

## **ES EXECUTIVE SUMMARY**

On March 16, 2010, San Diego Gas & Electric (SDG&E) submitted an application (10-06-007) and a Proponent's Environmental Assessment (PEA) to the California Public Utilities Commission (CPUC) for the South Bay Substation Relocation Project (Proposed Project) (SDG&E 2010a). The purpose of this application was to obtain a Permit to Construct (PTC) (SDG&E 2010b).

As proposed by SDG&E, the Proposed Project primarily consists of relocating the existing South Bay Substation to a new site approximately 0.5 mile south. The existing South Bay Substation would be relocated to the proposed Bay Boulevard Substation site, which is situated approximately 2 miles south of the City of National City, approximately 5 miles northeast of the City of Imperial Beach, and approximately 7 miles southeast of downtown San Diego.

The South Bay Substation Relocation Project, as proposed by SDG&E, includes the following major components:

- Construction of a 230/69/12-kilovolt (kV) substation (Bay Boulevard Substation) in the City of Chula Vista (City)
- Construction of a 230 kV loop-in, an approximately 1,000-foot-long underground interconnection, and an approximately 300-foot-long overhead interconnection of the existing 230 kV tie-line, located east of the proposed Bay Boulevard Substation
- Relocation of six 69 kV transmission lines and associated communication cables to the proposed Bay Boulevard Substation, requiring the relocation of approximately 7,500 feet of overhead line and the construction of approximately 4,100 feet of underground line
- A 138 kV extension of an approximately 3,800-foot underground and approximately 200-foot overhead span from one new steel cable pole to an existing steel lattice structure
- Demolition of the existing 138/69 kV South Bay Substation.

As described in Section A.2.2, Statement of Objectives, in this Environmental Impact Report (EIR), SDG&E's PEA lists the following basic objectives for the Proposed Project:

1. Replace aging and obsolete substation equipment
2. Design a flexible transmission system that would accommodate regional energy needs subsequent to the retirement of the South Bay Power Plant (SBPP)
3. Facilitate the City's Bayfront redevelopment goals by relocating the South Bay Substation and furthering the goals of the SDG&E–City of Chula Vista Memorandum of Understanding (MOU)

4. Provide for future transmission and distribution load growth for the South Bay region.

Having taken into consideration the four project objectives set forth by SDG&E above, the CPUC identified the following three basic project objectives used to screen alternatives:

1. Replace aging and obsolete substation equipment
2. Accommodate regional energy needs subsequent to the retirement of the SBPP
3. Provide for future transmission and distribution load growth for the South Bay region.

CPUC is the lead agency responsible for compliance with the California Environmental Quality Act (CEQA). This EIR has been prepared by CPUC in compliance with CEQA Guidelines. This EIR discloses the environmental impacts expected to result from the construction and operation of SDG&E's Proposed Project and mitigation measures, which, if adopted by the CPUC or other responsible agencies, could avoid or minimize significant environmental effects. In accordance with CEQA Guidelines, this EIR also evaluates alternatives to the Proposed Project that could avoid or minimize significant environmental effects. This EIR provides a comparison of the environmental effects of the Proposed Project and the alternatives, and identifies the environmentally superior alternative.

The Proposed Project EIR is an informational document only; it does not make a recommendation regarding the approval or denial of the project. The purpose of the EIR is to inform the public about the environmental setting and impacts of the Proposed Project and alternatives. This EIR will be used by the CPUC to conduct the proceeding to determine whether to grant SDG&E's requested PTC. This executive summary provides an overview of the Proposed Project and the alternatives considered, identifies the Environmentally Superior Alternative, and summarizes the environmental impacts and mitigation measures specified in this EIR.

## **ES.1 Environmentally Superior Alternative**

An EIR must identify the Environmentally Superior Alternative to the project. As further discussed in Subsection ES.11.3, this EIR identifies the No Project Alternative to be environmentally superior to the Proposed Project on the basis of minimization or avoidance of physical impacts. Section 15126.6(e)(2) of the CEQA Guidelines states that if the No Project Alternative is found to be environmentally superior, "the EIR shall also identify an environmentally superior alternative among the other alternatives."

In terms of effects on the environment, this EIR identifies the Existing South Bay Substation Site Alternative, which would replace the existing 138/69 kV South Bay Substation with a rebuilt 230/69/12 kV substation, as the Environmentally Superior Alternative since it would reduce

project-related long-term impacts associated with wetlands that have been identified as significant but mitigable, while not resulting in more overall impacts than the Proposed Project.

## **ES.2 Description of the Proposed Project**

Figure ES-1 provides an overview of the Proposed Project. Project facilities can be divided into the following components.

### **ES.2.1 Bay Boulevard Substation**

The proposed Bay Boulevard Substation site would be located on a 12.42-acre parcel, approximately 0.5 mile south of the existing SBPP site. The enclosed portion of the proposed Bay Boulevard Substation would occupy approximately 9.7 acres. The project includes two potential arrangements for the Bay Boulevard Substation: the initial arrangement and the ultimate arrangement. The initial arrangement does not include 12 kV distribution equipment and would be used to provide 69 kV transmission to the South Bay region. As part of the ultimate arrangement, distribution equipment would be included at the proposed Bay Boulevard Substation as local distribution loads develop in the South Bay region.

### **ES.2.2 South Bay Substation Dismantling**

The Proposed Project would include decommissioning and demolition of the existing 7.22-acre South Bay Substation following several conditional requirements such as energization of the Bay Boulevard Substation and cutovers of the existing transmission lines from the South Bay Substation to the Bay Boulevard Substation. The decommissioning and demolition of the South Bay Substation would include removal of all above-grade components, including both 138 kV and 69 kV transmission equipment.

### **ES.2.3 Transmission Interconnections**

#### ***ES.2.3.1 230 kV Loop-In***

The proposed Bay Boulevard Substation eastern limits are located immediately adjacent to the existing 230 kV line (TL23042) constructed as part of the Otay Metro Power Loop (OMPL). The OMPL line spans westerly across Bay Boulevard to a 230 kV angle pole where it changes from an east–west alignment to a north–south alignment. The Proposed Project would include the removal of the 165-foot-high, OMPL, steel cable pole riser. With the Proposed Project utility realignment, the OMPL alignment would continue to span northward from the existing 230 kV angle pole to where it would connect to a new 110-foot-tall steel angle pole, which is a type of pole used to allow the circuit alignment to change direction and terminate to a new rack position within the proposed Bay Boulevard Substation. The 230 kV configuration also includes

construction of an underground duct bank that extends from the 230 kV bays located along the northern limits of the proposed Bay Boulevard Substation easterly to provide connections to the OMPL alignment. This underground duct bank is approximately 1,000 feet long.

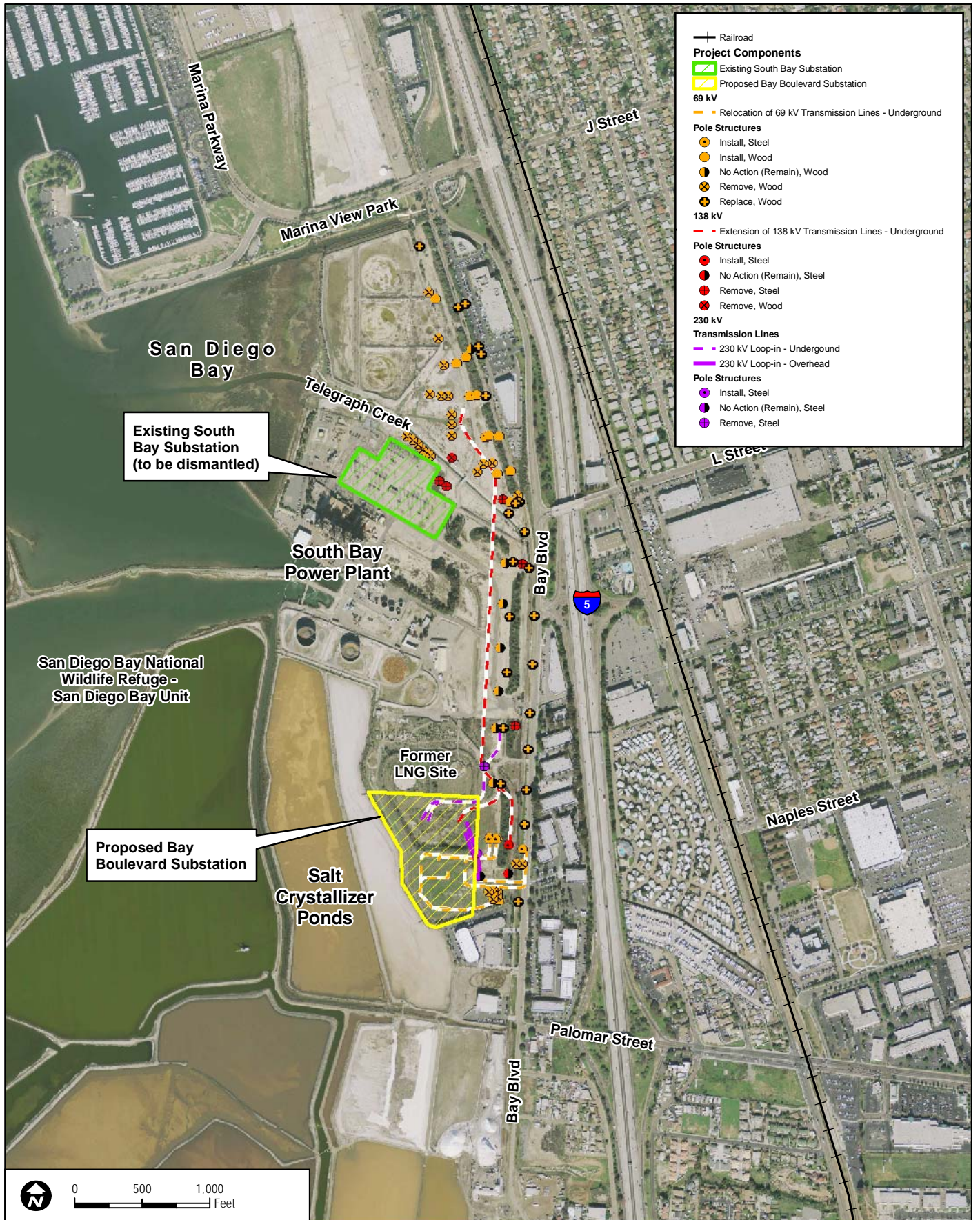
### ***ES.2.3.2 138 kV Extension***

Currently, three overhead 138 kV lines (TL13815, TL13823, and TL13824) connect to the existing South Bay Substation. The Proposed Project would include removal of the overhead 138 kV conductors that extend northward from the 138 kV lattice angle tower located adjacent to the southeastern perimeter of the proposed Bay Boulevard Substation. Four steel lattice structures that measure 85 to 100 feet tall would be removed along with the associated conductor. A new steel cable pole riser would be constructed adjacent to the eastern limits of the proposed Bay Boulevard Substation, which is a pole used to transition a circuit from overhead to underground. The steel pole riser would be approximately 165 feet tall. The 138 kV circuit north of the steel cable pole riser would be undergrounded within a duct bank. This underground duct bank would be approximately 3,800 feet long.

### ***ES.2.3.3 69 kV Relocation***

Currently, six 69 kV overhead transmission lines connect to the existing South Bay Substation. Three of these lines (TL645, TL646, and TL647) enter the Proposed Project area from the south. The remaining three overhead transmission lines (TL641, TL642, and TL644) connect to the existing South Bay Substation from the north. The Proposed Project includes rerouting existing 69 kV overhead transmission lines that terminate at the South Bay Substation to the proposed Bay Boulevard Substation. To relocate these six existing 69 kV overhead transmission lines, approximately 18 new wood transmission poles would be installed, 23 wood transmission poles would be removed, and an additional 22 wood transmission poles would be replaced. The project also includes construction of five 69 kV steel cable pole risers, removal of six stub wood poles, and removal of one 12 kV wood distribution pole.

An existing 12 kV distribution circuit located along Bay Boulevard will be underbuilt onto the 69 kV poles located along Bay Boulevard. The alignment of the 12 kV distribution circuits that will be placed beneath the 69 kV conductor will be along TL644, which runs north–south along the western limits of Bay Boulevard, and TL645, which runs east–west along an easement adjacent to the northern limits of the OMPL.



