AGENDA

Airport Land Use Commission Meeting at 6:00 p.m., February 20, 2008, in the Board of Supervisors Chambers, 940 Main Street, El Centro, California

COMMISSIONERS: Larry Allen (Chairman), Bob Douthitt (Vice-Chairman), Jeffery Enz, Charles Baker, Lt. Matt Howard and Robert Weigele

1.	6:00 PM	Roll Call.
2.		Approval of the Minutes of January 16, 2008.
3.	6:15 PM	Public Hearing to consider if the proposed Sunrise Power Link Transmission Line, proposed by the San Diego Gas & Electric Company as part of their proposed expansion of their existing transmission lines in Imperial County to service renewable energy resources, exceeding the existing height limits in various County zones for a 500-kV transmission line up to approximately 160-feet, is consistent with the 1996 Airport Land Use Compatibility Plan (ALUC 02-08).
4.	6:30 PM	Public Hearing to consider the City of Imperial's, General Plan Amendment, Amended Tentative Tract Map, and Planned Unit Development for Units 3 and Unit 4 for the Monterrey Park Subdivision project by Westshore Development, a net increase of 187 dwelling units from the originally approved 296 single family dwellings for Unit 3 and Unit 4 combined (the Planned Unit Development would result in 141 Single Family Town Homes, 184 Alley Townhomes, and 158 Cluster Condo Homes for a total of 483 units), with a portion of the project within the "B-1 (Approach/Departure) Zone" and the southern portion of the project within the "C (Common Traffic Pattern) Zone" of the Airport Land Use Compatibility Plan, Figure 3E, for the County Airport, is consistent with the 1996 Airport Land Use Compatibility Plan (ALUC 03-08).
5.	6:45 PM	Non-Action Items.
6.	7:00 PM	Adjournment

IMPERIAL COUNTY
PLANNING & DEVELOPMENT SERVICES
PLANNING / BUILDING INSPECTION / ECONOMIC DEVELOPMENT / PLANNING COMMISSION / A.L.U.C.

JURG HEUBERGER AICP, CEP, CBO
PLANNING & DEVELOPMENT SERVICES DIRECTOR

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TO: Commissioner Larry Allen, Chairman
Commissioner Bob Douthitt, Vice-Chairman
Commissioner Jeffery Enz
Commissioner Charles Baker
Commissioner Lt. Matt Howard
Commissioner Robert Weigele

FROM: Jurg Heuberger, AICP, CEP, Secretary
Airport Land Use Commission

SUBJECT: Public Hearing to Consider the Proposed Variance for the Sunrise Power Link (SRPL) to Determine Consistency with the 1996 Airport Land Use Compatibility Plan (ALUC 02-08)

DATE OF REPORT: January 2008

AGENDA ITEM NO: 3

HEARING DATE: February 20, 2008

HEARING TIME: 6:00 p.m.

HEARING LOCATION: County Administrative Center
Board of Supervisors Chambers
940 Main Street
El Centro, CA 92243

COMMISSION'S OPTIONS

1) Review the proposed Variance for the San Diego Gas & Electric Company, Sunrise Power Link, 500-kV Transmission Line project and find it consistent with the 1996 Airport Land Use Compatibility Plan; or,

2) Review the proposed Variance for the San Diego Gas & Electric Company, Sunrise Power Link, 500-kV Transmission Line project and find it inconsistent with the 1996 Airport Land Use Compatibility Plan.

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(AN EQUAL OPPORTUNITY EMPLOYER)

SECRETARY'S REPORT

Project Description:

The County Planning & Development Services Department has received on January 4, 2008, the proposed Draft Environmental Impact Report/Environmental Impact Statement (Draft EIR/EIS) from the San Diego Gas & Electric Company (SDG&E) that includes a proposed "Variance" for the construction and maintenance of a 500-kV Transmission Line, from the I.V. Substation into San Diego County for the Airport Land Use Commission's review. (See attached page A-24 of the Draft EIR/EIS for further land use "Permit or Regulatory Requirement" prior to construction of the SRPL).

The proposed project is for a new approximately 60-mile transmission line called the "Imperial Valley Link...primarily on private (28.4 miles) and BLM land (31.4 miles). The land uses along the Imperial Valley Link includes agriculture (13.5 miles), open space and recreation (46.2 miles) and undeveloped private property..." The proposal would require the construction of a total of 205 new 500-kV towers with an average height of 160-feet. Also, a new 200-foot right-of-way would be required, the construction of 49.4 miles of new access roads, and an update to the existing Imperial Valley Substation to accommodate the termination of the new 500-kV transmission line.

The Variance would be from the County of Imperial's height limit within the "Government/Special Public Zone" height limit of 80-feet, the "A-2 (General Agriculture) Zone" and the "A-3 (Heavy Agriculture) Zone" height limits of 120-feet to approximately ***160-feet*** through the 60-miles of transmission lines located within the County.

The Draft EIR/EIS states, on page Ap.2-68 within Section 4.2 Airport Land Use Compatibility Plan – Imperial County Airports (Rev. June 1996), as follows:

> "...The emphasis of the Plan is on review of local general plan and specific Plans, zoning ordinances, and other land use documents covering broad geographic areas. State law does not give ALUCs direct authority over land use. Implementation of an ALUCs policies is accomplished by the relevant city or county, to the extent that the local government concurs with the ALUC's policies. As the intent of the Plan is accomplished through the County General Plan, which is considered in the policy screening, the ALUCP Itself is not considered further in the EIR/EIS..."

As stated above, the ALUCP reviews the potential impacts on flight safety throughout the County, e.g. the policies and scope of review on pages 2-1 and 2-2 attached hereto states under section 1, Geographic Area of Concern, subparagraph 2. Countywide Impacts on Flight Safety, "...Those lands, regardless of their location in the County, on which the uses could adversely affect the safety of flight in the County..."

The proposed 500-kV transmission line could possibly impact the military's low-level training routes in the area, the Naval Air Facility, El Centro, Desert Ranges and the agricultural aerial applicators, i.e. crop dusters, and agricultural activities. (See attached page Ap.12-65 and the various figures/photographs for further details).

Project Location:

The proposed 500-kV transmission line siting is shown on the attached maps and figures as provided within the Draft EIR/EIS and depicts the proposed routes from the I.V. Substation into San Diego County.

General Plan/ALUCP Analysis:

The Airport Land Use Compatibility Plan, Chapter 2, "Policies", Section 1.3.3., provides that "...the specific types of "actions, regulations, and permits" which the Commission shall review include:

> **"...(c) Any request for variance from a local agency's height limitation ordinance..."**

The SDG&E's Draft EIR, on page A-24, Table A-1 Permits or Other Actions Required Prior to Construction of the SRPL, states under "Permit or Regulatory Requirement", that a "Variance" is required from Imperial County. Due to the above discussed concerns, it is staff's position that the SDG&E' Sunrise Powerlink Project, RPL , 500-kV Transmission Line, could be found inconsistent with the ALUCP due to the potential impacts to military low-level training routes, impact the NAF/EL desert target ranges as well as adjacent agricultural crop dusting and related farming interests.

"GEOTHERMAL/ALTERNATIVE ENERGY AND TRANSMISSION" ELEMENT

COUNTY OF IMPERIAL GENERAL PLAN

Prepared by:
Imperial County Planning and Development Services Department
801 Main Street
El Centro, CA 92243

JURG HEUBERGER, AICP
Planning and Development Services Director

Approved by:
Planning Commission
September 27, 2006

Approved by:
Board of Supervisors
October 17, 2006

into account species habitat and fly paths of raptor and other avian species migration patterns. Some mitigation measures have been developed to minimize potential avian morbidity to the extent possible. Depending on the transmission corridor location, there is the potential for a significant number of bird electrocutions.

The siting of new transmission lines requires review by the Airport Land Use Commission.

The development of joint use corridors and an integrated planning process that explores the costs and benefits of transmission corridor projects, are important in reducing siting, development and operational-related impacts. Developing an approach to siting and deployment of these lines in the overall context of Imperial County's General Plan will be an important tool to help guide future development of energy facilities in the County and to provide a process to ensure that such facilities are planned and carefully integrated into the various County communities.

Imperial County General Plan		
Applicable Policies	Consistency Determination	Consistent
GEOTHERMAL AND TRANSMISSION ELEMENT		
Goals and Objectives, Policies, Page 19		
Locating Transmission Line Corridors Goal 5: When planning and designing transmission lines, the County will consider impacts to agricultural lands, wildlife, and the natural desert landscape. Objective 5.1 Require all major transmission lines to be located in designated federal and IID [Imperial Irrigation District] corridors. Objective 5.2 Design lines for minimum impacts on agriculture, wildlife, urban areas, and recreational activities.	Goal 5: As discussed in individual resource sections, impacts to agricultural lands, wildlife, and the natural desert landscape have been considered. The design and siting of the proposed route would be located in designated corridors wherever feasible. However, based on identified constraints in certain areas (e.g., biology, land use), the proposed route would fall outside existing corridors. Therefore, the Proposed Project and alternatives would not be consistent with Objective 5.1. The Proposed Project and alternatives establish APMs and design/operation measures (e.g., avoiding placement of facilities such as new access roads in active agricultural areas and locating facilities along the edge of active agricultural operations, wherever feasible) to minimize impacts to agriculture. The proposed alignment is not in an urban area, and implementation of APMs and mitigation measures would minimize impacts to recreational resources in Imperial County.	NO
SEISMIC AND PUBLIC SAFETY ELEMENT		
Goals and Objectives, Implementation Programs and Policies, Pages 25-30		
Goal 1: Include public health and safety considerations in land use planning. Objective 1.1 Ensure that data on geological hazards is incorporated into the land use review process, and future development process. Objective 1.2 Regulate development within flood-way areas in accordance with Federal Emergency Management Agency (FEMA). Objective 1.4 Require, where possessing the authority, that avoidable seismic risks be avoided; and that measures, commensurate with risks, be taken to reduce injury, loss of life, destruction of property, and disruption of service. Objective 1.6 Ensure environmental hazards are considered when siting critical facilities. Objective 1.7 Require developers to provide information related to geologic and seismic hazards when siting a proposed project.	Construction of certain structures within the floodway is allowed by FEMA provided the structure is not for human habitation and does not result in a rise in the base flood elevation. The proposed towers are not for human habitation and offer little obstruction to flow. Geological and seismic studies will identify risks and guide tower design and placement.	YES

Imperial County General Plan

Applicable Policies	Consistency Determination	Consistent
AGRICULTURE ELEMENT		
Goals and Objectives, Implementation Programs and Policies, Pages 30-41		
Preservation of Important Farmland Goal 1: All Important Farmland, including the categories of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance, as defined by Federal and State agencies, should be reserved for agricultural uses. Objective 1.1 Maintain existing agricultural land uses outside of urbanizing areas and allow only those land uses in agricultural areas that are compatible with agricultural activities. Objective 1.3 Conserve Important Farmland for continued farm related (non-urban) use and development while ensuring its proper management and use. Objective 1.5 Direct development to less valuable farmland (i.e., Unique Farmland and Farmland of Local Importance rather than Prime Farmland or Farmland of Statewide Importance) when conversion of agricultural land is justified. Objective 1.8 Allow conversion of agricultural land to non-agricultural uses only where a clear and immediate need can be demonstrated, based on population projections and lack of other available land (including land within incorporated cities) for such non-agricultural uses. Such conversion shall also be allowed only where such uses have been identified for non-agricultural use in a city general plan or the County General Plan, and are supported by a study to show a lack of alternative sites. Objective 1.9 Preserve major areas of Class II and III soils which are currently nonirrigated but which offer significant potential when water is made available.	Goal 1: The Proposed Project would impact Important Farmlands and would not meet the stated goal of reserving all Important Farmland for agricultural use. The Applicant has established specific APMs and design/operation measures (e.g., avoiding placement of facilities such as new access roads in active agricultural areas and locating facilities along the edge of active agricultural operations, wherever feasible) that would minimize impacts to agriculture.	NO
Development Patterns and Locations on Agricultural Land Objective 2.1 Do not allow the placement of new non-agricultural land uses such that agricultural fields or parcels become isolated or more difficult to economically and conveniently farm.	The Proposed Project and alternatives would avoid agricultural lands wherever feasible, and has established APMs and project design measures (e.g., avoiding placement of facilities such as new access roads in active agricultural areas and locating facilities along the edge of active agricultural operations) that would address agricultural concerns along the proposed route. However, the placement of towers and the orientation of the alignment may create conditions where parcels may become inconvenient or uneconomic to farm due to the inability to crop dust.	NO
Goal 3: Limit the introduction of conflicting uses into farming areas, including residential development of existing parcels which may create the potential for conflict with continued agricultural use of adjacent property.	The Proposed Project and alternatives include a number of APMs and design/operation measures (e.g., avoiding placement of facilities such as new access roads in active agricultural areas and locating facilities along the edge of active agricultural operations, wherever feasible) to avoid or minimize agricultural impacts where feasible. Thus, the Proposed Project and alternatives would be consistent with the intent of this goal.	YES

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Policies

1.SCOPE OF REVIEW

1. Geographic Area of Concern

The Imperial County Airport Land Use Commission's planning area encompasses:

1. *Airport Vicinity* - All lands on which the uses could be negatively affected by present or future aircraft operations at the following airports in the County and lands on which the uses could negatively affect said airports. The specific limits of the planning area for each airport are depicted on the respective *Compatibility Map* for that airport as presented in Chapter 3.

   (a) Brawley Municipal Airport.

   (b) Calexico International Airport.

   (c) Calipatria Municipal Airport.

   (d) Holtville Airport.

   (e) Imperial County Airport.

   (f) Salton Sea Airport.

   (g) Naval Air Facility El Centro.

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2. *Countywide Impacts on Flight Safety* - Those lands, regardless of their location in the County, on which the uses could adversely affect the safety of flight in the County. The specific uses of concern are identified in Paragraph 2.

3. *New Airports and Heliports* - The site and environs of any proposed new airport or heliport anywhere in the County. The Brawley Pioneers Memorial Hospital has a heliport area on-site.

2. Types of Airport Impacts

The Commission is concerned only with the potential impacts related to aircraft noise, land use safety (with respect both to people on the ground and the occupants of aircraft), airspace protection, and aircraft over-flights. Other impacts sometimes created by airports (e.g., air pollution, automobile traffic, etc.) are beyond the scope of this plan. These impacts are within the authority of other local, state, and federal agencies and are addressed within the environmental review procedures for airport development.

3. Types of Actions Reviewed

1. *General Plan Consistency Review* - Within 180 days of adoption of the *Airport Land Use Compatibility Plan*, the Commission shall review the general plans and specific plans of affected local jurisdictions to determine their consistency with the Commission's policies. Until such time as (1) the Commission finds that the local general plan or specific plan is consistent with the *Airport Land Use Compatibility Plan*, or (2) the local agency has overruled the Commission's determination of inconsistency, the local jurisdiction shall refer all actions, regulations, and permits (as specified in Paragraph 3) involving the airport area of influence to the Commission for review (Section 21676.5 (a)).

2. *Statutory Requirements* -As required by state law, the following types of actions shall be referred to the Airport Land Use Commission for determination of consistency with the Commission's plan *prior to their approval* by the local jurisdiction:

(a) The adoption or approval of any amendment to a general or specific plan affecting the Commission's geographic area of concern as indicated in Paragraph 1 (Section 21676 (b)).

(b) The adoption or approval of a zoning ordinance or building regulation which (1) affects the Commission's geographic area of concern as indicated in Paragraph 1 and (2) involves the types of airport impact concerns listed in Paragraph 2 (Section 21676 (b)).

(c) Adoption or modification of the master plan for an existing public-use airport (Section 21676 (c)).

(d) Any proposal for a new airport or heliport whether for public use or private use (Section 21661.5).

3. *Other Project Review* - State law empowers the Commission to review additional types of land use "actions, regulations, and permits" involving a question of airport/land use compatibility if either: (1) the Commission and the local agency agree that these types of individual projects shall be reviewed by the Commission (Section 21676.5 (b)); or (2) the Commission finds that a local agency has not revised its general plan or specific plan or overruled the Commission and the Commission requires that the individual projects be submitted for review (Section 21676.5 (a)). For the purposes of this plan, the specific types of "actions, regulations, and permits" which the Commission shall review include:

a) Any proposed expansion of a city's sphere of influence within an airport's planning area.

b) Any proposed residential planned unit development consisting of five or more dwelling units within an airport's planning area.

c) Any request for variance from a local agency's height limitation ordinance.

d) Any proposal for construction or alteration of a structure (including antennas) taller than 150 feet above the ground anywhere within the County.

e) Any major capital improvements (e.g., water, sewer, or roads) that would promote urban development.

f) Proposed land acquisition by a government entity (especially, acquisition of a school site).

g) Building permit applications for projects having a valuation greater than $500,000.

h) Any other proposed land use action, as determined by the local planning agency, involving a question of compatibility with airport activities.

