were identified though quarterly groundwater monitoring and sampling of the monitoring wells. The Caltrans/Boulevard LUST site was determined to have impacted the drinking water aquifer and is currently undergoing a preliminary site assessment and remedial investigation. The Mountain Top Market site containing a LUST is currently being monitored but the site is a closed case in regards to contaminated soils under the San Diego County SAM Program. The William Lee site is a closed case. The White Star Forest Fire Station contains a historical UST but no LUSTs were identified. As the identified hazardous material sites are currently under remediation or monitoring, any movement of potential soil or groundwater contamination that may reach the Project area is currently being monitored and minimized and not expected to impact the Project area.

Furthermore, the Proposed Project site was not identified on any environmental database as a hazardous materials site. Therefore, no impacts would occur.

Question 4.8 e & f – Public and Private Airport Hazards – No Impact

The Project is not located within two miles of an airport or an airport land use plan, as the nearest airport is Jacumba Airport which is located seven miles southeast of the eastern terminus of the

Proposed Project. Furthermore none of the project poles require noticing to the FAA under Federal Aviation Administration (FAA) regulation 14 CFR Part 77.9. Therefore, no impact would occur.

Question 4.8g – Emergency Evacuation and Response Plan Interference – No Impact

The Proposed Project would not obstruct public roadways or evacuation plans. Rather, the interconnection line would be constructed across private land and would have enough clearance above public road crossings to allow unobstructed emergency vehicle access to roadways in the vicinity of the site. Additionally, construction and operational traffic would be minimal and short-term and would not be located on major public roadways. Access to the interconnection power line would be through existing access roads and a new unpaved access roads. As a result, emergency access along the public roadways would not be directly impacted.

Question 4.8h – Wildland Fires – Less Than Significant Impact

The replacement of wood poles with steel poles is being undertaken to minimize the risk of wildfires that exists when certain atmospheric conditions occur within geographic areas designated as fire threat zones. The Proposed Project is consistent with SDG&E's long-term plan to improve service reliability in fire-prone areas through system hardening or other enhancements. The Proposed Project would replace existing wood pole structures with new steel pole structures, increase conductor spacing to maximize line clearances, install steel poles to withstand high winds, install self-supporting angle structures which eliminate guying, and install longer polymer insulators to minimize contamination which would improve system reliability during extreme weather conditions. By incorporating these project design features, exposure of people or structures to loss, injury, or death involving wildland fires will be greatly reduced and have a long-term beneficial effect when compared with the existing conditions.

The Proposed Project alignment is located within the "Very High" fire threat designation as indicated on the SDG&E Fire Threat Zone Map (2011). The mapped areas are based on CALFIRE Fire and Resource Assessment Program (FRAP) data. Fire threat ranking is based on relative fuel conditions, topography, and expected fire behavior. Weather plays an important role in fire risk as well. Extreme weather conditions do not occur all the time and the status of the fire risk will vary based on the daily conditions; such as humidity, air temperature, winds, and fuel moisture. These conditions are monitored and assessed daily by SDG&E. Therefore, even though the Proposed Project may be located within the geographic boundaries of an area designated as a "Very High" fire threat zone, the fire risk may not be especially high. Project construction activities can occur on those days of less risk and avoided on particularly high risk days. SDG&E is also very pro-active in providing fire mitigation resources as needed such as water tenders, engines, and fire patrols.

There is the risk of fires being accidentally initiated during construction activities. Welding during construction could potentially result in the combustion of vegetation located close to the welding site. Additionally, the use of internal combustion motors, lighted matches, cigarettes, cigars, or other burning objects may pose a fire hazard during construction, especially within the

vicinity of combustible material. At a minimum, all construction and maintenance activities would be conducted in compliance with standard SDG&E fire prevention and safety protocols (ESP113.1 Wildfire Fire Prevention and Fire Safety). The Proposed Project will comply with a SDG&E project specific Construction Fire Prevention Plan, described in APM-HAZ-2, which will be prepared for the Proposed Project. This will identify appropriate mitigation measures and operating procedures. The Fire Plan will be developed by wildland fire professionals specifically for this project. This plan will take into account local fuels, weather and topography in the avoidance and minimization measures in order to reduce the threat of an ignition of a wildland fire. The Fire Plan exceeds fire prevention measures required by the California Forest Practices Rules; Title 14 Article 8. Fire risk mitigation measures include training and briefings of all personnel working on the project in fire prevention and suppression methods and a fire prevention discussion at each morning's contractor tail board safety meeting. A "fire watch" or "fire patrol" will be assigned to specifically ensure risk mitigation and fire preparedness measures are implemented, and to ensure immediate detection of a fire which may at times include the nearby staging of a fire engine. Additionally, prescribed fire tools and backpack pumps with water will be kept within 50 feet of work activities, in accordance with SDG&E standard protocol, to ensure the capability for rapid extinguishment in the event of a fire. Weather and fire danger will be monitored daily by company meteorologists and wildland fire specialists in order to provide timely and immediate communication of significant changes which could impact the project. As noted above, no work will occur during times of high fire threat, and if conditions change after construction has commenced, work will cease in periods of extreme fire danger, such as Red Flag Warnings issued by the National Weather Service or other severe fire weather conditions as identified by SDG&E. Implementation of the Proposed Project's Construction Fire Prevention Plan in addition to standard SDG&E operational procedures and protocols would ensure that the risk of fire during construction remains less than significant.

Operation and maintenance activities along the interconnection power line would be similar to the activities that occur on the existing TL 6931 facility, and will not increase fire risk beyond the existing conditions. Operation and maintenance activities include the removal of vegetation and brush to reduce fire danger. A 10-foot radius of cleared vegetation and brush would be located around the pole base that would act as a fire break in the event of wildfire. In addition, tree trimming would limit tree limb contact with electrical lines that may cause power outages and fire hazards. Annual inspections would ensure vegetation and brush are cleared and controlled.

The mechanical and structural design and construction of the power line must meet the requirements of the CPUC, General Order No. 95 (GO 95), Rules for Overhead Electric Line Construction. Although energized conductors can create potential for a fire hazard, SDG&E takes into account normal and unusual structural loading in its designs under GO 95 to prevent these fire hazards. In addition, a shield wire will be installed on the steel poles to protect the energized conductor from lightning, further reducing potential fire hazards. Therefore, the potential for operation and maintenance of the proposed power line to cause a wildland fire is less than significant.

4.8.5 Applicant Proposed Measures

The following measures are proposed to reduce impacts to a less-than-significant level:

- APM-HAZ-01: Prior to construction, all SDG&E, contractor, and subcontractor Project personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs associated with hazardous materials.
- APM-HAZ-02: SDG&E will develop a Construction Fire Prevention Plan for the Project and monitor construction activities to ensure its implementation and effectiveness. At a minimum, the Construction Fire Prevention Plan will include the following:
  - a description of the procedures that will be implemented to minimize the potential to start a fire (including vegetation clearing, parking requirements, etc.),
  - the requirements of Title 14 of the California Code of Regulations, Article 8 #918 "Fire Protection,"
  - relevant components of the SDG&E Wildland Fire Prevention and Fire Safety Electric Standard Practice 113.1 (2012),
  - the fire-fighting equipment (including shovels, axes, and fire extinguishers) that must be maintained onsite and in vehicles for the duration of construction,
  - the appropriate timing and use of fire-protective mats or shields during grinding and welding operations,
  - emergency response and reporting procedures, and
  - relevant emergency contact information.

4.8.6 References

California Resources Agency. Title 14 California Code of Regulations, Chapter 3 Guidelines for Implementation of the California Environmental Quality Act. CEQA Guidelines.

County of San Diego. 1975. County of San Diego General Plan, Public Safety Element.

SDG&E. 2011. Standard Practice 113.1, Wildland Fire Prevention and Fire Safety.

4.9 Hydrology and Water Quality

4.9.1 Introduction

This section provides an analysis of the Proposed Project's potential impacts associated with hydrology and surface water quality as compared to existing conditions. The information and analysis in this section is based on the references included in Section 4.9.6 at the end of this section.

4.9.2 Methodology

Water resources and potential impacts to hydrology and water quality resulting from construction and operation of the Proposed Project were analyzed through review of documents listed in Section 4.9.6 References, including aerial photos, topographic maps, and documents from the United States Geological Survey (USGS), California Department of Water Resources (DWR), and the State Water Resources Control Board (SWRCB).

For purposes of the water quality analyses, impacts are assessed by evaluating the types of pollutants or effects on water quality likely to be associated with construction and operation of the Proposed Project. For purposes of the hydrology analysis, impacts are assessed by evaluating the hydromodification changes (pervious versus impervious) that will occur with construction and operation of the Proposed Project. Relevant regulatory permits and requirements, including Best Management Practices (BMPs) and plans are then described to demonstrate how these requirements would ensure that the Proposed Project would not significantly degrade existing water quality or contribute to existing impairments in downstream receiving waters and would not result in hydromodification changes that would result in downstream flood or erosion impacts.

Impacts to groundwater levels were analyzed by examining potential impacts from groundwater dewatering and reduction in the area available for groundwater recharge.

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional Applicant Proposed Measures (APMs) were identified to avoid or minimize potential impacts.

4.9.3 Existing Conditions

Regulatory Background

Federal

Clean Water Act

The Clean Water Act (CWA) (33 U.S.C. § 1251 *et seq*.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States (U.S.). The CWA required states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water.

The CWA was enacted to prohibit the discharge of pollutants to waters of the U. S. from any point source, unless a National Pollutant Discharge Elimination System (NPDES) permit authorizes the discharge. Regulatory and permitting processes have been established to control the quality of water runoff from urban development. The CWA was amended in 1987, requiring the U.S. Environmental Protection Agency (USEPA) to create specific requirements for storm water discharges. In response to the 1987 amendments to the CWA, the EPA established Phase I of the NPDES Stormwater Program, which required NPDES permits for: (1) municipal separate storm sewer systems generally serving or located in incorporated cities with 100,000 or more people (referred to as municipal permits); (2) 11 specific categories of industrial activity (including landfills); and (3) construction activity that disturbs more than 5 acres of land. In March 2003, Phase II of the NPDES Program extended the requirements for NPDES permits to numerous small municipal separate storm sewer systems, construction sites of 1 to 5 acres, and industrial facilities owned or operated by small municipal separate storm sewer systems, all of which were previously exempted from permitting requirements. Section 402(p) of the CWA mandates that these municipal storm water permits must: (1) effectively prohibit the discharge of non-storm water to the system except under certain provisions, and (2) require controls to reduce pollutants in discharges from the system to the maximum extent practicable, including BMPs; control techniques; and system, design, and engineering methods.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) is responsible for determining flood elevations and floodplain boundaries based on U.S. Army Corps of Engineers (USACE) studies. FEMA is also responsible for distributing the Flood Insurance Rate Maps used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas, including the 100-year floodplain. FEMA allows non-residential development in the floodplain; however, construction activities are restricted within flood hazard areas, depending on the potential for flooding within each area. Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations, enabling FEMA to require municipalities that participate in the NFIP to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains.

State

Porter Cologne Water Quality Control Act

The CWA places the primary responsibility for control of surface water pollution and for planning the development and use of water resources with the states, establishing certain guidelines for the states to follow in developing these control programs. It also allows the EPA to withdraw control from a state if its implementation mechanism is found to be inadequate. In California, the NPDES is administered by the SWRCB through nine Regional Water Quality Control Boards (RWQCBs). The SWRCB and RWQCBs were established in 1969 by the Porter-Cologne Water Quality Control Act, the principal law governing water quality regulations in California. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act, which is codified in the California Water Code, also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum products. Each RWQCB must formulate and adopt a Water Quality Control Plan (Basin Plan) for its region. The regional Basin Plans are to conform to the policies set forth in the Porter-Cologne Act and by the SWRCB in its state water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional Basin Plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

The project site is located within RWQCB Regions 7 and 9. Region 7 is the Colorado River Regional Water Quality Control Board (Colorado RWQCB) and Region 9 is the San Diego Regional Water Quality Control Board (San Diego RWQCB).

The CWA requires states to adopt water quality standards for water bodies and to have those standards approved by the EPA. Water quality standards consist of designated beneficial uses for a particular water body (e.g., wildlife habitat, agricultural supply, and fishing) and water quality criteria necessary to support those beneficial uses. Water quality criteria are expressed either in the form of set numeric concentrations or levels of constituents such as lead, suspended sediment, and fecal coliform bacteria, or narrative statements that describe the quality of water necessary to support a particular beneficial use. These standards are designated in the *Water Quality Control Plans for the Colorado River and San Diego Regions* (Basin Plan) and the California Toxics Rule, discussed below.

Basin Plans

The Colorado RWQCB adopted the *Water Quality Control Plan-Colorado River Region* (Basin Plan) on August 3, 1994. The Basin Plan designates the beneficial uses of the project site's receiving waters, which is Walker Creek in the McCain subarea of the Anza-Borrego hydrologic unit. Beneficial uses of the receiving waters within the Colorado River Basin Plan are listed in Table 4.9-1.

The San Diego RWQCB adopted the *Water Quality Control Plan-San Diego Region* (Basin Plan) on September 8, 1994. The Basin Plan designates the beneficial uses of the project site's receiving waters, which is Campo Creek in the Clover Flat and Hill subareas of the Tijuana River

hydrologic unit. Beneficial uses of the receiving waters within the San Diego Basin Plan are listed in Table 4.9-1.

The Basin Plan also specifies both narrative and numerical water quality objectives for these receiving waters. Water quality objectives, as defined by California Water Code Section 13050(h), are the "limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses or the prevention of nuisance within a specific area." Since these standards are applicable to receiving waters, they do not apply directly to storm water runoff from the project site. However, they apply to the downstream receiving waters.

TABLE 4.9-1
RECEIVING WATER BENEFICIAL USES

Beneficial Use	Walker Creek	Campo Creek
MUN–Municipal and Domestic Supply	P	Excepted from MUN
COLD–Cold Freshwater Habitat		X
GWR–Groundwater Recharge	X	
AGR–Agricultural Supply	X	
REC1–Water Contact Recreation	X	X
REC2–Non-contact Water Recreation	X	X
WARM–Warm Freshwater Habitat	X	X
WILD–Wildlife Habitat	X	X

P = Potential
X = Existing Beneficial Use

SOURCE: San Diego Regional Water Quality Control Board. 1994: Water Quality Control Plan-San Diego Region; Colorado River RWQCB. 1994: Water Quality Control Plan – Colorado River Region.

California Toxics Rule

The California Toxics Rule provides water quality criteria for certain potentially toxic compounds for inland surface waters, enclosed bays, estuaries, and waters designated with human health or aquatic life uses. Although the California Toxics Rule criteria do not apply directly to the discharges of storm water runoff, the California Toxics Rule criteria are utilized as benchmarks for toxics in urban runoff. The California Toxics Rule and other water quality criteria and targets are used as benchmarks to evaluate the potential ecological impacts of storm water runoff to receiving waters. The California Toxics Rule establishes acute and chronic surface water quality standards for certain water bodies. Acute criteria provide benchmarks for the highest permissible concentration below which aquatic life can be exposed for short periods of time without deleterious effects. Chronic criteria provide benchmarks for an extended period of time (i.e., for four days or more) without deleterious effects. The acute California Toxics Rule criteria have a shorter relevant averaging period (less than four days) and provide a more appropriate benchmark for comparison for storm water flows.

California Toxics Rule criteria are applicable to the receiving water body and therefore must be calculated based on the probable hardness values of the receiving waters. At higher hardness values for receiving waters, certain constituents, including copper, lead, and zinc, are more likely to be complexed (bound with) components in the water column. This, in turn, reduces the bioavailability[1] and resulting potential toxicity of these metals.

Clean Water Act, Section 303(d), List of Water Quality Limited Segments

When designated beneficial uses of a particular receiving water body are being compromised by water quality, Section 303(d) of the CWA requires identifying and listing that water body as impaired. Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, nonpoint, and natural sources that a water body may receive without exceeding applicable water quality standards. Once established, the TMDL allocates the loads among current and future pollutant sources to the water body. The CWA requires states to publish, every two years, an updated list of streams and lakes that are not meeting their designated uses because of excess pollutants (i.e., impaired water bodies). The list, known as the "303(d) list," is based on violations of water quality standards. Once a TMDL is developed and adopted, the water quality limited section is removed from the 303(d) list.

As released by the SWRCB, the 2010 Integrated Report (Clean Water Act Section 303(d) List/305(b) Report) contains the most recent listing of impaired water bodies within the State of California.

Surface flows from the project area in the Anza-Borrego hydrologic unit flows towards Walker Creek, which flows to Carrizo Creek, and ultimately to the Salton Sea. The Salton Sea is over 40 miles downstream of the project site. Neither Walker Creek nor Carrizo Creek are listed as 303(d) impaired water bodies. However, the Salton Sea is impaired for numerous constituents including, arsenic, chlorpyrifos, DDT, enterococcus, nutrients, selenity, and selenium.

Surface flows from the project area in the Tijuana River hydrologic unit flow to Campo Creek, which flows to the Tijuana River, and ultimately to the Pacific Ocean. Campo Creek is not listed as impaired. However, the Tijuana River is impaired for numerous constituents including, eutrophication, indicator bacteria, low dissolved oxygen, pesticides, phosphorus, sediment/siltation, selenium, solids, surfactants, synthetic organics, total nitrogen as N, toxicity, trace elements, and trash.

None of the immediate receiving waters are listed by the SWRCB as impaired water bodies. The downstream receiving waters, Salton Sea and Tijuana River, are 303(d) listed water bodies. However, given the distance of the project site to the downstream receiving water bodies and the proposed BMPs, impacts from the project are not anticipated to further impair these downstream receiving waters.

[1] Bioavailability is the degree and rate at which a substance is absorbed into a living organism.

Construction General Permit

The California Construction Stormwater Permit (Construction General Permit),[2] adopted by the SWRCB, regulates construction activity that includes clearing, grading, and excavation resulting in soil disturbance of at least 1 acre of total land area. The Construction General Permit authorizes the discharge of storm water to surface waters from construction activities. It prohibits the discharge of materials other than storm water and authorized non-storm water discharges and all discharges that contain a hazardous substance in excess of reportable quantities established at 40 Code of Federal Regulations 117.3 or 40 Code of Federal Regulations 302.4, unless a separate NPDES permit has been issued to regulate those discharges.

The Construction General Permit requires that all developers of land where construction activities will occur over more than 1 acre do the following:

- Complete a Risk Assessment to determine pollution prevention requirements pursuant to the three Risk Levels established in the General Permit;
- Eliminate or reduce non-storm water discharges to storm sewer systems and other waters of the Nation;
- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP), which specifies BMPs that will reduce pollution in storm water discharges to the Best Available Technology Economically Achievable/Best Conventional Pollutant Control Technology standards; and
- Perform inspections and maintenance of all BMPs.

In order to obtain coverage under the NPDES Construction General Permit, a project applicant must electronically file all Permit Registration Documents with the SWRCB prior to the start of construction. Permit Registration Documents must include:

- Notice of Intent;
- Risk Assessment;
- Site Map;
- Stormwater Pollution Prevention Plan;
- Annual Fee; and
- Signed Certification Statement.

Typical BMPs contained in SWPPPs are designed to minimize erosion during construction, stabilize construction areas, control sediment, control pollutants from construction materials, and address post construction runoff quantity (volume) and quality (treatment). The SWPPP must also include a discussion of the program to inspect and maintain all BMPs.

[2] *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System No. CAS000002.

Regional and Local

San Diego Municipal Stormwater Permit

On January 24, 2007, the San Diego RWQCB issued an NPDES Municipal Stormwater Permit (Order No. R9-2007-0001) to the County and 20 other cities or jurisdictions in the region. The 2007 permit renews Permit No. CAS0108758, which was previously issued on July 16, 1990 (Order No. 90-42), and renewed on February 21, 2001. The renewed permit requires the development and implementation of BMPs in development planning and construction of private and public development projects. Development projects are required to include BMPs to reduce pollutant discharges from the project site in the permanent design. In addition, the County requires a Stormwater Management Plan (SWMP) to describe potential construction and post-construction pollutants and identify BMPs to protect water resources. The San Diego County Department of Planning and Land Use prepared a Low Impact Development Handbook, Stormwater Management Strategies, which includes a comprehensive list of low-impact development planning and stormwater management techniques to assist in complying with the municipal permit. In addition, the County, in conjunction with other municipalities within the County, has prepared a Countywide Standard Urban Stormwater Mitigation Plan (SUSMP) as required by the San Diego RWQCB NPDES Permit. The SUSMP incorporates low-impact design measures with engineered, small-scale integrated management practices such as bioretention, and provides a single integrated design option that complies with overlapping NPDES permit Low Impact Design requirements, stormwater treatment requirements, and runoff peak-and-duration-control (hydromodification management) requirements.

County of San Diego Code of Regulatory Ordinances Sections 67.801-67.814, Watershed Protection, Stormwater Management, and Discharge Control Ordinance (WPO)

The stated purposes of this ordinance is to protect the health, safety and general welfare of the County of San Diego residents; to protect water resources and to improve water quality; to cause the use of management practices by the County and its citizens that will reduce the adverse effects of polluted runoff discharges on waters of the State; to secure benefits from the use of stormwater as a resource; and to ensure the County complies with applicable state and federal law. The WPO contains discharge prohibitions, and requirements that vary depending on type of land use activity and location in the County. The WPO defines the requirements that are legally enforceable by the County in the unincorporated area. In addition, the County has adopted its SUSMP for Land Development and Public Improvement Projects. The SUSMP is focused on project design requirements and related post-construction requirements for land development and capital improvement projects, and addresses WPO requirements for these project types. The WPO also contains Low Impact Development (LID) requirements. LID is a storm water management approach that maintains the natural hydrologic character of a site or region by using design techniques that infiltrate, filter, store, evaporate, and detain runoff onsite. A LID Handbook was developed in December 2007 to provide the development community with guidance on implementing LID strategies and practices.

Environmental Setting

Regional Hydrology

The County of San Diego is divided into two hydrologic regions—the Colorado Hydrologic Region, which drains in an easterly direction to the Salton Sea, and the San Diego Hydrologic Region, which drains in a westerly direction to the Pacific Ocean and encompasses most of the County, parts of southwestern Riverside County and southwestern Orange County.

The Proposed Project alignment is located within the two primary Hydrologic Regions: the Colorado River Hydrologic Region governed by the Colorado RWQCB and the San Diego Hydrologic Region governed by the San Diego RWQCB. The western portion of the project site is located within the San Diego Hydrologic Region, Tijuana hydrologic unit, Campo hydrologic area, and the Clover Flat and Hill subareas. The eastern portion of the project site is located within the Colorado River Hydrologic Region, Anza-Borrego hydrologic unit, Jacumba hydrologic area, and the McCain subarea. Refer to Figures 4.9-1 and 4.9-2 for a map of the watersheds and subareas.

San Diego Hydrologic Region – Tijuana Hydrologic Unit

The Tijuana River Watershed encompasses a region of approximately 1,750 square miles (1.12 million acres) on both sides of the international border between California and the state of Baja California in Mexico. The Tijuana River is formed by two drainage networks that merge in the City of Tijuana, then flow across the U.S.-Mexico international border into the Tijuana River Estuary in Imperial Beach, and ultimately to the Pacific Ocean. Several jurisdictions with land use authority lie within the boundaries of the Tijuana River Watershed, including the cities of Imperial Beach and San Diego, the County of San Diego, and several Mexican municipalities, including the important urban centers of Tijuana and Tecate.

The watershed is comprised of the Tijuana hydrologic unit and the following hydrologic areas: Tijuana Valley, Potrero, Barrett Lake, Monument, Morena, Cottonwood, Cameron, and Campo. Major water bodies in this watershed management area include the Tijuana River, Cottonwood Creek, and the Tijuana River Estuary. Annual precipitation varies from less than 10.5 inches near the coast to more than 22.5 inches in the inland areas.

Dominant land uses in the U.S. portion of the watershed are undeveloped/vacant areas (61 percent) and parks (26 percent). Other land uses include residential (7 percent), agriculture (3 percent) and transportation (3 percent). The Tijuana River Watershed also includes the Tijuana River Estuary, which is a National Estuarine Sanctuary.

Colorado River Hydrologic Region – Anza-Borrego Hydrologic Unit

The Colorado River Basin Region covers approximately 13 million acres (20,000 square miles) in the southeastern portion of California. It includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego counties. The Region has 28 recognized major watersheds or “hydrologic units,” and contains water bodies of statewide, national, and international significance (e.g., Salton Sea and Colorado River). The Salton Sea Transboundary watershed management area contains parts of five hydrologic units located in the eastern desert

portion of the County. These include the Anza-Borrego, Clark, Whitewater, West Salton, and Imperial Watersheds. The Anza-Borrego Watershed is the largest hydrologic unit, covering about 80 percent of the desert portion of San Diego County and extending into Imperial and Riverside counties. The surface water that intermittently exists flows toward the Salton Sea and the Colorado River.

Average annual precipitation for this watershed management area ranges from less than three inches along the eastern boundary, near Imperial Valley, to 25 inches in the mountain divide between the Salton Sea and Pacific Ocean drainages. Runoff occurs from winter precipitation especially in the higher elevations and from summer thunderstorms. Approximately 98 percent of the land uses located within the San Diego County portion of the Salton Sea Transboundary watershed management area is parkland, undeveloped land, or used for agriculture. The remaining portions are sparsely populated with single-family residential units, and a small amount of other uses.

Site Hydrology

Surface flows from the project area in the Anza-Borrego hydrologic unit flows towards Walker Creek, which flows to Carrizo Creek, and ultimately to the Salton Sea. The Salton Sea is over 40 miles downstream of the project site.

Surface flows from the project area in the Tijuana River hydrologic unit flow to Campo Creek, which flows to the Tijuana River, and ultimately to the Pacific Ocean.

Surface Water Quality

Tijuana Hydrologic Unit

In terms of water quality degradation, Tijuana River watershed is considered the most severely impacted watershed in San Diego County. The Tijuana River Watershed is classified as a Category I (impaired) watershed by the SWRCB due to a wide variety of water quality issues. These problems are largely a result of point and non-point sources on both sides of the border.

Surface flows from the project area in the Tijuana River hydrologic unit flow to Campo Creek, which flows to the Tijuana River, and ultimately to the Pacific Ocean. Campo Creek is not listed as impaired, however, the Tijuana River is impaired for numerous constituents including, eutrophication, indicator bacteria, low dissolved oxygen, pesticides, phosphorus, sediment/siltation, selenium, solids, surfactants, synthetic organics, total nitrogen as N, toxicity, trace elements, and trash.

Salton Sea Transboundary

Constituents of concern to the Salton Sea Transboundary watershed management area include high concentrations of salt, total dissolved solids (TDS), and elevated levels of selenium. Replenishment of the watershed is predominantly from farm drainage and seepage and occasional storm runoff from the Coachella Valley, Imperial Valley, Anza-Borrego, and the Mexicali Valley in Mexico. No Salton Sea Transboundary watershed management area waterbodies located within San Diego County are listed on the CWA 303(d) list of impaired water bodies.

Groundwater

The Proposed Project does not directly overlie a groundwater basin. The western portion of the project area is northeast of the Campo Valley Groundwater Basin. This groundwater basin underlies Campo Valley, which is approximately 40 miles east of the City of San Diego and adjacent to the Mexican border. The basin is bounded by non-permeable crystalline rocks of the Peninsular Ranges. Campo Valley is drained by Campo Creek. Average annual precipitation ranges from 7 to 15 inches.

The eastern portion of the project area is northwest of the Jacumba Valley Groundwater Basin. Jacumba Valley Groundwater Basin lies within the southeastern Peninsular Ranges. The basin is bounded by faults on the east and west, and by the international border with Mexico on the south. The remainder of the basin is bounded by crystalline rocks of the Peninsular Ranges. Average annual rainfall ranges from about 14 to 16 inches. Several streams have deposited a thick section of alluvium in the central part of the valley, and several springs, including hot springs are found in the basin.

A geotechnical report for the Proposed Project concluded that based on the site topography and regional geology, it is presumed that the static groundwater level will not be encountered at shallow depths. However, perched groundwater seepage zones may be encountered along the weathered and unweathered rock contacts (VO Engineering, 2011).

Floodplains

Based on review of the Best Available Floodplain Maps (BAM) provided by DWR, the project area is not located within a 100-year flood zone. In addition to DWR BAM, the County of San Diego has developed its own flood maps that account for additional areas of known risk. The County flood maps provide 1 percent annual chance (100-year) riverine flood elevations for areas beyond those studied by FEMA, and are used in addition to the FIRM in regulating development. The flood hazard information, including FEMA floodplain boundaries and flood zones, are depicted on the website for SanGIS. Based on review of the floodplain maps provided by SanGIS, the project area is not located within a 100-year flood zone.

Dam Failure Inundation Areas

As shown in the County of San Diego General Plan, Safety Element, Dam Inundation Areas Figure S-6, there are no dams located upstream or in the general vicinity of the project area. The areas at risk of dam failure are also depicted on the website for SanGIS. Based on review of the dam failure maps provided by SanGIS, the project area is not located within an area at risk of dam failure.

4.9.4 Impacts

Significance determinations of impacts to hydrology and water quality are summarized below. Potential impacts are discussed in detail in the following sections. Impacts to hydrology and water quality from the Proposed Project will be less than significant.

Would the project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, causing a net deficit in aquifer volume or a lowering of the local groundwater table level? (In other words, would the production rate of pre-existing nearby wells drop to a level that would not support existing land uses or planned uses for which permits have been granted?)	☐	☐	☒	☐
c) 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 on- or off-site erosion or siltation?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or a substantial increase to the rate or amount of surface runoff in a manner that would result in on- or off-site flooding?	☐	☐	☒	☐
e) 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?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) 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?	☐	☐	☐	☒
h) Places structures within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i) 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?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Significance Criteria

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the Proposed Project will have a significant impact to hydrology and water quality if it:

a) Violates any water quality standards or waste discharge requirements;

b) Substantially depletes groundwater supplies or interferes significantly with groundwater recharge to the extent that a net deficit in aquifer volume or a lowering of the local groundwater table level will occur;

c) Substantially alters 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 will result in substantial erosion or siltation on or off site;

d) Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increases the rate or amount of surface runoff in a manner that will result in flooding on or off site;

e) Creates or contributes to runoff water that will exceed the capacity of existing or planned stormwater drainage systems or provides substantial additional sources of polluted runoff

f) Otherwise substantially degrades water quality;

g) Places housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Maps, or other flood hazard delineation map;

h) Places structures that will impede or redirect flood flows within a 100-year flood hazard area;

i) Exposes 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; or

j) Causes inundation by seiche, tsunami, or mudflow.

Question 4.9a – Water Quality Standards and Waste Discharge Violations – Less Than Significant Impact

Pollutants of concern during construction of the Proposed Project include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. In addition, chemicals, liquid products, petroleum products (such as paints, solvents, and fuels), and concrete-related waste may be spilled or leaked during construction of the Proposed Project, with the potential to be transported via storm runoff into receiving waters and eventually to affect downstream hydrologic areas. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. Vehicles and equipment are prone to tracking soil and spoil from work areas to paved roadways, which is another form of erosion.

The impacts due to erosion and sedimentation can be placed in three categories: degradation of aquatic and riparian ecosystems; pollutant transport; and erosion of land and sedimentation within waterways and public facilities (i.e., storm drains). Sediment can be detrimental to aquatic life

(primary producers, benthic invertebrates, and fish) by interfering with photosynthesis, respiration, growth, reproduction, and oxygen exchange in water bodies. In addition, sediment particles can transport other pollutants that are attached to them including nutrients, trace metals, and hydrocarbons. Sediment particles such as silts and clays are the primary components of total suspended solids (TSS), a common water quality analytical parameter. In addition to impacts directly associated with sedimentation, various pollutants can also be transported along with sediment particles leaving construction sites. These pollutants often originate from organic components, plant residues, and nutrient elements within soils on the construction site, and are thus mobilized by erosion and later deposited downstream during sedimentation. Alternatively, these other pollutants may be generated independent of erosion and, because of their nature, can have substantial detrimental affects to receiving waters.

Construction activities for the Proposed Project will include clearing, grubbing, grading, stockpiling of materials, excavation for access roads, trenching, pole foundation excavation and installation, and conductor installation. Temporary indirect impacts include construction-related impacts such as dust, potential fuel spills from construction equipment, and activities of equipment or personnel outside designated construction areas.

Construction would occur in several phases, each with different potential impacts to water quality. During the grading phase or below-grade work, soils would be disturbed, moved, and transported within the site. This phase of construction would have the highest potential for wind and water erosion. Short-term soil piles or construction materials may be stockpiled near unnamed creeks during the construction activities. Construction BMPs such as silt fences around soil piles, tarp/cover for soil piles, and gravel bag berms along temporary flow paths will minimize erosion and sedimentation. In addition, directing nuisance flow to a temporary pond for settlement of sediments, allows the pollutants to be concentrated and controlled onsite.

In order to control the impact of erosion, sedimentation, and other pollutants on receiving waters, the SWRCB Construction General Permit, requires the implementation of BMPs to eliminate or reduce the discharge of pollutants in storm water discharges, and prohibits the discharge of non-storm water from the construction site as these non-storm water discharges are likely to carry pollutants to receiving waters. Under the Construction General Permit, the Proposed Project would be required to prepare a SWPPP and implement construction BMPs detailed in the SWPPP during construction activities. SDG&E would utilize the company's Best Management Practices Manual for Water Quality Construction to identify and develop appropriate BMPs for the Proposed Project (SDG&E, 2011). Construction BMPs would be designed to minimize erosion and sedimentation and prevent spills. Various BMPs may be needed at different times during construction since activities are constantly changing site conditions. Selection of erosion control BMPs will be based on minimizing disturbed areas, stabilizing disturbed areas, and protecting slopes and channels/washes. Selection of sediment control BMPs will be based on retaining sediment onsite and controlling the site perimeter. In addition, the SWPPP will identify the following: equipment storage, cleaning and maintenance areas/activities; points of ingress and egress to the construction site; material loading, unloading, and storage practices and areas,

including construction materials, building materials and waste materials; and materials, equipment, or vehicles that may come in contact with storm water.

In summary, the Proposed Project would include construction BMPs to minimize water quality impacts. BMPs include, but are not limited to, gravel bag berms, velocity reducers, and storm drain inlet protection; watering unpaved access roads to minimize dust nuisance; preserving existing vegetation to the extent feasible to help minimize erosion; stabilizing truck entrances/exits to reduce tracking dirt and debris onto public roads; and truck and tire washes when conditions warrant.

With compliance with the Construction General Permit, and when construction BMPs are properly designed, implemented, and maintained to address pollutants of concern, as described in APM-HYD-1, impacts during construction will be less than significant.

Pollutants of concern during operation and maintenance of the Project include sediments, trash, petroleum products, metals, and chemicals. An increase in impervious areas would increase the volume of runoff during a storm, which would more effectively transport pollutants generated during operation into receiving waters. In addition, as the amount of impervious surfaces and runoff increases, less water is able to infiltrate into the ground. Infiltration allows water to travel more slowly to creeks and streams, which helps sustain flows through drier periods and support aquatic life. Water that travels too quickly to creeks and streams can transport more sediment and other pollutants, thereby impairing water quality of the water body. In addition, the water may also flow to creeks and streams at high velocity, which could result in erosion and flooding. Water that infiltrates through the ground also is filtered by natural processes before it reaches the receiving water body.

There could be an increase in runoff volume due to the addition of new impervious areas from the Proposed Project but compared with existing conditions, the operations and maintenance activities onsite would not change. No adverse waste discharge currently exists or is expected to exist during operation of the Proposed Project. Therefore, regardless of a slight increase in runoff volumes, the runoff is not expected to carry pollutants into the groundwater or nearby water bodies.

The immediate receiving water bodies (Walker Creek and Campo Creek) are not impaired water bodies. However, receiving waters further downstream, such as the Tijuana River and Salton Sea are listed as impaired. As described above, the Proposed Project is not expected to release discharge containing pollutants into receiving water bodies. Therefore, the Proposed Project is not expected to result in adverse impacts to water quality, i.e., a violation of water quality standards or water quality objectives.

Question 4.9b – Groundwater Depletion or Recharge – Less Than Significant Impact

Approximately 2.3 million gallons of water will be utilized during the construction of the Proposed Project. The Project's water use evaluation is based on water deliveries from sources in the City of San Diego and the San Carlos area, which are approximately 50 miles west of the

project site. This water source would not affect groundwater availability in the Proposed Project vicinity. In addition, dewatering activities are not anticipated to be performed as part of the Proposed Project construction. Therefore, no impacts to groundwater from below-grade construction will occur.

Operation of the Proposed Project will require insulator washing, which involves driving a water truck to within six feet of the facility and using a high-pressure hose to spray water at the insulators. The water will be obtained from permitted municipal sources, similar to use during construction. Since the small volume of water required for operation and maintenance will not be obtained from groundwater resources, the Proposed Project is not anticipated to affect the existing groundwater supply. Impacts are anticipated to be less than significant.

Question 4.9c – Drainage Patterns – Erosion/Siltation – Less Than Significant Impact

Refer to Response to Question 4.9a – Water Quality Standards and Waste Discharge Violations, Construction Impacts. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In order to control the impact of erosion, sedimentation, and other pollutants on receiving waters, the SWRCB Construction General Permit requires the implementation of BMPs to eliminate or reduce the discharge of pollutants in storm water discharges, and prohibits the discharge of non-storm water from the construction site as these non-storm water discharges are likely to carry pollutants to receiving waters. With compliance with the Construction General Permit, and implementation of BMPs as described in APM-HYD-1, water quality impacts due to erosion and siltation are expected to be less than significant during construction.

Refer to Response to Question 4.9a – Water Quality Standards and Waste Discharge Violations, Operation and Maintenance Impacts. During construction activities the site will be stabilized through use of construction BMPs. After construction is complete, the site will be stabilized and the proposed treatment control BMPs will ensure the operation of the Proposed Project does not result in erosion or siltation on or offsite.

Question 4.9d – Drainage Patterns – Runoff/Flooding – Less Than Significant Impact

Refer to Response to Question 4.9a – Water Quality Standards and Waste Discharge Violations, Construction Impacts.

Refer to Response to Question 4.9a – Water Quality Standards and Waste Discharge Violations, Operation and Maintenance Impacts. Compared to the existing conditions, the Proposed Project will result in a permanent increase of impervious surfaces and potentially permanent increases in runoff in the project area, but the operations and maintenance water discharge volumes will not change. No adverse waste discharge currently exists and none are expected to exist during operation and maintenance of the Proposed Project. So, regardless of a slight increase in runoff volumes, the runoff is not expected to carry pollutants into the groundwater or nearby water bodies.

Question 4.9e – Stormwater Runoff – Less Than Significant Impact

Refer to Response to Question 4.9a – Water Quality Standards and Waste Discharge Violations, Construction Impacts.

No runoff water will be generated during operations and maintenance that will exceed the capacity of existing stormwater drainage systems. Additionally, the proposed BMPs would remove potential pollutants from runoff and would not contribute additional pollutant loads into receiving waters. Based on applicable BMPs being implemented in accordance with County of San Diego NPDES Permit requirements, as stipulated in APM-HYD-1, the Proposed Project is not expected to result in substantial additional sources of polluted runoff.

Question 4.9f – Water Quality Degradation – Less Than Significant Impact

Potential sources of pollutants and activities that can contribute to water quality degradation are discussed in detail in response to Question 4.9a – Water Quality Standards and Waste Discharge Violations. No other foreseeable sources of pollution are anticipated to be associated with construction of the Proposed Project. As a result, impacts will be less than significant.

Question 4.9g – Housing in Flood Hazard Areas – No Impact

No housing will be constructed as part of the Proposed Project; thus, none will be placed within a 100-year flood hazard area. No impact will occur.

Question 4.9h – Structures in Flood Hazard Areas – No Impact

Based on review of the BAM provided by DWR, the project area is not located within a 100-year flood zone. In addition to DWR BAM, the County of San Diego has developed its own flood maps that account for additional areas of known risk. The County flood maps provide 1 percent annual chance (100-year) riverine flood elevations for areas beyond those studied by FEMA, and are used in addition to the FIRM in regulating development. The flood hazard information, including FEMA floodplain boundaries and flood zones, are depicted on the website for SanGIS. Based on review of the floodplain maps provided by SanGIS, the project area is not located within a 100-year flood zone. Therefore, no impacts are anticipated from flood hazard areas.

Question 4.9i – Flood Exposure – No Impact

Proposed Project construction will not expose people or structures to a significant risk of loss, injury, or death due to flooding, as no on- or offsite flood impacts are expected, as described in the response to Question 4.9h – Structures in Flood Hazard Areas.

Question 4.9j – Seiche, Tsunami, Mudflow – No Impact

The Proposed Project area is not located near any large bodies of water that are susceptible to seiche and is too far away from the ocean to be affected by a tsunami. A mudflow is a flow of dirt and debris that occurs after intense rainfall, earthquakes, or severe wildfires. The potential for a mudflow to occur depends on the slope steepness, soil type, and soil moisture content. Although possible, a mudflow is unlikely to occur in the Proposed Project area. Furthermore, if it did occur,

it would have little consequence on construction of the Proposed Project. The chance of a mudflow above any of the Proposed Project facilities is extremely low, but if a mudflow did occur and resulted in a damaged facility, repair would be addressed in accordance with SDG&E's emergency repair protocols. Thus, no impact is anticipated.

4.9.5 Applicant Proposed Measures

The following APM will ensure that impacts associated with hydrology and water quality will be less-than-significant:

- APM-HYD-1: SDG&E will comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit, General Permit For Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-09-DWQ, NPDES No. CAS000002), and any subsequent permit as they relate to construction activities for the Porposed Project. This will include preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP), and submission of a Notice of Termination to the State Water Resources Control Board upon completion of construction and stabilization of the site.

4.9.6 References

California RWQCB. Colorado Basin Region. *Water Quality Control Plan for the Colorado Basin Region.* August 3, 1994, as amended October 2005.

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County of San Diego. Stormwater Standards Manual, as Amended by Ordinance No. 9589, adopted 8/5/03.

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California Watershed Portal. Online. http://www.conservation.ca.gov/dlrp/watershedportal/Pages/Index.aspx, accessed February 23, 2012.

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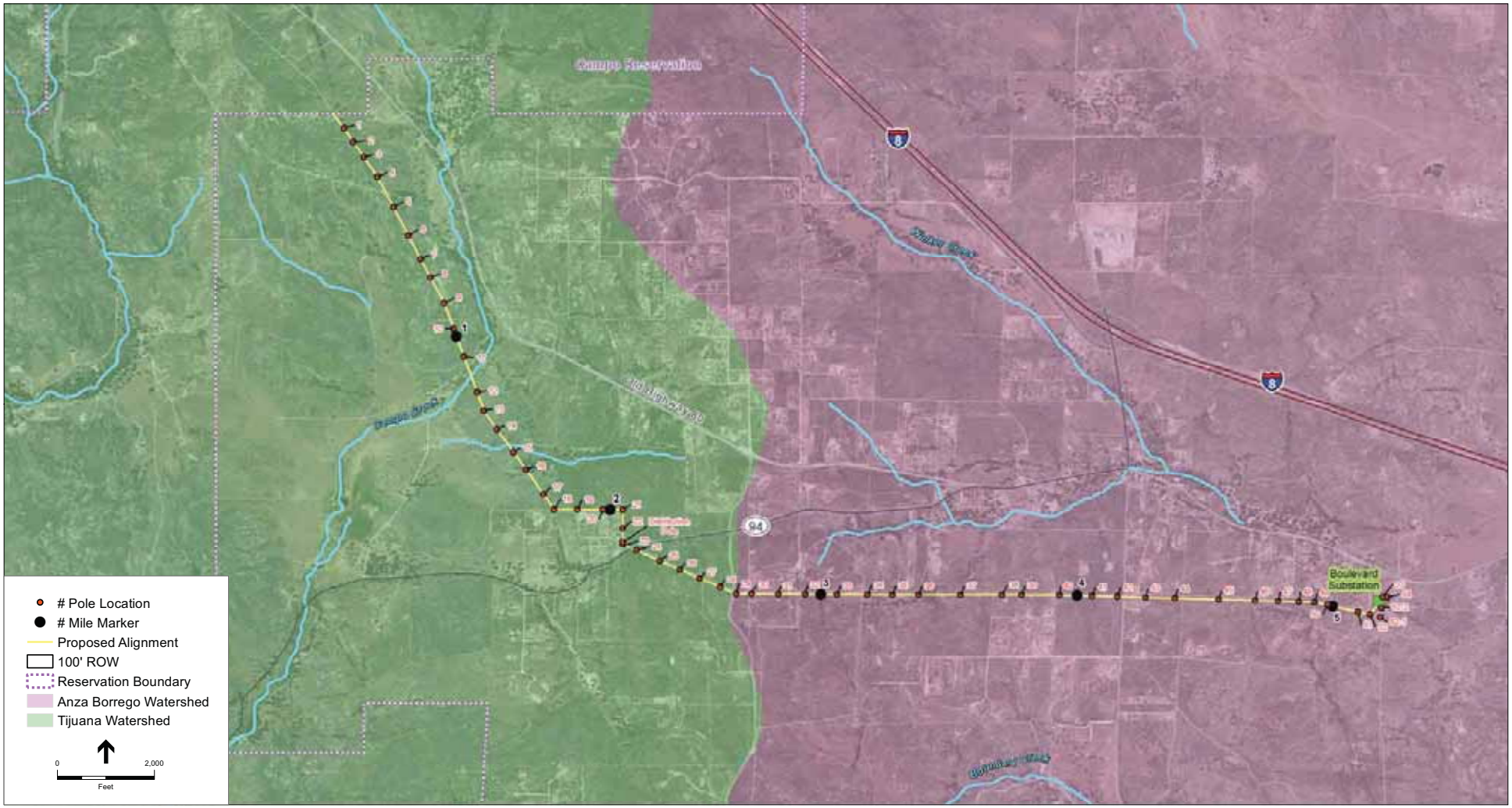
State Water Resources Control Board. Water Quality in the Colorado River Basin, June 2008.

U.S. Environmental Protection Agency. 2010 Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report). November 12, 2010.

Watershed Urban Runoff Management Program. Tijuana River Watershed, March 2008.

VO Engineering, Inc. Preliminary Siting Report, San Diego Gas & Electric Company, Manzanita Wind Generation San Diego County, California. March 11, 2011.

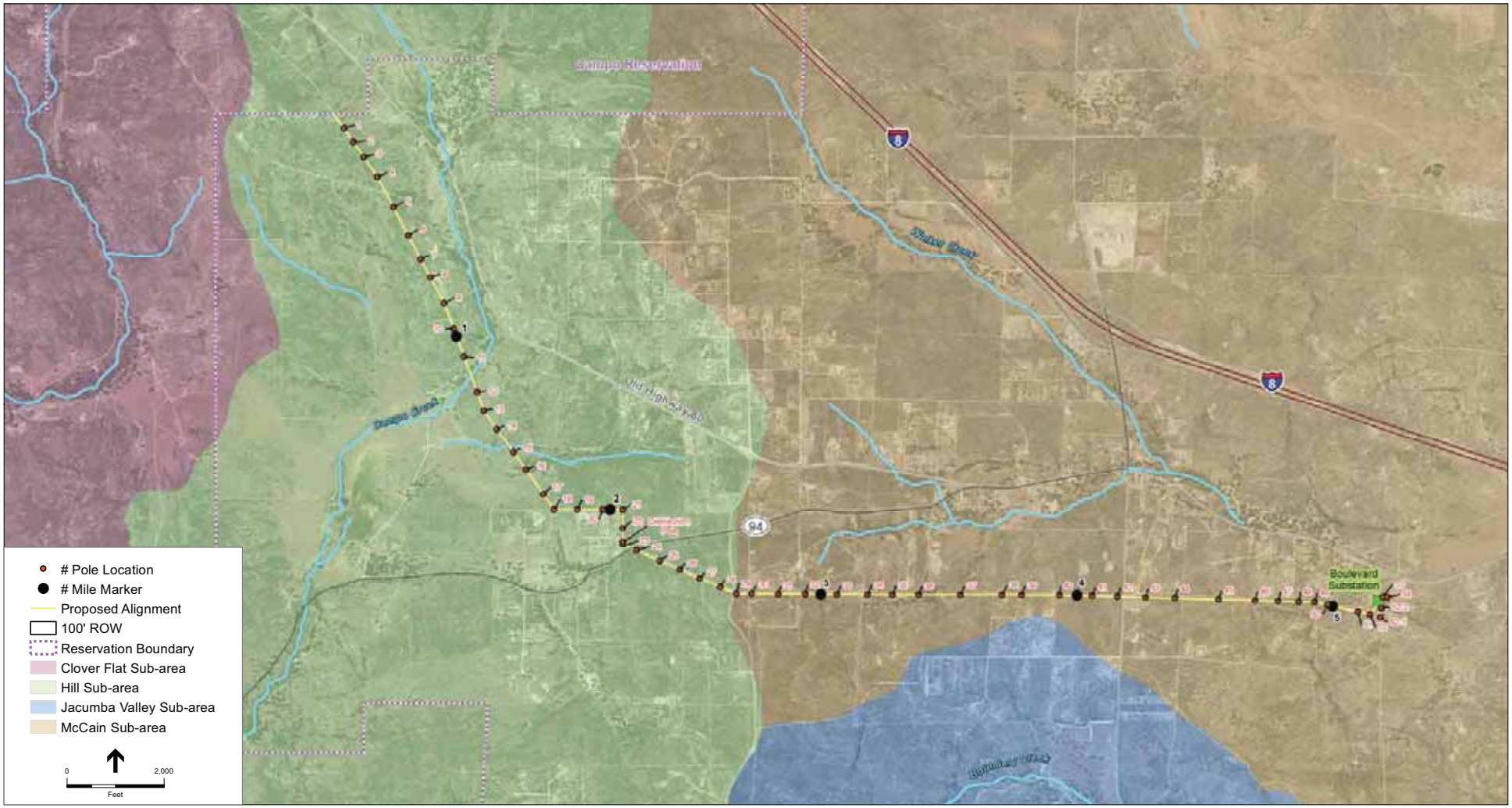


SOURCE: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010), NHD

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 4.9-1

Surface Waters and Watershed



SOURCE: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010), NHD

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 4.9-2

Surface Waters and Watershed (Sub-area)

4.10 Land Use and Planning

4.10.1 Introduction

This section describes the existing land uses in the vicinity of the Proposed Project and evaluates potential impacts to land use that may result from Project construction or operation. Construction of the Proposed Project will not result in any impacts to existing or proposed land uses, nor physically divide an established community. As discussed within this section, the Proposed Project conforms to all applicable land use plans and policies adopted by various agencies.

