

## E. COMPARISON OF ALTERNATIVES

This section summarizes and compares the South Bay Substation Relocation Project (Proposed Project) and the alternatives evaluated in this Environmental Impact Report (EIR). This comparison is based on the assessment of environmental impacts of the Proposed Project and each alternative, as identified in Sections D.2 through D.17. Section C introduces and describes the alternatives considered in this EIR.

Section E.1 describes the methodology used for comparing alternatives. Section E.2 provides a comparison of environmental impacts associated with the Proposed Project and alternatives. Section E.3 defines the Environmentally Superior Alternative.

### E.1 Comparison Methodology

The comparison of alternatives is designed to satisfy the requirements of California Environmental Quality Act (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), 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]). These requirements are also set forth in CEQA Guidelines, Section §-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, will be considered by the California Public Utilities Commission (CPUC) in its final decision about whether to approve the project as proposed or an alternative.

Although this EIR identifies an Environmentally Superior Alternative, it is possible that the CPUC could choose to balance the importance of each impact area differently and reach a

different conclusion during the project approval process. Therefore, the Commission may approve a project that is not the Environmentally Superior Alternative.

## **E.2 Evaluation of Project Alternatives**

Eight alternatives in addition to the No Project Alternative were identified for evaluation in this EIR. Table E-1 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.

### **Gas Insulated Substation Technology Alternative**

As seen in Table E-1, the Proposed Project is preferred over the Gas Insulated Substation Technology Alternative for potential impacts to climate change. The Gas Insulated Substation Technology Alternative is preferred over the Proposed Project for potential impacts to air quality and biological resources.

The potential reduction in impacts that would result in relation to air quality would occur during construction as a result of the reduction in overall grading required in comparison to the Proposed Project. The reduction in temporary construction emissions is considered to be less important and is not further considered. Therefore, the comparison of this alternative to the Proposed Project is primarily based on potential long-term impacts that would result related to climate change and biological resources.

Long-term greenhouse gas (GHG) emissions would increase with implementation of the Gas Insulated Substation Technology Alternative as a result of utilizing SF<sub>6</sub> to cool substation components. Operational GHG emissions under the Gas Insulated Substation Technology Alternative would exceed those generated by the Proposed Project by an estimated 6,183.64 metric tons carbon dioxide equivalent (MTCO<sub>2</sub>E)/year. Given the increase in GHG emissions with implementation of the Gas Insulated Substation Technology Alternative, the Proposed Project is environmentally preferred from a GHG emissions perspective.

Impacts to sensitive vegetation communities and seasonal ponds within the 12.42-acre parcel would be reduced. The Gas Insulated Substation Technology Alternative would avoid impacts to 0.61 acre of seasonal ponds, 1.75 acres of disturbed wetland scrub, 0.06 acre of mulefat scrub, 5.03 acres of disturbed coyote brush scrub, and 4.07 acres of non-native grasslands. The Gas Insulated Substation Technology Alternative results in an overall reduction in impacts to sensitive habitats at the Bay Boulevard Substation site. Given the reduction in impacts to sensitive habitats with implementation of the Gas Technology Alternative, the Gas Insulated Substation Technology Alternative is environmentally preferred from a biological resources perspective.

In summary, the Gas Insulated Substation Technology Alternative at the proposed Bay Boulevard site would reduce long-term environmental impacts associated with sensitive vegetation communities and wetlands and would increase long-term climate change impacts. The reduction in biological resources impacts is assigned more weight than potential increase in GHG emissions, because under this alternative identified significant impacts to sensitive vegetation and wetlands would be avoided, while APM-AIR-04 would ensure that GHG emissions are consistent with adopted California Air Resources Board regulations. Therefore, the Gas Insulated Substation Technology at the proposed Bay Boulevard site is preferred overall from an environmental perspective over the Proposed Project.

#### **Tank Farm Site Alternative – Air Insulated Substation**

As seen in Table E-1, the Proposed Project is preferred over the Tank Farm Site – Air Insulated Substation Alternative for potential impacts to aesthetics, biological resources, geology and soils, land use and planning, and noise. In relation to geology and soils, the potential increase in impacts from liquefaction that would result with implementation of this alternative can be addressed through standard geotechnical design considerations. Potential increases in noise impacts would be considered temporary since the increase in noise impacts would result during construction and are considered less important. Therefore, the comparison of this alternative to the Proposed Project is based on potential long-term impacts that would result related to aesthetics, ~~and~~ biological resources, and land use and planning.

The biological resources and aesthetics impacts that would result with constructing a substation at this alternative site location would be greater than those identified under the Proposed Project. While the Proposed Project would result in 0.61 acre of permanent impacts to seasonal ponds/seasonal wetlands, the Tank Farm Site – Air Insulated Substation Alternative is anticipated to result in approximately 3.6 acres of permanent seasonal pond impacts. Due to the greater amount of disturbance to seasonal ponds, the Tank Farm Site – Air Insulated Substation Alternative would result in greater impacts to native vegetation (in particular, seasonal ponds), and therefore, the Proposed Project would be preferred from a biological resources perspective.

The Tank Farm Site – Air Insulated Substation Alternative would also result in slightly greater aesthetics impacts (construction and operations would substantially degrade the existing visual character or quality of the site and its surroundings) when compared to the Proposed Project. This alternative would affect a greater number of sensitive receptors because of the change in viewing duration. Sensitive receptors affected by the proposed Bay Boulevard Substation would primarily consist of motorists traveling along Bay Boulevard who would have only short-term views of the substation facility. In contrast, sensitive receptors affected by the Tank Farm Site – Air Insulated Substation Alternative would include park users at Marina View Park who would have longer duration views of the facility than would a passing motorist. Therefore, due to location, proximity

to sensitive receptors, and a number of potentially affected sensitive receptors, aesthetics impacts would be greater under the Tank Farm Site – Air Insulated Substation Alternative.

Development of the Air Insulated Substation at the Tank Farm Site would conflict with the conservation/habitat replacement and conservation/wetlands land use designations applied to the site in the Port Master Plan (PMP). Also, while relocation of the existing substation to the southernmost extent of the Otay District to lands designated Industrial Business Park is discussed in the PMP, relocation of the substation facility to the northern extent (i.e., the Tank Farm site) of the Otay District where Industrial Business Park land uses are designated was not considered and is not planned and therefore, development of the Air Insulated Substation at the Tank Farm Site would conflict with the PMP. As such, this alternative would result in greater land use impacts when compared to the Proposed Project (impacts would be less than significant (Class II) with implementation of Mitigation Measure L-3).