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### **ES.3 Environmental Setting of the Proposed Project**

As shown in Figure ES-1, the Proposed Project is located in southwestern San Diego County in the City of Chula Vista, California. The Proposed Project components are located within the limits of the SBPP property and the former liquefied natural gas (LNG) plant site. Uses within the area where project components are proposed include the SBPP and associated supporting infrastructure such as inactive fuel oil tanks; wastewater treatment tanks; 12 kV distribution; 69, 138, and 230 kV transmission lines; a concrete-lined channel (Telegraph Creek); and the existing South Bay Substation. Telegraph Creek consists of an approximately 50-foot-wide, concrete-lined channel that enters SDG&E's existing easement near the intersection of Bay Boulevard and L Street, and continues northwest, emptying into San Diego Bay. The Proposed Project would relocate the existing South Bay Substation to a new site approximately 0.5 mile south of its current position. The Proposed Project site is situated approximately 2 miles south of the City of National City, approximately 5 miles northeast of the City of Imperial Beach, and approximately 7 miles southeast of downtown San Diego.

The Proposed Project components are located in an area bounded by industrial uses to the north and south; San Diego Bay, San Diego Bay Unit National Wildlife Refuge, and Western Salt Works salt crystallizer ponds to the west; and Bay Boulevard and Interstate-5 (I-5) to the east. The Western Salt Works salt crystallizer ponds are planned to be restored as intertidal wetlands and included as part of the San Diego Bay Unit National Wildlife Refuge. An inactive San Diego & Arizona Eastern (SD&AE) Railroad track traverses the SBPP and the former LNG plant site eastern property limits and parallels Bay Boulevard. The northern portion of project area is located adjacent to Marina View Park and J Street.

### **ES.4 Summary of Public Involvement Activities**

The CEQA EIR process for the Proposed Project began with the CPUC's issuance of the Notice of Preparation (NOP) of an EIR.

- The CPUC issued the NOP on July 13, 2011, and distributed it to the State Clearinghouse and federal, state, and local trustees and agencies that may be affected by the Proposed Project. The NOP was sent to 21 federal agencies, 43 state agencies, and 118 local agency contacts and planning groups. The NOP was also distributed to 130 private organizations and individuals, 19 Native American groups, and 6 local libraries. The public notices were also published on July 13, 2011, in the *San Diego Union Tribune*. Additionally, information was posted on the Internet as described in the Public Notice.

- One scoping meeting was conducted prior to the selection of alternatives and preparation of the analysis documented in this EIR. The scoping meeting was held on August 1, 2011, 6 to 8 p.m., at the Chula Vista Civic Center, 430 F Street, Chula Vista, California.
- Seventeen individuals not part of the project team were documented in attendance, as indicated on the sign-in sheets.
- Sixteen letters were received during the NOP scoping period (July 13 to August 15, 2011) from public agencies and private citizens. In August 2011, a comprehensive Scoping Report was issued summarizing concerns received from the public and various agencies. The Scoping Report is available on the project website: <http://www.cpuc.ca.gov/environment/info/dudek/sbsrp/SouthBaySub.htm>.

## **ES.5 Areas of Controversy/Public Scoping Issues**

Written and oral comments were received during the CEQA scoping process from the general public as well as the following federal, state, and local agencies, and private and public organizations.

### **Federal, State, Local Agencies and Planning Groups, and Native American Groups**

California Coastal Commission  
California Department of Fish and Game and  
U.S. Fish and Wildlife Service, San Diego National Wildlife Refuge Complex  
California State Lands Commission  
City of Chula Vista  
Department of Toxic Substance Control  
Port of San Diego  
County of San Diego  
County of San Diego Regional Airport Authority

### **Private Organizations**

San Diego County Archaeological Society  
San Diego Audubon Society  
San Diego Gas & Electric  
Wildcoast



The specific issues raised during the public scoping process are summarized according to the following major themes:

- Project description and objectives
- Alternatives
- Transportation and traffic issues
- Land use compatibility and recreation impacts
- Public health and safety issues
- Air quality and greenhouse gas (GHG) emissions
- Hydrology and water quality
- Visual environment
- Cultural resources
- Biological resources
- EIR administrative and permitting.

### **Project Description and Objectives**

Public comments stated that SDG&E has not provided a valid reason as to why it is necessary to convert the substation from its existing 138/69 kV configuration to a 230/69 kV arrangement. The California State Lands Commission (CSLC) requested that a comprehensive project description be provided in order to fully evaluate the potential environmental impacts associated with the Proposed Project.

### **Alternatives**

Comments from government agencies and private organizations suggested alternatives, including alternative locations to minimize impacts to visual impacts, land use conflicts, and biological resources. The alternatives recommended included combining the proposed load management, energy conservation, and construction of a 69/138 kV substation, and construction of a gas insulated substation at the proposed Bay Boulevard site location and at alternative site locations.

### **Transportation and Traffic Issues**

The City indicated that the project has not been completely defined at this stage, and there are unknowns regarding access and circulation for vehicles, as well as the potential impacts due to providing access points along Bay Boulevard for ingress/egress. The City also identified that the project should be designed to ensure that it does not preclude future waterfront alignment for the

Bayshore Bikeway bike path that is shown on the San Diego Association of Governments' Regional Bikeway Plan and the Chula Vista Bikeway Master Plan.

### **Land Use Compatibility and Recreation Impacts**

Comments from private organizations and government agencies stated that the Proposed Project should be evaluated to determine potential inconsistencies with applicable plans and policies. Private organizations stated that there may be potential conflicts with the Chula Vista Bayfront Master Plan (CVBMP). Commenters also indicated the Proposed Project is potentially inconsistent with the MOU reached between the City and SDG&E for the Proposed Project.

The CSLC stated that the EIR should analyze the project's short- and long-term impacts on recreation resources, both during construction and for the life of the project.

### **Public Health and Safety Issues**

The CSLC indicated that the EIR should evaluate the project's potential impact from coastal hazards that could affect the long-term stability and operation of the project. Coastal hazards that should be evaluated include tsunami risk, coastal erosion, sea level rise, wave uprush, and coastal flooding. Commenters also expressed concern over potential exposure to electromagnetic fields.

### **Air Quality and GHG Emissions**

The California Coastal Commission and CSLC indicated the EIR should calculate the project's expected construction and operational GHG emissions and evaluate potential impacts from sea level rise. The San Diego County Regional Airport Authority expressed concern that any potential emissions discharged from the Proposed Project may result in the air pollutants ultimately landing in the evaporation ponds located at the salt production facilities west of the project site and changing the chemistry or damaging the salt production.

### **Hydrology and Water Quality**

Concern was expressed over potential releases into existing water bodies and drainages in the project vicinity related to construction and operation of the Bay Boulevard Substation. The potential for the increase of releases into the San Diego Bay National Wildlife Refuge and the Telegraph Canyon Channel should be discussed along with measures to avoid these impacts.

### **Visual Environment**

Several comments received raised concern over potential impacts to visual resources associated with the proposed Bay Boulevard Substation and associated transmission interconnections.

Commenters raised concern that, given the proximity to existing structures and the planned redevelopment efforts associated with the CVBMP, the Proposed Project would not be compatible with the existing and future visual environment. The City stated that the proposed telecommunications tower at 75 feet is inconsistent with the zoning height limit of 44 feet. The City also requested that a landscape plan be prepared by a licensed landscape architect to include a combination of screening solutions, such as landscaping materials of various types and solid walls. The City also stated that efforts are ongoing with the San Diego Unified Port District (Port District) and SDG&E regarding supporting resolutions that call for the removal and/or undergrounding of utility poles and transmission lines related to the Proposed Project.

### **Cultural Resources**

The CSLC identified that the EIR should evaluate the possibility of submerged cultural resources in the project area.

### **Biological Resources**

Several comments discussed that the project is located in close proximity to the most sensitive habitat areas located adjacent to San Diego Bay in the City. It was stated that project construction could impact rare, threatened, or endangered species in the project area. Comments indicated that construction should not occur during the bird breeding season; however, biological monitoring could occur if the season cannot be avoided. Impacts to the California least tern (*Sterna antillarum browni*), light-footed clapper rail (*Rallus longirostris levipes*), and Belding's savannah sparrow (*Passerculus sandwichensis*) should be discussed in the EIR and mitigated where necessary. Primary concerns focused on impacts that could result from bird strikes, electrocution, and perching opportunities from the introduction of new vertical elements at the project site. It was requested that the EIR include an analysis of these impacts. The California Coastal Commission stated that impacts to wetland habitats on site should be mitigated at 4:1 and an alternative should be provided that avoids and/or minimizes impacts to wetland habitats on site.

### **EIR Administrative and Permitting**

Several agencies provided comments discussing permits and agreements that may be required as part of the project. Commenters also stated that the NOP was inadequate and did not provide the public the opportunity to fully scope the potential environmental impacts associated with the Proposed Project because there was no discussion of the height of the proposed transmission poles associated with the transmission interconnections. The City indicated that issuance of a Coastal Development Permit associated with the Proposed Project has been delegated to the California Coastal Commission, and SDG&E would be required to obtain a grading permit from the City. The Port District identified that the Proposed Project is a necessary prerequisite for

implementing the CVBMP, and the Proposed Project would allow redevelopment goals for the Bayfront to be achieved.

## **ES.6 Project Alternatives**

Alternatives to SDG&E's Proposed Project are identified and evaluated in accordance with CEQA Guidelines. CEQA Guidelines, Section 15126.6(a) (14 CCR 15000 et seq.), state:

An EIR shall describe a reasonable range of alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.

CEQA Guidelines, Section 15364 (14 CCR 15000 et seq.), define feasibility as:

. . . capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

Alternatives to the Proposed Project were suggested during the scoping period (July–August 2011) by the general public, and federal, state, and local agencies in response to the NOP. Other alternatives were developed by EIR preparers or presented by SDG&E in its PEA. In total, 22 alternatives were identified that vary from upgrading existing substations, to transmission substation location alternatives, to alternative substation technology, as well as non-wire alternatives. “Non-wire alternatives” include methods of meeting project objectives that do not require construction of a new substation (e.g., energy conservation and load management, etc.).

Alternatives to the Proposed Project were screened according to CEQA Guidelines to determine which alternatives to carry forward for analysis in the EIR and which alternatives to eliminate from detailed consideration. The alternatives were primarily evaluated according to (1) whether they would meet most of the basic project objectives, (2) whether they would be feasible considering legal and technical constraints, and (3) whether they have the potential to substantially lessen any of the significant effects of the Proposed Project. Other factors considered, in accordance with CEQA Guidelines (CEQA Guidelines Section 15126.6[f]), were site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitations, jurisdictional boundaries, and proponent's control over alternative sites. Economic factors or costs of the alternatives (beyond economically feasible) were not considered in the screening of alternatives since CEQA Guidelines require consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may

“impede to some degree the attainment of project objectives or would be more costly” (CEQA Guidelines, Section 15126.6(b)).

In addition to the No Project Alternative, eight alternatives to the Proposed Project are fully evaluated in this EIR, including seven alternative locations and one alternative technology alternative. The detailed results of the alternatives screening analysis are contained in Section C (Alternatives) of this EIR. A summary description of the alternatives considered and the results of screening are provided as follows. Figure ES-2 (Alternatives Considered in Screening Analysis) illustrates the geographic locations of all alternatives considered for EIR analysis.

### **ES.6.1 Alternatives Fully Evaluated in the EIR**

The following alternatives are those selected through the alternative screening process (described in Section C of this EIR) for detailed EIR analysis. Each of these alternatives meets most or all of the basic project objectives as identified by the CPUC and potentially reduces environmental effects of the Proposed Project.

#### ***ES.6.1.1 Gas Insulated Substation Technology Alternative***

**Description:** This alternative was presented by SDG&E in response to CPUC’s Data Request #5 (May 2010) and is similar to the Proposed Project with the exception that the new substation would be designed to use Gas Insulated Substation technology for the 230/69 kV switchyard.

Under this alternative, use of the Gas Insulated Substation Technology Alternative would result in a smaller development footprint when compared to the Proposed Project due to the reduction in A-frame structures needed for the Air Insulated Substation required under the Proposed Project. With the Gas Insulated Substation alternative, the Bay Boulevard Substation would occupy approximately 4.4 acres, which is 5.3 acres smaller than the Proposed Project. The new Bay Boulevard Substation built with Gas Insulated Substation technology would be located in the southwest corner of the proposed site, adjacent to the salt crystallizer ponds and a private parking lot; the area north of the proposed Gas Insulated Substation alternative, and south of the former LNG site, would not be utilized for proposed facilities as required under the Proposed Project.

The Gas Insulated Substation alternative would require approximately 6.6 acres of permanent impacts, which includes construction of a water quality basin, substation driveway, and the graded areas surrounding the substation. A single water quality basin would be constructed along the western limits of the Gas Insulated Substation alternative and would receive runoff from the substation site prior to discharging at the southwest corner. The water quality basin would measure approximately 3 feet deep with a volume of approximately 1.2 acre-feet.