4.10.2 Methodology

The land use analysis involved a review of various documents, including aerial photographs of the Proposed Project area and the San Diego County General Plan. Other plans, programs and information reviewed as part of this analysis include the Mountain Empire Subregional Plan, Boulevard Subregional Planning Area, San Diego Gas & Electric Company's (SDG&E) Subregional Natural Community Conservation Plan (NCCP), SDG&E's Low Effect Habitat Conservation Plan (HCP) for the Quino Checkerspot Butterfly (QCB), the San Diego County Multiple Species Conservation Program (MSCP), geographic information systems (GIS) data, and official county websites.

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional Applicant Proposed Measures (APMs) were identified to avoid or minimize potential impacts.

4.10.3 Existing Conditions

Regulatory Background

Pursuant to Article XII, Section 8 of the California Constitution, the California Public Utilities Commission (CPUC) has exclusive jurisdiction in relation to local government to regulate the design, siting, 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. As part of the environmental review process, SDG&E has considered relevant regional and county land use plans, policies, and issues, and has prepared this evaluation of the Proposed Project's potential impacts to land use and planning.

Land Use Designations and Existing Land Uses

Existing Land Use

The Proposed Project lies within San Diego County, California and the unincorporated community of Boulevard (See Figure 4.10-1: General Plan Land Use Designation Map). The 5.2-mile route of the interconnection facilities generally consists of sparsely developed rural land. It traverses 29 privately owned parcels that are primarily vacant, and those that are used are occupied by small, low-density single-family residences or mobile homes. The route generally parallels Old Highway 80 to the north and crosses State Route (SR) 94 roughly 2,000 feet west of Tierra del Sol Road. Additionally, much of the Proposed Project will follow the existing 69kV TL 6931 route. However, due to the right-of-way (ROW) width requirement, the proposed facilities will not be able to follow the existing 69 kV line route through an existing rural community. To avoid removing these residences, the Proposed Project between Poles 18 and 23 deviates from the existing 69 kV line alignment.

General Plan Land Use Designations

The proposed interconnection route is located within the Boulevard Subregional Planning Area component of the Mountain Empire Subregional Plan, which is a Community Plan established in the San Diego County General Plan. The parcels traversed by the route are designated as either Rural Land or Semi-Rural Residential. The General Plan definition of the Semi-Rural category is provided below:

Semi-Rural

The Semi-Rural category identifies areas of the County that are appropriate for lower-density residential neighborhoods, recreation areas, agricultural operations, and related commercial uses that support rural communities.

Zoning Designations

The proposed interconnection route crosses lands that are zoned General Rural (S92) and Rural Residential (RR) in the County of San Diego Zoning Ordinance. Permitted uses in the RR zone include family residential, law and fire protection services, and agriculture. Minor Impact Utilities are permitted upon issuance of a Minor Use Permit, and Major Impact Services and Utilities are permitted upon issuance of a Major Use Permit.

Land Use Plans and Policies

All land use plans adopted by local jurisdictions crossed by the Proposed Project components were reviewed for relevant land use resources. The Proposed Project components will cross through lands under the San Diego County General Plan, SDG&E's NCCP, SDG&E's Low-Effect HCP for the QCB, and the San Diego County Draft East County MSCP. Each of these plans are described below.

San Diego County General Plan

The San Diego County General Plan, adopted in August 2011, directs future growth in the unincorporated areas of the County. While the General Plan Land Use Element, inclusive of land

use maps and goals and policies, applies to all lands throughout the unincorporated County, there are special land use issues and objectives that uniquely pertain to each of the County's diverse communities. These are addressed by Community Plans in which goals and policies are defined to provide more precise guidance regarding the character, land uses, and densities within each community planning area. The Community Plan applicable to the Proposed Project is the Mountain Empire Subregional Plan. The Mountain Empire Subregion Plan contains Subregional Planning Areas with their own goals, policies and recommendations. The Proposed Project is located within the Boulevard Subregional Planning Area. The following Goals, Policies and Recommendations of the Mountain Empire Subregional Plan and Boulevard Subregional Planning Area are applicable to the Proposed Project:

Mountain Empire Subregional Plan

Goal 5: Provide the Facilities and Level of Service Necessary to Satisfy the Needs of the Subregion.

> **Findings:** San Diego Gas and Electric (SDG&E) maintains a 69 kilovolt (kV) overhead power line that runs through the middle of the Boulevard Planning Area. In addition, the Southwest Powerlink transmission line runs west and east through the entire Subregion. SDG&E has substation facilities located in Boulevard and Cameron Corners. It is possible that development within the vicinity of these power transmission facilities can have an effect upon SDG&E's ability to patrol, maintain, and repair them.
>
> **Policies and Recommendations**
>
> 5.1 Maintain unobstructed access to and along the path of existing power Transmission facilities and lines.
>
> 5.2. Any proposed grading, improvements, or other encroachments to the substation or transmission right-of-ways must be reviewed by SDG&E.
>
> 5.3 Any alteration of drainage patterns affecting the substation or transmission line right-of-ways should be reviewed and approved by SDG&E.

Boulevard Subregional Planning Area

> **Policy CM 8.6.1:** Encourage the use of existing right-of-way when construction of new transmission lines is required, where technically and economically feasible. Additionally, encourage existing right-of-way over new right-of-way alignments for construction of new transmission lines, when existing right-of-way is insufficient.

SDG&E's Subregional Natural Community Conservation Plan

Under Section 10(a) of the FESA, SDG&E developed a comprehensive HCP/NCCP to effectively preserve and enhance covered sensitive species and their native habitats during operation, maintenance, and expansion of its electric and natural gas transmission system (16 U.S.C. § 1539). The CDFG issued a Take Authorization under the NCCPA to SDG&E for the

development, installation, maintenance, operation and repair of SDG&E facilities in accordance with the NCCP.

The purpose of the Subregional NCCP is to establish and implement a long-term agreement between SDG&E, USFWS, and the CDFG for the preservation and conservation of sensitive species and their habitat while allowing SDG&E to develop, install, maintain, operate, and repair its facilities necessary to provide energy services to customers living within SDG&E's service area. The NCCP does not cover major expansions of SDG&E's electric system and only covers new electric substations that will result in up to 20 acres of habitat disturbance.

San Diego County Draft East County Multiple Species Conservation Program Plan

The MSCP is a comprehensive habitat conservation planning program for southeastern San Diego County. The purpose of the MSCP is to preserve a network of habitat and open space while protecting biodiversity and enhancing the region's quality of life. The MSCP provides an economic benefit by reducing constraints on future development and decreasing the costs of compliance with federal and state laws protecting biological resources. The MSCP Plan was developed cooperatively by participating jurisdictions and special districts in partnership with the wildlife agencies, property owners, and representatives of the development industry and environmental groups. The MSCP Plan was designed to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time.

SDG&E's Low Effect Habitat Conservation Plan for the Quino Checkerspot Butterfly

SDG&E prepared a Low-Effect HCP to minimize and mitigate the effects of its activities on the federally endangered QCB and to obtain incidental take authorization for QCB from the USFWS. The HCP addresses potential impacts to the QCB from the use, maintenance, and repair of existing gas and electric facilities and allows for typical expansions to those systems. Other than maintenance of existing access roads, SDG&E activities include, without limitation, all current and future actions arising out of, or in any way connected with, the siting, design, installation, construction, use, maintenance, operation, repair, and removal of facilities within SDG&E's service territory.

4.10.4 Impacts

Significance determinations of impacts to land use and planning are summarized below. Potential impacts are discussed in detail in the following sections. No impacts to land use and planning will occur as a result of the Proposed Project.

Would the project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) 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?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Significance Criteria

Standards of significance were derived from Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Impacts to land use will be considered significant if the Proposed Project:

- Physically divides an established community, resulting in a change to the community or land use pattern;
- Conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
- Conflicts with any applicable HCPs or NCCPs.

Question 4.10a – Physical Division of an Established Community – No Impact

The proposed interconnection line will generally follow SDG&E's existing TL 6931 ROW (ROW). However, TL 6931 currently divides an existing community between Poles 18 and 23, so the Proposed Project will be routed around this residential community and no impact will occur.

Question 4.10b – Plans and Policy Conflicts – No Impact

The Proposed Project would not conflict with any relevant land use plans or policies. An analysis of the Proposed Project's consistency with each applicable land use plan is presented below.

San Diego County General Plan

Within the San Diego County General Plan, the Mountain Empire Subregional Plan and Boulevard Subregional Planning Area contain policies applicable to the proposed project. An assessment of the Proposed Project's consistency with these policies is presented below.

Mountain Empire Subregional Plan Relevant Policies and Consistency

Policy 5.1: Maintain unobstructed access to and along the path of existing power transmission facilities and lines.

Access to the interconnection facilities would generally rely on existing roads. Where use of existing access roads is not feasible, SDG&E will construct a 14-foot-wide unpaved road with a minimum 50 foot centerline radius. Access roads extending to proposed pole locations will also be constructed (14-foot-wide) where the pole location is too far to reach from the main access road. SDG&E maintains access to its lines and checks them to ensure nothing has been constructed within the ROW. Construction of the Proposed Project components will not impede or obstruct access to any existing line. Therefore, the Proposed Project is consistent with this policy.

Policy 5.2: Any proposed grading, improvements, or other encroachments to the substation or transmission right-of-ways must be reviewed by SDG&E.

The Project is proposed by SDG&E. Therefore, any proposed grading, improvements or other encroachments to the existing TL 6931 ROW has been reviewed by SDG&E. The Proposed Project is consistent with this policy.

Policy 5.3 Any alteration of drainage patterns affecting the substation or transmission line right-of-ways should be reviewed and approved by SDG&E.

The Project is proposed by SDG&E. Therefore, any proposed alteration of drainage patterns affecting the existing TL 6931 ROW has been reviewed by SDG&E. The Proposed Project is consistent with this policy.

Boulevard Subregional Planning Area Relevant Policies and Consistency

Policy CM 8.6.1: Encourage the use of existing right-of-way when construction of new transmission lines is required, where technically and economically feasible. Additionally, encourage existing ROW over new right-of-way alignments for construction of new transmission lines, when existing right-of-way is insufficient.

The Proposed Project will generally follow an existing 69kV power line (TL 6931) route. However, due to the new ROW width requirement, the proposed facilities will not be able to follow the existing 69 kV line route where it crosses a rural community between Poles 18 and 23. To avoid removal of residences in this community, the Proposed Project will deviate from the existing 69 kV alignment and be routed around the community. Therefore, the Proposed Project will use the existing TL 6931 ROW where technically and economically feasible. The Proposed Project is consistent with this policy.

SDG&E's Subregional Natural Community Conservation Plan

The Proposed Project is covered by the NCCP, and several measures to minimize potential impacts to sensitive species within the NCCP will be utilized during the construction of the Proposed Project. Once the Proposed Project is completed, SDG&E will implement the NCCP for maintenance and operational activities associated with all of the Proposed Project components.

San Diego County Draft East County Multiple Species Conservation Program Plan

The Proposed Project area falls within the proposed planning area of the San Diego County Draft East County MSCP. This subarea plan of the current MSCP is currently on hold due to budgetary constraints. The description of the MSCP is included for completeness, but the proposed MSCP is not applicable to the Proposed Project.

SDG&E's Low Effect Habitat Conservation Plan for the Quino Checkerspot Butterfly

The HCP emphasizes protection of habitat through impact avoidance and use of operational protocols designed to avoid or minimize impacts to the QCB. The HCP was prepared in consultation with the USFWS to fulfill the requirements of Section 10(a)(1)(B) permit application for the aforementioned proposed activities. Although construction of the Proposed Project is not covered by the HCP, SDG&E will comply with the general protocols within the HCP for construction of the proposed facilities. Once the Proposed Project is completed, SDG&E will implement the HCP for maintenance and operational activities associated with all of the Proposed Project components.

Question 4.10c – Habitat Conservation Plan or Natural Community Conservation Plan Conflicts – No Impact

As discussed in Attachment 4.10 A: Land Use Plans and Policies, construction, operation, and maintenance of the Proposed Project will not conflict with SDG&E's Subregional NCCP or SDG&E's Low Effect HCP for the QCB. Thus, no impact will occur.

4.10.5 Applicant Proposed Measures

Because there will be no impacts to land use plans and policies from implementation of the Proposed Project, no avoidance or minimization measures are proposed.

4.10.6 References

California Resources Agency. Title 14 California Code of Regulations, Chapter 3 Guidelines for Implementation of the California Environmental Quality Act, 2007. CEQA Guidelines.

San Diego County. 1978, San Diego County Zoning Ordinance, updated through Ordinance Update No. 87, September 2011.

San Diego County. San Diego County General Plan, 2011.

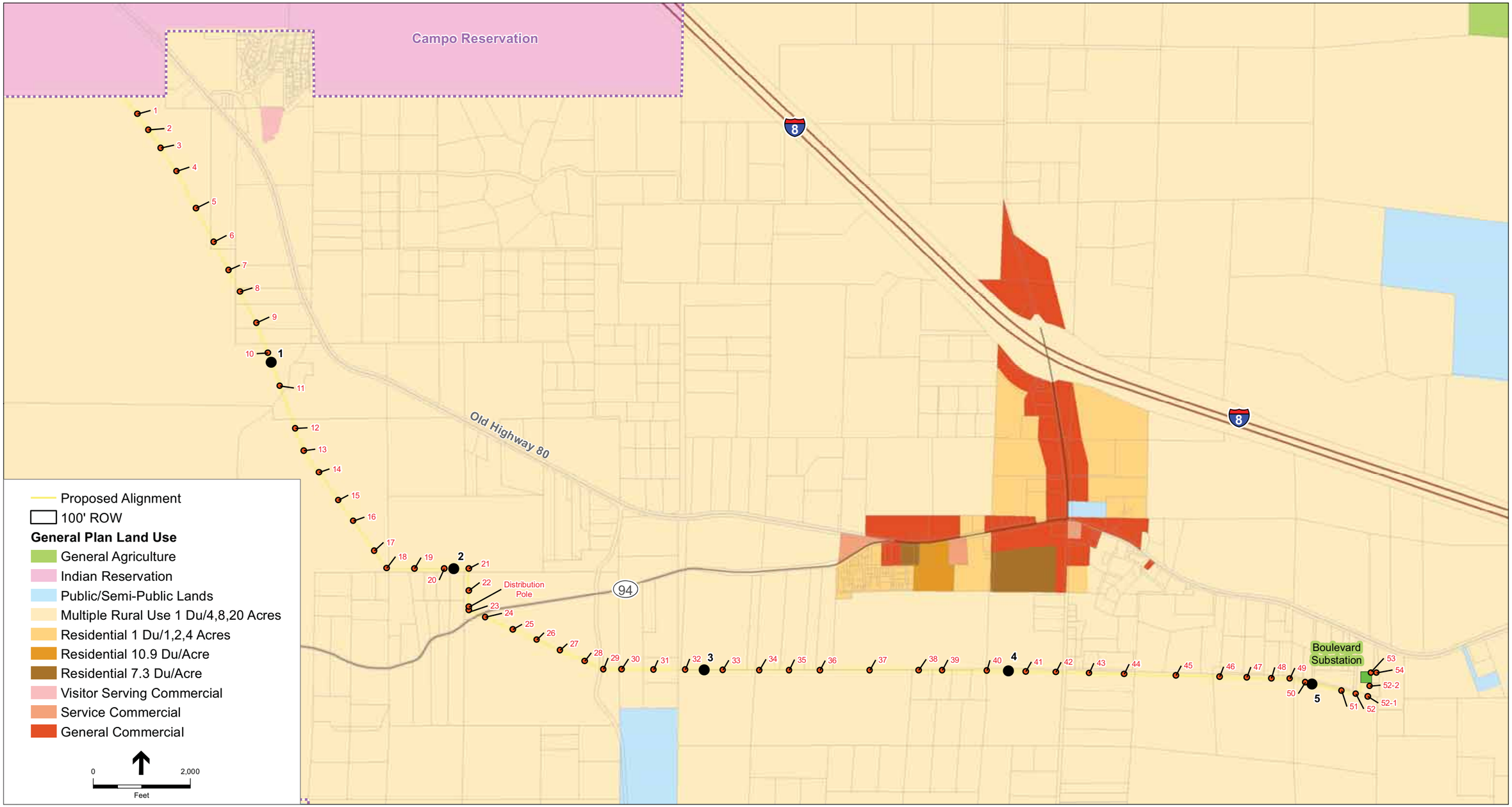
San Diego County. County of San Diego Mountain Empire Subregional Plan, 2011.

San Diego County. Multiple Species Conservation Program, 1998.

San Diego Gas & Electric. SDG&E's Low Effect HCP for the QCB, 2007.

San Diego Gas & Electric. Subregional NCCP, 1995.

Insert the following figure:



SOURCE: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010)

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 4.10-1

General Plan Land Use

4.11 Noise

4.11.1 Introduction

This section assesses the potential noise and vibration impacts associated with the construction, operation, and maintenance of the Proposed Project. Construction noise has the potential to adversely impact noise-sensitive receptors in the area; however, these impacts will remain less-than-significant level with the implementation of applicant-proposed measures (APMs). Operational noise will be less than significant.

4.11.2 Methodology

Noise impacts are assessed based on a comparative analysis of the noise levels resulting from the Project and the San Diego County Noise standards. Analysis of temporary construction noise effects is based on typical construction phases, equipment noise levels and attenuation of those noise levels due to distances, and any barriers between the construction activity and the sensitive receptors near the sources of construction noise.

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional APMs were identified to avoid or minimize potential impacts.

4.11.3 Existing Conditions

Regulatory Background

Federal

No federal noise standards directly regulate noise from operation of electrical power lines. However, in 1974, the United States Environmental Protection Agency (EPA) established guidelines for noise levels, below which no reason exists to suspect that the general population will be at risk from any of the identified effects of noise. The EPA guidelines include equivalent sound level (L_{eq})(24) ≤ 70 A-weighted decibels[1] (dBA) to protect against hearing loss; or day-night equivalent noise level (L_{dn}) ≤ 55 dBA to protect against activity interference and annoyance in residential areas, farms and other outdoor areas where quiet is a basis for use; L_{eq}(24) ≤ 55 dBA to protect against outdoor activity interference where limited time is spent such as school yards

[1] The human ear is not uniformly sensitive to all sound frequencies; therefore, the A-weighting scale has been devised to correspond with the human ear's sensitivity. The A-weighting scale uses the specific weighting of sound pressure levels from about 31.5 hertz (Hz) to 16 kilohertz (kHz) for determining the human response to sound.

and playgrounds; $L_{dn} \leq 45$ dBA to protect against indoor activity interference and annoyance in residences; and $L_{eq}(24) \leq 45$ dBA to protect against indoor activity interference in school yards. These levels are not standards, criteria, regulations, or goals, but are defined to protect public health and welfare with an adequate margin of safety, and to provide guidelines for implementing noise standards locally.

The federal government has passed various general laws to regulate and limit noise levels, identified as follows.

Noise Pollution and Abatement Act of 1970

The Noise Pollution and Abatement Act of 1970 established the Office of Noise Abatement and Control (ONAC) within the EPA, which was authorized to conduct a full and complete investigation of noise and its effect on public health and welfare. The investigation was to include an identification of noise sources, projected noise levels, and effects of noise on persons, animals, and property.

In 1981, the Administration concluded that noise issues were best handled at the state or local government level. As a result, the EPA phased out ONAC's funding in 1982, as part of a shift in the federal noise control policy to transfer the primary responsibility of regulating noise to state and local governments. However, the Noise Control Act of 1972, and the Quiet Communities Act of 1978 (described in this section) were not rescinded by Congress and remain in effect today.

Noise Control Act of 1972

The Noise Control Act of 1972 was the first comprehensive statement of national noise policy. It declares, “It is the policy of the U.S. to promote an environment for all Americans free from noise that jeopardizes their health or welfare.”

Quiet Communities Act of 1978

The Noise Control Act was amended by the Quiet Communities Act of 1978 to promote the development of effective state and local noise control programs, to provide funds for noise research, and to produce and disseminate educational materials to the public on the harmful effects of noise and ways to effectively control it.

As of 2002, agencies including the Department of Transportation (DOT), Department of Labor, Federal Railroad Administration (FRA), and Federal Aviation Administration (FAA), have developed their own noise control programs, with each agency setting its own criteria.

Occupational Health and Safety Act of 1970

This act covers all employers and their employees in the 50 states, the District of Columbia, Puerto Rico, and other U.S. territories. Administered by the Occupational Health and Safety Administration (OSHA), the act assigns OSHA two regulatory functions: setting standards, and conducting inspections to ensure that employers are providing safe and healthful workplaces. OSHA standards may require that employers adopt certain practices, means, methods, or processes reasonably necessary and appropriate to protect workers on the job. Employers must become familiar with the standards applicable to their establishments and eliminate hazards.

Included in this act is a regulation for worker noise exposure at 90 dBA over an 8-hour work shift. Areas where exposure exceeds 85 dBA must be designated and labeled as high-noise-level areas and hearing protection is required.

Federal Aviation Administration

The FAA establishes 65 decibels (dB) Community Noise Equivalent Level (CNEL) as the noise standard associated with aircraft noise measured at exterior locations in noise sensitive land uses (NSLU). This standard is also generally applied to railroad noise. The CNEL treats every evening operation (between 7:00 PM and 9:59 PM) as though it were three and every night operation (between the hours of 10:00 PM and 6:59 AM) as though it were ten. This "weighting" adds a 4.77-dBA penalty during the evening hours and a 10-dBA penalty during the nighttime hours. Some land uses are considered more sensitive to ambient noise levels than others because of the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, hotels, schools, rest homes, and hospitals are generally more sensitive to noise than commercial and industrial land uses, and would be considered NSLUs.

State

California Noise Control Act

The California Noise Control Act states that excessive noise is a serious hazard to public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also recognizes that continuous and increasing exposure to noise exists in urban, suburban, and rural areas. This act declares that the State of California has the responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise.

California Noise Insulation Standards

The California Noise Insulation Standards were adopted in 1974 by the California Commission on Housing and Community Development, meant to establish noise insulation standards for multi-family residential buildings. This document establishes standards for interior room noise attributable to outside noise sources. The regulations also specify that acoustical studies must be prepared whenever a residential building or structure is proposed to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit line, or industrial noise source, and where such noise source or sources create an exterior CNEL (or Ldn) of 60 dB or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or Ldn) of at least 45 dB.

Local

Each local government outlines requirements for noise abatement and control in their general plan and municipal code. The general plans typically set overall goals and objectives, while the municipal codes set specific sound limits.

County of San Diego General Plan – Noise Element

The San Diego County General Plan has stated the following goals.

Goal N-1 Land Use Compatibility: A noise environment throughout the unincorporated County that is compatible with land uses.

Goal N-2 Protection of Noise Sensitive Uses: A noise environment that minimizes exposure to noise sensitive land uses to excessive, unsafe, or otherwise disruptive noise levels.

Goal N-3 Groundborne Vibration: An environment that minimizes exposure of sensitive land uses to the harmful effects of excessive groundborne vibration.

San Diego County Guidelines for Determining Significance for Noise

The San Diego County Guidelines for Determining Significance for noise is used by County staff for review of discretionary projects and environmental documents, pursuant to the California Environmental Quality Act (CEQA). Project implementation that is anticipated to result in the exposure of any on- or offsite, existing or reasonably foreseeable future, NSLU to exterior or interior noise (including noise generated from a project together with noise from roads, railroads, airports, heliports, and all other noise sources) that is either in excess of 60 dB (CNEL) or an increase of 10 dB (CNEL) over pre-existing noise is considered significant.

County of San Diego Noise Ordinance

The County of San Diego Noise Ordinance establishes prohibitions for disturbing, excessive, or offensive noise and contains provisions, such as sound level limits, for the purpose of securing and promoting public health, comfort, safety, peace, and quiet. Limits, as specified by zoning, are provided in Table 4.11-1: San Diego County Sound Level Limits. In the case that two adjacent properties each have different zone classifications, the sound level limit at the location on the boundary between the two properties is the arithmetic mean of the respective limits for the two zones, except for extractive industries. It is unlawful for any person to cause or allow the creation of any noise that exceeds the applicable limits of the Noise Ordinance at any point on or beyond the boundaries of the property on which the sound is produced. Furthermore, the Noise Ordinance allows the County to grant variances from the noise limitations for temporary onsite noise sources, subject to terms and conditions intended to achieve compliance. The San Diego County Department of Planning and Land Use recommends the use of these limits to establish thresholds of significance for noise. Fixed-location public utility distribution or transmission facilities located on or adjacent to a property line is subject to this noise level limit, measured at or beyond six feet from the boundary of the easement upon which the equipment is located.

The Noise Ordinance establishes additional noise limitations for the operation of construction equipment. It is unlawful for any person to operate construction equipment at any construction site on Monday through Saturday, except between the hours of 7 a.m. and 7 p.m., and on Sunday or a holiday (holidays include: January 1st, the last Monday in May, July 4th, the first Monday in September, December 25th and any day appointed by the President as a special national holiday or the Governor of the State as a special State holiday). Construction noise cannot exceed an average of 75 dB during the allowed construction period when measured at or within the property lines of any property developed for residential purposes, unless a variance is granted.

Existing Noise Levels

The sound levels in most communities fluctuate, depending on the activity of nearby and distant noise sources, time of the day, or season of the year. Within an hour, the sound level can fluctuate between the lowest level (Lmin) and the highest level (Lmax). The predominant sources of noise in the area include traffic on I-8 and local roadways. The noise surrounding the project site would be expected to be typical of open space and agricultural areas. Average noise levels in these types of environments typically are in the range of 35-55 dBA (Cunniff, 1977).

TABLE 4.11-1
SAN DIEGO COUNTY SOUND LEVEL LIMITS

Zone Categories	Period	Applicable Limit 1-Hour Average Sound Level (dBA)
RS, RD, RR, RMH, A70, A72, S80, S81, S87, S88, S90, S92, RV, and RU. Use Regulations with a density of less than 11 dwelling units per acre.	7 a.m. to 10 p.m.	50
	10 p.m. to 7 a.m.	45
RRO, RC, RM, C30, S86, RV, RU, and V5. Use Regulations with a density of 11 or more dwelling units per acre.	7 a.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
S94, V4, and all other commercial zones	7 a.m. to 10 p.m.	60
	10 p.m. to 7 a.m.	55
V1, V2	7 a.m. to 7 p.m.	60
	7 p.m. to 10 p.m.	55
V1	10 p.m. to 7 a.m.	55
V2	10 p.m. to 7 a.m.	50
V3	7 a.m. to 10 p.m.	70
	10 p.m. to 7 a.m.	60
M50, M52, M54	Anytime	70
S82, M58, and all other industrial zones	Anytime	75

SOURCE: San Diego County, 2000.

Noise-Sensitive Receptors

Residences exist adjacent to the Project alignment. Some of these sensitive receptors are located within 200 feet of construction activities. The locations of these residences are shown on Figure 4.11-1.

4.11.4 Impacts

Significance determinations of impacts to noise are summarized below. Potential impacts are discussed in detail in the following sections. Impacts to noise from the Proposed Project will be less than significant.

Would the project result in:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a) 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?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) If located within an airport land use plan or within two miles of a public airport or public use airport for which such a plan has not been adopted, would the project result in exposure of persons residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f) If located within the vicinity of a private airstrip, would the project result in exposure of persons residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Significance Criteria

The following significance criteria have been noted from the laws, ordinances, regulations, and standards applicable to the Proposed Project area. Separate noise significance criteria were developed for the construction and operation and maintenance phases of the Proposed Project. The vibration significance criteria are applicable for both the construction and the operation and maintenance phases.

Noise

In general, any noise that exceeds the local jurisdiction's adopted standards will be considered potentially significant. Specific criteria for the construction phase and the operation and maintenance phase noise levels are as follows.

Construction

Based on the previous discussion, the following thresholds of significance for temporary or periodic increases and from construction noise have been developed for Proposed Project-related average Leq values at noise-sensitive receptor locations:

- Less than 75 dB average between 7 a.m. and 7 p.m. when measured at or within the property lines of any property that is developed and used either in part or in whole for residential purposes will be considered noticeable, but not significant.
- 75 dB average and above between 7 a.m. and 7 p.m. when measured at or within the property lines of any property that is developed and used either in part or in whole for residential purposes will be considered significant.

Operation and Maintenance

The San Diego County Sound Limits for land use zoned for less than 11 dwellings per acre is 50 dBA during the daytime hours, and 45 dBA during nighttime hours. Project-related daytime noise above 50 dBA will be considered significant. Project-related nighttime noise above 45 dBA at residential property lines will be considered significant.

Vibration

Vibration associated with noise, which takes the form of oscillatory motion, can be described in terms of acceleration, velocity, and displacement. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe the affect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. The Federal Transit Administration's (FTA) threshold of architectural damage for conventional sensitive structures is 0.2 in/sec PPV and the FTA threshold of human annoyance to ground-borne vibration is 80 RMS (FTA, 2006).

Question 4.11a – Noise in Excess of Standards – Less Than Significant Impact

Construction activities will require the temporary use of various types of noise-generating construction equipment, including bulldozers, graders, backhoes, drill rigs, air compressors and generators, mobile cranes, concrete trucks, pole trailers, man lifts, impact equipment, and if necessary, blasting. Wire stringing operations will require pullers, tensioners, and cable reel trailers. Helicopters will be used to string the sock line over an approximately one week period and deliver equipment and workers for three micropile pole foundations. Noise levels would fluctuate depending on the particular type, number and duration of uses of various pieces of construction equipment. Table 4.11-2: Typical Noise Levels of Construction Equipment lists the typical noise levels generated by some of the construction equipment that will be used on the Proposed Project, although not all simultaneously or continuously.

Noise levels that exceed an average of 75 dB for the hours between 7 a.m. and 7 p.m. when measured at a residential property line would be considered significant. If the average noise is between 5 dB above ambient and 75 dB, it will be considered noticeable but not significant. As shown in Table 4.10-2 below, a rock drill is the loudest of construction equipment at 89 dBA. In order for construction noise at 89 dBA to exceed the 75 dBA threshold, it would have to be within approximately 200 feet of a residential property line. Parts of the Proposed Project lie within 200 feet of existing residential property lines. However, construction equipment will

comply with the San Diego Noise Ordinance, which requires construction noise to not exceed an average of 75 dB between the hours of 7 a.m. and 7 p.m. when measured at or within the property lines of any property developed for residential purpose. Furthermore, SDG&E will provide notice of the construction plans to all property owners within 300 feet of the Project by mail at least one week prior to the start of construction activities. The announcement will state the construction start date, anticipated completion date, and hours of operation, as well as provide a telephone contact number for receiving questions or complaints during construction.

TABLE 4.11-2
TYPICAL NOISE LEVELS OF CONSTRUCTION EQUIPMENT

Equipment	Noise Level Range at Approximately 50 Feet (dBA)
Earth-moving	
Front loader	79–80
Backhoe	78–80
Tractor, dozer	82–85
Scraper, grader	84–85
Paver	77–85
Truck	74–84
Materials-handling	
Concrete mixer truck	79–85
Concrete pump	81–82
Crane (movable)	81– 85
Stationary	
Pump	77–81
Generator	70–82
Compressor	78–80
Impact	
Pneumatic tools	83–85
Jackhammers and rock drills	81–89
Compactors	80–83

SOURCE: The Federal Highway Administration (FHWA), 2006

In addition, the San Diego County Noise Ordinance limits the hours of construction to between 7 a.m. and 7 p.m., Monday through Saturday. Construction activities will occur during the times established by the local ordinances (generally between 7 a.m. and 7 p.m. Monday through Saturday), with the exception of certain activities where nighttime and weekend construction activities are necessary, including, but not limited to, system transfers, pouring of foundations, and pulling of the conductor, which require continuous operation or must be conducted during off-peak hours per agency requirements.

Helicopter use will be minimal and will only be necessary intermittently for approximately one week to fly in the sock line for stringing the conductor and to install micropiles at three pole foundations. The noise level generated from a helicopter is approximately 95 dBA at a distance of 200 feet. If solid rock is encountered during pole foundation, excavation blasting may be necessary. Noise generated by blasting depends on the amount of charge material used, the number of holes, the depth of the holes, and other factors. The noise from blasting is characteristic of muted thunderclaps. Without minimization measures, these activities may expose sensitive noise receptors to potentially significant noise levels for brief periods. With the implementation of the APMs, which limit construction activities to the hours and sound levels permitted by the San Diego County Noise Ordinance and require that all property owners within 300 feet of the Proposed Project be notified prior to construction, and the blasting plan, impacts to sensitive noise receptors due to construction noise will be less than significant.

The noise sources associated with operation and maintenance of the Proposed Project include noise from an occasional pick-up truck visiting several times a month, and vegetation clearance as needed. The San Diego County Sound Limit during the nighttime hours for land use zoned for less than 11 dwellings per acre is 45 dBA. As no continual noise would be produced during operations, there would be no increase in ambient noise levels from current conditions. Therefore, noise from operations would not exceed the San Diego County Nighttime Sound Limit of 45 dBA, and noise from operations would be less than significant.

Helicopters are currently being used by SDG&E in the visual inspection of the existing power lines in the Project area. SDG&E's Transmission and Distribution Departments also use helicopters for patrolling transmission and distribution lines during trouble jobs (outages/service curtailments) in areas that have no vehicle access or are located in rough terrain. The length of time required for inspections at any one location is short in duration, lasting a few minutes at each location. It is not anticipated that the Project would cause an increase in the amount of time that it takes for visual inspection; therefore, helicopter noise would not change from existing levels. Noise from helicopter operations would be less than significant.

Power lines can create a corona noise that sounds like a hum or crackling. The corona hum typically will produce noise levels up to 30 dBA when measured at the edge of the power line right-of-way (ROW) during dry conditions. A noise level of 30 dBA will be practically unnoticeable, as it is easily masked by other ambient noises. In foul weather conditions, water droplets and fog can produce corona discharges from high voltage lines that can be 5 to 20 dBA higher than usual. Corona levels (and audible noise levels) are highest during heavy rain, when the conductors are wet, but the noise generated by the rain will likely be greater than the noise generated by corona; thus, the increased corona-related noise will not be noticeable. These noise levels will not exceed the San Diego County Sound Limit of 45 dBA during the nighttime hours for land use zoned for less than 11 dwellings per acre. Noise from power lines would be less than significant.

Question 4.11b – Groundborne Vibration and Noise – Less Than Significant Impact

Project construction would generally involve conventional activities and the equipment/techniques to be used would not cause excessive ground-borne vibration. However, drilling would be required at some locations for foundation boring. Drilling generates vibration levels of up to 0.089 PPV and 87 RMS at 25 feet. At 100 feet from the drilling activities, residents could experience vibration levels of 0.01 PPV and 69 RMS. Vibration levels at these receptors would not exceed the potential building damage threshold of 0.2 PPV, or the annoyance threshold of 80 RMS. No residences are within 100 feet of the any of the Proposed Project components. Therefore, sensitive receptors in the Project vicinity would be exposed to vibration levels at incrementally lower levels.

If solid rock is encountered during pole foundation, excavation blasting may be necessary. Vibration generated by blasting depends on the amount of charge material used, the number of holes, the depth of the holes, geology of the surrounding area, and other factors. The noise from blasting is characteristic of muted thunderclaps. With the implementation of the APMs, and the blasting plan, vibration impacts will be less than significant.

Increases in vibration from normal operation and maintenance, beyond those described for the construction activities, are not anticipated. The operation and maintenance activities associated with the Proposed Project will involve inspection and occasional repair work. None of the Proposed Project facilities generate vibration as a result of their operation. Thus, no impacts due to vibration from operation and maintenance will occur.

Question 4.11c – Permanent Ambient Noise Increases – Less Than Significant Impact

Construction activities will occur over a finite period; therefore, no permanent increase in noise will occur and there will be no impact.

During operation and maintenance of the Proposed Project permanent noise levels would not exceed San Diego County thresholds (see response to Question 4.11a); therefore, Project operations would result in a less than significant impact to permanent ambient noise in the Project area.

Question 4.11d – Temporary or Periodic Ambient Noise Level Increases – Less Than Significant Impact

Construction noise is temporary and impacts during construction have been identified in the response to Question 4.11a. Noise-sensitive receptors will experience a temporary or periodic increase that exceeds 75 dBA Leq during construction activities, as previously described. With the implementation of the APMs, which limit construction activities to the hours and sound levels permitted by the San Diego County Noise Ordinance and require that all property owners be notified prior to construction, impacts will be reduced to a less than significant level.

Noise impacts created by the activities required to operate and maintain the Proposed Project are described in response to Question 4.11a. The loudest operational impact would result from helicopter inspections of the power lines. As stated above, it is not anticipated that the Project would cause an increase in the amount of time that it currently takes for visual inspection of the existing 69 kV line; therefore, helicopter noise would not change from existing levels. Noise from helicopter operations would be less than significant.

Question 4.11e – Air Traffic Noise from Public Airports – Less Than Significant Impact

The Project would use the heliport at the Golden Acorn Casino to take off, land, and refuel during the short time that the helicopter is used during construction. Therefore, aircraft activity at local airports is not anticipated to increase due to the Project. Thus, impacts will be less than significant.

As no permanent employees will be located onsite during operations and maintenance of the Proposed Project, and there are no public airports within two miles from the project site, there would be no exposure of persons working in the Project area to excessive noise levels.

Question 4.11f – Air Traffic Noise from Private Airstrips – No Impact

As no permanent employees will be located onsite, there would be no exposure of persons working in the Project area to excessive noise levels.

4.11.5 Applicant Proposed Measures

The following APMs will be implemented so that potentially significant impacts due to noise and vibration remain less-than-significant:

- APM-NOI-01: Construction activities will occur during the times established by the local ordinances (generally between 7 a.m. and 7 p.m. Monday through Saturday), with the exception of certain activities where nighttime and weekend construction activities are necessary, including, but not limited to, system transfers, pouring of foundations, and pulling of the conductor, which may require continuous operation or must be conducted during off-peak hours per agency requirements.
- APM-NOI-02: SDG&E will provide notice of the construction plans to all property owners within 300 feet of the Project by mail at least one week prior to the start of construction activities. The announcement will state the construction start date, anticipate completion date, and hours of operation, and well as provide a telephone contact number for receiving questions or complaints during construction.
- APM-NOI-03: Construction equipment will comply with the San Diego Noise Ordinance, which requires construction noise to not exceed an average of 75 dB between the hours of 7 a.m. and 7 p.m. when measured at or within the property lines of any property developed for residential purpose.

4.11.6 Blasting Plan

If blasting is necessary, the following blasting plan shall be prepared and followed so that potentially significant impacts due to noise and vibration remain less-than-significant:

- A determination to limit the weight of explosives per delay to below 0.2 PPV at the nearest sensitive receptor.
- Primary components of the Blasting Plan shall include:
  - Identification of blast officer;
  - Scaled drawings of blast locations, and neighboring buildings, streets, or other locations which could be inhabited;
  - Blasting notification procedures, lead times, and list of those notified. Public notification to potentially affected vibration and nuisance noise receptors describing the expected extent and duration of the blasting;
  - Description of means for transportation and on-site storage and security of explosives in accordance with local, state and federal regulations;
  - Minimum acceptable weather conditions for blasting and safety provisions for potential stray current (if electric detonation);
  - Traffic control standards and traffic safety measures (if applicable);
  - Required personal protective equipment;
  - Minimum standoff distances and description of blast impact zones and procedures for clearing and controlling access to blast danger;
  - Procedures for handling, setting, wiring, and firing explosives. Also, procedures for handling misfires per Federal code;
  - Type and quantity of explosives and description of detonation device. Sequence and schedule of blasting rounds, including general method of excavation, lift heights, etc.;
  - Methods of matting or covering of blast area to prevent flyrock and excessive air blast pressure;
  - Description of blast vibration and air blast monitoring programs;
  - Dust control measures in compliance with applicable air pollution control regulations (to interface with general construction dust control plan);
  - Emergency Action Plan to provide emergency telephone numbers and directions to medical facilities. Procedures for action in the event of injury;
  - Material Safety Data Sheets for each explosive or other hazardous materials to be used;
  - Evidence of licensing, experience, and qualifications of blasters; and
  - Description of insurance for the blasting work.

- If vibration results in damage to any nearby structures or utilities, or rock faces, blasting shall immediately cease. The stability of segmental retaining walls, existing slopes, creek canals, etc. shall be monitored and any evidence of instability due to blasting operations shall result in immediate termination of blasting.
- Explosive materials shall be delivered in specially built vehicles marked with United Nations (UN) hazardous materials placards. Explosives and detonators shall be delivered in separate vehicles or be separated in compartments meeting DOT rules within the same vehicle. Vehicles shall have at least two 10-pound Class-A fire extinguishers and all sides of the vehicles display placards displaying the UN Standard hazard code for the onboard explosive materials. Drivers shall have commercial driver licenses (CDL) with Hazmat endorsements, and drivers shall carry bill-of-lading papers detailing the exact quantities and code dates of transported explosives or detonators.
- The contractor must comply with US Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) table-of-distance requirements (CFR 27, U.S. Department of Justice, Alcohol, Tobacco, Firearms and Explosives Division Part 555) that restrict explosive quantities based on distance from occupied buildings and public roadways. Employees must also comply with the security requirements of the Safe Explosives Act (Title XI, Subtitle C of Public Law 107-296, Interim Final Rule), implemented in March 2003. These requirements require background checks for all persons that use, handle or have access to explosive materials; and responsible persons on a now required federal explosives license must submit photographs and fingerprints with the application to ATF.
- The contractor shall provide 24-hour security and/or the use of motion-detector and alarmed double wire fencing security measures around the stored explosives.

4.11.7 References

Caltrans. Technical Noise Supplement, November 2009

Cunniff, P.F. Environmental Noise Pollution, 1977.

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FHWA. FHWA Roadway Construction Noise Model User's Guide, January, 2006.

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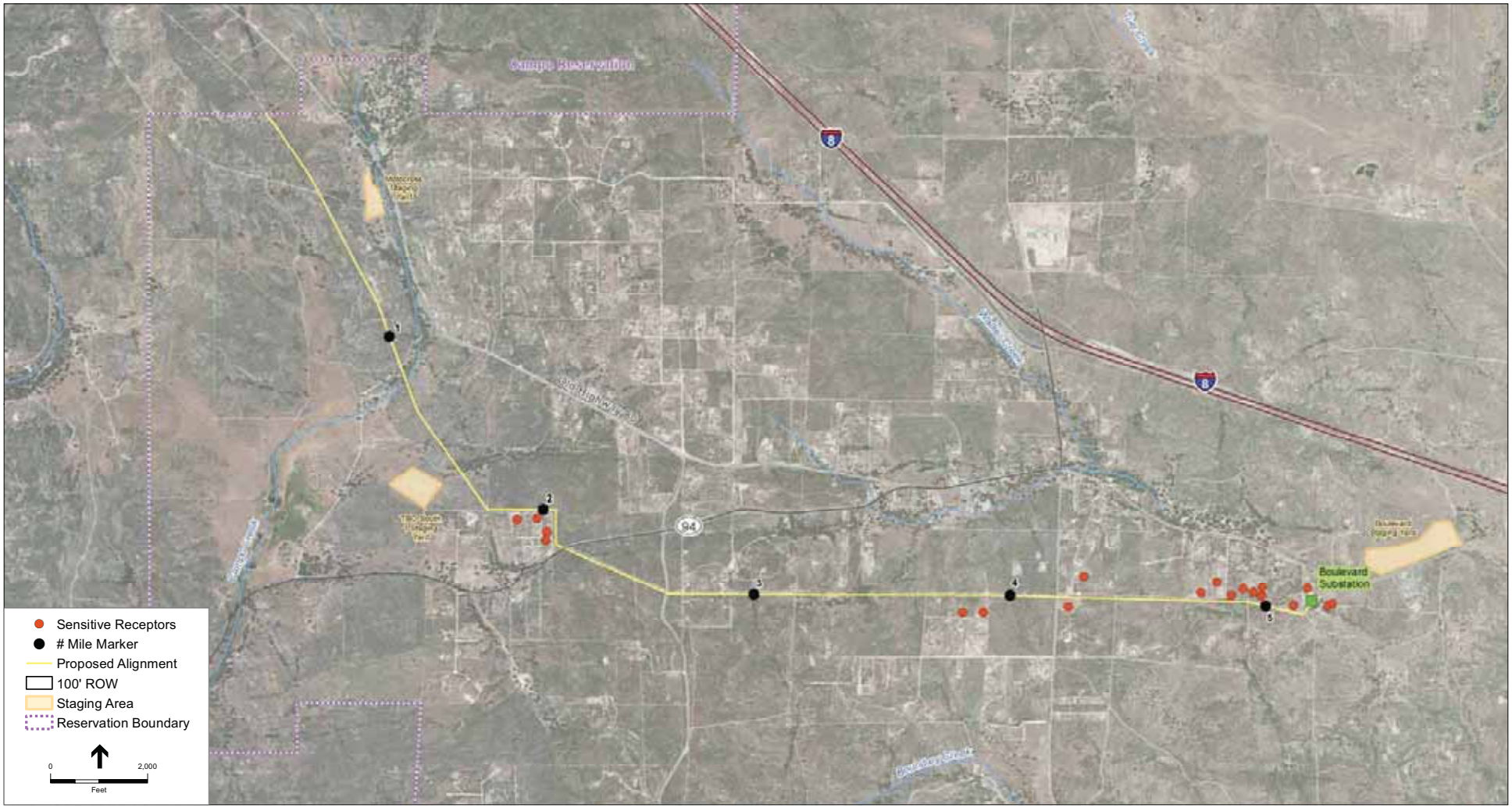

SOURCE: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010)

Figure 4.11-1

Sensitive Receptors within 200 Feet of the Proposed Project

4.12 Population and Housing

4.12.1 Introduction

This section describes existing population and housing trends in the vicinity of the Proposed Project. The general area is sparsely populated with small, scattered, unincorporated communities within several miles of the proposed interconnection facilities. The Project will follow the alignment of the existing TL 6931 route; therefore, the Proposed Project will occupy undeveloped lands and not require the removal of houses or the displacement of local residents. The existing and proposed facilities cross 29 privately owned rural parcels terminating at the Boulevard East Substation, which is located in the Community of Boulevard—a census-designated place (CDP). The Project will result in less than significant impacts to population and housing.

4.12.2 Methodology

Because the Proposed Project area is atypical for most of San Diego County, data collection was centered on trends within unincorporated areas in the County, more specifically in the Mountain Empire Community Planning Area. Demographics and housing data were obtained from the U.S. Census Bureau and the San Diego Association of Governments (SANDAG), the primary planning agency for the San Diego area.

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional Applicant Proposed Measures were identified to avoid or minimize potential impacts.

4.12.3 Existing Conditions

Population

San Diego County has an overall population of approximately 3,095,313 people, with approximately 486,604 of them living in unincorporated communities (SANDAG, 2010a and 2011). The Proposed Project area lies in the sparsely populated Mountain Empire Community Planning Area near several small unincorporated communities. According to the 2010 Census, the Mountain Empire Community Planning Area had a population of 7,589 people, which is an increase of 17 percent from 2000, when the population was 6,485 people. The closest community to the project site is the unincorporated community of Boulevard, which has a population of approximately 315 people. Two other nearby communities, Jacumba and Campo, have populations of 561 and 2,684 people, respectively (U.S. Census Bureau, 2012a).

Housing

According to SANDAG 2010 estimates, approximately 169,142 housing units were located within unincorporated San Diego County (SANDAG, 2011). Of that total, 2,803 housing units were located in the Mountain Empire Community Planning Area, with a vacancy rate of 20.4 percent (SANDAG, 2010b).

Based on the 2010 SANDAG information, within the Mountain Empire Community Planning Area, 92 percent of all housing consists of single-family homes. Mobile homes comprise five percent of housing units and multiple-family homes make up only three percent of the housing. There is an average of 2.42 people living in each household in the Mountain Empire Community Planning Area (SANDAG, 2010b).

Temporary Housing

More than 55,000 temporary housing units (including hotels, casinos, bed and breakfasts, country inns, and health spas) are located in San Diego County (San Diego Convention Center, 2012). In 2010, these facilities had a combined average annual occupancy rate of 69.5 percent (Weisberg, 2011). Temporary housing is much more limited in Boulevard and the surrounding cities, where three local hotels exist with a total of approximately 40 rooms.

Employment and Income

According to the 2010 Census, the Mountain Empire Community Planning Area had a labor force of approximately 2,891 individuals, with an unemployment rate of 7.0 percent. In 2010, the median household income was $54,258, which is an increase from 2000, when the median income was $35,923 (U.S. Census Bureau, 2012b).

4.12.4 Impacts

Significance determinations of impacts to population and housing are summarized below. Potential impacts are discussed in detail in the following sections. Impacts to population and housing from the Proposed Project will be less than significant.

Would the project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a) 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)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Significance Criteria

Determination of impacts was derived from Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Impacts to population and/or housing will be considered potentially significant if they:

- Induce substantial population growth;
- Displace a substantial number of housing units; or
- Displace a substantial number of people.

Question 4.12a – Population Growth – Less than Significant

Although some hiring of local construction linemen and other personnel may occur, the majority of crewmembers will commute from outside the vicinity of the Proposed Project. Depending on their commute distance, some of the construction workers may temporarily relocate to the communities surrounding the project site during the 9 month construction period. Since the workers are not likely to relocate their families or stay permanently, impacts on the local population will be less than significant.

Additionally, the Project is an electric infrastructure project and is not expected to affect the desirability or affordability of the area. Less than significant impacts to population will occur as a result of construction of the Proposed Project.

The Project's operations and maintenance crew will be small and only work onsite several times each year for maintenance, inspection, and repair purposes; therefore, the crew is not likely to relocate closer to the project site due to the infrequent nature of their work. Additionally, the Proposed Project will not affect the desirability or affordability of the area, and thus, would not impact development of new housing or new residents. No impacts to population growth will occur as a result of the operations and maintenance of the Proposed Project.

Question 4.12b – Displacement of Existing Housing – No Impact

The Proposed Project will primarily follow the alignment of the existing TL 6931, crossing 29 privately owned parcels without displacing existing homes. The double circuit design of the Proposed Project will require a wider right-of-way (ROW) than the TL 6931 single circuit configuration. Therefore, the Proposed Project will deviate from the existing TL 6931 route for a 0.4 mile stretch between Poles 18 and 23 to circumvent an existing community and accommodate the wider right-of-way (ROW) without displacing homes. As a result, the 100-foot ROW will cross entirely vacant lands and will not require the removal of homes or the displacement of residents. No impact will occur as a consequence of the Proposed Project.

