

## 5.9 Hydrology and Water Quality

### 5.9.1 Environmental Setting

#### Regional Setting

Components of the proposed project would be constructed within or would cross sections of southern Del Mar and northwestern San Diego, California, as discussed in ~~Section~~ Chapter 4.0, “Project Description” and shown in Figure 4-1 Project Location Map. The proposed project would be located entirely within the Del Mar and La Jolla U.S. Geological Survey (USGS) 7.5-minute quadrangles (USGS 2017). It would be located within the Peninsular Range, entirely within the coastal zone, at elevations ranging from approximately 400 feet above mean sea level to approximately mean sea level. The entirety of the proposed project would be located within the San Diego Subregion of the South Coast Hydrologic Region of California (SDG&E 2017; DWR 2003), otherwise referred to as Region 9 by the Regional Water Quality Control Board (RWQCB), in the San Diego Watershed (DWR 2016). Average annual precipitation in the coastal San Diego region ranges from 10 to 13 inches, primarily received between November and February. Precipitation flows from higher elevations in the east toward and into the Pacific Ocean in the west.

The proposed project would cross the San Dieguito Hydrologic Unit (HU), known as HU 905.00, and the Peñasquitos Hydrologic Unit, HU 906.00 (RWQCB 2016). It would also cross the Solana Beach Hydrologic Area (HA), known as HA 905.10, and the Rancho Santa Fe Hydrologic Subarea (HSA), known as HSA 905.11, both of which are located within the San Dieguito HU, which encompasses approximately 346 square miles within west-central San Diego County, and includes portions of both Del Mar and Escondido. The Miramar Reservoir Hydrologic Area, known as HA 906.10, is located within the Peñasquitos HU, encompassing approximately 170 square miles in west-central San Diego County. The proposed project would also cross several major aquatic features, including the San Dieguito River, San Dieguito Lagoon, and Los Peñasquitos Marsh (SDG&E 2017). The San Dieguito HU discharges primarily into the San Dieguito River, and the Peñasquitos HU discharges primarily into Los Peñasquitos Lagoon and Mission Bay, all of which discharge into the Pacific Ocean. For a map of HUs, HAs, and HSAs associated with the proposed project, see Figure 5.9-1.

#### Groundwater

The San Dieguito Creek Groundwater Basin (Basin 9-12) underlies approximately 2 miles of the project alignment (DWR 2016). This basin is characterized as “very low priority” by the California Statewide Groundwater Elevation Monitoring program (DWR 2014). Coastal groundwater basins in RWQCB 9 are often subject to inundation and intrusion of saline water and, in San Diego County, are also prone to high levels of calcium and sodium cations and bicarbonate and sulfate anions (DWR 2003). The San Dieguito Creek Groundwater Basin is composed of Quaternary alluvium (recent sand, gravel, silt, and clay deposits), totaling an area of approximately 6 square miles. The basin is drained by the San Dieguito River and has a storage capacity of approximately 63,000 acre-feet. It is associated with a high groundwater table and substantial ponding (DWR 1975). The basin is naturally recharged by (from greatest to least percentage) the percolation of flow from the San Dieguito River, precipitation from higher to lower elevations within the valley, underflow under Lake Hodges, overflow through sediments, and return flow from irrigation use (SDG&E 2017).

The cities of San Diego and Del Mar primarily use treated, potable water purchased and imported by the San Diego County Water Authority via aqueducts from the Colorado River and Northern California (SDG&E 2017). Additionally, the city of San Diego uses local surface and groundwater sources, including multiple reservoirs and the San Vicente Production well in the Santee-El Monte Basin (9-15) (SDCWA 2016). The Santee and El Monte HSAs are within the Lower San Diego HA, in the San Diego HU. No portions of the project alignment are located within the San Diego HU.