**Table E-1  
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)

**Table E-1  
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.10 Land Use</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.11 Mineral Resources</b>	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
<b>D.12 Noise</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.13 Population and Housing</b>	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
<b>D.14 Public Services</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.15 Recreation</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.16 Transportation/Traffic</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.17 Climate Change</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)

– Reduces Project environmental effect  
+ Increases Project environmental effect

In summary, from an environmental perspective, the Proposed Project is preferred over the Tank Farm Site – Air Insulated Substation Alternative because the Proposed Project would result in reduced impacts to biological resources, ~~and aesthetics,~~ and land use when compared to the Tank Farm Site – Air Insulated Substation Alternative.

### **Tank Farm Site – Gas Insulated Substation Alternative**

As seen in Table E-1, the Proposed Project is preferred over the Tank Farm Site – Gas Insulated Substation Alternative for potential impacts to aesthetics, biological resources, geology and soils, noise, and climate change. In relation to geology and soils, the potential increase in impacts from liquefaction that would result with implementation of this alternative can be addressed through standard geotechnical design considerations. Potential increase in noise impacts would be considered temporary because the increase in noise impacts would result during construction and are considered less important. Therefore, the comparison of this alternative to the Proposed Project is based on potential long-term impacts that would result related to aesthetics, biological resources, and climate change.

The aesthetics, biological resources, and climate change impacts that would result with constructing a substation at this alternative site location would be greater than those identified under the Proposed Project. The Proposed Project would result in 0.61 acre of permanent impacts to seasonal ponds/seasonal wetlands, and the Tank Farm Site – Gas Insulated Substation Alternative is anticipated to result in approximately 1.6 acres of permanent seasonal pond impacts. Therefore, the Tank Farm Site – Gas Insulated Substation Alternative would result in greater impacts to native vegetation (in particular, seasonal ponds).

The Tank Farm Site – Gas Insulated Substation Alternative would also result in slightly greater aesthetics impacts (construction and operations would substantially degrade the existing visual character or quality of the site and its surroundings) when compared to the Proposed Project. This alternative would affect a greater number of sensitive receptors due to the change in viewing duration. Sensitive receptors affected by the proposed Bay Boulevard Substation would primarily consist of motorists traveling along Bay Boulevard who would have only short-term views of the substation facility. In contrast, sensitive receptors affected by the Tank Farm Site – Gas Insulated Substation Alternative would include park users at Marina View Park who would have longer duration views of the facility than would a passing motorist. Therefore, due to location, proximity to sensitive receptors, and a number of potentially affected sensitive receptors, aesthetics impacts would be slightly greater under the Tank Farm Site – Gas Insulated Substation Alternative.

Long-term GHG emissions would also increase with implementation of the Tank Farm Site – Gas Insulated Substation Alternative as a result of utilizing sulfur hexafluoride (SF<sub>6</sub>) to cool substation components. Given the increase in GHG emissions with implementation of the Tank

Farm Site – Gas Insulated Substation Alternative, the Proposed Project is environmentally preferred from a GHG emissions perspective.

The Tank Farm Site – Gas Insulated Substation Alternative would result in similar land use effects as the Air Insulated Substation Alternative. Therefore, development of the Gas Insulated Substation at the Tank Farm Site would conflict with the land use designations of the PMP, and as such, this alternative would result in greater land use impacts when compared to the Proposed Project (impacts would be less than significant (Class II) with implementation of Mitigation Measure L-3).

In summary, the Proposed Project is preferred over the Tank Farm Site – Gas Insulated Substation Alternative because the Proposed Project would result in reduced long-term impacts to biological resources, aesthetics, land use, and climate change when compared to the Tank Farm Site – Gas Insulated Substation Alternative.

#### **Existing South Bay Substation Site – Gas Insulated Substation/Air Insulated Substation Alternative**

As seen in Table E-1, the Proposed Project is preferred over the Existing South Bay Substation Site Alternative for potential impacts to geology and soils and land use. The Existing South Bay Substation Site Alternative is preferred over the Proposed Project for potential impacts to biological resources. In relation to geology and soils, the potential increase in impacts from liquefaction that would result with implementation of this alternative can be addressed through standard geotechnical design considerations. Therefore, the comparison of this alternative to the Proposed Project is based on potential long-term impacts that would result related to biological resources, land use, and climate change.

The climate change impacts that would result with constructing a substation at this alternative site location would be the same as those identified under the Proposed Project, assuming an Air Insulated Substation configuration and greater assuming a Gas Insulated Substation configuration.

Long-term GHG emissions would increase with implementation of the Gas Insulated Substation configuration as a result of utilizing SF<sub>6</sub> to cool substation components.

The Existing South Bay Substation Site/Air Insulated Substation Alternative would conflict with the land use designations of the PMP, and as such, this alternative would result in greater land use impacts when compared to the Proposed Project (impacts would be less than significant (Class II) with implementation of Mitigation Measure L-3).

The biological resources impacts that would result with constructing a substation at this alternative site location would be reduced in comparison to those identified under the Proposed



Project. Due to the developed nature and lack of seasonal ponds at the existing substation site, impacts to native vegetation and jurisdictional waters/wetlands would be reduced when compared to the Proposed Project (impacts would, however, remain Class II due to impacts associated with the transmission interconnections).

In summary, the Existing South Bay Substation Site Alternative would reduce Class II impacts to biological resources ~~without~~ but creating ~~create~~ additional impacts to land use and, therefore, is ~~preferred overall~~ ranks equally from an environmental perspective with the Proposed Project.

### **Power Plant Site – Air Insulated Substation Alternative**

As seen in Table E-1, the Proposed Project is preferred over the Power Plant Site – Air Insulated Substation Alternative for potential impacts to aesthetics, public health and safety, land use, and geology and soils. The Power Plant Site – Air Insulated Substation Alternative is preferred over the Proposed Project for potential impacts to biological resources. In relation to public health and safety and to geology and soils, the potential increase in impacts from liquefaction and encountering contaminated groundwater that would result with implementation of this alternative can be addressed through standard construction practices during construction and part of the final engineering design. Therefore, the comparison of this alternative to the Proposed Project is based on potential long-term impacts that would result related to aesthetics and biological resources.