Question 4.12c – Displacement of People – No Impact

The Proposed Project will be constructed in a rural and sparsely populated area on easements that SDG&E will obtain for the purpose of constructing the Proposed Project. As previously discussed in the response to Question 4.12b, construction, operation, and maintenance of the Proposed Project will not displace any local residents; as a result, there will be no impact.

4.12.5 Applicant Proposed Measures

Because the Proposed Project's impacts on population and housing will be less than significant, no applicant-proposed measures are proposed.

4.12.6 References

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San Diego Convention Center. Hotels, www.visitsandiego.com/meetingplanners/category.cfm?group=hotelinformation&catid=18&catname=hotels, accessed February 22, 2012.

SANDAG. Fast Facts Unincorporated, www.sandag.org/resources/demographics_and_other_data/demographics/fastfacts/unin.htm published October 2011.

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U.S. Census Bureau. 2010 Population Finder, www.census.gov/popfinder, accessed February 22, 2012a.

U.S. Census Bureau. American Fact Finder, factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml, accessed February 22, 2012b.

4.13 Public Services

4.13.1 Introduction

This section describes local public services in the vicinity of the Proposed Project site. Existing conditions for fire and emergency services, police and protective services, hospitals, schools, and other public services are presented, and potential impacts from the construction, operation, and maintenance of the Proposed Project on these public facilities and services are assessed. As described in this section, the Proposed Project will have no impacts on public services.

4.13.2 Methodology

Information regarding local public services was primarily gathered from personal communication and internet searches of local planning agencies. Specifically, information regarding fire and emergency services was obtained from personal communication with fire station personnel, the California Department of Forestry and Fire Protection (CAL FIRE) website, and individual websites for various fire agencies and departments. Information regarding local schools was obtained from the Mountain Empire Unified School District website and personal communication with school district staff. Information regarding police services was obtained from the San Diego County Sherriff's Department and the California Border Patrol websites. Internet searches were conducted in order to obtain information regarding hospitals and libraries. The San Diego GIS (SanGIS) website was used to confirm the locations of public facilities and the data collected.

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional Applicant Proposed Measures (APMs) were identified to avoid or minimize potential impacts.

4.13.3 Existing Conditions

Fire and Emergency Services

There are several fire and emergency service stations in the vicinity of the Project, including two CAL FIRE stations, two San Diego Rural Fire Protection District (SDRFPD) stations, two San Diego Fire Authority volunteer stations, and one station on the Campo Reservation. Four of the seven stations that operate near the project site year-round are staffed by full-time firefighters, while the remaining three are staffed by volunteers. All of these stations could respond to a fire at or within the vicinity of the Proposed Project site.

CAL FIRE is responsible for protecting and fighting fires across 31 million acres of privately owned wildlands in California (CAL FIRE, 2009). Two CAL FIRE stations, the White Star Station on Tierra Del Sol Road in Boulevard and the Campo Station on Highway 94 in Campo, are both located within 8 miles of the project site and would serve the project site in the event of a fire (SanGIS, 2012).

The SDRFPD, which is staffed by CAL FIRE, serves approximately 720 square miles of rural and suburban San Diego County, including the Proposed Project area (SDRFPD, 2012a). The SDRFPD has two stations within 8.5 miles of the project site - Station 43, which is located at 255 Jacumba Street in Jacumba, and Station 42, which is located at 29690 Oak Drive near Lake Morena. The fire station in Jacumba is staffed by CAL FIRE volunteers while the station near Lake Morena is staffed by full-time CAL FIRE firefighters (SDRFPD, 2012b).

The San Diego Fire Authority has two volunteer fire stations in the vicinity of the project site—the Boulevard Volunteer Fire and Rescue Department and the Campo Fire and Rescue Station. The Boulevard Volunteer Fire and Rescue Department is located at 39919 State Route (SR) 94 in Boulevard and serves approximately 99 square miles around the community of Boulevard (Firehouse, 2003). This station is staffed by approximately 25 volunteer members who keep the station in operation year-round. The Campo Fire and Rescue Station is located farther from the project site in the community of Campo and is also staffed year-round by volunteers (Gutgesell, 2012).

The Campo Reservation Fire Protection District is located on the Campo Reservation at 36210 Church Road and is managed by the reservation (Campo Reservation Fire Protection District, 2012). This station is responsible for protecting and fighting fires on and within the vicinity of the reservation.

Police and Protection Services

The San Diego County Sheriff's Department serves the Proposed Project area, including the communities of Boulevard and Jacumba. This department has approximately 4,000 employees and covers roughly 4,200 square miles of San Diego County, including many incorporated cities in addition to the unincorporated areas (San Diego Sheriff's Department, 2012). Two sheriff's department facilities, the Boulevard/Jacumba Substation and the Campo Substation, are located near the Proposed Project site.

The Boulevard/Jacumba Substation is a satellite office of the Pine Valley Station and is located at 39919 SR-94 in the community of Boulevard. The station serves an area encompassing over 200 square miles including the communities of Boulevard and Jacumba, which together have a population of over 2,000 people (San Diego Sheriff's Department, 2012b).

The nearby Campo Substation, which is located at 378 Sheridan Road in Campo, serves an unincorporated area of nearly 300 square miles and approximately 2,000 people (San Diego Sheriff's Department, 2012b).

The U.S. Customs and Border Patrol (CBP) also have an active presence in the area with stations located in Boulevard and Campo. The Boulevard Station's overall area of responsibility includes approximately 500 square miles. The Boulevard Station is also responsible for two eastbound tactical checkpoints. The nearby Campo Station is responsible for securing approximately 13.1 linear miles of the Southwest Border from Campo to Boulevard, patrolling the station's 417.8 square-mile territory and maintaining two traffic checkpoints (California Border Patrol, 2012).

Hospitals

No major hospitals or emergency health service facilities exist in eastern San Diego County near the Proposed Project area. The two closest major medical facilities are located in La Mesa and El Centro. The Sharp Grossmont Hospital is located in La Mesa (in San Diego County), approximately 45 miles west of Boulevard and the El Centro Regional Medical Center (in Imperial County) is approximately 50 miles east of Boulevard. One small medical facility, High Desert Family Medicine, is located in Jacumba, and offers non-emergency medical care.

Schools

The Proposed Project area and the nearby communities of Jacumba and Boulevard lie within the Mountain Empire Unified School District. This school district encompasses six elementary schools, one senior high school, and three alternative education schools (Mountain Empire Unified School District, 2012). The Mountain Empire Middle School was recently discontinued and the middle school teachers, classes and students were incorporated into four of the District's elementary schools (Campo Elementary, Clover Flat Elementary, Descanso Elementary, and Potrero Elementary).

There are two schools in the vicinity of the Project area—Clover Flat Elementary located off Old Highway 80 west of Jewel Valley Road, approximately 0.5 mile north of the Proposed Project and Jacumba Elementary in Jacumba, approximately 5.5 miles southeast of the eastern terminus of the interconnection line. These two schools abide by the Clover Flat/Jacumba Compact, an agreement to divide the limited number of students from the Jacumba and Boulevard Communities between the two schools, based on grade level. Currently, students in kindergarten through first grade attend Jacumba Elementary and students in second through eighth grade attend Clover Flat Elementary. Currently, Jacumba Elementary has an enrollment of 46 students, and Clover Flat Elementary has 154 students. The sole high school in the Mountain Empire Unified School district, Mountain Empire High, is located in Pine Valley approximately 10 miles northwest of Pole 1 (Stoffel, 2012).

Other Services

The Jacumba Branch of the San Diego County Library is the only library in the vicinity of the project site. This library is located at 44605 Old Highway 80 and serves the communities of Boulevard and Jacumba (San Diego County Library, 2012). No other public buildings are located in the area surrounding the Proposed Project site.

Several regional, county, and state parks can be found within 10 miles of the Proposed Project area. More information regarding nearby parks and recreation areas is included in Section 4.14 Recreation.

4.13.4 Impacts

Significance determinations of impacts to public services are summarized below. Potential impacts are discussed in detail in the following sections. No impacts to public services will occur as a result of the Proposed Project.

Would the project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the 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:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Significance Criteria

Determination of impacts was derived from Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Impacts to public services are considered potentially significant if they result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives. These public services include police services, fire protection, emergency services, hospitals, schools, and public facilities.

Summary of Impacts – No Impact

The Proposed Project will be constructed in a remote area and construction activities are not likely to affect the use of any nearby public services or facilities, including schools, fire protection services, police services, emergency services, or hospitals. Although some construction

crew members may relocate to the nearby communities during construction, the Project is not expected to induce permanent or significant population growth that would increase the need for local public services. Overall, construction of the Proposed Project will not result in the need for additional government or public services.

Once the Proposed Project is in operation it will be unmanned on a day-to-day basis, thus reducing the risk of human-related emergencies onsite. A small maintenance crew will make several planned visits to the project site each year to complete various maintenance and repair tasks similar to those that already occur along the existing TL 6931 line.

The operations and maintenance activities required by the Proposed Project will be similar existing activities required by the TL6931 line and will not cause population growth or an associated increase in the need for fire protection, law enforcement, school, parks or hospitals. The Project will not require maintenance workers to relocate to the communities surrounding the project site or expand the need for existing public services beyond their current capacity. Additionally, the operations and maintenance activities performed at the project site are not likely to cause emergencies that would strain existing public services. Therefore, no impact will occur.

Fire and Police Protection

Several emergency providers are located in the vicinity of the Proposed Project site, but none are immediately adjacent to the site. The closest fire station to the project site is the Boulevard Volunteer Fire and Rescue station, which is located about 0.5 mile north of Pole 37. The Boulevard/Jacumba Police Substation is also about 0.5 mile north of Pole 37, making it the closest police station to the project site. Although, these facilities are within close proximity to the project site they will not be directly impacted by the Project's construction activities.

Typically, increased demand for fire and police protection services are linked to population growth, which often leads to an increase in human-related emergencies. As previously stated, the Project will not induce permanent or significant population growth; therefore, the Project is not likely to create an increased demand on emergency services.

An emergency could arise as a result the construction of Proposed Project, but such an incident is of low probability due to the small size of the construction crew that would be working onsite at any given time. Additionally, APM-HAZ-02 requires SDG&E to develop a Construction Fire Prevention Plan and monitor construction activities to ensure that the plan is implemented and effective. This plan will require the Proposed Project to have sufficient fire response procedures and equipment to respond to any construction-related fire or emergency.

Any potential emergency that could arise would not strain the existing emergency services beyond their current capabilities. Construction is not anticipated to affect response times because no road closures will be required for construction activities and emergency response procedures will be communicated prior to the start of construction. As a result, no impacts to fire and law enforcement services will occur.

Schools

The Proposed Project will not increase the temporary demand for school enrollment because it will not perceptibly increase local population during the short duration of construction. The majority of the construction crew members are likely to be hired from the local operators union and local electrical workers union, which can provide a large pool of potential workers from the greater San Diego area. Because of the probable limited number of qualified workers within the local populace, most workers likely to be hired will reside outside the immediate Proposed Project area and will commute to the work site for the short duration of construction. Some workers may temporarily relocate closer to the project site during construction depending on their commute distance, but family relocation will not be necessary. Therefore, school enrollment will not be affected and no new schools will be necessary as a result of the Proposed Project. No impact to schools is expected.

Parks

The closest recreational facility is the Carrizo Gorge Wilderness, which is 2.5 miles east of Pole 53, and the Project does not lie adjacent to or in the direct vicinity of the surrounding recreational areas. Section 4.14 Recreation provides more information regarding potential impacts to these recreational facilities. Construction will not significantly increase the local population and the associated use of nearby parks, nor will it reduce the number of park facilities, so no new parks will be needed. Thus, no impacts to parks or other recreational facilities will result.

Other Public Facilities

No other public facilities are located in close proximity to the project site. The Proposed Project will not increase the local population or otherwise result in a change that will necessitate alteration or expansion of existing public services. As a result, no impacts are anticipated.

4.13.5 Applicant Proposed Measures

Because the Proposed Project will have no impacts on public services, no avoidance or minimization measures are proposed.

4.13.6 References

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San Diego Rural Fire Protection District (SDRFPD). Station Locations, www.sdruralfire.org/aboutus.php, accessed February 22, 2012b.

San Diego Sheriff's Department. About Us, www.sdsheriff.net/aboutus.html, accessed February 22, 2012a.

San Diego Sheriff's Department, Patrol Station. www.sdsheriff.net/lesb_patrolstations.html, accessed February 22, 2012b.

Stoffel, Lisa. Executive Secretary, Mountain Empire Unified School District, email communication, February 15, 2012.

4.14 Recreation

4.14.1 Introduction

This section describes the existing recreational facilities in the vicinity of the Proposed Project site and evaluates potential impacts to recreational resources that may result from construction or operation and maintenance of the Proposed Project. There are several large recreational facilities within 10 miles of the project site but the Project does not lie on or adjacent to any of these facilities. Additionally, the Project would not cause population growth that would increase the use or require expansion of existing recreational areas; therefore, the Proposed Project would cause no impact.

4.14.2 Methodology

The recreation analysis involved a review of various documents including the County of San Diego General Plan, the Eastern San Diego County Resource Management Plan and Recreation Planning Map, the Eastern San Diego County Management Framework Plan, and aerial photographs of the Proposed Project area. Research also included review of the Anza-Borrego State Park website, official San Diego County websites, and several BLM recreation area websites, and geographic information systems (GIS) data.

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional Applicant Proposed Measures were identified to avoid or minimize potential impacts.

4.14.3 Existing Conditions

Bureau of Land Management Eastern San Diego County Management Framework Plan

The Eastern San Diego County Management Framework Plan (MFP), approved in 1981, reflects management decisions specific to the BLM's Eastern San Diego County Planning Unit. This area encompasses 98,902 acres of public lands located adjacent to the southwestern boundary of the California Desert Conservation Area. The MFP guides the management of resources on public lands in eastern San Diego County, including mineral deposits, soils, watersheds, livestock grazing allotments, and recreational, cultural, and biological resources (BLM, 1981). The Proposed Project will not be built and operated on public lands, nor does it fall within the MFP boundaries; however, many of the recreation areas in the vicinity of the Proposed Project site are managed under BLM's MFP. For example, the McCain Valley, located approximately four miles

north of the project site, experienced a significant level of recreational use and user conflict in the past. In response, the BLM developed the Eastern San Diego County MFP to manage similar conflict and recreational use on public lands in Eastern San Diego County (BLM, 1981).

Regional Recreation Areas

The nearest federal recreation area to the project site is the Carrizo Gorge Wilderness which covers 14,740 acres approximately two miles east of the eastern terminus of the proposed 138 kV line (BLM, 2011).

The largest state park in California, Anza-Borrego State Park, is located approximately 4 miles east of the Proposed Project site. The Anza Borrego State Park contains 500 miles of dirt roads and 12 wilderness areas that are used for camping, hiking, wildlife viewing, picnicking, and horseback riding (California Department of Parks and Recreation, 2012).

The nearest local recreational facility is the 20-acre Jacumba Community Park, which is located 6 miles southeast of the project site. The park is located in the Community of Jacumba, just south of Old Highway 80 and is intended to be developed with local park facilities but is currently undeveloped (San Diego County, 2011).

4.14.4 Impacts

Significance determinations of impacts to recreation are summarized below. Potential impacts are discussed in detail in the following sections. No impacts to recreation will occur as a result of the Proposed Project.

Would the project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a) 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?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Significance Criteria

Standards of significance were derived from Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Impacts to recreational resources will be considered significant if the Proposed Project:

- Increases the use of existing neighborhood and regional parks or other recreational facilities to the extent that substantial physical deterioration of the facility will occur or be accelerated; or
- Requires the construction or expansion of recreational facilities to meet population demand, potentially resulting in an adverse physical effect on the environment.

Question 4.14a – Recreational Facilities Use

The majority of the construction crews will commute to the project site from outside the vicinity of the Proposed Project area. Depending on the distance of their commute, some of the crew members may take up temporary residence in the communities surrounding the project site. These temporarily relocated workers are not expected to use nearby recreational facilities due to the nature of their work, which does not require them to use or visit the recreational areas.

The surrounding recreational areas are made up of large federal, state, and regional parks that are open to local residents as well as out-of-town visitors year-round. These parks can accommodate many visitors and offer a variety of recreational activities. If construction workers use the recreational facilities during their personal time, this use would only increase park attendance by a small percentage compared to current use of the parks. Thus, no substantial physical deterioration of the facilities would occur as a result of several additional visitors.

Visitors to the areas surrounding the project site may experience a slight temporary increase in noise, dust, and odors from construction equipment and helicopter use during the Project's 9 month construction phase (moise and air quality related nuisances are described in further detail in Section 4.3 Air Quality and Section 4.11 Noise). However, construction activities are not likely to significantly impact the nearby recreational facilities because the project site is not adjacent to or within the immediate vicinity of any recreational areas. Overall, no impact to recreational facilities will occur.

Operation and maintenance of the Proposed Project will not create permanent or significant population growth (See Population and Housing Section 4.12) that would result in an increased use of recreational areas and parks. Although a small maintenance crew will travel to the Project area several times each year to perform various site maintenance activities, the crew is not expected to visit the recreation facilities during their trips to the site. Additionally, the Project will not create day-to-day environmental nuisances that would impact the use of the nearby recreational facilities. Thus, no impact will occur.

Question 4.14b – Recreational Facilities Changes – No Impact

As mentioned in Question 4.13a, the construction crew would be small and not cause significant or permanent population growth that would result in the need for additional recreational areas to meet visitor demand.

Additionally, the Project would not cross or be located on or near recreational facilities. Rather, the Project would be located on private lands that are not open for public recreational use. All access to the surrounding recreational areas will be maintained throughout construction and the

Project will not require an expansion of any of the nearby recreation areas to accommodate additional visitors. Thus, no impact will occur.

As previously stated, the Proposed Project would be built on private lands that are not open for public recreational use. Consequently, no recreational facilities in the vicinity of the Proposed Project will be withheld from the public during operations and maintenance of the Proposed Project. The operations and maintenance crew would only visit the project site several times each year, which would not create population growth or an associated increase in the use of nearby recreational facilities. Thus, none of the nearby recreational facilities would have to be expanded during the operations and maintenance of the Proposed Project and no impacts will occur.

4.14.5 Applicant Proposed Measures

The Proposed Project will not result in any significant impacts to recreational resources; therefore, no avoidance or minimization measures are proposed.

4.14.6 References

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BLM. Table Mountain Wilderness Study Area Proposed Transfer to the State, July 15, 2009.

BLM. El Centro Field Office Eastern San Diego County Resource Management Plan and Record of Decision, October 2008.

BLM. McCain Valley, www.blm.gov/ca/st/en/fo/elcentro/recreation/mccain.html, accessed on April 4, 2012.

BLM. El Cajon Desert Access Guide – Points of Interest, http://www.blm.gov/ca/st/en/fo/ elcentro/ recreation/poi/ el_cajon.html, accessed on April 4, 2012.

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4.15 Transportation and Traffic

4.15.1 Introduction

This section describes the existing transportation and traffic conditions within the Proposed Project area and evaluates potential Project-related transportation and traffic impacts. A summary of existing roadways, transit and rail service, airports, and bicycle facilities, as well as a description of the regulatory setting for transportation and traffic are presented. Also, an analysis of transportation and traffic impacts that would result from the Proposed Project is provided. The Proposed Project would cross one state highway and several public local roadways and unpaved access roads, but would not have a significant impact on transportation and traffic in the area and would not conflict with any adopted alternative transportation policies.

4.15.2 Methodology

Transportation and traffic data was obtained primarily through relevant literature and internet research. The County of San Diego General Plan, the Mountain Empire Subregional Plan (which encompasses the communities of Boulevard and Jacumba), the Boulevard Subregional Planning Area, the County of San Diego Bicycle Transportation Plan, and the San Diego Association of Government (SANDAG) 2030 Regional Transportation Plan were reviewed.

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional Applicant Proposed Measures (APMs) were identified to avoid or minimize potential impacts.

4.15.3 Existing Conditions

Regulatory Background

Construction projects that cross public transportation corridors are subject to local, state, and federal encroachment permits. Use or obstruction of navigable air space also requires permits. The following summarizes transportation and traffic regulations that are applicable to the construction of electric facilities such as the Proposed Project.

Federal

All airports and navigable airspace not administered by the Department of Defense are under the jurisdiction of the Federal Aviation Administration (FAA). Federal Regulation Title 14 Section 77 establishes the standards and required notification for objects affecting navigable airspace. In

general, construction projects exceeding 200 feet in height above ground level or extending at a ratio greater than 50 to 1 (horizontal to vertical) from a public or military airport runway less than 3,200 feet long out to a horizontal distance of 20,000 feet are considered potential obstructions and require notification to the FAA. In addition, the FAA requires a Helicopter Lift Plan for operating a helicopter within 1,500 feet of residential dwellings.

State

The use of California state highways for other than normal transportation purposes may require written authorization or an encroachment permit from the California Department of Transportation (Caltrans). Caltrans has jurisdiction over the state's highway system and is responsible for protecting the public and infrastructure. Caltrans reviews all requests from utility companies that plan to conduct activities within its right-of-way (ROW). Encroachment permits may include conditions or restrictions that limit when construction activities can occur within or above roadways under the jurisdiction of Caltrans.

Local

San Diego County Code of Regulatory Ordinances Section 71 governs the placement of any structures on, over, or under county roads. The county requires an encroachment permit for the construction of any tower, pole, pole line, private pipe, private pipeline, nonstandard driveway, private road, fence, billboard, stand or building, or any structure or object of any kind or character, that is placed in, under, or over any portion of a county roadway.

The Circulation Element of the San Diego County General Plan provides guidance to help achieve efficiency and economy in the transportation system, and to facilitate the planning required to maintain and expand the existing transportation network.

The proposed interconnection route is also located within the Boulevard Subregional Planning Area component of the Mountain Empire Subregional Plan. The 2030 San Diego Regional Transportation Plan: Pathways for the Future, approved in 2007, serves as a blueprint for greater San Diego's transportation system. The plan's goal is to better connect the existing transportation network of freeways, public transit, and roads to the existing and future community.

Existing Roadway Network

The Proposed Project is to be located in a rural area of eastern San Diego County and would cross a sparse network of state, county, and private roadways. The Proposed Project would access the project site using as many existing roads as possible and the roadways that will be spanned by the proposed project are currently spanned by the existing TL6931 line. Table 4.15-1: Public Access Roadways and Table 4.15-2: Public Roadways Spanned lists the major and local roadways that would be used for access during construction and those that would be spanned by the power line, respectively, along with their classification, number of lanes, and Level of Service (LOS) information, where available. Refer to Figure 4.15-1 for the location of these roadways in relation to the Proposed Project. Other roadways anticipated to be affected by the Proposed Project include a number of unnamed unpaved access roads.

TABLE 4.15-1
PUBLIC ACCESS ROADWAYS

Roadway	Classification	Number of Lanes	Level of Service (LOS)
Interstate 8	Expressway/Freeway/Interchange	4	A–C
McCain Valley Road[a]	Local	2	Information Not Available (INA)
Old Highway 80	Light Collector	2	A–C, D
Highway (SR) 94	Community Collector	2	A–C

[a] The County of San Diego does not actively maintain traffic counts for this roadway.

TABLE 4.15-2
PUBLIC ROADWAYS SPANNED

Roadway	Approximate Milepost	Classification	Number of Lanes	Level of Service (LOS)
Live Oak Springs Road[a]	2.7	Local	2	INA
Campo Road (Hwy 94)	3.7	Community Collector	2	A–C
Tierra Del Sol Road[a]	4.1	Local	2	INA
Jewell Valley Road[a]	5.5	Local	2	INA
McCain Lane[a]	6.2	Local	2	INA

[a] The County of San Diego does not actively maintain traffic counts for these roadways.

Interstate (I)-8 is a major east/west transportation corridor on the north side of the Proposed Project area. It is a four-lane divided freeway with a posted speed limit of 70 miles per hour and would serve as the main access route to the Proposed Project area from both San Diego and Imperial counties. I-8 has limited access in eastern San Diego County, via a small number of on- and off-ramps. The main ramp in the vicinity of the Proposed Project is the Ribbonwood Road (State Route (SR) 94) ramp. Secondary access to the Proposed Project area is possible via SR-94 and Old Highway 80, which serve to connect the rural towns on the south side of I-8. SR-94, a primarily west/east route, connects the city of San Diego with eastern San Diego County and terminates at I-8, approximately 1.5 miles from Boulevard. Old Highway 80, another primarily west/east route, begins near the town of Descanso, approximately 30 miles from downtown San Diego. This highway generally parallels I-8 until terminating near the San Diego-Imperial County border.

According to the County of San Diego Mountain Empire Subregional Plan, the current road network can accommodate existing and anticipated increases in population without encountering capacity problems for the foreseeable future. Although large portions of the Mountain Empire

area are not currently served by roads, the Proposed Project area already includes existing power lines or distribution line access roads or unimproved county roads.

Railway

The San Diego and Arizona Eastern (SD&A) Railway, owned and operated by the San Diego Metropolitan Transit System within San Diego County, runs from downtown San Diego to Plaster City, near El Centro. The railway crosses into Mexico through Tijuana and back into the United States (U.S.) between Tecate and Campo. At Plaster City, the line connects with the Union Pacific Railroad, providing rail links to the entire U.S. and Mexico. However, segments of the track between Tecate and El Centro, known as the "Desert Line," have been out of service since 1983 due to damaged tunnels, bridges, and tracks. The Proposed Project is located approximately three miles north of the Desert Line and would not cross the line.

Bus

The Proposed Project area is serviced by the San Diego Metropolitan Transit System. Bus service in the area is limited; however, Route 888 provides daily bus service to Boulevard and Jacumba five days per week (Monday through Friday) via Old Highway 80. Transfer points in Boulevard are located on Old Highway 80 near the intersections of Tierra Del Sol Road and Jewel Valley Road.

Air

Jacumba Airport, located approximately 7 miles southeast of the eastern terminus of the Project alignment, is the closest airport to the project site. The Jacumba Airport is located near Old Highway 80, approximately 300 feet north of the U.S.-Mexican border, one mile east of Jacumba, and 75 miles east of San Diego. The approximate 1.3-acre airport is owned and operated by the County of San Diego. It consists of a single gravel runway, 2,508 feet long and 100 feet wide. The runway is unlighted and has no instrument approach procedures. According to the Jacumba Airport Land Use Compatibility Plan (ALUCP) adopted on December 4, 2006, no airport improvements are planned.

Jacumba Airport is a low-activity facility, with an estimated 27 total aircraft operations per month. The airport is mainly used as a glider facility by single-engine aircraft and sailplanes. Aircraft activity is most predominant on the weekends during the fall and winter months. Given the proximity to the U.S.-Mexican border, the only traffic pattern is north of the airfield.

Bicycle Facilities

According the County of San Diego Bicycle Transportation Plan, Old Highway 80 is a designated Bike Lane between west of the Project area and Campo Road (Highway 94) and is a designated Bike Path between Campo Road and Boulevard. A "Bike Lane" is defined by the County's General Plan as a Class II Bikeway, which provides a striped lane for one-way bike travel on a street. A "Bike Route" is defined as a Class III Bikeway, which provides for shared use with pedestrian or motor vehicle traffic. No other designated bicycle facilities exist in the vicinity of the Proposed Project.

4.15.4 Impacts

Significance determinations of impacts to traffic and transportation are summarized below. Potential impacts are discussed in detail in the following sections. Impacts to traffic and transportation from the Proposed Project will be less than significant.

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a)	Cause an increase in traffic that 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)?	☐	☐	☒	☐
b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c)	Result in substantial safety risks caused by a change in air traffic patterns, including either an increase in traffic levels or a change in location?	☐	☐	☐	☒
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e)	Result in inadequate emergency access?	☐	☐	☒	☐
f)	Result in inadequate parking capacity?	☐	☐	☐	☒
g)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Significance Criteria

The Proposed Project is more likely to affect transportation facilities or increase traffic during the construction phase than during actual operation and maintenance because typically only a very limited amount of activity is required to operate a power line. Consequently, the transportation analysis focuses on the construction phase. Where applicable, operational impacts are described following the discussion of impacts associated with construction of the Proposed Project.

Aviation impacts, on the other hand, could occur during either construction or operation and maintenance of the proposed power line because such impacts are caused by encroachment into navigable airspace, such as by a crane, wire, or tall structure. Potential impacts to air traffic are described for construction as well as operation and maintenance in response to Question 4.15c.

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the Proposed Project would have a significant impact if it:

- Results in a substantial increase in traffic that affects existing traffic flows;
- Results in the exceedance of an established LOS standard;
- Causes a change in air traffic patterns;
- Results in a substantial increase in hazards due to design feature or incompatible uses;
- Results in inadequate emergency access;
- Results in inadequate parking capacity; or
- Conflicts with adopted policies, plans, or programs supporting alternative transportation.

Question 4.15a – Traffic Increases – Less Than Significant Impact

Construction-related traffic would result in a slight increase in the existing daily traffic as a result of workers commuting to the site and truck deliveries of construction equipment and materials. The roadways to be used to access or spanned by the new power line all operate at a LOS better than D, indicating that traffic flows freely and the roads are below capacity. In addition, this increase in traffic would be dispersed over the 5.2-mile-long line, and they would be short term (lasting approximately 9 months).

Once the power line structures have been installed, road closures may be required during wire-pulling activities at any of the 5 roadways that would be spanned (see Table 4.15-2). Wire-pulling activities may require closure of a roadway for 10 to 15 minutes during the pull of each conductor, for a total of 5 crossing closures. Traffic flow may also be disrupted during the installation and removal of clearance structures, or if flaggers are used during pulls instead of temporary clearance structures. San Diego Gas and Electric Company (SDG&E) would obtain encroachment permits from the County of San Diego or Caltrans, as required, to cross these roadways, and would perform work according to permit requirements. Because these closures would be isolated, temporary, short in duration, and coordinated with the local regulatory agencies, the Proposed Project is not anticipated to significantly disrupt traffic during construction. Thus, these impacts would be less than significant.

Operation and maintenance activities for the interconnection facilities would include routine inspection, maintenance, and repair activities, similar to those already being conducted along the existing TL 6931 route. Some of the inspection work may include the use of helicopters for aerial patrol of the facilities, as well as ground patrol. At a minimum, routine land or aerial inspections would take place on an annual basis. Because these activities are already being performed on the existing TL 6931, operation and maintenance of the new power line would have no impact on traffic.

Question 4.15b – Level of Service Changes – No Impact

Construction

As previously discussed in the response to Question 4.15a –Traffic Increases, Proposed Project-related construction traffic would result in a less than significant increase in the existing daily

traffic. Roads spanned by the Proposed Project, identified in Table 4.15-2: Public Roadways Spanned, may require temporary closure to through traffic (for approximately 10 to 15 minutes at a time), but this would occur during non-peak traffic times to the extent possible. In addition, traffic delays could occur when large trucks enter and exit the roadway at designated access points. Because the existing LOS standards for roads indentified in Table 4.15-1: Public Access Roadways all range from LOS A to D (indicating free flowing traffic), the existing network of roads in the Proposed Project area have adequate capacity to handle the increase in traffic volume due to construction. The Proposed Project would not result in changes to the current LOS in the Proposed Project vicinity; therefore, no impact would occur.

As previously discussed, compared to existing conditions no new activities would be required to operate and maintain the Proposed Project. Therefore, no new traffic would be created that would alter the traffic patterns in the vicinity of the project site project and, operation and maintenance of the Proposed Project would not have an impact on the current LOS.

Question 4.15c – Air Traffic Changes – No Impact

Helicopters would be used for approximately one week to set three micropile structures and string the new conductor, which would temporarily increase air traffic and encroach on navigable air space during construction. SDG&E or its contractor would coordinate flight patterns with local air traffic control and the FAA prior to construction to prevent any adverse impacts due to increased air traffic. In addition, a Helicopter Lift Plan would be prepared and implemented for the construction phase of the Proposed Project, as required by the FAA. No impact would occur.

The operation and maintenance activities would require the periodic use of a helicopter for power line inspection, which SDG&E already implements for its existing TL 6931 facilities. SDG&E would notify the FAA and any additional local agencies, as necessary, prior to conducting maintenance activities requiring a helicopter. Thus, no impact would occur.

Question 4.15d – Increase in Hazards – No Impact

Construction of the Proposed Project would not necessitate any modification to existing public roadways. As previously discussed, temporary road or lane closures may be required to provide safety to the public and workers during certain activities. Road closures and encroachment into public roadways could increase hazards if appropriate safety measures are not in place, such as proper signage, orange cones, and flaggers. SDG&E would obtain the required encroachment permits from the County of San Diego and Caltrans, as required, and implement traffic control measures accordingly. No new structures would be installed within roads and no modifications to public roads would occur; consequently, no hazards impacts would result.

Operation and maintenance activities associated with the Proposed Project would occur within SDG&E's ROW and would not necessitate any modification to existing public roadways. Access for these activities would be provided from existing public roads and newly constructed dirt access roads. As a result, no hazards impacts would occur.

Question 4.15e – Emergency Access Effects – Less Than Significant Impact

Emergency access would not be directly impacted during construction because all streets would remain open to emergency vehicles at all times throughout construction. Increased vehicle traffic and brief closures (approximately 10 to 15 minutes in duration) may occur while pulling the conductor across roadways, if flaggers are used, or during the installation and removal of guard structures. Although this can indirectly impact emergency access, as described previously, the increase in traffic would be less-than-significant and emergency vehicles would be provided access even in the event of temporary road or lane closures. Thus, impacts would be less than significant.

As discussed previously, the operation and maintenance of the Proposed Project would result in the same amount of traffic as compared to pre-Project conditions and would not require any planned road closures. Therefore, no impacts to emergency vehicle access would occur from operation and maintenance activities.

Question 4.15f – Parking Capacity – No Impact

Construction of the Proposed Project would necessitate parking vehicles and construction equipment along its proposed route. In most cases, parking would occur within the ROW, but on occasion, cars may park on the side of a public roadway. Construction would occur in a linear fashion, and parking would generally be in different locations each day. If construction-related parking occurs outside of the ROW, only a few vehicles would be parked for a short time; this is not expected to displace any parking area given the rural setting of the Proposed Project. Therefore, no impact would occur.

Three residences are in close proximity to the existing Boulevard Substation. Construction activities at the substation would not require the use of parking areas currently used by residents. All parking is anticipated to occur within the substation site or along designated access roads. Thus, no impact would occur.

The operation and maintenance of the Proposed Project would not require any additional parking spaces compared to pre-Project conditions. Therefore, no impact would occur.

Question 4.15g – Alternative Transportation Conflicts – No Impact

The Proposed Project is in a rural area with limited alternative transportation corridors. The SD&A railway is inactive and bicycle routes are shared with motorists. Construction would not involve any activities that would conflict with transportation policies, plans, or programs, including bus transportation in the area. SDG&E would obtain encroachment permits to conduct work in the public ROW and would ensure that access for motorists and bicyclists remains open during construction. Therefore, no impact would occur.

The traffic in the vicinity of the project site is not expected to increase during operations and maintenance of the Proposed Project compared to pre-construction conditions. Therefore, rail, bus, and bicycle traffic would not be altered by operation and maintenance activities. No impact would occur.

4.15.5 Applicant Proposed Measures

The Proposed Project would not result in any significant impacts to traffic or transportation resources; therefore, no avoidance or minimization measures are proposed.

4.15.6 References

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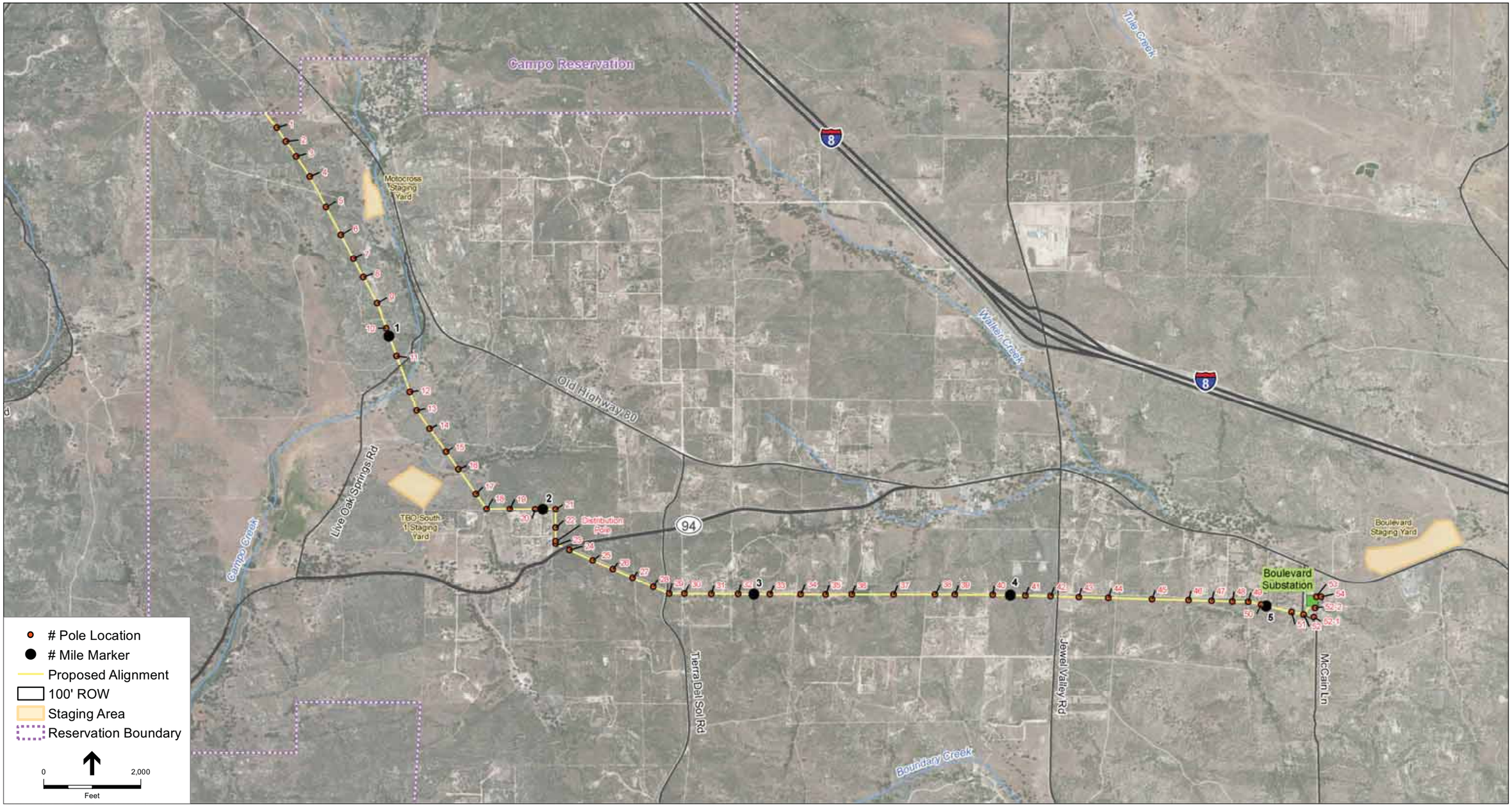

SOURCE: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010)

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 4.15-1

Existing Roadway Network

4.16 Utilities and Service Systems

4.16.1 Introduction

This section describes local utility services and infrastructure in the vicinity of the Proposed Project, including potable water, electricity, sewer and solid waste services. Within this section, potential impacts to these utilities and service systems are assessed. The Proposed Project will require the use of water resources and waste services during construction, operation, and maintenance, but the impacts to utilities and service systems will be less than significant.

4.16.2 Methodology

Information regarding local utilities was obtained from the Mountain Empire Subregional Plan, the CalRecycle website, the San Diego Gas and Electric Company (SDG&E) website, and through communication with personnel at the San Diego County Department of Public Works.

The Proposed Project involves the replacement of approximately 5.2 miles of existing electric facilities. SDG&E currently maintains these existing facilities in accordance with its standard operating protocols and procedures. After construction of the Proposed Project, SDG&E will continue to operate and maintain the new facilities consistent with these same operating protocols and practices. These on-going operation and maintenance activities, practices and protocols have been incorporated into the environmental baseline and environmental setting for the Proposed Project. Where necessary, additional Applicant Proposed Measures were identified to avoid or minimize potential impacts.

4.16.3 Existing Conditions

Potable Water

The Proposed Project is located in the Mountain Empire Community Planning Area, which relies entirely on groundwater to supply municipal water (San Diego County, 2011). The recharge rates are relatively slow in this region, making water a limited resource for residents and businesses located in this planning area.

The nearest community to the project site, the community of Boulevard, is not served by a formal water district so residents obtain their water from private wells (Ngo, 2012).

Residents of the nearby community of Jacumba receive their water from the Jacumba Community Services District (JCSD). Jacumba Community Services District serves approximately 234 connections over a service area of 435 acres. One hundred percent of the JCSD water supply comes from groundwater, which is transported to customers by way of two active groundwater wells, one pump, seven miles of pipeline, and two reservoirs (total capacity 202,000 gallons).

Residents in the community of Campo receive their water from the Campo Water Maintenance District (San Diego County, 2011a; San Diego County, 2011b). One hundred percent of District's water supply comes from groundwater that is pumped from three local wells, transported by two miles of pipeline and stored among the district's three storage tanks which have a total capacity 1.6 million gallons.

Electricity

Electricity in the Mountain Empire Planning Area is provided by SDG&E. SDG&E's electricity service area covers all of San Diego County and portions of southern Orange County, serving 3.5 million customers including private residences and businesses (SDG&E, 2012).

Sewer

Sewage in the Mountain Empire Community Planning Area is disposed of either by municipal waste treatment facilities or private septic systems. In Jacumba, Boulevard, and the areas surrounding the project site, no formal sanitation district exists and sewage is disposed in private septic systems (Ngo, 2012). The Campo Water and Sewer Maintenance District (CWSMD) provides sewer service to residents of the Campo Community, as well as various County and public facilities that are located within its 418-acre service area (San Diego County, 2011b).

Solid Waste

San Diego County has six active landfills and seven transfer stations (Cal Recycle 2012; Snyder, 2012). The County has discontinued its rural waste collection bins but several private waste management companies offer curbside waste pickup services to rural residents (Snyder, 2012). Residential waste pick-up is offered by Allied Waste in the communities of Boulevard and Campo, and Waste Management, Inc. serves the nearby community of Jacumba. After being collected, solid waste that is not placed directly in the landfills is deposited temporarily in one of the seven privately owned and operated transfer stations throughout the County (San Diego County 2011b).

The nearest landfills to the Proposed Project site are the Otay Landfill in Chula Vista (approximately 39 miles to the southwest) and the Sycamore Landfill in Santee (approximately 40 miles to the northwest). In 2006, the Otay Landfill and Sycamore Landfill had approximately 33,070,879 cubic yards and 47,388,428 cubic yards of remaining capacity, respectively (CalRecycle, 2012). The Otay and Sycamore Landfills are all owned and operated by Allied Waste Industries Incorporated (Cal Recycle, 2012).

4.16.4 Impacts

Significance determinations of impacts to utilities and service systems are summarized below. Potential impacts are discussed in detail in the following sections. Impacts to utilities and service systems from the Proposed Project will be less than significant.

Would the project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) 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)?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities (the construction of which could cause significant environmental effects)?	☐	☐	☐	☒
d) Have sufficient water supplies available from existing entitlements and resources to serve the project from existing entitlements and resources?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider that 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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Significance Criteria

Potential impacts to public utilities and service systems were determined in accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Significant adverse impacts to public utilities and service systems will only occur if the Proposed Project:

- exceeds wastewater treatment requirements of the Regional Water Quality Control Board (RWQCB);
- requires or results in the construction of new water or wastewater treatment facilities or expansion of existing facilities;
- requires or results in the construction of new storm water drainage facilities or expansion of existing facilities;
- results in the need for a new or expanded water supply;

- results in a determination by the wastewater treatment provider that it has inadequate capacity to serve the Proposed Project's projected demand;
- results in inadequate access to a landfill with sufficient permitted capacity to accommodate the Proposed Project's solid waste disposal needs; or
- causes a breach of published national, state, or local standards relating to solid waste.

In addition to the guidelines specified in Appendix G, the Proposed Project would have significant adverse impacts to public utilities and service systems if it results in the disruption of existing utility systems.

Question 4.16a – Wastewater Treatment Requirement Exceedances – No Impact

Construction of the Proposed Project will not generate wastewater. Workers will have access to portable toilets onsite, which will be maintained by a licensed sanitation contractor and used in accordance with Occupational Safety and Health Administration (OSHA) sanitation regulations. The OSHA sanitation regulations generally require one portable toilet for every 10 workers. The licensed contractor will dispose of the waste offsite and in compliance with regulatory requirements. Thus, no impact will occur.

Operation and maintenance of the Proposed Project will not generate wastewater. With the exception of the occasional maintenance and repair trips, no full time operations and maintenance staff will be present onsite. Neither the Project's unmanned operations, nor the maintenance crew repair visits are expected to generate wastewater or require the use of wastewater treatment facilities. As a result, no impact will occur.

Question 4.16b – Water and Wastewater Treatment Facility Expansion – No Impact

Water will be used on a regular basis during the construction phase to control dust on access roads and in work areas, but none of the water-related activities onsite would require the disposal or sanitation of wastewater. The water used during construction will be dispersed across the site and will either evaporate or be absorbed into the ground. Therefore, the Project will not impact wastewater treatment providers or require the need for a wastewater treatment facility expansion to accommodate wastewater disposal needs during construction.

As previously stated, few workers will visit the project site for operations and maintenance purposes each year and the Project's unmanned operations do not require water. Therefore, operation and maintenance of the Proposed Project will not generate any wastewater and no sanitation facilities will be needed or located onsite. As a result, no impact will occur.

Question 4.16c – Water Drainage Facility Expansion – No Impact

Currently, there are no existing drainage facilities onsite and construction of the Project will not significantly alter drainage patterns or require new drainage facilities. Construction activities will primarily occur on areas that have been previously disturbed and used for the operation and

maintenance of TL 6931, so construction activities will not alter the topography or existing drainage patterns of the project site. Thus, the Project will have no impact on stormwater flows or drainage on and around the project site.

Activities associated with operation and maintenance of the Proposed Project will be conducted on existing roads and disturbed areas and will be similar to those that already exist onsite along the TL 6931 alignment. Thus, existing drainage patterns will not be altered and no new drainage facilities will be built as a result of the construction and operations of the Project.

Question 4.16d – Water Supply Availability – Less Than Significant Impact

Approximately 2.3 million gallons of water will be required during Project construction and will be obtained from one, or a combination of the following sources: purchasing and transporting water from local (small) water districts, purchasing and transporting water from private commercial well owners, or purchasing and transporting water from large water districts in the San Diego Metropolitan area.

It is anticipated that up to three (3) 12,000 gallon temporary water storage tanks will be placed at one or more of the temporary staging areas described in the Project Description, Section 3.5.3, Water. Delivery to individual work sites is anticipated to be accomplished with 3,000 gallon capacity water distribution trucks for earthwork and dust control purposes, or by volumetric concrete trucks for foundation concrete placement.

Because the water will only be needed temporarily and an appropriate source will be secured prior to construction, impacts will be less than significant.

The Project is expected to use water for insulator washing during the operations phase. The water used during this phase would be trucked to the site and would be similar to the amount currently used along the TL 6931 line; therefore, the Project will not require an increased water supply or water entitlements. As a result, no impact will occur.

Question 4.16e – Wastewater Treatment Capacity – No Impact

As described previously under the responses to questions 4.16a and 4.16b, construction of the Proposed Project will not generate wastewater. Therefore, the Proposed Project will not affect wastewater treatment capacity.

As previously described, neither maintenance crew visits nor the unmanned operations will generate wastewater onsite; therefore, the Proposed Project will not impact wastewater treatment capacity and no impact will occur.

Question 4.16f – Landfill Capacity – Less Than Significant Impact

Much of the waste generated by the Project during construction will consist of material packaging, such as wooden skids, cardboard boxes, plastic wrapping, as well as incidental trash from construction workers meals. Other materials used during construction, such as empty conductor spools and excess conductor, will be retained by SDG&E for use on other Projects or

recycled. Thus, construction of the Proposed Project will not produce a substantial amount of waste. The anticipated limited amount of solid waste will be collected at a designated point within the Proposed Project area, temporarily stored in receptacles or covered, then disposed of at a licensed landfill. Because the quantity of waste will be minimal and existing landfills in the vicinity of the Proposed Project have sufficient capacity, as previously described in Section 4.16.3, impacts will be less than significant.

The Proposed Project will only require occasional staff visits for maintenance and repair purposes and waste will only be produced onsite during the infrequent crew visits. The waste produced will be associated with equipment maintenance, crew lunches, and the packaging material that protects replacement parts. Excess material or waste resulting from the repair or replacement of a structure or equipment (e.g., replacement of an insulator) will be taken to an existing SDG&E maintenance yard and either disposed of in accordance with federal, state, and local statutes and regulations, reused, or recycled. Any remaining waste will be minimal and will be properly disposed of at an approved landfill. Therefore, impacts will be less than significant.

Question 4.16g – Solid Waste Statutes and Regulations – No Impact

Construction of the Proposed Project is not anticipated to generate a substantial amount of solid waste. As previously discussed under the response to Question 4.16f, the small amount of solid waste produced during construction will be disposed of at a licensed landfill. Solid waste management will comply with all applicable federal, state, and local statutes and regulations. Thus, the Proposed Project will not violate any solid waste statutes or regulations.

As described in the response to Question 4.16f, very little waste will be created onsite during operations and maintenance. Waste would only be generated when SDG&E personnel visit the site several times each year for maintenance and repair purposes. Handling and disposal of all waste products associated with operation and maintenance activities will comply with all applicable statutes and regulations. Therefore, no impact will occur.

Disruption of Existing Utility Systems – Less-than-Significant Impact

Construction of the Proposed Project will involve excavation and grading during the installation of the power line structures. These activities have the potential to unintentionally impact existing underground utilities, particularly in residential areas, which may result in the disruption of service. To minimize the risk of impacting these lines, SDG&E or their contractor will notify the Underground Service Alert 48 hours in advance of excavating or conducting ground-disturbing activities in accordance with state law to ensure that existing utilities are appropriately marked in the field and can be avoided. Exploratory excavation (potholing) will also be conducted to verify the locations of existing underground utilities in close proximity to foundations prior to construction.