4. Review Process

1. *Timing of Project Submittal* - Proposed actions listed in Paragraph 3.1 must be submitted to the Commission for review prior to approval by the local government entity. All projects shall be referred to the Commission at the earliest reasonable point in time so that the Commission's review can be duly considered by the local jurisdiction prior to formalizing its actions. At the local government's discretion, submittal of a project for Airport Land Use Commission review can be done before, after, or concurrently with review by the local planning commission or other local advisory bodies.

2. *Commission Action Choices* - When reviewing a land use project proposal, the Airport Land Use Commission has a choice of either of two actions: (1) find the project *consistent* with the *Airport Land Use Compatibility Plan*; or, (2) find the project *inconsistent* with the Plan. In making a finding of inconsistency, the Commission may note the conditions under which the project would be consistent with the Plan. The Commission cannot, however, find a project consistent with the Plan subject to the inclusion of certain conditions in the project.

Table A-1. Permits or Other Actions Required Prior to Construction of the SRPL

Agency	Jurisdiction	Permit or Regulatory Requirement
California Park and Recreation Commission	State Park Lands (Anza-Borrego Desert State Park)	• Plan Amendment • Change in Wilderness Designation
California Independent System Operator	Purpose and Need for new transmission, substation and generation projects	• Interconnection approval
California State Lands Commission	State lands	• Right-of-Way Easement
California Department of Fish and Game	Manage fish, wildlife, plant resources and habitats; California ESA, California Native Plant Protection Act, California Fish and Game Code Section 1601	• Streambed Alteration 1601 Permit • Section 2061 Incidental Take Permit • Mitigation agreement/plan • Certification of EIR
California Department of Transportation	CA streets and highways Code 660-711.21 Cal. Code of Regs. 1411.1-1411.6	• Encroachment Permits • Traffic Control Plans
California Department of Toxic Substations Control	Hazardous Waste Control Act of 1972	• EPA Hazardous Waste Generator ID • 90 days TSD Permit • Hazardous Material Business Plan • EPA Hazardous Waste Generator ID
California State Historic Preservation Office	Any archaeological or paleontological work	• Cultural Resources Use Permit, Field Use Authorization, or an Archaeological Resources Protection Act (ARPA) Permit (if required) • Consultation for Section 106 of the National Historic Preservation Act
California Air Resources Board	State-wide	• Portable Engine Registration for specified non-mobile portable engines.
California Reclamation Board	Waterways that possess designated floodways	• Encroachment Permit
LOCAL AND REGIONAL		
Imperial County	County roads and highways, flood control/drainage channels	• Road/Highway Encroachment/Crossing Permit • Grading Permit • Flood Control/Drainage Channel Encroachment/Crossing Permit • General and/or Community Plan Amendment • Variance • Explosives Permit
San Diego County	County roads and highways, flood control/drainage channels	• Road/Highway Encroachment/Crossing Permit • Grading and Wall Permits • Traffic Control Plans • Explosives Permit • New or expanded ROW Grant • Flood Control/Drainage Channel Encroachment/Crossing Permit • Excavation Permit
Regional Water Quality Control Board, Region 7 (Colorado River Basin)	Clean Water Act, Section 401	• 401 Certification • Storm Water Construction General Permit 99-08-DWQ • National Pollutant Discharge and Elimination System (NPDES) Permit • Waste Discharge Requirements (WDRs)
Regional Water Quality Control Board, Region 9 (San Diego)	Clean Water Act, Section 401	• 401 Certification • Storm Water Construction General Permit 99-08-DWQ • NPDES Permit • WDRs

Agriculture

AG-1a **Avoid interference with agricultural operations.** The Applicant shall coordinate with property owners and tenants to ensure that project construction will be conducted so as to avoid or minimize interference with agricultural operations. Agricultural operations include, but are not limited to, the use of farm vehicles and equipment, access to property; water delivery, drainage, and irrigation.

AG-1b **Restore compacted soil.** The Applicant shall restore soils compacted during construction by conferring with the property owner or tenant to identify and then implement a mutually agreed means to restore such soils. Restoration actions may include, but are not be limited to, disking, plowing, or other suitable restoration methods.

AG-1c **Coordinate with grazing operators.** SDG&E shall coordinate with grazing operators to ensure that agricultural productivity and animal welfare are maintained both during and after construction to the maximum extent feasible. Coordination efforts will address issues including, but not necessarily limited to:

- Interference with access to water (e.g., provide alternate methods for livestock access to water)
- Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates)
- Removal and replacement of fencing (e.g., during construction install temporary fencing/ barriers, as appropriate, and following construction restore equal or better fencing to that which was removed or damaged)
- Impacts to facilities such as corrals and watering structures, as well as related effects such as ingress/egress, and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access)

AG-1d **Compensate farmers for lost crops along ROW**. 1. Farmers will be compensated for losses of crops along ROW based upon a professional appraisal. 2. Construction activities in croplands will be scheduled to minimize or avoid planting, growing, and harvesting seasons to the extent feasible. [LU-APM-3]

AG-2a **Avoid interference with agricultural equipment.**

AG-3a **Coordinate with dairy operators.** SDG&E shall coordinate with dairy operators to ensure that agricultural productivity and animal welfare are maintained during project operation (e.g., maintenance activities) to the maximum extent feasible. Coordination efforts shall address issues including, but not necessarily limited to:

- Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates)
- Impacts to facilities, as well as related effects such as ingress/egress and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access)

AG-3b **Consult with and inform aerial applicators**. The Applicant shall consult with landowners and the Imperial County Farm Bureau to determine which aerial applicators operate in the county. The Applicant shall provide written notification to all aerial applicators working in the county and to the CPUC stating when and where the new transmission lines and towers will be erected. The Applicant shall also provide all aerial applicators, the Imperial County Farm Bureau, and the CPUC with aerial photos or topographic maps clearly showing the new lines and towers in relation to agricultural lands.

Imperial County General Plan		
Applicable Policies	Determination	Analyzed Further
9. Noise Regulations The provisions of this Element applicable to activities where no discretionary application is required pursuant to the County Zoning Ordinance or Subdivision Ordinance, or a Specific Plan or General Plan Amendment is not involved, shall be implemented by an appropriate amendment to the Imperial County Code of Regulatory Ordinances. This shall include measures relative to "Property Line Noise Standards" and "Construction Noise Standards" specified above; and may include enforcement provisions and appropriate penalties for non-compliance.	This policy is directive to County officials. As such, it will not be considered further in the EIR/EIS.	NO
WATER ELEMENT		
Goal and Objectives, Implementation Programs and Policies, Pages 26-33		
As part of the effort to protect and enhance wildlife and their habitat, the County of Imperial shall actively pursue the preservation, maintenance of breeding and foraging habitat for native and migratory birds and animals, preserving these biological systems as indicators of environmental integrity, and as a source of sport and recreation.	The Proposed Project and alternatives have the potential to encounter or affect the resources enumerated in these policies. Therefore, these policies will be considered further in the EIR/EIS.	YES
4. Protection of Water Resources from Hazardous Materials Programs • All developmental proposals brought before the County of Imperial shall be reviewed for potential adverse effects on water quality and quantity, and shall be required to implement appropriate mitigation measures for any significant impacts.	This policy is directive to County officials. As such, it will not be considered further in the EIR/EIS.	NO
5. Coordinated Water Management Programs • The County of Imperial shall regulate land development and natural resource management to protect the limited but important areas in the County which contribute to groundwater recharge.	This policy is directive to County officials. As such, it will not be considered further in the EIR/EIS.	NO

4.2 Airport Land Use Compatibility Plan – Imperial County Airports (Rev. June 1996)

This plan sets forth the criteria and policies that the Imperial County Airport Land Use Commission (ALUC) uses in assessing the compatibility between the principal airports in Imperial County and proposed land use development in the areas surrounding them. The emphasis of the Plan is on review of local general and specific plans, zoning ordinances, and other land use documents covering broad geographic areas. State law does not give ALUCs direct authority over land use. Implementation of an ALUC's policies is accomplished by the relevant city or county, to the extent that the local government concurs with the ALUC's policies. As the intent of this Plan is accomplished through the County General Plan, which is considered in the policy screening, the ALUCP itself is not considered further in the EIR/EIS.

4.3 County of San Diego – County General Plan, 1979 as amended

The Proposed Project and all alternatives not exclusively in Imperial County or the Cities of San Diego and Chula Vista are subject to the County of San Diego General Plan. The current General Plan was last updated in 1979, with substantial amendments made since. The plan has as its overall goal to accommodate pop-

D.10.2 Environmental Setting for the Proposed Project – Environmental Contamination

The consistency of the Proposed Project with applicable plans and policies is addressed in Section D.16, where there is specific discussion of each item that was determined in the Appendix 2 screening process to warrant further evaluation. Appendix 2 (Policy Screening Report) lists all plans and policies applicable to the Proposed Project, and presents a preliminary screening evaluation of these policies.

D.10.2.1 Imperial Valley Link

The Imperial Valley Link traverses undeveloped open space and a small amount of agricultural property, and skirts a U.S. Naval Air Facility. This link would consist of modifications of the existing Imperial Valley Substation to accommodate termination of a new 500 kV transmission line and construction of lattice towers and steel poles within a new 200-foot ROW. The transmission line ROW would traverse open undeveloped desert and, from MP 5 to 10, inactive or abandoned agricultural land. It would be at the western margin of an active agriculture area from MP 13.5 to 19.5. This section of the alignment crosses Interstate 8 (I-8) at Milepost 6 (MP 6) but does not cross irrigation canals in the agricultural area. From MP 19.5 to 60.9 the proposed route passes through undeveloped open desert land consisting primarily of flat to gently sloping terrain with sparse scrub vegetation and dissected by numerous small washes and local arroyos (ephemeral stream channels). Additionally, from approximately MP 11.5 to 38.8 the route passes just outside of and generally parallel to navy/military land which has been and is currently used for bombing and munitions testing.

Based on review of the EDR database search (EDR, 2006a) and the U.S. Army Corps of Engineers Formerly Used Defense Sites database, there are four hazardous material sites within 0.25 miles of the Imperial Valley Link with potential to impact the project. These sites are summarized in Table D.10-1.

Table D.10-1. Identified Hazardous Material Sites within 0.25 Miles of the Imperial Valley Link

EDR Map ID[1]	Site Name	Site Address	Database Lists[2]	Comments
98	Centinela State Prison	2302 Brown Road, Imperial	RCRA-SQG, FINDS, CHMIRS, WDS, LUST	Small quantity generator, several small spills reported at the site, and a LUST with Case Closed status.
92	El Centro Rocket Target No. 1 (#92)	El Centro	FUDS	Approximately 160 acres that was formerly used (1945-1946) as a Navy rocket target training area. Bombing ordnance has been noted on the site.
59	El Centro Rocket Target No. 2 (#93)	El Centro	FUDS	Approximately 400 acres that was formerly used (1945-1946) as a Navy rocket target training area. Bombing ordnance has been noted on the site.
*	Kane Springs SBT (#62)	Kane Springs	FUDS	On USACE FUDS list. Property used between 1944 and 1946 by the Navy as a miniature bomb and strafing practice area; related bombing and strafing ordnance have been noted on the site.

Sources: (EDR, 2006a) and (USACE, 2007)

1 EDR Environmental Information Data Site I.D. Number. * indicates site identified in the USACE Imperial County FUDS database.

2 See Appendix13 for detailed description of regulatory agency listings.

FEDERAL RECORDS

RCRA-SQG: Resource Conservation and Recovery Act Information

FINDS: Facility Index System/Facility Registry System, contains both facility information and 'pointers' to other sources that contain more detail.

FUDS: Formerly Used Defense Sites, locations of Formerly Used Defense Sites properties where the U.S. Army Corps of Engineers is actively working or will take necessary cleanup actions.

Mitigation Measures for Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations

AG-1b **Restore compacted soil.** The Applicant shall restore soils compacted during construction by conferring with the property owner or tenant to identify and then implement a mutually agreed means to restore such soils. Restoration actions may include, but are not be limited to, disking, plowing, or other suitable restoration methods.

Operational Impacts

Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (Class I)

Impacts to DOC Farmland would occur where the location of Project facilities, such as access roads and towers, would permanently convert the land upon which they are situated to non-agricultural use. The Proposed Project would permanently convert approximately 270.5 acres of DOC Farmland within the Imperial Valley Link (145.6 acres of Prime Farmland, 105.5 acres of Farmland of Statewide Importance, 1.2 acres of Unique Farmland, and 18.2 acres of Farmland of Local Importance), which is greater than the 10-acre threshold for determining significance of impacts due to the conversion of DOC Farmland. Across all links, the Proposed Project would convert 663.4 acres of DOC Farmland to non-agricultural use. For both the Imperial Link and the entire project, the Proposed Project would exceed the 10-acre threshold. In the Imperial Valley Link, there are no non-agricultural areas near the proposed route to which the Proposed Project could be relocated so as to reduce impacts to agriculture. Development on land to the north and west of the Proposed Project is prohibited by the DOD. Land to the south and east is already occupied by agriculture. If the transmission line were moved in this direction, the Proposed Project would no longer border certain agricultural areas, but would actually cross over them, resulting in additional impacts to Active Agricultural Operations. Because the Proposed Project as a whole would convert more than 10 acres of DOC Farmland, impacts to DOC Farmland as a result of the proposed route through the Imperial Valley Link would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class I for Disruption of Farming and Aerial Spraying; II for Disruption of Livestock Grazing; III for Avian Perching)

The proposed route through the Imperial Valley Link would permanently remove approximately 28.4 acres of land under Active Agricultural Operation. Across all links, the entire Proposed Project would remove 500 acres of land under Active Agricultural Operation. For both the Imperial Link and the entire project, the Proposed Project would exceed the 10-acre threshold for determining significance of impacts due to the loss of land under Active Agricultural Operation. As such, the Proposed Project would significantly impact Active Agricultural Operations. In the Imperial Link, there are no non-agricultural areas near the proposed route to which the Proposed Project could be relocated so as to reduce impacts to agriculture. Development on land to the north and west of the Proposed Project is prohibited by the DOD. Land to the south and east is already occupied by agriculture. If the transmission line were moved in this direction, the Proposed Project would no longer border certain agricultural areas, but would actually cross over them, resulting in additional impacts to Active Agricultural Operations. Impacts relating to the loss of land under Active Agricultural Operation as a result of the proposed route through the Imperial Valley Link would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

In addition to the permanent loss of land under Active Agricultural Operation, the Proposed Project would result in other adverse agricultural impacts in the vicinity of the project. These include (1) disrupting farming facilities or operations, including dairy; (2) disrupting or altering aerial spraying practices; (3) introducing electric field effects on apiaries; and (4) exposing livestock to stray voltage and electric and magnetic fields.

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in nearby areas, by dividing or fragmenting agricultural fields, obstructing access, impeding the delivery and use of water for livestock and irrigation, reducing the efficacy of windbreaks, and/or disrupting the operation of farm equipment.

Incorporation of APM LU-7 would ensure that the location of proposed facilities are matched to existing facilities (where feasible and appropriate), and incorporation of APM LU-10 would ensure that facilities are installed along the edges of private property (also where feasible and appropriate). If facilities cannot be located along property or field boundaries, APM LU-7 would ensure that SDG&E would consult with affected property owners to identify facility locations that would create the least potential for impact. Incorporation of these APMs would minimize impacts to farming operations through avoidance of areas to the greatest extent feasible, but such impacts would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a, as noted under Impact AG-1, would ensure that impacts relating to the disruption of Active Agricultural Operations as a result of the proposed route through the Imperial Valley Link would be mitigated to a less than significant level (Class II).

Dairy Operations (Class II). Dairy operations would be permanently disrupted by presence of the transmission line. Specifically, the Proposed Project would traverse over the Bullfrog Farms dairy property and its structures. Transmission line maintenance activities would also disrupt dairy operations. Thus, the Proposed Project's impact upon dairy operations within the Imperial Valley Link would be significant. However, implementation of Mitigation Measure AG-3a would ensure that impacts to dairy operations as a result of the proposed route through the Imperial Valley Link would be mitigated to a less than significant level (Class II).