The substation components would be constructed within metal buildings that will utilize gas for insulating the substation components. The gas utilized for insulation of the Gas Insulated Substation components consists of sulfur hexafluoride (SF<sub>6</sub>), which is currently utilized by SDG&E in circuit breakers and switching gear. SF<sub>6</sub> is a GHG, but it is considered nontoxic and inert from a hazardous materials perspective.

The metal buildings constructed for housing the Gas Insulated Substation equipment would consist of two buildings measuring approximately 40 to 50 feet in height. A 10-foot-tall concrete masonry wall as proposed under the Proposed Project would be installed around the perimeter of the substation.

Site development and grading is anticipated to include approximately 70,000 cubic yards (CY) of cut and fill. Cut from the existing surface would be approximately 5,000 CY, and approximately 60,000 CY of import fill material would be required.

As under the Proposed Project, the existing driveway located to the north of the Gas Insulated Substation alternative would provide access from Bay Boulevard. An approximately 1,250-foot-long by 32-foot-wide, asphalt-paved access road would be constructed from the end of the existing driveway to the two substation gates, and would be located east of the site within the existing transmission right-of-way (ROW). In addition, two 30-foot-wide sliding gates would be installed in the perimeter wall to permit ingress and egress to the site by SDG&E personnel. No access will be provided to the south.

As under the Proposed Project, the Gas Insulated Substation Technology Alternative includes two potential arrangements: the initial arrangement and the ultimate arrangement. The initial arrangement does not include 12 kV distribution equipment and would be used to provide 69 kV transmission to the South Bay region. As part of the ultimate arrangement, distribution equipment would be included at the proposed substation as local distribution loads develop in the South Bay region.

#### ***ES.6.1.2 Tank Farm Site Alternative (Air Insulated Substation and Gas Insulated Substation)***

**Description:** This site alternative consists of a 19-acre parcel located approximately 250 feet north of the existing South Bay Substation site and approximately 50 feet south of Marina View Park. The western limits of the site are located immediately adjacent to the San Diego Bay National Wildlife Refuge, and the northern project limits are located adjacent to a vegetated drainage along the southern limits of J Street.



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***ES.6.1.3 Existing South Bay Substation Site Alternative (Air Insulated Substation and Gas Insulated Substation)***

**Description:** The existing South Bay Substation site alternative is located adjacent to the north side of the existing SBPP. This alternative includes dismantling the existing 7-acre South Bay Substation and construction of a new 230/69/12 kV substation at the same location. Removal of existing equipment and construction of the new substation would have to be staged to keep existing circuits in service. Construction of an Air Insulated Substation at the site would require approximately 3 additional acres assumed to be located on disturbed vacant lands adjacent to the site.

***ES.6.1.4 Power Plant Site Alternative (Air Insulated Substation and Gas Insulated Substation)***

**Description:** This alternative consists of a 22-acre site located on the SBPP property, which is located immediately adjacent to and south of the existing South Bay Substation. The San Diego Bay and National Wildlife Refuge is located to the west of the site, and salt crystallizer ponds and the former LNG site are located to the south.

***ES.6.1.5 Broadway and Palomar Site Alternative (Gas Insulated Substation)***

**Description:** This alternative consists of a 9-acre site that is located approximately 1.2 miles southeast of the existing South Bay Substation. The site is located between Industrial Boulevard and Broadway, south of Palomar Street.

The alternative would require construction of approximately 2.9 miles of transmission corridors to provide connections to the SDG&E grid, which includes construction of 69 kV lines that would need to cross I-5 via horizontal directional drilling (HDD). Establishment of additional corridors would entail the installation of new overhead transmission structures.

***ES.6.1.6 Goodrich South Campus Site Alternative (Air Insulated Substation and Gas Insulated Substation)***

**Description:** This alternative consists of a 31-acre site that is located approximately 0.8 mile north of the existing South Bay Substation. The site is located to the northwest of the J Street/Bay Boulevard intersection. The site consists of a linear configuration that is west of an SDG&E ROW within an area previously utilized by Goodrich.

This alternate site would require construction of approximately 0.6 mile of transmission corridors to provide connections to the SDG&E grid, which includes construction of 69 kV lines

that terminate at the existing South Bay Substation and that would need to be extended north to the Goodrich South Campus Site.

**ES.6.1.7 H Street Yard Site Alternative (Air Insulated Substation and Gas Insulated Substation)**

**Description:** This alternative consists of a 47-acre site that is located approximately 0.8 mile north of the existing South Bay Substation. The site is located southwest of the H Street/Bay Boulevard intersection. The site consists of a linear configuration that is east of an SDG&E ROW within an area previously utilized as a parking lot for Goodrich employees.

This alternate site would require construction of approximately 0.8 mile of transmission corridors to provide connections to the SDG&E grid, which includes construction of 69 kV lines that terminate at the existing South Bay Substation and that would need to be extended north to the H Street Yard Alternative Site.

**ES.6.1.8 Bayside Site Alternative (Air Insulated Substation and Gas Insulated Substation)**

**Description:** This alternative consists of a 38-acre site that is located approximately 0.9 mile north of the existing South Bay Substation. The site is located southeast of the Quay Way/G Street intersection.

This alternate site would require construction of approximately 1.5 miles of transmission corridors to provide connections to the SDG&E grid, which includes construction of 69 kV lines that terminate at the existing South Bay Substation and that would need to be extended north to the Bayside Site. In addition, approximately 0.3 mile of 230 kV conductor will need to be constructed from the existing 230 kV corridor located to the east of the Bayside Site Alternative.

**ES.7 Alternatives Eliminated from Full EIR Evaluation**

The alternatives listed as follows were evaluated for their potential to meet CEQA requirements but were ultimately eliminated from consideration in the EIR. Figure ES-2 depicts the location of each alternative addressed in this section. A more detailed description of each alternative and the rationale for its consideration and elimination is presented in EIR Section C, Alternatives.

**ES.7.1 South Bay Boulevard Site Alternative**

**Description:** This alternative consists of a 15-acre site that is located approximately 0.8 mile south of the existing South Bay Substation, southeast of the Palomar Road/Bay Boulevard intersection. I-5 is located along the eastern limits of the site.

**Rationale for Elimination:** The South Bay Boulevard Site Alternative meets CEQA criteria for project objectives and is potentially feasible to construct. This alternative would not meet environmental criteria because the alternative does not avoid or minimize significant environmental effects related to population and housing and land use. This alternative would require the displacement of approximately 20 residences (single-family and mobile homes) and 5 industrial and commercial uses/businesses along Palomar Street, West Frontage Road, and Ada Street. The potential significant land use and population and housing impacts resulting from this alternative would represent new, substantial environmental impacts beyond those identified under the Proposed Project.

While this alternative would meet the CEQA criteria for project objectives and is potentially feasible to construct, the alternative would not avoid or substantially reduce the significant environmental effects of the Proposed Project. For these reasons, this alternative was not recommended to be carried forward for full EIR analysis.

#### **ES.7.2 Toy Storage Site Alternative**

**Description:** This alternative site location consists of a 7-acre site located approximately 0.6 mile southeast of the existing South Bay Substation. The site is located approximately 0.1 mile north of the Palomar Street/Industrial Boulevard intersection. Single-family residences are located immediately adjacent to the south, and a mobile home park is located along the northern limits of the site.

**Rationale for Elimination:** This alternative meets the CEQA screening criteria for project objectives, including replacement of aging and obsolete substation equipment, accommodating regional energy needs subsequent to retirement of the SBPP, and providing for future transmission and distribution load growth for the South Bay region.

This alternative would not be technically feasible for construction of an Air Insulated Substation or Gas Insulated Substation due to parcel configuration and the presence of transmission lines overhead that do not result in adequate vertical clearance.

The Toy Storage Site Alternative would not meet environmental effectiveness criteria because the 6-acre Toy Storage site is not physically large enough and cannot be expanded without the removal of adjacent residences to accommodate the Air Insulated Substation or Gas Insulated Substation Alternative. Therefore, this alternative was not recommended to be carried forward for full EIR analysis since it would not be technically feasible to construct and would not meet environmental effectiveness criteria.

### **ES.7.3 Cima Nevada Site Alternative**

**Description:** This alternative consists of a 5-acre site that is located approximately 0.9 mile southeast of the existing South Bay Substation. The site is located between Industrial Boulevard and East Frontage Road, south of Palomar Street.

**Rationale for Elimination:** The Cima Nevada Site Alternative meets CEQA criteria for project objectives and is potentially feasible to construct. The Cima Nevada Site Alternative would not meet environmental effectiveness criteria because the 4-acre Cima Nevada Site is not physically large enough and cannot be expanded without the removal of residences to accommodate the Air Insulated Substation or Gas Insulated Substation configuration. As such, the Cima Nevada Site Alternative was not recommended to be carried forward for full EIR analysis.

### **ES.7.4 Broadway and Palomar Site Alternative (Air Insulated Substation)**

**Description:** This alternative consists of a 9-acre site that is located approximately 1.2 miles southeast of the existing South Bay Substation. The site is located between Industrial Boulevard and Broadway, south of Palomar Street.

**Rationale for Elimination:** This alternative meets project objectives criteria and is potentially feasible to construct.

The Broadway and Palomar Site – Air Insulated Substation Alternative would not meet environmental effectiveness criteria because the Broadway and Palomar site is not physically large enough and cannot be expanded without the removal of existing commercial uses to accommodate the 10-acre Air Insulated Substation Alternative. As such, Broadway and Palomar Site Air Insulated Substation Alternative was not recommended to be carried forward for full EIR analysis.

### **ES.7.5 Bay Boulevard at 138/69 kV Alternative**

**Description:** This alternative includes construction of a 138/69 kV substation at the proposed Bay Boulevard site location with the same voltage as the existing South Bay Substation.

**Rationale for Elimination:** This alternative does not meet the CEQA screening criteria for project objectives. With the planned removal of the existing SBPP and without construction of a new substation that can accommodate a 230 kV system, service reliability to the area now served by the South Bay Substation would be materially reduced, possibly requiring involuntary shedding of load in the South Bay region.

The California Independent System Operator (CAISO) has approved the need for the Bay Boulevard Substation at the proposed 230/69 kV configuration. A substation with a 138/69 kV configuration would not meet regional energy demands subsequent to retirement of the SBPP. The 138/69 kV configuration would result in a system that is electrically similar to the existing system. The resultant system would be a heavily loaded transmission system, which would reduce the flexibility of the system to adapt to peak energy demands or future load growth planned in the region. In addition, SDG&E is required to meet performance criteria in accordance with the North American Electrical Reliability Corporation (NERC), Western Electricity Coordinating Council (WECC), and CAISO. The criteria established includes the ability for the transmission system to be able to withstand the loss of any one system element (i.e., transmission line, transformer, and/or generator) during peak demand without violating system operating ratings. The system is also required to be capable of withstanding the loss of two elements with the controlled curtailment of load. For some contingencies, the current 138/69 kV configuration does not meet the single contingency criteria as well as being required to curtail (interrupt) load for some double contingencies. Thermal violations are also present within the current 138/69 kV configuration (and may be expected to be present under a 138/69 kV configuration at the Bay Boulevard site) on both of the Old Town 230/69 kV transformer banks, the Miguel 230/69 kV bank 61, and transmission lines TL604 (Kettner–Old Town) and TL609 (Kettner–Station B). To correct these thermal violations, additional transmission upgrades are required beyond replacing the existing 138/69 kV South Bay Substation with a new 138/69 kV configuration at the Bay Boulevard site.

Therefore, this alternative would not accommodate regional energy needs subsequent to retirement of the SBPP, and providing for future transmission and distribution load growth for the South Bay region. The tie-in to the 230 kV system, which is located immediately adjacent to the proposed Bay Boulevard Substation, results in a more robust/reliable system and requires less in the way of system expansion.

While this alternative could potentially reduce the required footprint and associated environmental impacts and it does not meet reliability requirements, this alternative was not recommended to be carried forward for full EIR analysis because it would not meet CEQA screening criteria for project objectives.

#### **ES.7.6 Expansion of South Bay Substation by Expanding Substation Boundary/ 69 kV Capacity Alternative**

**Description:** This alternative includes expansion of the existing South Bay Substation at the same voltage level that is currently in service (138/69 kV). The existing South Bay Substation would be expanded outside of the existing substation fence, adjacent to the existing 69 kV structures, to provide additional 69 kV capacity.

**Rationale for Elimination:** This alternative does not meet the CEQA screening criteria for project objectives. In the absence of constructing a new substation that can accommodate a 230 kV system, service reliability to the South Bay and surrounding area would be materially reduced, possibly requiring involuntary shedding of load in the South Bay region (see Section ES.7.5).