The aesthetics impacts that would result with constructing a substation at this alternative site location would be greater than those identified under the Proposed Project. The Power Plant Site – Air Insulated Substation Alternative would result in greater aesthetics impacts (construction and operations would substantially degrade the existing visual character or quality of the site and its surroundings) when compared to the Proposed Project because it would result in blocked public views of San Diego Bay. In contrast, the Proposed Project would enhance views of San Diego Bay for motorists by dismantling and removing the existing South Bay Substation from the site, and while this alternative would also dismantle and remove the existing substation, it would construct and operate a new facility approximately 50 feet to the south.

The biological resources impacts that would result with constructing a substation at this alternative site location would be reduced in comparison to those identified under the Proposed Project. Due to the developed nature and lack of seasonal ponds at the existing substation site, impacts to native vegetation and jurisdictional waters/wetlands would be reduced when compared to the Proposed Project (impacts would, however, remain Class II due to impacts associated with the transmission interconnections).

Development of the Air Insulated Substation Alternative at the Power Plant Site would conflict with the industrial business park, park/plaza, and conservation/habitat replacement land use

designations applied to the site by the PMP and therefore, this alternative would result in greater land use impacts when compared to the Proposed Project (impacts would be less than significant (Class II) with implementation of Mitigation Measure L-3).

In summary, the Power Plant Site – Air Insulated Substation Alternative would reduce long-term environmental but mitigable impacts associated with sensitive vegetation communities and wetlands and would increase long-term aesthetics and land use-related impacts. Given that increased impacts to aesthetics are unlikely to be mitigated to less than significant with implementation of this alternative, the Proposed Project is preferred overall from an environmental perspective.

### **Power Plant Site – Gas Insulated Substation Alternative**

As seen in Table E-1, the Proposed Project is preferred over the Power Plant Site – Gas Insulated Substation Alternative for potential impacts to aesthetics, public health and safety, geology and soils, land use, and climate change. The Power Plant Site – Gas Insulated Substation Alternative is preferred over the Proposed Project for potential impacts to biological resources. The potential increase in impacts that would result in relation to public health and safety and to geology and soils with implementation of this alternative from liquefaction and encountering contaminated groundwater can be addressed through standard construction practices during construction and part of the final engineering design. Therefore, the comparison of this alternative to the Proposed Project is based on potential long-term impacts that would result related to aesthetics, biological resources, and climate change.

The aesthetics and climate change impacts that would result with constructing a substation at this alternative site location would be greater than those identified under the Proposed Project. The Power Plant Site – Gas Insulated Substation Alternative would result in greater (construction and operations would substantially degrade the existing visual character or quality of the site and its surroundings) visual impacts when compared to the Proposed Project because this alternative would install solid, metallic buildings at the site that would block public views of San Diego Bay for motorists along Bay Boulevard. In contrast, the Proposed Project would enhance views of San Diego Bay for motorists by dismantling and removing the existing South Bay Substation from the site, and while the Proposed Project would construct a substation facility at the proposed location adjacent to Bay Boulevard, views of San Diego Bay are generally not available along Bay Boulevard at this location. Due to the normal viewing angle of motorists and due to the direction of traffic movement (north–south), views to the bay are not available. In addition, the solid form of the Gas Insulated Substation facility represents a greater obstruction to views as compared to the relatively transparent form of the Air Insulated Substation facility through which views of the bay are possible. Therefore, considering blockage of public views of

the bay, this alternative would result in greater aesthetics impacts when compared to the Proposed Project.

Long-term GHG emissions would increase with implementation of the Power Plant Site – Gas Insulated Substation Alternative as a result of utilizing SF<sub>6</sub> to cool substation components. Given the increase in GHG emissions with implementation of the Power Plant Site – Gas Insulated Substation Alternative, the Proposed Project is environmentally preferred from a GHG emissions perspective.

The biological resources impacts that would result with constructing a substation at this alternative site location would be reduced in comparison to those identified under the Proposed Project. Due to the developed nature and lack of seasonal ponds at the Power Plant site, impacts to native vegetation and jurisdictional waters/wetlands would be reduced when compared to the Proposed Project (impacts would, however, remain Class II due to impacts associated with the transmission interconnections).

Land use impacts associated with development of the Gas Insulated Substation Alternative at the Power Plant Site would be similar to those described above for the Air Insulated Substation Alternative. Therefore, this alternative would result in greater land use impacts when compared to the Proposed Project (impacts would be less than significant (Class II) with implementation of Mitigation Measure L-3).

In summary, even though the Power Plant Site – Gas Insulated Substation Alternative would reduce impacts to biological resources, the Proposed Project is preferred overall from an environmental perspective because the Proposed Project would result in reduced long-term impacts to aesthetics, land use and climate change. Overall, the Proposed Project is environmentally preferred because long-term impacts associated with aesthetics, land use and climate change would be greater than those related to biological resources.

### **Broadway and Palomar Site – Gas Insulated Substation Alternative**

As seen in Table E-1, the Proposed Project is preferred over the Broadway and Palomar Site – Gas Insulated Substation Alternative for potential impacts to aesthetics, air quality, geology and soils, land use, noise, public services, transportation/traffic, and climate change. The Broadway and Palomar Site Alternative – Gas Insulated Substation Alternative is preferred over the Proposed Project for potential impacts to ~~aesthetics and~~ biological resources.

In relation to geology and soils, the potential increase in impacts from liquefaction that would result with implementation of this alternative can be addressed through standard geotechnical design considerations. The potential increase in impacts that would result in relation to air

quality, noise, public services, and transportation/traffic would be considered temporary and are considered to be less important; however, the combination of the greater impacts in these environmental categories should be considered when comparing the Proposed Project to the Broadway and Palomar Site – Gas Insulated Substation Alternative. Therefore, the comparison of this alternative to the Proposed Project is based on potential long-term impacts that would result related to aesthetics, land use, biological resources, and climate change, and the combination of short-term construction-related impacts to air quality, noise, public services, and transportation/traffic.