Aerial Spraying Applications (Class I). Aerial spraying (i.e., crop dusting) is used to control insects, weeds, and diseases that may affect crops in the Imperial Valley. Aerial spraying occurs in those areas of the Imperial Valley actively cultivated with field crops. In relation to the Proposed Project, aerial application could occur at any point between MP 8 and 20. Aerial applicators fly at low elevations and sometimes at speeds in excess of 100 miles per hour. Fatalities associated with aerial applicators can partly be attributed to flying at low altitudes and high speeds, as well as the presence of obstacles such as power lines, trees, towers, or buildings within the flight area (Suarezi, 2000). Where transmission lines exist in an agricultural area, pilots must fly over, beside, and (occasionally) under the lines to complete aerial spraying activities. Transmission lines and towers thus present a substantial obstacle to be avoided, and require additional attention from the pilots.

Transmission lines are especially hazardous when:

- Lines are oriented diagonally relative to field boundaries
- Multiple lines exist side-by-side
- Lines change direction (especially at a 90-degree angle) along the corridor
- New transmission lines and towers are installed
- Towers and lines are not clearly visible (TANC/WAPA, 1986)

Thus, the presence of transmission lines and towers would result in interference with Active Agricultural Operations, a significant impact. Implementation of Mitigation Measure AG-3b would ensure that aerial applicators would be notified of the project location and components in order to educate pilots to significant dangers that would exist as a result of development of the Proposed Project. However, even with implementation of Mitigation Measure AG-3b, hazards to aerial spraying would continue to pose safety hazards to aerial applicators, or could preclude spraying activities in certain areas. As such, impacts to aerial spraying applications as a result of the proposed route through the Imperial Valley Link would remain significant (Class I).

Electric Field Effects on Apiaries (Class II). Power line electric fields have been shown to cause bees to leave their hives. As a result, significant impacts to apiaries located near a new transmission line would occur. However, these impacts would be less than significant (Class II) with implementation of Mitigation Measure AG-3c, which would require SDG&E to identify all apiaries within the area of potential effect and notify owners prior to energizing the line so the apiaries, which are mobile, could be relocated as necessary.

Exposure of Livestock to Stray Voltage and Electric and Magnetic Fields (Class III). Stray voltage and electric and magnetic fields (EMF) are two distinctly different phenomena. Both are described below.

Stray Voltage. Stray voltage is associated with electric utility distribution systems and local low voltage (120/240 volt) wiring on farms, not high voltage transmission lines. Utility distribution systems and low voltage wiring use a neutral conductor that is connected to the ground. In cases where there is not an adequate ground connection to the neutral, the current on the neutral conductor will find other paths to ground, thus, the term stray current or voltage.

Since early reports of stray voltage affecting livestock in 1969, there has been substantial research related to this topic. The vast majority of on-farm stray voltage occurrences are due to wiring and equipment problems which can be remedied by following the requirements of the National Electric Codes (NEC) and the USDA Handbook No. 696, *Effects of Electrical Voltage/Current on Farm Animals: How to Detect and Remedy Problems* (Lefcourt, 1991).

Since stray voltage is due to ground currents associated with distribution lines and farm wiring, this is not an impact that would result from the Proposed Project's high voltage transmission line. Thus, no impact would occur (No Impact), and no mitigation is required.

Electric and Magnetic Fields. Electric and magnetic fields occur both naturally and as a result of human activity across a broad electrical spectrum. Naturally occurring electric and magnetic fields are caused by the weather and the earth's geomagnetic field. The fields caused by human activity result from technological application of the electric and magnetic spectrum for uses such as communications, farm equipment, appliances, and the generation, transmission, and local distribution of electricity.

Electric fields from power lines are created whenever the lines are energized, with the strength of the field dependent directly on the voltage of the line creating it. Electric field strength is typically described in terms of kilovolts per meter (kV/m). Electric field strength attenuates (reduces) rapidly as the distance from the source increases. Electric fields are reduced at many receptors because they are effectively shielded by most objects or materials, such as trees or buildings.

Magnetic fields from power lines are created whenever current flows through power lines at any voltage. The strength of the field is directly dependent on the current in the line. Magnetic field strength is

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Central Link
Anza Borrego Link
Inland Valley Link
Coastal Link
Imperial Valley Link

SAN DIEGO COUNTY
IMPERIAL COUNTY

N
0 63,000 Feet
0 10 Miles

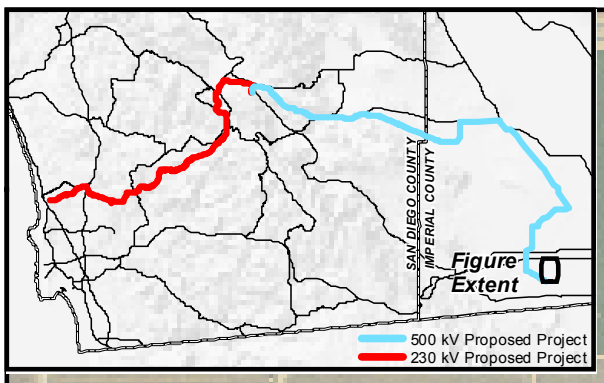
Aspen Environmental Group
HELIX Environmental Planning Inc.

230 kV Proposed Project
500 kV Proposed Project
Sycamore Canyon-Elliot Substation Reconductor

Sunrise Powerlink Project

Proposed Project Detail Index Map

A0002



Staging Area

Kramer Road

Campbell Road

Jessup Road

Derrick Road

Vaughn Road

Diehl Road

Westside Road

Wixom Road

Liebert Road

Graham Road

Vogel Road

Yuha Basin ACEC

SWP4

SWP3

SWP2

SWP1

1

0

Staging Area

Access Road

Pull Site

Imperial Valley Substation

N

0 1,500 Feet

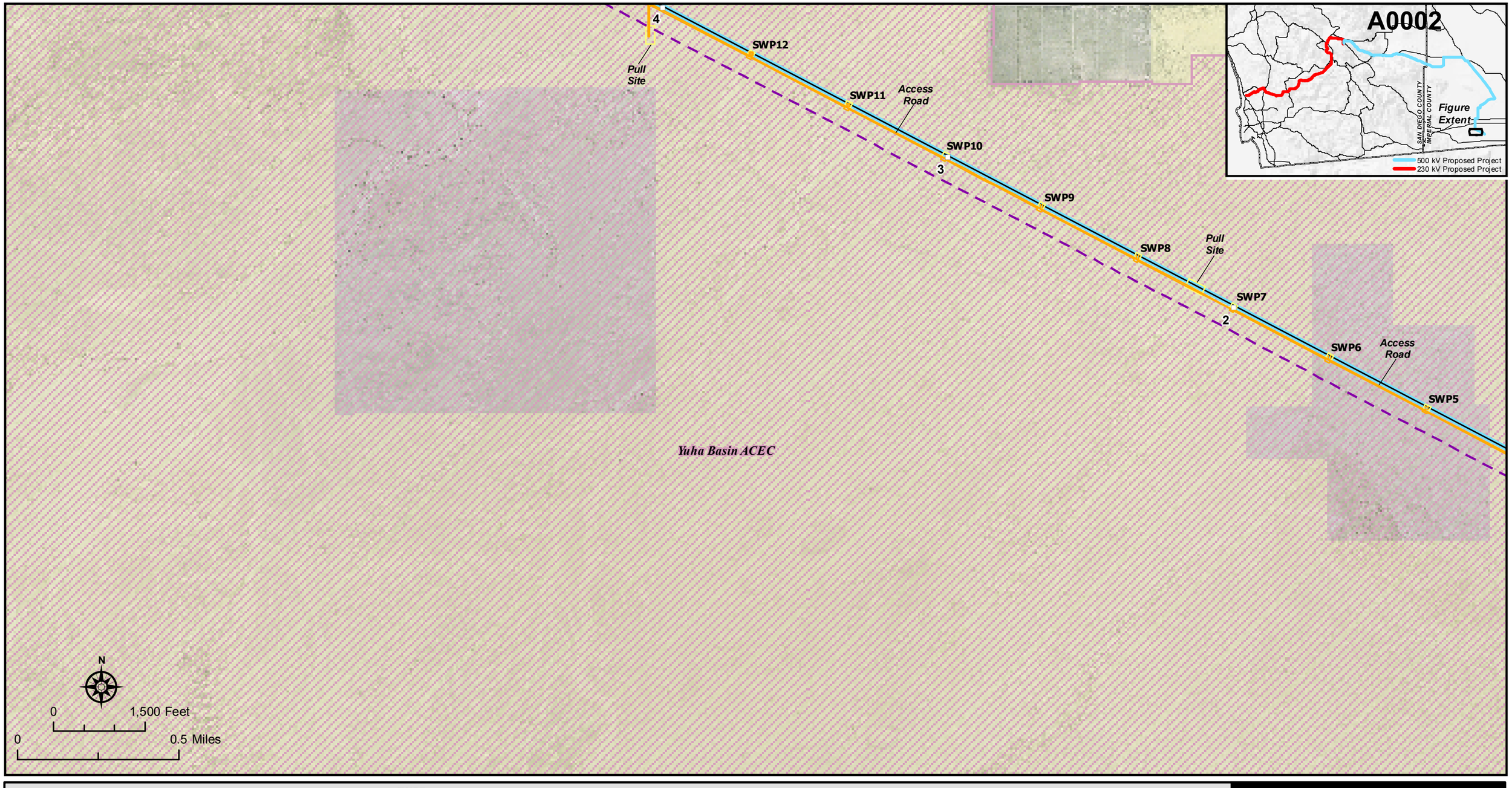
0 0.5 Miles

Proposed Project 500 kV
Existing IID 92 kV Transmission Line
Existing 230 kV Transmission Line
Existing 500 kV Transmission Line
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
SWP1 Tower Identification
Area of Critical Environmental Concern (ACEC)
Bureau of Land Management

Aspen Environmental Group
HELIX Environmental Planning Inc.

Sunrise Powerlink Project

Figure Ap. 11A-1
Proposed Project Detail

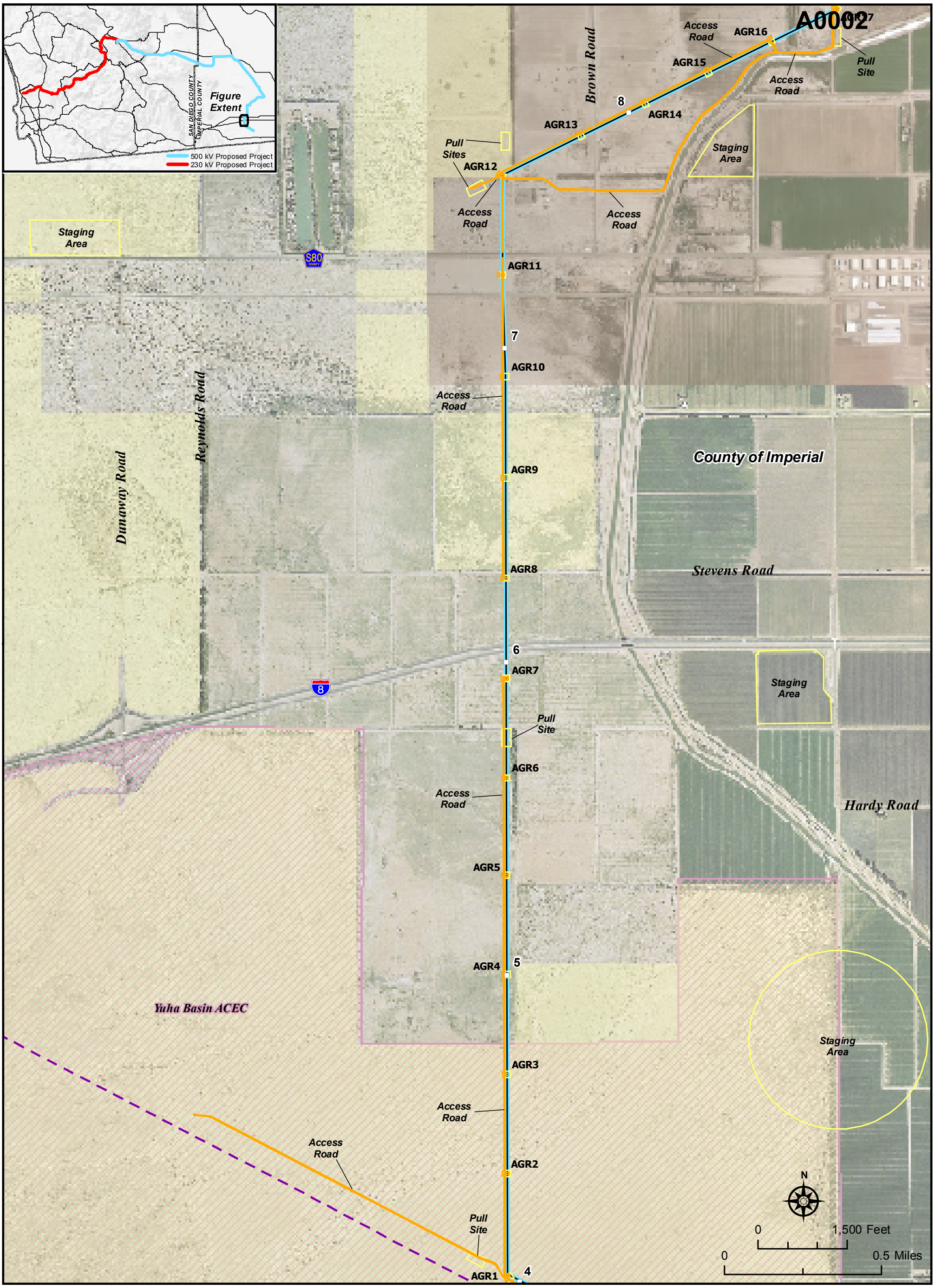


Proposed Project 500 kV
Existing 500 kV Transmission Line
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
SWP5 Tower Identification
Area of Critical Environmental Concern (ACEC)
Bureau of Land Management

Aspen Environmental Group
HELIX Environmental Planning Inc.

Sunrise Powerlink Project

Figure Ap. 11A-2
Proposed Project Detail



Proposed Project 500 kV
Existing 500 kV Transmission Lines
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
AGR1 Tower Identification
Area of Critical Environmental Concern (ACEC)
Bureau of Land Management

Aspen Environmental Group
HELIX Environmental Planning Inc.

Sunrise Powerlink Project

Figure Ap. 11A-3
Proposed Project Detail

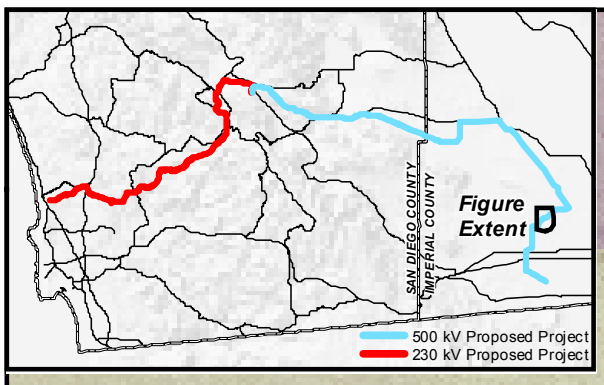
Proposed Project 500 kV
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
AGR18 Tower Identification
Bureau of Land Management
Department of Defense Land

Aspen Environmental Group
HELIX Environmental Planning Inc.

Sunrise Powerlink Project

Figure Ap. 11A-4
Proposed Project Detail

A0002



Huff Road
Wheeler Road
Payne Road
House Road
Kutz Road
Boley Road

AGR55
Access Road
AGR54
17
AGR53
Access Road
AGR52
AGR51
Pull Site
AGR50
16
AGR49
Pull Site
Access Road
AGR48
AGR47
AGR46
AGR45
15
Access Road
AGR41
AG40
Access Road
AG39
Pull Sites
AG38
Access Road
14
AG37
AG36
Access Road
AGR36
AGR35
Pull Sites
Access Road

S28

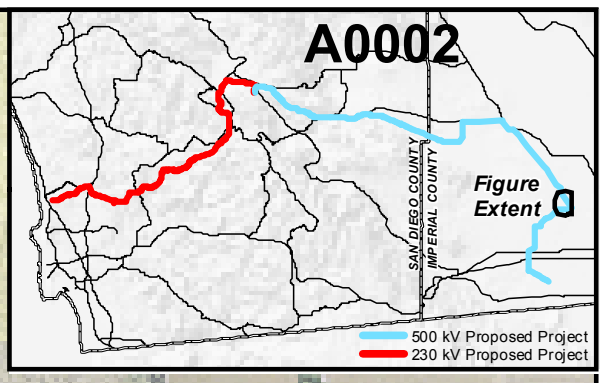
N
0 1,500 Feet
0 0.5 Miles

Proposed Project 500 kV
Existing IID 92 kV Transmission Line
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
AGR55 Tower Identification
Bureau of Land Management
Department of Defense Land

Aspen Environmental Group
HELIX Environmental Planning Inc.