**Surface Water**

The proposed project would cross multiple surface waterbodies and aquatic features, as described in Table 5.9-1. Under Section 303(d) of the Clean Water Act (CWA), states identify waterbodies as “impaired” if they contain certain pollutants in concentrations such that the waterbody no longer meets water quality standards (EPA 2017). The San Dieguito River/Lagoon, Los Peñasquitos Lagoon, and Peñasquitos Creek are all defined as Category 5 waterbodies according to the 2014 State Water Resources Control Board (SWRCB) list of 303(d) water quality segments in California. Category 5 waterbodies are segments of waterbodies where CWA standards are not met, and a Total Maximum Daily Load (TMDL) is required (see Section 5.9.2, “Regulatory Setting”), but not yet completed, for at least one of the pollutants being listed for the segment (SWRCB 2014). Pollutants associated with National Hydrology Dataset-named waterbodies crossed by or adjacent to the proposed project are described in Table 5.9-1.

**Table 5.9-1 Named Waterbodies Crossed by or Adjacent to the Project, and Associated Pollutants**

Waterbody Name	Distance from Proposed Project	Pollutants in Waterbodies
San Dieguito River	Crossed	Nitrogen Phosphorus Total Dissolved Solids Toxicity
San Dieguito Lagoon <sup>(a)</sup>	Crossed	See San Dieguito River
Los Peñasquitos Lagoon	Crossed	Sedimentation/Siltation
Peñasquitos Creek	0.3 miles	Phosphate Total Dissolved Solids Toxicity

Sources: USGS 2018; SWRCB 2014

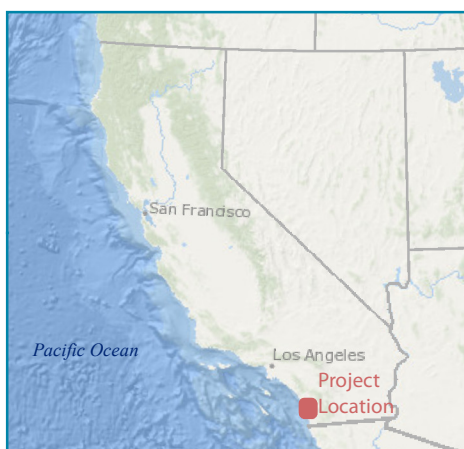
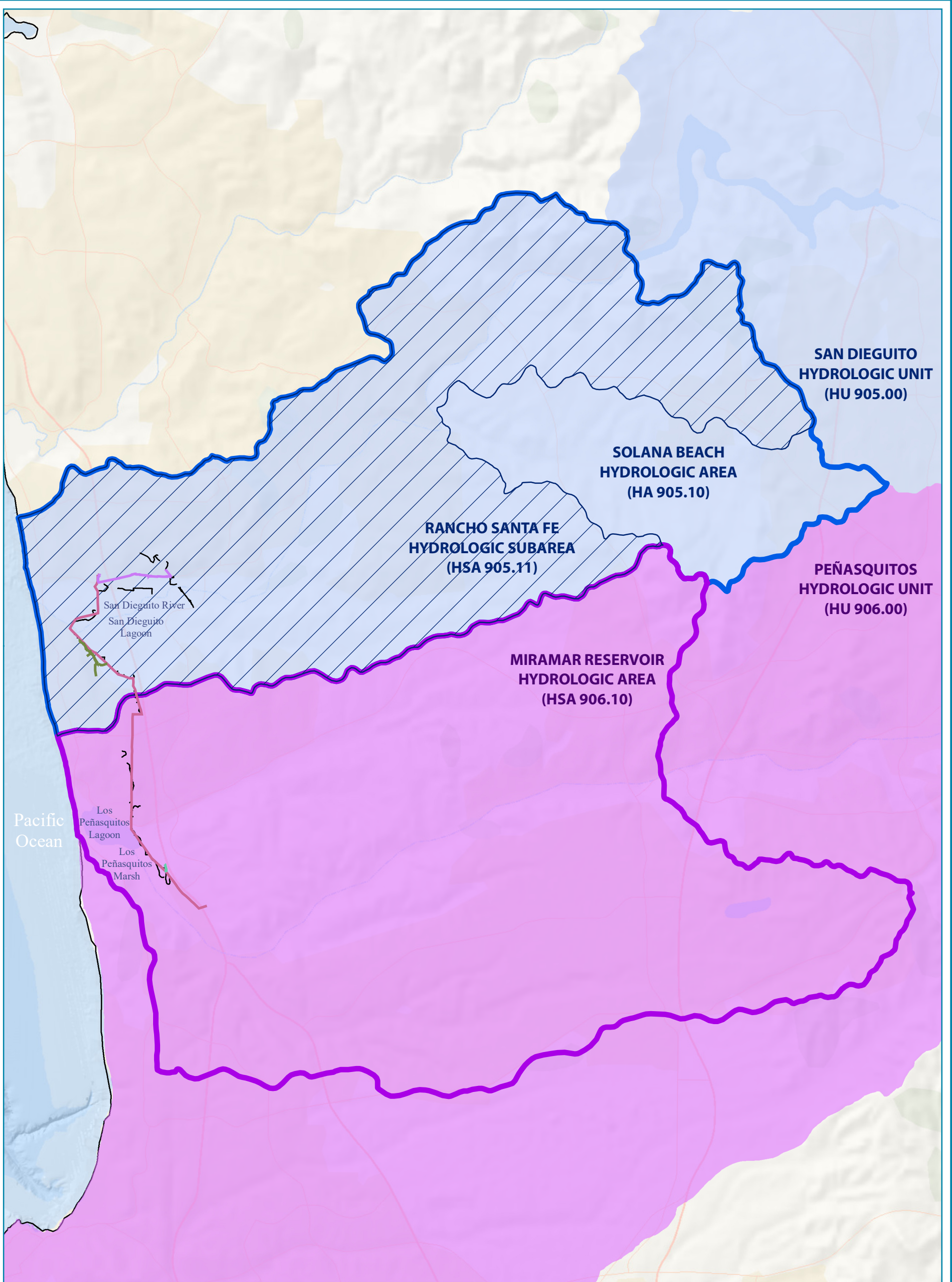
Note:

<sup>(a)</sup> The San Dieguito River and San Dieguito Lagoon are considered separate waterbodies for the purposes of this analysis, but are grouped together on the CWA 303(d) list

**Flood, Tsunami, Mudslide, and Seiche Risk**

The Federal Emergency Management Agency (FEMA) identifies Special Flood Hazard Areas (SFHAs), or floodplains at risk of flooding, on the Flood Insurance Rate Map. The following SFHA zones would be crossed by portions of the proposed project (FEMA 2012):

- *Zone A:* Area with a 1 percent annual chance of flooding and a 26 percent chance of flooding over the life of a 30-year mortgage. No depths or Base Flood Elevations have been determined for these areas.
- *Zone AE:* Area of high flood risk where the Base Flood Elevations have been determined.
- *Zone X:* Area of moderate to low flood hazard minimally located outside the 100-year floodplain and, in some cases, outside the 500-year floodplain (FEMA 2012).

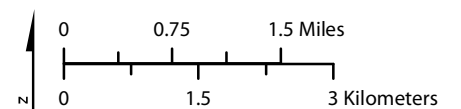


- |   |                                    |
|---|------------------------------------|
| <b>Hydrologic Subareas</b>                      | <b>Proposed Project Components</b> |
| Rancho Santa Fe Hydrologic Subarea (HSA 905.11) | C510 Conversion                    |
| <b>Hydrologic Areas</b>                         | C738 Conversion                    |
| Miramar Reservoir Hydrologic Area (HA 906.10)   | TL666D Removal                     |
| Solana Beach Hydrologic Area (HA 905.10)        | TL674A Reconfiguration             |
| <b>Hydrologic Units</b>                         | Access Roads                       |
| Peñasquitos Hydrologic Unit (HU 906.00)         |                                    |
| San Dieguito Hydrologic Unit (HU 905.00)        |                                    |

Sources: Calwater 2004, San Diego Gas and Electric (SDG&E) 2018; Earth Systems Research Institute (ESRI) 2018

**Figure 5.9-1**  
**Hydrologic Units, Areas, and**  
**Subareas Crossed by the**  
**Proposed Project Alignment**  
 San Diego County, California