During construction, there will be no disruption in service along the existing TL 6931 line or the 12 kV distribution underbuild.

Existing electric facilities could unexpectedly be taken out of service by construction activities but this is unlikely. The high visibility of overhead lines will further ensure their avoidance during construction. Therefore, impacts associated with the disruption of existing utility systems will be less than significant.

Operation and maintenance activities for the Proposed Project may occasionally involve excavation or other ground-disturbing activities. These activities will be conducted in pre-disturbed areas and standard precautionary measures, such as notifying Underground Service Alert, will be implemented to ensure that existing underground utility lines will not be impacted.

Operations and maintenance activities are not expected to disrupt the existing distribution line that will be partially rebuilt as distribution underbuild on the proposed new power line facilities. The portion of the 12 kV distribution line that is not incorporated into the Proposed Project will be an overhead line that will run parallel to the Proposed Project line and will be highly visible to maintenance and repair crews.

Implementation of the Proposed Project will create a beneficial impact by providing interconnection facilities for the Shu'luuk Wind Project. Thus, the Project would facilitate the transmission of renewable energy, which would help meet California's growing demand for clean energy.

4.16.5 Applicant Proposed Measures

Because no potentially significant impacts relative to utilities and service systems will result from the Proposed Project, no applicant-proposed measures are provided.

4.16.6 References

CalRecycle. Facility/Site Search, www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx, accessed February 27, 2012.

Ngo, Mike. San Diego County Department of Public Works – Water Resources Management, telephone conversation on February 24, 2012.

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San Diego County. General Plan EIR – Utilities Section, www.sdcounty.ca.gov/dplu/gpupdate/environmental.html, published August 2011b.

San Diego County. San Diego County General Plan - Mountain Empire Subregional Plan, www.sdcounty.ca.gov/dplu/gpupdate/docs/BOS_Aug2011/C.2_10_MTN_EMPIRE__08_03_11.pdf, adopted January 3, 1979 (Updated August 2011).

SDG&E. Our Service Territory, regarchive.sdge.com/aboutus/serviceTerritory.shtml, accessed February 24, 2012.

Snyder, John. Vice President/General Manager of EDCO, telephone conversation February 27, 2012.

4.17 Cumulative Analysis

4.17.1 Introduction

This chapter discusses potential cumulative impacts related to the construction and operation of the Proposed Project. The Proposed Project is proposed to be built almost entirely on the same alignment as the existing TL 6931 and will require similar maintenance as the existing power line. The Proposed Project is therefore not expected to result in a significant cumulative environmental impact in any of the resource areas evaluated under the California Environmental Quality Act (CEQA).

4.17.2 Significance Criteria

CEQA defines a cumulative impact as one "which is created as a result of the project…together with other [past, present, and future] projects causing related impacts." (Guidelines § 15130(a)(1)). Impacts will be considered significant if they exceed the individual criterion established for each resource area as described in Sections 4.1 through 4.16, and, if so, the Proposed Project's contribution will be analyzed to determine whether it is cumulatively considerable (Guidelines § 15064(h)(1)).

4.17.3 Timeframe of Analysis

For the purpose of this cumulative impacts analysis, the Proposed Project is defined in terms of construction and operation and maintenanceof the Proposed Project. SDG&E anticipates that construction of the Proposed Project will take a total of approximately 9 months. Construction is scheduled to begin in April 2014 and be completed in December 2014 (refer to Section 3.5.4 in Chapter 3 Project Description for more detailed schedule information). Post-construction restoration will occur as needed following the completion of construction. Additionally, mitigation monitoring and maintenance of the restored areas will continue for a period of three to five years following the completion of Proposed Project construction.

4.17.4 Area of Analysis

A list of past, present, planned, and probable future projects in the vicinity of the Proposed Project has been developed in accordance with Guidelines Section 15130(b). The impacts created by the Proposed Project are not expected to be significant. Therefore, the cumulative project list only includes projects that are in the vicinity of the Proposed Project's site and have the potential to contribute to cumulative impacts in conjunction with the Proposed Project.

4.17.5 Methodology

Information on existing conditions and reasonably foreseeable projects was gathered from Internet searches of local planning department and state agency websites and correspondence with agency staff. The following entities were contacted regarding development projects, road and utility improvement projects, and capital investment projects:

- County of San Diego
- California Department of Transportation (Caltrans)
- California Public Utilities Commission (CPUC)
- Bureau of Land Management (BLM)
- California Energy Commission (CEC)

4.17.6 Existing/Operating Projects

Land uses surrounding the Proposed Project consist primarily of rural undeveloped land, but also include open space and sparsely situated single-family residences. Refer to Figure 4.10-1 in Section 4.10: Land Use and Planning for information regarding the land uses surrounding the Proposed Project. The existing and operating projects in the area consist mainly of continuous light commercial activity on Old Highway 80, transportation activities, existing utility infrastructure, and ongoing maintenance to roads and other infrastructure.

4.17.7 Foreseeable Projects Inventory

For the purposes of this document, "reasonably foreseeable" refers to projects that federal, state, or local agency representatives have knowledge of resulting from pre-application meetings or the formal application process. Table 4.17-1: Foreseeable Projects lists known projects that could cumulatively contribute to impacts created by the Proposed Project. Figure 4.17-1: Foreseeable Projects Map shows the location of each project listed in Table 4.17-1, with respect to the Proposed Project. A total of 11 projects have been identified as having the potential to cumulatively contribute to impacts created by the Proposed Project. The projects in the cumulative scenario include a range of project types from interstate highway work, to planned residential development project, to new energy generation and transmission projects.

4.17.8 Potential Cumulative Impacts

This section discusses whether, when combined with other past, present, and planned and probable future projects in the area, the Proposed Project will result in either significant short-term or long-term environmental impacts. Short-term impacts are generally associated with construction of the Proposed Project, while long-term impacts are those that result from permanent Proposed Project features or operation of the Proposed Project. The activities required to operate and maintain the proposed interconnection facilities are similar to those required by the existing TL 6931 line; therefore, the Proposed Project is not expected to contribute significant long-term impacts to the cumulative scenario.

TABLE 4.17-1
FORESEEABLE PROJECTS

Map ID	Project Name	Address/ Location	Proximity (miles)	Description	Size	Status
1	I-8 Pavement Rehabilitation-San Diego County Project	I-8-Crestwood Road to Imperial County Line	0.5	Pavement rehabilitation- Part of the Ten-Year State Highway Operations and Protection Plan	16.6 miles	Ongoing
2	Golden Acorn Casino and Travel Center	South of I-8 at Crestwood	1	33-acre expansion consisting of 150-room hotel, 900-space parking garage, surface parking, RV park, casino expansion, bowling alley, arcade, offices, retail, restaurants/food service, wind turbines, and water and wastewater improvements in three phases	33 acres	Planned
3	Shu'luuk Wind Project	Campo Reservation	<1	160 MW wind energy generating project	4,660 acres	Planned
4	Grizzle –TPM 20719	McCain Valley Road and I-8	0.75	Subdivision of one lot into four parcels with a remainder parcel for SFR development	245 acres	Planned – Notice of Determination filed with County Clerk on June 29, 2006
5	Elder – TPM 20981	San Diego County South of Old Highway 80 and west of McCain Valley Road	0.8	Subdivide 109 acres into five single-family residential lots. The proposed project is a minor residential subdivision with the Boulevard Community Planning Area. The project proposes to divide 109.29 net acres into four parcels and a remainder measuring 11.2 acres, 11.2 acres, 11.3 acres, 11.6 acres, and 63.9 acres.	109.29 acres	Planned
6	Tule Wind Project	In-Ko-Pah Mountains near McCain Valley in southeastern San Diego County	2.7	Wind energy facility with up to 134 wind turbines, collector cables system, 5 acre collector substation, operations building site, 2 MET towers, 138 kV overhead transmission line, 36 miles of new roads.	12,239 acres	ROW Grant issued April 2012
7	White Star Cell Tower	Tierra del Sol and Shasta Way	1.1	Replace one existing panel antenna with a new panel antenna and add four additional panel antennas on top of the existing 100-foot-tall lattice tower	NA	Approved April 2008

Map ID	Project Name	Address/ Location	Proximity (miles)	Description	Size	Status
8	Dart TPM	Ribbonwood Road and Roadrunner Lane	1.25	Subdivision of 33 acres into two residential and one commercial lot.	33 acres	Approved January 2007
9	ECO Substation	Southeastern San Diego County near the communities of Jacumba and Boulevard.	<0.1	Interconnection hub for renewable generation along SDG&E's existing Southwest Powerlink transmission line. Includes 500/230/138kV substation, 138kV transmission line to Boulevard East Substation, rebuild of Boulevard Substation.	10.44 miles	Approved in August 2012
10	Boulevard Border Patrol Station	North of I-8, on the east side of Ribbonwood Road	1	32-acre site for an administrative and training/educational facility, operated 24 hours a day, 7 days a week. At least 250 personnel, over three shifts, would occupy the site throughout the week	32 acres	In construction (expected to be finished in February 2013)
11	Sunrise Powerlink Project	Throughout southeastern San Diego County	<0.1	117-mile, 500kV electric transmission corridor from Imperial County to San Diego with 1,000 MW capacity.	117 miles	Construction completed in June 2012

Construction and operation and maintenance of the Proposed Project will not impact the following resources and, therefore, will not contribute to a cumulative effect:

- Land Use
- Public Services
- Recreation

Construction of one or more of the projects listed in Table 4.17-1
Foreseeable Projects may occur during the same timeframe as the Proposed Project, which could result in temporary cumulative impacts to the following resources:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Population and Housing
- Transportation and Traffic
- Utilities and Service Systems

Aesthetics

Cumulative impacts to visual resources could occur where Proposed Project facilities would be viewed in combination with other past, present, and future developments. The significance of cumulative visual impacts depends upon a number of factors including the degree to which the viewshed is altered and the extent that scenic resources in the area are disrupted due to either view obstructions or direct impacts to scenic resource features. The Proposed Project will create similar visual impacts as the TL 6931 line that currently exists along the Proposed Project alignment. Thus, the Proposed Project will not impede a previously unobstructed view or significantly add to the visual impact that currently exists at the project site.

Expected visual change associated with future development in the Proposed Project's general area will result from a combination of roadway improvements, new transmission line facilities, wind turbines, and planned residential development. When taken together, the introduction of these projects will, to varying degrees, alter the appearance of the existing landscape setting. The

Proposed Project will not be dissimilar to other future transmission improvement projects in terms of its visual character and appearance. Because major portions of the foreseeable future development lay outside of the Proposed Project viewshed area, substantial cumulative effects on views in the immediate Proposed Project area are not anticipated. As previously stated, the Proposed Project is not expected to contribute an additional significant impact to the cumulative scenario beyond the impacts already created onsite by the TL 6931 line. Therefore, cumulative visual effects within the Proposed Project viewshed are expected to be incremental and less than significant.

Air Quality

If several of the projects listed in Table 4.17-1
Foreseeable Projects occur simultaneously, particularly the energy projects and the I-8 pavement rehabilitation project, a cumulative air quality impact could occur in the vicinity of the Proposed Project during construction. However, with the implementation of applicant-proposed measures (APMs) to reduce emissions and dust during construction, these concurrent projects are not expected to exceed identified significance thresholds. Furthermore, adherence to the standards and requirements of the San Diego Air Pollution Control District (SDAPCD) will ensure potential cumulative impacts are minimized. As a result, cumulative impacts are expected to be less than significant during construction.

During the operational phase, the Proposed Project is expected to significantly reduce its emissions and would continue to implement all appropriate APMs and adhere to SDAPCD air quality standards and requirements. While the residential projects, the Boulevard Border Patrol Station, and the Golden Acorn Casino and Travel Center expansion may create emissions and cumulatively create air quality impacts, these emissions are not expected to exceed any air quality thresholds. When combined with the Proposed Project, they are not expected to create a cumulatively significant impact on air quality.

Biological Resources

Of the projects in the cumulative scenario, the energy-generation projects are expected to have the greatest impact on sensitive species habitat because they cover the greatest expanse of undisturbed land, while the other projects, including the Proposed Project, are primarily located in disturbed areas. Although the temporary footprints of the energy projects will be large, the overall permanent footprints will be relatively small. Most of the temporary impacts to sensitive biological resources can be avoided during construction of the projects through the use of avoidance, minimization, and mitigation measures and regulatory agency protocols.

The Proposed Project and the surrounding cumulative projects are fairly widespread in areas that are predominantly undeveloped, leaving a substantial amount of land available for biological resources to inhabit. Several large tracts of preserved land exist in the nearby Table Mountain Area of Critical Environmental Concern, the Anza-Borrego Desert State Park, two wilderness areas, and the McCain Valley Resource Conservation Area. Given the habitat availability in the vicinity of the project site, the Proposed Project and the cumulative projects are not expected to

encroach on Quino Checkerspot Butterfly (QCB) and other sensitive species habitat. Additionally, the majority of the Proposed Project's permanent impacts will be limited to areas that have been previously disturbed by TL 6931 and will not create new impacts to undisturbed habitat.

The Proposed Project and the cumulative projects listed in table 4.17-1 will all be subject to the same permitting requirements under the federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA), and can be expected to implement comprehensive conservation strategies that minimize and mitigate the loss of habitat for all listed species associated with the affected habitat. Through implementation of the NCCP, the Proposed Project will compley with FESA and CESA requirements and minimize potential impacts to sensitive species and habitat. Because the Proposed Project avoids and minimizes most impacts to sensitive species, including the QCB, and mitigates for impacts to habitat areas, the effects on sensitive species are not expected to be cumulatively considerable.

As previously mentioned, the majority of the Proposed Project will generally follow the same alignment as the existing TL 6931. As a result, it will not represent a new structural impediment to avian species, but will extend slightly higher than the existing line. To minimize impacts to avian species the Proposed Project will be constructed in compliance with the Avian Power Line Interaction Committee's *Suggested Practices for Avian Protection on Power Lines*.

Many of the temporary biological impacts created during construction of the Proposed Project will be mitigated or avoided through the implementation of NCCP, mitigation measures, and regulatory agency protocols. The activities required to operate and maintain the Proposed Project will be similar to those that are required by the existing TL 6931 line. Therefore, the Proposed Project is not expected to create cumulatively significant long-term biological impacts following construction. As a result, the Proposed Project's contribution to cumulative impacts on biological species is not considered significant.

Cultural Resources

Cumulative impacts to cultural resources could occur as a result of increased ground-disturbing activities in previously undisturbed areas by multiple projects on the cumulative project list. The Proposed Project would be built on the existing TL 6931 alignment, which has been previously disturbed. The Proposed Project will avoid impacts on known cultural resources that may exist in the area. Construction of the Proposed Project could potentially impact unknown cultural resources, but the potential for these impacts to occur would be reduced with the implementation of the Proposed Project's APMs.

Other projects on the cumulative project list may have the potential to impact cultural resources, particularly the projects located in undisturbed areas. Several factors would make cumulative impacts less than significant, however. First, projects with federal agency involvement must avoid or mitigate impacts to potentially significant cultural resources under the Section 106 consultation requirements for the National Historica Preservation Act (NHPA). Second, all of the

cumulative projects must implement appropriate measures to protect cultural resources. Third, the Proposed Project is not expected to result in impacts to cultural resources.

Geology and Soils

The potential cumulative impacts that may occur as a result of construction of the Proposed Project in conjunction with other planned and future projects include soil disturbance from grading and excavation activities that may cause erosion and sedimentation. All of the projects, except for the highway rehabilitation project, will involve soil disturbance during construction. However, the potential for soil erosion and sedimentation will be minimized through the implementation of Storm Water Pollution Prevention Plans (SWPPPs), which are required for all projects that disturb at least one acre of soil. As a result, the Proposed Project's contribution to cumulative impacts on geology and soils is not cumulatively considerable. Each of the cumulative projects will be designed to meet current building code and safety standards, thereby ensuring that the potential for long-term cumulative impacts are less than significant.

Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions will result from the construction of the Proposed Project and other foreseeable projects in the area. The vehicles and heavy equipment used during construction will be the primary sources of these emissions. While these emissions have the potential to contribute to a cumulative increase in GHGs, the emissions during the Proposed Project's construction will be negligible when compared to the existing baseline GHG emissions in the area.

During the operational phase, the residential projects, the Boulevard Border Patrol Station, and the Golden Acorn Casino and Travel Center may contribute to GHG accumulation by emitting carbon dioxide, nitrous oxide, and methane. However, the Proposed Project's contribution to cumulative GHG impacts is not cumulatively considerable.

Hazards and Hazardous Materials

Cumulative impacts to hazards and/or hazardous materials can result from the construction of concurrent projects having an increased effect on public or worker safety, including exposure to hazardous materials, increased fire potential, or physical hazards. All of the planned and probable projects have the potential to contribute to cumulative impacts to hazards or hazardous materials when combined with the Proposed Project. Because all of the projects require construction equipment, they all have the potential to have a temporary impact from accidental releases of diesel and gasoline fuel, hydraulic fluids, and other hazardous liquids.

While no impact is anticipated during construction of the Proposed Project, there is a potential for accidental spills or leaks during construction. The cumulative projects are far enough away from one another, however, that a spill would be very unlikely to occur in the same immediate vicinity. SDG&E, as well as many of the cumulative projects, will also implement APMs and best management practices (BMPs) to reduce the potential for release of hazardous materials into the

environment. With the proper implementation of this plan and adherence to state and federal regulations, large releases of hazardous materials are highly unlikely and small releases would be contained, cleaned up, and disposed of properly.

If there is any site contamination that would require action, California Occupational Safety and Health Administration (Cal-OSHA) rules would require a site-specific Health and Safety Plan (HASP) to be prepared and implemented by SDG&E and its contractors to minimize exposure of construction workers to potential site contamination and to dispose of construction-generated waste soil in accordance with local, state, and federal regulations. As a result, the Proposed Project's contribution to a significant hazardous materials impact is not cumulatively considerable.

Fire potential is high to moderate in the Community of Boulevard and around the Proposed Project's site. The construction activities at the cumulative project sites present several hazards that could ignite a fire, including the use of internal combustion engines, lighted matches, cigarettes, cigars, or other burning objects. If the cumulative projects' construction periods overlap, the potential for one or more fire occurrence will increase. To reduce the potential fire hazard onsite, SDG&E will clear brush and vegetation and implement several APMs on the Proposed Project's site. Furthermore, the cumulative projects will be required to implement fire hazard reduction measures to meet federal, state, and local laws and regulations, which will reduce the overall potential of fire related impacts.

Once construction is complete, maintenance crews will visit the Proposed Project's site only several times each year for maintenance purposes, including vegetation and brush clearing. Similarly, many of the cumulative sites will only require periodic maintenance visits. This will reduce the potential for human related fire hazards, while ensuring compliance with fire hazard reduction measures. As a result, the Proposed Project's contribution to cumulative hazard impacts is not cumulatively considerable.

Hydrology and Water Quality

Cumulative impacts to hydrology and/or water quality have the potential to result from pollutant discharge into water resources and alterations to existing and natural drainage patterns of the landscape. The Proposed Project will not use groundwater to fulfill its water needs. Therefore, it would not contribute to a cumulative impact on groundwater availability.

Pollutants, including chemicals, liquid products, petroleum products, and concrete-related waste, will be present at all of the cumulative sites and could contaminate water resources if not handled properly. These pollutants could contaminate groundwater and surface bodies of water if spilled or transported via stormwater runoff into receiving waters downstream. The cumulative projects are not expected to produce, store, or use significant amounts of pollutants during operations. Therefore, the construction phase will pose more of a threat to water quality and resources as a result of excavation activities and soil erosion, as well as the presence of vehicles and building materials. Each of the projects will be required to implement BMPs to reduce or eliminate the discharge of pollutants in stormwater discharges and reduce erosion, sedimentation, and other

impacts that may affect water resources. Each of the projects will also be required to develop a SWPPP to reduce stormwater pollution.

Potentially cumulative impacts to hydrology could also occur in the event that multiple projects reshape and redirect surface water drainage patterns; however, the Proposed Project is not expected to alter existing drainage patterns and does not require the construction of new drainage facilities. The other cumulative projects may affect the natural course or flow of water for short distances, but none of them are anticipated to redirect the water to areas it otherwise would not flow. Therefore, cumulative impacts are expected to be less than significant.

Noise

All foreseeable projects, including the Proposed Project, are expected to have cumulative temporary noise-related impacts during times of overlapping construction. Because many of these projects are not located adjacent to each other and exist in rural or unpopulated areas, these temporary impacts are expected to be less than significant.

As the Proposed Project's construction approaches the Boulevard East Substation, receptors in the Community of Boulevard and the immediate vicinity of the Proposed Project will be exposed to the Proposed Project's construction noise and to substation noise and corona from the operation of the other interconnecting transmission lines. However, corona generally only reaches sound levels of approximately 45 to 50 A-weighted decibels within the transmission corridor, which is considered less than significant. Furthermore, all noise will be in compliance with local regulations.

Operational noise from the Proposed Project is not anticipated to contribute to a cumulative impact due to its distance from the other facilities and sensitive receptors.

Population and Housing

Given the rural setting of the projects identified in Table 4.17-1
Foreseeable Projects and the limited workforce in the area, it is conceivable that a number of workers involved in building these projects will not be local and will require temporary lodging during construction. Depending on the number of concurrent activities and specialty contractors that mobilize from out of town or out of state, there may be a shortage of available lodging within the immediate vicinity of the projects. However, there is an abundance of lodging approximately 40 miles both east and west from the projects that could temporarily house workers if several of the projects occurred simultaneously. Construction would not have a significant impact on population and housing and would not be cumulatively considerable.

Additionally, operations and maintenance activities would be similar to those that already exist along the TL 6931right-of-way and would not require additional workers to travel or relocate to the area. Therefore, the Proposed Project's operations would have no impact and would not contribute to a cumulative impact on local housing.

Transportation and Traffic

During the construction phase, traffic impacts will occur from all of the projects that have overlapping construction timeframes. As discussed in Section 4.15 Transportation and Traffic, impacts due to construction of the Proposed Project will be less than significant. Work associated with the installation of structures for the Proposed Project is expected to take only a few days at a time per structure for the individual components of installing the structure and stringing the wire. This will require limited amounts of equipment and trips. As a result, construction of the Proposed Project will not contribute appreciably to a cumulative impact on traffic and transportation in the project area. Together, the impacts created by the Proposed Project and the projects on the cumulative project list will be less than significant.

After construction, the Proposed Project will be operated and maintained by existing SDG&E staff that already serve the facilities in the area. As a result, no appreciable increase in traffic is anticipated and cumulative impacts will not occur or will be less than significant.

Utilities and Service Systems

Cumulative impacts to utilities or service systems have the potential to occur if multiple projects have a combined impact on local utility services or infrastructure. All cumulative projects could potentially impact drainage patterns and waste services. The cumulative projects are spread out over a large expanse of undeveloped land. Therefore, they are not expected to create overlapping or cumulatively significant impacts on drainage patterns.

The Proposed Project is not expected to significantly impact drainage patterns and will also meet stormwater quality and hydromodification compliance measures to reduce its individual and cumulative impacts on drainage facilities. Additionally, the Proposed Project will produce a nominal amount of waste that will be disposed at a licensed landfill with sufficient capacity. The waste created by the cumulative projects will also be disposed at a licensed landfill and is not expected to exceed or require the expansion of existing landfill space.

The Proposed Project will facilitate the generation and distribution of wind energy, thereby resulting in a positive impact to the existing electric system by providing more reliable power to residents and businesses.

4.17.9 Conclusion

While the Proposed Project will contribute to certain cumulative impacts, its contribution to these impacts is not cumulatively considerable. The other projects in the area are anticipated to require avoidance and minimization measures similar to SDG&E's APMs and permit conditions in accordance with the CEQA, FESA, CESA, and NHPA. These measures will minimize environmental impacts, thereby minimizing the overall cumulative effect. As a result, cumulative impacts are expected to be less than significant.

4.17.10 References

California Department of Transportation. District 11-San Diego and Imperial Counties, Interstate 8 San Diego County Transportation Concept Summary. Online. www.dot.ca.gov/dist11/departments/planning/pdfs/tcs/2012_I_8_TCS_SanDiego.pdf. Site visited September 10, 2012.

Bureau of Land Management. Tule Wind Energy Project. Online. www.blm.gov/ca/st/en/fo/elcentro/nepa/tule.html. Site visited September 10, 2012.

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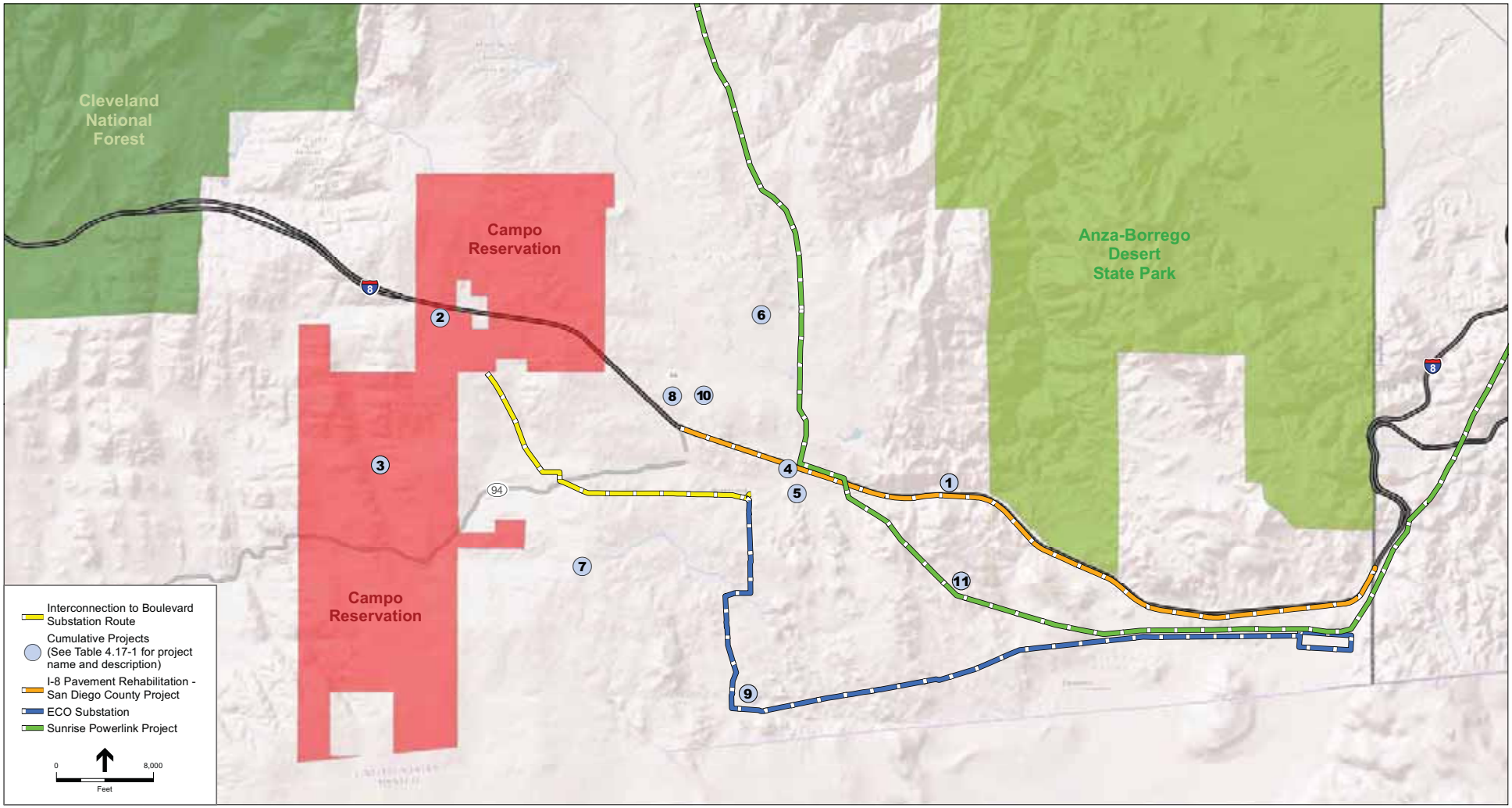


SOURCE: Sempra Utilities (2011), ESRI (2010), USGS (2010)

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 4.17-1

Cumulative Projects Map

CHAPTER 5
Detailed Discussion of Significant Impacts

5.1 Introduction

In accordance with the Proponent's Environmental Assessment (PEA) Checklist issued by the California Public Utilities Commission (CPUC), this section:

1. Identifies the potentially significant impacts that will result from the construction, operation, or maintenance of the Proposed Project and the applicant-proposed measures (APMs) that SDG&E is proposing to avoid, minimize, or mitigate for those potentially significant effects.
2. Discusses the alternatives that were considered in determining the Proposed Project and the justification for the selection of the preferred alternative.
3. Discusses the Proposed Project's potential to induce growth in the area.

5.2 Applicant-Proposed Measures to Minimize Significant Impacts

SDG&E has identified 32 APMs that it plans to implement during construction and/or operation of the Proposed Project to avoid, minimize, and/or ensure that impacts remain at a less-than-significant level. Table 5-1: Applicant Proposed Measures provides the APMs for the Proposed Project.

5.3 Description of Project Alternatives and Impact Analysis

5.3.1 Introduction

Section 15126.6, subdivision (a) and (f)(2)(A) of the California Environmental Quality Act (CEQA) Guidelines does not require review of alternatives when a project will not result in significant environmental impacts after mitigation, as is the case with the Proposed Project. However, the CPUC has adopted an "Information and Criteria List" in order to determine whether applications for projects are complete. The list specifies the information required from any applicant for a project subject to CEQA. As the lead agency, the CPUC requires applicants for a Permit to Construct or a Certificate of Public Convenience and Necessity to describe a reasonable range of alternatives within the PEA.

TABLE 5-1
APPLICANT-PROPOSED MEASURES

APM Number	Description
Air Quality	
APM-AIR-01	Rock aprons or rattle plates will be installed, as needed, at the intersection of dirt access roads and paved public roadways to clean the tires of equipment prior to leaving the site.
APM-AIR-02	All active construction areas, unpaved access roads, parking areas, and staging areas will be watered or stabilized with non-toxic soil stabilizers as needed to control fugitive dust.
APM-AIR-03	All public streets will be swept or cleaned with mechanical sweepers if visible soil material is carried onto them by construction activities or vehicles.
APM-AIR-04	Exposed stockpiles (e.g., dirt, sand, etc.) will be covered and/or watered or stabilized with non-toxic soil binders as needed to control emissions.
APM-AIR-05	Trucks transporting bulk materials will be completely covered unless two feet of freeboard space from the top of the container is maintained with no spillage and loss of material. In addition, the cargo compartment of all haul trucks will be cleaned and/or washed at the delivery site after removal of the bulk material.
APM-AIR-06	Traffic speeds on unpaved roads and the ROW will be limited to 15 mph.
APM-AIR-07	Vehicle idling time will be limited to a maximum of five minutes for vehicles and construction equipment, except where idling is required for the equipment to perform its task.
APM-AIR-08	If suitable park-and-ride facilities are available in the project vicinity, construction workers will be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the Proposed 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 Proposed Project's construction schedule.
Biological Resources	
APM-BIO-1	SDG&E will conduct focused surveys for special-status plants within the TBO South 1 and Boulevard Staging Yards prior to any ground-disturbing activities. Focused surveys will coincide with the known blooming period for potentially occurring species. If a special-status species is encountered during the survey, the localities will be flagged and preserved by erecting a perimeter fence around the plants during all ground disturbing activities that would occur in the immediate vicinity.
APM-BIO-2	SDG&E will conduct protocol-level surveys for QCB prior to construction (including the TBO South 1 and Boulevard staging yards which have not been surveyed for QCB to date). Surveys are not required for the Motocross staging yard, as the area is disturbed and has little potential to support QCB. The surveys will be conducted within the QCB 2013 flight season, or the flight season prior to construction, as designated by the USFWS. Once the surveys have been completed, a 45-day report will be submitted to the USFWS and CPUC.
APM-BIO-3	Subsequent to approval from USFWS through Section 7 consultation, temporary and permanent impacts to QCB habitat will be mitigated at a 1:1 ratio and a 2:1 ratio, respectively, through the in-perpetuity management of 13.21 "acre credits" from the acquired Recht property. The Recht property is part of the mitigation program for the East County (ECO) Substation whereby only a portion of the property is required to be managed for QCB, and voluntary management of the remainder for QCB is available to SDG&E as credits.
APM-BIO-4	SDG&E will mitigate for all permanent impacts to suitable QCB habitat at a 2:1 ratio.
APM-BIO-5	If feasible, SDG&E will avoid construction during the nesting or breeding season (February 1 through August 31). When it is not feasible to avoid construction during the nesting or breeding season, SDG&E will perform a site survey in the area where the work is to occur. This survey will be performed to determine the presence or absence of nesting birds or other species in the work area. However, if an active nest is identified, a biological monitor and SDG&E biological lead will determine a suitable construction buffer, if necessary, to ensure that the birds are not disturbed. If the birds are federal or state-listed species, SDG&E will consult with the USFWS and CDFG as necessary to determine the construction buffer. Monitoring of the nest shall continue until the birds have fledge.

APM Number	Description
APM-BIO-6	Prior to construction, all inactive raptor nests within 250 feet (or a distance determined to be appropriate by the biological monitor) of Project construction will be dismantled and removed from the site. Removal of inactive nests should occur outside the raptor breeding season (January to July). However, if it is necessary to remove an inactive raptor nest during the breeding season, a qualified biologist will supervise removal.
APM-BIO-7	Structures will be constructed to conform to the Avian Power Line Interaction Committee's Suggested Practices for Avian Protection on Power Lines to minimize impacts to raptors.
APM-BIO-8	Construction night lighting in sensitive habitats will be minimized to the extent feasible. Exterior lighting within the Project area and adjacent to undisturbed habitat will be the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from preserved habitat to the maximum extent practicable.
APM-BIO-9	Nighttime vehicle traffic volume associated with Project activities will be kept to a minimum and speeds will be limited to 10 mph to prevent mortality of nocturnal wildlife species.
APM-BIO-10	At the completion of the Project, all construction materials will be removed from the site.
APM-BIO-11	All new access roads constructed as part of the Project that are not required as permanent access for future Project operation and maintenance will either be restored or permanently closed. Where required, roads will be permanently closed using the most effective feasible and least environmentally-damaging methods appropriate to that area (e.g., stockpiling and replacing topsoil or replacing rock), with the concurrence of the underlying landowner and the governmental agency having jurisdiction.
Cultural Resources	
APM-CUL-01	Archeological sites will be spanned or otherwise avoided through Project design and through routing during construction activities to the extent feasible. Known archaeological sites that can be avoided will be demarcated as Environmentally Sensitive Areas. Construction crews will be instructed to avoid disturbance of these areas. Monitoring by a qualified archaeologist will occur for all construction within 100 feet of the Environmentally Sensitive Areas.
APM-CUL-02	Prior to construction, all SDG&E, contractor, and subcontractor Project personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs, including the potential for exposing subsurface cultural resources and paleontological resources. This training will include presentation of the procedures to be followed upon discovery or suspected discovery of archaeological materials, including Native American remains, as well as of paleontological resources.
APM-CUL-03	A qualified archaeologist will be retained to monitor ground-disturbing activity during Project construction. The qualified archaeologist will attend preconstruction meetings, as needed, to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring will be noted on the construction plans. The archaeologist's duties will include monitoring, evaluation, analysis of collected materials, and preparation of a monitoring results report.
APM-CUL-04	In the event that cultural resources are discovered, the archaeologist will have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist will contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The archaeologist, in consultation with SDG&E's Cultural Resource Specialist will determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. For significant cultural resources, preservation in-place will be the preferred manner of mitigating impacts. For resources that cannot be preserved in place, a Research Design and Data Recovery Program will be prepared and carried out to mitigate impacts.
APM-CUL-05	All collected cultural artifacts will be cleaned, cataloged, and permanently curated with an appropriate institution. All artifacts will be analyzed to identify function and chronology as they relate to the history of the area. Faunal material will be identified as to species.
APM-CUL-06	A monitoring results report (with appropriate graphics), which describes the results, analyses, and conclusions of the monitoring program, will be prepared and submitted to SDG&E's Cultural Resource Specialist and Environmental Project Manager following termination of the program. Any cultural sites or features encountered will be recorded with the SCIC at San Diego State University

APM Number	Description
Geology, Soils, and Mineral Resources	
APM-GEO-01	SDG&E will consider the recommendations and findings of the final Geotechnical Report in the final design of all Project components to ensure that the potential for expansive soils and differential settling is compensated for in the final design and construction techniques. In addition, SDG&E will comply with all applicable codes and seismic standards. The final design will be reviewed and approved by a Professional Engineer registered in the State of California prior to construction.
Hazards and Hazardous Materials	
APM-HAZ-01	Prior to construction, all SDG&E, contractor, and subcontractor Project personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs associated with hazardous materials.
APM-HAZ-02	SDG&E will develop a Construction Fire Prevention Plan for the Project and monitor construction activities to ensure its implementation and effectiveness. At a minimum, the Construction Fire Prevention Plan will include the following: • a description of the procedures that will be implemented to minimize the potential to start a fire (including vegetation clearing, parking requirements, etc.), • the requirements of Title 14 of the California Code of Regulations, Article 8 #918 “Fire Protection,” • relevant components of the SDG&E Wildland Fire Prevention and Fire Safety Electric Standard Practice 113.1 (2012), • the fire-fighting equipment (including shovels, axes, and fire extinguishers) that must be maintained on site and in vehicles for the duration of construction, • the appropriate timing and use of fire-protective mats or shields during grinding and welding operations, • emergency response and reporting procedures, and • relevant emergency contact information.
Hydrology and Water Quality	
APM-HYD-01	SDG&E will comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit, General Permit For Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-09-DWQ, NPDES No. CAS000002), and any subsequent permit as they relate to construction activities for the Porposed Project. This will include preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP), and submission of a Notice of Termination to the State Water Resources Control Board upon completion of construction and stabilization of the site.
Noise	
APM-NOI-01	Construction activities will occur during the times established by the local ordinances (generally between 7 a.m. and 7 p.m. Monday through Saturday), with the exception of certain activities where nighttime and weekend construction activities are necessary, including, but not limited to, system transfers, pouring of foundations, and pulling of the conductor, which may require continuous operation or must be conducted during off-peak hours per agency requirements.
APM-NOI-02	SDG&E will provide notice of the construction plans to all property owners within 300 feet of the Project by mail at least one week prior to the start of construction activities. The announcement will state the construction start date, anticipate completion date, and hours of operation, and well as provide a telephone contact number for receiving questions or complaints during construction.
APM-NOI-03	Construction equipment will comply with the San Diego Noise Ordinance, which requires construction noise to not exceed an average of 75 dB between the hours of 7 a.m. and 7 p.m. when measured at or within the property lines of any property developed for residential purpose.

This section summarizes and compares the environmental advantages and disadvantages of the Proposed Project and the alternatives considered. Although no significant unmitigable impacts have been identified, SDG&E considered a reasonable range of alternatives to the Proposed Project that could have the potential to avoid or substantially lessen impacts of the Proposed Project. Under CEQA, the purpose of analyzing alternatives is to identify ways to mitigate or

avoid the significant effects of the proposed project on the environment (Public Resources Code Section 21002.1). The discussion of alternatives should focus on alternatives to the Proposed Project or the locations that are capable of avoiding or substantially decreasing significant impacts of the Proposed Project.

Table 5-2 Alternatives Considered lists each alternative that was considered during the alternatives evaluation process. Two project alternatives were eliminated from further consideration early in the process, and three were carried forward for further evaluation. The alternatives that were eliminated from further consideration were a system alternative and underground power line alternative. The system alternative was eliminated from further consideration because it could not accomplish the proposed generation interconnection. Providing the interconnection facilities for the Shu'luuk Wind Project or a vacant position to allow for the addition of a second circuit when needed in the future is a fundamental objective of the Proposed Project. Because there are no other existing 138 kV system facilities to serve this purpose, the system alternative was eliminiated from further consideration.

The underground power line alternative was eliminated from further consideration because of the significant costs and environmental impacts associated with the extensive trenching required to construct an underground line. Although the potential visual impacts associated with the Proposed Project would be reduced by constructing the line underground, these impacts are incremental and not significant due to the presence of existing facilities. By contrast, underground construction in this area would require extensive trenching through steep, rugged, and rocky terrain (including potentially jack-and-bore, directional drilling, and/or blasting activities). Such construction would likely result in significant and unavoidable impacts to cultural resources, biological resources, jurisdictional drainages and other water resources, and geology and soils. Because TL 6931 already exists in an overhead configuration, the potential benefits of undergrounding the Proposed Project would not outweigh the potential impacts. In addition, undergrounding the line would substantially increase the costs and extend the timeframe associated with constructing the Proposed Project. In light of all of these environmental, economic, social and technological factors, the underground alternative would likely not be accomplished within a reasonable period of time. Therefore, the underground power line alternative was eliminated from further consideration.

Three remaining alternatives were carried forward for further evaluation: two No Project Alternatives and a Power Line Route Alternative. Figure 5-1 Project Alternatives Map shows the location of the alternative route that was evaluated. Each of these alternatives is evaluated for its feasibility and ability to fulfill the Proposed Project objectives, as well as ability to reduce environmental impacts compared to the Proposed Project.

TABLE 5-2: ALTERNATIVES CONSIDERED

Type of Alternative	Evaluated or Eliminated
System Alternatives	Eliminated
Underground Power Line Alternative	Eliminated
No Project Alternative 1	Evaluated
No Project Alternative 2	Evaluated
Power Line Route Alternative	Evaluated

5.3.2 Methodology

CEQA does not provide specific direction regarding the methodology of alternatives comparison. Issue areas that are generally given more weight in comparing alternatives are those with long-term impacts, such as visual impacts, permanent loss of habitat, or land-use conflicts. Impacts associated with construction (i.e., temporary or short-term) or those that can be mitigated to less-than-significant levels comparatively carry less weight.

In order to evaluate the alternatives listed in Table 5-2 Alternatives Considered, SDG&E used a multi-tiered approach. SDG&E began with the system alternatives to determine which was preferred. After making the determination that the Proposed Project was the appropriate system solution to meet the project objectives, SDG&E then evaluated potential 69/138 kV transmission routes starting at Pole 1 and ending at the Boulevard East Substation. This analysis resulted in the selection of the Proposed Project alignment.

In general, the Proposed Project was analyzed based on its ability to meet the project objectives, engineering issues, feasibility factors, and environmental constraints. Potential impacts to aesthetics, biological resources, cultural resources, hydrology and water quality, and land use were evaluated for each alternative by conducting field surveys, literature reviews, and desktop research. Each alternative was ranked based on relative environmental site constraints and the likelihood that the constraints could be avoided through project design and construction.

5.3.3 Proposed Project Objectives

The Proposed Project is being proposed to meet objectives identified by SDG&E. Specifically, the Proposed Project has the following fundamental objectives as outlined in Chapter 2 Purpose and Need and reiterated here:

1. Fire harden the existing system by replacing the existing 69 kV wood pole structures with steel poles that include 138 kV class insulators and vertical spacing.
2. Provide the interconnection facilities for the Shu'luuk Wind Project or a vacant position to allow for the addition of a second circuit when needed in the future.

3. Maximize the use of existing utility rights-of-way (ROWs) and access roads and follow Garamendi Principles[1] for the interconnection facilities of the Proposed Project.

TL 6931 is programmed to be rebuilt from wood poles to steel poles as part of SDG&E's wood-to-steel rebuild program. Therefore, regardless of whether the generation interconnection is approved and constructed, the existing wood poles along the TL 6931 right-of-way(ROW) would be replaced with steel poles of the same configuration as necessary over time and the second circuit on the steel poles would be vacant.

The Proposed Project, its location, preliminary configuration, and the existing and proposed system configuration, are presented in Chapter 3 Project Description. Each of the project objectives is described in more detail in Chapter 2 Purpose and Need.

5.3.4 No Project Alternative

CEQA requires an evaluation of the No Project Alternative so that decision makers can compare the impacts of approving the Proposed Project with the impacts of not approving the Proposed Project (CEQA Guidelines, Section 15126.6(e)). Two No Project Alternatives exist for the Proposed Project. Under No Project Alternative 1 no portion of the project would be built and the existing TL 6931 would remain unchanged. Under No Project Alternative 2, the only construction that would occur is the fire hardening of TL 6931. There is no "generation interconnection only" alternative, because constructing the generation interconnection would accomplish the fire hardening of TL 6931.

No Project Alternative 1: No Action

Under the No Project Alternative 1, no construction would occur. Therefore, the 138 kV generation interconnection would not be constructed, the existing 12 kV distribution line would remain unchanged, and the existing TL 6931 line would continue to operate on a single circuit, supported by the existing wood poles.

Given that no portion of the Proposed Project would be constructed, no environmental impacts would occur as a direct result of the installation of new power line facilities. SDG&E would continue to operate and maintain the line, replacing wood poles with steel equivalent poles as necessary over time. The existing system would not be fire hardened and SDG&E would not achieve other benefits of the Proposed Project, such as superior avian protection, at one time. Therefore, Objective 1 would not be met. Furthermore Objectives 2 and 3 would not be fulfilled under this alternative because SDG&E would not connect the Shu'luuk Wind Project to the Boulevard East Substation. As a result, the Shu'luuk Wind Project would be forced to build an individual power line from their facility to the Boulevard East Substation, thereby not making use of the existing TL 6931 ROW. The line needed to connect the Shu'luuk Wind Project to the Boulevard East Substation may require a new ROW that would cross undeveloped land or land

[1] Encourage the use of existing ROW by upgrading existing transmission facilities within those existing corridors where technically and economically justifiable.

used for residential purposes, incurring greater significant impacts on environmental resources in the area compared to the Proposed Project.

No Project Alternative 1 would not achieve any of the Proposed Project's three objectives and would likely result in greater impacts to aesthetics, land use, biological, and cultural resources if longer, individual power lines and additional interconnection infrastructure were required to provide the interconnection facilities for the Shu'luuk Wind Project or a vacant position to allow for the addition of a second circuit when needed in the future.

No Project Alternative 2: TL 6931 Rebuild Only, No Wind Interconnection Project

Under No Project Alternative 2, TL 6931 would be fire hardened by replacing the existing wood poles with double circuit steel poles. The existing 69 kV line would be installed in the first circuit position and second circuit position would be left vacant to meet future planning and reliability needs. Like the Proposed Project the double circuit configuration would require a 100-foot ROW; therefore, this alternative would follow the Proposed Project route around the community between Poles 18 and 23, deviating from the existing TL 6931 route, to avoid impacts to homes in the area. Because this alternative is similar to the Proposed Project, minus the construction of the 138 kV line, this alternative would result in similar environmental impacts due to their nearly identical construction and operations processes, including: ground excavation, steel pole installation, line pulling, and wood pole extraction.

As discussed in No Project Alternative 1, the TL 6931 69 kV line does not have the capacity to connect the Shu'luuk Wind Project to the new Boulevard East Substation. Consequently, implementation of No Project Alternative 2 would also force the Shu'luuk Wind Project to build a separate power line to connect to the new Boulevard East Substation. The construction of a separate Shu'luuk Wind interconnection facility, in addition to the actions proposed under this alternative, would not follow with Garamendi Principles, thereby failing to achieve Objective 3. Furthermore, No Project Alternative 2 would cover a greater expanse of land and result in greater impacts to aesthetics, land use, biological resources, and cultural resources compared to the Proposed Project's single ROW for the 69/138 kV line configuration.

5.3.5 Power Line Route Alternative

The Proposed Project route, which includes the reconstruction of existing facilities, was chosen to avoid unnecessary impacts on surrounding resources. The route primarily follows the existing alignment of the TL 6931 line to reduce the impact on undeveloped land. However, there is a segment (Poles 18 through 23) of the line that is proposed to circumnavigate a residential development rather than cut through it diagonally to follow the existing TL 6931 ROW. This detour from the existing TL 6931 alignment was chosen as the proposed route to avoid land use conflicts between the Proposed Project's 100-foot ROW and nearby residences. The Power Line Route Alternative considers the impacts that would be created if the Proposed Project followed the existing route diagonally through the residential development.

Building the Proposed Project on the existing TL 6931 route between Pole 18 and 23 would reduce the length of the interconnection facilities by approximately 550 feet. Additionally, the Power Line Route Alternative has been previously disturbed by the construction and operations of TL 6931, which would reduce the Proposed Project's potential impacts on cultural and biological resources. However, a granitic chamise chaparral vegetation community lies on either side of the northwestern section of the Power Line Route Alternative, which may be impacted by construction activities associated with a new steel pole in this area.

Operations and maintenance activities on the proposed interconnection facilities are expected to be similar to those that currently exist along the TL 6931 line, thus operations and maintenance would not create additional impacts along the alternative alignment. Similar to the proposed route, the Power Line Route Alternative would not cross or be located near any scenic routes, public open spaces, recreational trails, or noteworthy hydrological features.

Analysis

The Power Line Route Alternative has several qualities that make it a viable alternative to the proposed interconnection alignment, including its fulfillment of the Proposed Project's three objectives, as well as its shorter length and use of disturbed lands. However, its potential conflict with existing housing removed this alternative from consideration. Because the Proposed Project does not create any significant impacts, the Power Line Route Alternative would not avoid or reduce any potentially significant impacts. Rather, the Power Line Route Alternative's ROW would overlap with existing residential developments, and would create potentially significant impacts to the residents that currently live in this area.

The existing TL 6931 ROW is roughly 24 feet wide, and the Proposed Project would require a 100-foot ROW. The centerline of the Power Line Route Alternative is within 50 feet of several residences on either side. If the project followed the Power Line Route Alternative, approximately 5 residences located within the 100-foot ROW would have to be removed and residents would be displaced. This alternative would create a significant impact on land use and population and housing and if implemented, it would increase overall impacts beyond the less-than-significant impacts created by the Proposed Project.

5.3.6 Conclusion

Compared to the project alternatives, the Proposed Project will have the least environmental impact and make the most efficient use of existing utility ROWs by following the previously disturbed TL 6931 alignment. Additionally, the proposed generation interconnection will accomplish the TL 6931 rebuild by design. While the Power Line Route Alternative would also meet the Proposed Project's three objectives and include the TL 6931 rebuild, the Power Line Route Alternative's 100-foot ROW would overlap with existing residential development between Poles 18 and 23, which would require the removal of approximately 5 homes. The land use conflict created by the Power Line Route Alternative would create impacts that are substantially greater than any of the impacts created by the Proposed Project's route.