Sunrise Powerlink Project

Figure Ap. 11A-5
Proposed Project Detail



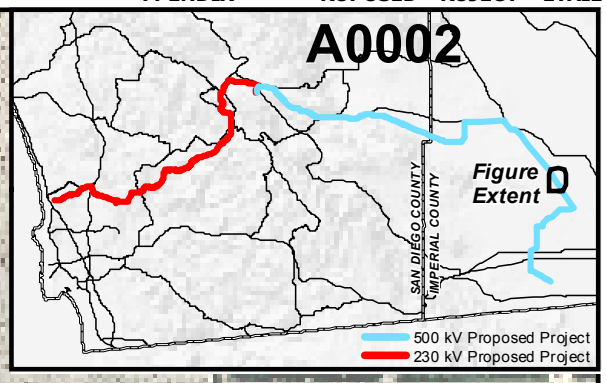
D97
Access Road
D98
D99
23
D100
D101
Access Road
D102
Pull Site
D103
Imler Road
Imler Road
22
D104
D105
Access Road
D106
D107
21
Access Road
D108
Access Road
AGR67
Pull Sites
AGR66
Access Road
Access Road
20
Access Road
AGR64
AGR63
AGR62
AGR61
AGR65
Pull Sites
Access Road
19
AGR60
AGR59
AGR58
18
AGR57
Pull Sites
Access Road
Access Road
Access Road
AGR56
Access Road
Edgar Road
Pierle Road
N
0
1,500 Feet
0
0.5 Miles

Proposed Project 500 kV
Existing IID 92 kV Transmission Line
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
D78 Tower Identification
Bureau of Land Management
Department of Defense Land

Aspen Environmental Group
HELIX Environmental Planning Inc.

Sunrise Powerlink Project

Figure Ap. 11A-6
Proposed Project Detail



D82
Pull Site
D83
Access Road
28
D84
Pull Site
D85
Access Road
D86
27
D87
D88
Pull Site
D89
26
Access Road
D90
Access Road
D91
D92
25
D93
Access Road
Pull Sites
D94
Access Road
D95
24
D96
Access Road
Pellett Road

N
0 1,500 Feet
0 0.5 Miles

Proposed Project 500 kV
Existing IID 92 kV Transmission Line
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
D96 Tower Identification
Bureau of Land Management
Department of Defense Land

Aspen Environmental Group
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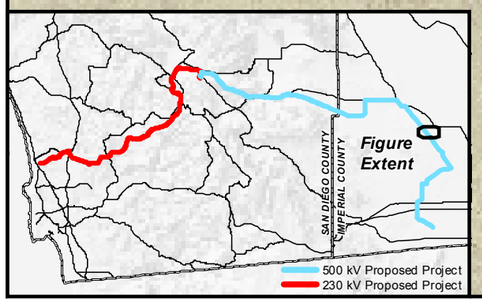
Sunrise Powerlink Project

Figure Ap. 11A-7
Proposed Project Detail

A0002

D73
Access Road
D74
31
D75
Access Road
D76
Pull Site
D77
30
D78
Access Road
D79
D80
29
D81

Garvey Road
Orr Road
Staging Area



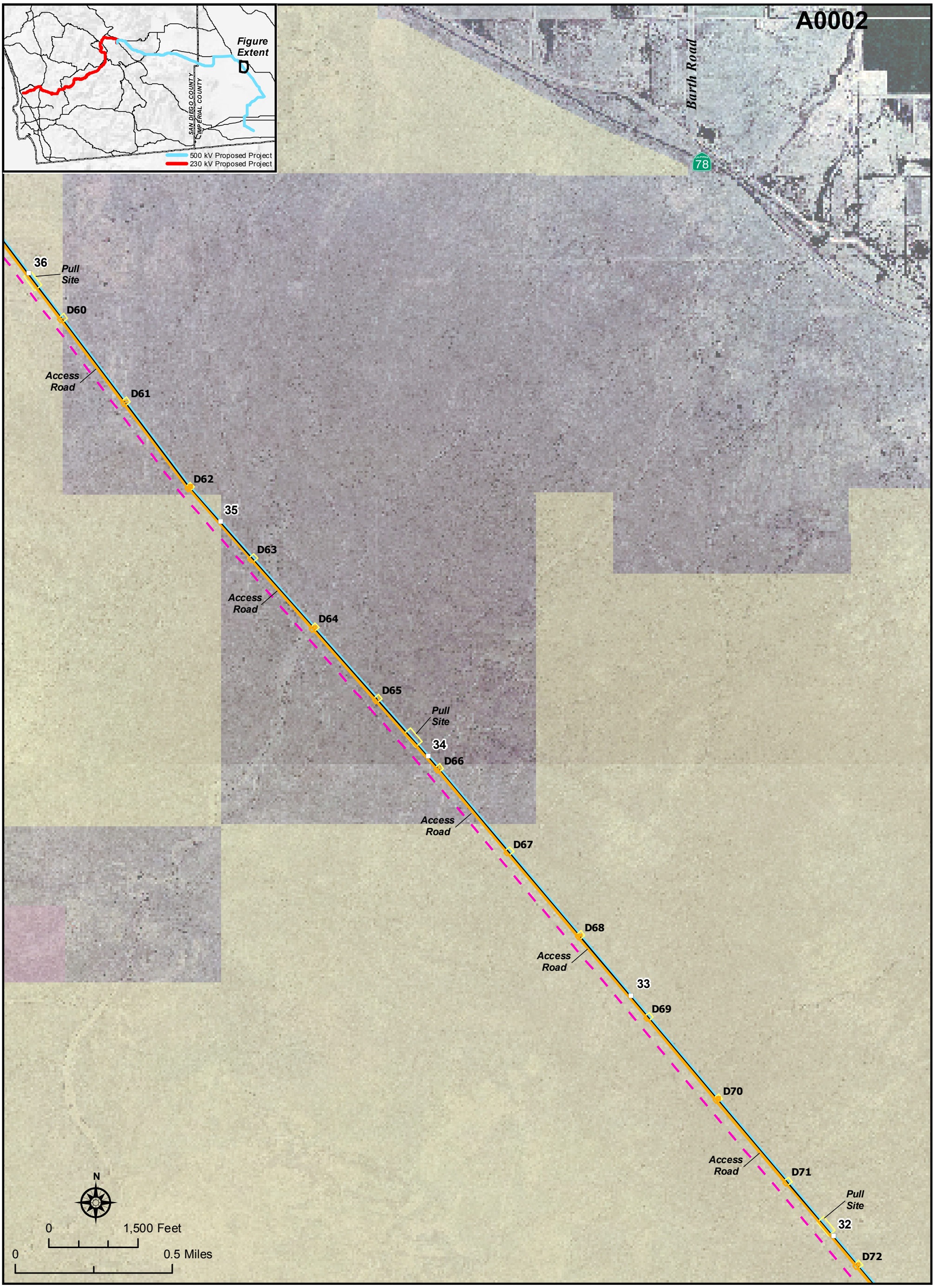
N
0 1,500 Feet
0 0.5 Miles

Proposed Project 500 kV
Existing IID 92 kV Transmission Line
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
D81 Tower Identification
Bureau of Land Management

Aspen Environmental Group
HELIX Environmental Planning Inc.

Sunrise Powerlink Project

Figure Ap. 11A-8
Proposed Project Detail

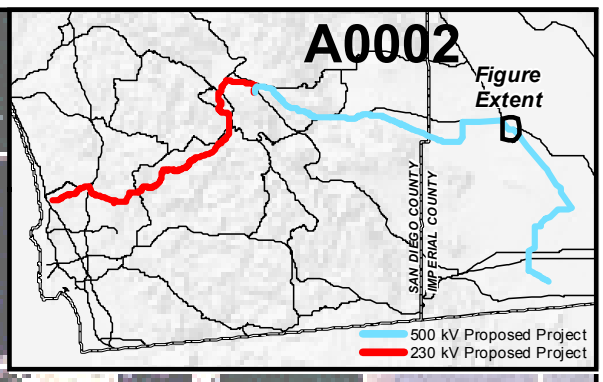


Proposed Project 500 kV
Existing IID 92 kV Transmission Line
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
D72 Tower Identification
Bureau of Land Management
Department of Defense Land

Aspen Environmental Group
HELIX Environmental Planning Inc.

Sunrise Powerlink Project

Figure Ap. 11A-9
Proposed Project Detail



Pull Sites
Access Roads
D46
38
D47
D48
Access Road
D49
39
San Sebastian Marsh/ San Felipe Creek ACEC
Staging Area
D50
78
Access Road
D51
D52
D53
38
Access Road
Pull Sites
Access Road
D54
Pull Sites
Access Road
Old Kane Spring Road
D55
Access Road
D56
37
D57
Access Road
D58
D59

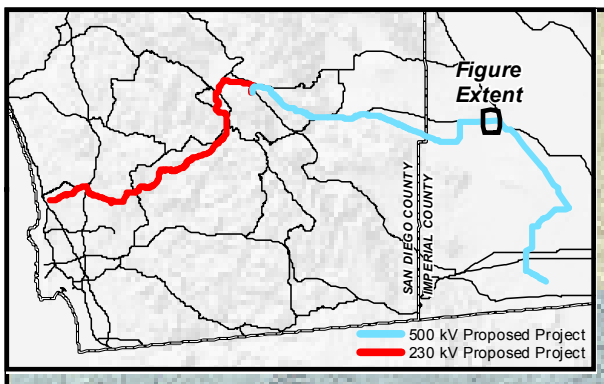
N
0 1,500 Feet
0 0.5 Miles

Proposed Project 500 kV
Existing IID 92 kV Transmission Line
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
D59 Tower Identification
Bureau of Land Management
State Land
Area of Critical Environmental Concern (ACEC)

Aspen Environmental Group
HELIX Environmental Planning Inc.

Sunrise Powerlink Project

Figure Ap. 11A-10
Proposed Project Detail



A0002

86

43 42 41

D36 D37 D38 D39 D40 D41 D42 D43 D44 D45

78

Access Road

Pull Site

Access Road

San Sebastian Marsh/San Felipe Creek ACEC

San Sebastian Marsh/San Felipe Creek ACEC

San Sebastian Marsh/San Felipe Creek ACEC

Old Kane Spring Road

N

0 1,500 Feet

0 0.5 Miles

Proposed Project 500 kV

1 Milepost

Permanent Impacts

Temporary Impacts

Access Road (Permanent Impact)

D45 Tower Identification

Bureau of Land Management

State Land

Area of Critical Environmental Concern (ACEC)

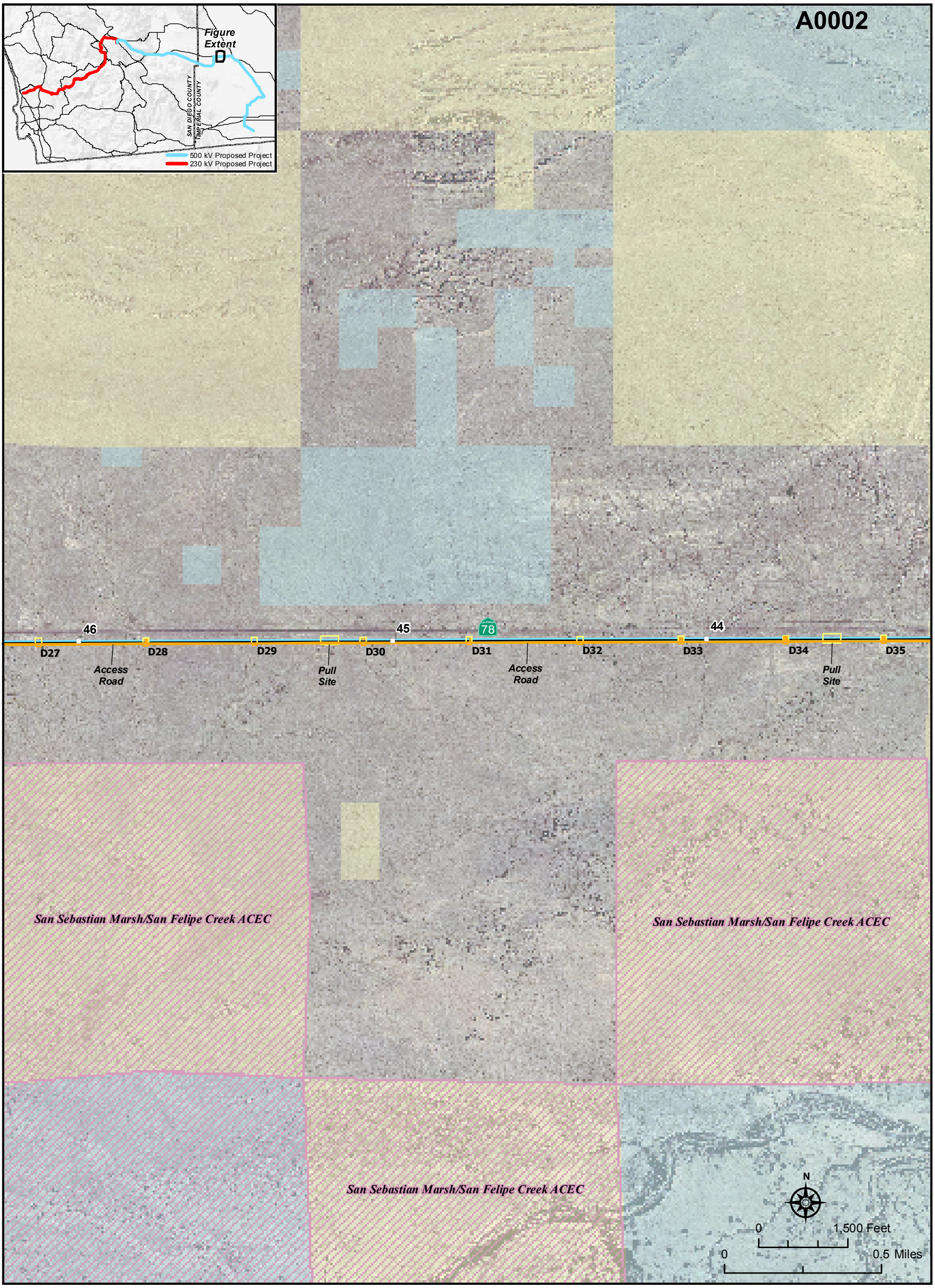
Aspen Environmental Group

HELIX Environmental Planning Inc.

Sunrise Powerlink Project

Figure Ap. 11A-11

Proposed Project Detail



Proposed Project 500 kV
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
D45 Tower Identification

Bureau of Land Management
State Land
Area of Critical Environmental Concern (ACEC)

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HELIX Environmental Planning Inc.

Sunrise Powerlink Project

Figure Ap. 11A-12
Proposed Project Detail

A0002

Arroyo Salada Open Area

92 kV Substation

Pull Sites

78

D24 47 D25 D26

D23

D22

Access Road

D21 48

San Sebastian Marsh/San Felipe Creek ACEC

D20

D19

Pull Site

D18 49

San Sebastian Marsh/San Felipe Creek ACEC

D17

Access Road

D16

Juan Bautista de Anza National Historic Trail

D15

Access Road 50

D14 Pull Sites

Access Road

D13

Fages-De Anza Trail-Southern Emigrant Road

Old Kane Spring Road

D11

Access Road

Pull Site

52 D8 D9 51

Access Road

Access Road

D7 D10

Pull Sites

N

0 1,500 Feet

0 0.5 Miles

Figure Extent

SAN DIEGO COUNTY
IMPERIAL COUNTY

500 kV Proposed Project
230 kV Proposed Project

Proposed Project 500 kV
Existing IID 92 kV Transmission Line
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
D26 Tower Identification
Bureau of Land Management
State Land
Area of Critical Environmental Concern (ACEC)
Recreation Area
Recreation Area
Substation

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Sunrise Powerlink Project

Figure Ap. 11A-13

Proposed Project Detail

Proposed Project 500 kV
Existing IID 92 kV Transmission Line
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
Access Road (Temporary Impact)
D6 Tower Identification
Bureau of Land Management
State Land
Recreation Area
Recreation Area

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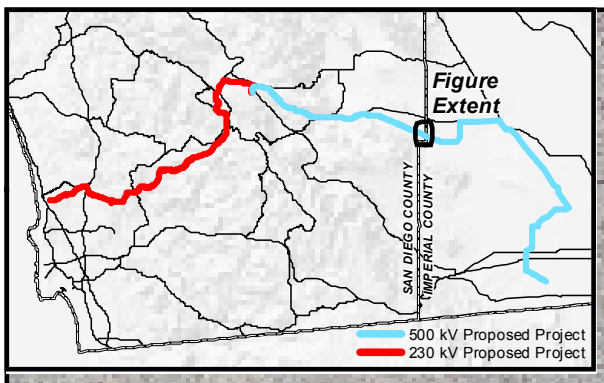
Sunrise Powerlink Project

Figure Ap. 11A-14
Proposed Project Detail

A0002



Kings-De Anza Trail-
Southern Emigrant Road

Access Road
SP182
Access Road
SP183
58
Old Kane Spring Road
Pull Site
SP184
Access Road
SP185
SP186
57
Access Road
SP187
Access Roads
SP188
Access Roads
SP189
56
Access Road
SP190
Access Roads
Pull Site
SP191
Access Roads

Split Mountain Road

Anza-Borrego Desert State Park

N
0 1,500 Feet
0 0.5 Miles

Proposed Project 500 kV
Existing IID 92 kV Transmission Line
1 Milepost
Permanent Impacts
Temporary Impacts
Access Road (Permanent Impact)
SP191 Tower Identification
Bureau of Land Management
State Land
State Park
Anza-Borrego Desert Wilderness Area
Peninsular Bighorn Sheep Critical Habitat
Recreation Area

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Sunrise Powerlink Project

Figure Ap. 11A-15
Proposed Project Detail

Executive Summary

This EIR/EIS does not make a recommendation regarding the approval or denial of the project. It is purely informational in content, and will be used by the CPUC and BLM in considering whether to approve the Proposed Project or any of the alternatives analyzed in this EIR/EIS.