Therefore, this alternative would not meet the project objectives of replacing aging and obsolete substation equipment, accommodating regional energy subsequent to retirement of the SBPP, and providing for future transmission and distribution load growth for the South Bay region. The tie-in to the 230 kV system, which is located immediately adjacent to the proposed Bay Boulevard Substation, results in a more robust/reliable system and requires less in the way of system expansion.

While this alternative could potentially reduce the required footprint and associated environmental impacts and it meets legal, technical, and regulatory requirements, this alternative was not recommended to be carried forward for full EIR analysis because it would not meet CEQA screening criteria for project objectives.

#### **ES.7.7 Reduced Communications Tower Height Alternative**

**Description:** This alternative would reduce the height of the communications tower, which is proposed by SDG&E to be 75 feet tall. The Reduced Communications Tower Height Alternative would include a communication tower with a height of approximately 44 feet, which is the permitted height of structures within the industrial district where the Proposed Project site is located.

**Rationale for Elimination:** The reduced tower height would not be technically feasible because a height of 75 feet is proposed to provide adequate vertical clearance for uninterrupted communications. The communications tower needs to be approximately 75 feet tall to provide communication clearance above the 55-foot-tall A-frame structures. A height of 75 feet will ensure a clear line of sight for communication signals with the existing SDG&E backbone network. A reduced tower height would not be technically feasible because it would result in obstruction for the near-field communication. The telecommunications component is essential to the project reliability because it ensures a reliable transmission system. While this alternative would reduce potential environmental impacts of the Proposed Project, this alternative was not recommended to be carried forward for full EIR analysis because it does not meet feasibility criteria.

#### **ES.7.8 Underground All Transmission Poles and Associated Infrastructure Alternative**

Description: This alternative would include undergrounding new transmission poles as proposed under the Proposed Project. The alternative would eliminate the need for five 69 kV steel cable

pole risers (85 feet), one 138 kV steel cable riser pole (165 feet), and one 230 kV steel cable pole riser (110 feet).

**Rationale for Elimination:** The proposed undergrounding of the 69 kV transmission line does not meet environmental criteria. This alternative would have greater construction-related noise and traffic impacts. The Proposed Project includes the removal of four lattice steel structures (110 feet) and one 230 kV transition pole (165 feet). The project also includes construction of five new poles (230 kV steel angle tower (110 feet), 138 kV riser (165 feet), and five 69 kV pole risers (85 feet). In addition, the project includes construction of eighteen 69 kV wood poles, removal of twenty-three 69 kV wood poles, and replacement of twenty-two 69 kV wood transmission poles. As seen in Section D of the EIR, the Proposed Project would not result in any significant effects due to the change in the transmission structures that could be avoided or lessened by undergrounding the proposed facilities; therefore, this underground alternative has not been carried forward for full consideration in the Draft EIR.

#### **ES.7.9 Underground All Transmission Poles and Lines Along Bay Boulevard Alternative**

**Description:** This alternative would include undergrounding all transmission poles proposed under the Proposed Project and transmission infrastructure located along Bay Boulevard. The alternative would include the undergrounding of two 69 kV steel cable pole risers (85 feet in height) and eleven 69 kV wood poles that are proposed to be replaced along Bay Boulevard.

**Rationale for Elimination:** The proposed undergrounding of the 69 kV transmission line does not meet environmental criteria. This alternative would have greater construction-related noise and traffic impacts. The Proposed Project includes the removal of four lattice steel structures (110 feet) and one 230 kV transition pole (165 feet). The project also includes construction of five new poles (230 kV steel angle tower (110 feet), 138 kV riser (165 feet), and five 69 kV pole risers (85 feet)). In addition, the project includes construction of eighteen 69 kV wood poles, removal of twenty-three 69 kV wood poles, and replacement of twenty-two 69 kV wood transmission poles. As seen in Section D of the EIR, the Proposed Project would not result in any significant effects due to the change in the transmission structures that could be avoided or lessened by undergrounding the proposed facilities; therefore, this underground alternative has not been carried forward for full consideration in the Draft EIR.

#### **ES.7.10 Transmission System Load Management Alternative**

**Description:** This alternative includes load management programs to reduce peak electric demand or have the primary effect of shifting electric demand from peak to non-peak periods. Regulatory requirements dictate that supply-side and demand-side resource options should be

considered on an equal basis in a utility's plan to acquire lowest-cost resources. These programs are designed to either reduce the overall use of energy or shift the consumption of energy to off-peak times. Under this alternative, the need for a new substation would be met through increased load management activities similar to those noted above.

**Rationale for Elimination:** As separate and stand-alone programs, these alternatives do not provide either the expansion capabilities or reliability needs of SDG&E, as stated in the project objectives. For these reasons, this alternative has been eliminated from further consideration.

### **ES.7.11 Energy Conservation Alternative**

**Description:** This alternative would include energy conservation programs offered by SDG&E to customers, such as financial incentives for installing specific energy-efficient appliances or taking other measures to conserve energy.

Under the direction of CPUC, SDG&E offers a number of energy conservation programs for customers, including financial incentives for installing specific energy-efficient appliances or taking other measures to conserve energy. SDG&E also provides programs such as in-line energy profiling and in-home energy audits to make customers more aware of their energy usage and of ways to conserve, as well as a variety of free brochures about improving energy efficiency.

Impacts associated with these programs are routinely factored into the peak and energy forecasts prepared by SDG&E, including the forecasts for the area to be served by the proposed Bay Boulevard Substation. Thus, the need for the project has been considered relative to the benefits associated with conservation and demand-side management.

**Rationale for Elimination:** As a separate and stand-alone program, this alternative does not meet CEQA screening criteria for project objectives. With the planned removal of the existing SBPP and without construction of a new substation that can accommodate a 230 kV system, service reliability to the area now served by the South Bay Substation would be materially reduced, possibly requiring involuntary shedding of load in the South Bay region. Therefore, this alternative would not meet the project objectives of replacing aging and obsolete substation equipment, accommodating regional energy subsequent to retirement of the SBPP, and providing for future transmission and distribution load growth for the South Bay region.

This alternative would also not meet the feasibility criteria. Reductions in energy usage provided by energy conservation would not occur at a scale that would eliminate the need for the energy delivered by the Bay Boulevard Substation for the South Bay region, and these reductions are already calculated into the transmission forecasting. While this alternative would avoid



environmental impacts of the Proposed Project, this alternative was not recommended to be carried forward for full EIR analysis because it would not meet project objectives and feasibility criteria.

#### **ES.7.12 Energy Conservation Alternative and Transmission Load Management Alternative**

**Description:** This alternative would include a combination of the energy conservation programs offered by SDG&E to customers such as financial incentives and a transmission system load management program to reduce peak electric demand.

**Rationale for Elimination:** Transmission load management programs and energy conservation programs do not provide either the expansion capabilities or the reliability needs of SDG&E, as stated in the project objectives. This alternative would not meet the feasibility criteria. Reductions in energy usage and transmission load management programs would not occur at a scale that would eliminate the need for the energy delivered by the Bay Boulevard Substation for the South Bay region.

In addition, this alternative would not meet the project objectives of replacing aging and obsolete substation equipment, accommodating regional energy subsequent to retirement of the SBPP, or providing for future transmission and distribution load growth for the South Bay region.

While this alternative would avoid the environmental impacts of the Proposed Project, this alternative was not recommended to be carried forward for full EIR analysis because it would not meet project objectives and feasibility criteria.

#### **ES.7.13 Transmission System Load Management + Energy Conservation + 138/69 kV Alternative**

**Description:** This alternative consists of a combination of transmission load management, energy conservation, and construction of the Bay Boulevard Substation at 138/69 kV configuration.

**Rationale for Elimination:** This alternative does not meet the CEQA screening criteria for project objectives. With the planned removal of the existing SBPP and without construction of a new substation that can accommodate a 230 kV system, service reliability to the area now served by the South Bay Substation would be materially reduced, possibly requiring involuntary shedding of load in the South Bay region. Therefore, this alternative would not meet the project objectives of replacing aging and obsolete substation equipment, accommodating regional energy subsequent to retirement of the SBPP, or providing for future transmission and distribution load growth for the South Bay region.

In addition, this alternative would not meet the feasibility criteria. Reductions in energy usage provided by energy conservation and transmission system load management would not occur at a scale that would eliminate the need for the energy delivered by the Bay Boulevard Substation at a 138/69 kV configuration for the South Bay region. Energy conservation goals are already factored into the long-term transmission planning requirements.

While this alternative would avoid environmental impacts of the Proposed Project, this alternative was not recommended to be carried forward for full EIR analysis because it would not meet project objectives and feasibility criteria.

#### **ES.7.14 Bayfront Enhancement Fund Alternative**

**Description:** The Bayfront Enhancement Fund Alternative consists of constructing the Proposed Project and establishing a funding program to be used for San Diego Bayfront enhancement. Under this alternative, SDG&E would contribute \$5 million to fund Bayfront enhancement projects such as (1) creation, restoration, and/or enhancement of wetlands; (2) enhancement of coastal resources, including coastal access enhancements, such as walkway, path, park, overlook, and traffic improvements, as well as educational signage and events; (3) biological resources, such as habitat management and protection efforts, including predator management, vegetation management, and security signage; water quality improvements; and aesthetics enhancements, such as landscaping and lighting improvements. SDG&E has indicated that specific projects would be identified by a group of agency and community stakeholders and could be coordinated with ongoing efforts to finalize the CVBMP.

**Rationale for Elimination:** This alternative meets the CEQA screening criteria for project objectives, including replacement of aging and obsolete substation equipment, accommodating regional energy needs subsequent to retirement of the SBPP, and providing for future transmission and distribution load growth for the South Bay region.

Due to the undefined nature of this alternative (i.e., proposed enhancement projects have yet to be defined) and because no established funding mechanism for Bayfront enhancement projects currently exists, the regulatory and legal feasibility of this alternative cannot be determined.

Additionally, while the intent of this alternative is to benefit the San Diego Bayfront while allowing the project to be built as proposed, it cannot be determined at this time whether this alternative meets environmental screening criteria, since proposed enhancement projects have environmental effects and benefits that have yet to be determined.

While this alternative would meet the CEQA criteria for project objectives, due to the undefined nature of this alternative, it cannot be determined whether it can meet both

feasibility and environmental criteria; therefore, it was not recommended to be carried forward for full EIR analysis.

### **ES.7.15 Alternative Transmission Upgrades**

**Description:** This alternative consists of not developing the proposed Bay Boulevard Substation and associated transmission upgrades and instead developing the following transmission upgrades with or without the removal of the existing South Bay Substation:

- Adding a third 230/69 kV transformer at Miguel
- Converting the Montgomery Substation from a 69 kV feed substation to a 138 kV substation by looping the adjacent South Bay–Sweetwater 138 kV circuit into it
- Constructing a new 69 kV line from Miguel to the Sunnyside tap and rearranging the lines so that a Miguel–Sunnyside line and a Miguel–Sweetwater line are created
- Providing additional support to the South Bay area (should such support be required) by one or both of the following actions:
  - Operation of the existing Peaker units in the vicinity of the Border Substation during times of peak loads as necessary to maintain reliable service
  - Placing series capacitors in the Miguel–Border 69 kV line to allow for the injection of additional power into the South Bay region.

**Rationale for Elimination:** While this alternative has the potential to avoid environmental impacts of the Proposed Project and is potentially feasible to construct, it was not recommended to be carried forward for full EIR analysis because it would not meet project objectives criteria.

As discussed in Section A2, the Proposed Project is needed to address future load growth and transmission overloads that would occur as a result of the SBPP retirement, as well as eliminate criteria violations identified by the CAISO and SDG&E consisting of overloading transformers and transmission lines at the following locations: Miguel 230/138 kV transformer banks, Kettner-Station 69 kV transmission, Old Town–Kettner 69 kV transmission, and Old Town 230/69 kV transformer banks (SDG&E 2011i).

The estimated duration and magnitude of the overloads indicate that with reasonable load-growth expectations the contingency loadings on the Old Town and Miguel transformers could exceed reliability criteria by 2015 or shortly thereafter. While the transmission upgrades under this alternative could bolster the existing 69 kV system in response to the loss of the 69 kV supply at South Bay, as well as relieve the system through the transfer of some distribution

load to a 138 kV source, it would not solve the criteria violations cited by SDG&E and CAISO, as noted above, and therefore was not carried forward for full EIR analysis.

## **ES.8 No Project Alternative**

CEQA requires an evaluation of the No Project Alternative so that decision makers can compare the impacts of approving the project with the impacts of not approving the project. According to CEQA Guidelines (Section 15126.6[e]; 14 CCR 15000 et seq.), the No Project Alternative must include (a) the assumption that conditions at the time of the NOP (i.e., baseline environmental conditions) would not be changed since the Proposed Project would not be installed and (b) the events or actions that would be reasonably expected to occur in the foreseeable future if the project were not approved. The first condition is described in the EIR for each environmental discipline as the “environmental baseline,” since no impacts of the Proposed Project would be created. This section defines the second condition of reasonably foreseeable actions or events. The impacts of these actions are evaluated in each issue area’s analysis in Section D.