The aesthetics, land use, and climate change impacts that would result with constructing a substation at this alternative site location would be greater than those identified under the Proposed Project. The Broadway and Palomar Site – Gas Insulated Substation Alternative would result in greater visual impacts when compared to the Proposed Project because it would alter the existing character of the site to include additional industrial components and would be in close proximity to commercial and residential uses. Establishment of a new substation where similar facilities are not located may disrupt land uses in the area. Land use impacts would be greater than those of the Proposed Project because industrial facilities similar to the substation are not located in the immediate area. In addition, long-term GHG emissions would increase with implementation of the Broadway and Palomar Site – Gas Insulated Substation Alternative as a result of utilizing SF<sub>6</sub> to cool substation components. Given the increase in aesthetics, GHG emissions, and land use conflicts that would result with implementation of the Broadway and Palomar Site – Gas Insulated Substation Alternative, the Proposed Project is environmentally preferred from an aesthetics, GHG emissions, and land-use conflict perspective.

The Broadway and Palomar site would increase potential short-term impacts to air quality, noise, public services, and transportation/traffic as a result of constructing 2.9 miles of transmission facilities to provide connections to the SDG&E grid beyond those identified under the Proposed Project. The construction would require use of horizontal directional drilling to provide a 69 kV connection beneath Interstate 5 to the existing 69 kV lines located in proximity to the South Bay Substation. The construction activities would result in increased construction emissions, construction noise, and interruptions to public services in an urbanized area within the City of Chula Vista (City). The construction activities would be completed in an area where existing traffic volumes are higher than street segments adjacent to the Proposed Project, which would create additional short-term construction traffic beyond that identified under the Proposed Project. Therefore, the Proposed Project is preferred over the Broadway and Palomar site because short-term impacts related to air quality, noise, public services, and transportation/traffic would be greater as a result of constructing 2.9 miles of transmission corridors to provide connections to the SDG&E grid.

The biological resources impacts that would result with constructing a substation at this alternative site location would be reduced in comparison to those identified under the Proposed Project. Due to the developed nature and lack of seasonal ponds at the Broadway and Palomar site, impacts to native vegetation and jurisdictional waters/wetlands would be reduced when compared to the Proposed Project (impacts would, however, remain Class II due to impacts associated with the transmission interconnections).

In summary, even though the Broadway and Palomar Site – Gas Insulated Substation Alternative would reduce impacts to biological resources, the Proposed Project is preferred overall from an environmental perspective because the Proposed Project would result in reduced long-term impacts to aesthetics, land use, climate change, and short-term impacts to air quality, noise, public services, and transportation/traffic resulting from construction.

#### **Goodrich South Campus Site – Air Insulated Substation Alternative**

As seen in Table E-1, the Proposed Project is preferred over the Goodrich South Campus Site – Air Insulated Substation Alternative for potential impacts to aesthetics, air quality, geology and soils, public health and safety, hydrology and water quality, land use, noise, public services, and transportation/traffic. The Goodrich South Campus Site – Air Insulated Substation Alternative is preferred over the Proposed Project for potential impacts to biological resources.

In relation to geology and soils, the potential increase in impacts from liquefaction that would result with implementation of this alternative can be addressed through standard geotechnical design considerations. The potential increase in impacts that would result in relation to air quality, public health and safety, hydrology and water quality, noise, public services, and transportation/traffic would occur during construction and are considered temporary and less important; however, the combination of the greater impacts in these environmental categories should be considered when comparing the Proposed Project to the Goodrich South Campus Site – Air Insulated Substation Alternative. Therefore, the comparison of this alternative to the Proposed Project is primarily based on potential long-term impacts that would result related to aesthetics, land use, and biological resources, and the combination of short-term construction-related impacts to air quality, public health and safety, hydrology and water quality, noise, public services, and transportation/traffic.

The aesthetics and land use impacts that would result with constructing a substation at this alternative site location would be greater than those identified under the Proposed Project. This alternative would affect a greater number of sensitive receptors due to the change in viewing duration. Sensitive receptors affected by the proposed Bay Boulevard Substation would primarily consist of motorists traveling along Bay Boulevard who would have only short-term views of the substation facility. In contrast, sensitive receptors affected by the Goodrich South Campus Site –

Air Insulated Substation Alternative would include park users at Marina View Park who would have longer duration views of the facility than would a passing motorist. Therefore, due to location, proximity to sensitive receptors, and a number of potentially affected sensitive receptors, aesthetics impacts would be greater under the Goodrich South Campus Site – Air Insulated Substation Alternative.

Land use impacts would be greater under the Goodrich South Campus Site – Air Insulated Substation Alternative because similar industrial facilities are not located on site or in the immediate area, and because an additional right-of-way (ROW) would be required to establish a transmission easement/corridor between the existing SDG&E transmission easement and the substation facility.

The Goodrich South Campus Site – Air Insulated Substation Alternative would increase potential short-term impacts to air quality, noise, hydrology and water quality, public health and safety, public services, and transportation/traffic as a result of constructing 0.6 mile of transmission facilities to provide connections to the SDG&E grid beyond those identified under the Proposed Project. The construction activities would result in increased construction emissions, construction noise, and interruptions to public services in an urbanized area within the City. In addition, the alternative site is known to contain contaminated groundwater, and the potential exists for construction activities to facilitate mobilization of contaminants. Potential impacts to hydrology and water quality and to public health and safety would be greater than those identified under the Proposed Project as a result of potential mobilization of hazardous substances from areas of known contamination to areas previously not contaminated. Therefore, the Proposed Project is preferred over the Goodrich South Campus site because short-term impacts related to air quality, hydrology and water quality, public health and safety, noise, public services, and transportation/traffic would be greater as a result of constructing 0.6 mile of transmission corridors to provide connections to the SDG&E grid and constructing within an area known to contain contaminated groundwater.

The biological resources impacts that would result with constructing a substation at this alternative site location would be reduced in comparison to those identified under the Proposed Project. Due to the developed nature and lack of seasonal ponds at the Goodrich South Campus site, impacts to native vegetation and jurisdictional waters/wetlands would be reduced when compared to the Proposed Project (impacts would, however, remain Class II due to impacts associated with the transmission interconnections).

In summary, even though the Goodrich South Campus Site – Air Insulated Substation Alternative would reduce impacts to biological resources, the Proposed Project is preferred overall from an environmental perspective because the Proposed Project would result in

reduced long-term impacts to aesthetics and land use, and short-term impacts to air quality, hydrology and water quality, public health and safety, noise, public services, and transportation/traffic resulting from construction.