Based on these considerations, SDG&E determined that the Proposed Project best met all of the project objectives and simultaneously resulted in less-than-significant impacts to land use and other environmental resources. Construction of the Proposed Project as a whole would have no direct impact on wetlands, eligible cultural resources, or jurisdictional drainages. Impacts to the Quino checkerspot butterfly (QCB) will be mitigated through the implementation of APMs, including preconstruction surveys, QCB habitat avoidance measures, and the adoption of a QCB Habitat Acquisition and Habitat Mitigation Plan, as discussed in Section 4.4.5. Lastly, the Proposed Project offered the best suitability for meeting all of the planning, engineering, feasibility, and environmental criteria.

5.4 Growth-Inducing Impacts

5.4.1 Growth-Inducing Impacts

CEQA requires a lead agency to review and discuss ways in which a project could induce growth. The CEQA Guidelines (Section 15126.2(d)) considers a project to be growth-inducing if it fosters economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding area. New employees hired for proposed commercial and industrial development projects and population growth resulting from residential development projects represent direct forms of growth. Other examples of growth-inducing projects are the expansion of urban services into previously undeveloped areas or the removal of major obstacles to growth, such as transportation corridors and potable water supply.

The growth-inducing potential of the Proposed Project could be considered significant if it were to stimulate human population growth or a population concentration of Boulevard, Jacumba, Campo or other surrounding rural communities above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. Significant growth impacts could also occur if the Proposed Project were to provide infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies. The Proposed Project will not increase housing, create new long-term job opportunities, enhance the community, or provide new and improved services, with the exception of providing the interconnection facilities for the Shu'luuk Wind Project or a vacant position to allow for the addition of a second circuit when needed in the future. The Proposed Project will therefore not stimulate population growth or result in a new concentration of residents, businesses, or industries.

5.4.2 Growth Caused by Direct and Indirect Employment

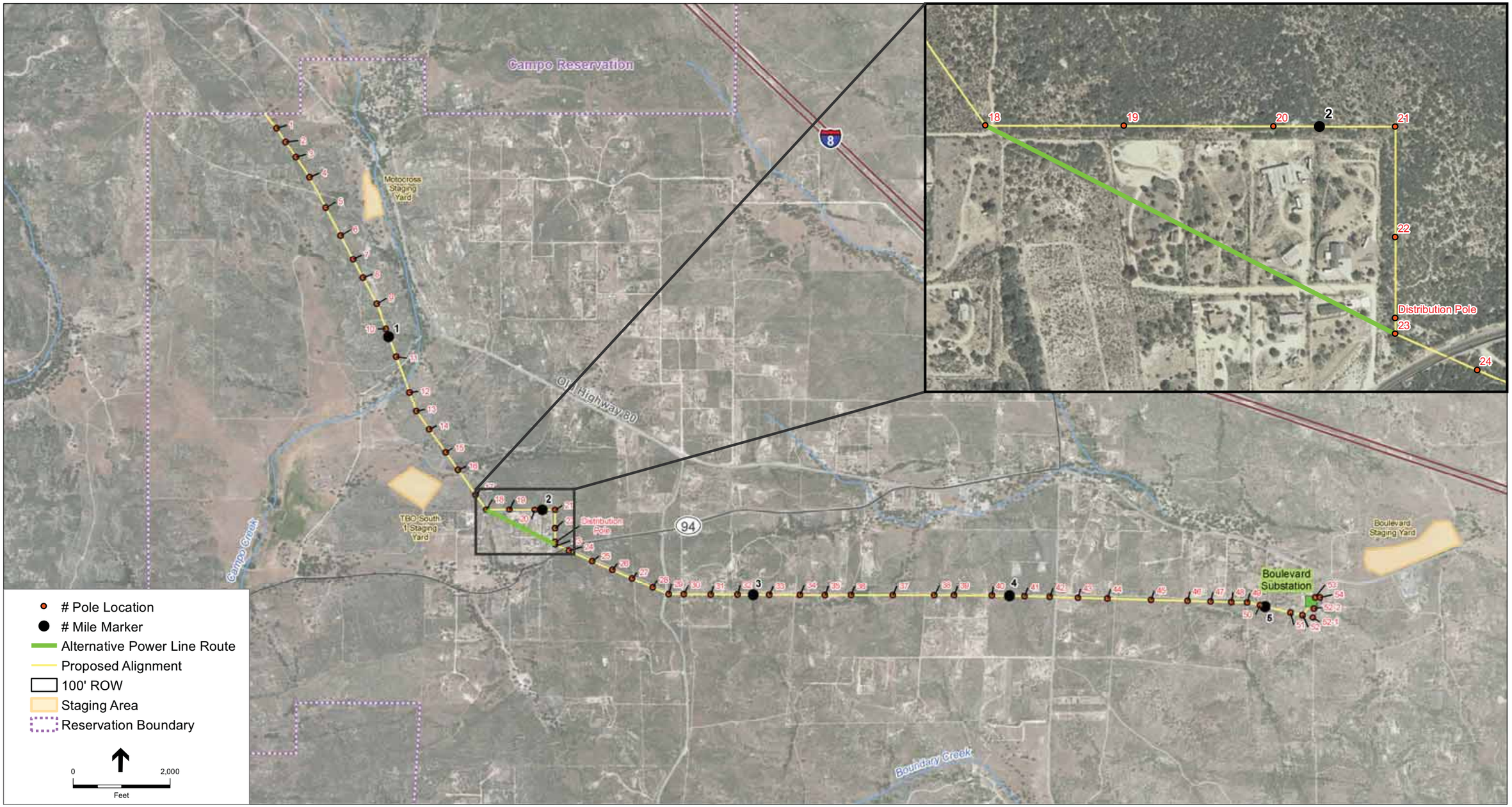
As described in Section 4.12 Population and Housing, the construction and operation of the Proposed Project itself will not affect employment patterns in the area. SDG&E will employ approximately 100 workers throughout the 9-month construction period. The majority of construction workers are anticipated to come from San Diego County and will not require local lodging. Contractors from outside of San Diego County may be mobilized to the job site for all or part of the construction phase of the Proposed Project and may stay at existing local hotels. A

limited supply of hotels and other lodging facilities are within close proximity to the Proposed Project area and can be utilized by the out-of-town personnel. An adequate supply of lodging exists within 45 minutes of the Proposed Project area.

Operation and maintenance of the Proposed Project will be performed by current SDG&E employees and will therefore not create new jobs. Because the Proposed Project will not result in an increase in employment during the operation and maintenance phase, the Proposed Project will not increase demand for new housing.

5.4.3 Growth Related to the Provision of Additional Electric Power

One of the primary objectives of the Proposed Project is to help SDG&E achieve California's renewable energy goals by providing transmission interconnection facilities for the Shu'luuk Wind Project. The State mandates that SDG&E must deliver 33 percent of its electricity from renewable energy sources by 2020, but to do so they must also construct the infrastructure needed to transmit the energy from new renewable energy sources to the user. The Proposed Project facilitates interconnection of a the Shu'luuk Wind Project, which in turn responds to California's mandate, as well as projected energy demands and development forecasts. The Proposed Project will accommodate existing and planned power demands in SDG&E's service territory, as well as those based on state- and locally adopted plans and projections. TL 6931 will also be rebuilt to fire harden the existing power line under the Proposed Project. Therefore, the Proposed Project is not intended to induce growth by extending infrastructure for future unplanned development. The Proposed Project will not induce population growth in the area.



SOURCE: Sempra Utilities (2011), ESRI (2010), Landiscor Aerial (2010)

TL 6931 Fire Hardening / Wind Interconnect Project . 210582

Figure 5-1

Project Alternatives

Appendix A
Air Quality and Greenhouse Gas Analysis

ESA

Appendix A

CONTENTS:

CalEEMod - Summer Construction Output

SDG&E Wind Interconnect Construction

San Diego County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
User Defined Industrial	63	User Defined Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Utility Company**	San Diego Gas & Electric
Climate Zone	13	**Precipitation Freq (Days)**	40		

1.3 User Entered Comments

Project Characteristics -

Land Use - Permanet Land/ROW acreage

Construction Phase - Construction Phases for Interconnection to Boulevard Substation

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Other General Industrial Equipment represents helicopter with 500hp.

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Other General Industrial Equipment represents the tensioner

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - No offroad equipment for testing

Trips and VMT - Worker, Vendor (concrete and flatbed trucks), and Haul Trucks (material import, semi-trailers, and water trucks)

On-road Fugitive Dust - Paved road % based on info in project description

Grading - 7.3 acres disturbed and 1,930 CY import

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission) [1]

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	20.56	155.48	90.53	0.24	259.54	6.39	265.70	25.70	6.38	31.85	0.00	26,085.24	0.00	1.82	0.00	26,123.46
2015	8.52	61.26	29.04	0.11	150.84	2.25	153.09	14.94	2.25	17.18	0.00	11,790.95	0.00	0.76	0.00	11,806.83
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	20.56	155.48	90.53	0.24	4.17	6.39	10.55	1.50	6.38	7.88	0.00	26,085.24	0.00	1.82	0.00	26,123.46
2015	8.52	61.26	29.04	0.11	1.22	2.25	3.47	0.01	2.25	2.26	0.00	11,790.95	0.00	0.76	0.00	11,806.83
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

1 Operational emissions were calculated using construction phase inputs.

2.2 Overall Operational [1]

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

1 Operational emissions were calculated using construction phase inputs.

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Access Road, Pad and Pull Site Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.17	0.00	6.17	3.31	0.00	3.31						0.00
Off-Road	10.16	78.20	41.78	0.10		3.63	3.63		3.63	3.63		10,592.74		0.90		10,611.74
Total	**10.16**	**78.20**	**41.78**	**0.10**	**6.17**	**3.63**	**9.80**	**3.31**	**3.63**	**6.94**		**10,592.74**		**0.90**		**10,611.74**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.13	0.06	0.00	40.06	0.01	40.06	3.97	0.00	3.97		22.02		0.00		22.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.10	1.00	0.00	23.08	0.01	23.09	2.29	0.01	2.29		163.87		0.01		164.08
Total	**0.10**	**0.23**	**1.06**	**0.00**	**63.14**	**0.02**	**63.15**	**6.26**	**0.01**	**6.26**		**185.89**		**0.01**		**186.11**

3.2 Access Road, Pad and Pull Site Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.78	0.00	2.78	1.49	0.00	1.49						0.00
Off-Road	10.16	78.20	41.78	0.10		3.63	3.63		3.63	3.63	0.00	10,592.74		0.90		10,611.74
Total	**10.16**	**78.20**	**41.78**	**0.10**	**2.78**	**3.63**	**6.41**	**1.49**	**3.63**	**5.12**	**0.00**	**10,592.74**		**0.90**		**10,611.74**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.13	0.06	0.00	0.32	0.01	0.32	0.00	0.00	0.00		22.02		0.00		22.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.10	1.00	0.00	0.19	0.01	0.20	0.00	0.01	0.01		163.87		0.01		164.08
Total	**0.10**	**0.23**	**1.06**	**0.00**	**0.51**	**0.02**	**0.52**	**0.00**	**0.01**	**0.01**		**185.89**		**0.01**		**186.11**

3.3 Grading Erosion Control - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.47	19.10	7.35	0.03		0.68	0.68		0.68	0.68		3,262.07		0.22		3,266.65
Total	**2.47**	**19.10**	**7.35**	**0.03**		**0.68**	**0.68**		**0.68**	**0.68**		**3,262.07**		**0.22**		**3,266.65**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.24	0.10	0.00	20.03	0.01	20.04	1.98	0.01	1.99		40.37		0.00		40.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.05	0.50	0.00	11.54	0.00	11.54	1.14	0.00	1.15		81.94		0.00		82.04
Total	**0.06**	**0.29**	**0.60**	**0.00**	**31.57**	**0.01**	**31.58**	**3.12**	**0.01**	**3.14**		**122.31**		**0.00**		**122.43**

3.3 Grading Erosion Control - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.47	19.10	7.35	0.03		0.68	0.68		0.68	0.68	0.00	3,262.07		0.22		3,266.65
Total	**2.47**	**19.10**	**7.35**	**0.03**		**0.68**	**0.68**		**0.68**	**0.68**	**0.00**	**3,262.07**		**0.22**		**3,266.65**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.24	0.10	0.00	0.16	0.01	0.17	0.00	0.01	0.01		40.37		0.00		40.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.05	0.50	0.00	0.10	0.00	0.10	0.00	0.00	0.00		81.94		0.00		82.04
Total	**0.06**	**0.29**	**0.60**	**0.00**	**0.26**	**0.01**	**0.27**	**0.00**	**0.01**	**0.01**		**122.31**		**0.00**		**122.43**

3.4 Auger Foundation (standard) - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.17	28.86	26.28	0.05		1.41	1.41		1.41	1.41		4,964.61		0.28		4,970.54
Total	**3.17**	**28.86**	**26.28**	**0.05**		**1.41**	**1.41**		**1.41**	**1.41**		**4,964.61**		**0.28**		**4,970.54**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.05	0.02	0.00	20.03	0.00	20.03	1.98	0.00	1.98		8.29		0.00		8.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.08	0.81	0.00	18.75	0.01	18.76	1.86	0.01	1.86		133.15		0.01		133.32
Total	**0.07**	**0.13**	**0.83**	**0.00**	**38.78**	**0.01**	**38.79**	**3.84**	**0.01**	**3.84**		**141.44**		**0.01**		**141.62**

3.4 Auger Foundation (standard) - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.17	28.86	26.28	0.05		1.41	1.41		1.41	1.41	0.00	4,964.61		0.28		4,970.54
Total	**3.17**	**28.86**	**26.28**	**0.05**		**1.41**	**1.41**		**1.41**	**1.41**	**0.00**	**4,964.61**		**0.28**		**4,970.54**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.05	0.02	0.00	0.16	0.00	0.16	0.00	0.00	0.00		8.29		0.00		8.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.08	0.81	0.00	0.15	0.01	0.16	0.00	0.01	0.01		133.15		0.01		133.32
Total	**0.07**	**0.13**	**0.83**	**0.00**	**0.31**	**0.01**	**0.32**	**0.00**	**0.01**	**0.01**		**141.44**		**0.01**		**141.62**

3.5 Auger Foundation (micropile) - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.64	14.86	11.80	0.03		0.63	0.63		0.63	0.63		2,626.99		0.15		2,630.05
Total	**1.64**	**14.86**	**11.80**	**0.03**		**0.63**	**0.63**		**0.63**	**0.63**		**2,626.99**		**0.15**		**2,630.05**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.05	0.02	0.00	20.03	0.00	20.03	1.98	0.00	1.98		8.29		0.00		8.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.08	0.81	0.00	18.75	0.01	18.76	1.86	0.01	1.86		133.15		0.01		133.32
Total	**0.07**	**0.13**	**0.83**	**0.00**	**38.78**	**0.01**	**38.79**	**3.84**	**0.01**	**3.84**		**141.44**		**0.01**		**141.62**

3.5 Auger Foundation (micropile) - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.64	14.86	11.80	0.03		0.63	0.63		0.63	0.63	0.00	2,626.99		0.15		2,630.05
Total	**1.64**	**14.86**	**11.80**	**0.03**		**0.63**	**0.63**		**0.63**	**0.63**	**0.00**	**2,626.99**		**0.15**		**2,630.05**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.05	0.02	0.00	0.16	0.00	0.16	0.00	0.00	0.00		8.29		0.00		8.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.08	0.81	0.00	0.15	0.01	0.16	0.00	0.01	0.01		133.15		0.01		133.32
Total	**0.07**	**0.13**	**0.83**	**0.00**	**0.31**	**0.01**	**0.32**	**0.00**	**0.01**	**0.01**		**141.44**		**0.01**		**141.62**

3.6 Install Foundation (standard) - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.03	46.26	18.54	0.07		1.71	1.71		1.71	1.71		7,818.04		0.53		7,829.20
Total	**6.03**	**46.26**	**18.54**	**0.07**		**1.71**	**1.71**		**1.71**	**1.71**		**7,818.04**		**0.53**		**7,829.20**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.05	0.02	0.00	20.03	0.00	20.03	1.98	0.00	1.98		8.29		0.00		8.30
Vendor	0.03	0.32	0.18	0.00	1.95	0.01	1.96	0.19	0.01	0.20		54.61		0.00		54.64
Worker	0.04	0.05	0.50	0.00	11.54	0.00	11.54	1.14	0.00	1.15		81.94		0.00		82.04
Total	**0.07**	**0.42**	**0.70**	**0.00**	**33.52**	**0.01**	**33.53**	**3.31**	**0.01**	**3.33**		**144.84**		**0.00**		**144.98**

3.6 Install Foundation (standard) - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.03	46.26	18.54	0.07		1.71	1.71		1.71	1.71	0.00	7,818.04		0.53		7,829.20
Total	**6.03**	**46.26**	**18.54**	**0.07**		**1.71**	**1.71**		**1.71**	**1.71**	**0.00**	**7,818.04**		**0.53**		**7,829.20**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.05	0.02	0.00	0.16	0.00	0.16	0.00	0.00	0.00		8.29		0.00		8.30
Vendor	0.03	0.32	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.61		0.00		54.64
Worker	0.04	0.05	0.50	0.00	0.10	0.00	0.10	0.00	0.00	0.00		81.94		0.00		82.04
Total	**0.07**	**0.42**	**0.70**	**0.00**	**0.28**	**0.01**	**0.29**	**0.00**	**0.01**	**0.01**		**144.84**		**0.00**		**144.98**

3.7 Install Foundation (micropile) - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.58	18.61	10.15	0.02		1.05	1.05		1.05	1.05		2,629.17		0.23		2,633.98
Total	**2.58**	**18.61**	**10.15**	**0.02**		**1.05**	**1.05**		**1.05**	**1.05**		**2,629.17**		**0.23**		**2,633.98**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.05	0.02	0.00	20.03	0.00	20.03	1.98	0.00	1.98		8.29		0.00		8.30
Vendor	0.01	0.16	0.09	0.00	0.98	0.01	0.98	0.10	0.00	0.10		27.30		0.00		27.32
Worker	0.08	0.09	0.94	0.00	21.64	0.01	21.64	2.14	0.01	2.15		153.63		0.01		153.83
Total	**0.09**	**0.30**	**1.05**	**0.00**	**42.65**	**0.02**	**42.65**	**4.22**	**0.01**	**4.23**		**189.22**		**0.01**		**189.45**

3.7 Install Foundation (micropile) - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.58	18.61	10.15	0.02		1.05	1.05		1.05	1.05	0.00	2,629.17		0.23		2,633.98
Total	**2.58**	**18.61**	**10.15**	**0.02**		**1.05**	**1.05**		**1.05**	**1.05**	**0.00**	**2,629.17**		**0.23**		**2,633.98**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.05	0.02	0.00	0.16	0.00	0.16	0.00	0.00	0.00		8.29		0.00		8.30
Vendor	0.01	0.16	0.09	0.00	0.01	0.01	0.01	0.00	0.00	0.01		27.30		0.00		27.32
Worker	0.08	0.09	0.94	0.00	0.18	0.01	0.19	0.00	0.01	0.01		153.63		0.01		153.83
Total	**0.09**	**0.30**	**1.05**	**0.00**	**0.35**	**0.02**	**0.36**	**0.00**	**0.01**	**0.02**		**189.22**		**0.01**		**189.45**

3.8 Install Steel Poles - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.04	16.36	6.02	0.02		0.58	0.58		0.58	0.58		2,622.54		0.18		2,626.32
Total	**2.04**	**16.36**	**6.02**	**0.02**		**0.58**	**0.58**		**0.58**	**0.58**		**2,622.54**		**0.18**		**2,626.32**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.05	0.02	0.00	20.03	0.00	20.03	1.98	0.00	1.98		8.29		0.00		8.30
Vendor	0.01	0.16	0.09	0.00	0.98	0.01	0.98	0.10	0.00	0.10		27.30		0.00		27.32
Worker	0.07	0.08	0.81	0.00	18.75	0.01	18.76	1.86	0.01	1.86		133.15		0.01		133.32
Total	**0.08**	**0.29**	**0.92**	**0.00**	**39.76**	**0.02**	**39.77**	**3.94**	**0.01**	**3.94**		**168.74**		**0.01**		**168.94**

3.8 Install Steel Poles - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.04	16.36	6.02	0.02		0.58	0.58		0.58	0.58	0.00	2,622.54		0.18		2,626.32
Total	**2.04**	**16.36**	**6.02**	**0.02**		**0.58**	**0.58**		**0.58**	**0.58**	**0.00**	**2,622.54**		**0.18**		**2,626.32**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.05	0.02	0.00	0.16	0.00	0.16	0.00	0.00	0.00		8.29		0.00		8.30
Vendor	0.01	0.16	0.09	0.00	0.01	0.01	0.01	0.00	0.00	0.01		27.30		0.00		27.32
Worker	0.07	0.08	0.81	0.00	0.15	0.01	0.16	0.00	0.01	0.01		133.15		0.01		133.32
Total	**0.08**	**0.29**	**0.92**	**0.00**	**0.32**	**0.02**	**0.33**	**0.00**	**0.01**	**0.02**		**168.74**		**0.01**		**168.94**

3.8 Install Steel Poles - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.93	14.62	5.83	0.02		0.52	0.52		0.52	0.52		2,622.54		0.17		2,626.12
Total	**1.93**	**14.62**	**5.83**	**0.02**		**0.52**	**0.52**		**0.52**	**0.52**		**2,622.54**		**0.17**		**2,626.12**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.04	0.02	0.00	20.03	0.00	20.03	1.98	0.00	1.98		8.31		0.00		8.31
Vendor	0.01	0.15	0.08	0.00	0.98	0.00	0.98	0.10	0.00	0.10		27.34		0.00		27.36
Worker	0.07	0.07	0.75	0.00	18.75	0.01	18.76	1.86	0.01	1.86		130.13		0.01		130.29
Total	**0.08**	**0.26**	**0.85**	**0.00**	**39.76**	**0.01**	**39.77**	**3.94**	**0.01**	**3.94**		**165.78**		**0.01**		**165.96**

3.8 Install Steel Poles - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.93	14.62	5.83	0.02		0.52	0.52		0.52	0.52	0.00	2,622.54		0.17		2,626.12
Total	**1.93**	**14.62**	**5.83**	**0.02**		**0.52**	**0.52**		**0.52**	**0.52**	**0.00**	**2,622.54**		**0.17**		**2,626.12**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.04	0.02	0.00	0.16	0.00	0.16	0.00	0.00	0.00		8.31		0.00		8.31
Vendor	0.01	0.15	0.08	0.00	0.01	0.00	0.01	0.00	0.00	0.00		27.34		0.00		27.36
Worker	0.07	0.07	0.75	0.00	0.15	0.01	0.16	0.00	0.01	0.01		130.13		0.01		130.29
Total	**0.08**	**0.26**	**0.85**	**0.00**	**0.32**	**0.01**	**0.33**	**0.00**	**0.01**	**0.01**		**165.78**		**0.01**		**165.96**

3.9 Install OH Conductor - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.32	17.75	7.78	0.03		0.70	0.70		0.70	0.70		2,829.59		0.20		2,833.88
Total	**2.32**	**17.75**	**7.78**	**0.03**		**0.70**	**0.70**		**0.70**	**0.70**		**2,829.59**		**0.20**		**2,833.88**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.08	0.04	0.00	20.03	0.00	20.03	1.98	0.00	1.99		13.76		0.00		13.77
Vendor	0.01	0.16	0.09	0.00	0.98	0.01	0.98	0.10	0.00	0.10		27.30		0.00		27.32
Worker	0.08	0.09	0.94	0.00	21.64	0.01	21.64	2.14	0.01	2.15		153.63		0.01		153.83
Total	**0.10**	**0.33**	**1.07**	**0.00**	**42.65**	**0.02**	**42.65**	**4.22**	**0.01**	**4.24**		**194.69**		**0.01**		**194.92**

3.9 Install OH Conductor - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.32	17.75	7.78	0.03		0.70	0.70		0.70	0.70	0.00	2,829.59		0.20		2,833.88
Total	**2.32**	**17.75**	**7.78**	**0.03**		**0.70**	**0.70**		**0.70**	**0.70**	**0.00**	**2,829.59**		**0.20**		**2,833.88**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.08	0.04	0.00	0.16	0.00	0.16	0.00	0.00	0.00		13.76		0.00		13.77
Vendor	0.01	0.16	0.09	0.00	0.01	0.01	0.01	0.00	0.00	0.01		27.30		0.00		27.32
Worker	0.08	0.09	0.94	0.00	0.18	0.01	0.19	0.00	0.01	0.01		153.63		0.01		153.83
Total	**0.10**	**0.33**	**1.07**	**0.00**	**0.35**	**0.02**	**0.36**	**0.00**	**0.01**	**0.02**		**194.69**		**0.01**		**194.92**

3.9 Install OH Conductor - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.18	15.82	7.61	0.03		0.63	0.63		0.63	0.63		2,829.59		0.19		2,833.65
Total	**2.18**	**15.82**	**7.61**	**0.03**		**0.63**	**0.63**		**0.63**	**0.63**		**2,829.59**		**0.19**		**2,833.65**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.07	0.03	0.00	20.03	0.00	20.03	1.98	0.00	1.99		13.79		0.00		13.79
Vendor	0.01	0.15	0.08	0.00	0.98	0.00	0.98	0.10	0.00	0.10		27.34		0.00		27.36
Worker	0.08	0.09	0.86	0.00	21.64	0.01	21.64	2.14	0.01	2.15		150.15		0.01		150.33
Total	**0.10**	**0.31**	**0.97**	**0.00**	**42.65**	**0.01**	**42.65**	**4.22**	**0.01**	**4.24**		**191.28**		**0.01**		**191.48**

3.9 Install OH Conductor - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.18	15.82	7.61	0.03		0.63	0.63		0.63	0.63	0.00	2,829.59		0.19		2,833.65
Total	**2.18**	**15.82**	**7.61**	**0.03**		**0.63**	**0.63**		**0.63**	**0.63**	**0.00**	**2,829.59**		**0.19**		**2,833.65**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.07	0.03	0.00	0.16	0.00	0.16	0.00	0.00	0.00		13.79		0.00		13.79
Vendor	0.01	0.15	0.08	0.00	0.01	0.00	0.01	0.00	0.00	0.00		27.34		0.00		27.36
Worker	0.08	0.09	0.86	0.00	0.18	0.01	0.19	0.00	0.01	0.01		150.15		0.01		150.33
Total	**0.10**	**0.31**	**0.97**	**0.00**	**0.35**	**0.01**	**0.36**	**0.00**	**0.01**	**0.01**		**191.28**		**0.01**		**191.48**

3.10 Helicopter Transport - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.70	15.58	5.11	0.02		0.52	0.52		0.52	0.52		2,253.12		0.15		2,256.29
Total	**1.70**	**15.58**	**5.11**	**0.02**		**0.52**	**0.52**		**0.52**	**0.52**		**2,253.12**		**0.15**		**2,256.29**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.06	0.72	0.31	0.00	20.03	0.03	20.06	1.98	0.03	2.01		121.10		0.00		121.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.12	0.00	2.88	0.00	2.89	0.29	0.00	0.29		20.48		0.00		20.51
Total	**0.07**	**0.73**	**0.43**	**0.00**	**22.91**	**0.03**	**22.95**	**2.27**	**0.03**	**2.30**		**141.58**		**0.00**		**141.67**

3.10 Helicopter Transport - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.70	15.58	5.11	0.02		0.52	0.52		0.52	0.52	0.00	2,253.12		0.15		2,256.29
Total	**1.70**	**15.58**	**5.11**	**0.02**		**0.52**	**0.52**		**0.52**	**0.52**	**0.00**	**2,253.12**		**0.15**		**2,256.29**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.06	0.72	0.31	0.00	0.16	0.03	0.19	0.00	0.03	0.03		121.10		0.00		121.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.12	0.00	0.02	0.00	0.02	0.00	0.00	0.00		20.48		0.00		20.51
Total	**0.07**	**0.73**	**0.43**	**0.00**	**0.18**	**0.03**	**0.21**	**0.00**	**0.03**	**0.03**		**141.58**		**0.00**		**141.67**

3.11 Install Duct Packages and Vaults - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.06	15.79	7.58	0.02		0.64	0.64		0.64	0.64		2,514.54		0.18		2,518.35
Total	**2.06**	**15.79**	**7.58**	**0.02**		**0.64**	**0.64**		**0.64**	**0.64**		**2,514.54**		**0.18**		**2,518.35**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.22	0.10	0.00	20.03	0.01	20.04	1.98	0.01	1.99		37.84		0.00		37.86
Vendor	0.03	0.32	0.18	0.00	1.95	0.01	1.96	0.19	0.01	0.20		54.61		0.00		54.64
Worker	0.08	0.09	0.94	0.00	21.64	0.01	21.64	2.14	0.01	2.15		153.63		0.01		153.83
Total	**0.13**	**0.63**	**1.22**	**0.00**	**43.62**	**0.03**	**43.64**	**4.31**	**0.03**	**4.34**		**246.08**		**0.01**		**246.33**

3.11 Install Duct Packages and Vaults - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.06	15.79	7.58	0.02		0.64	0.64		0.64	0.64	0.00	2,514.54		0.18		2,518.35
Total	**2.06**	**15.79**	**7.58**	**0.02**		**0.64**	**0.64**		**0.64**	**0.64**	**0.00**	**2,514.54**		**0.18**		**2,518.35**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.22	0.10	0.00	0.16	0.01	0.17	0.00	0.01	0.01		37.84		0.00		37.86
Vendor	0.03	0.32	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.61		0.00		54.64
Worker	0.08	0.09	0.94	0.00	0.18	0.01	0.19	0.00	0.01	0.01		153.63		0.01		153.83
Total	**0.13**	**0.63**	**1.22**	**0.00**	**0.36**	**0.03**	**0.39**	**0.00**	**0.03**	**0.03**		**246.08**		**0.01**		**246.33**

3.12 Foundation Erosion Control - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.47	19.10	7.35	0.03		0.68	0.68		0.68	0.68		3,262.07		0.22		3,266.65
Total	**2.47**	**19.10**	**7.35**	**0.03**		**0.68**	**0.68**		**0.68**	**0.68**		**3,262.07**		**0.22**		**3,266.65**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.24	0.10	0.00	20.03	0.01	20.04	1.98	0.01	1.99		40.37		0.00		40.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.04	0.37	0.00	8.65	0.00	8.66	0.86	0.00	0.86		61.45		0.00		61.53
Total	**0.05**	**0.28**	**0.47**	**0.00**	**28.68**	**0.01**	**28.70**	**2.84**	**0.01**	**2.85**		**101.82**		**0.00**		**101.92**

3.12 Foundation Erosion Control - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.47	19.10	7.35	0.03		0.68	0.68		0.68	0.68	0.00	3,262.07		0.22		3,266.65
Total	**2.47**	**19.10**	**7.35**	**0.03**		**0.68**	**0.68**		**0.68**	**0.68**	**0.00**	**3,262.07**		**0.22**		**3,266.65**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.24	0.10	0.00	0.16	0.01	0.17	0.00	0.01	0.01		40.37		0.00		40.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.04	0.37	0.00	0.07	0.00	0.07	0.00	0.00	0.00		61.45		0.00		61.53
Total	**0.05**	**0.28**	**0.47**	**0.00**	**0.23**	**0.01**	**0.24**	**0.00**	**0.01**	**0.01**		**101.82**		**0.00**		**101.92**

3.13 Structure Erosion Control - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.47	19.10	7.35	0.03		0.68	0.68		0.68	0.68		3,262.07		0.22		3,266.65
Total	**2.47**	**19.10**	**7.35**	**0.03**		**0.68**	**0.68**		**0.68**	**0.68**		**3,262.07**		**0.22**		**3,266.65**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.24	0.10	0.00	20.03	0.01	20.04	1.98	0.01	1.99		40.37		0.00		40.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.04	0.37	0.00	8.65	0.00	8.66	0.86	0.00	0.86		61.45		0.00		61.53
Total	**0.05**	**0.28**	**0.47**	**0.00**	**28.68**	**0.01**	**28.70**	**2.84**	**0.01**	**2.85**		**101.82**		**0.00**		**101.92**

3.13 Structure Erosion Control - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.47	19.10	7.35	0.03		0.68	0.68		0.68	0.68	0.00	3,262.07		0.22		3,266.65
Total	**2.47**	**19.10**	**7.35**	**0.03**		**0.68**	**0.68**		**0.68**	**0.68**	**0.00**	**3,262.07**		**0.22**		**3,266.65**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.24	0.10	0.00	0.16	0.01	0.17	0.00	0.01	0.01		40.37		0.00		40.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.04	0.37	0.00	0.07	0.00	0.07	0.00	0.00	0.00		61.45		0.00		61.53
Total	**0.05**	**0.28**	**0.47**	**0.00**	**0.23**	**0.01**	**0.24**	**0.00**	**0.01**	**0.01**		**101.82**		**0.00**		**101.92**

3.13 Structure Erosion Control - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.34	16.97	7.12	0.03		0.60	0.60		0.60	0.60		3,262.07		0.21		3,266.41
Total	**2.34**	**16.97**	**7.12**	**0.03**		**0.60**	**0.60**		**0.60**	**0.60**		**3,262.07**		**0.21**		**3,266.41**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.22	0.09	0.00	20.03	0.01	20.04	1.98	0.01	1.99		40.44		0.00		40.46
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.35	0.00	8.65	0.00	8.66	0.86	0.00	0.86		60.06		0.00		60.13
Total	**0.05**	**0.25**	**0.44**	**0.00**	**28.68**	**0.01**	**28.70**	**2.84**	**0.01**	**2.85**		**100.50**		**0.00**		**100.59**

3.13 Structure Erosion Control - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.34	16.97	7.12	0.03		0.60	0.60		0.60	0.60	0.00	3,262.07		0.21		3,266.41
Total	**2.34**	**16.97**	**7.12**	**0.03**		**0.60**	**0.60**		**0.60**	**0.60**	**0.00**	**3,262.07**		**0.21**		**3,266.41**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.22	0.09	0.00	0.16	0.01	0.17	0.00	0.01	0.01		40.44		0.00		40.46
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.35	0.00	0.07	0.00	0.07	0.00	0.00	0.00		60.06		0.00		60.13
Total	**0.05**	**0.25**	**0.44**	**0.00**	**0.23**	**0.01**	**0.24**	**0.00**	**0.01**	**0.01**		**100.50**		**0.00**		**100.59**

3.14 Install UG Conductors - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.86	14.32	5.51	0.02		0.51	0.51		0.51	0.51		2,446.55		0.16		2,449.99
Total	**1.86**	**14.32**	**5.51**	**0.02**		**0.51**	**0.51**		**0.51**	**0.51**		**2,446.55**		**0.16**		**2,449.99**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.09	0.04	0.00	20.03	0.00	20.03	1.98	0.00	1.99		15.14		0.00		15.14
Vendor	0.01	0.16	0.09	0.00	0.98	0.01	0.98	0.10	0.00	0.10		27.30		0.00		27.32
Worker	0.07	0.08	0.81	0.00	18.75	0.01	18.76	1.86	0.01	1.86		133.15		0.01		133.32
Total	**0.09**	**0.33**	**0.94**	**0.00**	**39.76**	**0.02**	**39.77**	**3.94**	**0.01**	**3.95**		**175.59**		**0.01**		**175.78**

3.14 Install UG Conductors - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.86	14.32	5.51	0.02		0.51	0.51		0.51	0.51	0.00	2,446.55		0.16		2,449.99
Total	**1.86**	**14.32**	**5.51**	**0.02**		**0.51**	**0.51**		**0.51**	**0.51**	**0.00**	**2,446.55**		**0.16**		**2,449.99**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.09	0.04	0.00	0.16	0.00	0.16	0.00	0.00	0.00		15.14		0.00		15.14
Vendor	0.01	0.16	0.09	0.00	0.01	0.01	0.01	0.00	0.00	0.01		27.30		0.00		27.32
Worker	0.07	0.08	0.81	0.00	0.15	0.01	0.16	0.00	0.01	0.01		133.15		0.01		133.32
Total	**0.09**	**0.33**	**0.94**	**0.00**	**0.32**	**0.02**	**0.33**	**0.00**	**0.01**	**0.02**		**175.59**		**0.01**		**175.78**

3.14 Install UG Conductors - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.76	12.73	5.34	0.02		0.45	0.45		0.45	0.45		2,446.55		0.15		2,449.81
Total	**1.76**	**12.73**	**5.34**	**0.02**		**0.45**	**0.45**		**0.45**	**0.45**		**2,446.55**		**0.15**		**2,449.81**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.08	0.04	0.00	20.03	0.00	20.03	1.98	0.00	1.99		15.16		0.00		15.17
Vendor	0.01	0.15	0.08	0.00	0.98	0.00	0.98	0.10	0.00	0.10		27.34		0.00		27.36
Worker	0.07	0.07	0.75	0.00	18.75	0.01	18.76	1.86	0.01	1.86		130.13		0.01		130.29
Total	**0.09**	**0.30**	**0.87**	**0.00**	**39.76**	**0.01**	**39.77**	**3.94**	**0.01**	**3.95**		**172.63**		**0.01**		**172.82**

3.14 Install UG Conductors - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.76	12.73	5.34	0.02		0.45	0.45		0.45	0.45	0.00	2,446.55		0.15		2,449.81
Total	**1.76**	**12.73**	**5.34**	**0.02**		**0.45**	**0.45**		**0.45**	**0.45**	**0.00**	**2,446.55**		**0.15**		**2,449.81**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.08	0.04	0.00	0.16	0.00	0.16	0.00	0.00	0.00		15.16		0.00		15.17
Vendor	0.01	0.15	0.08	0.00	0.01	0.00	0.01	0.00	0.00	0.00		27.34		0.00		27.36
Worker	0.07	0.07	0.75	0.00	0.15	0.01	0.16	0.00	0.01	0.01		130.13		0.01		130.29
Total	**0.09**	**0.30**	**0.87**	**0.00**	**0.32**	**0.01**	**0.33**	**0.00**	**0.01**	**0.01**		**172.63**		**0.01**		**172.82**

3.15 Test, Energize, Cut-Over - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.15	0.06	0.00	20.03	0.01	20.03	1.98	0.01	1.99		27.57		0.00		27.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.12	0.00	2.88	0.00	2.89	0.29	0.00	0.29		20.02		0.00		20.04
Total	**0.02**	**0.16**	**0.18**	**0.00**	**22.91**	**0.01**	**22.92**	**2.27**	**0.01**	**2.28**		**47.59**		**0.00**		**47.62**

3.15 Test, Energize, Cut-Over - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.15	0.06	0.00	0.16	0.01	0.17	0.00	0.01	0.01		27.57		0.00		27.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.12	0.00	0.02	0.00	0.02	0.00	0.00	0.00		20.02		0.00		20.04
Total	**0.02**	**0.16**	**0.18**	**0.00**	**0.18**	**0.01**	**0.19**	**0.00**	**0.01**	**0.01**		**47.59**		**0.00**		**47.62**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
User Defined Industrial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
User Defined Industrial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

CalEEMod - Annual Construction Output

SDG&E Wind Interconnect Construction

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
User Defined Industrial	63	User Defined Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Utility Company**	San Diego Gas & Electric
Climate Zone	13	**Precipitation Freq (Days)**	40		

1.3 User Entered Comments

Project Characteristics -

Land Use - Permanet Land/ROW acreage

Construction Phase - Construction Phases for Interconnection to Boulevard Substation

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Other General Industrial Equipment represents helicopter with 500hp.

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Other General Industrial Equipment represents the tensioner

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - Based on equipment list/schedule provided by applicant

Off-road Equipment - No offroad equipment for testing

Trips and VMT - Worker, Vendor (concrete and flatbed trucks), and Haul Trucks (material import, semi-trailers, and water trucks)

On-road Fugitive Dust - Paved road % based on info in project description

Grading - 7.3 acres disturbed and 1,930 CY import

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.96	7.51	4.32	0.01	9.29	0.33	9.62	1.00	0.33	1.32	0.00	1,092.94	1,092.94	0.08	0.00	1,094.57
2015	0.07	0.49	0.24	0.00	1.43	0.02	1.45	0.14	0.02	0.16	0.00	86.35	86.35	0.01	0.00	86.47
Total	**1.03**	**8.00**	**4.56**	**0.01**	**10.72**	**0.35**	**11.07**	**1.14**	**0.35**	**1.48**	**0.00**	**1,179.29**	**1,179.29**	**0.09**	**0.00**	**1,181.04**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.96	7.51	4.32	0.01	0.15	0.33	0.48	0.04	0.33	0.37	0.00	1,092.94	1,092.94	0.08	0.00	1,094.57
2015	0.07	0.49	0.24	0.00	0.01	0.02	0.03	0.00	0.02	0.02	0.00	86.35	86.35	0.01	0.00	86.47
Total	**1.03**	**8.00**	**4.56**	**0.01**	**0.16**	**0.35**	**0.51**	**0.04**	**0.35**	**0.39**	**0.00**	**1,179.29**	**1,179.29**	**0.09**	**0.00**	**1,181.04**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Waste						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Waste						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Access Road, Pad and Pull Site Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.17	0.00	0.17	0.09	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.28	2.15	1.15	0.00		0.10	0.10		0.10	0.10	0.00	264.19	264.19	0.02	0.00	264.67
Total	**0.28**	**2.15**	**1.15**	**0.00**	**0.17**	**0.10**	**0.27**	**0.09**	**0.10**	**0.19**	**0.00**	**264.19**	**264.19**	**0.02**	**0.00**	**264.67**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.98	0.00	0.98	0.10	0.00	0.10	0.00	0.55	0.55	0.00	0.00	0.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.57	0.00	0.57	0.06	0.00	0.06	0.00	3.84	3.84	0.00	0.00	3.85
Total	**0.00**	**0.00**	**0.03**	**0.00**	**1.55**	**0.00**	**1.55**	**0.16**	**0.00**	**0.16**	**0.00**	**4.39**	**4.39**	**0.00**	**0.00**	**4.40**

3.2 Access Road, Pad and Pull Site Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.08	0.00	0.08	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.28	2.15	1.15	0.00		0.10	0.10		0.10	0.10	0.00	264.19	264.19	0.02	0.00	264.67
Total	**0.28**	**2.15**	**1.15**	**0.00**	**0.08**	**0.10**	**0.18**	**0.04**	**0.10**	**0.14**	**0.00**	**264.19**	**264.19**	**0.02**	**0.00**	**264.67**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.55	0.55	0.00	0.00	0.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.84	3.84	0.00	0.00	3.85
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**4.39**	**4.39**	**0.00**	**0.00**	**4.40**

3.3 Grading Erosion Control - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.14	0.06	0.00		0.01	0.01		0.01	0.01	0.00	22.19	22.19	0.00	0.00	22.22
Total	**0.02**	**0.14**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**22.19**	**22.19**	**0.00**	**0.00**	**22.22**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.13	0.00	0.13	0.01	0.00	0.01	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.08	0.00	0.08	0.01	0.00	0.01	0.00	0.52	0.52	0.00	0.00	0.52
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.21**	**0.00**	**0.21**	**0.02**	**0.00**	**0.02**	**0.00**	**0.79**	**0.79**	**0.00**	**0.00**	**0.79**

3.3 Grading Erosion Control - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.14	0.06	0.00		0.01	0.01		0.01	0.01	0.00	22.19	22.19	0.00	0.00	22.22
Total	**0.02**	**0.14**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**22.19**	**22.19**	**0.00**	**0.00**	**22.22**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.52	0.00	0.00	0.52
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.79**	**0.79**	**0.00**	**0.00**	**0.79**

3.4 Auger Foundation (standard) - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.12	1.05	0.96	0.00		0.05	0.05		0.05	0.05	0.00	164.34	164.34	0.01	0.00	164.54
Total	**0.12**	**1.05**	**0.96**	**0.00**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**164.34**	**164.34**	**0.01**	**0.00**	**164.54**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.65	0.00	0.65	0.06	0.00	0.06	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.61	0.00	0.61	0.06	0.00	0.06	0.00	4.14	4.14	0.00	0.00	4.15
Total	**0.00**	**0.00**	**0.03**	**0.00**	**1.26**	**0.00**	**1.26**	**0.12**	**0.00**	**0.12**	**0.00**	**4.41**	**4.41**	**0.00**	**0.00**	**4.42**

3.4 Auger Foundation (standard) - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.12	1.05	0.96	0.00		0.05	0.05		0.05	0.05	0.00	164.34	164.34	0.01	0.00	164.54
Total	**0.12**	**1.05**	**0.96**	**0.00**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**164.34**	**164.34**	**0.01**	**0.00**	**164.54**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	4.14	4.14	0.00	0.00	4.15
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**4.41**	**4.41**	**0.00**	**0.00**	**4.42**

3.5 Auger Foundation (micropile) - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.06	0.54	0.43	0.00		0.02	0.02		0.02	0.02	0.00	86.96	86.96	0.00	0.00	87.06
Total	**0.06**	**0.54**	**0.43**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**86.96**	**86.96**	**0.00**	**0.00**	**87.06**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.65	0.00	0.65	0.06	0.00	0.06	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.61	0.00	0.61	0.06	0.00	0.06	0.00	4.14	4.14	0.00	0.00	4.15
Total	**0.00**	**0.00**	**0.03**	**0.00**	**1.26**	**0.00**	**1.26**	**0.12**	**0.00**	**0.12**	**0.00**	**4.41**	**4.41**	**0.00**	**0.00**	**4.42**

3.5 Auger Foundation (micropile) - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.06	0.54	0.43	0.00		0.02	0.02		0.02	0.02	0.00	86.96	86.96	0.00	0.00	87.06
Total	**0.06**	**0.54**	**0.43**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**86.96**	**86.96**	**0.00**	**0.00**	**87.06**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	4.14	4.14	0.00	0.00	4.15
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**4.41**	**4.41**	**0.00**	**0.00**	**4.42**

3.6 Install Foundation (standard) - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.22	1.69	0.68	0.00		0.06	0.06		0.06	0.06	0.00	258.80	258.80	0.02	0.00	259.17
Total	**0.22**	**1.69**	**0.68**	**0.00**		**0.06**	**0.06**		**0.06**	**0.06**	**0.00**	**258.80**	**258.80**	**0.02**	**0.00**	**259.17**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.65	0.00	0.65	0.06	0.00	0.06	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.01	0.01	0.00	0.06	0.00	0.06	0.01	0.00	0.01	0.00	1.80	1.80	0.00	0.00	1.80
Worker	0.00	0.00	0.02	0.00	0.37	0.00	0.38	0.04	0.00	0.04	0.00	2.55	2.55	0.00	0.00	2.55
Total	**0.00**	**0.01**	**0.03**	**0.00**	**1.08**	**0.00**	**1.09**	**0.11**	**0.00**	**0.11**	**0.00**	**4.62**	**4.62**	**0.00**	**0.00**	**4.62**

3.6 Install Foundation (standard) - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.22	1.69	0.68	0.00		0.06	0.06		0.06	0.06	0.00	258.80	258.80	0.02	0.00	259.17
Total	**0.22**	**1.69**	**0.68**	**0.00**		**0.06**	**0.06**		**0.06**	**0.06**	**0.00**	**258.80**	**258.80**	**0.02**	**0.00**	**259.17**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	1.80	0.00	0.00	1.80
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.55
Total	**0.00**	**0.01**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**4.62**	**4.62**	**0.00**	**0.00**	**4.62**

3.7 Install Foundation (micropile) - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.09	0.68	0.37	0.00		0.04	0.04		0.04	0.04	0.00	87.03	87.03	0.01	0.00	87.19
Total	**0.09**	**0.68**	**0.37**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**87.03**	**87.03**	**0.01**	**0.00**	**87.19**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.65	0.00	0.65	0.06	0.00	0.06	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.01	0.00	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.90	0.90	0.00	0.00	0.90
Worker	0.00	0.00	0.03	0.00	0.70	0.00	0.70	0.07	0.00	0.07	0.00	4.78	4.78	0.00	0.00	4.78
Total	**0.00**	**0.01**	**0.03**	**0.00**	**1.38**	**0.00**	**1.38**	**0.13**	**0.00**	**0.13**	**0.00**	**5.95**	**5.95**	**0.00**	**0.00**	**5.95**

3.7 Install Foundation (micropile) - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.09	0.68	0.37	0.00		0.04	0.04		0.04	0.04	0.00	87.03	87.03	0.01	0.00	87.19
Total	**0.09**	**0.68**	**0.37**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**87.03**	**87.03**	**0.01**	**0.00**	**87.19**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.00	0.00	0.90
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.78	4.78	0.00	0.00	4.78
Total	**0.00**	**0.01**	**0.03**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**5.95**	**5.95**	**0.00**	**0.00**	**5.95**

3.8 Install Steel Poles - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.07	0.56	0.20	0.00		0.02	0.02		0.02	0.02	0.00	80.87	80.87	0.01	0.00	80.98
Total	**0.07**	**0.56**	**0.20**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**80.87**	**80.87**	**0.01**	**0.00**	**80.98**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.61	0.00	0.61	0.06	0.00	0.06	0.00	0.26	0.26	0.00	0.00	0.26
Vendor	0.00	0.01	0.00	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Worker	0.00	0.00	0.03	0.00	0.57	0.00	0.57	0.06	0.00	0.06	0.00	3.86	3.86	0.00	0.00	3.86
Total	**0.00**	**0.01**	**0.03**	**0.00**	**1.21**	**0.00**	**1.21**	**0.12**	**0.00**	**0.12**	**0.00**	**4.96**	**4.96**	**0.00**	**0.00**	**4.96**

3.8 Install Steel Poles - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.07	0.56	0.20	0.00		0.02	0.02		0.02	0.02	0.00	80.87	80.87	0.01	0.00	80.98
Total	**0.07**	**0.56**	**0.20**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**80.87**	**80.87**	**0.01**	**0.00**	**80.98**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.26	0.00	0.00	0.26
Vendor	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.86	3.86	0.00	0.00	3.86
Total	**0.00**	**0.01**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.96**	**4.96**	**0.00**	**0.00**	**4.96**

3.8 Install Steel Poles - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.04	0.01	0.00		0.00	0.00		0.00	0.00	0.00	5.95	5.95	0.00	0.00	5.95
Total	**0.00**	**0.04**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**5.95**	**5.95**	**0.00**	**0.00**	**5.95**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.06
Worker	0.00	0.00	0.00	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.28
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.08**	**0.00**	**0.08**	**0.00**	**0.00**	**0.00**	**0.00**	**0.36**	**0.36**	**0.00**	**0.00**	**0.36**