June 2018



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1 The proposed project would cross Zone A and Zone AE SFHAs along the San Dieguito River, through  
2 San Dieguito Lagoon, and through Los Peñasquitos Lagoon, and Zone X SFHAs along the fringes of the  
3 lagoons. Portions of both lagoons are Regulatory Floodways, which are federally determined and  
4 community-regulated waterbodies and adjacent land areas that are reserved for the purpose of discharging  
5 base floods without simultaneously increasing the surface water level (FEMA 2012, 2017). Additionally,  
6 as identified by the California Governor’s Office of Emergency Services, the proposed project would be  
7 located within Dam Failure Inundation Areas for three dams, all of which present Extremely High  
8 downstream hazards (SDG&E 2017; DWR 2017). The Lake Sutherland Dam drains to Santa Ysabel  
9 Creek, which is a tributary to the San Dieguito River (San Dieguito River Park Joint Powers Authority  
10 2002). The lake is upstream of the Lake Hodges Dam, which is a large dam on the San Dieguito River.  
11 The Miramar Reservoir is bounded by the Miramar Reservoir Dam and contains water that originates  
12 from the Colorado River Aqueduct and the California Aqueduct. In the event of inundation, the Miramar  
13 Reservoir would drain through Los Peñasquitos Lagoon (City of San Diego 2018; CSDOES and  
14 SDCUDC 2010).

15  
16 The San Dieguito River is also considered a flood hazard area that would be subject to floods associated  
17 with dam inundation. The flood hazard area along the San Dieguito River extends from the Lake  
18 Sutherland Dam approximately 25 miles northeast of the project alignment through Lake Hodges and the  
19 San Dieguito River to the Pacific Ocean (DWR 1964).

20  
21 A tsunami is a long oceanic wave generally resulting from geologic shifts on the ocean floor, such as  
22 earthquakes (CSDOES 2017). Seismic events as far away as Japan and Chile can produce local tsunamis  
23 in Southern California. The San Dieguito and Los Peñasquitos Lagoons are both within the Tsunami  
24 Emergency Response Planning Zone (Cal OES 2015). Portions of the proposed project would pass  
25 through these hazard zones.

26  
27 A mudslide is a type of landslide that can occur naturally result from human activities such as the removal  
28 of stabilizing vegetation or slopes. The San Diego County Multi-jurisdictional Hazard Mitigation Plan  
29 and the USGS map regional and national landslide susceptibility, respectively. No proposed project  
30 components would traverse areas of high landslide risk, the eastern terminus of the proposed project is  
31 located near a landslide-prone area (CSDOES and SDCUDC 2010), and USGS maps the entire project  
32 alignment as having low landslide susceptibility (USGS 2001).

33  
34 An aquatic resources assessment was conducted by RECON Environmental, Inc., in 2013 to identify the  
35 boundaries, types, and acreages of aquatic resources within the proposed project alignment that could  
36 potentially fall under U.S. Army Corps of Engineers (USACE), RWQCB, California Department of Fish  
37 and Wildlife (CDFW), and/or California Coastal Commission (CCC) jurisdiction (AECOM 2017).  
38 During the assessment, 34 hydrologic features were identified, 28 of which were determined likely to fall  
39 under USACE, CDFW, RWQCB, and/or CCC jurisdiction. Identified hydrologic features include  
40 drainages, scours, and estuaries and associated estuarine components (tidal inlets, salt pan, and perennial  
41 marshlands).

42  
43 In the city of San Diego, drinking water is primarily sourced from Northern California, the Colorado  
44 River, and local rainwater runoff stored in reservoirs (City of San Diego 2018). The closest reservoirs to

1 the proposed project would be Lake Hodges and Miramar Reservoir, both of which are approximately 7  
2 miles east and upstream of the proposed project alignment.

## 3 4 **5.9.2 Regulatory Setting**

### 5 6 **Federal**

#### 7 The Clean Water Act (Title 33, § 1251 et. seq. of the U.S. Code)

8 The 1972 Federal Water Pollution Control Act and its 1977 amendments, collectively known as the  
9 CWA, established national water quality goals and the basic structure for regulating discharges of  
10 pollutants into the waters of the United States.