Under the No Project Alternative, the Bay Boulevard Substation would not be built, and the existing South Bay Substation would remain in operation.

As discussed in Section A.2 of this EIR, the Applicant states that the Proposed Project is needed to address transmission overloads that would occur as a result of SBPP retirement and for servicing future load growth. The Applicant states that the Proposed Project will also eliminate NERC and WECC criteria violations that result from retirement of the SBPP. Based on correspondence between the CAISO and SDG&E, criteria violations consisting of overloading transformers and transmission lines at the following locations would result without the Proposed Project: Miguel 230/138 kV transformer banks, Kettner-Station B 69 kV transmission, Old Town–Kettner 69 kV transmission, and Old Town 230/69 kV transformer banks (SDG&E 2011i).

Under the current condition, contingency loadings on the transformers at Old Town and Miguel would experience above normal ratings. *Based on recent analysis conducted by SDG&E, the Miguel transformer can be expected to exceed its normal rating (under N-1 conditions) whenever the SDG&E system load is above 4,926 megawatts (MW), and the Old Town units can expect to reach their normal rating (under N-1-1 conditions) when the system load is above 4,799 MW.* The current California Energy Commission (CEC) Adopted Forecast (12/2009) for SDG&E’s 2012 and 2013 summer peak load is 5,124 and 5,212 MW, respectively. In a draft CEC report dated December 2010, the short-term forecasts for 2011 and 2012 were revised downward with the 2012 forecast being decreased to 4,882 MW. The CEC report did not consider changes beyond those prepared by CEC staff 2012.

There is concern with the application of the transformer emergency ratings in the case where the overload is the result of the loss of the adjacent transformer. It can take up to 2 weeks to relocate and install a transformer, whereas the transformer emergency rating is designed for use under shorter-term conditions. The Applicant has stated that the transformer emergency ratings are not intended to be applied for periods more than 24 hours for 5 days (occurrences) in a year. Further, the CAISO has stated that long-term emergency ratings, if available, will be used in all emergency conditions as long as “system readjustment” is provided in the amount of time given (specific to each element) to reduce the flow to within the normal ratings.

Based on this information, the loss of one Miguel transformer or Old Town transformer can result in overloading the remaining transformer as early as the summer of 2012 in the case of Old Town and 2013 in the case of Miguel. The Applicant claims the emergency ratings to be valid only for short-term use and not applicable for the durations one could expect to replace a failed transformer. With time, the magnitude and duration of the overloads will increase, and thus, potential transformer damage in the form of decreased expected transformer life will occur.

The Applicant states that with the planned removal of the existing SBPP and without construction of a new substation that can accommodate a 230 kV system, service reliability to the area now served by the South Bay Substation would also be materially reduced, possibly requiring involuntary shedding of load in the South Bay region, possibly as early as summer 2012.

To avoid these consequences, SDG&E would be required to implement additional transmission upgrades. For purposes of the analysis conducted in this EIR, the following actions can be reasonably expected to occur if the Proposed Project were not approved and are assumed to be a part of the No Project Alternative. It should be noted that the “Mitigation of overloads” essentially requires the installation of devices capable of opening preselected circuitry to disconnect load from the system. The frequency and magnitude of load interruption can be expected to increase with time.

- As-needed, in-kind replacement of the existing 138/69 kV South Bay Substation.
- Mitigate overloads on the Old Town 230/69 kV transformers #1 or #2. Mitigation measures may include one or more of the following actions: Changing Old Town transformer tap from 67 kV to 70.35 kV, running Border Area peakers, and dropping load.
- Mitigate the overloads on the Old Town–Kettner 69 kV line by dropping load as needed (the overload should not occur until 2019, assuming load forecasts remain as robust as SDG&E projects).

- Mitigate the overloads on the Kettner–B St. 69 kV line by dropping load as needed (the overload should not occur until 2019, assuming load forecasts remain as robust as SDG&E projects).
- Installation of the Miguel 230/138 kV transformer #2, which is a separate project already scheduled to be in service by summer 2012 and assumed to be in service for purposes of measuring the above overloads.

## **ES.9 Environmental Impact and Mitigation Measures**

### **ES.9.1 Impact Assessment Methodology**

The analysis of environmental impacts is based upon the environmental setting applicable to each resource/issue and the manner in which the construction, operation, and maintenance of the Proposed Project or alternatives would affect the environmental setting and related resource conditions. In accordance with CEQA requirements and guidelines, the impact assessment methodology also considers the following three topics: (1) the regulatory setting and evaluation of whether the Proposed Project or alternatives would be consistent with adopted federal, state, and local regulations and guidelines; (2) growth-inducing impacts; and (3) cumulative impacts. Regulatory compliance issues are discussed in each resource/issue area section (Section D). This EIR is organized according to the following major issue area categories:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural and Paleontological Resources
- Geology and Soils
- Public Health and Safety
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services and Utilities

- Recreation
- Transportation and Traffic
- Climate Change.

To provide for a comprehensive and systematic evaluation of potential environmental consequences to the resource/issue areas, the environmental impact assessments for the Proposed Project and alternatives are based upon a classification system with the following four associated definitions:

- Class I:** Significant impact: cannot be mitigated to a level that is not significant
- Class II:** Significant impact: can be mitigated to a level that is less than significant
- Class III:** Less than significant; no mitigation required
- Class IV:** Beneficial impact
- No Impact:** No impact identified.

## **ES.10 Impact Summary Table Proposed Project**

Table ES-1, located at the end of this executive summary, provides a summary of Proposed Project impacts and classification of impacts under CEQA, mitigation measures, and residual impacts. As shown in Table ES-1, potential environmental impacts can be mitigated to a level that is less than significant (Class II) for environmental categories where potential environmental impacts from the Proposed Project would be considered significant under CEQA. No significant unmitigable (Class I) impacts would occur as a result of the Proposed Project.

## **ES.11 Summary Comparison of the Proposed Project and Alternatives**

### **ES.11.1 Methodology**

The comparison of alternatives is designed to satisfy the requirements of CEQA Guidelines, Section 15126.6(d), Evaluation of Alternatives (14 CCR 15000 et seq.). This comparison does not consider the beneficial impacts of any alternative above and beyond its ability to reduce or avoid significant effects of the Proposed Project. This is consistent with the constitutional requirement that there be “rough proportionality” between the impacts of the project and the measures identified to reduce or avoid those impacts (*Dolan v. City of Tigard* (1994) 512 U.S. 374) and the constitutional requirement that there be an essential nexus (i.e., connection) between a legitimate governmental interest and the measures identified to further that interest (*Nollan v. California Coastal Commission* [1987] 483 U.S. 825). These requirements are also set forth in CEQA Guidelines § 15126.4(a)(4).

Therefore, the environmental superiority of alternatives is based on a comparison of significant impacts that would result from the Proposed Project and the alternatives identified in the EIR. Issue areas that are generally given more weight in comparing alternatives are those with long-term impacts (e.g., visual impacts and permanent loss of habitat or land use conflicts). Impacts associated with construction (i.e., temporary or short-term) that are mitigable to less-than-significant levels are considered less important. In keeping with the constitutional requirements discussed previously, the environmental superiority of alternatives does not consider whether the Proposed Project or an alternative would improve existing environmental conditions. These benefits, summarized in this section and in Sections D.2 through D.17 in this EIR as Class IV beneficial effects, will be considered by the CPUC in its final decision about whether to approve the project as proposed or an alternative.

### **ES.11.2 Evaluation of Project Alternatives**

Eight alternatives in addition to the No Project Alternative were identified for evaluation in this EIR. Table ES-2, located at the end of the Executive Summary, provides a summary of environmental impact conclusions for the Proposed Project and each of the alternatives for each environmental issue area. No significant unmitigable (Class I) impacts for the Proposed Project and alternatives were identified.

### **ES.11.3 Environmentally Superior Alternative**

CEQA requires that the Environmentally Superior Alternative be selected from a range of reasonable alternatives that could feasibly attain the basic objectives of the project. Based on the analysis presented in Sections D.2 through D.17 of this EIR, the Environmentally Superior Alternative was determined to be the No Project Alternative. Under the No Project Alternative, the Proposed Project would not be constructed. All environmental impacts associated with the construction and operation of the Proposed Project would be eliminated and existing environmental conditions unaffected. The Bay Boulevard Substation would not be built, and the existing South Bay Substation would remain in operation. Under the No Project Alternative, SDG&E may be required to develop additional transmission upgrades, as described in Section ES.8. Anticipated upgrades would be within disturbed and developed areas, and therefore, it is anticipated that overall impacts would be reduced due to the elimination of construction activities associated with the proposed Bay Boulevard Substation.

Under the No Project Alternative, the visual effects of the existing South Bay Substation along the Chula Vista Bayfront would continue. In addition, the potential visual benefits from removing the five lattice steel structures within the limits of the SBPP property as proposed would not occur, and ongoing visibility of these industrial structures would continue to provide interrupted views of San Diego Bay for travelers along Bay Boulevard. While the No Project



Alternative would not further the redevelopment goals envisioned in the Chula Vista Bayfront Master Plan (CVBMP), pursuant to General Order No. 131-D, the CPUC has sole and exclusive jurisdiction over the siting and design of the Proposed Project. Consequently, the No Project Alternative would not conflict with any applicable plans, policies, or regulations of any agency with jurisdiction over the project.

CEQA Guidelines, Section 15126.6 (e)(2), further stipulates that “if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.”

Overall, based on the analysis for each alternative presented in Sections D.2 through D.17, and as summarized in Table ES-2, the Existing South Bay Substation Site Alternative, which would replace the current 138/69 kV South Bay Substation with a rebuilt 230/69/12 kV substation (Air Insulated Substation or Gas Insulated Substation configuration), would rank as the Environmentally Superior Alternative since it would reduce project-related, long-term environmental impacts associated with wetlands that have been identified as significant and mitigable (Class II), while not resulting in more overall impacts than the Proposed Project. Under this alternative, the visual effects of the existing South Bay Substation along the Chula Vista Bayfront would continue. In addition, the potential visual benefits from removing the five lattice steel structures within the limits of the SBPP property as proposed would be lost, and ongoing visibility of these industrial structures would continue to provide interrupted views of San Diego Bay for travelers along Bay Boulevard. While the Existing South Bay Substation Alternative would not further the redevelopment goals envisioned in the CVBMP, pursuant to General Order No. 131-D, the CPUC has sole and exclusive jurisdiction over the siting and design of the Proposed Project. Consequently, the Existing South Bay Substation Site Alternative would not conflict with any applicable plans, policies, or regulations of an agency with jurisdiction over the project.