### **Goodrich South Campus Site – Gas Insulated Substation Alternative**

As seen in Table E-1, the Proposed Project is preferred over the Goodrich South Campus Site – Gas Insulated Substation Alternative potential impacts to aesthetics, climate change, air quality, geology and soils, public health and safety, hydrology and water quality, land use, noise, public services, and transportation/traffic. The Goodrich South Campus Site – Air Insulated Substation Alternative is preferred over the Proposed Project for potential impacts to biological resources.

In relation to geology and soils, the potential increase in impacts from liquefaction that would result with implementation of this alternative can be addressed through standard geotechnical design considerations. The potential increase in impacts that would result in relation to air quality, public health and safety, hydrology and water quality, noise, public services, and transportation/traffic would occur during construction and are considered temporary and less important; however, the combination of the greater impacts in these environmental categories should be considered when comparing the Proposed Project to the Goodrich South Campus Site – Gas Insulated Substation Alternative. Therefore, the comparison of this alternative to the Proposed Project is primarily based on potential long-term impacts that would result related to aesthetics, climate change, land use and biological resources, and the combination of short-term construction-related impacts to air quality, public health and safety, hydrology and water quality, noise, public services, and transportation/traffic.

The aesthetics, climate change, and land use impacts that would result with constructing a substation at this alternative site location would be greater than those identified under the Proposed Project. This alternative would affect a greater number of sensitive receptors due to the change in viewing duration. Sensitive receptors affected by the proposed Bay Boulevard Substation would primarily consist of motorists traveling along Bay Boulevard who would have only short-term views of the substation facility. In contrast, sensitive receptors affected by the Goodrich South Campus Site – Gas Insulated Substation Alternative would include park users at Marina View Park who would have longer duration views of the facility than would a passing motorist. Therefore, due to location, proximity to sensitive receptors, and a number of potentially affected sensitive receptors, aesthetics impacts would be greater under the Goodrich South Campus Site – Gas Insulated Substation Alternative.

Land use impacts would be greater under the Goodrich South Campus Site – Gas Insulated Substation Alternative because similar industrial facilities are not located on site or in the

immediate area, and because an additional ROW would be required to establish a transmission easement/corridor between the existing SDG&E transmission easement and the substation facility.

Long-term GHG emissions would increase with implementation of the Goodrich South Campus Site – Gas Insulated Substation Alternative as a result of utilizing SF<sub>6</sub> to cool substation components. Given the increase in aesthetics, GHG emissions, and land use conflicts that would result with implementation of the Goodrich South Campus Site – Gas Insulated Substation Alternative, the Proposed Project is environmentally preferred from an aesthetics, GHG emissions, and land use conflict perspective.

The Goodrich South Campus Site – Gas Insulated Substation Alternative would increase potential short-term impacts to air quality, noise, hydrology and water quality, public health and safety, public services, and transportation/traffic as a result of constructing 0.6 mile of transmission facilities to provide connections to the SDG&E grid beyond those identified under the Proposed Project. The construction activities would result in increased construction emissions, construction noise, and interruptions to public services in an urbanized area within the City. In addition, the alternative site is known to contain contaminated groundwater, and the potential exists for construction activities to facilitate mobilization of contaminants. Potential impacts to hydrology and water quality and to public health and safety would be greater than those identified under the Proposed Project as a result of potential mobilization of hazardous substances from areas of known contamination to areas previously not contaminated. Therefore, the Proposed Project is preferred over the Goodrich South Campus site because short-term impacts related to air quality, hydrology and water quality, public health and safety, noise, public services, and transportation/traffic would be greater as a result of constructing 0.6 mile of transmission corridors to provide connections to the SDG&E grid and constructing within an area known to contain contaminated groundwater.

The biological resources impacts that would result with constructing a substation at this alternative site location would be reduced in comparison to those identified under the Proposed Project. Due to the developed nature and lack of seasonal ponds at the Goodrich South Campus site, impacts to native vegetation and jurisdictional waters/wetlands would be reduced when compared to the Proposed Project (impacts would, however, remain Class II due to impacts associated with the transmission interconnections).

In summary, even though the Goodrich South Campus – Gas Insulated Substation Alternative would reduce impacts to biological resources, the Proposed Project is preferred overall from an environmental perspective because the Proposed Project would result in reduced long-term impacts to aesthetics, climate change, and land use, and short-term impacts to air quality,



hydrology and water quality, public health and safety, noise, public services, and transportation/traffic resulting from construction.

### **H Street Yard Site – Air Insulated Substation Alternative**

As seen in Table E-1, the Proposed Project is preferred over the H Street Yard Site – Air Insulated Substation Alternative for potential impacts to aesthetics, air quality, geology and soils, public health and safety, hydrology and water quality, land use, noise, public services, and transportation/traffic. The H Street Yard Site – Air Insulated Substation Alternative is preferred over the Proposed Project for potential impacts to biological resources.

In relation to geology and soils, the potential increase in impacts from liquefaction that would result with implementation of this alternative can be addressed through standard geotechnical design considerations. The potential increase in impacts that would result in relation to air quality, public health and safety, hydrology and water quality, noise, public services, and transportation/traffic would occur during construction and are considered temporary and less important; however, the combination of the greater impacts in these environmental categories should be considered when comparing the Proposed Project to the H Street Yard Site – Air Insulated Substation Alternative. Therefore, the comparison of this alternative to the Proposed Project is primarily based on potential long-term impacts that would result related to aesthetics, land use, and biological resources, and the combination of short-term construction-related impacts to air quality, public health and safety, hydrology and water quality, noise, public services, and transportation/traffic.

The aesthetics and land use impacts that would result with constructing a substation at this alternative site location would be greater than those identified under the Proposed Project. This alternative would affect a greater number of sensitive receptors due to the change in viewing duration. Sensitive receptors affected by the proposed Bay Boulevard Substation would primarily consist of motorists traveling along Bay Boulevard who would have only short-term views of the substation facility. In contrast, sensitive receptors affected by the H Street Yard Site – Air Insulated Substation Alternative would include park users at Bayside Park, visitors at the Chula Vista RV Resort Park, and users at Marina View Park who would have longer duration views of the facility than would a passing motorist. Therefore, due to location, proximity to sensitive receptors, and a number of potentially affected sensitive receptors, aesthetics impacts would be greater under the H Street Yard Site – Air Insulated Substation Alternative.