11  
12 Under section 303(d) of the CWA, states, territories, and authorized tribes are required to develop lists of  
13 impaired waters (i.e., waters that exceed applicable water quality standards), establish priority rankings  
14 for waters on the lists, and develop TMDLs for these waters. A TMDL is a calculation of the maximum  
15 amount of a pollutant that a waterbody can receive and still meet water quality standards. The SWRCB  
16 and RWQCBs are engaged in ongoing efforts to monitor and assess water quality, prepare the Section  
17 303(d) list, and develop TMDL requirements. Waters within the project alignment on the Section 303(d)  
18 list are shown in Table 5.9-1.

19  
20 Section 401 of the CWA requires that every applicant for a federal permit or license for any activity that  
21 may result in discharge to a water body obtain State Water Quality Certification that the proposed activity  
22 would comply with state water quality standards. In California, 401 Certification is granted by one of the  
23 RWQCBs for projects that are located in a single region.

24  
25 As authorized by Section 402 of the CWA, the SWRCB administers the statewide National Pollution  
26 Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with  
27 Construction Activity (Construction General Permit) (Order 2009-0009-DWQ [as amended by 2010-  
28 0014-DWQ and 2012-0006-DWQ]). The Construction General Permit covers a variety of construction  
29 activities that would disturb 1 or more acres of soil and could result in wastewater discharges. The  
30 Construction General Permit process requires the permit applicant to submit a Notice of Intent to the  
31 SWRCB, develop a Stormwater Pollution Prevention Plan (SWPPP), and monitor water quality.  
32 Wetlands, drainages, creeks, and streams are generally subject to the jurisdiction of the USACE under  
33 Section 404 of the CWA. By USACE definition, all aquatic or riverine habitats between the “ordinary  
34 high water mark” of rivers, creeks, and streams are potentially considered “waters of the United States”  
35 and may fall under USACE jurisdiction. Any deposit of fill into waters of the United States, including  
36 wetlands, requires the acquisition of a permit from the USACE pursuant to Section 404 of the CWA  
37 (EPA 1977).

#### 38 39 Rivers and Harbors Appropriation Act Section 10

40 Section 10 of the Rivers and Harbors Appropriation Act of 1899 (33 United States Code [U.S.C.] § 403 et  
41 seq.) requires that regulated activities conducted below the ordinary high water mark of navigable waters  
42 of the United States require a Section 10 permit and approval by the USACE. Activities include the  
43 placement/removal of structures or work involving dredging, disposal of dredged material, filling,

1 excavation, or any other disturbance of soils/sediments or modification of a navigable waterway (EPA  
2 2016).

#### 3 4 National Flood Insurance Program

5 The National Flood Insurance Program (NFIP) of 1968, administered by FEMA, provides a federal  
6 program for participating communities to purchase flood insurance. Participation in the NFIP is based on  
7 an agreement between local communities and the federal government, which states that if a community  
8 adopts and enforces a floodplain management ordinance to reduce future flood risks to new construction  
9 in SFHAs, the federal government will make flood insurance available within the community as a  
10 financial protection against flood losses.

11  
12 In support of the NFIP, FEMA identifies flood hazard areas throughout the United States and identifies  
13 SFHAs, or areas that could be subject to a 100-year flood. FEMA also establishes regulations pertaining  
14 to development within the 100-year floodplain (FEMA 1997).

#### 15 16 **State**

##### 17 California Coastal Act of 1976

18 Under the California Coastal Act of 1976 (CCA), the CCC, in partnership with coastal cities and counties,  
19 plans and regulates development within the coastal zone. Development is broadly defined under the CCA  
20 to include construction activities and use of land and water within the coastal zone. Title 14, Section  
21 13253 of the California Code of Regulations states that a Coastal Development Permit (CDP) is required  
22 for projects located within the coastal zone that have the potential to damage the coastal environment,  
23 including utility projects. Portions of the proposed project would lie within the coastal zone and would  
24 need to comply with regulations per the CCA. Under the CCA, authority to issue CDPs is delegated to the  
25 local permitting agencies for which the CCC has certified a Local Coastal Program (LCP). Local  
26 governments, in partnership with the CCC, use the LCP implementing policies as a guide to future  
27 development activities within the coastal zone. The City of San Diego and City of Del Mar have certified  
28 LCPs that would apply to the project alignment, as described in Section 5.9.2.3, “Regional and Local”  
29 (CCC 2018).