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
<i>Aesthetics</i>			
Impact AES-1: Construction and operation would have a substantial adverse effect on a scenic vista.	Class III	None	Less Than Significant
Impact AES-2: Construction would substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.	Class III	None	Less Than Significant

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
Impact AES-3: Construction and operations would substantially degrade the existing visual character or quality of the site and its surroundings.	Class II	AES-1: Prior to construction, the City shall be provided an opportunity to review and comment on the landscaping plan and design of the substation perimeter wall for consistency with the City's landscape manual and design manual. The landscaping plan shall be prepared by a licensed landscape architect. CPUC shall have full approval authority for any recommendations made by the City in its review to ensure that there are no conflicts with design requirements for substation construction and operation.	Less Than Significant
Impact AES-4: Construction and operations would create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.	Class III	None	Less Than Significant
Impact AES-5: Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	No Impact	None	Less Than Significant
<i>Agricultural Resources</i>			
Impact AG-1: Construction and operation activities would interfere with active agricultural operations.	No Impact	None	None
Impact AG-2: Operation would permanently convert Farmland to nonagricultural use.	No Impact	None	None
Impact AG-3: Operation would conflict with existing zoning for agricultural use or permanently convert Williamson Act lands to nonagricultural use.	No Impact	None	None
Impact AG-4: Operation would conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.	No Impact	None	None
Impact AG-5: Operation would result in the loss of forest land or conversion of forest land to non-forest use.	No Impact	None	None

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
<i>Air Quality</i>			
Impact AIR-1: Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III	None	Less Than Significant
Impact AIR-2: Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III	None	Less Than Significant
Impact AIR-3: Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III	None	Less Than Significant
Impact AIR-4: Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class III	None	Less Than Significant
Impact AIR-5: Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III	None	Less Than Significant
<i>Biological Resources</i>			
Impact BIO-1: Construction activities would result in temporary and permanent loss of native vegetation.	Class II	BIO-1: Provide Habitat Compensation or Restoration for Permanent Impacts to Native Vegetation Communities. Where impacts to disturbed coyote brush scrub and non-native grasslands cannot be avoided, SDG&E shall restore temporarily disturbed areas to preconstruction conditions following construction and deduct credits from the SDG&E Mitigation Credits for permanent impacts to sensitive communities, as stated in the SDG&E Natural Community Conservation Plan (NCCP). Where on-site restoration is planned for mitigation of temporary impacts to sensitive vegetation communities, the Applicant shall identify a habitat restoration specialist to be approved by the CPUC or that the resource agencies have indicated is acceptable to determine the most appropriate method of restoration. Restoration techniques can include hydroseeding, handseeding, imprinting, and soil and plant salvage, as discussed in Section 7.2.1 of the NCCP. Monitoring will include visual inspection	Less Than Significant

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
		<p>of restored areas after 1 year. A second application may be made. If, after the second year, restoration is deemed unsuccessful, the USFWS and CDFG, in cooperation with SDG&amp;E, shall determine whether the remaining loss shall be mitigated through a deduction from the SDG&amp;E Mitigation Credits, or whether a third application would better achieve the intended purpose. The mitigation objective for impacted sensitive vegetation communities shall be restoration to preconstruction conditions as measured by species cover, species diversity, and exotic species cover. The cover of native species should increase, while the cover of non-native or invasive species should decrease. Success criteria shall be established by comparison with reference sites. If, however, roots are not grubbed during temporary impacts, restoration/ hydroseeding may not be necessary. This applies to impacts greater than 500 square feet, and only where grubbing occurred. For all temporary impacts greater than 500 square feet, acreage not meeting success criteria shall be deducted from SDG&amp;E's mitigation credits at a 1:1 ratio.</p> <p>In addition, SDG&amp;E shall mitigate for permanent impacts to disturbed coyote brush scrub at a ratio of 1.5:1 and non-native grasslands at a ratio of 1:1 for all permanent impacts that would result from construction activities. Evidence shall be provided to CPUC that 7.55 acres of coastal sage scrub and 9.46 acres of non-native grasslands have been deducted from NCCP credits.</p> <p>BIO-2: Topsoil Salvaging. During construction, the upper 12 inches of topsoil (or less depending on existing depth of topsoil) shall be salvaged and replaced wherever trenching occurs through open land (not including graded roads and road shoulders).</p> <p>BIO-10: Prior to construction, a qualified biologist shall review all proposed temporary work areas that will be utilized during construction. The review of all temporary work areas shall be used to determine whether sensitive biological</p>	

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
		resources are present. Temporary work areas shall be cited in locations that do not contain any sensitive habitat. A letter signed by a qualified biologist shall be submitted to CPUC 30 days prior to construction in any temporary work area (cable pull sites, jack-and-bore operations, etc.) that identifies whether any sensitive resources are present. Erosion control measures shall be implemented both during and following construction in accordance with the stormwater pollution prevention plan (SWPPP). All areas of temporary disturbance shall be returned to preconstruction conditions immediately following construction.	
Impact BIO-2: Construction activities would result in substantial adverse effects to jurisdictional waters, including wetlands, through vegetation removal, placement, or fill; erosion; sedimentation; and degradation of water quality.	Class II	BIO-3: Provide Habitat Compensation or Restoration for Permanent Impacts to Jurisdictional Resources. Permanent impacts to all jurisdictional resources shall be compensated through a combination of habitat creation (i.e., establishment) and habitat restoration at a minimum of a 4:1 ratio with at least 1:1 creation of new jurisdictional areas or as required by the permitting agencies. The creation/restoration effort shall be implemented pursuant to a habitat restoration plan, which shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to construction of the project. A habitat restoration specialist will be designated and approved by the permitting agencies and will determine the most appropriate method of restoration. Restoration techniques may include hydroseeding, handseeding, imprinting, and soil and plant salvage. All habitat creation and restoration used as mitigation on public lands shall be located in areas designated for resource protection and management. All habitat creation and restoration used as mitigation on private lands shall include long-term management and legal protection assurances. Appropriate permits from the wetland resource agencies including ACOE, CDFG, RWQCB, and CCC for the impacts to wetlands and jurisdictional waters shall be provided to CPUC prior to construction. Buffers for wetland areas shall be included as required by the wetland resource agencies.	Less Than Significant
Impact BIO-3: Construction and operation/maintenance activities	Class II	BIO-4: Prepare and implement a Noxious Weeds and Invasive Species Control Plan. A Noxious	Less Than Significant

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
would result in the introduction of invasive, non-native, or noxious plant species.		Weeds and Invasive Species Control Plan shall be prepared and reviewed by applicable permitting agencies. The plan shall be submitted to CPUC at least 30 days prior to ground-disturbance activities. The plan shall be implemented during all phases of project construction and operation. The plan shall include best management practices to avoid and minimize the direct or indirect effect of the establishment and spread of invasive plant species during construction. Implementation of specific protective measures shall be required during construction, such as cleaning vehicles prior to off-road use, using weed-free imported soil/material, restricting vegetation removal, and requiring topsoil storage. Development and implementation of weed management procedures shall be used to monitor and control the spread of weed populations along the construction access and transmission line ROWs. Vehicles used during construction shall be cleaned prior to operation off maintained roads. Existing vegetation shall be cleared only from areas scheduled for immediate construction work and only for the width needed for active construction activities. Noxious weed management shall be conducted annually to prevent establishment and spread of invasive plant species. This shall include weed abatement efforts targeted at plants listed as invasive exotics by the California Exotic Plant Pest Council in its most recent "A" or "Red Alert" list. Pesticide use shall be limited to non-persistent pesticides and shall only be applied in accordance with label and application permit directions and restrictions for terrestrial and aquatic applications.	
Impact BIO-4: Construction activities would create dust that would result in degradation of vegetation.	Class II	BIO-5: Prepare and implement a Dust Control Plan. The project proponent shall (a) pave, apply water three times daily, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas if construction activity causes persistent visible emissions of fugitive dust beyond the work area; (b) pre-water sites for 48 hours in advance of clearing; (c) reduce the amount of disturbed area where feasible; (d) spray all dirt stockpile areas daily, as needed; (e) cover loads in haul trucks or maintain at least 6	Less Than Significant

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
		inches of free-board when traveling on public roads; (f) pre-moisten prior to transport and import and export of dirt, sand, or loose materials; (g) sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets or wash trucks and equipment before entering public streets; (h) plant vegetative ground cover in disturbed areas as soon as possible following construction; (i) apply chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands that are unused for 14 consecutive days); and (j) prepare and file with CPUC a Dust Control Plan that describes how these measures would be implemented and monitored throughout construction.	
Impact BIO-5: Construction activities would result in direct or indirect loss of listed or sensitive plants or a direct loss of habitat for listed or sensitive plants.	Class III	None	Less Than Significant
Impact BIO-6: Construction, including the use of access roads, would result in disturbance to wildlife and result in wildlife mortality.	Class III	None	Less Than Significant
Impact BIO-7: Construction activities would result in direct or indirect loss of listed or sensitive wildlife or a direct loss of habitat for listed or sensitive wildlife	Class II	<p>BIO-6: A survey shall be conducted within 30 days prior to initiation of construction by a qualified biologist to determine the presence or absence of the burrowing owl (<i>Athene cunicularia</i>) in the Proposed Project site limits, plus 250 feet beyond. The survey results shall be provided to the CPUC within 14 days following completion of the surveys. In addition, the burrowing owl shall be looked for opportunistically as part of other surveys and the monitoring required during project construction. If the burrowing owl is absent, then no mitigation is required.</p> <p>If the burrowing owl is present, no disturbance shall occur within 160 feet of occupied burrows from September 1 through January 31 or within 250 feet of occupied burrows from February 1 through August 31 (CDFG 1995).</p>	Less Than Significant

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
		<p>During construction, any pipe or similar construction material that is stored on site for one or more nights shall be inspected for burrowing owls by a qualified biologist before the material is moved, buried, or capped.</p> <p>Passive relocation of owls shall be implemented prior to construction only at the direction of CDFG and only if the previously described occupied burrow disturbance absolutely cannot be avoided (e.g., due to physical or safety constraints). Relocation of owls shall only be implemented during the nonbreeding season (September 1 through January 31; CDFG 1995). Passive relocation is defined as encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are beyond 160 feet from the impact zone and that are within or contiguous to a minimum of 6.5 acres of preserved (or acquired and preserved, if not already preserved) foraging habitat for each relocated owl (single owl or owl pair).</p> <p>Passive relocation is accomplished by first creating two artificial burrows in contiguous, preserved foraging habitat (if no natural burrows exist) for each occupied burrow that would be impacted; and second, installing one-way doors on occupied burrow entrances so owls can leave the burrow but not reenter it. Following passive relocation, the area of impact and the preserved foraging habitat with alternate burrows are surveyed daily for 1 week to confirm owl use of alternate burrows before excavation of burrows in the impact zone. All passive relocation shall be conducted by a biologist approved by CDFG. If the alternate burrows are not used by the relocated owls, then the Applicant shall work with CDFG to provide alternate mitigation for burrowing owls. If the alternate burrows are used, no other mitigation shall be required.</p> <p>If it is not possible to preserve contiguous habitat on which to provide alternate burrows (e.g., on private land), and occupied owl burrows would be directly impacted, then the owls shall be passively relocated without the creation of alternate burrows prior to construction</p>	



**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
		<p>(relocation should only be implemented during the nonbreeding season (September 1 through January 31)). The loss of occupied owl habitat shall be mitigated by acquiring and preserving other occupied habitat elsewhere per the Staff Report on Burrowing Owl Mitigation (CDFG 1995) and the Burrowing Owl Survey Protocol and Mitigation Guidelines (The Burrowing Owl Consortium 1993), or as otherwise determined in consultation with the CDFG.</p> <p>BIO-7: If construction activities including but not limited to grading, site disturbance, or helicopter activity is to occur between February 15 and September 15, a nesting bird survey shall be conducted by a qualified biologist to determine the presence of nests or nesting birds within 500 feet of the construction activities. The nesting bird surveys shall be completed no more than 72 hours prior to any construction activities. The survey will focus on special-status species such as but not limited to California horned lark (<i>Eremophila alpestris actia</i>), California least tern (<i>Sterna antillarum browni</i>), western snowy plover (<i>Charadrius alexandrinus nivosus</i>), Caspian tern (<i>Hydroprogne caspia</i>), gull-billed tern (<i>Gelochelidon nilotica</i>), and other colony nesting birds that may be disturbed by human activity. All ground-disturbance activity within 500 feet of an active nest will be halted until that nesting effort is finished. The on-site biologist will review and verify compliance with these nesting boundaries and will verify the nesting effort has finished. Work can resume when no other active nests are found. Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to CPUC. If grading or site disturbance must occur within 500 feet of an active nest, Mitigation Measure BIO-4 shall be implemented.</p> <p>BIO-8: Prior to completing any construction activity, SDG&amp;E shall provide a noise report to CPUC from a certified acoustician to document the noise levels that would result from proposed construction activities at the active nests identified under BIO-1. In the event the report prepared by a</p>	

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
		<p>certified acoustician indicates construction noise levels may exceed a 60 dBA Leq(h) at nearby sensitive habitat areas and/or active nests, a temporary noise barrier shall be constructed to reduce noise levels to below 60 dBA Leq(h). The height and materials of the noise barrier would depend on several factors, including the construction noise level as well as distance from sensitive habitat areas and active nests. Depending on various geometric and design factors, a temporary noise barrier could attenuate construction noise by approximately 5 to 15 dB.</p> <p>BIO-9: SDG&amp;E shall install several rows of raptor perch deterrent devices (such as but not limited to using spikes available from Mission Environmental) on the top of project components including buildings, structures, steel poles, and the lattice communication tower. These devices are intended to discourage birds from landing on the surface and potentially preying on special-status avian species in the area. The installation of the raptor perch deterrent devices will reduce or avoid potential impacts from perching raptors on special-status birds nesting and foraging in the open habitat and especially within the refuge.</p> <p>BIO-11: Helicopter activity during construction shall be restricted to the non-breeding season defined as September 16 through February 14. Should helicopter activity be deemed necessary during the breeding season, preconstruction surveys shall be conducted by a qualified biologist within 4,500 feet of the proposed helicopter operation. If nesting birds are present and/or an active nest is discovered, helicopter activity shall be postponed until nesting is complete and the young have fledged. Should helicopter activity be deemed necessary in the presence of known nesting birds following surveys, the Applicant shall coordinate with USFWS to determine whether the occurrence of helicopter activity is acceptable during the breeding season at the proposed locations. Documentation shall be provided to CPUC prior to helicopter activities occurring in the event that USFWS determines helicopter activities are permitted between September 16 and February 28.</p>	