Land use impacts would be greater under the H Street Yard Site – Air Insulated Substation Alternative because similar industrial facilities are not located on site or in the immediate area, and because an additional ROW would be required to establish a transmission easement/corridor between the existing SDG&E transmission easement and the substation facility. In addition,

development of the Air Insulated Substation Alternative at the H Street Yard Site would conflict with the planned land uses of the Harbor District as established by the PMP and therefore, this alternative would result in greater greater land use plan impacts when compared to the Proposed Project (impacts would be less than significant (Class II) with implementation of Mitigation Measure L-3).

The H Street Yard Site – Air Insulated Substation Alternative would increase potential short-term impacts to air quality, noise, hydrology and water quality, public health and safety, public services, and transportation/traffic as a result of constructing 0.8 mile of transmission facilities to provide connections to the SDG&E grid beyond those identified under the Proposed Project. The construction activities would result in increased construction emissions, construction noise, and interruptions to public services in an urbanized area within the City. In addition, the alternative site is known to contain contaminated groundwater, and the potential exists for construction activities to facilitate mobilization of contaminants. Potential impacts to hydrology and water quality and to public health and safety would be greater than those identified under the Proposed Project as a result of potential mobilization of hazardous substances from areas of known contamination to areas previously not contaminated. Therefore, the Proposed Project is preferred over the H Street Yard site because short-term impacts related to air quality, hydrology and water quality, public health and safety, noise, public services, and transportation/traffic would be greater as a result of constructing 0.8 mile of transmission corridors to provide connections to the SDG&E grid and constructing within an area known to contain contaminated groundwater.

The biological resources impacts that would result with constructing a substation at this alternative site location would be reduced in comparison to those identified under the Proposed Project. Due to the developed nature and lack of seasonal ponds at the H Street Yard site, impacts to native vegetation and jurisdictional waters/wetlands would be reduced when compared to the Proposed Project (impacts would, however, remain Class II due to impacts associated with the transmission interconnections).

In summary, even though the H Street Yard Site – Air Insulated Substation Alternative would reduce impacts to biological resources, the Proposed Project is preferred overall from an environmental perspective because the Proposed Project would result in reduced long-term impacts to aesthetics and land use, and short-term impacts to air quality, hydrology and water quality, public health and safety, noise, public services, and transportation/traffic resulting from construction.

### **H Street Yard Site – Gas Insulated Substation Alternative**

As seen in Table E-1, the Proposed Project is preferred over the H Street Yard Site – Gas Insulated Substation Alternative for potential impacts to aesthetics, climate change, air quality, geology and soils, public health and safety, hydrology and water quality, land use, noise, public

services, and transportation/traffic. The H Street Yard Site – Gas Insulated Substation Alternative is preferred over the Proposed Project for potential impacts to biological resources.

In relation to geology and soils, the potential increase in impacts from liquefaction that would result with implementation of this alternative can be addressed through standard geotechnical design considerations. The potential increase in impacts that would result in relation to air quality, public health and safety, hydrology and water quality, noise, public services, and transportation/traffic would occur during construction and are considered temporary and less important; however, the combination of the greater impacts in these environmental categories should be considered when comparing the Proposed Project to the H Street Yard Site – Gas Insulated Substation Alternative. Therefore, the comparison of this alternative to the Proposed Project is primarily based on potential long-term impacts that would result related to aesthetics, climate change, land use, and biological resources, and the combination of short-term construction-related impacts to air quality, public health and safety, hydrology and water quality, noise, public services, and transportation/traffic.

The aesthetics, climate change, and land use impacts that would result with constructing a substation at this alternative site location would be greater than those identified under the Proposed Project. This alternative would affect a greater number of sensitive receptors due to the change in viewing duration. Sensitive receptors affected by the proposed Bay Boulevard Substation would primarily consist of motorists traveling along Bay Boulevard who would have only short-term views of the substation facility. In contrast, sensitive receptors affected by the H Street Yard Site – Gas Insulated Substation Alternative would include park users at Bayside Park, visitors at the Chula Vista RV Resort park, and park users at Marina View Park who would have longer duration views of the facility than would a passing motorist. Therefore, due to location, proximity to sensitive receptors, and a number of potentially affected sensitive receptors, aesthetics impacts would be greater under the H Street Yard Site – Gas Insulated Substation Alternative.

Land use impacts would be greater under the H Street Yard Site – Gas Insulated Substation Alternative because similar industrial facilities are not located on site or in the immediate area, and because an additional ROW would be required to establish a transmission easement/corridor between the existing SDG&E transmission easement and the substation facility. In addition, land use plan impacts associated with development of the Gas Insulated Substation Alternative at the H Street Yard Site would be similar to those described above for the Air Insulated Substation Alternative. Therefore, this alternative would result in greater land use plan impacts when compared to the Proposed Project (impacts would be less than significant (Class II) with implementation of Mitigation Measure L-3).

Long-term GHG emissions would increase with implementation of the H Street Yard Site – Gas Insulated Substation Alternative as a result of utilizing SF<sub>6</sub> to cool substation components. Given the increase in aesthetics, GHG emissions, and land use conflicts that would result with implementation of the H Street Yard Site – Gas Insulated Substation Alternative, the Proposed Project is environmentally preferred from an aesthetics, GHG emissions, and land use conflict perspective.

The H Street Yard Site – Gas Insulated Substation Alternative would increase potential short-term impacts to air quality, noise, hydrology and water quality, public health and safety, public services, and transportation/traffic as a result of constructing 0.8 mile of transmission facilities to provide connections to the SDG&E grid beyond those identified under the Proposed Project. The construction activities would result in increased construction emissions, construction noise, and interruptions to public services in an urbanized area within the City. In addition, the alternative site is known to contain contaminated groundwater, and the potential exists for construction activities to facilitate mobilization of contaminants. Potential impacts to hydrology and water quality and to public health and safety would be greater than those identified under the Proposed Project as a result of potential mobilization of hazardous substances from areas of known contamination to areas previously not contaminated. Therefore, the Proposed Project is preferred over the H Street Yard site because short-term impacts related to air quality, hydrology and water quality, public health and safety, noise, public services, and transportation/traffic would be greater as a result of constructing 0.8 mile of transmission corridors to provide connections to the SDG&E grid and constructing within an area known to contain contaminated groundwater.

