#### Sunrise Powerlink Project

A. INTRODUCTION

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

Sunrise Powerlink Project APPENDIX 12. FULL TEXT OF MITIGATION MEASURES

### 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.

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#### Sunrise Powerlink Project

Imperial County General Plan

APPENDIX 2. POLICY SCREENING REPORT

Applicable Policies	Determination	Analyzeo 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 Gen- eral Plan Amendment is not involved, shall be implemented by an appropriate amendment to the Imperial County Code of Regu- atory 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 hab- tat, 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	This policy is directive to County officials. As such, it will not be considered further in the FIR/FIS	NO
<ul> <li>Programs</li> <li>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.</li> </ul>		
5. Coordinated Water Management Programs	This policy is directive to County officials. As such,	NO
<ul> <li>The County of Imperial shall regulate land development and natural resource management to protect the limited but impor- tant areas in the County which contribute to groundwater recharge.</li> </ul>	it will not be considered further in the EIR/EIS.	

# 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-

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Sunrise Powerlink Project D.10 Public Health and Safety

# 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.

EDR Map ID <sup>1</sup>	Site Name	Site Address	Database Lists <sup>2</sup>	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.

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

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.

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Sunrise Powerlink Project D.6 Agriculture

#### 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.

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Sunrise Powerlink Project D.6 AGRICULTURE

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)

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Sunrise Powerlink Project D.6 Agriculture

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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