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
Impact BIO-8: Construction activities would result in a potential loss of nesting birds (violation of the Migratory Bird Treaty Act).	Class II	BIO--8: See Impact BIO-7.	Less Than Significant
Impact BIO-9: Construction or operational activities would adversely affect linkages or wildlife movement corridors, the movement of fish, and/or native wildlife nursery sites.	Class II	BIO-8: See Impact BIO-7. BIO-9: See Impact BIO-7. BIO-10: See Impact BIO-10. BIO-12: See Impact BIO-7.	Less Than Significant
Impact BIO-10: Presence of transmission lines may result in electrocution of, and/or collisions by, listed or sensitive bird or bat species.		BIO-9: SDG&E shall install several rows of raptor perch deterrent devices (such as but not limited to the spikes available by Mission Environmental) on the top of project components including buildings, structures, steel poles, and the lattice communication tower. These devices are intended to discourage birds from landing on the surface and potentially preying on special-status avian species in the area. The installation of raptor perch deterrent devices will reduce or avoid potential impacts from perching raptors on special-status birds nesting and foraging in the open habitat and especially within the Refuge.	
Impact BIO-11: Maintenance activities would result in disturbance to wildlife and could result in wildlife mortality.	Class III	None	Less Than Significant
Impact BIO 12: Impacts to Regional Plans, NCCPs, Habitat Conservation Plans (HCPs), Conservation Plans, and Critical Habitat.	No Impact	None	No Impact
<i>Cultural and Paleontological Resources</i>			
Impact CUL-1: Construction of the project would cause an adverse change to significant prehistoric or historic archaeological resources.	Class II	CUL-1: In the event that any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, such as chipped or ground stone, historic debris, building foundation, or human bones, all work within 50 feet of the resources shall be halted, and a qualified archaeologist shall be consulted to assess the significance of the find. If any find is determined to be significant, representatives of SDG&E, CPUC, and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation, with the ultimate determination to be made by the CPUC. All	Less Than Significant

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
		<p>significant cultural materials recovered shall be subject to scientific analysis; professional museum curation, as necessary; and a report prepared by a specialist according to current professional standards.</p> <p>In considering any suggested mitigation proposed by the consulting archaeologist to mitigate impacts to historical resources or unique archaeological resources, the CPUC and SDG&amp;E shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for historical resources or unique archaeological resources is carried out. If the CPUC, in consultation with the qualified archaeologist, determines that a significant archaeological resource is present and that the resource could be adversely affected by the Proposed Project, SDG&amp;E will:</p> <ul style="list-style-type: none"> <li>• Redesign the project to avoid any adverse effect on the significant archaeological resource</li> <li>• Implement an archaeological data recovery program (ADRP), unless the qualified archaeologist determines that the archaeological resource is of greater interpretive use than research significance, and that interpretive use of the resource is feasible. If the circumstances warrant an ADRP, such a program shall be conducted. The project archaeologist and the CPUC shall meet and consult to determine the scope of the ADRP. The archaeologist shall prepare a draft ADRP that shall be submitted to the CPUC for review and approval. The ADRP shall identify how the proposed ADRP would preserve the significant information the archaeological resource is expected to contain. That is, the ADRP shall identify the scientific/historical research questions that are applicable to the expected</li> </ul>	

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
		resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to portions of the historical property that could be adversely affected by the Proposed Project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.	
Impact CUL-2: Construction of the project would cause an adverse change to sites known to contain human remains, either in formal cemeteries or buried Native American remains.	Class II	CUL-2: If human remains are discovered, there shall be no further excavation or disturbance of the discovery site or any nearby area reasonably suspected to overlie adjacent human remains until the project Applicant has immediately notified the county coroner and otherwise complied with the provisions of CEQA Guidelines, Section 15064.5(e). If the remains are found to be Native American, the county coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours. The most likely descendant of the deceased Native American shall be notified by the NAHC and given the opportunity to make proper disposition of human remains. If the NAHC is unable to identify the most likely descendant, or if no recommendations are made within 24 hours, remains may be reinterred with appropriate dignity elsewhere on the property in a location not subject to further subsurface disturbance. If recommendations are made and not accepted, the NAHC will mediate.	Less Than Significant
Impact CUL-3: Construction of the project would cause an adverse change to Traditional Cultural Properties.	No Impact	None	No Impact
Impact CUL-4: Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	No Impact	None	No Impact
PALEO-1: Construction of the project would destroy or disturb significant paleontological resources.	Class III	None	Less Than Significant

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
<i>Geology and Soils</i>			
Impact G-1: Ground acceleration/ground shaking that could damage components.	Class III	None	Less Than Significant
Impact G-2: Ground rupture that could displace surface deposits along faults.	Class III	None	Less Than Significant
Impact G-3: Seismically induced ground failures, including liquefaction, lateral spreading, and seismic slope instability.	Class III	None	Less Than Significant
Impact G-4: Slope instability, including landslides, earth flows, and debris flows.	Class III	None	Less Than Significant
Impact G-5: Soils that could damage foundations or have high erosion potential.	Class III	None	Less Than Significant
<i>Public Health and Safety</i>			
Impact HAZ-1: Impacts to soil or groundwater could result from an accidental spill or release of hazardous materials due to improper handling or storage of hazardous materials during construction activities.	Class II	<p>HAZ-1a: Prior to construction, all SDG&amp;E, contractor, and subcontractor project personnel would receive training regarding the appropriate work practices necessary to effectively implement hazardous materials procedures and protocols and to comply with the applicable environmental laws and regulations, including, without limitation, hazardous materials spill prevention and response measures. A sign-in sheet of contractor and subcontractor project personnel who have received training shall be provided to CPUC on a regular basis, depending on the level of construction activity.</p> <p>HAZ-1b: The hazardous substance management and emergency response plan proposed by APM-HAZ-1 shall be reviewed by the CPUC and San Diego County Department of Environmental Health (DEH), Hazardous Materials Division. The plan shall meet the requirements identified in California Health and Safety Code §25503.4, §25503.5, and §25504 and specifically addressed for the County of San Diego in the County of San Diego DEH, Hazardous Material Division Guidance on Hazardous Materials Business Plans.</p> <p>HAZ-1c: During removal of hazardous materials,</p>	Less Than Significant

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
		SDG&E shall have an experienced environmental professional with 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training on site. This professional shall monitor the work site for contamination (including the subsurface) and shall ensure the implementation of mitigation measures needed to prevent exposure to the workers or the public. These measures shall include signage and dust control.	
Impact HAZ-2: Previously unknown soil and/or groundwater contamination could be encountered during grading or excavation.	Class II	HAZ-2: As part of the final design, a site assessment shall be performed to augment and consolidate previous studies performed for the entire Proposed Project site to identify where hazardous materials or wastes may be encountered. The site assessment shall be submitted to CPUC at least 60 days prior to construction activities. In the event that grading, construction, or operation of proposed facilities will encounter hazardous waste, SDG&E shall ensure compliance with the State of California CCR Title 23 Health and Safety Regulations as managed by the San Diego County DEH. Excavated soils impacted by hazardous waste or materials will be characterized and disposed of in accordance with CCR Title 14 and Title 22 and the San Diego County DEH.	Less Than Significant
Impact HAZ-3: Release of Hazardous Materials during Substation Operation.	Class II	HAZ-1a HAZ-1c HAZ-3a: SDG&E shall prepare and submit a copy of the Spill Prevention, Control, and Countermeasure Plan, as required by Title 40 CFR Section 112.7, to CPUC for review and approval at least 60 days before the start of operation of the Bay Boulevard Substation.  HAZ-3b: No hazardous materials used by SDG&E for operations and maintenance of the proposed substation will be stored or disposed of on site, and their use or disposal will conform to applicable laws and regulations governing the use, management, and disposal of hazardous materials.	Less Than Significant
Impact HAZ-4: Potential safety hazards could adversely affect construction workers or the general public accessing the project site	Class III	None	Less Than Significant

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
during construction, operation, or decommissioning.			
Impact HAZ-5: Impacts to soil or groundwater contamination could result from accidental spill or release of hazardous materials during operations and maintenance.	Class II	HAZ-3a HAZ-3b	Less Than Significant
Impact HAZ-6: Significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	Class II	HAZ-4: Wildfires shall be prevented or minimized by exercising care when operating utility vehicles within the ROW and access roads and by parking vehicles away from dry vegetation where hot catalytic converters can ignite a fire. In times of high fire hazard, it may be necessary for construction vehicles to carry water and shovels or fire extinguishers. Fire protective mats or shields would be used during grinding or welding to prevent or minimize the potential for fire.	Less Than Significant
Impact PS-1: Radio and television interference.	Class III	None	Less Than Significant
Impact PS-2: Induced currents and shock hazards.	Class III	None	Less Than Significant
Impact PS-3: Electric fields could affect cardiac pacemakers.	Class III	None	Less Than Significant
Impact PS-4: Project structures could be affected by wind or lightning hazards.	Class III	None	Less Than Significant
<i>Hydrology and Water Quality</i>			
Impact HYD-1: Construction activity could degrade water quality due to erosion and sedimentation.	Class II	HYDRO-1: In accordance with the SWPPP to be prepared under the State General Construction Permit, work crews shall use erosion control measures during grading activities. Implementation of the SWPPP shall help stabilize soil in graded areas and waterways and reduce erosion and sedimentation. Mulching, seeding, or other suitable stabilization measures shall be used to protect exposed areas during construction activities. The SWPPP shall be submitted to CPUC prior to construction activities.	Less Than Significant
Impact HYD-2: Construction activity could degrade water quality through spills of potentially harmful materials.	Class II	HYDRO-1	Less Than Significant
Impact HYD-3: Excavation could degrade groundwater quality in	Class II	HYDRO-2a: Prior to construction, SDG&E shall consult with the San Diego Regional Water	Less Than Significant



**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
<p>areas of shallow groundwater.</p>		<p>Quality Control Board (RWQCB) to determine whether an individual discharge permit is required for dewatering at any of the project areas anticipated to encounter groundwater. A copy of the permit or a waiver from the RWQCB, if required, shall be provided to CPUC prior to dewatering activities.</p> <p>HYDRO-2b: SDG&amp;E shall submit to CPUC prior to construction a typical dewatering drawing that shall be implemented during dewatering activities. The drawing shall include the location of pumps within secondary containment, fuel storage areas, anticipated discharge point, scour protection measures, intake hose screening, and monitoring procedures to ensure that hazardous materials spills are addressed in a timely manner and discharge hoses are frequently inspected for leaks.</p> <p>HYDRO-2c: Creek and drainage crossings shall be conducted in a manner that does not result in a sediment-laden discharge or hazardous materials release to the water body. The following measures shall be implemented during jack-and-bore operations:</p> <ol style="list-style-type: none"> <li>1. Site preparation shall begin no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages.</li> <li>2. Trench and/or bore pit spoil shall be stored a minimum of 25 feet from the top of bank or wetland/riparian boundary for Telegraph Creek and the drainage along Bay Boulevard. Spoil shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention).</li> <li>3. Portable pumps and stationary equipment located within 100 feet of a water resource (i.e., wetland/riparian boundary, creeks, drainages) shall be placed within secondary containment with adequate capacity to contain a spill (i.e., a pump with 10-gallon fuel or oil capacity should be placed in secondary containment capable of holding 15 gallons). A spill kit shall be maintained on site at all times.</li> <li>4. Immediately following backfill of the bore pits, disturbed soils shall be seeded and</li> </ol>	

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
		stabilized to prevent erosion and temporary sediment barriers left in place until restoration is deemed successful.	
Impact HYD-4: The project could deplete local water supplies.	Class III	None	Less Than Significant
Impact HYD-5: Creation of new impervious areas could cause increased runoff, resulting in flooding or increased erosion downstream.	Class III	None	Less Than Significant
Impact HYD-6: Project features located in a floodplain or watercourse could result in flooding, flood diversions, or erosion, or expose people or structures to significant risk.	No Impact	None	No Impact
Impact HYD-7: Accidental releases of contaminants from project facilities could degrade water quality.	Class II	HAZ-1a, HAZ-1b, HAZ-1c, and HAZ-2	Less Than Significant
Impact HYD-8: Where septic tanks are proposed, such facilities could impact local water quality.	No Impact	None	No Impact
Impact HYD-9: Operation would expose people or structures to a significant loss due to flooding as a result of the failure of a levee or dam.	Class III	None	Less Than Significant
Impact HYD-10: Operation would be at risk of inundation by seiche, tsunami, or mudflow.	Class III	None	Less Than Significant
<i>Land Use and Planning</i>			
Impact LU-1: Construction would temporarily disturb land uses at or near project components.	Class II	L-1a: SDG&E or its construction contractor shall provide advance notice, between 2 and 4 weeks prior to construction, by mail, to property owners within 300 feet of the project. The announcement shall state specifically where and when construction will occur in the area. SDG&E shall also publish a notice of impending construction in local newspapers, stating when and where construction will occur. Prior to construction, copies of all notices shall be submitted to the CPUC.  L-1b: SDG&E shall identify and provide a public liaison officer before and during construction to respond to concerns of neighboring residents	Less Than Significant