3.8 Install Steel Poles - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.04	0.01	0.00		0.00	0.00		0.00	0.00	0.00	5.95	5.95	0.00	0.00	5.95
Total	**0.00**	**0.04**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**5.95**	**5.95**	**0.00**	**0.00**	**5.95**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.06
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.28
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.36**	**0.36**	**0.00**	**0.00**	**0.36**

3.9 Install OH Conductor - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.03	0.21	0.09	0.00		0.01	0.01		0.01	0.01	0.00	30.80	30.80	0.00	0.00	30.84
Total	**0.03**	**0.21**	**0.09**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**30.80**	**30.80**	**0.00**	**0.00**	**30.84**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.21	0.00	0.21	0.02	0.00	0.02	0.00	0.15	0.15	0.00	0.00	0.15
Vendor	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.30	0.30	0.00	0.00	0.30
Worker	0.00	0.00	0.01	0.00	0.23	0.00	0.23	0.02	0.00	0.02	0.00	1.57	1.57	0.00	0.00	1.57
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.45**	**0.00**	**0.45**	**0.04**	**0.00**	**0.04**	**0.00**	**2.02**	**2.02**	**0.00**	**0.00**	**2.02**

3.9 Install OH Conductor - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.03	0.21	0.09	0.00		0.01	0.01		0.01	0.01	0.00	30.80	30.80	0.00	0.00	30.84
Total	**0.03**	**0.21**	**0.09**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**30.80**	**30.80**	**0.00**	**0.00**	**30.84**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.00	0.00	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.30	0.00	0.00	0.30
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57	1.57	0.00	0.00	1.57
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.02**	**2.02**	**0.00**	**0.00**	**2.02**

3.9 Install OH Conductor - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.16	0.08	0.00		0.01	0.01		0.01	0.01	0.00	25.66	25.66	0.00	0.00	25.70
Total	**0.02**	**0.16**	**0.08**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**25.66**	**25.66**	**0.00**	**0.00**	**25.70**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.18	0.00	0.18	0.02	0.00	0.02	0.00	0.12	0.12	0.00	0.00	0.13
Vendor	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.25	0.25	0.00	0.00	0.25
Worker	0.00	0.00	0.01	0.00	0.19	0.00	0.19	0.02	0.00	0.02	0.00	1.28	1.28	0.00	0.00	1.28
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.38**	**0.00**	**0.38**	**0.04**	**0.00**	**0.04**	**0.00**	**1.65**	**1.65**	**0.00**	**0.00**	**1.66**

3.9 Install OH Conductor - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.16	0.08	0.00		0.01	0.01		0.01	0.01	0.00	25.66	25.66	0.00	0.00	25.70
Total	**0.02**	**0.16**	**0.08**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**25.66**	**25.66**	**0.00**	**0.00**	**25.70**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.00	0.00	0.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.00	0.00	0.25
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.28	1.28	0.00	0.00	1.28
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.65**	**1.65**	**0.00**	**0.00**	**1.66**

3.10 Helicopter Transport - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.04	0.01	0.00		0.00	0.00		0.00	0.00	0.00	5.11	5.11	0.00	0.00	5.12
Total	**0.00**	**0.04**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**5.11**	**5.11**	**0.00**	**0.00**	**5.12**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.04
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.31**	**0.31**	**0.00**	**0.00**	**0.31**

3.10 Helicopter Transport - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.04	0.01	0.00		0.00	0.00		0.00	0.00	0.00	5.11	5.11	0.00	0.00	5.12
Total	**0.00**	**0.04**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**5.11**	**5.11**	**0.00**	**0.00**	**5.12**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.04
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.31**	**0.31**	**0.00**	**0.00**	**0.31**

3.11 Install Duct Packages and Vaults - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.13	0.06	0.00		0.01	0.01		0.01	0.01	0.00	18.24	18.24	0.00	0.00	18.27
Total	**0.02**	**0.13**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**18.24**	**18.24**	**0.00**	**0.00**	**18.27**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.14	0.00	0.14	0.01	0.00	0.01	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.39	0.39	0.00	0.00	0.40
Worker	0.00	0.00	0.01	0.00	0.15	0.00	0.15	0.02	0.00	0.02	0.00	1.05	1.05	0.00	0.00	1.05
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.30**	**0.00**	**0.30**	**0.03**	**0.00**	**0.03**	**0.00**	**1.71**	**1.71**	**0.00**	**0.00**	**1.72**

3.11 Install Duct Packages and Vaults - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.13	0.06	0.00		0.01	0.01		0.01	0.01	0.00	18.24	18.24	0.00	0.00	18.27
Total	**0.02**	**0.13**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**18.24**	**18.24**	**0.00**	**0.00**	**18.27**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.39	0.00	0.00	0.40
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	1.05	0.00	0.00	1.05
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.71**	**1.71**	**0.00**	**0.00**	**1.72**

3.12 Foundation Erosion Control - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.14	0.06	0.00		0.01	0.01		0.01	0.01	0.00	22.19	22.19	0.00	0.00	22.22
Total	**0.02**	**0.14**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**22.19**	**22.19**	**0.00**	**0.00**	**22.22**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.13	0.00	0.13	0.01	0.00	0.01	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.06	0.00	0.06	0.01	0.00	0.01	0.00	0.39	0.39	0.00	0.00	0.39
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.19**	**0.00**	**0.19**	**0.02**	**0.00**	**0.02**	**0.00**	**0.66**	**0.66**	**0.00**	**0.00**	**0.66**

3.12 Foundation Erosion Control - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.14	0.06	0.00		0.01	0.01		0.01	0.01	0.00	22.19	22.19	0.00	0.00	22.22
Total	**0.02**	**0.14**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**22.19**	**22.19**	**0.00**	**0.00**	**22.22**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.39	0.00	0.00	0.39
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.66**	**0.66**	**0.00**	**0.00**	**0.66**

3.13 Structure Erosion Control - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.01	0.11	0.04	0.00		0.00	0.00		0.00	0.00	0.00	16.27	16.27	0.00	0.00	16.29
Total	**0.01**	**0.11**	**0.04**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**16.27**	**16.27**	**0.00**	**0.00**	**16.29**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.01	0.00	0.01	0.00	0.20	0.20	0.00	0.00	0.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.29	0.29	0.00	0.00	0.29
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.14**	**0.00**	**0.14**	**0.01**	**0.00**	**0.01**	**0.00**	**0.49**	**0.49**	**0.00**	**0.00**	**0.49**

3.13 Structure Erosion Control - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.01	0.11	0.04	0.00		0.00	0.00		0.00	0.00	0.00	16.27	16.27	0.00	0.00	16.29
Total	**0.01**	**0.11**	**0.04**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**16.27**	**16.27**	**0.00**	**0.00**	**16.29**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.29	0.00	0.00	0.29
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.49**	**0.49**	**0.00**	**0.00**	**0.49**

3.13 Structure Erosion Control - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.03	0.01	0.00		0.00	0.00		0.00	0.00	0.00	5.92	5.92	0.00	0.00	5.92
Total	**0.00**	**0.03**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**5.92**	**5.92**	**0.00**	**0.00**	**5.92**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.07	0.07	0.00	0.00	0.07
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.10
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.17**	**0.17**	**0.00**	**0.00**	**0.17**

3.13 Structure Erosion Control - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.03	0.01	0.00		0.00	0.00		0.00	0.00	0.00	5.92	5.92	0.00	0.00	5.92
Total	**0.00**	**0.03**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**5.92**	**5.92**	**0.00**	**0.00**	**5.92**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.00	0.00	0.07
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.10
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.17**	**0.17**	**0.00**	**0.00**	**0.17**

3.14 Install UG Conductors - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.01	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.11	1.11	0.00	0.00	1.11
Total	**0.00**	**0.01**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.11**	**1.11**	**0.00**	**0.00**	**1.11**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01
Worker	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.06
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.08**	**0.08**	**0.00**	**0.00**	**0.08**

3.14 Install UG Conductors - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.01	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.11	1.11	0.00	0.00	1.11
Total	**0.00**	**0.01**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.11**	**1.11**	**0.00**	**0.00**	**1.11**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.06
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.08**	**0.08**	**0.00**	**0.00**	**0.08**

3.14 Install UG Conductors - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.03	0.25	0.10	0.00		0.01	0.01		0.01	0.01	0.00	43.27	43.27	0.00	0.00	43.33
Total	**0.03**	**0.25**	**0.10**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**43.27**	**43.27**	**0.00**	**0.00**	**43.33**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.35	0.00	0.35	0.03	0.00	0.03	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.48	0.48	0.00	0.00	0.48
Worker	0.00	0.00	0.01	0.00	0.33	0.00	0.33	0.03	0.00	0.03	0.00	2.16	2.16	0.00	0.00	2.16
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.70**	**0.00**	**0.70**	**0.06**	**0.00**	**0.06**	**0.00**	**2.91**	**2.91**	**0.00**	**0.00**	**2.91**

3.14 Install UG Conductors - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.03	0.25	0.10	0.00		0.01	0.01		0.01	0.01	0.00	43.27	43.27	0.00	0.00	43.33
Total	**0.03**	**0.25**	**0.10**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**43.27**	**43.27**	**0.00**	**0.00**	**43.33**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.48	0.00	0.00	0.48
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.16	2.16	0.00	0.00	2.16
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.91**	**2.91**	**0.00**	**0.00**	**2.91**

3.15 Test, Energize, Cut-Over - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.20	0.00	0.20	0.02	0.00	0.02	0.00	0.27	0.27	0.00	0.00	0.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.19	0.19	0.00	0.00	0.19
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.23**	**0.00**	**0.23**	**0.02**	**0.00**	**0.02**	**0.00**	**0.46**	**0.46**	**0.00**	**0.00**	**0.47**

3.15 Test, Energize, Cut-Over - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.00	0.00	0.19
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.46**	**0.46**	**0.00**	**0.00**	**0.47**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
User Defined Industrial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
User Defined Industrial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
User Defined Industrial	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
User Defined Industrial	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					0.00	0.00	0.00	0.00
Unmitigated					0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
User Defined Industrial	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
User Defined Industrial	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					0.00	0.00	0.00	0.00
Unmitigated					0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
User Defined Industrial	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
User Defined Industrial	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

9.0 Vegetation

CalEEMod - Model Construction Inputs

ProjectName	LocationScope	EMFAC_ID	WindSpeed	PrecipitationFrequency	ClimateZone	UrbanizationLevel	OperationalYear
SDG&E Wind Interconnect Construction	AD	SDAPCD	2.6	40	13	Urban	2016

tblProjectCharacteristics

UtilityCompany	CO2IntensityFactor	CH4IntensityFactor	N2OIntensityFactor	TotalPopulation	TotalLotAcreage	UsingHistoricalEnergyUseData
San Diego Gas & Electric	780.79	0.029	0.011	0	63	0

PollutantSelection	PollutantFullName	PollutantName
1	Reactive Organic Gases (ROG)	ROG
1	Nitrogen Oxides (NOx)	NOX
1	Carbon Monoxide (CO)	CO
1	Sulfur Dioxide (SO2)	SO2
1	Particulate Matter 10um (PM10)	PM10
1	Particulate Matter 2.5um (PM2.5)	PM2_5
1	Fugitive PM10um (PM10)	PM10_FUG
1	Fugitive PM2.5um (PM2.5)	PM25_FUG
1	Total Organic Gases (TOG)	TOG
1	Lead (Pb)	PB
1	Biogenic Carbon Dioxide (CO2)	CO2_BIO
1	Non-Biogenic Carbon Dioxide (CO2)	CO2_NBIO
1	Carbon Dioxide (CO2)	CO2
1	Methane (CH4)	CH4
1	Nitrous Oxide (N2O)	N2O
1	CO2 Equivalent GHGs (CO2e)	CO2E

tblLandUse

LandUseType	LandUseSubType	LandUseUnitAmount	LandUseSizeMetric	LotAcreage	LandUseSquareFeet	Population
Industrial	User Defined Industrial	63	User Defined Unit	63	0	0

tblConstructionPhase

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysWeek	NumDays	PhaseDescription
1	Access Road, Pad and Pull Site Grading	Grading	2014/04/28	2014/07/11	5	55	
2	Grading Erosion Control	Grading	2014/06/23	2014/07/11	5	15	
3	Auger Foundation (standard)	Building Construction	2014/07/07	2014/10/15	5	73	
4	Auger Foundation (micropile)	Building Construction	2014/07/07	2014/10/15	5	73	
5	Install Foundation (standard)	Building Construction	2014/09/15	2014/12/24	5	73	
6	Install Foundation (micropile)	Building Construction	2014/09/15	2014/12/24	5	73	
7	Install Steel Poles	Building Construction	2014/09/29	2015/01/07	5	73	
8	Install OH Conductor	Building Construction	2014/11/28	2015/01/28	5	44	
9	Helicopter Transport	Building Construction	2014/11/28	2014/12/04	5	5	
10	Install Duct Packages and Vaults	Building Construction	2014/12/01	2014/12/22	5	16	
11	Foundation Erosion Control	Grading	2014/12/03	2014/12/23	5	15	
12	Structure Erosion Control	Grading	2014/12/17	2015/01/06	5	15	
13	Install UG Conductors	Building Construction	2014/12/31	2015/02/24	5	40	
14	Test, Energize, Cut-Over	Building Construction	2015/01/29	2015/02/27	5	22	

PhaseName	OffRoadEquipmentType	OffRoadEquipmentUnitAmount	UsageHours	HorsePower	LoadFactor
Access Road, Pad and Pull Site Grading	Graders	2	8	162	0.61
Access Road, Pad and Pull Site Grading	Off-Highway Trucks	2	8	381	0.57
Access Road, Pad and Pull Site Grading	Off-Highway Trucks	1	4	381	0.57
Access Road, Pad and Pull Site Grading	Rollers	1	4	84	0.56
Access Road, Pad and Pull Site Grading	Rubber Tired Dozers	2	4	358	0.59
Access Road, Pad and Pull Site Grading	Tractors/Loaders/Backhoes	2	8	75	0.55
Grading Erosion Control	Off-Highway Trucks	2	6	381	0.57
Auger Foundation (standard)	Bore/Drill Rigs	3	15	82	0.75
Auger Foundation (standard)	Off-Highway Trucks	1	4	381	0.57
Auger Foundation (standard)	Tractors/Loaders/Backhoes	2	4	75	0.55
Auger Foundation (micropile)	Bore/Drill Rigs	2	10	82	0.75
Auger Foundation (micropile)	Off-Highway Trucks	1	4	381	0.57
Install Foundation (standard)	Off-Highway Trucks	2	12	381	0.57
Install Foundation (standard)	Off-Highway Trucks	1	4	381	0.57
Install Foundation (standard)	Tractors/Loaders/Backhoes	1	4	75	0.55
Install Foundation (micropile)	Air Compressors	1	5	78	0.48
Install Foundation (micropile)	Cement and Mortar Mixers	1	2	9	0.56
Install Foundation (micropile)	Generator Sets	1	5	84	0.74
Install Foundation (micropile)	Off-Highway Trucks	1	2	381	0.57
Install Foundation (micropile)	Off-Highway Trucks	1	4	381	0.57
Install Foundation (micropile)	Pumps	1	2	84	0.74
Install Foundation (micropile)	Tractors/Loaders/Backhoes	1	4	75	0.55
Install Steel Poles	Cranes	1	4	208	0.43
Install Steel Poles	Off-Highway Trucks	1	4	381	0.57
Install Steel Poles	Off-Highway Trucks	1	4	381	0.57
Install OH Conductor	Off-Highway Trucks	1	1	381	0.57
Install OH Conductor	Off-Highway Trucks	1	2	381	0.57
Install OH Conductor	Off-Highway Trucks	1	2	381	0.57
Install OH Conductor	Off-Highway Trucks	1	4	381	0.57
Install OH Conductor	Other General Industrial Equipment	1	4	150	0.51
Helicopter Transport	Other General Industrial Equipment	1	4	500	0.9
Install Duct Packages and Vaults	Cranes	1	1	208	0.43
Install Duct Packages and Vaults	Excavators	1	4	157	0.57
Install Duct Packages and Vaults	Off-Highway Trucks	1	1	381	0.57
Install Duct Packages and Vaults	Off-Highway Trucks	1	2	381	0.57

Install Duct Packages and Vaults	Off-Highway Trucks	1	4	381	0.57
Install Duct Packages and Vaults	Tractors/Loaders/Backhoes	1	1	75	0.55
Foundation Erosion Control	Off-Highway Trucks	2	6	381	0.57
Structure Erosion Control	Off-Highway Trucks	2	6	381	0.57
Install UG Conductors	Off-Highway Trucks	1	1	381	0.57
Install UG Conductors	Off-Highway Trucks	1	2	381	0.57
Install UG Conductors	Off-Highway Trucks	1	2	381	0.57
Install UG Conductors	Off-Highway Trucks	1	4	381	0.57
Test, Energize, Cut-Over	Welders	0	0	46	0.45

PhaseName	WorkerTripNumber	VendorTripNumber	HaulingTripNumber	WorkerTripLength	VendorTripLength	HaulingTripLength	WorkerVehicleClass	VendorVehicleClass	HaulingVehicleClass
Access Road, Pad and Pull Site Grading	16	0	6	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT
Grading Erosion Control	8	0	3	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT
Auger Foundation (standard)	13	0	3	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT
Auger Foundation (micropile)	13	0	3	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT
Install Foundation (standard)	8	2	3	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT
Install Foundation (micropile)	15	1	3	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT
Install Steel Poles	13	1	3	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT
Install OH Conductor	15	1	3	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT
Helicopter Transport	2	0	3	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT
Install Duct Packages and Vaults	15	2	3	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT
Foundation Erosion Control	6	0	3	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT
Structure Erosion Control	6	0	3	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT
Install UG Conductors	13	1	3	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT
Test, Energize, Cut-Over	2	0	3	10.8	7.3	50	LD_Mix	HDT_Mix	HHDT

PhaseName	WorkerPercentPave	VendorPercentPave	HaulingPercentPave	RoadSiltLoading	MaterialSiltContent	MaterialMoistureContent	AverageVehicleWeight	MeanVehicleSpeed
Access Road, Pad and Pull Site Grading	91	91	91	0.1	8.5	0.5	2.4	40
Grading Erosion Control	91	91	91	0.1	8.5	0.5	2.4	40
Auger Foundation (standard)	91	91	91	0.1	8.5	0.5	2.4	40
Auger Foundation (micropile)	91	91	91	0.1	8.5	0.5	2.4	40
Install Foundation (standard)	91	91	91	0.1	8.5	0.5	2.4	40
Install Foundation (micropile)	91	91	91	0.1	8.5	0.5	2.4	40
Install Steel Poles	91	91	91	0.1	8.5	0.5	2.4	40
Install OH Conductor	91	91	91	0.1	8.5	0.5	2.4	40
Helicopter Transport	91	91	91	0.1	8.5	0.5	2.4	40
Install Duct Packages and Vaults	91	91	91	0.1	8.5	0.5	2.4	40
Foundation Erosion Control	91	91	91	0.1	8.5	0.5	2.4	40
Structure Erosion Control	91	91	91	0.1	8.5	0.5	2.4	40
Install UG Conductors	91	91	91	0.1	8.5	0.5	2.4	40
Test, Energize, Cut-Over	91	91	91	0.1	8.5	0.5	2.4	40

tblDemolition

PhaseName	DemolitionSizeMetric	DemolitionUnitAmount

PhaseName	MaterialImported	MaterialExported	GradingSizeMetric	ImportExportPhased	MeanVehicleSpeed
Access Road, Pad and Pull Site Grading	1930	0	Cubic Yards	0	7.1

AcresOfGrading	MaterialMoistureContentBulldozing	MaterialMoistureContentTruckLoading	MaterialSiltContent
7.3	7.9	12	6.9

tblArchitecturalCoating

PhaseName	ArchitecturalCoatingStartDate	ArchitecturalCoatingEndDate	EF_Residential_Interior	ConstArea_Residential_Interior

EF_Residential_Exterior	ConstArea_Residential_Exterior	EF_Nonresidential_Interior	ConstArea_Nonresidential_Interior

EF_Nonresidential_Exterior	ConstArea_Nonresidential_Exterior

ParkingLotAcreage

VehicleTripsLandUseSubType	VehicleTripsLandUseSizeMetric	WD_TR	ST_TR	SU_TR	HW_TL	HS_TL	HO_TL	CC_TL	CW_TL
User Defined Industrial	User Defined Unit	0	0	0	0	0	0	7.3	9.5

CNW_TL	PR_TP	DV_TP	PB_TP	HW_TTP	HS_TTP	HO_TTP	CC_TTP	CW_TTP	CNW_TTP
7.3	0	0	0	0	0	0	0	0	0

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	FleetMix	0.498983	0.089317	0.239285	0.097396	0.019978	0.00557	0.01326	0.018994	0.001138	0.001415	0.00911	0.00114	0.004414
A	CH4_IDLEX	0	0	0	0	0.0014	0.0013	0.0009	0.1	0.0012	0	0	0.03	0
A	CH4_RUNEX	0.01	0.01	0.02	0.03	0.02	0.01	0.01	0.03	0.02	0.04	0.22	0.03	0.03
A	CH4_STREX	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.07	0.04	0.04	0.13	0.03	0.03
A	CO_IDLEX	0	0	0	0	0.2	0.18	0.13	10.2	0.17	0	0	5.22	0
A	CO_RUNEX	1.56	1.78	2.1	2.69	2.62	1.63	2.4	3.47	3.95	4.82	30.79	7.05	5.13
A	CO_STREX	3.98	3.82	4.93	6.03	4.56	3.17	4.81	19.17	11.38	8.29	9.94	6.36	9.58
A	CO2_IDLEX	0	0	0	0	7.8647	8.4051	12.3134	1470.9977	11.0106	0	0	534.4749	0
A	CO2_RUNEX	317.9482	402.019	424.764	584.7321	836.1242	733.1684	1325.7073	1743.1181	1198.2598	2153.7545	161.8305	1361.5957	745.4625
A	CO2_STREX	61.8758	76.2736	81.3688	111.7856	36.6121	29.7702	11.0878	11.8405	19.5702	31.2563	43.4925	16.8585	32.3854
A	NOX_IDLEX	0	0	0	0	0.02	0.05	0.18	27.21	0.12	0	0	8.73	0
A	NOX_RUNEX	0.15	0.18	0.25	0.34	1.04	1.84	4.15	8.23	3.22	13.56	1.14	9.24	1.36
A	NOX_STREX	0.23	0.24	0.46	0.57	1.49	1.2	0.58	2.26	1.6	1.37	0.3	0.43	0.97
A	PM10_IDLEX	0	0	0	0	0.0002	0.0006	0.0022	0.23	0.0016	0	0	0.1	0
A	PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0089	0.004	0.01	0.01
A	PM10_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.17	0.35	0.11	0.23	0.02	0.4	0.01
A	PM10_STREX	0.0072	0.008	0.01	0.01	0.0022	0.0019	0.001	0.0015	0.0023	0.0027	0.01	0.0012	0.0009
A	PM25_IDLEX	0	0	0	0	0.0002	0.0006	0.002	0.21	0.0014	0	0	0.09	0
A	PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0089	0.003	0.0022	0.001	0.003	0.003
A	PM25_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.17	0.35	0.11	0.23	0.02	0.4	0.01
A	PM25_STREX	0.0067	0.0074	0.01	0.01	0.0021	0.0017	0.001	0.0014	0.0021	0.0025	0.0089	0.001	0.0008
A	ROG_DIURN	0.08	0.07	0.09	0.08	0.0019	0.0013	0.0005	0.0006	0.0007	0.0028	0.83	0.0059	1.15
A	ROG_HTSK	0.15	0.16	0.18	0.16	0.04	0.03	0.01	0.01	0.02	0.06	0.35	0.04	0.07
A	ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.21	0.02	0	0	0.72	0
A	ROG_RESTL	0.06	0.07	0.08	0.08	0.0009	0.0006	0.0003	0.0004	0.0004	0.0023	0.52	0.0028	0.53
A	ROG_RUNEX	0.05	0.04	0.05	0.08	0.25	0.19	0.19	0.67	0.26	0.79	3.05	0.6	0.2
A	ROG_RUNLS	0.062002	0.1026	0.124855	0.105162	0.356221	0.227664	0.079149	0.009448	0.153639	0.010545	0.281676	0.028001	0.015491
A	ROG_STREX	0.32	0.26	0.36	0.5	0.39	0.3	0.32	1.28	0.7	0.83	2.12	0.49	0.56
A	SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
A	SO2_RUNEX	0.0037	0.0046	0.0046	0.0063	0.0084	0.0073	0.01	0.01	0.01	0.02	0.0022	0.01	0.0075
A	SO2_STREX	0.0008	0.0009	0.0009	0.0013	0.0004	0.0004	0.0002	0.0004	0.0004	0.0005	0.0006	0.0003	0.0005
A	TOG_DIURN	0.08	0.07	0.09	0.08	0.0019	0.0013	0.0005	0.0006	0.0007	0.0028	0.83	0.0059	1.15
A	TOG_HTSK	0.15	0.16	0.18	0.16	0.04	0.03	0.01	0.01	0.02	0.06	0.35	0.04	0.07
A	TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.52	0.02	0	0	0.79	0
A	TOG_RESTL	0.06	0.07	0.08	0.08	0.0009	0.0006	0.0003	0.0004	0.0004	0.0023	0.52	0.0028	0.53
A	TOG_RUNEX	0.07	0.06	0.07	0.12	0.28	0.22	0.22	0.76	0.3	0.88	3.33	0.67	0.24
A	TOG_RUNLS	0.062002	0.1026	0.124855	0.105162	0.356221	0.227664	0.079149	0.009448	0.153639	0.010545	0.281676	0.028001	0.015491
A	TOG_STREX	0.34	0.28	0.38	0.54	0.42	0.32	0.35	1.37	0.74	0.89	2.28	0.53	0.59
S	FleetMix	0.498983	0.089317	0.239285	0.097396	0.019978	0.00557	0.01326	0.018994	0.001138	0.001415	0.00911	0.00114	0.004414
S	CH4_IDLEX	0	0	0	0	0.0014	0.0013	0.0009	0.09	0.0012	0	0	0.03	0
S	CH4_RUNEX	0.01	0.01	0.02	0.03	0.02	0.01	0.01	0.03	0.02	0.04	0.22	0.03	0.03
S	CH4_STREX	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.06	0.03	0.04	0.11	0.02	0.02
S	CO_IDLEX	0	0	0	0	0.2	0.18	0.13	7.41	0.17	0	0	5.22	0
S	CO_RUNEX	1.74	1.95	2.32	2.95	2.67	1.65	2.42	3.49	4.01	4.82	29.62	6.94	5.25
S	CO_STREX	3.02	2.92	3.75	4.6	3.6	2.52	3.93	15.41	9.2	7.03	8.77	5.49	7.52
S	CO2_IDLEX	0	0	0	0	7.8647	8.4051	12.3134	1554.8273	11.0106	0	0	534.4749	0
S	CO2_RUNEX	339.4773	427.7845	452.4692	622.8399	836.1242	733.1684	1325.7073	1743.1181	1198.2598	2153.7545	161.8305	1361.5957	745.4625
S	CO2_STREX	61.8758	76.2736	81.3688	111.7856	36.6121	29.7702	11.0878	11.8405	19.5702	31.2563	43.4925	16.8585	32.3854
S	NOX_IDLEX	0	0	0	0	0.02	0.05	0.18	28.17	0.12	0	0	8.73	0
S	NOX_RUNEX	0.16	0.18	0.26	0.35	1.08	1.9	4.3	8.5	3.32	14.03	1.16	9.55	1.39
S	NOX_STREX	0.21	0.22	0.42	0.53	1.43	1.15	0.55	2.17	1.53	1.31	0.29	0.41	0.93
S	PM10_IDLEX	0	0	0	0	0.0002	0.0006	0.0022	0.19	0.0016	0	0	0.1	0
S	PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
S	PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0089	0.004	0.01	0.01
S	PM10_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.17	0.35	0.11	0.23	0.02	0.4	0.01
S	PM10_STREX	0.0072	0.008	0.01	0.01	0.0022	0.0019	0.001	0.0015	0.0023	0.0027	0.01	0.0012	0.0009
S	PM25_IDLEX	0	0	0	0	0.0002	0.0006	0.002	0.18	0.0014	0	0	0.09	0
S	PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
S	PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0089	0.003	0.0022	0.001	0.003	0.003
S	PM25_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.16	0.32	0.11	0.21	0.02	0.37	0.01
S	PM25_STREX	0.0067	0.0074	0.01	0.01	0.0021	0.0017	0.001	0.0014	0.0021	0.0025	0.0089	0.001	0.0008
S	ROG_DIURN	0.12	0.12	0.15	0.13	0.0029	0.002	0.0008	0.001	0.0012	0.0042	1.42	0.0093	1.77
S	ROG_HTSK	0.16	0.17	0.19	0.18	0.04	0.03	0.01	0.01	0.02	0.07	0.42	0.04	0.07
S	ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.08	0.02	0	0	0.72	0
S	ROG_RESTL	0.11	0.12	0.14	0.14	0.0015	0.0011	0.0005	0.0007	0.0007	0.0038	1.09	0.0049	0.87
S	ROG_RUNEX	0.06	0.05	0.05	0.09	0.26	0.19	0.19	0.67	0.26	0.79	2.96	0.6	0.21
S	ROG_RUNLS	0.058449	0.095061	0.11523	0.097475	0.343917	0.219236	0.077951	0.009503	0.150634	0.009668	0.257784	0.025365	0.015113
S	ROG_STREX	0.27	0.21	0.3	0.42	0.34	0.26	0.28	1.11	0.61	0.75	1.84	0.43	0.47
S	SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
S	SO2_RUNEX	0.0039	0.0049	0.005	0.0067	0.0084	0.0073	0.01	0.01	0.01	0.02	0.0021	0.01	0.0075
S	SO2_STREX	0.0007	0.0009	0.0009	0.0013	0.0004	0.0003	0.0002	0.0004	0.0004	0.0004	0.0006	0.0003	0.0005
S	TOG_DIURN	0.12	0.12	0.15	0.13	0.0029	0.002	0.0008	0.001	0.0012	0.0042	1.42	0.0093	1.77
S	TOG_HTSK	0.16	0.17	0.19	0.18	0.04	0.03	0.01	0.01	0.02	0.07	0.42	0.04	0.07
S	TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.37	0.02	0	0	0.79	0
S	TOG_RESTL	0.11	0.12	0.14	0.14	0.0015	0.0011	0.0005	0.0007	0.0007	0.0038	1.09	0.0049	0.87
S	TOG_RUNEX	0.08	0.07	0.08	0.12	0.29	0.22	0.22	0.76	0.3	0.89	3.23	0.67	0.25
S	TOG_RUNLS	0.058449	0.095061	0.11523	0.097475	0.343917	0.219236	0.077951	0.009503	0.150634	0.009668	0.257784	0.025365	0.015113

S	TOG_STREX	0.28	0.23	0.32	0.45	0.37	0.28	0.3	1.18	0.65	0.8	1.98	0.46	0.5
W	FleetMix	0.498983	0.089317	0.239285	0.097396	0.019978	0.00557	0.01326	0.018994	0.001138	0.001415	0.00911	0.00114	0.004414
W	CH4_IDLEX	0	0	0	0	0.0014	0.0013	0.0009	0.11	0.0012	0	0	0.03	0
W	CH4_RUNEX	0.01	0.01	0.02	0.03	0.02	0.01	0.01	0.03	0.02	0.04	0.22	0.03	0.03
W	CH4_STREX	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.07	0.03	0.04	0.13	0.03	0.03
W	CO_IDLEX	0	0	0	0	0.2	0.18	0.13	14.09	0.17	0	0	5.22	0
W	CO_RUNEX	1.53	1.75	2.06	2.64	2.62	1.63	2.4	3.47	3.95	4.82	30.96	7.1	5.12
W	CO_STREX	4.02	3.87	4.99	6.1	4.58	3.19	4.77	18.96	11.27	8.31	9.97	6.67	9.46
W	CO2_IDLEX	0	0	0	0	7.8647	8.4051	12.3134	1353.6441	11.0106	0	0	534.4749	0
W	CO2_RUNEX	312.1678	395.1192	417.3528	574.5417	836.1242	733.1684	1325.7073	1743.1181	1198.2598	2153.7545	161.8305	1361.5957	745.4625
W	CO2_STREX	61.8758	76.2736	81.3688	111.7856	36.6121	29.7702	11.0878	11.8405	19.5702	31.2563	43.4925	16.8585	32.3854
W	NOX_IDLEX	0	0	0	0	0.02	0.05	0.18	25.87	0.12	0	0	8.73	0
W	NOX_RUNEX	0.17	0.2	0.29	0.38	1.13	1.98	4.48	8.82	3.51	14.56	1.29	9.91	1.5
W	NOX_STREX	0.23	0.24	0.46	0.58	1.48	1.19	0.58	2.26	1.6	1.38	0.3	0.44	0.97
W	PM10_IDLEX	0	0	0	0	0.0002	0.0006	0.0022	0.28	0.0016	0	0	0.1	0
W	PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
W	PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0089	0.004	0.01	0.01
W	PM10_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.17	0.35	0.11	0.23	0.02	0.4	0.01
W	PM10_STREX	0.0072	0.008	0.01	0.01	0.0022	0.0019	0.001	0.0015	0.0023	0.0027	0.01	0.0012	0.0009
W	PM25_IDLEX	0	0	0	0	0.0002	0.0006	0.002	0.26	0.0014	0	0	0.09	0
W	PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
W	PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0089	0.003	0.0022	0.001	0.003	0.003
W	PM25_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.16	0.32	0.11	0.21	0.02	0.37	0.01
W	PM25_STREX	0.0067	0.0074	0.01	0.01	0.0021	0.0017	0.001	0.0014	0.0021	0.0025	0.0089	0.001	0.0008
W	ROG_DIURN	0.07	0.07	0.08	0.07	0.0024	0.0016	0.0007	0.0007	0.0009	0.0032	0.92	0.0079	1.5
W	ROG_HTSK	0.19	0.19	0.22	0.2	0.05	0.04	0.01	0.02	0.02	0.09	0.57	0.06	0.11
W	ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.4	0.02	0	0	0.72	0
W	ROG_RESTL	0.07	0.08	0.09	0.09	0.0011	0.0008	0.0004	0.0005	0.0005	0.0029	0.62	0.0039	0.7
W	ROG_RUNEX	0.05	0.04	0.05	0.08	0.25	0.19	0.19	0.67	0.26	0.79	3.06	0.6	0.2
W	ROG_RUNLS	0.072161	0.124529	0.152585	0.127446	0.398321	0.255738	0.085449	0.010078	0.166519	0.012971	0.348194	0.034056	0.016555
W	ROG_STREX	0.32	0.26	0.36	0.51	0.39	0.3	0.32	1.27	0.69	0.83	2.12	0.51	0.55
W	SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
W	SO2_RUNEX	0.0036	0.0045	0.0046	0.0062	0.0084	0.0073	0.01	0.01	0.01	0.02	0.0022	0.01	0.0075
W	SO2_STREX	0.0008	0.0009	0.001	0.0013	0.0004	0.0004	0.0002	0.0004	0.0004	0.0005	0.0006	0.0003	0.0005
W	TOG_DIURN	0.07	0.07	0.08	0.07	0.0024	0.0016	0.0007	0.0007	0.0009	0.0032	0.92	0.0079	1.5
W	TOG_HTSK	0.19	0.19	0.22	0.2	0.05	0.04	0.01	0.02	0.02	0.09	0.57	0.06	0.11
W	TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.73	0.02	0	0	0.79	0
W	TOG_RESTL	0.07	0.08	0.09	0.09	0.0011	0.0008	0.0004	0.0005	0.0005	0.0029	0.62	0.0039	0.7
W	TOG_RUNEX	0.07	0.06	0.07	0.11	0.28	0.22	0.22	0.76	0.3	0.88	3.34	0.67	0.24
W	TOG_RUNLS	0.072161	0.124529	0.152585	0.127446	0.398321	0.255738	0.085449	0.010078	0.166519	0.012971	0.348194	0.034056	0.016555
W	TOG_STREX	0.35	0.28	0.39	0.54	0.42	0.32	0.34	1.36	0.74	0.89	2.28	0.55	0.59

RoadPercentPave	RoadSiltLoading	MaterialSiltContent	MaterialMoistureContent	MobileAverageVehicleWeight	MeanVehicleSpeed
100	0.1	4.3	0.5	2.4	40

tblWoodstoves

WoodstovesLandUseSubType	NumberConventional	NumberCatalytic	NumberNoncatalytic	NumberPellet	WoodstoveDayYear	WoodstoveWoodMass

tblFireplaces

FireplacesLandUseSubType	NumberWood	NumberGas	NumberPropane	NumberNoFireplace	FireplaceHourDay	FireplaceDayYear	FireplaceWoodMass

ROG_EF
2.14E-05

Area_EF_Residential_Interior	Area_Residential_Interior	Area_EF_Residential_Exterior	Area_Residential_Exterior
250	0	250	0

Area_EF_Nonresidential_Interior	Area_Nonresidential_Interior	Area_EF_Nonresidential_Exterior	Area_Nonresidential_Exterior
250	0	250	0

ReapplicationRatePercent
10

NumberSnowDays	NumberSummerDays
0	180

EnergyUseLandUseSubType	T24E	NT24E	LightingElect	T24NG	NT24NG
User Defined Industrial	0	0	0	0	0

WaterLandUseSubType	WaterLandUseSizeMetric	IndoorWaterUseRate	OutdoorWaterUseRate	ElectricityIntensityFactorToSupply
User Defined Industrial	User Defined Unit	0	0	9727

ElectricityIntensityFactorToTreat	ElectricityIntensityFactorToDistribute	ElectricityIntensityFactorForWastewaterTreatment	SepticTankPercent
111	1272	1911	10

AerobicPercent	AnaerobicandFacultativeLagoonsPercent	AnaDigestCombDigestGasPercent	AnaDigestCogenCombDigestGasPercent
84.69	2.14	3.17	0

SolidWasteLandUseSubType	SolidWasteLandUseSizeMetric	SolidWasteGenerationRate	LandfillNoGasCapture	LandfillCaptureGasFlare	LandfillCaptureGasEnergyRecovery
User Defined Industrial	User Defined Unit	0	6	94	0

tblLandUseChange

VegetationLandUseType	VegetationLandUseSubType	AcresBegin	AcresEnd	CO2peracre

BroadSpeciesClass	NumberOfNewTrees	CO2perTree

tblConstEquipMitigation

ConstMitigationEquipmentType	FuelType	Tier	NumberOfEquipmentMitigated	TotalNumberOfEquipmentMitigated	DPF	OxidationCatalyst
Air Compressors	Diesel		0	1		0
Bore/Drill Rigs	Diesel		0	5		0
Cement and Mortar Mixers	Diesel		0	1		0
Cranes	Diesel		0	2		0
Excavators	Diesel		0	1		0
Generator Sets	Diesel		0	1		0
Graders	Diesel		0	2		0
Off-Highway Trucks	Diesel		0	29		0
Other General Industrial Equipment	Diesel		0	2		0
Pumps	Diesel		0	1		0
Rollers	Diesel		0	1		0
Rubber Tired Dozers	Diesel		0	2		0
Tractors/Loaders/Backhoes	Diesel		0	7		0
Welders	Diesel		0	0		0

tblConstDustMitigation

SoilStabilizerCheck	SoilStabilizerPM10PercentReduction	SoilStabilizerPM25PercentReduction	ReplaceGroundCoverCheck
0			0

ReplaceGroundCoverPM10PercentReduction	ReplaceGroundCoverPM25PercentReduction	WaterExposedAreaCheck
		1

WaterExposedAreaFrequency	WaterExposedAreaPM10PercentReduction	WaterExposedAreaPM25PercentReduction
2	55	55

WaterUnpavedRoadMoistureContentCheck	WaterUnpavedRoadVehicleSpeedCheck	WaterUnpavedRoadMoistureContent
0	1	

tblConstDustMitigation

WaterUnpavedRoadVehicleSpeed	CleanPavedRoadCheck	CleanPavedRoadPercentReduction
15		0

tblLandUseMitigation

ProjectSetting	IncreaseDensityCheck	IncreaseDensityDUPerAcre	IncreaseDensityJobPerAcre	IncreaseDiversityCheck	ImproveWalkabilityDesignCheck

ImproveWalkabilityDesignIntersections	ImproveDestinationAccessibilityCheck	ImproveDestinationAccessibilityDistance	IncreaseTransitAccessibilityCheck

IncreaseTransitAccessibilityDistance	IntegrateBelowMarketRateHousingCheck	IntegrateBelowMarketRateHousingDU	ImprovePedestrianNetworkCheck

ImprovePedestrianNetworkSelection	ProvideTrafficCalmingMeasuresCheck	ProvideTrafficCalmingMeasuresPercentStreet

ProvideTrafficCalmingMeasuresPercentIntersection	ImplementNEVNetworkCheck	LimitParkingSupplyCheck	LimitParkingSupplySpacePercentReduction

UnbundleParkingCostCheck	UnbundleParkingCostCost	OnStreetMarketPricingCheck	OnStreetMarketPricingPricePercentIncrease

ProvideBRTSystemCheck	ProvideBRTSystemPercentBRT	ExpandTransitNetworkCheck	ExpandTransitNetworkTransitCoveragePercentIncrease

IncreaseTransitFrequencyCheck	IncreaseTransitFrequencyImplementationLevel	IncreaseTransitFrequencyHeadwaysPercentReduction

ImplementTripReductionProgramCheck	ImplementTripReductionProgramPercentEmployee	ImplementTripReductionProgramType
	0	

tblCommuteMitigation

TransitSubsidyCheck	TransitSubsidyPercentEmployee	TransitSubsidyDailySubsidyAmount	ImplementEmployeeParkingCashOutCheck
0			0

tblCommuteMitigation

ImplementEmployeeParkingCashOutPercentEmployee	WorkplaceParkingChargeCheck	WorkplaceParkingChargePercentEmployee
		0

WorkplaceParkingChargeCost	EncourageTelecommutingCheck	EncourageTelecommutingPercentEmployee9_800

EncourageTelecommutingPercentEmployee4_40	EncourageTelecommutingPercentEmployee1_5days

MarketCommuteTripReductionOptionCheck	MarketCommuteTripReductionOptionPercentEmployee	EmployeeVanpoolCheck
0		0

EmployeeVanpoolPercentEmployee	EmployeeVanpoolPercentModeShare	ProvideRideSharingProgramCheck
	2	0

ProvideRideSharingProgramPercentEmployee	ImplementSchoolBusProgramCheck	ImplementSchoolBusProgramPercentFamilyUsing
		0

LandscapeLawnmowerCheck	LandscapeLawnmowerPercentElectric	LandscapeLeafblowerCheck	LandscapeLeafblowerPercentElectric
	0		0

LandscapeChainsawCheck	LandscapeChainsawPercentElectric	UseLowVOCPaintResidentialInteriorCheck
0		0

UseLowVOCPaintResidentialInteriorValue	UseLowVOCPaintResidentialExteriorCheck	UseLowVOCPaintResidentialExteriorValue
250	0	250

UseLowVOCPaintNonresidentialInteriorCheck	UseLowVOCPaintNonresidentialInteriorValue	UseLowVOCPaintNonresidentialExteriorCheck
0	250	0

UseLowVOCPaintNonresidentialExteriorValue	HearthOnlyNaturalGasHearthCheck	NoHearthCheck	UseLowVOCCleaningSuppliesCheck
250	0	0	0

ExceedTitle24Check	ExceedTitle24CheckPercentImprovement	InstallHighEfficiencyLightingCheck

InstallHighEfficiencyLightingPercentEnergyReduction	OnSiteRenewableEnergyCheck	KwhGeneratedCheck	KwhGenerated

PercentOfElectricityUseGeneratedCheck	PercentOfElectricityUseGenerated

ApplianceType	ApplianceLandUseSubType	PercentImprovement
ClothWasher		30
DishWasher		15
Fan		50
Refrigerator		15

ApplyWaterConservationStrategyCheck	ApplyWaterConservationStrategyPercentReductionIndoor
	0

ApplyWaterConservationStrategy	PercentReductionOutdoor	UseReclaimedWaterCheck	PercentOutdoorReclaimedWaterUse
			0

PercentIndoorReclaimedWaterUse	UseGreyWaterCheck	PercentOutdoorGreyWaterUse	PercentIndoorGreyWaterUse
	0		

InstallLowFlowBathroomFaucetCheck	PercentReductionInFlowBathroomFaucet	InstallLowFlowKitchenFaucetCheck
0	32	0

PercentReductionInFlowKitchenFaucet	InstallLowFlowToiletCheck	PercentReductionInFlowToilet	InstallLowFlowShowerCheck
18	0	20	0

PercentReductionInFlowShower	TurfReductionCheck	TurfReductionTurfArea	TurfReductionPercentReduction
20	0		

UseWaterEfficientIrrigationSystemCheck	UseWaterEfficientIrrigationSystemPercentReduction	WaterEfficientLandscapeCheck	MAWA
0	6.1	0	

ETWU

InstituteRecyclingAndCompostingServicesCheck	InstituteRecyclingAndCompostingServicesWastePercentReduction

SubModuleID	PhaseName	Season	Remarks
1			
3			Permanet Land/ROW acreage
4			Construction Phases for Interconnection to Boulevard Substation
5	Access Road, Pad and Pull Site Grading		Based on equipment list/schedule provided by applicant
5	Auger Foundation (micropile)		Based on equipment list/schedule provided by applicant
5	Auger Foundation (standard)		Based on equipment list/schedule provided by applicant
5	Foundation Erosion Control		Based on equipment list/schedule provided by applicant
5	Grading Erosion Control		Based on equipment list/schedule provided by applicant
5	Helicopter Transport		Other General Industrial Equipment represents helicopter with 500hp.
5	Install Duct Packages and Vaults		Based on equipment list/schedule provided by applicant
5	Install Foundation (micropile)		Based on equipment list/schedule provided by applicant
5	Install Foundation (standard)		Based on equipment list/schedule provided by applicant
5	Install OH Conductor		Other General Industrial Equipment represents the tensioner
5	Install Steel Poles		Based on equipment list/schedule provided by applicant
5	Install UG Conductors		Based on equipment list/schedule provided by applicant
5	Structure Erosion Control		Based on equipment list/schedule provided by applicant
5	Test, Energize, Cut-Over		No offroad equipment for testing
6			Worker, Vendor (concrete and flatbed trucks), and Haul Trucks (material import, semi-trailers, and water trucks)
7			Paved road % based on info in project description
9			7.3 acres disturbed and 1,930 CY import

CalEEMod - Summer Operations Output

SDG&E Wind Interconnect Operations

San Diego County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
User Defined Industrial	63	User Defined Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Utility Company**	San Diego Gas & Electric
Climate Zone	13	**Precipitation Freq (Days)**	40		

1.3 User Entered Comments

Project Characteristics -

Land Use - Permanent Land/ROW acreage

Construction Phase - Assumptions based on project description

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for phase)

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for this phase)

Off-road Equipment - Assumptions based on project description

Off-road Equipment - Assumptions based on project description (i.e., water truck for staging area and helicopter modeled as Other General Industrial Equipment with increased HP)

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for phase)

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for this phase)

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for this phase)

Off-road Equipment - Assumptions based on project description

Off-road Equipment - Assumptions based on project description (Other Material Handling Equipment used for chipper trailer)

Trips and VMT - Added 10.4 miles to worker triplength to account for commute plus travel along the line

On-road Fugitive Dust - Adjusted to match proportion of paved roads in project description

Grading - ROW repair assumed to disturb 2 acres per year

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	4.28	30.11	14.94	0.05	56.63	1.10	57.73	5.61	1.10	6.71	0.00	6,091.48	0.00	0.39	0.00	6,099.65
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	4.28	30.11	14.94	0.05	0.47	1.10	1.57	0.01	1.10	1.11	0.00	6,091.48	0.00	0.39	0.00	6,099.65
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Application of Herbicides - 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.10	0.00	2.83	0.00	2.83	0.28	0.00	0.28		19.02		0.00		19.04
Total	**0.01**	**0.01**	**0.10**	**0.00**	**2.83**	**0.00**	**2.83**	**0.28**	**0.00**	**0.28**		**19.02**		**0.00**		**19.04**

3.2 Application of Herbicides - 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.10	0.00	0.02	0.00	0.02	0.00	0.00	0.00		19.02		0.00		19.04
Total	**0.01**	**0.01**	**0.10**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**		**19.02**		**0.00**		**19.04**

3.3 Insulator Washing - 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.20	0.00	5.66	0.00	5.66	0.56	0.00	0.56		38.05		0.00		38.09
Total	**0.02**	**0.02**	**0.20**	**0.00**	**5.66**	**0.00**	**5.66**	**0.56**	**0.00**	**0.56**		**38.05**		**0.00**		**38.09**

3.3 Insulator Washing - 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00		38.05		0.00		38.09
Total	**0.02**	**0.02**	**0.20**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**		**38.05**		**0.00**		**38.09**

3.4 Helicopter Inspection - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.31	18.61	7.09	0.03		0.64	0.64		0.64	0.64		3,379.69		0.21		3,384.06
Total	**2.31**	**18.61**	**7.09**	**0.03**		**0.64**	**0.64**		**0.64**	**0.64**		**3,379.69**		**0.21**		**3,384.06**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.13	1.27	0.00	36.81	0.01	36.82	3.65	0.01	3.66		247.30		0.01		247.58
Total	**0.10**	**0.13**	**1.27**	**0.00**	**36.81**	**0.01**	**36.82**	**3.65**	**0.01**	**3.66**		**247.30**		**0.01**		**247.58**

3.4 Helicopter Inspection - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.31	18.61	7.09	0.03		0.64	0.64		0.64	0.64	0.00	3,379.69		0.21		3,384.06
Total	**2.31**	**18.61**	**7.09**	**0.03**		**0.64**	**0.64**		**0.64**	**0.64**	**0.00**	**3,379.69**		**0.21**		**3,384.06**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.13	1.27	0.00	0.30	0.01	0.32	0.00	0.01	0.02		247.30		0.01		247.58
Total	**0.10**	**0.13**	**1.27**	**0.00**	**0.30**	**0.01**	**0.32**	**0.00**	**0.01**	**0.02**		**247.30**		**0.01**		**247.58**