ES.1 Introduction/Background

The Sunrise Powerlink Project (SRPL) is a proposal by San Diego Gas & Electric Company (SDG&E or "the Applicant") to construct a 150-mile transmission line from SDG&E's Imperial Valley Substation near El Centro, Imperial County, to SDG&E's Peñasquitos Substation near Interstate 805, in coastal San Diego (see Figure ES-1).

On November 2, 2005, San Diego Gas & Electric Company (SDG&E) filed with the Bureau of Land Management (BLM) a Right-of-Way (ROW) Grant application. On December 14, 2005, SDG&E submitted to the California Public Utilities Commission (CPUC) an application (A.06-08-010) for a Certificate of Public Convenience and Necessity (CPCN), and subsequently, on August 4, 2006, submitted an amended application accompanied by its Proponent's Environmental Assessment (PEA) for the Sunrise Powerlink (SRPL) Transmission Line Project (Proposed Project or SRPL Project). The Proposed Project primarily consists of new electric transmission lines between the Imperial Valley Substation and the western portion of SDG&E's service area in San Diego and a new substation in central San Diego County, along with other system upgrades and modifications.

This Draft Environmental Impact Report/Environmental Impact Statement (Draft EIR/EIS) has been prepared jointly by two agencies, the CPUC as Lead Agency under the California Environmental Quality Act (CEQA) and the U.S. Department of the Interior, BLM as federal Lead Agency under the National Environmental Policy Act (NEPA). The EIR/EIS provides information about the environmental setting and impacts of the Proposed Project and alternatives. It informs the public about the project and its impacts, and provides information to meet the needs of local, State, and federal permitting agencies required to consider the project proposed by SDG&E. The EIR/EIS will be used by the CPUC in conducting the proceeding to determine whether to grant SDG&E's requested CPCN for the project and by the BLM to determine whether to grant SDG&E a ROW Grant on BLM-administered land in its Record of Decision.

The Draft EIR/EIS takes into account and reflects comments, information, and points of concern offered by government officials and agencies, nongovernmental organizations, and members of the public. This input was gathered during an extensive public involvement and outreach process that is detailed in Section ES.4.

This EIR/EIS presents an evaluation of the environmental impacts that would result from construction and operation of SDG&E's proposed Sunrise Powerlink Project. It presents recommended mitigation measures that, if adopted, would avoid or minimize many of the significant environmental impacts identified. In accordance with CEQA and NEPA requirements, this EIR/EIS also identifies alternatives to the Proposed Project (including the No Project Alternative). These are alternatives that could avoid or minimize significant environmental impacts associated with the project as proposed by SDG&E, while meeting most if not all of SDG&E's objectives.

ES.2 Summary of Draft EIR/EIS Conclusions: Environmentally Superior Alternative

This EIR/EIS analyzes the environmental impacts of SDG&E's Proposed Project as well as alternatives that were developed as a result of public and agency input during the scoping process. The EIR/EIS presents an analysis for the Proposed Project and 27 alternatives to the Proposed Project. As documented in detail in the Alternatives Screening Report (see Appendix 1 to the Draft EIR/EIS), 70 additional alternatives were also considered but eliminated from detailed consideration.

The CEQA/NEPA criteria used to determine whether to include alternatives for analysis in the EIR/EIS was based on the following three factors: (1) meeting most project objectives; (2) reducing significant effects of the Proposed Project; and (3) being feasible in terms of possible legal, regulatory or technical constraints. After an alternative was retained for analysis, the process used for comparison of alternatives was based solely on the environmental impacts of each alternative as defined in the EIR/EIS. The ranking of alternatives did not re-consider the extent to which each alternative met the original screening criteria.

The CPUC has identified the Environmentally Superior Alternative, as required by CEQA Guidelines 15126.6(e)2. In accordance with BLM planning regulations, BLM's Agency Preferred Alternative will be identified in the Final EIS (BLM Manual 1790-1, Ch. V(B)(4)(c)). The BLM will select a preferred alternative following analysis of public comments on the Draft EIS/EIR and further internal review of the Draft EIR/EIS. NEPA guidance states that the environmentally preferable alternative is the one that causes the least damage to the biological and physical environment, and best protects, preserves, and enhances historic, cultural and natural resources (NEPA's 40 Most Asked Questions, 6a).

The results of the comparisons of transmission and generation alternatives are presented below. The overall Environmentally Superior Alternative is listed first and the lowest ranked alternative is listed eighth. Additional detail on these conclusions and how they were reached is presented in Section ES.6 of this Executive Summary and Section H of the EIR/EIS. The ranking is based only on the level of environmental effects as determined in the EIR/EIS analysis. Note that while the numbers of significant, unmitigable impacts presented for each alternative below are informative, they do not explain the relative extent and scale of impacts so they cannot be used alone to compare alternatives. The highest ranked transmission alternative that provides direct access to renewable resources in the Imperial Valley is the southern route identified as the "Interstate 8 Alternative with Modified Route D Alternative," which avoids Anza-Borrego Desert State Park.

Overall Environmentally Superior Alternative

1. New In-Area All-Source Generation Alternative

Description: One baseload and four peaking gas-fired power plants (700 MW) plus San Diego County renewable generation (300 MW of wind, solar photovoltaics, biomass/biogas; see Figure ES-2).

Rationale for Ranking: Has 35 significant, unmitigable impacts but gas-fired generation would be concentrated at already disturbed sites; only 11 miles of new transmission line. No effects on state parks or National Forest System lands. With smaller renewable components (with 150 acres of permanent habitat loss), ground disturbance and significant impacts to recreation areas and visual resources are reduced in comparison to the New In-Area Renewable Generation Alternative.

Environmental Ranking of other Transmission Projects and Alternatives

2. New In-Area Renewable Generation Alternative

Description: 1,000 MW of wind, solar thermal, solar photovoltaics, and biomass/biogas in San Diego County (see Figure ES-2).

Rationale for Ranking: Has 34 significant, unmitigable impacts resulting from substantial ground disturbance and visual impacts in and adjacent to recreation areas. No effects on National Forest System lands; visual impact of hypothetical Borrego Springs solar thermal facility would indirectly affect surrounding Anza-Borrego Desert State Park wilderness areas. Requires 47 miles of new transmission lines (with 1,600 acres of permanent habitat loss).

3. LEAPS Transmission-Only Alternative

Description: 32 miles of new 500 kV transmission line primarily on National Forest land in Riverside and Orange Counties; 48-mile upgraded 230 kV line in existing corridor; new substation, switching station (see Figure ES-3). Meets two of three major project objectives; does not provide direct access to the transmission grid for new renewable resources in the Imperial Valley.

Rationale for Ranking: Shortest transmission alternative. Has 30 significant, unmitigable impacts to visual resources, recreation, land use, and historic facilities. Substantially greater wildfire risk than non-wires alternatives. Highly visible in Cleveland National Forest, through northern Lake Elsinore, and at crossings of Interstate 15. Much shorter length of new transmission line compared to other transmission alternatives results in reduced impacts when compared to other transmission alternatives in biological and cultural resources, air and water quality, and visual resources.

4. Environmentally Superior Southern Route (SWPL) Alternative

Description: Interstate 8 Alternative with Modified Route D Alternative (and three route options). 110 miles total (104 miles overhead; 5.9 miles underground; see Figure ES-4). Meets all major project objectives including reliability with respect to fire risk and collocation with SDG&E's existing Southwest Powerlink (SWPL), and allows for future transmission system expansion. Would encourage development of renewable generation in Imperial Valley with additional impacts.

Rationale for Ranking: Has fewer (32) significant, unmitigable impacts than the Environmentally Superior Northern Route Alternative; substantially shorter than Northern Route Alternative or Proposed Project; avoids Anza-Borrego Desert State Park and cultural resources of regional concern; crosses 16 miles of National Forest land but within acceptable land use zones and proposed Section 368[1] utility corridor. Collocated with existing 500 kV Southwest Powerlink for only 36 miles, in area of low fire risk.

5. Environmentally Superior Northern Route Alternative

Description: Proposed Project (75 miles) plus 8 alternatives (64 miles) replacing proposed segments, with 85 miles overhead and 54 miles of underground 230 kV transmission line (see Figure ES-3). Meets all major project objectives. Would encourage development of renewable generation in Imperial Valley with additional impacts.

Rationale for Ranking: Has 39 significant, unmitigable impacts. Requires extensive undergrounding to minimize visual impacts in scenic areas. Located underground through Anza-Borrego Desert

[1] Energy Policy Act of 2005, Section 368, required designation of federal energy corridors. This alternative includes a corridor identified in West-wide Energy Corridor Draft Programmatic EIS, published by the Department of Energy in November 2007.

State Park, requiring extended construction time and higher cost. Future transmission system expansion would likely require overhead transmission lines through the Park.

6. Proposed Project

Description: Route defined by SDG&E: 150 miles total (141 miles overhead; 9 miles underground 230 kV). One new substation; 4 substation upgrades; reconductor segment (see Figure ES-1). Meets all major project objectives. Would encourage development of renewable generation in Imperial Valley, with additional impacts.

Rationale for Ranking: Has 50 significant, unmitigable impacts. Greatest overall length of new transmission. New 500 kV line creates numerous direct impacts within Anza-Borrego Desert State Park including de-designation of State Wilderness, degradation of views and recreational opportunities, and impacts on Traditional Cultural Properties. Severe visual effects in Santa Ysabel Valley.

7. LEAPS Generation and Transmission Alternative

Description: 32 miles of new 500 kV transmission line primarily on National Forest land in Riverside and Orange Counties; 48-mile upgraded 230 kV line; new substation, switching station. New powerhouse, pumping/generation turbines, and reservoir. Meets two of three major project objectives.

Rationale for Ranking: Has 44 significant, unmitigable impacts. Generation facilities affect Forest land and City of Lake Elsinore, including residences and a school. Tailrace structure crosses Willard Fault; risk of dam and dike failure. Generation component causes loss of public access to over 100 acres of Forest land.

No Project/No Action Alternative. The No Project/No Action Alternative scenario includes a menu of likely development actions (with both generation and transmission components) that are considered to be more likely to occur in the absence of the Proposed Project. Most of these actions are also components of the alternatives ranked first, second, and third in the list above. The No Project/No Action Alternative would have fewer impacts than those of the Proposed Project, the Southern Route Alternative, and the LEAPS Generation and Transmission Alternative, and impacts equivalent to the alternatives ranked first, second, and third above. Only about 1,000 MW of in-basin generation or transmission import capacity would be required to replace the Proposed Project, so any one of the three top ranked alternatives would provide adequate resources. However, they may or may not all meet all three major project objectives, including provision of direct access to the transmission grid for new renewable resources in the Imperial Valley.

A. Introduction

On November 2, 2005, San Diego Gas & Electric Company (SDG&E) filed with the Bureau of Land Management (BLM) a Right-of-Way (ROW) Grant application. On December 14, 2005, SDG&E submitted to the California Public Utilities Commission (CPUC) an application for a Certificate of Public Convenience and Necessity (CPCN), and subsequently, on August 4, 2006, submitted an amended application accompanied by its Proponent's Environmental Assessment (PEA) for the Sunrise Powerlink (SRPL) Transmission Line Project (Proposed Project).

The California Public Utilities Commission identifies the SRPL Project as Application A.06-08-010 (formerly A.05-12-014). This Draft Environmental Impact Report/Environmental Impact Statement (Draft EIR/EIS) has been prepared by the CPUC as Lead Agency under the California Environmental Quality Act (CEQA) and the U.S. Department of the Interior, BLM under the National Environmental Policy Act (NEPA) to inform the public and to meet the needs of local, State, and federal permitting agencies to consider the project proposed by SDG&E (or "the Applicant").

The project proposed by SDG&E is described briefly below, and in detail in Section B of this EIR/EIS. **This EIR/EIS does not make a recommendation regarding the approval or denial of the project; it is purely informational in content, and will be used by the CPUC and BLM in considering whether to approve the Proposed Project or any of the alternatives analyzed in this EIR/EIS.**

This EIR/EIS evaluates and presents the environmental impacts that are expected to result from construction and operation of SDG&E's proposed Sunrise Powerlink project, and presents recommended mitigation measures that, if adopted, would avoid or minimize many of the significant environmental impacts identified. In accordance with CEQA and NEPA requirements, this EIR/EIS also identifies alternatives to the Proposed Project (including the No Project Alternative) that could avoid or minimize significant environmental impacts associated with the project as proposed by SDG&E, and evaluates the environmental impacts associated with these alternatives. Based on this environmental impact assessment, as well as the relative sensitivities of impacts in the study region, this EIR/EIS identifies the Environmentally Superior Alternative as required by CEQA. BLM has decided not to identify an Agency Preferred Alternative in the Draft EIR/EIS, as allowed by BLM's NEPA guidelines (BLM Manual 1790-1, Ch. V(B)(4)(c)).

The contents of this Draft EIR/EIS reflect input by government officials, agencies, nongovernmental organizations, and concerned members of the public during the two EIR/EIS scoping periods following the CPUC's publication of the Notice of Preparation (NOP) of an EIR/EIS (September 15, 2006) and the BLM's publication of the Notice of Intent (NOI; August 31, 2006). During these comment periods, several public involvement activities were completed: distribution of the NOP by mail, publication of the NOI in the Federal Register, and two scoping meeting notices, establishment of an Internet web page and a telephone hotline, 15 public scoping meetings (seven in October 2006 and eight in February 2007), and meetings with a number of affected local jurisdictions (see details in Section I). Consultation with agencies and tribal governments also continued after the formal scoping periods ended. In addition, notices regarding alternatives to be evaluated in the EIR/EIS were mailed in March and May of 2007.

This section is organized as follows: Section A.1 summarizes the SRPL Project as proposed by SDG&E; Section A.2 outlines the purpose and need for the Proposed Project as defined by SDG&E; Section A.3 explains the process of electricity procurement and resource adequacy planning as overseen by State

agencies; Section A.4 describes the region's electric system and presents information related to the need for the Proposed Project; Section A.5 describes renewable generation in the Imperial Valley; Section A.6 describes agency use of the EIR/EIS, and includes a brief description of the CPUC, BLM, and other agencies' processes for consideration of project approval; and Section A.7 presents a Reader's Guide to this EIR/EIS, explaining how it is organized.

A.1 Overview of Proposed Project

SDG&E proposes to construct a new 91 miles, 500 kilovolt (kV) electric transmission line from Imperial Valley Substation (in Imperial County, near the City of El Centro) to a new Central East Substation (in central San Diego County, southwest of the intersection of County Highways S22 and S2) and a new 59 miles 230 kV electric transmission line that includes both overhead and underground segments from the new Central East Substation to SDG&E's existing Peñasquitos Substation (in the City of San Diego). Section B presents a detailed description of the Proposed Project; the general location is illustrated in Figure ES-1 in the Executive Summary and in Figure B-1 in Section B. Each of the components of the Proposed Project is described below.