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
		<p>about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public in accordance with Mitigation Measure L-1a. SDG&amp;E shall also establish a telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures shall be submitted to CPUC for review and approval prior to construction, and bimonthly reports summarizing public concerns shall be provided to CPUC during construction.</p> <p>L-2: SDG&amp;E or its construction contractor shall provide at all times the ability to quickly lay a temporary steel plate trench bridge upon request to ensure driveway access to businesses, and shall provide continuous access to properties when not actively constructing the underground cable alignment. In the event that trench stability could be compromised by the laying of a temporary steel plate bridge during an early phase of trench construction, the construction contractor may defer a request for access to the soonest possible time until the stability of the trench has been assured, provided SDG&amp;E has given 24-hour advance notification of the potential for disrupted access to any business that may experience such delayed access. The notification shall include information about restoring access and the estimated amount of time that access may be blocked. In addition, SDG&amp;E shall develop construction plans that will minimize blocking driveways during the workday.</p>	
Impact LU-2: Presence of a project component would divide an established community or disrupt land uses at or near project components.	No Impact	None	No Impact
Impact LU-3: The project would conflict with applicable land use plans, policies, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.	No Impact	None	No Impact

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
Impact LU-4: Project components would conflict with any applicable HCP or NCCP.	No Impact	None	No Impact
<i>Mineral Resources</i>			
Impact MIN 1: Project would impact mineral resources	No Impact	None	No Impact
<i>Noise</i>			
Impact N-1: Construction activities would temporarily increase local noise levels.	Class II	NOI-1: SDG&E shall conduct all construction activities in accordance with the City of Chula Vista Municipal Code allowable hours for construction. For any evening and nighttime construction activities that are required outside of the permitted hours, SDG&E shall notify all property owners within 300 feet of the proposed work at least 1 week in advance of the construction activities. SDG&E shall obtain approval from the local jurisdiction and notify the CPUC prior to conducting any work that may deviate from the City noise ordinance. Nighttime work shall apply only where nighttime and weekend construction activities are necessary to perform electrical system transfers and cutovers as required by California Independent System Operator. Electrical system transfers and cutover work shall not include the use of heavy construction equipment (i.e., excavators, drill rigs, jack hammers, etc.).	Less Than Significant
Impact N-2: Vibration could cause a temporary nuisance during construction and/or during operation and maintenance.	Class III	None	Less Than Significant
Impact N-3: Operation noise.	Class III	None	Less Than Significant
Impact N-4: Noise from inspection and maintenance activities.	Class III	None	Less Than Significant
<i>Population and Housing</i>			
Impact S-1: Project-related population growth.	No Impact	None	No Impact
Impact S-2: Induced demand for housing.	Class III	None	Less Than Significant
Impact S-3: Displacement of people or existing housing.	No Impact	None	No Impact

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
<i>Public Services and Utilities</i>			
Impact PSU-1: Construction of the project would disrupt the existing utility systems or cause a co-location accident.	Class II	PSU-1: Prior to construction in which a utility service interruption is known to be unavoidable, SDG&E shall notify members of the public affected by the planned outage of the impending interruption. Copies of the notices and dates shall be provided to CPUC at the time the notices are distributed to the public.	Less Than Significant
Impact PSU-2: Project construction and operation would increase the need for public services and facilities.	Class III	None	Less Than Significant
Impact PSU-3: Sufficient water supplies are not available to serve the project from existing entitlements and resources, and new or expanded entitlements would be needed.	Class III	None	Less Than Significant
Impact PSU-4: The applicable wastewater treatment provider that serves or may serve the project determines that adequate capacity to serve the project's projected demand (in addition to the provider's existing commitments) is not available.	No Impact	None	No Impact
Impact PSU-5: The project would not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.	Class III	None	Less Than Significant
Impact PSU-6: The project would require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	Class II	HYDRO-2	Less Than Significant
<i>Recreation</i>			
Impact REC-1: Substantially deteriorate a recreational facility or disrupt recreational activities.	Class III	None	Less Than Significant

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
<i>Transportation and Traffic</i>			
Impact TRA-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow.	Class II	<p>TRA-1: Prior to the start of construction, SDG&amp;E shall submit traffic management plans (TMPs) to the City as part of the required traffic encroachment permits. Traffic control plans (TCPs) shall define the locations of all roads that would need to be temporarily closed due to construction activities, including hauling of oversized loads by truck, conductor stringing activities, and trenching activities. Input and approval from the City shall be obtained, and copies of an approval letter from the City must be provided to CPUC prior to the start of construction. The TCPs shall define the use of flag persons, warning signs, lights, barricades, cones, etc., according to standard guidelines outlined in the California Department of Transportation (Caltrans) Traffic Manual for Construction and Maintenance Work Zones (Caltrans 1996), the Standard Specifications for Public Works Construction (Caltrans 2009a), and the Work Area Traffic Control Handbook (WATCH) (Caltrans 2009b). Documentation of the approval of these plans, consistency with SDG&amp;E's utility franchise agreements, and issuance of encroachment permits (if applicable) shall be provided to CPUC prior to the start of construction activities that require temporary closure of a public roadway.</p> <p>TRA-2: SDG&amp;E shall stagger work shifts during the peak period of construction activity, and construction shifts shall be staggered to the degree possible, such that employee arrivals and departures from the site will avoid the project area peak hours (7:30–8:30 a.m. and 4:30–5:30 p.m.). Construction-related truck traffic shall also be scheduled to avoid travel during peak periods of traffic on the surrounding roadways.</p> <p>TRA-3: Construction workers shall be encouraged to carpool to the job site to the extent feasible.</p>	Less Than Significant
Impact TRA-2: Construction activities would restrict the movements of emergency vehicles (police cars, fire trucks, ambulances, and paramedic units), and there are no reasonable	Class II	<p>TRA-4: SDG&amp;E shall coordinate in advance with the City to avoid restricting movements of emergency vehicles. SDG&amp;E shall request that police departments, fire departments, ambulance services, and paramedic services be notified by the City of the proposed locations, nature,</p>	Less Than Significant

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
alternative access routes available.		timing, and duration of any construction activities and advised of any access restrictions that could impact their effectiveness. At locations where access to nearby property is blocked, provision shall be ready at all times to accommodate emergency vehicles, such as plating over excavations, short detours, and alternate routes in conjunction with local agencies. Traffic control plans (Mitigation Measure TRA-1) shall include details regarding emergency services coordination and procedures. Documentation of coordination with the City shall be provided to CPUC prior to the start of construction.	
Impact TRA-3: Construction activities would result in unstable flow, or fluctuations in volumes of traffic that temporarily restrict flow; or in an unacceptable reduction in performance of the circulation system, as defined by an applicable plan (including a congestion management program), ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.	Class III	None	Less Than Significant
Impact TRA-4: The project would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Class II	TRA-6: SDG&E shall prepare a lift plan to be approved by the Federal Aviation Administration (FAA) that identifies procedures that will need to be implemented to ensure public safety. Documentation of FAA approval of the lift plan shall be provided to CPUC prior to the start of construction activities that require the use of a helicopter.	Less Than Significant
Impact TRA-5: Construction would substantially disrupt bus or rail transit service, and there would be no suitable alternative routes or stops; or would impede pedestrian movements or bike trails, and there are no suitable alternative pedestrian/bicycle access routes or accommodation through construction zones; or would conflict with planned transportation projects in the project area.	Class II	TRA-5: Where construction will result in temporary closures of sidewalks and other pedestrian facilities, SDG&E shall provide temporary pedestrian access through detours or safe areas along the construction zone. Any affected pedestrian facilities and the alternative facilities or detours that shall be provided will be identified in the traffic management plan. Where construction activity will result in bike route or bike path closures, appropriate detours and signs shall be provided.	Less Than Significant

**Table ES-1  
Summary of Impacts and Mitigation for the Proposed Project**

Impact	Impact Class	Mitigation Measures	Residual Impact
Impact TRA-6: Construction or staging activities would increase the demand for and/or reduce the supply of parking spaces, and there would be no provisions for accommodating the resulting parking deficiencies.	Class II	<p>TRA-7a: SDG&amp;E shall coordinate with the lessee and/or owner of affected parking lots to minimize parking loss through timing restrictions that minimize potential conflicts with peak parking needs.</p> <p>TRA-7b: SDG&amp;E shall post signage 24 hours in advance of trenching activities along affected streets to notify businesses that might be inconvenienced.</p>	Less Than Significant
<i>Climate Change</i>			
Impact GHG-1: Project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	Class III	None	Less Than Significant
Impact GHG-2: Sea Level Rise.	Class III	None	Less Than Significant
Impact GHG-3: Project activities would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	Class III	None	Less Than Significant



**Table ES-2**

**Proposed Project vs. Alternatives Summary of Environmental Impact Conclusions by Environmental Resource Area**

Environmental Resource Area	Proposed Project	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8
		<i>Gas Insulated Substation Technology at Proposed Site</i>	<i>Tank Farm Site – Air Insulated/ Gas Insulated Substation</i>	<i>Existing South Bay Substation Site – Air Insulated/Gas Insulated Substation</i>	<i>Power Plant Site – Air Insulated/ Gas Insulated Substation</i>	<i>Broadway and Palomar Site – Gas Insulated Substation</i>	<i>Goodrich South Campus Site – Air Insulated/ Gas Insulated Substation</i>	<i>H Street Yard Site – Air Insulated/Gas Insulated Substation</i>	<i>Bayside Site – Air Insulated/ Gas Insulated Substation</i>
<b>D.2 Aesthetics</b>	Less than significant (Class III)	Less than significant (Class III)	+ Less than significant (Class III)	Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)
<b>D.3 Agricultural Resources</b>	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
<b>D.4 Air Quality</b>	Less than significant (Class III)	- Less than significant (Class III)	+ Less than significant (Class III)	Less than significant (Class III)	Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)
<b>D.5 Biological Resources</b>	Significant can be mitigated (Class II)	- Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	- Significant can be mitigated (Class II)	- Significant can be mitigated (Class II)	- Significant can be mitigated (Class II)	- Significant can be mitigated (Class II)	- Significant can be mitigated (Class II)	- Significant can be mitigated (Class II)
<b>D.6 Cultural Resources</b>	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)
<b>D.7 Geology and Soils</b>	Less than significant (Class III)	Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)
<b>D.8 Public Health and Safety</b>	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)
<b>D.9 Hydrology and Water Quality</b>	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)

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**Proposed Project vs. Alternatives Summary of Environmental Impact Conclusions by Environmental Resource Area**

Environmental Resource Area	Proposed Project	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8
		<i>Gas Insulated Substation Technology at Proposed Site</i>	<i>Tank Farm Site – Air Insulated/ Gas Insulated Substation</i>	<i>Existing South Bay Substation Site – Air Insulated/Gas Insulated Substation</i>	<i>Power Plant Site – Air Insulated/ Gas Insulated Substation</i>	<i>Broadway and Palomar Site – Gas Insulated Substation</i>	<i>Goodrich South Campus Site – Air Insulated/ Gas Insulated Substation</i>	<i>H Street Yard Site – Air Insulated/Gas Insulated Substation</i>	<i>Bayside Site – Air Insulated/ Gas Insulated Substation</i>
D.10 Land Use	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)
D.11 Mineral Resources	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
D.12 Noise	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	Significant can be mitigated (Class II)
D.13 Population and Housing	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
D.14 Public Services	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)
D.15 Recreation	Less than significant (Class III)	Less than significant (Class III)	Less than significant (Class III)	Less than significant (Class III)	Less than significant (Class III)	Less than significant (Class III)	Less than significant (Class III)	Less than significant (Class III)	Less than significant (Class III)
D.16 Transportation/Traffic	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)	+ Significant can be mitigated (Class II)
D.17 Climate Change	Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)	+ Less than significant (Class III)

- Reduces Project environmental effect  
+ Increases Project environmental effect

## ES.12 References

14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

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SDG&E. 2010b. Application of San Diego Gas & Electric Company (U 902 E) for a Permit to Construct the South Bay Substation Relocation Project, filed June 16, 2010.

SDG&E. 2011i. Response to Data Request #12. Submitted to CPUC December 2, 2011.

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