The biological resources impacts that would result with constructing a substation at this alternative site location would be reduced in comparison to those identified under the Proposed Project. Due to the developed nature and lack of seasonal ponds at the H Street Yard site, impacts to native vegetation and jurisdictional waters/wetlands would be reduced when compared to the Proposed Project (impacts would, however, remain Class II due to impacts associated with the transmission interconnections).

In summary, even though the H Street Yard Site – Gas Insulated Substation Alternative would reduce impacts to biological resources, the Proposed Project is preferred overall from an environmental perspective because the Proposed Project would result in reduced long-term impacts to aesthetics, climate change, and land use, and short-term impacts to air quality, hydrology and water quality, public health and safety, noise, public services, and transportation/traffic resulting from construction.

### **Bayside Site – Air Insulated Substation Alternative**

As seen in Table E-1, the Proposed Project is preferred over the Bayside Site – Air Insulated Substation Alternative for potential impacts to aesthetics, air quality, geology and soils, public

health and safety, hydrology and water quality, land use, public services, and transportation/traffic. The Bayside Site – Air Insulated Substation Alternative is preferred over the Proposed Project for potential impacts to biological resources.

In relation to geology and soils, the potential increase in impacts from liquefaction that would result with implementation of this alternative can be addressed through standard geotechnical design considerations. The potential increase in impacts that would result in relation to air quality, public health and safety, hydrology and water quality, public services, and transportation/traffic would occur during construction and are considered temporary and less important; however, the combination of the greater impacts in these environmental categories should be considered when comparing the Proposed Project to the Bayside Site – Air Insulated Substation Alternative. Therefore, the comparison of this alternative to the Proposed Project is primarily based on potential long-term impacts that would result related to aesthetics, land use, and biological resources, and the combination of short-term construction-related impacts to air quality, public health and safety, hydrology and water quality, public services, and transportation/traffic.

The aesthetics and land use impacts that would result with constructing a substation at this alternative site location would be greater than those identified under the Proposed Project. This alternative would affect a greater number of sensitive receptors due to the change in viewing duration. Sensitive receptors affected by the proposed Bay Boulevard Substation would primarily consist of motorists traveling along Bay Boulevard who would have only short-term views of the substation facility. In contrast, sensitive receptors affected by the Bayside Site – Air Insulated Substation Alternative would include park users at Bayside Park, residences at the Chula Vista RV Resort, and park users at Marina View Park who would have longer duration views of the facility than would a passing motorist. Therefore, due to location, proximity to sensitive receptors, and a number of potentially affected sensitive receptors, aesthetics impacts would be greater under the Bayside Site – Air Insulated Substation Alternative.

Land Use impacts would be greater under the Bayside Site – Air Insulated Substation Alternative because similar industrial facilities are not located on site or in the immediate area, and because an additional ROW would be required to establish a transmission easement/corridor between the existing SDG&E transmission easement and the substation facility. Also, development of the Air Insulated Substation Alternative at the Bayside site would conflict with the industrial business park, park/plaza, and commercial recreation land use designation applied to the site by the PMP. Therefore, this alternative would result in greater land use plan impacts when compared to the Proposed Project (impacts would be less than significant (Class II) with implementation of Mitigation Measure L-3).

The Bayside Site – Air Insulated Substation Alternative would increase potential short-term impacts to air quality, hydrology and water quality, public health and safety, public services, and transportation/traffic as a result of constructing 1.8 miles of transmission facilities to provide connections to the SDG&E grid beyond those identified under the Proposed Project. The construction activities would result in increased construction emissions, construction noise, and interruptions to public services in an urbanized area within the City. In addition, the alternative site is known to contain contaminated groundwater, and the potential exists for construction activities to facilitate mobilization of contaminants. Potential impacts to hydrology and water quality and to public health and safety would be greater than those identified under the Proposed Project as a result of potential mobilization of hazardous substances from areas of known contamination to areas previously not contaminated. Therefore, the Proposed Project is preferred over the Bayside site because short-term impacts related to air quality, hydrology and water quality, public health and safety, noise, public services, and transportation/traffic would be greater as a result of constructing 1.8 miles of transmission corridors to provide connections to the SDG&E grid and constructing within an area known to contain contaminated groundwater.

The biological resources impacts that would result with constructing a substation at this alternative site location would be reduced in comparison to those identified under the Proposed Project. Due to the developed nature and lack of seasonal ponds at the Bayside site, impacts to native vegetation and jurisdictional waters/wetlands would be reduced when compared to the Proposed Project (impacts would, however, remain Class II due to impacts associated with the transmission interconnections).

In summary, even though the Bayside Site – Air Insulated Substation Alternative would reduce impacts to biological resources, the Proposed Project is preferred overall from an environmental perspective because the Proposed Project would result in reduced long-term impacts to aesthetics and land use, and short-term impacts to air quality, hydrology and water quality, public health and safety, public services, and transportation/traffic resulting from construction.

### **Bayside Site – Gas Insulated Substation Alternative**

As seen in Table E-1, the Proposed Project is preferred over the Bayside Site – Gas Insulated Substation Alternative for potential impacts to aesthetics, climate change, air quality, geology and soils, public health and safety, hydrology and water quality, land use, noise, public services, and transportation/traffic. The Bayside Site – Gas Insulated Substation Alternative is preferred over the Proposed Project for potential impacts to biological resources.

In relation to geology and soils, the potential increase in impacts from liquefaction that would result with implementation of this alternative can be addressed through standard geotechnical design considerations. The potential increase in impacts that would result in relation to air

quality, public health and safety, hydrology and water quality, public services, and transportation/traffic would occur during construction and are considered temporary and less important; however, the combination of the greater impacts in these environmental categories should be considered when comparing the Proposed Project to the Bayside Site – Gas Insulated Substation Alternative. Therefore, the comparison of this alternative to the Proposed Project is primarily based on potential long-term impacts that would result related to aesthetics, climate change, land use, and biological resources, and the combination of short-term construction-related impacts to air quality, public health and safety, hydrology and water quality, public services, and transportation/traffic.