3.5 Equipment Repair or Replacement - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.82	11.30	5.89	0.02		0.45	0.45		0.45	0.45		2,331.34		0.16		2,334.70
Total	**1.82**	**11.30**	**5.89**	**0.02**		**0.45**	**0.45**		**0.45**	**0.45**		**2,331.34**		**0.16**		**2,334.70**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.04	0.39	0.00	11.33	0.00	11.33	1.12	0.00	1.13		76.09		0.00		76.18
Total	**0.03**	**0.04**	**0.39**	**0.00**	**11.33**	**0.00**	**11.33**	**1.12**	**0.00**	**1.13**		**76.09**		**0.00**		**76.18**

3.5 Equipment Repair or Replacement - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.82	11.30	5.89	0.02		0.45	0.45		0.45	0.45	0.00	2,331.34		0.16		2,334.70
Total	**1.82**	**11.30**	**5.89**	**0.02**		**0.45**	**0.45**		**0.45**	**0.45**	**0.00**	**2,331.34**		**0.16**		**2,334.70**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.04	0.39	0.00	0.09	0.00	0.10	0.00	0.00	0.00		76.09		0.00		76.18
Total	**0.03**	**0.04**	**0.39**	**0.00**	**0.09**	**0.00**	**0.10**	**0.00**	**0.00**	**0.00**		**76.09**		**0.00**		**76.18**

3.6 Application of Herbicides - 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.10	0.00	2.83	0.00	2.83	0.28	0.00	0.28		19.02		0.00		19.04
Total	**0.01**	**0.01**	**0.10**	**0.00**	**2.83**	**0.00**	**2.83**	**0.28**	**0.00**	**0.28**		**19.02**		**0.00**		**19.04**

3.6 Application of Herbicides - 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.10	0.00	0.02	0.00	0.02	0.00	0.00	0.00		19.02		0.00		19.04
Total	**0.01**	**0.01**	**0.10**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**		**19.02**		**0.00**		**19.04**

3.7 Insulator Washing - 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.20	0.00	5.66	0.00	5.66	0.56	0.00	0.56		38.05		0.00		38.09
Total	**0.02**	**0.02**	**0.20**	**0.00**	**5.66**	**0.00**	**5.66**	**0.56**	**0.00**	**0.56**		**38.05**		**0.00**		**38.09**

3.7 Insulator Washing - 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00		38.05		0.00		38.09
Total	**0.02**	**0.02**	**0.20**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**		**38.05**		**0.00**		**38.09**

3.8 ROW Repair - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.08	0.00	0.08	0.00	0.00	0.00						0.00
Off-Road	1.81	12.52	11.36	0.02		0.78	0.78		0.78	0.78		1,815.72		0.16		1,819.10
Total	**1.81**	**12.52**	**11.36**	**0.02**	**0.08**	**0.78**	**0.86**	**0.00**	**0.78**	**0.78**		**1,815.72**		**0.16**		**1,819.10**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.05	0.49	0.00	14.16	0.00	14.16	1.40	0.00	1.41		95.12		0.01		95.22
Total	**0.04**	**0.05**	**0.49**	**0.00**	**14.16**	**0.00**	**14.16**	**1.40**	**0.00**	**1.41**		**95.12**		**0.01**		**95.22**

3.8 ROW Repair - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.04	0.00	0.04	0.00	0.00	0.00						0.00
Off-Road	1.81	12.52	11.36	0.02		0.78	0.78		0.78	0.78	0.00	1,815.72		0.16		1,819.10
Total	**1.81**	**12.52**	**11.36**	**0.02**	**0.04**	**0.78**	**0.82**	**0.00**	**0.78**	**0.78**	**0.00**	**1,815.72**		**0.16**		**1,819.10**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.05	0.49	0.00	0.12	0.00	0.12	0.00	0.00	0.01		95.12		0.01		95.22
Total	**0.04**	**0.05**	**0.49**	**0.00**	**0.12**	**0.00**	**0.12**	**0.00**	**0.00**	**0.01**		**95.12**		**0.01**		**95.22**

3.9 Tree Trimming - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.16	8.65	3.76	0.01		0.32	0.32		0.32	0.32		1,314.62		0.10		1,316.79
Total	**1.16**	**8.65**	**3.76**	**0.01**		**0.32**	**0.32**		**0.32**	**0.32**		**1,314.62**		**0.10**		**1,316.79**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.20	0.00	5.66	0.00	5.66	0.56	0.00	0.56		38.05		0.00		38.09
Total	**0.02**	**0.02**	**0.20**	**0.00**	**5.66**	**0.00**	**5.66**	**0.56**	**0.00**	**0.56**		**38.05**		**0.00**		**38.09**

3.9 Tree Trimming - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.16	8.65	3.76	0.01		0.32	0.32		0.32	0.32	0.00	1,314.62		0.10		1,316.79
Total	**1.16**	**8.65**	**3.76**	**0.01**		**0.32**	**0.32**		**0.32**	**0.32**	**0.00**	**1,314.62**		**0.10**		**1,316.79**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00		38.05		0.00		38.09
Total	**0.02**	**0.02**	**0.20**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**		**38.05**		**0.00**		**38.09**

3.10 Pole Brushing - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.03	0.29	0.00	8.49	0.00	8.50	0.84	0.00	0.84		57.07		0.00		57.13
Total	**0.02**	**0.03**	**0.29**	**0.00**	**8.49**	**0.00**	**8.50**	**0.84**	**0.00**	**0.84**		**57.07**		**0.00**		**57.13**

3.10 Pole Brushing - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.03	0.29	0.00	0.07	0.00	0.07	0.00	0.00	0.00		57.07		0.00		57.13
Total	**0.02**	**0.03**	**0.29**	**0.00**	**0.07**	**0.00**	**0.07**	**0.00**	**0.00**	**0.00**		**57.07**		**0.00**		**57.13**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
User Defined Industrial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
User Defined Industrial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

CalEEMod - Winter Operations Output

SDG&E Wind Interconnect Operations

San Diego County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
User Defined Industrial	63	User Defined Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Utility Company**	San Diego Gas & Electric
Climate Zone	13	**Precipitation Freq (Days)**	40		

1.3 User Entered Comments

Project Characteristics -

Land Use - Permanent Land/ROW acreage

Construction Phase - Assumptions based on project description

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for phase)

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for this phase)

Off-road Equipment - Assumptions based on project description

Off-road Equipment - Assumptions based on project description (i.e., water truck for staging area and helicopter modeled as Other General Industrial Equipment with increased HP)

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for phase)

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for this phase)

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for this phase)

Off-road Equipment - Assumptions based on project description

Off-road Equipment - Assumptions based on project description (Other Material Handling Equipment used for chipper trailer)

Trips and VMT - Added 10.4 miles to worker triplength to account for commute plus travel along the line

On-road Fugitive Dust - Adjusted to match proportion of paved roads in project description

Grading - ROW repair assumed to disturb 2 acres per year

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	4.30	30.13	14.77	0.05	56.63	1.10	57.73	5.61	1.10	6.71	0.00	6,061.87	0.00	0.39	0.00	6,070.01
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	4.30	30.13	14.77	0.05	0.47	1.10	1.57	0.01	1.10	1.11	0.00	6,061.87	0.00	0.39	0.00	6,070.01
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Application of Herbicides - 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.09	0.00	2.83	0.00	2.83	0.28	0.00	0.28		17.54		0.00		17.56
Total	**0.01**	**0.01**	**0.09**	**0.00**	**2.83**	**0.00**	**2.83**	**0.28**	**0.00**	**0.28**		**17.54**		**0.00**		**17.56**

3.2 Application of Herbicides - 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.09	0.00	0.02	0.00	0.02	0.00	0.00	0.00		17.54		0.00		17.56
Total	**0.01**	**0.01**	**0.09**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**		**17.54**		**0.00**		**17.56**

3.3 Insulator Washing - 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.18	0.00	5.66	0.00	5.66	0.56	0.00	0.56		35.09		0.00		35.13
Total	**0.02**	**0.02**	**0.18**	**0.00**	**5.66**	**0.00**	**5.66**	**0.56**	**0.00**	**0.56**		**35.09**		**0.00**		**35.13**

3.3 Insulator Washing - 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.18	0.00	0.05	0.00	0.05	0.00	0.00	0.00		35.09		0.00		35.13
Total	**0.02**	**0.02**	**0.18**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**		**35.09**		**0.00**		**35.13**

3.4 Helicopter Inspection - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.31	18.61	7.09	0.03		0.64	0.64		0.64	0.64		3,379.69		0.21		3,384.06
Total	**2.31**	**18.61**	**7.09**	**0.03**		**0.64**	**0.64**		**0.64**	**0.64**		**3,379.69**		**0.21**		**3,384.06**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.14	1.17	0.00	36.81	0.01	36.82	3.65	0.01	3.66		228.05		0.01		228.32
Total	**0.12**	**0.14**	**1.17**	**0.00**	**36.81**	**0.01**	**36.82**	**3.65**	**0.01**	**3.66**		**228.05**		**0.01**		**228.32**

3.4 Helicopter Inspection - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.31	18.61	7.09	0.03		0.64	0.64		0.64	0.64	0.00	3,379.69		0.21		3,384.06
Total	**2.31**	**18.61**	**7.09**	**0.03**		**0.64**	**0.64**		**0.64**	**0.64**	**0.00**	**3,379.69**		**0.21**		**3,384.06**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.14	1.17	0.00	0.30	0.01	0.32	0.00	0.01	0.02		228.05		0.01		228.32
Total	**0.12**	**0.14**	**1.17**	**0.00**	**0.30**	**0.01**	**0.32**	**0.00**	**0.01**	**0.02**		**228.05**		**0.01**		**228.32**

3.5 Equipment Repair or Replacement - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.82	11.30	5.89	0.02		0.45	0.45		0.45	0.45		2,331.34		0.16		2,334.70
Total	**1.82**	**11.30**	**5.89**	**0.02**		**0.45**	**0.45**		**0.45**	**0.45**		**2,331.34**		**0.16**		**2,334.70**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.04	0.36	0.00	11.33	0.00	11.33	1.12	0.00	1.13		70.17		0.00		70.25
Total	**0.04**	**0.04**	**0.36**	**0.00**	**11.33**	**0.00**	**11.33**	**1.12**	**0.00**	**1.13**		**70.17**		**0.00**		**70.25**

3.5 Equipment Repair or Replacement - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.82	11.30	5.89	0.02		0.45	0.45		0.45	0.45	0.00	2,331.34		0.16		2,334.70
Total	**1.82**	**11.30**	**5.89**	**0.02**		**0.45**	**0.45**		**0.45**	**0.45**	**0.00**	**2,331.34**		**0.16**		**2,334.70**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.04	0.36	0.00	0.09	0.00	0.10	0.00	0.00	0.00		70.17		0.00		70.25
Total	**0.04**	**0.04**	**0.36**	**0.00**	**0.09**	**0.00**	**0.10**	**0.00**	**0.00**	**0.00**		**70.17**		**0.00**		**70.25**

3.6 Application of Herbicides - 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.09	0.00	2.83	0.00	2.83	0.28	0.00	0.28		17.54		0.00		17.56
Total	**0.01**	**0.01**	**0.09**	**0.00**	**2.83**	**0.00**	**2.83**	**0.28**	**0.00**	**0.28**		**17.54**		**0.00**		**17.56**

3.6 Application of Herbicides - 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.09	0.00	0.02	0.00	0.02	0.00	0.00	0.00		17.54		0.00		17.56
Total	**0.01**	**0.01**	**0.09**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**		**17.54**		**0.00**		**17.56**

3.7 Insulator Washing - 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.18	0.00	5.66	0.00	5.66	0.56	0.00	0.56		35.09		0.00		35.13
Total	**0.02**	**0.02**	**0.18**	**0.00**	**5.66**	**0.00**	**5.66**	**0.56**	**0.00**	**0.56**		**35.09**		**0.00**		**35.13**

3.7 Insulator Washing - 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.18	0.00	0.05	0.00	0.05	0.00	0.00	0.00		35.09		0.00		35.13
Total	**0.02**	**0.02**	**0.18**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**		**35.09**		**0.00**		**35.13**

3.8 ROW Repair - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.08	0.00	0.08	0.00	0.00	0.00						0.00
Off-Road	1.81	12.52	11.36	0.02		0.78	0.78		0.78	0.78		1,815.72		0.16		1,819.10
Total	**1.81**	**12.52**	**11.36**	**0.02**	**0.08**	**0.78**	**0.86**	**0.00**	**0.78**	**0.78**		**1,815.72**		**0.16**		**1,819.10**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.05	0.45	0.00	14.16	0.00	14.16	1.40	0.00	1.41		87.71		0.00		87.81
Total	**0.04**	**0.05**	**0.45**	**0.00**	**14.16**	**0.00**	**14.16**	**1.40**	**0.00**	**1.41**		**87.71**		**0.00**		**87.81**

3.8 ROW Repair - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.04	0.00	0.04	0.00	0.00	0.00						0.00
Off-Road	1.81	12.52	11.36	0.02		0.78	0.78		0.78	0.78	0.00	1,815.72		0.16		1,819.10
Total	**1.81**	**12.52**	**11.36**	**0.02**	**0.04**	**0.78**	**0.82**	**0.00**	**0.78**	**0.78**	**0.00**	**1,815.72**		**0.16**		**1,819.10**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.05	0.45	0.00	0.12	0.00	0.12	0.00	0.00	0.01		87.71		0.00		87.81
Total	**0.04**	**0.05**	**0.45**	**0.00**	**0.12**	**0.00**	**0.12**	**0.00**	**0.00**	**0.01**		**87.71**		**0.00**		**87.81**

3.9 Tree Trimming - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.16	8.65	3.76	0.01		0.32	0.32		0.32	0.32		1,314.62		0.10		1,316.79
Total	**1.16**	**8.65**	**3.76**	**0.01**		**0.32**	**0.32**		**0.32**	**0.32**		**1,314.62**		**0.10**		**1,316.79**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.18	0.00	5.66	0.00	5.66	0.56	0.00	0.56		35.09		0.00		35.13
Total	**0.02**	**0.02**	**0.18**	**0.00**	**5.66**	**0.00**	**5.66**	**0.56**	**0.00**	**0.56**		**35.09**		**0.00**		**35.13**

3.9 Tree Trimming - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.16	8.65	3.76	0.01		0.32	0.32		0.32	0.32	0.00	1,314.62		0.10		1,316.79
Total	**1.16**	**8.65**	**3.76**	**0.01**		**0.32**	**0.32**		**0.32**	**0.32**	**0.00**	**1,314.62**		**0.10**		**1,316.79**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.18	0.00	0.05	0.00	0.05	0.00	0.00	0.00		35.09		0.00		35.13
Total	**0.02**	**0.02**	**0.18**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**		**35.09**		**0.00**		**35.13**

3.10 Pole Brushing - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.27	0.00	8.49	0.00	8.50	0.84	0.00	0.84		52.63		0.00		52.69
Total	**0.03**	**0.03**	**0.27**	**0.00**	**8.49**	**0.00**	**8.50**	**0.84**	**0.00**	**0.84**		**52.63**		**0.00**		**52.69**

3.10 Pole Brushing - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.27	0.00	0.07	0.00	0.07	0.00	0.00	0.00		52.63		0.00		52.69
Total	**0.03**	**0.03**	**0.27**	**0.00**	**0.07**	**0.00**	**0.07**	**0.00**	**0.00**	**0.00**		**52.63**		**0.00**		**52.69**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
User Defined Industrial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
User Defined Industrial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

CalEEMod - Annual Operations Output

SDG&E Wind Interconnect Operations

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
User Defined Industrial	63	User Defined Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Utility Company**	San Diego Gas & Electric
Climate Zone	13	**Precipitation Freq (Days)**	40		

1.3 User Entered Comments

Project Characteristics -

Land Use - Permanent Land/ROW acreage

Construction Phase - Assumptions based on project description

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for phase)

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for this phase)

Off-road Equipment - Assumptions based on project description

Off-road Equipment - Assumptions based on project description (i.e., water truck for staging area and helicopter modeled as Other General Industrial Equipment with increased HP)

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for phase)

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for this phase)

Off-road Equipment - Assumptions based on project description (i.e., no offroad equipment for this phase)

Off-road Equipment - Assumptions based on project description

Off-road Equipment - Assumptions based on project description (Other Material Handling Equipment used for chipper trailer)

Trips and VMT - Added 10.4 miles to worker triplength to account for commute plus travel along the line

On-road Fugitive Dust - Adjusted to match proportion of paved roads in project description

Grading - ROW repair assumed to disturb 2 acres per year

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.08	0.56	0.35	0.00	0.74	0.03	0.77	0.07	0.03	0.10	0.00	88.91	88.91	0.01	0.00	89.06
Total	**0.08**	**0.56**	**0.35**	**0.00**	**0.74**	**0.03**	**0.77**	**0.07**	**0.03**	**0.10**	**0.00**	**88.91**	**88.91**	**0.01**	**0.00**	**89.06**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.08	0.56	0.35	0.00	0.01	0.03	0.03	0.00	0.03	0.03	0.00	88.91	88.91	0.01	0.00	89.06
Total	**0.08**	**0.56**	**0.35**	**0.00**	**0.01**	**0.03**	**0.03**	**0.00**	**0.03**	**0.03**	**0.00**	**88.91**	**88.91**	**0.01**	**0.00**	**89.06**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Waste						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Waste						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Application of Herbicides - 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.11	0.11	0.00	0.00	0.11
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.11**	**0.11**	**0.00**	**0.00**	**0.11**

3.2 Application of Herbicides - 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.11	0.00	0.00	0.11
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.11**	**0.11**	**0.00**	**0.00**	**0.11**

3.3 Insulator Washing - 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.07	0.00	0.07	0.01	0.00	0.01	0.00	0.42	0.42	0.00	0.00	0.42
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.07**	**0.00**	**0.07**	**0.01**	**0.00**	**0.01**	**0.00**	**0.42**	**0.42**	**0.00**	**0.00**	**0.42**

3.3 Insulator Washing - 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.42	0.00	0.00	0.42
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.42**	**0.42**	**0.00**	**0.00**	**0.42**

3.4 Helicopter Inspection - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.04	0.01	0.00		0.00	0.00		0.00	0.00	0.00	6.13	6.13	0.00	0.00	6.14
Total	**0.00**	**0.04**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**6.13**	**6.13**	**0.00**	**0.00**	**6.14**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.07	0.00	0.07	0.01	0.00	0.01	0.00	0.42	0.42	0.00	0.00	0.42
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.07**	**0.00**	**0.07**	**0.01**	**0.00**	**0.01**	**0.00**	**0.42**	**0.42**	**0.00**	**0.00**	**0.42**

3.4 Helicopter Inspection - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.04	0.01	0.00		0.00	0.00		0.00	0.00	0.00	6.13	6.13	0.00	0.00	6.14
Total	**0.00**	**0.04**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**6.13**	**6.13**	**0.00**	**0.00**	**6.14**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.42	0.00	0.00	0.42
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.42**	**0.42**	**0.00**	**0.00**	**0.42**

3.5 Equipment Repair or Replacement - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.14	0.07	0.00		0.01	0.01		0.01	0.01	0.00	26.43	26.43	0.00	0.00	26.47
Total	**0.02**	**0.14**	**0.07**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**26.43**	**26.43**	**0.00**	**0.00**	**26.47**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.13	0.00	0.13	0.01	0.00	0.01	0.00	0.81	0.81	0.00	0.00	0.81
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.13**	**0.00**	**0.13**	**0.01**	**0.00**	**0.01**	**0.00**	**0.81**	**0.81**	**0.00**	**0.00**	**0.81**

3.5 Equipment Repair or Replacement - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.14	0.07	0.00		0.01	0.01		0.01	0.01	0.00	26.43	26.43	0.00	0.00	26.47
Total	**0.02**	**0.14**	**0.07**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**26.43**	**26.43**	**0.00**	**0.00**	**26.47**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.81	0.00	0.00	0.81
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.81**	**0.81**	**0.00**	**0.00**	**0.81**

3.6 Application of Herbicides - 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.11	0.11	0.00	0.00	0.11
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.11**	**0.11**	**0.00**	**0.00**	**0.11**

3.6 Application of Herbicides - 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.11	0.00	0.00	0.11
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.11**	**0.11**	**0.00**	**0.00**	**0.11**

3.7 Insulator Washing - 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.07	0.00	0.07	0.01	0.00	0.01	0.00	0.42	0.42	0.00	0.00	0.42
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.07**	**0.00**	**0.07**	**0.01**	**0.00**	**0.01**	**0.00**	**0.42**	**0.42**	**0.00**	**0.00**	**0.42**

3.7 Insulator Washing - 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.42	0.00	0.00	0.42
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.42**	**0.42**	**0.00**	**0.00**	**0.42**

3.8 ROW Repair - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.16	0.14	0.00		0.01	0.01		0.01	0.01	0.00	20.58	20.58	0.00	0.00	20.62
Total	**0.02**	**0.16**	**0.14**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**20.58**	**20.58**	**0.00**	**0.00**	**20.62**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.16	0.00	0.16	0.02	0.00	0.02	0.00	1.01	1.01	0.00	0.00	1.01
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.16**	**0.00**	**0.16**	**0.02**	**0.00**	**0.02**	**0.00**	**1.01**	**1.01**	**0.00**	**0.00**	**1.01**

3.8 ROW Repair - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.16	0.14	0.00		0.01	0.01		0.01	0.01	0.00	20.58	20.58	0.00	0.00	20.62
Total	**0.02**	**0.16**	**0.14**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**20.58**	**20.58**	**0.00**	**0.00**	**20.62**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	1.01	0.00	0.00	1.01
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.01**	**1.01**	**0.00**	**0.00**	**1.01**

3.9 Tree Trimming - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.03	0.22	0.10	0.00		0.01	0.01		0.01	0.01	0.00	31.00	31.00	0.00	0.00	31.05
Total	**0.03**	**0.22**	**0.10**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**31.00**	**31.00**	**0.00**	**0.00**	**31.05**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.13	0.00	0.13	0.01	0.00	0.01	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.13**	**0.00**	**0.13**	**0.01**	**0.00**	**0.01**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

3.9 Tree Trimming - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.03	0.22	0.10	0.00		0.01	0.01		0.01	0.01	0.00	31.00	31.00	0.00	0.00	31.05
Total	**0.03**	**0.22**	**0.10**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**31.00**	**31.00**	**0.00**	**0.00**	**31.05**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

3.10 Pole Brushing - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.01	0.00	0.01	0.00	0.63	0.63	0.00	0.00	0.63
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.10**	**0.00**	**0.10**	**0.01**	**0.00**	**0.01**	**0.00**	**0.63**	**0.63**	**0.00**	**0.00**	**0.63**

3.10 Pole Brushing - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63	0.63	0.00	0.00	0.63
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.63**	**0.63**	**0.00**	**0.00**	**0.63**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
User Defined Industrial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
User Defined Industrial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
User Defined Industrial	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
User Defined Industrial	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					0.00	0.00	0.00	0.00
Unmitigated					0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
User Defined Industrial	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
User Defined Industrial	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					0.00	0.00	0.00	0.00
Unmitigated					0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
User Defined Industrial	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
User Defined Industrial	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

9.0 Vegetation

CalEEMod - Model Operations Input

tblProjectCharacteristics

Project Name	Location Scope	EMFAC_ID	Wind Speed	Precipitation Frequency	Climate Zone	Urbanization Level	Operational Year	Utility Company	CO2 Intensity Factor	CH4 Intensity Factor	N2O Intensity Factor	Total Population	Total Lot Acreage	Using Historical Energy UseData
SDG&E Wind Interconnect Operations	AD	SDAPCD	2.6	40	13	Urban	2016	San Diego Gas & Electric	780.79	0.029	0.011	0	63	0

PollutantSelection	PollutantFullName	PollutantName
1	Reactive Organic Gases (ROG)	ROG
1	Nitrogen Oxides (NOx)	NOX
1	Carbon Monoxide (CO)	CO
1	Sulfur Dioxide (SO2)	SO2
1	Particulate Matter 10um (PM10)	PM10
1	Particulate Matter 2.5um (PM2.5)	PM2_5
1	Fugitive PM10um (PM10)	PM10_FUG
1	Fugitive PM2.5um (PM2.5)	PM25_FUG
1	Total Organic Gases (TOG)	TOG
1	Lead (Pb)	PB
1	Biogenic Carbon Dioxide (CO2)	CO2_BIO
1	Non-Biogenic Carbon Dioxide (CO2)	CO2_NBIO
1	Carbon Dioxide (CO2)	CO2
1	Methane (CH4)	CH4
1	Nitrous Oxide (N2O)	N2O
1	CO2 Equivalent GHGs (CO2e)	CO2E

tblLandUse

LandUseType	LandUseSubType	LandUseUnitAmount	LandUseSizeMetric	LotAcreage	LandUseSquareFeet	Population
Industrial	User Defined Industrial	63	User Defined Unit	63	0	0

tblConstructionPhase

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysWeek	NumDays	PhaseDescription
1	Application of Herbicides - 1	Site Preparation	2016/01/01	2016/01/19	5	13	
2	Insulator Washing - 1	Site Preparation	2016/01/01	2016/02/05	5	26	
3	Helicopter Inspection	Site Preparation	2016/01/01	2016/01/06	5	4	
4	Equipment Repair or Replacement	Building Construction	2016/01/01	2016/02/04	5	25	
5	Application of Herbicides - 2	Site Preparation	2016/06/01	2016/06/17	5	13	
6	Insulator Washing - 2	Site Preparation	2016/06/01	2016/07/06	5	26	
7	ROW Repair	Grading	2016/06/01	2016/07/05	5	25	
8	Tree Trimming	Site Preparation	2016/07/27	2016/10/06	5	52	
9	Pole Brushing	Site Preparation	2016/09/01	2016/10/06	5	26	

tblOffRoadEquipment

PhaseName	OffRoadEquipmentType	OffRoadEquipmentUnitAmount	UsageHours	HorsePower	LoadFactor
Application of Herbicides - 1	Rubber Tired Dozers	0	0	358	0.59
Insulator Washing - 1	Tractors/Loaders/Backhoes	0	0	75	0.55
Helicopter Inspection	Off-Highway Trucks	1	4	75	0.55
Helicopter Inspection	Other General Industrial Equipment	1	6	500	0.9
Equipment Repair or Replacement	Aerial Lifts	1	8	34	0.46
Equipment Repair or Replacement	Off-Highway Trucks	1	8	381	0.57
Application of Herbicides - 2	Tractors/Loaders/Backhoes	0	0	75	0.55
Insulator Washing - 2	Tractors/Loaders/Backhoes	0	0	75	0.55
ROW Repair	Graders	1	8	162	0.61
ROW Repair	Tractors/Loaders/Backhoes	2	8	75	0.55
Tree Trimming	Aerial Lifts	1	8	34	0.46
Tree Trimming	Other Material Handling Equipment	1	8	196	0.59
Pole Brushing	Tractors/Loaders/Backhoes	0	0	75	0.55

PhaseName	WorkerTripNumber	VendorTripNumber	HaulingTripNumber	WorkerTripLength	VendorTripLength	HaulingTripLength	WorkerVehicleClass	VendorVehicleClass	HaulingVehicleClass
Application of Herbicides -	1	0	0	21.2	7.3	20	LD_Mix	HDT_Mix	HHDT
Insulator Washing - 1	2	0	0	21.2	7.3	20	LD_Mix	HDT_Mix	HHDT
Helicopter Inspection	13	0	0	21.2	7.3	20	LD_Mix	HDT_Mix	HHDT
Equipment Repair or	4	0	0	21.2	7.3	20	LD_Mix	HDT_Mix	HHDT
Application of Herbicides -	1	0	0	21.2	7.3	20	LD_Mix	HDT_Mix	HHDT
Insulator Washing - 2	2	0	0	21.2	7.3	20	LD_Mix	HDT_Mix	HHDT
ROW Repair	5	0	0	21.2	7.3	20	LD_Mix	HDT_Mix	HHDT
Tree Trimming	2	0	0	21.2	7.3	20	LD_Mix	HDT_Mix	HHDT
Pole Brushing	3	0	0	21.2	7.3	20	LD_Mix	HDT_Mix	HHDT

PhaseName	WorkerPercentPave	VendorPercentPave	HaulingPercentPave	RoadSiltLoading	MaterialSiltContent	MaterialMoistureContent	AverageVehicleWeight	MeanVehicleSpeed
Application of Herbicides - 1	91	100	100	0.1	8.5	0.5	2.4	40
Insulator Washing - 1	91	100	100	0.1	8.5	0.5	2.4	40
Helicopter Inspection	91	100	100	0.1	8.5	0.5	2.4	40
Equipment Repair or Replacement	91	100	100	0.1	8.5	0.5	2.4	40
Application of Herbicides - 2	91	100	100	0.1	8.5	0.5	2.4	40
Insulator Washing - 2	91	100	100	0.1	8.5	0.5	2.4	40
ROW Repair	91	100	100	0.1	8.5	0.5	2.4	40
Tree Trimming	91	100	100	0.1	8.5	0.5	2.4	40
Pole Brushing	91	100	100	0.1	8.5	0.5	2.4	40

tblDemolition

PhaseName	DemolitionSizeMetric	DemolitionUnitAmount

PhaseName	MaterialImported	MaterialExported	GradingSizeMetric	ImportExportPhased	MeanVehicleSpeed	AcresOfGrading	MaterialMoistureContentBulldozing	MaterialMoistureContentTruckLoading	MaterialSiltContent
Application of Herbicides - 1	0	0		0	7.1	0	7.9	12	6.9
ROW Repair	0	0		0	7.1	2	7.9	12	6.9

tblArchitecturalCoating

PhaseName	ArchitecturalCoatingStartDate	ArchitecturalCoatingEndDate	EF_Residential_Interior	ConstArea_Residential_Interior	EF_Residential_Exterior

ConstArea_Residential_Exterior	EF_Nonresidential_Interior	ConstArea_Nonresidential_Interior	EF_Nonresidential_Exterior	ConstArea_Nonresidential_Exterior

ParkingLotAcreage

VehicleTripsLandUseSubType	VehicleTripsLandUseSizeMetric	WD_TR	ST_TR	SU_TR	HW_TL	HS_TL	HO_TL	CC_TL	CW_TL	CNW_TL	PR_TP	DV_TP	PB_TP	HW_TTP	HS_TTP	HO_TTP	CC_TTP	CW_TTP	CNW_TTP
User Defined Industrial	User Defined Unit	0	0	0	0	0	0	7.3	9.5	7.3	0	0	0	0	0	0	0	0	0

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	FleetMix	0.498983	0.089317	0.239285	0.097396	0.019978	0.00557	0.01326	0.018994	0.001138	0.001415	0.00911	0.00114	0.004414
A	CH4_IDLEX	0	0	0	0	0.0014	0.0013	0.0009	0.1	0.0012	0	0	0.03	0
A	CH4_RUNEX	0.01	0.01	0.02	0.03	0.02	0.01	0.01	0.03	0.02	0.04	0.22	0.03	0.03
A	CH4_STREX	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.07	0.04	0.04	0.13	0.03	0.03
A	CO_IDLEX	0	0	0	0	0.2	0.18	0.13	10.2	0.17	0	0	5.22	0
A	CO_RUNEX	1.56	1.78	2.1	2.69	2.62	1.63	2.4	3.47	3.95	4.82	30.79	7.05	5.13
A	CO_STREX	3.98	3.82	4.93	6.03	4.56	3.17	4.81	19.17	11.38	8.29	9.94	6.36	9.58
A	CO2_IDLEX	0	0	0	0	7.8647	8.4051	12.3134	1470.9977	11.0106	0	0	534.4749	0
A	CO2_RUNEX	317.9482	402.019	424.764	584.7321	836.1242	733.1684	1325.7073	1743.1181	1198.2598	2153.7545	161.8305	1361.5957	745.4625
A	CO2_STREX	61.8758	76.2736	81.3688	111.7856	36.6121	29.7702	11.0878	11.8405	19.5702	31.2563	43.4925	16.8585	32.3854
A	NOX_IDLEX	0	0	0	0	0.02	0.05	0.18	27.21	0.12	0	0	8.73	0
A	NOX_RUNEX	0.15	0.18	0.25	0.34	1.04	1.84	4.15	8.23	3.22	13.56	1.14	9.24	1.36
A	NOX_STREX	0.23	0.24	0.46	0.57	1.49	1.2	0.58	2.26	1.6	1.37	0.3	0.43	0.97
A	PM10_IDLEX	0	0	0	0	0.0002	0.0006	0.0022	0.23	0.0016	0	0	0.1	0
A	PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0089	0.004	0.01	0.01
A	PM10_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.17	0.35	0.11	0.23	0.02	0.4	0.01
A	PM10_STREX	0.0072	0.008	0.01	0.01	0.0022	0.0019	0.001	0.0015	0.0023	0.0027	0.01	0.0012	0.0009
A	PM25_IDLEX	0	0	0	0	0.0002	0.0006	0.002	0.21	0.0014	0	0	0.09	0
A	PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0089	0.003	0.0022	0.001	0.003	0.003
A	PM25_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.16	0.32	0.11	0.21	0.02	0.37	0.01
A	PM25_STREX	0.0067	0.0074	0.01	0.01	0.0021	0.0017	0.001	0.0014	0.0021	0.0025	0.0089	0.001	0.0008
A	ROG_DIURN	0.08	0.07	0.09	0.08	0.0019	0.0013	0.0005	0.0006	0.0007	0.0028	0.83	0.0059	1.15
A	ROG_HTSK	0.15	0.16	0.18	0.16	0.04	0.03	0.01	0.01	0.02	0.06	0.35	0.04	0.07
A	ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.21	0.02	0	0	0.72	0
A	ROG_RESTL	0.06	0.07	0.08	0.08	0.0009	0.0006	0.0003	0.0004	0.0004	0.0023	0.52	0.0028	0.53
A	ROG_RUNEX	0.05	0.04	0.05	0.08	0.25	0.19	0.19	0.67	0.26	0.79	3.05	0.6	0.2
A	ROG_RUNLS	0.062002	0.1026	0.124855	0.105162	0.356221	0.227664	0.079149	0.009448	0.153639	0.010545	0.281676	0.028001	0.015491
A	ROG_STREX	0.32	0.26	0.36	0.5	0.39	0.3	0.32	1.28	0.7	0.83	2.12	0.49	0.56
A	SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
A	SO2_RUNEX	0.0037	0.0046	0.0046	0.0063	0.0084	0.0073	0.01	0.01	0.01	0.02	0.0022	0.01	0.0075
A	SO2_STREX	0.0008	0.0009	0.0009	0.0013	0.0004	0.0004	0.0002	0.0004	0.0004	0.0005	0.0006	0.0003	0.0005
A	TOG_DIURN	0.08	0.07	0.09	0.08	0.0019	0.0013	0.0005	0.0006	0.0007	0.0028	0.83	0.0059	1.15
A	TOG_HTSK	0.15	0.16	0.18	0.16	0.04	0.03	0.01	0.01	0.02	0.06	0.35	0.04	0.07
A	TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.52	0.02	0	0	0.79	0
A	TOG_RESTL	0.06	0.07	0.08	0.08	0.0009	0.0006	0.0003	0.0004	0.0004	0.0023	0.52	0.0028	0.53
A	TOG_RUNEX	0.07	0.06	0.07	0.12	0.28	0.22	0.22	0.76	0.3	0.88	3.33	0.67	0.24
A	TOG_RUNLS	0.062002	0.1026	0.124855	0.105162	0.356221	0.227664	0.079149	0.009448	0.153639	0.010545	0.281676	0.028001	0.015491
A	TOG_STREX	0.34	0.28	0.38	0.54	0.42	0.32	0.35	1.37	0.74	0.89	2.28	0.53	0.59
S	FleetMix	0.498983	0.089317	0.239285	0.097396	0.019978	0.00557	0.01326	0.018994	0.001138	0.001415	0.00911	0.00114	0.004414
S	CH4_IDLEX	0	0	0	0	0.0014	0.0013	0.0009	0.09	0.0012	0	0	0.03	0

S	CH4_RUNEX	0.01	0.01	0.02	0.03	0.02	0.01	0.01	0.03	0.02	0.04	0.22	0.03	0.03
S	CH4_STREX	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.06	0.03	0.04	0.11	0.02	0.02
S	CO_IDLEX	0	0	0	0	0.2	0.18	0.13	7.41	0.17	0	0	5.22	0
S	CO_RUNEX	1.74	1.95	2.32	2.95	2.67	1.65	2.42	3.49	4.01	4.82	29.62	6.94	5.25
S	CO_STREX	3.02	2.92	3.75	4.6	3.6	2.52	3.93	15.41	9.2	7.03	8.77	5.49	7.52
S	CO2_IDLEX	0	0	0	0	7.8647	8.4051	12.3134	1554.8273	11.0106	0	0	534.4749	0
S	CO2_RUNEX	339.4773	427.7845	452.4692	622.8399	836.1242	733.1684	1325.7073	1743.1181	1198.2598	2153.7545	161.8305	1361.5957	745.4625
S	CO2_STREX	61.8758	76.2736	81.3688	111.7856	36.6121	29.7702	11.0878	11.8405	19.5702	31.2563	43.4925	16.8585	32.3854
S	NOX_IDLEX	0	0	0	0	0.02	0.05	0.18	28.17	0.12	0	0	8.73	0
S	NOX_RUNEX	0.16	0.18	0.26	0.35	1.08	1.9	4.3	8.5	3.32	14.03	1.16	9.55	1.39
S	NOX_STREX	0.21	0.22	0.42	0.53	1.43	1.15	0.55	2.17	1.53	1.31	0.29	0.41	0.93
S	PM10_IDLEX	0	0	0	0	0.0002	0.0006	0.0022	0.19	0.0016	0	0	0.1	0
S	PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
S	PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0089	0.004	0.01	0.01
S	PM10_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.17	0.35	0.11	0.23	0.02	0.4	0.01
S	PM10_STREX	0.0072	0.008	0.01	0.01	0.0022	0.0019	0.001	0.0015	0.0023	0.0027	0.01	0.0012	0.0009
S	PM25_IDLEX	0	0	0	0	0.0002	0.0006	0.002	0.18	0.0014	0	0	0.09	0
S	PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
S	PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0089	0.003	0.0022	0.001	0.003	0.003
S	PM25_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.16	0.32	0.11	0.21	0.02	0.37	0.01
S	PM25_STREX	0.0067	0.0074	0.01	0.01	0.0021	0.0017	0.001	0.0014	0.0021	0.0025	0.0089	0.001	0.0008
S	ROG_DIURN	0.12	0.12	0.15	0.13	0.0029	0.002	0.0008	0.001	0.0012	0.0042	1.42	0.0093	1.77
S	ROG_HTSK	0.16	0.17	0.19	0.18	0.04	0.03	0.01	0.01	0.02	0.07	0.42	0.04	0.07
S	ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.08	0.02	0	0	0.72	0
S	ROG_RESTL	0.11	0.12	0.14	0.14	0.0015	0.0011	0.0005	0.0007	0.0007	0.0038	1.09	0.0049	0.87
S	ROG_RUNEX	0.06	0.05	0.05	0.09	0.26	0.19	0.19	0.67	0.26	0.79	2.96	0.6	0.21
S	ROG_RUNLS	0.058449	0.095061	0.11523	0.097475	0.343917	0.219236	0.077951	0.009503	0.150634	0.009668	0.257784	0.025365	0.015113
S	ROG_STREX	0.27	0.21	0.3	0.42	0.34	0.26	0.28	1.11	0.61	0.75	1.84	0.43	0.47
S	SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
S	SO2_RUNEX	0.0039	0.0049	0.005	0.0067	0.0084	0.0073	0.01	0.01	0.01	0.02	0.0021	0.01	0.0075
S	SO2_STREX	0.0007	0.0009	0.0009	0.0013	0.0004	0.0003	0.0002	0.0004	0.0004	0.0004	0.0006	0.0003	0.0005
S	TOG_DIURN	0.12	0.12	0.15	0.13	0.0029	0.002	0.0008	0.001	0.0012	0.0042	1.42	0.0093	1.77
S	TOG_HTSK	0.16	0.17	0.19	0.18	0.04	0.03	0.01	0.01	0.02	0.07	0.42	0.04	0.07
S	TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.37	0.02	0	0	0.79	0
S	TOG_RESTL	0.11	0.12	0.14	0.14	0.0015	0.0011	0.0005	0.0007	0.0007	0.0038	1.09	0.0049	0.87
S	TOG_RUNEX	0.08	0.07	0.08	0.12	0.29	0.22	0.22	0.76	0.3	0.89	3.23	0.67	0.25
S	TOG_RUNLS	0.058449	0.095061	0.11523	0.097475	0.343917	0.219236	0.077951	0.009503	0.150634	0.009668	0.257784	0.025365	0.015113
S	TOG_STREX	0.28	0.23	0.32	0.45	0.37	0.28	0.3	1.18	0.65	0.8	1.98	0.46	0.5
W	FleetMix	0.498983	0.089317	0.239285	0.097396	0.019978	0.00557	0.01326	0.018994	0.001138	0.001415	0.00911	0.00114	0.004414
W	CH4_IDLEX	0	0	0	0	0.0014	0.0013	0.0009	0.11	0.0012	0	0	0.03	0
W	CH4_RUNEX	0.01	0.01	0.02	0.03	0.02	0.01	0.01	0.03	0.02	0.04	0.22	0.03	0.03
W	CH4_STREX	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.07	0.03	0.04	0.13	0.03	0.03
W	CO_IDLEX	0	0	0	0	0.2	0.18	0.13	14.09	0.17	0	0	5.22	0

W	CO_RUNEX	1.53	1.75	2.06	2.64	2.62	1.63	2.4	3.47	3.95	4.82	30.96	7.1	5.12
W	CO_STREX	4.02	3.87	4.99	6.1	4.58	3.19	4.77	18.96	11.27	8.31	9.97	6.67	9.46
W	CO2_IDLEX	0	0	0	0	7.8647	8.4051	12.3134	1353.6441	11.0106	0	0	534.4749	0
W	CO2_RUNEX	312.1678	395.1192	417.3528	574.5417	836.1242	733.1684	1325.7073	1743.1181	1198.2598	2153.7545	161.8305	1361.5957	745.4625
W	CO2_STREX	61.8758	76.2736	81.3688	111.7856	36.6121	29.7702	11.0878	11.8405	19.5702	31.2563	43.4925	16.8585	32.3854
W	NOX_IDLEX	0	0	0	0	0.02	0.05	0.18	25.87	0.12	0	0	8.73	0
W	NOX_RUNEX	0.17	0.2	0.29	0.38	1.13	1.98	4.48	8.82	3.51	14.56	1.29	9.91	1.5
W	NOX_STREX	0.23	0.24	0.46	0.58	1.48	1.19	0.58	2.26	1.6	1.38	0.3	0.44	0.97
W	PM10_IDLEX	0	0	0	0	0.0002	0.0006	0.0022	0.28	0.0016	0	0	0.1	0
W	PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
W	PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0089	0.004	0.01	0.01
W	PM10_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.17	0.35	0.11	0.23	0.02	0.4	0.01
W	PM10_STREX	0.0072	0.008	0.01	0.01	0.0022	0.0019	0.001	0.0015	0.0023	0.0027	0.01	0.0012	0.0009
W	PM25_IDLEX	0	0	0	0	0.0002	0.0006	0.002	0.26	0.0014	0	0	0.09	0
W	PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
W	PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0089	0.003	0.0022	0.001	0.003	0.003
W	PM25_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.16	0.32	0.11	0.21	0.02	0.37	0.01
W	PM25_STREX	0.0067	0.0074	0.01	0.01	0.0021	0.0017	0.001	0.0014	0.0021	0.0025	0.0089	0.001	0.0008
W	ROG_DIURN	0.07	0.07	0.08	0.07	0.0024	0.0016	0.0007	0.0007	0.0009	0.0032	0.92	0.0079	1.5
W	ROG_HTSK	0.19	0.19	0.22	0.2	0.05	0.04	0.01	0.02	0.02	0.09	0.57	0.06	0.11
W	ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.4	0.02	0	0	0.72	0
W	ROG_RESTL	0.07	0.08	0.09	0.09	0.0011	0.0008	0.0004	0.0005	0.0005	0.0029	0.62	0.0039	0.7
W	ROG_RUNEX	0.05	0.04	0.05	0.08	0.25	0.19	0.19	0.67	0.26	0.79	3.06	0.6	0.2
W	ROG_RUNLS	0.072161	0.124529	0.152585	0.127446	0.398321	0.255738	0.085449	0.010078	0.166519	0.012971	0.348194	0.034056	0.016555
W	ROG_STREX	0.32	0.26	0.36	0.51	0.39	0.3	0.32	1.27	0.69	0.83	2.12	0.51	0.55
W	SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
W	SO2_RUNEX	0.0036	0.0045	0.0046	0.0062	0.0084	0.0073	0.01	0.01	0.01	0.02	0.0022	0.01	0.0075
W	SO2_STREX	0.0008	0.0009	0.001	0.0013	0.0004	0.0004	0.0002	0.0004	0.0004	0.0005	0.0006	0.0003	0.0005
W	TOG_DIURN	0.07	0.07	0.08	0.07	0.0024	0.0016	0.0007	0.0007	0.0009	0.0032	0.92	0.0079	1.5
W	TOG_HTSK	0.19	0.19	0.22	0.2	0.05	0.04	0.01	0.02	0.02	0.09	0.57	0.06	0.11
W	TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.73	0.02	0	0	0.79	0
W	TOG_RESTL	0.07	0.08	0.09	0.09	0.0011	0.0008	0.0004	0.0005	0.0005	0.0029	0.62	0.0039	0.7
W	TOG_RUNEX	0.07	0.06	0.07	0.11	0.28	0.22	0.22	0.76	0.3	0.88	3.34	0.67	0.24
W	TOG_RUNLS	0.072161	0.124529	0.152585	0.127446	0.398321	0.255738	0.085449	0.010078	0.166519	0.012971	0.348194	0.034056	0.016555
W	TOG_STREX	0.35	0.28	0.39	0.54	0.42	0.32	0.34	1.36	0.74	0.89	2.28	0.55	0.59

tblRoadDust

RoadPercentPave	RoadSiltLoading	MaterialSiltContent	MaterialMoistureContent	MobileAverageVehicleWeight	MeanVehicleSpeed
100	0.1	4.3	0.5	2.4	40

tblWoodstoves

WoodstovesLandUseSubType	NumberConventional	NumberCatalytic	NumberNoncatalytic	NumberPellet	WoodstoveDayYear	WoodstoveWoodMass

FireplacesI	NumberWc	NumberGa	NumberPrc	NumberNo	FireplaceH	FireplaceD	FireplaceWoodMass

ROG_EF
2.14E-05

Area_EF_Residential_Interior	Area_Residential_Interior	Area_EF_Residential_Exterior	Area_Residential_Exterior	Area_EF_Nonresidential_Interior
250	0	250	0	250

Area_Nonresidential_Interior	Area_EF_Nonresidential_Exterior	Area_Nonresidential_Exterior	ReapplicationRatePercent
0	250	0	10

NumberSnowDays	NumberSummerDays
0	180

EnergyUseLandUseSubType	T24E	NT24E	LightingElect	T24NG	NT24NG
User Defined Industrial	0	0	0	0	0

WaterLandUseSubType	WaterLandUseSizeMetric	IndoorWaterUseRate	OutdoorWaterUseRa	ElectricityIntensityFactorToSupp	ElectricityIntensityFactorToTre	ElectricityIntensityFactorToDistrib	ElectricityIntensityFactorForWastewaterTreatr	SepticTankPercen	AerobicPercen	AnaerobicandFacultativeLagoonsPercer	AnaDigestCombDigestGasPercent	AnaDigestCogenCombDigestGasPercent
User Defined Industrial	User Defined Unit	0	0	9727	111	1272	1911	10	84.69	2.14	3.17	0

SolidWasteLandUseSubType	SolidWasteLandUseSizeMetric	SolidWasteGenerationRate	LandfillNoGasCapture	LandfillCaptureGasFlare	LandfillCaptureGasEnergyRecovery
User Defined Industrial	User Defined Unit	0	6	94	0

tblLandUseChange

VegetationLandUseType	VegetationLandUseSubType	AcresBegin	AcresEnd	CO2peracre

tblSequestration

BroadSpeciesClass	NumberOfNewTrees	CO2perTree

tblConstEquipMitigation

ConstMitigationEquipmentType	FuelType	Tier	NumberOfEquipmentMitigated	TotalNumberOfEquipmentMitigated	DPF	OxidationCatalyst
Aerial Lifts	Diesel		0	2		0
Graders	Diesel		0	1		0
Off-Highway Trucks	Diesel		0	2		0
Other General Industrial Equipment	Diesel		0	1		0
Other Material Handling Equipment	Diesel		0	1		0
Rubber Tired Dozers	Diesel		0	0		0
Tractors/Loaders/Backhoes	Diesel		0	2		0

tblConstDustMitigation

SoilStabilizerCheck	SoilStabilizerPM10PercentReduction	SoilStabilizerPM25PercentReduction	ReplaceGroundCoverCheck	ReplaceGroundCoverPM10PercentReduction	ReplaceGroundCoverPM25PercentReduction
0					
			0		

tblConstDustMitigation

WaterExposedAreaCheck	WaterExposedAreaFrequency	WaterExposedAreaPM10PercentReduction	WaterExposedAreaPM25PercentReduction	WaterUnpavedRoadMoistureContentCheck
1	2	55	55	0

WaterUnpavedRoadVehicleSpeedCheck	WaterUnpavedRoadMoistureContent	WaterUnpavedRoadVehicleSpeed	CleanPavedRoadCheck	CleanPavedRoadPercentReduction
1	15	0		

tblLandUseMitigation

ProjectSetting	IncreaseDensityCheck	IncreaseDensityDUPerAcre	IncreaseDensityJobPerAcre	IncreaseDiversityCheck	ImproveWalkabilityDesignCheck

ImproveWalkabilityDesignIntersections	ImproveDestinationAccessibilityCheck	ImproveDestinationAccessibilityDistance	IncreaseTransitAccessibilityCheck

IncreaseTransitAccessibilityDistance	IntegrateBelowMarketRateHousingCheck	IntegrateBelowMarketRateHousingDU	ImprovePedestrianNetworkCheck

ImprovePedestrianNetworkSelection	ProvideTrafficCalmingMeasuresCheck	ProvideTrafficCalmingMeasuresPercentStreet

ProvideTrafficCalmingMeasuresPercentIntersection	ImplementNEVNetworkCheck	LimitParkingSupplyCheck	LimitParkingSupplySpacePercentReduction