Imperial Valley Link

- The easternmost segment of the project would consist of 60.9 miles of the route, including the entire Imperial County portion and a few miles in San Diego County.
- Land ownership within the 61 miles Imperial Valley Link is primarily private (28.4 miles) and BLM land (31.4 miles). Land uses along the Imperial Valley Link include agriculture (13.5 miles), open space and recreation (46.2 miles) and undeveloped private property.
- The SRPL in the Imperial Valley Link would require construction of a total of 205 new 500 kV towers with an average height of 160 feet.
- The Imperial Valley Link would require that SDG&E obtain a new 200-foot Right of Way (ROW), and would require construction of 49.4 miles of new access roads.
- The Imperial Valley Link also includes upgrades to the existing SDG&E Imperial Valley Substation to accommodate the termination of the new 500 kV transmission line.

Anza-Borrego Link

- The Proposed Project would include 22.6 miles through the Anza-Borrego Desert State Park (ABDSP).
- The entire Anza-Borrego Link would be located within ABDSP. The project as proposed in the Park would be located on 50.2 acres of land designated as State Wilderness, requiring the de-designation of that land from wilderness status. The Anza-Borrego Link would follow much of an existing ROW within the Park. The ROW is generally 100 feet wide, but the project would require that SDG&E obtain at least an additional 50 feet of ROW from the State Park. While existing access roads would be used along most of the Anza-Borrego Link, eight miles of new access roads would be required.
- Within the Park, a total of 141 new 500 kV towers would be constructed at an average height of 130 feet. The existing 92 kV (east of Narrows Substation) and 69 kV (west of Narrows Substation) lines would be installed underground along SR78 or would be added to the 500 kV towers as an "underbuild." The existing wood poles would be removed.

Central Link

- The project within the Central Link would be 27.3 miles long, including 7.4 miles of 500 kV line and 19.9 miles of 230 kV line.
- Land ownership along the Central Link is: Vista Irrigation District (8.7 miles), private property (11.1 miles), and SDG&E (0.1 miles). The route would pass adjacent to the Santa Ysabel Reservation and just outside of the Cleveland National Forest and San Felipe Hills Wilderness Study Area (BLM). Land uses along the Central Link include undeveloped open space (22 miles), agriculture (5.1 miles), roads (0.3 miles), and park land (0.2 miles).
- The Central Link would include portions of both the 500 kV and 230 kV transmission lines, and the proposed new Central East Substation. Thirty five new 500 kV lattice towers would average 160 feet tall, and 123 new 230 kV towers would average 120 feet tall. The 500 kV line would follow SDG&E's existing 69 kV transmission line ROW through Grapevine Canyon for approximately four miles, where the existing 69 kV circuit would be removed from the wood poles and attached (underbuilt) to the 500 kV structures through this segment.
- The double-circuit 230 kV line would parallel a rebuilt 69 kV transmission line that is currently located along SR79 for approximately nine miles, where the existing 69 kV circuit would be relocated and placed on new tubular steel poles within the SRPL ROW. The existing 69 kV poles would be removed along these nine miles.
- New ROW would be required in the Central Link ranging from 200 to 300 feet in width, and construction of 36.4 miles of new access roads would be required.
- The proposed Central East Substation, requiring approximately 106 acres of disturbance, would be located on a parcel owned by SDG&E. The substation would include the 500 kV and 230 kV transmission lines and 500/230 kV transformer banks.

Inland Valley Link

- The 25.5 miles route in this area would begin southwest of Santa Ysabel, pass south of central Ramona, and end at the existing SDG&E Sycamore Canyon Substation on the north edge of Marine Corps Air Station Miramar.
- Land ownership in the Inland Valley Link includes SDG&E ROW (16.9 miles), BLM (1.2 miles), Department of Defense – Marine Corps Air Station (MCAS) Miramar (0.7 miles), Vista Irrigation District (0.1 miles), San Diego County (1.1 miles), and private (6.1 miles). Land use in this link includes undeveloped open space (13.1 miles), agricultural land (1 mile), recreation (7 miles) and public streets in residential areas (through which the route would pass for 4.2 miles underground in roads).
- New 230 kV towers would average 120 feet tall, and would include 125 double-circuit 230 kV tubular steel poles with lattice structures being used in areas where limited vehicle access would require helicopter construction. In addition, two tubular steel cable poles would be located at each end of the underground segment south of Ramona to transition between overhead and underground segments, each supporting conductors for a single 230 kV circuit.
- Much of the Inland Valley Link would parallel an existing 69 kV transmission line, but 13 miles of new ROW would need to be acquired, ranging from 60 to 200 feet in width. Nearly 8 miles of new access roads would be required.

Coastal Link

- A new, 13.6 miles single-circuit 230 kV transmission line would be constructed from the existing Sycamore Canyon Substation in Rancho Peñasquitos and terminate at the existing Peñasquitos Substation in the Torrey Hills area of the City of San Diego. An existing 138 kV line on H-frame structures would be relocated onto the new 230 kV towers, and the existing H-frame towers would be removed.
- Land ownership in the Coastal Link includes: SDG&E ROW (11.8 miles), private property (0.1 miles), City of San Diego (1.4 miles), and Department of Defense – MCAS Miramar (0.3 miles). Land use in this link includes commercial (0.1 miles) open space and parks (11.2 miles), utilities and transportation (1.8 miles) and residential (0.4 miles). The Coastal Link would traverse 1.6 miles of Los Peñasquitos Canyon Preserve.
- The Coastal Link would require construction of 48 new structures averaging 120 feet tall.
- The Coastal Link would include modifications to the existing Sycamore Canyon and Peñasquitos Substations. The Sycamore Canyon Substation would be modified to accommodate termination of three new 230 kV transmission circuits. The Peñasquitos Substation would be modified to accommodate one new 230 kV circuit.
- Approximately 0.4 miles of new access roads would be required in this segment.

Other System Upgrades

- A reconductor[1] of the existing Sycamore Canyon to Elliot 69 kV transmission line would be required.
- The San Luis Rey Substation would be modified with the addition of a third 230/69 kV transformer and a 230 kV, 69 Mega Volt Ampere Reactive (MVAR) shunt capacitor.
- The South Bay Substation would be modified with the addition of a 69 kV, 50 MVAR shunt capacitor.

Future Transmission System Expansion

- **230 kV Future Phases.** At least four additional 230 kV future circuits may be required after the two 230 kV circuits proposed as part of the SRPL. This expansion may not be needed for decades, but two additional 230 kV circuits are possible within the first decade following completion of the Sunrise Powerlink. The most likely substation end points for the additional 230 kV circuits are Sycamore Canyon, Peñasquitos, Escondido, Mission, and Los Coches Substations.
- **500 kV Future Phases.** While not currently planned by SDG&E, a 500 kV circuit may be constructed from the proposed Central East Substation to connect with the Southern California Edison transmission system. This would involve construction of a new 500 kV transmission line, likely following an existing 69 kV transmission corridor and also possibly the route of the Lake Elsinore Advanced Pumped Storage (LEAPS) Project's 500 kV line.

Connected Actions and Indirect Effects

The CPUC and BLM have determined that four projects are so closely related to the Proposed Project as to be considered "connected actions" under NEPA. These four projects are the Stirling Energy Systems solar facility, two components of the IID 230 kV transmission system upgrades, the Esmeralda–San Felipe Geothermal Project, and the Jacumba 230/500 kV Substation (see Figure B-1, Section B). One

[1] Reconductoring is the installation of new, higher capacity conductors, generally on existing towers (some new towers would be required when existing towers cannot support the greater weight of the new conductors).

additional project, a wind project in northern Mexico's La Rumorosa area, under contract to meet Southern California Edison's renewable requirements, is considered as an "indirect effect" of the Proposed Project.

A.2 Purpose and Need for the Proposed Project

SDG&E explains that it developed the Sunrise Powerlink Project for three major reasons (1) to bring renewable energy resources to San Diego County from Imperial County by providing access to remote areas with the potential for significant development of renewable energy sources; (2) to improve electric reliability within the San Diego area by providing additional transmission during peak loading and for the region's growing economy; (3) and to reduce congestion and power supply costs of delivering electricity to ratepayers (SDG&E, 2006a).

A.2.1 SDG&E's Project Objectives

As stated by SDG&E (in PEA Section 3.1), the eight objectives for building the SRPL are to:

1. Ensure SDG&E's transmission system satisfies minimum California Independent System Operator (CAISO), North American Electric Reliability Corporation (NERC), and Western Electricity Coordinating Council (WECC) reliability criteria throughout the planning horizon of the Long-Term Resource Plan (LTRP) and beyond, including the requirement that there be no loss of load within the San Diego area under G-1/N-1 contingency conditions.[2] Avoid siting the Proposed Project parallel to Southwest Powerlink (SWPL) for long distances especially avoiding areas with fire history or fire potential.

2. Provide a transmission facilities with a voltage level and transfer capability that (a) allows for prudent system expandability to meet both anticipated short-term (2010) and long-term (2015 and beyond) load growth through a total San Diego area import capability of at least 4,200 MW (all lines in service) and 3,500 MW (under G-1/N-1 contingency conditions) and (b) supports regional expansion of the electric grid.

3. Provide transmission capability for Imperial Valley renewable resources for SDG&E customers to assist in meeting or exceeding California's 20% renewable energy source mandate by 2010 and the Governor's proposed goal of 33% by 2020.

4. Reduce the above-market costs associated with maintaining reliability in the San Diego area while mitigating the potential exercise of local market power, particularly the costs associated with inefficient generators such as the South Bay and Encina Power Plants.

5. Improve regional transmission system infrastructure to provide for the delivery of adequate, reliable and reasonably priced energy supplies and implement the transmission elements of state and local energy plans.

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[2] This "G-1/N-1" standard requires a defined area system to withstand the simultaneous outage of its largest generating unit (G-1) and largest transmission interconnection (N-1), and be able to withstand the *next* most critical transmission outage without dropping load.

6. Obtain electricity generated by diverse fuel sources and decrease the dependence on increasingly scarce and costly natural gas.

7. Avoid, to the extent feasible, the taking and relocation of homes, businesses or industries, in the siting of the transmission line, substation and associated facilities.

8. Minimize the need for new or expanded transmission line ROW in urban or suburban areas of the SDG&E service territory already traversed by multiple high voltage transmission facilities and, to the extent feasible, assist in implementing local land use goals.

A.2.2 CPUC and BLM Objectives

Having taken into consideration the eight objectives set forth by SDG&E above, the CPUC and BLM identified the following three basic project objectives:

- Basic Project Objective 1: to maintain reliability in the delivery of power to the San Diego region.
- Basic Project Objective 2: to reduce the cost of energy in the region.
- Basic Project Objective 3: to accommodate the delivery of renewable energy to meet State and federal renewable energy goals from geothermal and solar resources in the Imperial Valley and wind and other sources in San Diego County.

A.2.3 Purposes of the Proposed Project

The application for the Proposed Project (A.06-08-010, formerly A.05-12-014) includes SDG&E's statement of the Purpose and Need. For informational purposes, a summary of the statement is copied here. SDG&E states that the Sunrise Powerlink Project would:

- **Maintain Reliability**. The project will enable the San Diego transmission system to satisfy the grid reliability requirements of the California Independent System Operator ("CAISO"). Without the project, SDG&E and the CAISO project a reliability deficiency in the San Diego area starting in 2010. The project will continue to allow SDG&E and other Load Serving Entities ("LSEs") within the San Diego service area to reliably serve their customers during periods of unusually high energy demand in the event of critical overlapping generation and transmission contingencies. Regulations, industry standards and good business practice require planning for the reliable operation of the electric transmission grid under adverse weather and system conditions.
- **Promote Renewable Energy**. Consistent with Senate Bill ("SB") 1078 and the State's Energy Action Plan ("EAP"), Sunrise will provide California consumers more economical access to the Imperial Valley, an area that is rich in renewable resource potential. Further, it will encourage the development of such resources thereby diversifying the State's resource mix and reducing its reliance on fossil-fueled generation. Similarly, Sunrise will also provide access for renewable wind resources development in the southeastern portions of San Diego County.
- **Reduce Energy Costs**. In addition to maintaining grid reliability and improving access to renewable energy resources, this cost-effective project will provide $552 million per year in net energy savings for California electricity customers under normal operating conditions. These savings will come in the form of reduced energy costs and congestion savings resulting from increased access to lower cost sources of power in the desert southwest and reduced reliance on older, less efficient in-

area generation. All customers in the CAISO control area will share in these benefits. Indeed, the CAISO confirms that these benefits enable Sunrise to pay for itself (SDG&E, 2006a).

A.3 Procurement and Resource Adequacy

The CPUC reviews and approves plans for California's investor-owned utilities (IOU's) to purchase energy. The procurement and resource adequacy programs, described in Section A.3.1, establish policies and utility cost recovery for energy purchases; ensure that the utilities maintain a set amount of energy above what they estimate they will need to serve their customers (called a reserve margin); and implement a long-term energy planning process.

The CPUC also reviews and adopts IOU plans for obtaining renewable energy. Each California electrical company is required each year to obtain a minimum amount of electricity from renewable energy resources, with the goal of reaching procurement equal to 20 percent of total retail sales by 2010. These requirements are described in Section A.3.2.

A.3.1 CPUC Requirements for Procurement and Resource Adequacy

The CPUC oversees multiple proceedings related to procurement and resource adequacy[3] by reviewing and approving plans made by the utilities to purchase energy and establishing policies and utility cost recovery for energy purchases. The aim is to ensure that the utilities maintain a set amount of available energy above the forecast levels needed to serve their customers (called a reserve margin), and to implement a long-term energy planning process.

In the December 16, 2004 CPUC Decision (D.) 04-12-048, the CPUC approved the long-term procurement plan (LTPP) submitted by SDG&E in July 2004 (R.04-04-003). SDG&E was found to have full resources through 2009, except for procuring sufficient renewables to meet the Renewable Portfolio Standard levels.

At a conceptual level, the proposed Sunrise Powerlink Project was included in the 2004 LTPP. The configuration approved by the CPUC as part of the 2004 LTPP included a new 500 kV line following a general east-west direction to interconnect the Imperial Valley Substation with SDG&E's existing 230 kV grid. Another north-south 500 kV line as proposed as part of the Lake Elsinore Advanced Pumped Storage Project (LEAPS) was also defined conceptually in the 2004 LTPP.

A new 2006 process for long-term procurement plans initiated with Rulemaking (R.) 06-02-013, which is the CPUC's effort to integrate its procurement policies with review of periodically updated procurement plans provided by the utilities. The LTPP proceeding is the successor to R.04-04-0031 and R.01-10-024. On July 20, 2006, the Commission adopted decisions D.07-06-029, which established a cost allocation methodology for new resource contracts, and D.07-06-031, which resolved additional resource adequacy implementation issues and further refined the definition of a standard tradable resource adequacy capacity product. On August 10, 2006, the Energy Division released the 2007 Resource Adequacy Guide and reporting templates.

[3] Resource adequacy is defined as the ability of the electric system to supply the aggregate electrical demand and energy requirements of the customers at all times, taking into account scheduled and reasonably expected unscheduled outages of system elements.

B. Project Description

B.1 Introduction

Section B describes the Sunrise Powerlink Transmission Project ("SRPL" or "Proposed Project") as proposed by San Diego Gas and Electric Company (SDG&E). The potential environmental effects of the project as described here are analyzed in Section D. Section B.2 presents an overview of the Proposed Project including possible future transmission system expansions. Section B.3 details the Proposed Project components and design specifications. Section B.4 describes the construction activities and procedures associated with the Proposed Project, Section B.5 explains the operation and maintenance procedures, Section B.6 contains a description of SRPL "Connected Actions" under the National Environmental Policy Act (NEPA) and "Indirect Effects" of the Proposed Project. Section B.7 presents a comprehensive listing of SDG&E's Applicant Proposed Measures (APMs) to reduce potential impacts resulting from the Proposed Project.

This section includes maps of the Proposed Project area that illustrate land-ownership and general routing. Appendix 11 of the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) includes detailed maps that illustrate the approximate proposed locations of each transmission structure and associated facilities based upon the status of SDG&E's preliminary engineering studies to date.

The Project Objectives as defined by both SDG&E and the CPUC/BLM, along with the NEPA discussion of Purpose and Need for the Proposed Project, are set forth in Section A.2 of this EIR/EIS.