The aesthetics, climate change, and land use impacts that would result with constructing a substation at this alternative site location would be greater than those identified under the Proposed Project. This alternative would affect a greater number of sensitive receptors due to the change in viewing duration. Sensitive receptors affected by the proposed Bay Boulevard Substation would primarily consist of motorists traveling along Bay Boulevard who would have only short-term views of the substation facility. In contrast, sensitive receptors affected by the Bayside Site Alternative would include park users at Bayside Park and Marina View Park and residences at the Chula Vista RV Resort. Therefore, due to location, proximity to sensitive receptors, and a number of potentially affected sensitive receptors, aesthetics impacts would be greater under the Bayside – Gas Insulated Substation Alternative.

Land use impacts would be greater under the Bayside Site – Gas Insulated Substation Alternative because similar industrial facilities are not located on site or in the immediate area, and because an additional ROW would be required to establish a transmission easement/corridor between the existing SDG&E transmission easement and the substation facility. Land use plan impacts associated with development of the Gas Insulated Substation Alternative at the H Street Yard Site would be similar to those described above for the Air Insulated Substation Alternative. Therefore, this alternative would result in greater land use plan impacts when compared to the Proposed Project (impacts would be less than significant (Class II) with implementation of Mitigation Measure L-3).

Long-term GHG emissions would increase with implementation of the Bayside Site – Gas Insulated Substation Alternative as a result of utilizing SF<sub>6</sub> to cool substation components. Given the increase in aesthetics, GHG emissions, and land use conflicts that would result with implementation of the Bayside Site – Gas Insulated Substation Alternative, the Proposed Project is environmentally preferred from an aesthetics, GHG emissions, and land use conflict perspective.

The Bayside Site – Gas Insulated Substation Alternative would increase potential short-term impacts to air quality, hydrology and water quality, public health and safety, public services, and

transportation/traffic as a result of constructing 1.8 miles of transmission facilities to provide connections to the SDG&E grid beyond those identified under the Proposed Project. The construction activities would result in increased construction emissions, construction noise, and interruptions to public services in an urbanized area within the City. In addition, the alternative site is known to contain contaminated groundwater, and the potential exists for construction activities to facilitate mobilization of contaminants. Potential impacts to hydrology and water quality and to public health and safety would be greater than those identified under the Proposed Project as a result of potential mobilization of hazardous substances from areas of known contamination to areas previously not contaminated. Therefore, the Proposed Project is preferred over the Bayside site because short-term impacts related to air quality, hydrology and water quality, public health and safety, public services, and transportation/traffic would be greater as a result of constructing 1.8 miles of transmission corridors to provide connections to the SDG&E grid and constructing within an area known to contain contaminated groundwater.

The biological resources impacts that would result with constructing a substation at this alternative site location would be reduced in comparison to those identified under the Proposed Project. Due to the developed nature and lack of seasonal ponds at the Bayside site, impacts to native vegetation and jurisdictional waters/wetlands would be reduced when compared to the Proposed Project (impacts would, however, remain Class II due to impacts associated with the transmission interconnections).

In summary, even though the Bayside Site – Gas Insulated Substation Alternative would reduce impacts to biological resources, the Proposed Project is preferred overall from an environmental perspective because the Proposed Project would result in reduced long-term impacts to aesthetics, climate change, and land use, and short-term impacts to air quality, hydrology and water quality, public health and safety, public services, and transportation/traffic resulting from construction.

### **E.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 C.7 of this EIR. 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, 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 South Bay Power Plant (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~~ Additionally, the No Project Alternative would not further the redevelopment goals envisioned in the Chula Vista Bayfront Master Plan, pursuant to the 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 an 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.”

In terms of effects on the environment, the Draft 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. However, subsequent to the release of the Draft EIR, the California Coastal Commission (CCC) approved the Port District’s Port Master Plan (PMP), resulting in the Existing South Bay Substation Site Alternative being inconsistent with the PMP<sup>1</sup>. As a result, the existing South Bay Substation Site Alternative has now in the Final EIR been determined to create a significant land use impact since it would conflict with an applicable land use plan approved by the CCC. However, the impact can be mitigated to a less-than-significant level by amending the PMP<sup>2</sup>. Therefore, given the comprehensive nature of the alternatives analysis,

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<sup>1</sup> One of the express objectives of the Chula Vista Bayfront Master Plan, which has been incorporated into the Port Master Plan is to “[p]rotect biological resources in the vicinity of the Proposed Project (District 2010; Bayfront Coalition 2010).”

<sup>2</sup> In a letter submitted to the CPUC on 8/31/12, the CCC noted that if the EIR selects the Existing South Bay Substation alternative, “the Port will need to submit a Port Master Plan Amendment to the Commission to accommodate a new substation or any substantial changes to the existing substation on the existing site” (CCC 2012).

~~CPUC has determined in the Final EIR that besides the No Project Alternative, there is no other clear alternative among the alternatives considered in the EIR, including the Existing South Bay Substation Site Alternative, that avoids or substantially reduces identified adverse effects of the Proposed Project without creating a significant effect in addition to those that would be caused by the Proposed Project. Overall, based on the analysis for each alternative presented in Sections D.2 through D.17, and as summarized in Table E-1, 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 the Existing South Bay Substation Site 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 Site Alternative would not further the redevelopment goals envisioned in the Chula Vista Bayfront Master Plan, 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.~~

## E.54 References

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

Bayfront Coalition. 2010. “Chula Vista Bayfront Master Plan: Settlement Agreement.” Bayfront Coalition member agencies include the San Diego Unified Port District, City of Chula Vista, and Redevelopment Agency of the City of Chula Vista. May 2010.

CCC (California Coastal Commission). 2012. Letter from the CCC to the CPUC. August 31, 2012.

District (San Diego Unified Port District). 2010. *Findings of Fact and Statement of Overriding Considerations for the Chula Vista Bayfront Master Plan*. UPD #83356-EIR-658, SCH #2005081077. Prepared by Dudek. Encinitas, California: Dudek. May 2010.

Dolan v. City of Tigard, 512 U.S. 374 (1994); no. 93-518. Accessed May 2012.  
<http://bulk.resource.org/courts.gov/c/US/512/512.US.374.93-518.html>.

Nollan v. California Coastal Commission, 483 U.S. 825 (1987); no. 86-133. Accessed May 2012.  
<http://caselaw.lp.findlaw.com/cgi-bin/getcase.pl?court=us&vol=483&invol=825>.

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