UnbundleParkingCostCheck	UnbundleParkingCostCost	OnStreetMarketPricingCheck	OnStreetMarketPricingPricePercentIncrease

ProvideBRTSystemCheck	ProvideBRTSystemPercentBRT	ExpandTransitNetworkCheck	ExpandTransitNetworkTransitCoveragePercentIncrease

IncreaseTransitFrequencyCheck	IncreaseTransitFrequencyImplementationLevel	IncreaseTransitFrequencyHeadwaysPercentReduction

ImplementTripReductionProgramCheck	ImplementTripReductionProgramPercentEmployee	ImplementTripReductionProgramType	TransitSubsidyCheck	TransitSubsidyPercentEmployee
	0			0

TransitSubsidyDailySubsidyAmount	ImplementEmployeeParkingCashOutCheck	ImplementEmployeeParkingCashOutPercentEmployee	WorkplaceParkingChargeCheck	WorkplaceParkingChargePercentEmployee
	0			0

WorkplaceParkingChargeCost	EncourageTelecommutingCheck	EncourageTelecommutingPercentEmployee9_80	EncourageTelecommutingPercentEmployee4_40	EncourageTelecommutingPercentEmployee1_5days
		0		

tblCommuteMitigation

MarketCommuteTripReductionOptionCheck	MarketCommuteTripReductionOptionPercentEmployee	EmployeeVanpoolCheck	EmployeeVanpoolPercentEmployee	EmployeeVanpoolPercentModeShare
0		0		2

ProvideRideSharingProgramCheck	ProvideRideSharingProgramPercentEmployee	ImplementSchoolBusProgramCheck	ImplementSchoolBusProgramPercentFamilyUsing
0		0	

LandscapeLawnmowerCheck	LandscapeLawnmowerPercentElectric	LandscapeLeafblowerCheck	LandscapeLeafblowerPercentElectric
	0		0

LandscapeChainsawCheck	LandscapeChainsawPercentElectric	UseLowVOCPaintResidentialInteriorCheck
0		0

UseLowVOCPaintResidentialInteriorValue	UseLowVOCPaintResidentialExteriorCheck	UseLowVOCPaintResidentialExteriorValue
250	0	250

UseLowVOCPaintNonresidentialInteriorCheck	UseLowVOCPaintNonresidentialInteriorValue	UseLowVOCPaintNonresidentialExteriorCheck
0	250	0

UseLowVOCPaintNonresidentialExteriorValue	HearthOnlyNaturalGasHearthCheck	NoHearthCheck	UseLowVOCCleaningSuppliesCheck
250	0	0	0

ExceedTitle24Check	ExceedTitle24CheckPercentImprovement	InstallHighEfficiencyLightingCheck

tblEnergyMitigation

InstallHighEfficiencyLightingPercentEnergyReduction	OnSiteRenewableEnergyCheck	KwhGeneratedCheck	KwhGenerated

PercentOfElectricityUseGeneratedCheck	PercentOfElectricityUseGenerated

ApplianceType	ApplianceLandUseSubType	PercentImprovement
ClothWasher		30
DishWasher		15
Fan		50
Refrigerator		15

ApplyWaterConservationStrategyCheck	ApplyWaterConservationStrategyPercentReductionIndoor	ApplyWaterConservationStrategyPercentReductionOutdoor	UseReclaimedWaterCheck	PercentOutdoorReclaimedWaterUse	PercentIndoorReclaimedWaterUse	UseGreyWaterCheck
0			0			0

PercentOutdoorGreyWaterUse	PercentIndoorGreyWaterUse	InstallLowFlowBathroomFaucetCheck	PercentReductionInFlowBathroomFaucet	InstallLowFlowKitchenFaucetCheck	PercentReductionInFlowKitchenFaucet	InstallLowFlowToiletCheck
		0	32	0	18	0

PercentReductionInFlowToilet	InstallLowFlowShowerCheck	PercentReductionInFlowShower	TurfReductionCheck	TurfReductionTurfArea	TurfReductionPercentReduction	UseWaterEfficientIrrigationSystemCheck
20	0	20	0			0

UseWaterEfficientIrrigationSystemPercentReduction	WaterEfficientLandscapeCheck	MAWA	ETWU
6.1	0		

InstituteRecyclingAndCompostingServicesCheck	InstituteRecyclingAndCompostingServicesWastePercentReduction

SubModuleID	PhaseName	Season	Remarks
1			
3			Permanent Land/ROW acreage
4			Assumptions based on project description
5	Application of Herbicides - 1		Assumptions based on project description (i.e., no offroad equipment for phase)
5	Application of Herbicides - 2		Assumptions based on project description (i.e., no offroad equipment for this phase)
5	Equipment Repair or Replacement		Assumptions based on project description
5	Helicopter Inspection		Assumptions based on project description (i.e., water truck for staging area and helicopter modeled as Other General Industrial Equipment with increased HP)
5	Insulator Washing - 1		Assumptions based on project description (i.e., no offroad equipment for phase)
5	Insulator Washing - 2		Assumptions based on project description (i.e., no offroad equipment for this phase)
5	Pole Brushing		Assumptions based on project description (i.e., no offroad equipment for this phase)
5	ROW Repair		Assumptions based on project description
5	Tree Trimming		Assumptions based on project description (Other Material Handling Equipment used for chipper trailer)
6			Added 10.4 miles to worker triplength to account for commute plus travel along the line
7			Adjusted to match proportion of paved roads in project description
9			ROW repair assumed to disturb 2 acres per year
25			

Appendix B
Hazardous Waste Site Database Search

ESA

San Diego County Corridor
Pine Valley, CA 91962

Inquiry Number: 3260080.1s
February 16, 2012

EDR DataMap™ Corridor Study

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

PINE VALLEY, CA 91962
PINE VALLEY, CA 91962

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records within the requested search area for the following databases:

FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL LIENS	Federal Superfund Liens
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP	CERCLIS No Further Remedial Action Planned
LIENS 2	CERCLA Lien Information
CORRACTS	Corrective Action Report
RCRA-TSDF	RCRA - Treatment, Storage and Disposal
RCRA-LQG	RCRA - Large Quantity Generators
RCRA-SQG	RCRA - Small Quantity Generators
RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generator
RCRA-NonGen	RCRA - Non Generators
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
ERNS	Emergency Response Notification System
HMIRS	Hazardous Materials Information Reporting System
DOT OPS	Incident and Accident Data
US CDL	Clandestine Drug Labs
US BROWNFIELDS	A Listing of Brownfields Sites
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
LUCIS	Land Use Control Information System
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory
MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems

EXECUTIVE SUMMARY

ICIS ---- Integrated Compliance Information System
PADS ---- PCB Activity Database System
MLTS ---- Material Licensing Tracking System
RADINFO ---- Radiation Information Database
RAATS ---- RCRA Administrative Action Tracking System
SCRD DRYCLEANERS ---- State Coalition for Remediation of Drycleaners Listing
US HIST CDL ---- National Clandestine Laboratory Register
PCB TRANSFORMER ---- PCB Transformer Registration Database
FEDERAL FACILITY ---- Federal Facility Site Information listing
COAL ASH DOE ---- Sleam-Electric Plan Operation Data
FEMA UST ---- Underground Storage Tank Listing
COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List

STATE AND LOCAL RECORDS

HIST Cal-Sites ---- Historical Calsites Database
CA BOND EXP. PLAN ---- Bond Expenditure Plan
SCH ---- School Property Evaluation Program
Toxic Pits ---- Toxic Pits Cleanup Act Sites
WDS ---- Waste Discharge System
WMUDS/SWAT ---- Waste Management Unit Database
NPDES ---- NPDES Permits Listing
Cortese ---- "Cortese" Hazardous Waste & Substances Sites List
SWRCY ---- Recycler Database
CA FID UST ---- Facility Inventory Database
SLIC ---- Statewide SLIC Cases
UST ---- Active UST Facilities
LIENS ---- Environmental Liens Listing
CHMIRS ---- California Hazardous Material Incident Report System
LDS ---- Land Disposal Sites Listing
AST ---- Aboveground Petroleum Storage Tank Facilities
MCS ---- Military Cleanup Sites Listing
Notify 65 ---- Proposition 65 Records
DEED ---- Deed Restriction Listing
VCP ---- Voluntary Cleanup Program Properties
DRYCLEANERS ---- Cleaner Facilities
WIP ---- Well Investigation Program Case List
CDL ---- Clandestine Drug Labs
ENF ---- Enforcement Action Listing
RESPONSE ---- State Response Sites
ENVIROSTOR ---- EnviroStor Database
HAULERS ---- Registered Waste Tire Haulers Listing
HWP ---- EnviroStor Permitted Facilities Listing
MWMP ---- Medical Waste Management Program Listing
PROC ---- Certified Processors Database
HWT ---- Registered Hazardous Waste Transporter Database

TRIBAL RECORDS

INDIAN ODI ---- Report on the Status of Open Dumps on Indian Lands
INDIAN LUST ---- Leaking Underground Storage Tanks on Indian Land
INDIAN UST ---- Underground Storage Tanks on Indian Land
INDIAN VCP ---- Voluntary Cleanup Priority Listing

EDR PROPRIETARY RECORDS

Manufactured Gas Plants ---- EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 08/02/2011 has revealed that there is 1 FINDS site within the searched area.

Site	Address	Map ID	Page
MOUNTAIN TOP MARKET	***39710 OLD HY 80***	***1***	***3***

STATE AND LOCAL RECORDS

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, and dated 11/21/2011 has revealed that there is 1 SWF/LF site within the searched area.

Site	Address	Map ID	Page
CAL TRANS YARD	***40945 OLD 80***	***4***	***11***

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there is 1 HIST CORTESE site within the searched area.

Site	Address	Map ID	Page
CAL TRANS YARD	***40945 OLD 80***	***4***	***11***

EXECUTIVE SUMMARY

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 12/19/2011 has revealed that there are 3 LUST sites within the searched area.

Site	Address	Map ID	Page
MOUNTAIN TOP MARKET	***39710 OLD HY 80***	***1***	***3***
CAL TRANS YARD	***40945 OLD 80***	***4***	***11***
Status: Open - Remediation			
CALTRANS/BOULEVARD	***40945 OLD HY 80***	***4***	***14***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within the searched area.

Site	Address	Map ID	Page
WHITE STAR FOREST FIRE STATION	1920 TIERRA DEL SOL RD	5	15

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within the searched area.

Site	Address	Map ID	Page
CALTRANS DISTRICT 11-BOULEVARD	***40945 OLD HWY 80***	***2***	***8***

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

A review of the HAZNET list, as provided by EDR, and dated 12/31/2010 has revealed that there is 1 HAZNET site within the searched area.

Site	Address	Map ID	Page
CALTRANS DISTRICT 11-BOULEVARD	***40945 OLD HWY 80***	***2***	***8***

EXECUTIVE SUMMARY

EMI: Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies

A review of the EMI list, as provided by EDR, and dated 12/31/2008 has revealed that there is 1 EMI site within the searched area.

Site	Address	Map ID	Page
MOUNTAIN TOP MARKET	***39710 OLD HY 80***	***1***	***3***

TRIBAL RECORDS

INDIAN RESERV: This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

A review of the INDIAN RESERV list, as provided by EDR, and dated 12/31/2005 has revealed that there is 1 INDIAN RESERV site within the searched area.

Site	Address	Map ID	Page
CAMPO INDIAN RESERVATION		0	3

EXECUTIVE SUMMARY

Please refer to the end of the findings report for unmapped orphan sites due to poor or inadequate address information.

MAP FINDINGS SUMMARY

Database	Total Plotted
FEDERAL RECORDS	
NPL	0
Proposed NPL	0
Delisted NPL	0
NPL LIENS	0
CERCLIS	0
CERC-NFRAP	0
LIENS 2	0
CORRACTS	0
RCRA-TSDF	0
RCRA-LQG	0
RCRA-SQG	0
RCRA-CESQG	0
RCRA-NonGen	0
US ENG CONTROLS	0
US INST CONTROL	0
ERNS	0
HMIRS	0
DOT OPS	0
US CDL	0
US BROWNFIELDS	0
DOD	0
FUDS	0
LUCIS	0
CONSENT	0
ROD	0
UMTRA	0
DEBRIS REGION 9	0
ODI	0
MINES	0
TRIS	0
TSCA	0
FTTS	0
HIST FTTS	0
SSTS	0
ICIS	0
PADS	0
MLTS	0
RADINFO	0
FINDS	1
RAATS	0
SCRD DRYCLEANERS	0
US HIST CDL	0
PCB TRANSFORMER	0
FEDERAL FACILITY	0
COAL ASH DOE	0
FEMA UST	0
COAL ASH EPA	0
STATE AND LOCAL RECORDS	
HIST Cal-Sites	0

MAP FINDINGS SUMMARY

Database	Total Plotted
CA BOND EXP. PLAN	0
SCH	0
Toxic Pits	0
SWF/LF	1
WDS	0
WMUDS/SWAT	0
NPDES	0
Cortese	0
HIST CORTESE	1
SWRCY	0
LUST	3
CA FID UST	0
SLIC	0
UST	0
HIST UST	1
LIENS	0
SWEEPS UST	1
CHMIRS	0
LDS	0
AST	0
MCS	0
Notify 65	0
DEED	0
VCP	0
DRYCLEANERS	0
WIP	0
CDL	0
ENF	0
RESPONSE	0
HAZNET	1
EMI	1
ENVIROSTOR	0
HAULERS	0
HWP	0
MWMP	0
PROC	0
HWT	0

TRIBAL RECORDS

INDIAN RESERV	1
INDIAN ODI	0
INDIAN LUST	0
INDIAN UST	0
INDIAN VCP	0

EDR PROPRIETARY RECORDS

Manufactured Gas Plants	0

NOTES:

Sites may be listed in more than one database

IND RES **CAMPO INDIAN RESERVATION** **INDIAN RESERV** **CIND100577**
Region **N/A**

CAMPO INDIAN RESERVATION (County), CA

INDIAN RESERV:
Feature: Indian Reservation
Name: Campo Indian Reservation
Agency: BIA
State: CA

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1 **MOUNTAIN TOP MARKET** **FINDS** **1006826385**
39710 OLD HY 80 **LUST** **N/A**
BOULEVARD, CA 91905 **San Diego Co. HMMD**
EMI
SAN DIEGO CO. SAM

FINDS:

Registry ID: 110013854542

Environmental Interest/Information System
The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY

LUST REG 7:
Region: 7
Status: 8 - Verification Monitoring Underway
Case Num: 7T1905002
Substance: Regular gasoline
ID: 973
Global ID: T0607300002
Lead Agency: Local Agency
Case Worker: Not reported

San Diego Co. HMMD:
Facility ID: 106061
Inactive Indicator: Active
Business Code: 6HK28
SIC: Not reported
Permit Expiration: Not reported
Owner: ABBOTT SHALLAT
2nd Name: Not reported
Mailing Address: 39710 OLD HY 80
Mailing City,St,Zip: BOULEVARD, CA 91905
Map Code/Business Plan on File: Not reported
Corporate Code: Not reported
Fire Dept District: Boulevard
Census Tract Number: 211.0
EPA ID: Not reported
Gas Station: Not reported
Inspection Date: 10/06/99
Reinspection Date: Not reported
Inspector Name: LEGACY
Violation Notice Issued: Not reported
Facility Contact: ABBOTT SHALLAT

MOUNTAIN TOP MARKET (Continued) **1006826385**

Delinquent Flag:	Not Delinquent
Last Update:	08/30/10
Last Delinquent Letter:	Not reported
Delinquent Comment:	Not reported
Last Letter Type:	Not reported
Property Owner:	ABDOU MIKE&NANCY
Property Address:	1449 SUNDALE RD
Property City,St,Zip:	EL CAJON, CA 92019
Tank Owner:	ABBOTT SHALLAT
Tank Address:	1521 HILLSDALE RD
Tank City,St,Zip:	El Cajon, CA 92020
Business Plan Acceptance Date:	Not reported
Reinspection Date Y2K Compatible:	Not reported
Facility Phone:	619-766-4530

HMMD DISCLOSURE INVENTORY:

Item Number:	Not reported
Chemical Name:	Not reported
Case Number:	Not reported
Quantity Stored At One Time:	Not reported
Quantity Stored at One Time:	Not reported
Annual Quantity String:	Not reported
Annual Quantity String:	Not reported
Measurement Units:	Not reported
Carcinogen:	No
1st Hazard Category:	Not reported
2nd Hazard Category:	Not reported

HMMD UNDERGROUND TANKS:

Tank Number:	T001
Tank ID Number:	1
Waste or Product:	550
Tank Contents:	Not reported
Tank Number:	T002
Tank ID Number:	2
Waste or Product:	1000
Tank Contents:	Not reported
Tank Number:	T003
Tank ID Number:	3
Waste or Product:	285
Tank Contents:	Not reported
Tank Number:	T004
Tank ID Number:	4
Waste or Product:	550
Tank Contents:	Not reported
Tank Number:	T005
Tank ID Number:	NT1969
Waste or Product:	1000
Tank Contents:	Not reported
Tank Number:	T006
Tank ID Number:	NT1969
Waste or Product:	1000

MOUNTAIN TOP MARKET (Continued) **1006826385**

Tank Contents: Not reported

Tank Number: T007
Tank ID Number: NT1969
Waste or Product: 1000
Tank Contents: Not reported

HMMD VIOLATIONS:
Inspection Date: 10/06/99
Waste Code: Not reported
Occurrences: Not reported
Item Number: 4874

Inspection Date: 09/30/96
Waste Code: Not reported
Occurrences: Not reported
Item Number: 1102

Inspection Date: 11/12/97
Waste Code: Not reported
Occurrences: Not reported
Item Number: 5650

Inspection Date: 11/12/97
Waste Code: Not reported
Occurrences: Not reported
Item Number: 5651

Inspection Date: 11/12/97
Waste Code: Not reported
Occurrences: Not reported
Item Number: 5652

HMMD WASTE STREAMS:
Inspection Date: Not reported
Waste Item #: Not reported
Waste Code: Not reported
Waste Name: Not reported
Qnty at Inspection: Not reported
Quantity String: Not reported
Annual Qty: Not reported
Annual Qty String: Not reported
Measurement Unit: Not reported
Treatment Method: Not reported
Storage Method: Not reported
Haz Waste Hauler: Not reported
Waste Desc: Not reported
Carcinogen: No

EMI:
Year: 1999
County Code: 37
Air Basin: SD
Facility ID: 5036
Air District Name: SD

MOUNTAIN TOP MARKET (Continued) **1006826385**

SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2000
County Code:	37
Air Basin:	SD
Facility ID:	5036
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
County Code:	37
Air Basin:	SD
Facility ID:	5036
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
County Code:	37
Air Basin:	SD
Facility ID:	5036
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0

MOUNTAIN TOP MARKET (Continued) **1006826385**

Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2003
County Code:	37
Air Basin:	SD
Facility ID:	5036
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
County Code:	37
Air Basin:	SD
Facility ID:	5036
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.1568308
Reactive Organic Gases Tons/Yr:	0.1568308
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2005
County Code:	37
Air Basin:	SD
Facility ID:	5036
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.1568308
Reactive Organic Gases Tons/Yr:	.1568308
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

MOUNTAIN TOP MARKET (Continued) **1006826385**

Year:	2006
County Code:	37
Air Basin:	SD
Facility ID:	5036
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.1568308
Reactive Organic Gases Tons/Yr:	.1568308
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

SAN DIEGO CO. SAM:

Case Number:	H06061-001
Agency:	DEH Site Assessment & Mitigation
Funding:	**LOP - State Fund**
Facility Type:	Soils Only
Facility Status:	Closed Case
Date:	11/6/2008
Date Began:	9/24/1997

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2 **CALTRANS DISTRICT 11-BOULEVARD MAINT STA** **SWEEPS UST** **S104574882**
40945 OLD HWY 80 **HAZNET** **N/A**
BOULEVARD, CA 92006

SWEEPS UST:

Status:	A
Comp Number:	149
Number:	9
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	06-26-92
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	37-000-000149-000001
Actv Date:	Not reported
Capacity:	1000
Tank Use:	M.V. FUEL
Stg:	P
Content:	OTHER
Number Of Tanks:	3

Status:	A
Comp Number:	149
Number:	9
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	06-26-92
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported

CALTRANS DISTRICT 11-BOULEVARD MAINT STA (Continued) **S104574882**

Swrcb Tank Id: 37-000-000149-000002
Actv Date: Not reported
Capacity: 1000
Tank Use: M.V. FUEL
Stg: P
Content: OTHER
Number Of Tanks: Not reported

Status: A
Comp Number: 149
Number: 9
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: 06-26-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 37-000-000149-000003
Actv Date: Not reported
Capacity: 3000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

HAZNET:
Year: 2009
Gepaid: CAD982520017
Contact: CALTRANS, JEFF O'CONNELL
Telephone: 6196883657
Mailing Name: Not reported
Mailing Address: 4050 TAYLOR STREET MS 220
Mailing City,St,Zip: SAN DIEGO, CA 921100000
Gen County: San Diego
TSD EPA ID: UTD981552177
TSD County: 99
Waste Category: Off-specification, aged or surplus organics
Disposal Method: INCINERATION--THERMAL DESTRUCTION OTHER THAN USE AS A FUEL
Tons: 0.02
Facility County: San Diego

Year: 2009
Gepaid: CAD982520017
Contact: CALTRANS, JEFF O'CONNELL
Telephone: 6196883657
Mailing Name: Not reported
Mailing Address: 4050 TAYLOR STREET MS 220
Mailing City,St,Zip: SAN DIEGO, CA 921100000
Gen County: San Diego
TSD EPA ID: CAD980675276
TSD County: Kern
Waste Category: Contaminated soil from site clean-up
Disposal Method: LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons: 0.2
Facility County: San Diego

CALTRANS DISTRICT 11-BOULEVARD MAINT STA (Continued) **S104574882**

Year:	2009
Gepaid:	CAD982520017
Contact:	CALTRANS, JEFF O'CONNELL
Telephone:	6196883657
Mailing Name:	Not reported
Mailing Address:	4050 TAYLOR STREET MS 220
Mailing City,St,Zip:	SAN DIEGO, CA 921100000
Gen County:	San Diego
TSD EPA ID:	CAD980675276
TSD County:	Kern
Waste Category:	Other organic solids
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.075
Facility County:	San Diego

Year:	2008
Gepaid:	CAD982520017
Contact:	CALTRANS, JEFF O'CONNELL
Telephone:	6196883657
Mailing Name:	Not reported
Mailing Address:	4050 TAYLOR STREET MS 220
Mailing City,St,Zip:	SAN DIEGO, CA 921100000
Gen County:	San Diego
TSD EPA ID:	CAD980675276
TSD County:	Kern
Waste Category:	Other organic solids
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.5
Facility County:	San Diego

Year:	2008
Gepaid:	CAD982520017
Contact:	CALTRANS, JEFF O'CONNELL
Telephone:	6196883657
Mailing Name:	Not reported
Mailing Address:	4050 TAYLOR STREET MS 220
Mailing City,St,Zip:	SAN DIEGO, CA 921100000
Gen County:	San Diego
TSD EPA ID:	UTD981552177
TSD County:	99
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	INCINERATION--THERMAL DESTRUCTION OTHER THAN USE AS A FUEL
Tons:	0.1
Facility County:	San Diego

Click this hyperlink while viewing on your computer to access
21 additional CA_HAZNET: record(s) in the EDR Site Report.

3 **WILLIAM LEE** **SAN DIEGO CO. SAM** **S108407336**
40601 OLD HY 80 **N/A**
BOULEVARD, CA 91905

SAN DIEGO CO. SAM:

Case Number:	H23220-001
Agency:	CA Regional Water Quality Control Board
Funding:	**Non Billable**
Facility Type:	Soils Only
Facility Status:	Closed Case
Date:	7/11/2005
Date Began:	5/7/1990

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4 **CAL TRANS YARD** **SWF/LF** **S105022885**
40945 OLD 80 **HIST CORTESE** **N/A**
BOULEVARD, CA 91905 **LUST**

SWF/LF (SWIS):

Region:	STATE
Facility ID:	37-AA-0978
Lat/Long:	32.6632200 / -116.26738
Owner Name:	Caltrans
Owner Telephone:	6196883329
Owner Address:	Terry Kloepfer
Owner Address2:	4050 Taylor St.
Owner City,St,Zip:	San Diego, CA 92110
Operator:	Caltrans Region 1
Operator Phone:	6195963212
Operator Address:	Terry Kloepfer
Operator Address2:	8502 Railroad Ave.
Operator City,St,Zip:	Santee, CA 92071
Operator's Status:	Active
Permit Date:	05/18/2011
Permit Status:	Notification
Permitted Acreage:	1
Activity:	Limited Volume Transfer Operation
Regulation Status:	Notification
Landuse Name:	Not reported
GIS Source:	Map
Category:	Transfer/Processing
Unit Number:	01
Inspection Frequency:	Quarterly
Accepted Waste:	Mixed municipal,Tires,Wood waste
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	Not reported
SWIS Num:	37-AA-0978
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	15
Actual Throughput with Units:	Tons/day
Permitted Capacity with Units:	3725
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Tons/year

SAN DIEGO CO. LF:

Region:	SAN DIEGO
Swisnumber:	37-AA-0978
Owner Name:	CALTRANS

CAL TRANS YARD (Continued) **S105022885**

Operator: CALTRANS
Facility Type: LIMITED VOLUME TRANSFER OPERATIONS/ SEALED CONTAINER TRANSFER OPERATION/ SMALL VOLU
Facility Type2: TRANSFER OPERATION
Facility Status: ACTIVE SITES
PERMTIER: EA NOTIFICATION
Inspection Frequency: QUARTERLY
Operator's Status: ACTIVE

CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 7T1905001

LUST:
Region: STATE
Global Id: T0607300001
Latitude: 32.6640052
Longitude: -116.2646292
Case Type: LUST Cleanup Site
Status: Open - Remediation
Status Date: 11/28/2000
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: CF
Local Agency: SAN DIEGO COUNTY LOP
RB Case Number: 7T1905001
LOC Case Number: H00149-001
File Location: Local Agency
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Benzene, Toluene, Xylene, Diesel, Fuel Oxygenates, Gasoline
Site History: Three underground storage tanks (USTs), which had apparently been in service since 1961, were removed from the CalTrans maintenance yard at 40945 Old Highway 80, in Boulevard, California, on July 19, 1996. The USTs, had stored diesel and included two 1,000-gallon capacity tanks and one 4,000-gallon capacity tank. The County inspector for the removal noted that each of the tanks exhibited heavy corrosion; however, no holes were noted. Discoloration of native formation was observed beneath one of the USTs and in the dispenser area. Odors were noted as emanating from the bottom of the excavation. Analytical results for soil samples collected during the inspection indicated detection of petroleum hydrocarbons at a concentration of 11,000 milligrams per kilogram (mg/kg). DEH opened an unauthorized release case for the site on July 26, 1996. A groundwater monitoring well was installed through the base of the former UST excavation in July 1997. Groundwater was encountered at a depth approximately 27 feet below ground surface (bgs). Information as to whether groundwater beneath the site had been impacted was necessary to assess a potential threat to an off-site drinking water supply well located approximately 200 feet to the northwest. Subsequent groundwater sampling indicated that groundwater was impacted beneath the former UST excavation, primarily by gasoline, diesel, benzene and methyl-tert-butyl ether (MTBE). However, the off-site drinking water supply well was not impacted. Additional site investigation activities were performed in January 1999, September 2000, August 2001, and April 2004. Nineteen borings were drilled and sampled and eight groundwater monitoring wells were installed. The maximum depth

CAL TRANS YARD (Continued) **S105022885**

of investigation was approximately 45 feet bgs. Boring logs indicate sandy fill material underlies the site, which is underlain by weathered granitic rock. Quarterly groundwater monitoring and sampling of the monitoring wells and the off-site drinking water well has been performed through December 2009. A Corrective Action Plan (CAP) was submitted to DEH in July 2005 that recommended using soil vapor extraction with air sparging to remediate impacted soil and groundwater beneath the site. Subsequent to the CAP submittal, water level elevations increased beneath the site. A CAP Addendum was submitted in November 2006. Final approval of the CAP/CAP Addendum was issued in March 2007. Construction of the site remediation system is currently underway.

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0607300001
Contact Type:	Local Agency Caseworker
Contact Name:	CAROL FENNER
Organization Name:	SAN DIEGO COUNTY LOP
Address:	P.O. Box 129261
City:	San Diego
Email:	carol.fenner@sdcounty.ca.gov
Phone Number:	Not reported

Global Id:	T0607300001
Contact Type:	Regional Board Caseworker
Contact Name:	KAI DUNN
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73-720 FRED WARING DR. STE 100
City:	PALM DESERT
Email:	kdunn@waterboards.ca.gov
Phone Number:	Not reported

LUST:

Global Id:	T0607300001
Action Type:	RESPONSE
Date:	06/30/2010
Action:	Remedial Progress Report

Global Id:	T0607300001
Action Type:	Other
Date:	01/01/1950
Action:	Leak Began

Global Id:	T0607300001
Action Type:	RESPONSE
Date:	07/30/2011
Action:	Monitoring Report - Quarterly

Global Id:	T0607300001
Action Type:	RESPONSE
Date:	09/30/2011
Action:	Monitoring Report - Quarterly

Global Id:	T0607300001
Action Type:	ENFORCEMENT

CAL TRANS YARD (Continued) **S105022885**

Date: 07/31/1996
Action: Notice of Responsibility

Global Id: T0607300001
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0607300001
Action Type: ENFORCEMENT
Date: 07/23/2009
Action: Letter - Notice

Global Id: T0607300001
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0607300001
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

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4 **CALTRANS/BOULEVARD** **LUST** **S106152866**
40945 OLD HY 80 **SAN DIEGO CO. SAM** **N/A**
BOULEVARD, CA 91905

LUST REG 7:
Region: 7
Status: 3B - Preliminary Site Assessment Underway
Case Num: 7T1905001
Substance: 1203112034
ID: 578
Global ID: T0607300001
Lead Agency: Local Agency
Case Worker: Not reported

SAN DIEGO CO. SAM:
Case Number: H00149-001
Agency: DEH Site Assessment & Mitigation
Funding: **LOP - State Fund**
Facility Type: Drinking Water Aquifer Impacted
Facility Status: Remedial Investigation
Date: 11/28/2000
Date Began: 7/19/1996

5 **WHITE STAR FOREST FIRE STATION** **HIST UST** **U001570947**
1920 TIERRA DEL SOL RD **N/A**
BOULEVARD, CA 92005

HIST UST:

Region:	STATE
Facility ID:	00000019871
Facility Type:	Other
Other Type:	STATE GOVERNMENT
Total Tanks:	0001
Contact Name:	HAROLD CAMPBELL
Telephone:	6197664533
Owner Name:	CALIFORNIA DEPARTMENT OF FORES
Owner Address:	1416 NINTH STREET
Owner City,St,Zip:	SACRAMENTO, CA 95814
Tank Num:	001
Container Num:	6300-T01
Year Installed:	1968
Tank Capacity:	00000550
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Tank Construction:	Not reported
Leak Detection:	Stock Inventor

Count: 49 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BOULEVARD	S108754472	SAN DIEGO COUNTY - DEPARTMENT OF PLANNING & LAND USE	APN	91905	HAZNET
BOULEVARD	1014387855	SAN DIEGO GAS AND ELECTRIC	2750 MCCAIN BLVD	91905	RCRA-SQG
BOULEVARD	1014672314	SAN DIEGO GAS AND ELECTRIC	2750 MCCAIN BLVD	91905	FINDS
BOULEVARD	S106059613	CALTRANS/BOULEVARD	40945 OLD	91905	AST, San Diego Co. HMMD
BOULEVARD	S105022884	MOUNTAIN TOP MARKET	39710 OLD 80	91905	HIST CORTESE, LUST
CAMPO	1004676115	CALIFORNIA DEPT OF TRANS	RTE 94 KP 62 TO KP 105	91906	RCRA-SQG, FINDS
CAMPO	S106930355	PACIFIC BELL CAMPCA11/DD106	HWY 94 / JCT CAM COR	91906	SWEEPS UST
CAMPO	1009393233	CAMPO SERVICE STATION	I-8 AT LIVE OAK SPRINGS EXIT	91906	INDIAN UST
CAMPO	S105082683	COUNTY OF SAN DIEGO PUBLIC WORKS	31035 FORREST RD	91906	HAZNET
JACUMBA	S106927673	JACUMBA HOTEL APN#660-110-4	HIGHWAY 80	91934	SWEEPS UST
JACUMBA	S108203894	COUNTY OF SAN DIEGO, LANDFILL MNGT GROUP	APN 6610700100	91934	HAZNET
JACUMBA	S102532319	RODGERS AUTO REPAIR	44490 OLD HY 80	91934	HIST CORTESE, LUST
JACUMBA	S106929924	NOLTA APN#660-040-11	44535 OLD HWY 80	91934	SWEEPS UST
JACUMBA	S109599090	JACUMBA I & II	1000 OLD HY 80	91934	SLIC, SAN DIEGO CO. SAM
JACUMBA	S106925590	E HAEGELE-APN#660-110-7	OLD HWY 80 / RAILROA	91934	SWEEPS UST
JACUMBA	S106930362	PACIFIC BELL JCMBCA11/DD127	OLD HIGHWAY 80	91934	SWEEPS UST
PINE VALLEY	S103442747	PINE VALLEY DISPOSAL SITE	EAST END ROCKY PASS RD		WMUDS/SWAT
PINE VALLEY	1014671937	15288 SAN DIEGO COUNTY SITE ASSESSMENT AND MITIGATION	28880 OLD HWY 80	91962	FINDS
PINE VALLEY	S106928441	LA POSTA GAS STATION	32300-32377 OLD HWY	91962	SWEEPS UST
PINE VALLEY	S110770320	PINE VALLEY BURN SITE	41019 ROCKY PASS	91962	SLIC
PINE VALLEY	S105155615	PINE VALLEY BURNSITE	ROCKY PASS & RUA ALTA VISTA WAY	91962	SWF/LF
SAN DIEGO COUNTY	2008886355	32ND STREET SAN DIEGO	32ND STREET SAN DIEGO		ERNS
SAN DIEGO COUNTY	2011976816	32ND STREET NAVAL BASE SAN DIEGO	32ND STREET NAVAL BASE SAN DIEGO		ERNS
SAN DIEGO COUNTY	1009631442	SAN DIEGO GAS & ELECTRIC CO	CAMPO ROAD (HWY94) WEST OF JAMACHA BLVD		DOT OPS
SAN DIEGO COUNTY	2011975922	22 MILES OFFSHORE OF NORTH SAN DIEGO COUNTY SEE LAT/LONG	22 MILES OFFSHORE OF NORTH SAN DIEGO COUNTY SEE LAT/LONG		ERNS
SAN DIEGO COUNTY	M300003187	SUPERIOR READY MIX CONCRETE CO.	MISSION GORGE PLANT		MINES
SAN DIEGO COUNTY	M300003190	VULCAN MATERIALS CO.	MISSION VALLEY (#022)		MINES
SAN DIEGO COUNTY	2009909622	NAVAL STATION SAN DIEGO	NAVAL STATION SAN DIEGO		ERNS
SAN DIEGO COUNTY	2008909622	NAVAL STATION SAN DIEGO	NAVAL STATION SAN DIEGO		ERNS
SAN DIEGO COUNTY	2011976190	NAVAL BASE SAN DIEGO PIER SEVEN. NONE	NAVAL BASE SAN DIEGO PIER SEVEN. NONE		ERNS
SAN DIEGO COUNTY	2011981583	NAVAL BASE SAN DIEGO, PIER 10 BERTH 1 3455 SENN ROAD	NAVAL BASE SAN DIEGO, PIER 10 BERTH 1 3455 SENN ROAD		ERNS
SAN DIEGO COUNTY	2010959516	NAVY BASE SAN DIEGO PIER 2	NAVY BASE SAN DIEGO PIER 2		ERNS
SAN DIEGO COUNTY	2011973948	NAVY BASE PIER 2 PIER 02 NAVAL BASE SAN DIEGO	NAVY BASE PIER 2 PIER 02 NAVAL BASE SAN DIEGO		ERNS
SAN DIEGO COUNTY	2011979425	NAVY STATION, SAN DIEGO HARBOR, QUAY WALL #7 NORTH	NAVY STATION, SAN DIEGO HARBOR, QUAY WALL #7 NORTH		ERNS
SAN DIEGO COUNTY	2011978124	NEAR QUAIL LOFT 4, NEAR PIER 3 AND 4 NAVAL STATION SAN DIEGO	NEAR QUAIL LOFT 4, NEAR PIER 3 AND 4 NAVAL STATION SAN DIEGO		ERNS
SAN DIEGO COUNTY	2010955150	PACIFIC OCEAN OFF OF SAN CLEMENTE ISLAND	PACIFIC OCEAN OFF OF SAN CLEMENTE ISLAND		ERNS

Count: 49 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
SAN DIEGO COUNTY	2009901809	SAN DIEGO HARBOR	SAN DIEGO HARBOR		ERNS
SAN DIEGO COUNTY	2008901809	SAN DIEGO HARBOR	SAN DIEGO HARBOR		ERNS
SAN DIEGO COUNTY	2008888916	SAN DIEGO BAY	SAN DIEGO BAY		ERNS
SAN DIEGO COUNTY	2006810771	SAN DIEGO BAY	SAN DIEGO BAY		ERNS
SAN DIEGO COUNTY	S100633948	SAN DIEGO COUNTY/EMERG RESPONSE ONLY	SAN DIEGO COUNTY	00000	HAZNET
SAN DIEGO COUNTY	2011974160	SAN DIEGO BAY, SAN DIEGO NAVAL STATION PIER 4	SAN DIEGO BAY, SAN DIEGO NAVAL STATION PIER 4		ERNS
SAN DIEGO COUNTY	2011973863	SAN DIEGO BAY NAVAL STATION 32 STREET PIER 8	SAN DIEGO BAY NAVAL STATION 32 STREET PIER 8		ERNS
SAN DIEGO COUNTY	2011979080	SAN DIEGO NAVAL BASE QUAY WALL BETWEEN PIER 6 AND 7 32ND ST	SAN DIEGO NAVAL BASE QUAY WALL BETWEEN PIER 6 AND 7 32ND ST		ERNS
SAN DIEGO COUNTY	2011973684	SAN DIEGO BAY 550 MARINA PARKWAY	SAN DIEGO BAY 550 MARINA PARKWAY		ERNS
SAN DIEGO COUNTY	2011976208	UNKNOWN SHEEN INCIDENT 1450 HARBOR ISLAND DRIVE A DOCK SAN D	UNKNOWN SHEEN INCIDENT 1450 HARBOR ISLAND DRIVE A DOCK SAN D		ERNS
SAN DIEGO COUNTY	2011973066	UNKNOWN SHEEN INCIDENT US NAVSTA SAN DIEG(	UNKNOWN SHEEN INCIDENT US NAVSTA SAN DIEGO		ERNS
SAN DIEGO COUNTY	2011981227	UNKNOWN SHEEN NEAR SAN CLEMENTE ISLAND	UNKNOWN SHEEN NEAR SAN CLEMENTE ISLAND		ERNS
SAN DIEGO COUNTY	2011979520	UNKNOWN SHEEN INCIDENT 1995 BAYFRONT ST SAN DIEGO BAY PIER 4	UNKNOWN SHEEN INCIDENT 1995 BAYFRONT ST SAN DIEGO BAY PIER 4		ERNS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 01/11/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 01/11/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 01/10/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 11/29/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 11/29/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 09/09/2011
Date Data Arrived at EDR: 09/16/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 08/19/2011
Date Data Arrived at EDR: 08/31/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 132

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/13/2012
Next Scheduled EDR Contact: 05/28/2012
Data Release Frequency: Quarterly

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Quarterly

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Varies

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/30/2011
Date Data Arrived at EDR: 12/30/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/30/2011
Date Data Arrived at EDR: 12/30/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 10/03/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 01/18/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 10/04/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 01/03/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Annually

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/29/2011
Date Data Arrived at EDR: 08/09/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 94

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/07/2012
Next Scheduled EDR Contact: 05/21/2012
Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 10/07/2011
Date Data Arrived at EDR: 12/09/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 32

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 12/05/2011
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: Quarterly

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/27/2011
Date Data Arrived at EDR: 06/27/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/27/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: Semi-Annually

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 08/12/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 112

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/01/2011
Date Data Arrived at EDR: 11/18/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 53

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/27/2011
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 09/28/2011
Date Data Arrived at EDR: 12/14/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 27

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/14/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/21/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 99

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/29/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 12/21/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 09/08/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 21

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 12/07/2011
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 09/01/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 131

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 12/02/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/27/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 11/28/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 11/28/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011
Date Data Arrived at EDR: 11/10/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 12/21/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2010
Date Data Arrived at EDR: 11/10/2010
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 98

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/21/2011
Date Data Arrived at EDR: 07/15/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 60

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 12/12/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/11/2011
Date Data Arrived at EDR: 01/13/2011
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/12/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/02/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 119

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 12/13/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/30/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Biennially

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 12/10/2010
Date Data Arrived at EDR: 01/11/2011
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/13/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 02/03/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/18/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/16/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/08/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing
The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54
Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/06/2012
Next Scheduled EDR Contact: 05/07/2012
Data Release Frequency: Varies

STATE AND LOCAL RECORDS

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 12/13/2011
Date Data Arrived at EDR: 12/14/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 36

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/07/2012
Next Scheduled EDR Contact: 05/21/2012
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/21/2011
Date Data Arrived at EDR: 11/22/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 21

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 02/13/2012
Next Scheduled EDR Contact: 05/28/2012
Data Release Frequency: No Update Planned

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/21/2011
Date Data Arrived at EDR: 11/22/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/28/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 01/03/2012
Date Data Arrived at EDR: 01/03/2012
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 16

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 01/03/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/12/2011
Date Data Arrived at EDR: 12/19/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 31

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/19/2011
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Quarterly

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 12/19/2011
Date Data Arrived at EDR: 12/19/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 12/19/2011
Date Data Arrived at EDR: 12/19/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/19/2011
Date Data Arrived at EDR: 12/19/2011
Date Made Active in Reports: 01/17/2012
Number of Days to Update: 29

Source: SWRCB
Telephone: 916-480-1028
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Semi-Annually

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 12/05/2012
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 12/16/2011
Date Data Arrived at EDR: 12/16/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 34

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 05/03/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 43

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 12/19/2011
Date Data Arrived at EDR: 12/19/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 31

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Quarterly

AST: Aboveground Petroleum Storage Tank Facilities

Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 01/23/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 12/19/2011
Date Data Arrived at EDR: 12/19/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/20/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: No Update Planned

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/12/2011
Date Data Arrived at EDR: 12/13/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 37

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/13/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Semi-Annually

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 12/13/2011
Date Data Arrived at EDR: 12/14/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 36

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/07/2012
Next Scheduled EDR Contact: 05/21/2012
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/28/2011
Date Data Arrived at EDR: 07/21/2011
Date Made Active in Reports: 08/11/2011
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 12/21/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 01/23/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 08/15/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 41

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 08/11/2011
Date Made Active in Reports: 09/09/2011
Number of Days to Update: 29

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 02/07/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Varies

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 12/13/2011
Date Data Arrived at EDR: 12/14/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 36

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/07/2012
Next Scheduled EDR Contact: 05/21/2012
Data Release Frequency: Quarterly

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 07/19/2011
Date Made Active in Reports: 08/16/2011
Number of Days to Update: 28

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 10/18/2010
Number of Days to Update: 19

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/30/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: Varies

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 09/14/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 12/27/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 12/13/2011
Date Data Arrived at EDR: 12/14/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 36

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/07/2012
Next Scheduled EDR Contact: 05/21/2012
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/09/2010
Date Data Arrived at EDR: 08/11/2010
Date Made Active in Reports: 08/20/2010
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/02/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/20/2011
Date Data Arrived at EDR: 10/21/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 18

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/18/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 12/07/2011
Date Data Arrived at EDR: 12/15/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 35

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/12/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/12/2011
Date Data Arrived at EDR: 12/19/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 31

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/19/2011
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Quarterly

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Semi-Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 02/06/2012
Next Scheduled EDR Contact: 05/21/2012
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 11/01/2011
Date Data Arrived at EDR: 11/21/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 50

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2011
Date Data Arrived at EDR: 11/01/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 10

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 02/03/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/07/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/02/2011
Date Data Arrived at EDR: 11/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 7

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 12/14/2011
Date Data Arrived at EDR: 12/15/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 26

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Semi-Annually

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 25
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/02/2011
Date Data Arrived at EDR: 11/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 7
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 11/28/2011
Date Data Arrived at EDR: 11/29/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 42
Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 25
Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/01/2011
Date Data Arrived at EDR: 11/21/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 50
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34
Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 07/01/2011
Date Data Arrived at EDR: 08/26/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 18

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 12/14/2011
Date Data Arrived at EDR: 12/15/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 26

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2011
Date Data Arrived at EDR: 11/01/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 10

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 02/03/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 08/04/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 01/06/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 10/10/2011
Date Data Arrived at EDR: 10/11/2011
Date Made Active in Reports: 11/09/2011
Number of Days to Update: 29

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/30/2011
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/10/2011
Date Data Arrived at EDR: 10/11/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 34

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/30/2011
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/28/2011
Date Data Arrived at EDR: 11/29/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 14

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 02/07/2012
Next Scheduled EDR Contact: 05/21/2012
Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/13/2012
Next Scheduled EDR Contact: 05/28/2012
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/20/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/29/2011
Date Data Arrived at EDR: 12/15/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 35

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/24/2011
Date Data Arrived at EDR: 10/25/2011
Date Made Active in Reports: 11/22/2011
Number of Days to Update: 28

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/24/2012
Next Scheduled EDR Contact: 05/07/2012
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 11/17/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/09/2011
Date Data Arrived at EDR: 02/09/2011
Date Made Active in Reports: 03/04/2011
Number of Days to Update: 23

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/23/2012
Next Scheduled EDR Contact: 05/07/2012
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 02/03/2011
Date Data Arrived at EDR: 02/08/2011
Date Made Active in Reports: 03/03/2011
Number of Days to Update: 23

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/23/2012
Next Scheduled EDR Contact: 04/06/2012
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 02/01/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/17/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 26

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/16/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 10/17/2011
Date Data Arrived at EDR: 10/25/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 20

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/09/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 12/05/2011
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 12/05/2012
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: No Update Planned

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/01/2011
Date Data Arrived at EDR: 11/17/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 26

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/13/2012
Next Scheduled EDR Contact: 05/28/2012
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/02/2011
Date Data Arrived at EDR: 11/18/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 25

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/13/2012
Next Scheduled EDR Contact: 05/28/2012
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/02/2011
Date Data Arrived at EDR: 11/18/2011
Date Made Active in Reports: 12/14/2011
Number of Days to Update: 26
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/13/2012
Next Scheduled EDR Contact: 05/28/2012
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/12/2011
Date Data Arrived at EDR: 12/13/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 37
Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/20/2011
Date Data Arrived at EDR: 10/21/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 18
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/21/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/20/2011
Date Data Arrived at EDR: 10/21/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 24
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/21/2011
Next Scheduled EDR Contact: 04/26/2012
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/02/2011
Date Data Arrived at EDR: 10/12/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 27
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/13/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/02/2011
Date Data Arrived at EDR: 10/14/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 25
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/13/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/30/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 12/16/2011
Number of Days to Update: 15

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/13/2012
Next Scheduled EDR Contact: 05/28/2012
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/09/2010
Date Data Arrived at EDR: 09/15/2010
Date Made Active in Reports: 09/29/2010
Number of Days to Update: 14

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 12/16/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2011
Date Data Arrived at EDR: 11/04/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 39

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 12/12/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/13/2012
Next Scheduled EDR Contact: 05/28/2012
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/13/2012
Next Scheduled EDR Contact: 05/28/2012
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 09/27/2011
Date Data Arrived at EDR: 09/28/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 21
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 01/09/2012
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 10/17/2011
Date Data Arrived at EDR: 11/29/2011
Date Made Active in Reports: 12/05/2011
Number of Days to Update: 6
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/14/2011
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/15/2011
Date Data Arrived at EDR: 12/15/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 35
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/14/2011
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/09/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 41
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 12/05/2011
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 12/13/2011
Date Data Arrived at EDR: 12/14/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 36
Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/13/2012
Next Scheduled EDR Contact: 05/28/2012
Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 12/19/2011
Date Data Arrived at EDR: 01/06/2012
Date Made Active in Reports: 01/27/2012
Number of Days to Update: 21
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 01/03/2012
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/20/2011
Date Data Arrived at EDR: 09/28/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 21
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 01/03/2012
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/05/2011
Date Data Arrived at EDR: 04/06/2011
Date Made Active in Reports: 05/12/2011
Number of Days to Update: 36
Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/27/2011
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 12/12/2011
Date Data Arrived at EDR: 12/13/2011
Date Made Active in Reports: 01/17/2012
Number of Days to Update: 35
Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 10/27/2011
Date Data Arrived at EDR: 11/23/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 20

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/17/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/09/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/17/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 10/27/2011
Date Data Arrived at EDR: 11/07/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 36

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/19/2011
Date Made Active in Reports: 01/17/2012
Number of Days to Update: 29

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/19/2011
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 12/28/2011
Date Data Arrived at EDR: 01/06/2012
Date Made Active in Reports: 01/17/2012
Number of Days to Update: 11

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 12/21/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/21/2011
Date Data Arrived at EDR: 11/22/2011
Date Made Active in Reports: 12/22/2011
Number of Days to Update: 30

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 07/20/2011
Date Made Active in Reports: 08/11/2011
Number of Days to Update: 22

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 11/01/2011
Date Data Arrived at EDR: 11/08/2011
Date Made Active in Reports: 12/22/2011
Number of Days to Update: 44

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/09/2012
Next Scheduled EDR Contact: 05/21/2012
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/23/2012
Next Scheduled EDR Contact: 05/07/2012
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 06/24/2011
Date Made Active in Reports: 06/30/2011
Number of Days to Update: 6

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/28/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/15/2011
Number of Days to Update: 27

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/19/2011
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

EDR DataMap® Corridor Study

San Diego County Corridor

- Listed Sites
- Earthquake Epicenters (Richter 5 or greater)
- Search Boundary
- Roads
- Major Roads
- Waterways
- Railroads
- Contour Lines
- Pipelines
- Powerlines
- Fault Lines
- Water
- Superfund Sites
- Federal DOD Sites
- Indian Reservations BIA
- National Wetland Inventory

Pine Valley, CA

0 1/2 1

Scale in Miles

EDR® Environmental Data Resources, Inc