B.2 Overview of the Proposed Project

SDG&E proposes to construct new electric transmission lines between the existing Imperial Valley and Peñasquitos Substations, a proposed new Central East Substation, and other system modifications in order to reliably operate the new lines. Collectively, the proposed transmission line, substation and system modifications are known as the Sunrise Powerlink Transmission Project (SRPL). The entire project would traverse approximately 150 miles between the El Centro area of Imperial County and northwestern San Diego County, in southern California. The location of the Proposed Project is illustrated in Figure B-1. The project, as proposed by SDG&E, includes the following components:

Transmission Lines

- Construction of an overhead single-circuit 500 kV transmission line from the existing Imperial Valley Substation to a new 500/230 kV substation referred to as the Central East Substation.
- Construction of a double-circuit 230 kV transmission line from the Central East Substation to the existing Sycamore Canyon Substation. This project component consists of both overhead and underground segments.
- Construction of a single-circuit 230 kV transmission line from the existing Sycamore Canyon Substation to the existing Peñasquitos Substation. This project component consists of both overhead and underground segments.
- Relocation of an existing 69 kV transmission line to parallel the proposed 230 kV overhead transmission lines between the junction of State Route (SR) 76 and SR79 and a point near the existing Santa Ysabel Substation. To accommodate the proposed relocation, this segment would also include

removal of the existing 69 kV structures, and placement of new towers along a nine miles segment to accommodate the relocated 69 kV line.

- Relocation of the existing 69 kV and 92 kV transmission lines to the Proposed Project ROW between the eastern boundary of Anza-Borrego Desert State Park (ABDSP) and the proposed Central East Substation. This segment would include placing portions of the existing 69 or 92 kV lines underground within the adjacent SR78 roadway and placing other portions of the existing 69 or 92 kV lines onto the 500 kV towers.

Substations

- Modification of the existing Imperial Valley Substation to accommodate termination of one new 500 kV transmission line
- Construction of the new Central East Substation capable of accommodating termination of one 500 kV transmission line from the Imperial Valley Substation and two 230 kV transmission lines that would extend to the Sycamore Canyon Substation
- Modification of the existing Sycamore Canyon Substation to accommodate termination of two 230 kV transmission lines from the Central East Substation and one new 230 kV transmission line that would extend to the Peñasquitos Substation
- Modification of the existing Peñasquitos Substation to accommodate termination of one new 230 kV transmission line from the Sycamore Canyon Substation

Other System Modifications

- Reconductoring of the existing 69 kV transmission line between the existing Sycamore Canyon and Elliot Substations
- Addition of a 230 kV, 69 megavolt-amperes reactive (MVAR) shunt capacitor[1] and a third 230/69 kV transformer to the existing San Luis Rey Substation
- Addition of a 69 kV, 50 MVAR shunt capacitor to the existing South Bay Substation.[2]

For clarity, the Proposed Project is described in five separate segments or "links" according to geographical location: Imperial Valley Link, Anza-Borrego Link, Central Link, Inland Valley Link, and Coastal Link (Figure B-2). In order to provide a consistent frame of reference, the proposed SRPL ROW has been assigned mileposts (MP), which range from the Imperial Valley Substation (MP 0) to the Peñasquitos Substation (MP 149.9). The sections that follow provide additional detail about each of the Proposed Project components.

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[1] A shunt capacitor provides voltage stability so that when system load changes, the actual level of power delivered changes predictably.

[2] An Application for Certification for the South Bay Replacement Project (06-AFC-3) was filed on June 30, 2006 at the California Energy Commission. If approved, the existing South Bay Power Plant and substation would be demolished and rebuilt at a nearby site.

Future Phases of the Proposed Project

SDG&E states that an objective of the Proposed Project is to allow for future expansion of the transmission system, including both 230 kV and 500 kV systems. However, approval of the SRPL would not result in automatic approval of the potential future expansions to the SRPL and all future 230 or 500 kV lines would require new applications by SDG&E, followed by preparation of project-level environment documents and separate approvals from the CPUC prior to permitting and construction. These potential future phases of the Sunrise Powerlink Project are described in Section B.2.7. The project is considered to include the following future phases:

- **230 kV Future Phases.** At least four additional 230 kV future circuits may be required after the two 230 kV circuits proposed as part of the SRPL. Although this expansion may not be needed for decades, it is expected that two additional 230 kV circuits are possible within the first decade following completion of the Sunrise Powerlink. The most likely substation end points for the additional 230 kV circuits are Sycamore Canyon, Peñasquitos, Escondido, Mission and Los Coches Substations.
- **500 kV Future Phases.** A 500 kV circuit may be constructed from the proposed Central East Substation to connect with the Southern California Edison transmission system. This would involve construction of a new 500 kV transmission line, likely following an existing 69 kV transmission corridor and also possibly the route of the Lake Elsinore Advanced Pumped Storage (LEAPS) Project's 500 kV line.

Connected Actions and Indirect Effects

The CPUC and BLM have determined that four projects are so closely related to the Proposed Project as to be considered "connected actions" under NEPA. These four projects are the Stirling Energy Systems solar facility, two components of the IID 230 kV transmission system upgrades, the Esmeralda–San Felipe Geothermal Project, and the Jacumba 230/500 kV Substation. One additional project, a wind project in northern Mexico's La Rumorosa area, under contract to meet Southern California Edison's renewable requirements, is considered as an "indirect effect" of the Proposed Project. These five projects are described in Section B.6, and the environmental impacts of these projects are presented in Section D of this EIR/EIS, following the discussion of the SDG&E transmission line and associated facilities.

B.2.1 Imperial Valley Link

The Imperial Valley Link extends from Milepost (MP) 0 at the existing Imperial Valley Substation to MP 60.9 at the eastern boundary of ABDSP. The Imperial Valley Link includes modifications to the existing Imperial Valley Substation and construction of a new 500 kV transmission line that would extend from the Imperial Valley Substation to ABDSP. Within this link, 60.9 miles of 500 kV overhead transmission lines would be supported by a combination of lattice towers and steel poles within a new 200-foot ROW (see Section B.3). Refer to Figure B-3 for details on the 500 kV route through Imperial Valley.

Transmission Line

The 500 kV overhead transmission line would originate at the existing Imperial Valley Substation (MP 0) and parallel the existing 500 kV Southwest Powerlink (SWPL) for approximately four miles. The pro-

posed SRPL would be constructed approximately 450 feet north of the existing SWPL towers. The new SRPL structures would be constructed parallel to each existing SWPL tower.

At MP 4, the transmission line would turn north and travel through open desert land managed by the U.S. Bureau of Land Management (BLM), before crossing Interstate Highway 8 (I-8) and continuing through private agricultural land west of the outskirts of the unincorporated town of Seeley. The line would continue north-northeast toward the existing Imperial Irrigation District (IID) 161 kV transmission line at MP 20.4.

Between MP 20.4 to MP 37.7, the line would parallel the existing IID 161 kV transmission line to the east as it travels north-northwest toward the intersection of SR78 and SR86. At MP 37.7, the SRPL line would diverge from the IID ROW to follow SR78 for 2.5 miles to MP 40.2. The segment of 500 kV overhead transmission line between MP 40.2 and MP 47.3 would continue due west along the south side of SR78, turning due south and bypassing the existing IID Anza Substation (MP 47.2) to follow an existing IID 92 kV transmission line to MP 50. At MP 50, the SRPL line would turn southwest for one mile, then due west to parallel the southern extent of an existing BLM property line. At this point (MP 54.2), the line would be parallel to the southern edge of the existing IID 92 kV transmission line. From MP 54.2, the SRPL line would parallel the south side of the existing IID 92 kV transmission line to ABDSP at MP 60.9, passing the existing IID San Felipe Substation (MP 58.8).

Imperial Valley Substation

The existing Imperial Valley Substation (MP 0) is located west of El Centro in southern Imperial County (Figure B-3). SDG&E proposes to modify the existing substation to accommodate the termination of an additional 500 kV circuit. Currently, the 500 kV SWPL passes through the Imperial Valley Substation as it brings power from Arizona to San Diego and the Imperial Valley. The Imperial Valley Substation also interconnects with the IID transmission system and transmission lines importing power from Mexican generators at Mexicali and Rosita to the south. All proposed modifications and all activities associated with staging and access would be located within the previously disturbed area of SDG&E substation property. See Section B.4.2.1 for additional details on construction specifications for the existing Imperial Valley Substation.

B.2.2 Anza-Borrego Link

The Anza-Borrego Link extends 22.6 miles through the Park, from MP 60.9 to MP 83.5. The SRPL line would travel approximately 22.6 miles through ABDSP. The 500 kV transmission line would be constructed entirely overhead through the State Park on lattice towers or H-frame structures. Currently, an overhead 92 kV transmission line owned by IID enters the State Park approximately two miles south of SR78 near the Ocotillo Wells Airport and terminates at the Narrows Substation, within ABDSP. Additionally, SDG&E owns a 69 kV line that enters the western boundary of ABDSP from Grapevine Canyon, passes through the Narrows Substation and continues north to Borrego Springs. The Proposed Project within the entire Anza-Borrego Link would require relocation of the existing IID 92 kV and SDG&E 69 kV transmission lines, as described below. The SRPL line would follow the existing IID 92 kV or SDG&E 69 kV transmission line ROWs within ABDSP. However, an additional 50-foot ROW width would need to be acquired, as detailed in Section B.3.1. Refer to Figure B-4 for the route of the SRPL Project within the Anza-Borrego Link.

Environmental Impacts and Mitigation Measures for the Proposed Project

D.6.4 Significance Criteria and Approach to Impact Assessment

This section provides an overview to explain how impacts are defined, identified, and assessed for agricultural resources. Specifically, Section D.6.4.1 presents the significance criteria on which impact determinations are based, Section D.6.4.2 lists the Applicant Proposed Measures (APMs) relevant to agricultural resources, and Section D.6.4.3 defines and lists the overall impacts identified for the Proposed Project and alternatives.

D.6.4.1 Significance Criteria

The following agriculture significance criteria were derived from previous environmental impact assessments and the CEQA Guidelines (Appendix G, Environmental Checklist Form). Impacts to agriculture would be significant if:

- The Proposed Project would convert more than 10 acres of DOC Farmland to non-agricultural use.
- The Proposed Project would involve other changes in the existing environment, which, due to their location or nature, could result in interference with agricultural operations.
- The Proposed Project would convert more than 10 acres of Williamson Act lands to non-agricultural use.

The conversion of DOC Farmland would be considered significant if more than 10 acres of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Significance, and/or Grazing Land are converted to non-agricultural use as a result of the Proposed Project. 'Interference with agricultural operations' refers to: (1) substantial direct loss of cultivated land (i.e., Active Agricultural Operations); and/or (2) substantial impacts relating to other issues. 'Substantial direct loss of cultivated land' refers to the loss of more than 10 acres of land under Active Agricultural Operations. 'Substantial impacts relating to other issues,' is defined to include effects that result in a permanent reduction in productivity or the ability to conduct pre-project operations (e.g., obstruction of and disturbance to agricultural land and operations, interference with aerial spraying applications, exposure of livestock to stray voltage and EMF, and avian perching near vineyards). The conversion of Williamson Act lands would be considered significant if greater than 10 acres of contract land or Agricultural Preserves are used for non-agricultural use. The 10-acre threshold for each issue area is based on the fact that 10 acres is both the minimum mapping unit area for DOC Farmlands and the minimum acreage requirement for individual parcels to enter into Williamson Act contracts, as stated in Section 51222 of the California Government Code. Impacts are assessed for the Proposed Project or alternative as a whole and not only within each individual link.

D.6.4.2 Applicant Proposed Measures

APMs identified by SDG&E in its CPCN Application to the CPUC are intended to address potential effects through design, construction, and/or operational features included as part of the Proposed Project. Table D.6-6 presents the Land Use APMs that are relevant to this section. The impact analysis assumes that all APMs will be implemented as defined in Table D.6-6.

Table D.6-6. Applicant Proposed Measures – Agricultural Resources

APM No.	Description
APM LU-1	SDG&E will provide advance notice to residents, property owners, and tenants within 300 feet of construction activities and will appoint a public affairs officer to address public concerns or questions.
APM LU-3	Farmers will be compensated for loss of crops along ROW. Construction activities in croplands will be scheduled to minimize or avoid planting, growing, and harvesting seasons to the extent feasible.
APM LU-4	To facilitate access to properties obstructed by construction activities, SDG&E will notify property owners and tenants in advance of construction activities. SDG&E will provide alternative access if feasible.
APM LU-5	To remedy encroachment and safety conflicts with irrigation canals and flood management structures during construction, SDG&E will coordinate construction activities with appropriate water management representatives.
APM LU-6	The limits of construction activities within the ROW will typically be predetermined, with activity restricted to and confined within those limits. The ROW boundary and limits of construction activity will be flagged in environmentally sensitive areas to alert construction personnel that disturbance to those areas should be minimized or avoided.
APM LU-7	To the extent feasible, facilities for the Proposed Project would be installed along the edges or borders of private property, open space parks, and recreation areas. When it is not feasible to locate the Proposed Project facilities along property borders, SDG&E will consult with affected property owners to identify facility locations that create the least potential impact to property and are mutually acceptable to property owners to the extent feasible.
APM LU-10	SDG&E will match structure locations with existing transmission facilities where feasible and appropriate.

D.6.4.3 Impacts Identified

Table D.6-7 summarizes impacts to Agricultural Resources identified within the Proposed Project area, based on the identified significance criteria. As described in Section D.6.4.1, the term "Agricultural Resources" is used to describe DOC Farmlands, areas with Active Agricultural Operations, and lands within active Williamson Act contracts or preserves. Impacts are classified as No Impact; Class I (significant, cannot be mitigated to a level that is less than significant); Class II (significant, can be mitigated to a level that is less than significant); Class III (adverse, but less than significant); or Class IV (beneficial). A summary of Class I through IV impacts specific to the established significance criteria is provided in Table D.6-7. Detailed discussions of Proposed Project impacts and their specific locations within individual links provided in Section D.6.5.

Table D.6-7. Impacts Identified – Agriculture Resources

Impact No.	Description	Impact Significance
Proposed Project		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	No Impact; Class II, III
AG-2	Operation would permanently convert DOC Farmland to non-agricultural use	Class I
AG-3	Operation would permanently interfere with Active Agricultural Operations	Class I, II, III
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	No Impact; Class I
Proposed Project – Future Expansion		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	Class II, III
AG-2	Operation would permanently convert DOC Farmland to non-agricultural use	Class I
AG-3	Operation would permanently interfere with Active Agricultural Operations	Class I, II
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class I
Proposed Project – Connected Actions		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	Class II, III

This section presents a detailed discussion of impacts and mitigation measures for the Proposed Project. The discussion is divided to correspond to the five identified project links (Figure B-2 in Section B, Project Description), one in Imperial County and four in San Diego County. Each section addresses both construction and operational impacts pursuant to the significance criteria established in Section D.6.4.1. The discussion includes the significance of each impact, followed by mitigation measures, where appropriate. Lands identified as Agricultural Resources may have multiple characterizations. For example, land that is designated DOC Farmland may also be under Active Agricultural Operation and/or be land under a Williamson Act contract. As a result, the total amount of Agricultural Resources may be less than the simple sum of each type of resource.

Table D.6-8 provides an overview of impacts to Agricultural Resources resulting from the Proposed Project, by link and in total.

Table D.6-8. Agricultural Resources Permanently Impacted by the Proposed Project (acres)

	DOC Farmlands								
Link	Prime Farmland	Farmland of Statewide Importance	Unique Farmland	Farmland of Local Importance	Grazing Land	Total DOC Farmlands	Total Active Agricultural Operations	Total Williamson Act Lands	Total Agricultural Resources*
Imperial Valley	145.5	105.5	1.2	18.2	0	270.5	28.4	6.7	491.8
Anza-Borrego	0	0	0	0	0	0	0	0	0
Central	0.1	0	0	28.6	8.1	36.7	104.8	124.2	250.3
Inland Valley	0	0	0	7.1	23.7	30.8	34.3	26.5	102.0
Coastal	0	0	0	0.7	6.0	6.7	0	0	32.8
TOTAL	145.6	105.5	1.2	54.6	37.8	344.7	167.5	157.4	864.1

* Lands identified as Agricultural Resources may have multiple characterizations such that land may be designated DOC Farmland and/or land under Active Agricultural Operation and/or land under a Williamson Act contract. As a result, the total amount of Agricultural Resources is less than the simple sum of each type of resource.

D.6.5 Imperial Valley Link Impacts and Mitigation Measures

Approximately 491.8 acres of Agricultural Resources (270.5 acres of DOC Farmland, 28.4 acres of land under Active Agricultural Operation, and 6.7 acres of Williamson Act lands) would be permanently impacted by the Imperial Valley Link. These impacts are described for each impact identified in Table D.6-8.