##### 30 31 Porter-Cologne Water Quality Control Act (California Water Code §13000 et seq.)

32 The Porter-Cologne Act (California Water Code, Division 7) of 1979 regulates surface water and  
33 groundwater quality in the state and assigns regulatory responsibility for implementation of CWA  
34 Sections 401 (Water Quality Certification), 402 (NPDES), 303(d) (List of Impaired Water Bodies), and  
35 305(b) (Report on the Quality of Waters in California) to the SWRCB. The SWRCB delegated its  
36 authority to the nine RWQCBs throughout the state. The proposed project would lie entirely within the  
37 jurisdiction of RWQCB Region 9, the San Diego RWQCB. The SWRCB and RWQCBs are responsible  
38 for issuing permits for certain point source discharges and for regulating construction and stormwater  
39 runoff.

40  
41 The SWRCB and RWQCBs are responsible for developing and implementing regional basin plans, which  
42 establish water quality standards for surface water and groundwater within their jurisdictions, designate  
43 beneficial uses for surface and groundwater, set goals and objectives that must be attained or maintained



1 to protect the designated beneficial uses, and describe implementation programs to protect waters in the  
2 region. Under Section 303(d) of the CWA, the RWQCB develops a list of impaired water bodies in which  
3 water quality is impeding the attainment of beneficial uses. Table 5.9-1 describes impaired water bodies  
4 within the project alignment.

5  
6 The RWQCBs regulate discharges to waters within their respective jurisdictions through administration  
7 of NPDES permits, Waste Discharge Requirements, and CWA Section 401 water quality certifications.  
8 RWQCBs administer Section 401 water quality certifications to ensure that projects with federal 404  
9 permits do not violate state water quality standards. The SWRCB has jurisdiction over depositing fill or  
10 dredging in “State Only Waters” and issues Waste Discharge Requirements for these projects.  
11 Construction projects may require RWQCB approval of a 401 Water Quality Certification, as well as  
12 Waste Discharge Requirements (SWRCB 2018).

#### 13 14 Storm Water Discharge Regulations

15 The SWRCB adopted a general NPDES permit for construction activities that disturb more than 1 acre of  
16 land (NPDES General Permit for Storm Water Discharges Associated with Construction and Land  
17 Disturbance Activities [2012], Construction General Permit, Order No. 2012-0006-DWQ, NPDES No.  
18 CAS000002). To comply with the general permit, a Notice of Intent must be filed with the RWQCB, and  
19 a SWPPP must be implemented at the commencement of grading that would control and monitor  
20 construction-related pollutants in accordance with established EPA standards, and would remain in effect  
21 until construction is completed (EPA 2018).

#### 22 23 California Fish and Game Code Section 1602

24 The CDFW is responsible for conserving, protecting, and managing California’s fish, wildlife, and native  
25 plant resources. To achieve these ends, Section 1602 of the California Fish and Game Code requires an  
26 entity to notify the CDFW of any proposed activity that may substantially modify a river, stream, or lake,  
27 including ephemeral streams, desert washes, and watercourses with a subsurface flow. If the CDFW  
28 determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or  
29 Streambed Alteration Agreement is required (CDFW 2017).

#### 30 31 **Regional and Local**

32 The proposed project is not subject to local discretionary regulations because the California  
33 Public Utilities Commission (CPUC) has exclusive jurisdiction over the siting, design, and construction  
34 of the proposed project. The following discussion of the local regulations relating to hydrology and water  
35 quality is provided for informational purposes.

#### 36 37 San Diego Association of Governments Regional Comprehensive Plan

38 The San Diego Association of Governments (SANDAG) Regional Comprehensive Plan includes  
39 objectives relating to protecting and restoring the integrity of watersheds and waterbodies in San Diego  
40 County and in nearby regions. The City of San Diego and the City of Del Mar are both covered by the  
41 SANDAG Regional Plan. The plan contains policies designed to improve water quality, preserve and  
42 maintain existing water resources, and establish pollution control measures. Water Quality Policy  
43 Objectives outlined in the plan include restoring, protecting, and enhancing water quality and beneficial



1 uses of coastal and inland surface waters and groundwater, and reducing or eliminating pollutants at their  
2 source before they enter waterbodies. (SANDAG 2004)

3  
4 City of San Diego General Plan

5 The Conservation Element of the City of San Diego General Plan contains policies for sustainable  
6 development and associated initiatives to protect the public health and welfare. The general plan's Water  
7 Resources Management goals involve balancing water demand with supply through water efficiency and  
8 reclamation programs. The general plan also sets a goal to protect and restore wetland resources,  
9 including all existing wetland habitat, through a "no net loss" approach.

- 10  
11 • *CE-B.4* – Limit and control runoff, sedimentation, and erosion both during and after construction  
12 activity.
- 13 • *CE-C.6* – Implement watershed management practices designed to reduce runoff and improve the  
14 quality of runoff discharged into coastal waters
- 15 • *CE-E.2* – Apply water quality protection measures to land development projects early in the  
16 process-during project design, permitting, construction, and operations-in order to minimize the  
17 quantity of runoff generated on-site, the disruption of natural water flows and the contamination  
18 of storm water runoff.
- 19 • *CE-E.3* – Require contractors to comply with accepted storm water pollution prevention planning  
20 practices for all projects.
- 21 • *CE-E.4* – Continue to participate in the development and implementation of Watershed  
22 Management Plans for water quality and habitat protection
- 23 • *CE-E.5* – Assure that City departments continue to use "Best Practice" procedures so that water  
24 quality objectives are routinely implemented.
- 25 • *CE-E.6* – Continue to encourage "Pollution Control" measures to promote the proper collection  
26 and disposal of pollutants at the source, rather than allowing them to enter the storm drain system.
- 27 • *CE-E.7* – Manage Floodplains to address their multi-purpose use, including natural drainage,  
28 habitat preservation, and open space and passive recreation while also promoting public health  
29 and safety.

30  
31 Additionally, the Public Facilities, Services, and Safety Element of the City of San Diego General Plan  
32 requires that all development projects obtain a Municipal Storm Sewer System Permit (MS4 Permit) and  
33 implement stormwater control and site design practices to minimize pollutant generation and runoff  
34 during construction. (City of San Diego 2008)

35  
36 City of San Diego Urban Water Management Plan

37 Appendix F of the City of San Diego Urban Water Management Plan contains a Drought Contingency  
38 Plan that should be implemented within the city during drought conditions of varying severity, as defined  
39 in the City of San Diego Municipal Code, and further described in Appendix H (Emergency Water  
40 Regulations) of the City of San Diego Urban Water Management Plan. The Drought Contingency Plan  
41 describes appropriate methodological responses to five water supply conditions, Normal to Drought  
42 Response Level Four, depending on the percent by which water demand must be reduced in response to

1 the drought conditions. As Drought Response Levels increase from Level 1 to Level 4, so do restrictions  
2 on vehicle and equipment washing, irrigation, and use of water for other purposes, including construction  
3 (SDWCA 2016).

4  
5 City of San Diego Land Development Manual

6 Appendix O of the Land Development Manual contains the Stormwater Standards Manual, which defines  
7 requirements for water quality treatment consistent with the Model Standard Urban Stormwater  
8 Mitigation Plan. The manual provides information to SWPPP permit applicants about how to adequately  
9 prevent runoff and erosion associated with construction and development projects. Section IV of the Land  
10 Development Manual, Revegetation and Erosion Control Guidelines, defines procedures for slope  
11 stabilization and revegetation and provides guidance on the selection, design, and incorporation of best  
12 management practices (BMPs) into project design (City of San Diego 2012).