Environmental Impacts and Mitigation Measures

The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

Construction Impacts

Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations (Class II)

Active Agricultural Operations within the Imperial Valley Link would be temporarily impacted by construction activities associated with the construction of the project, including construction or expansion of temporary or permanent access roads, use of conductor pulling sites; equipment and vehicle staging areas; and material storage and assembly sites. Construction activities could temporarily interfere with Active Agricultural Operations by damaging or removing crops or precluding planting; impeding access to certain fields or plots of land and obstructing farm vehicles and equipment; or disrupting drainage and irrigation systems (including self-propelled irrigation rigs), all of which could result in the temporary withdrawal of land from production, thereby reducing agricultural productivity on the affected land.

The Proposed Project would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that advance notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities. APM LU-3 would compensate farmers for lost crops and would schedule construction activities so as to avoid planting, growing, and harvesting seasons, when feasible. APM LU-4 would require that property owners and tenants whose land may be obstructed by construction activities be notified in advance and alternative access be provided, if feasible. APM LU-5 would ensure that SDG&E would coordinate construction activities with water management representatives to remedy encroachment into and around irrigation canals. APM LU-6 would require that limits of construction be predetermined and that construction activities remain within the predetermined limits. Refer to Table D.6-6 for details of applicable agriculture APMs.

As a result of incorporating these APMs, construction of the Proposed Project would not result in damage or loss of crops, obstruction of access to properties, or conflicts with irrigation canals. However, impacts related to the disruption of Active Agricultural Operations during construction activities, which would include disruptions relating to the use of farm vehicles and equipment as well as private drainage and irrigation systems (including self-propelled irrigation rigs), would be significant. Implementation of Mitigation Measure AG-1a would be necessary in order to ensure that impacts to Active Agricultural Operations as a result of the proposed route through the Imperial Valley Link would be mitigated to a less than significant level (Class II).

Mitigation Measures for Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations

AG-1a **Avoid interference with agricultural operations.** The Applicant shall coordinate with property owners and tenants to ensure that project construction will be conducted so as to avoid or minimize interference with agricultural operations. Agricultural operations include, but are not limited to, the use of farm vehicles and equipment, access to property; water delivery, drainage, and irrigation.

Agricultural Soils. During construction, soils would become compacted as a result of vehicles and construction equipment traversing them. Compaction of agricultural soils, left unaddressed, would impact subsequent Active Agricultural Operations. This would be a significant impact. Implementation of Mitigation Measure AG-1b would ensure that impacts to Active Agricultural Operations resulting from construction-related soil compaction would be less than significant by requiring that compacted soils within DOC Farmland be restored. Implementation of Mitigation Measures AG-1a and AG-1b would mitigate impacts to Active Agricultural Operations as a result of soil compaction resulting from construction activities associated with the proposed route through the Imperial Valley Link to a less than significant level (Class II).

Mitigation Measures for Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations

AG-1b **Restore compacted soil.** The Applicant shall restore soils compacted during construction by conferring with the property owner or tenant to identify and then implement a mutually agreed means to restore such soils. Restoration actions may include, but are not be limited to, disking, plowing, or other suitable restoration methods.

Operational Impacts

Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (Class I)

Impacts to DOC Farmland would occur where the location of Project facilities, such as access roads and towers, would permanently convert the land upon which they are situated to non-agricultural use. The Proposed Project would permanently convert approximately 270.5 acres of DOC Farmland within the Imperial Valley Link (145.6 acres of Prime Farmland, 105.5 acres of Farmland of Statewide Importance, 1.2 acres of Unique Farmland, and 18.2 acres of Farmland of Local Importance), which is greater than the 10-acre threshold for determining significance of impacts due to the conversion of DOC Farmland. Across all links, the Proposed Project would convert 663.4 acres of DOC Farmland to non-agricultural use. For both the Imperial Link and the entire project, the Proposed Project would exceed the 10-acre threshold. In the Imperial Valley Link, there are no non-agricultural areas near the proposed route to which the Proposed Project could be relocated so as to reduce impacts to agriculture. Development on land to the north and west of the Proposed Project is prohibited by the DOD. Land to the south and east is already occupied by agriculture. If the transmission line were moved in this direction, the Proposed Project would no longer border certain agricultural areas, but would actually cross over them, resulting in additional impacts to Active Agricultural Operations. Because the Proposed Project as a whole would convert more than 10 acres of DOC Farmland, impacts to DOC Farmland as a result of the proposed route through the Imperial Valley Link would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class I for Disruption of Farming and Aerial Spraying; II for Disruption of Livestock Grazing; III for Avian Perching)

The proposed route through the Imperial Valley Link would permanently remove approximately 28.4 acres of land under Active Agricultural Operation. Across all links, the entire Proposed Project would remove 500 acres of land under Active Agricultural Operation. For both the Imperial Link and the entire project, the Proposed Project would exceed the 10-acre threshold for determining significance of impacts due to the loss of land under Active Agricultural Operation. As such, the Proposed Project would significantly impact Active Agricultural Operations. In the Imperial Link, there are no non-agricultural areas near the proposed route to which the Proposed Project could be relocated so as to reduce impacts to agriculture. Development on land to the north and west of the Proposed Project is prohibited by the DOD. Land to the south and east is already occupied by agriculture. If the transmission line were moved in this direction, the Proposed Project would no longer border certain agricultural areas, but would actually cross over them, resulting in additional impacts to Active Agricultural Operations. Impacts relating to the loss of land under Active Agricultural Operation as a result of the proposed route through the Imperial Valley Link would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

In addition to the permanent loss of land under Active Agricultural Operation, the Proposed Project would result in other adverse agricultural impacts in the vicinity of the project. These include (1) disrupting farming facilities or operations, including dairy; (2) disrupting or altering aerial spraying practices; (3) introducing electric field effects on apiaries; and (4) exposing livestock to stray voltage and electric and magnetic fields.

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in nearby areas, by dividing or fragmenting agricultural fields, obstructing access, impeding the delivery and use of water for livestock and irrigation, reducing the efficacy of windbreaks, and/or disrupting the operation of farm equipment.

Incorporation of APM LU-7 would ensure that the location of proposed facilities are matched to existing facilities (where feasible and appropriate), and incorporation of APM LU-10 would ensure that facilities are installed along the edges of private property (also where feasible and appropriate). If facilities cannot be located along property or field boundaries, APM LU-7 would ensure that SDG&E would consult with affected property owners to identify facility locations that would create the least potential for impact. Incorporation of these APMs would minimize impacts to farming operations through avoidance of areas to the greatest extent feasible, but such impacts would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a, as noted under Impact AG-1, would ensure that impacts relating to the disruption of Active Agricultural Operations as a result of the proposed route through the Imperial Valley Link would be mitigated to a less than significant level (Class II).

Dairy Operations (Class II). Dairy operations would be permanently disrupted by presence of the transmission line. Specifically, the Proposed Project would traverse over the Bullfrog Farms dairy property and its structures. Transmission line maintenance activities would also disrupt dairy operations. Thus, the Proposed Project's impact upon dairy operations within the Imperial Valley Link would be significant. However, implementation of Mitigation Measure AG-3a would ensure that impacts to dairy operations as a result of the proposed route through the Imperial Valley Link would be mitigated to a less than significant level (Class II).

Aerial Spraying Applications (Class I). Aerial spraying (i.e., crop dusting) is used to control insects, weeds, and diseases that may affect crops in the Imperial Valley. Aerial spraying occurs in those areas of the Imperial Valley actively cultivated with field crops. In relation to the Proposed Project, aerial application could occur at any point between MP 8 and 20. Aerial applicators fly at low elevations and sometimes at speeds in excess of 100 miles per hour. Fatalities associated with aerial applicators can partly be attributed to flying at low altitudes and high speeds, as well as the presence of obstacles such as power lines, trees, towers, or buildings within the flight area (Suarezi, 2000). Where transmission lines exist in an agricultural area, pilots must fly over, beside, and (occasionally) under the lines to complete aerial spraying activities. Transmission lines and towers thus present a substantial obstacle to be avoided, and require additional attention from the pilots.

Transmission lines are especially hazardous when:

- Lines are oriented diagonally relative to field boundaries
- Multiple lines exist side-by-side
- Lines change direction (especially at a 90-degree angle) along the corridor
- New transmission lines and towers are installed
- Towers and lines are not clearly visible (TANC/WAPA, 1986)

Thus, the presence of transmission lines and towers would result in interference with Active Agricultural Operations, a significant impact. Implementation of Mitigation Measure AG-3b would ensure that aerial applicators would be notified of the project location and components in order to educate pilots to significant dangers that would exist as a result of development of the Proposed Project. However, even with implementation of Mitigation Measure AG-3b, hazards to aerial spraying would continue to pose safety hazards to aerial applicators, or could preclude spraying activities in certain areas. As such, impacts to aerial spraying applications as a result of the proposed route through the Imperial Valley Link would remain significant (Class I).

Electric Field Effects on Apiaries (Class II). Power line electric fields have been shown to cause bees to leave their hives. As a result, significant impacts to apiaries located near a new transmission line would occur. However, these impacts would be less than significant (Class II) with implementation of Mitigation Measure AG-3c, which would require SDG&E to identify all apiaries within the area of potential effect and notify owners prior to energizing the line so the apiaries, which are mobile, could be relocated as necessary.

Exposure of Livestock to Stray Voltage and Electric and Magnetic Fields (Class III). Stray voltage and electric and magnetic fields (EMF) are two distinctly different phenomena. Both are described below.

Stray Voltage. Stray voltage is associated with electric utility distribution systems and local low voltage (120/240 volt) wiring on farms, not high voltage transmission lines. Utility distribution systems and low voltage wiring use a neutral conductor that is connected to the ground. In cases where there is not an adequate ground connection to the neutral, the current on the neutral conductor will find other paths to ground, thus, the term stray current or voltage.

Since early reports of stray voltage affecting livestock in 1969, there has been substantial research related to this topic. The vast majority of on-farm stray voltage occurrences are due to wiring and equipment problems which can be remedied by following the requirements of the National Electric Codes (NEC) and the USDA Handbook No. 696, *Effects of Electrical Voltage/Current on Farm Animals: How to Detect and Remedy Problems* (Lefcourt, 1991).

Since stray voltage is due to ground currents associated with distribution lines and farm wiring, this is not an impact that would result from the Proposed Project's high voltage transmission line. Thus, no impact would occur (No Impact), and no mitigation is required.

Electric and Magnetic Fields. Electric and magnetic fields occur both naturally and as a result of human activity across a broad electrical spectrum. Naturally occurring electric and magnetic fields are caused by the weather and the earth's geomagnetic field. The fields caused by human activity result from technological application of the electric and magnetic spectrum for uses such as communications, farm equipment, appliances, and the generation, transmission, and local distribution of electricity.

Electric fields from power lines are created whenever the lines are energized, with the strength of the field dependent directly on the voltage of the line creating it. Electric field strength is typically described in terms of kilovolts per meter (kV/m). Electric field strength attenuates (reduces) rapidly as the distance from the source increases. Electric fields are reduced at many receptors because they are effectively shielded by most objects or materials, such as trees or buildings.

Magnetic fields from power lines are created whenever current flows through power lines at any voltage. The strength of the field is directly dependent on the current in the line. Magnetic field strength is

typically measured in milliGauss (mG). Similar to electric fields, magnetic field strength attenuates rapidly with distance from the source. However, unlike electric fields, magnetic fields are not easily shielded by objects or materials. Further discussion regarding the nature of EMF is provided in Section D.10 Public Health and Safety.

This review of EMF focuses on physiological effects and any subsequent animal health impacts that may affect agricultural productivity. Persons engaged in agricultural activities who depend upon live-stock (especially cattle) often raise concerns about animal fertility as well as biochemical responses to EMF that could lead to reduced output (e.g., milk production at dairies) and birth rates, or an increase in physical deformities (among other ailments) and mortality rates.

There is a wealth of literature addressing the issue of EMF and its effects upon livestock. Despite the number of studies performed and reported upon in such literature, however, the scientific community remains divided as to whether there is a direct correlation between EMF and various livestock maladies.

As noted above, electric fields are shielded by most objects. Electric fields from overhead high voltage transmission lines can induce voltages on large metal objects such as metal buildings, tractor-trailers, etc. Induced voltage is different from stray voltage in that it is caused by power line electric fields, not ground currents from distribution lines. Information prepared by the Public Service Commission of Wisconsin related to a 345 kV transmission line noted that the voltage a cow would feel from touching a large metal object below the line is estimated to be 0.02 Volts, which is substantially below the 2 to 4 Volt cow-contact threshold provided in USDA Handbook No. 696. Therefore, the electric fields from the Proposed Project's 230 kV and 500 kV lines are not expected to result in induced voltage impacts to livestock.

Magnetic fields are not shielded by most objects and have been shown to cause physiological effects in livestock. However, these physiological effects have not been determined to represent a health hazard for exposed cattle. Some of the most extensive controlled research on EMF and livestock has been performed by McGill University in Canada. The intensity of EMF used in this research was a 10 kV/m electric field and 300 mG magnetic field.

This research found that most of the variables assessed did not show any variation caused by EMF. However, there were positive associations with some variables such as feed consumption and milk fat content. Also, there were changes in the mineral and neurotransmitter metabolite concentrations. It as found that EMF caused a biological response in dairy cattle, affecting productivity variables which remained within the normal distribution for the population of dairy cattle.

Lacking a conclusion in the scientific community that EMF is a health hazard for livestock, and noting that the EMF from the Proposed Project is well below the levels utilized in the referenced research, EMF is not considered a significant impact to Active Agricultural Operations. Thus, impacts as a result of the proposed route through the Imperial Valley Link are considered adverse but not significant (Class III), and no mitigation is required.

Mitigation Measures for Impact AG-3: Operation would permanently interfere with Active Agricultural Operations

AG-1a **Avoid interference with agricultural operations.**

AG-3a **Coordinate with dairy operators.** SDG&E shall coordinate with dairy operators to ensure that agricultural productivity and animal welfare are maintained during project operation (e.g.,

maintenance activities) to the maximum extent feasible. Coordination efforts shall address issues including, but not necessarily limited to:

- Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates)
- Impacts to facilities, as well as related effects such as ingress/egress and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access)

AG-3b **Consult with and inform aerial applicators**. The Applicant shall consult with landowners and the Imperial County Farm Bureau to determine which aerial applicators operate in the county. The Applicant shall provide written notification to all aerial applicators working in the county and to the CPUC stating when and where the new transmission lines and towers will be erected. The Applicant shall also provide all aerial applicators, the Imperial County Farm Bureau, and the CPUC with aerial photos or topographic maps clearly showing the new lines and towers in relation to agricultural lands.

AG-3c **Survey for apiaries and inform owners.** The Applicant shall perform a survey of the approved route and identify all apiaries within 1,000 feet of the transmission line. The Applicant shall notify all apiary owners at least 60 days prior to energizing the line that their apiaries are within a zone of potential transmission line effect, and shall advise them to relocate their hives to avoid any potential effects. The survey results and notification process shall be documented to the CPUC and BLM at least 30 days before the line is energized.

Impact AG-4: Operation would permanently convert Williamson Act lands to non-agricultural use (Class I)

Operation of the Proposed Project would permanently convert 18.2 acres of Williamson Act lands within the Imperial Valley Link due to the presence of transmission structures and access roads, which would exceed the 10-acre threshold for determining the significance of impact to Williamson Act lands. In addition, the Proposed Project as a whole would convert 254.3 acres of Williamson Act lands to non-agricultural use. In the Imperial Valley Link, there are no non-agricultural areas near the proposed route to which the Proposed Project could be relocated so as to reduce impacts to agriculture. Development on land to the north and west of the Proposed Project is prohibited by the DOD. Land to the south and east is already occupied by agriculture. If the transmission line were moved in this direction, the Proposed Project would no longer border certain agricultural areas, but would actually cross over them, resulting in additional impacts to Active Agricultural Operations. Because the Proposed Project as a whole would convert more than 10 acres of Williamson Act lands and that movement of the route elsewhere in the surrounding area would not be practical, impacts relating to the conversion of Williamson Act lands as a result of the proposed route through the Imperial Valley Link would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

Modifications to Imperial Valley Substation

No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands would be impacted by the Imperial Valley Substation site. Thus, improvements to the Imperial Valley Substation would not create construction or operational impacts that would temporarily or permanently impact Agricultural Resources (No Impact) and no mitigation would be required.

D.6.6 Anza-Borrego Link Impacts and Mitigation Measures

No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands exist within the Anza-Borrego Desert State Park, through which the Anza-Borrego Link would traverse. Therefore, the proposed route