13  
14 North City Future Urbanizing Area Framework Plan

15 The North City Future Urbanizing Area Framework Plan contains regulations pertaining to development  
16 adjacent to significant natural areas and open space areas. The regulations are intended to minimize  
17 impacts to water resources in those areas. Implementing Principle 4.10b from the Framework Plan  
18 requires that development projects adjacent to natural areas protect existing drainageways from  
19 encroachment that might affect drainage patterns or water quality through the use of setbacks/buffers  
20 (City of San Diego 2014a).

21  
22 Via De La Valle Specific Plan

23 The Via De La Valle Specific Plan contains goals and objectives pertaining to conservation practices,  
24 erosion and sedimentation prevention, and topics specific to the coastal zone with respect to the  
25 hydrological setting within the subarea. The Resources Management Element of the Specific Plan  
26 requires that temporary erosion control measures be incorporated into grading and construction phases of  
27 projects within the subarea so that sediments are removed before runoff enters the storm drain system that  
28 flows into the San Dieguito River. The Coastal Element of the Via De La Valle Specific Plan applies  
29 similar goals and objectives specifically to the coastal zone (City of San Diego 2007).

30  
31 Torrey Hills Community Plan

32 The Torrey Hills Community Design Element contains measures intended to minimize impacts to  
33 hydrological resources within the subareas. The Community Design Element contains grading and  
34 construction policies that would reduce sedimentation risk. For example, grading plans should conform to  
35 described seasonal policies in the Torrey Hills Community Plan and ensure that unstabilized areas of  
36 ground disturbance are suitably prepared for seasonal rains (City of San Diego 2014b).

37  
38 Torrey Pines Community Plan

39 Goals described in the Resource Management and Open Space Element in The Torrey Pines Community  
40 Plan contain regulations intended to maintain, protect, and improve hydrological resources within the  
41 subarea. Development projects should utilize strategies such as minimizing grading during the rainy  
42 season, installing sediment basins and/or energy dissipating structures, and revegetation to avoid

1 sedimentation, erosion or other impacts that would degrade the quality of the water resources and  
2 Environmentally Sensitive Habitat Areas (see Section 5.4, “Biological Resources”).

3  
4 The Torrey Pines Community Plan also requires those applying for CDPs for projects located within the  
5 Los Peñasquitos watershed to enter into an agreement with the City of San Diego and the State Coastal  
6 Conservancy to pay a Los Peñasquitos watershed restoration and enhancement fee to the Los Peñasquitos  
7 Lagoon Fund, as described in Policy 4 from the Open Space and Resources Management Element specific  
8 to the Coastal Zone. The enhancement fee shall be determined by the surface area within the coastal zone  
9 that would be affected by grading for development, payable at a rate of \$0.005/square foot, and an  
10 additional \$0.03/square foot for impervious surface(s) created by the development (City of San Diego  
11 2014c).

12  
13 City of Del Mar Local Coastal Plan

14 Chapter 30.29 of the City of Del Mar Local Coastal Plan contains ordinances specific to portions of the  
15 city within the Floodway Zone. The ordinances prohibit the construction of permanent structures in the  
16 floodway, allowing only structures and uses that would not result in further danger were a flood to occur.  
17 It prohibits the placement of permanent structures within the floodway zone.

18  
19 Chapter 30.53 of the City of Del Mar Local Coastal Plan contains ordinances specific to the Lagoon  
20 Overlay Zone, which pertains to properties that are located within or within close proximity to the San  
21 Dieguito and Los Peñasquitos Lagoons. It contains draining and erosion control policies intended to  
22 minimize runoff into aquatic resources from grading activities. Development projects within the Lagoon  
23 Overlay Zone shall ensure that runoff from impervious services be directed into existing public drainage  
24 or discharge systems, or be retained onsite utilizing settling ponds or other measures as appropriate.  
25 Construction projects shall install erosion control measures such as berms, sandbagging, hay bales, or  
26 other appropriate devices prior to the start of grading activities, and shall be removed within 30 days of  
27 project completion. Projects that will involve more than 25 cubic yards of cut and/or fill grading shall not  
28 conduct grading activities between November 15 and March 31. If activities within a graded area are not  
29 complete by November 15, the area should be prepared to prevent soil loss associated with potential  
30 heavy rains. Permits for development within the Lagoon Overlay Zone are subject to the submittal of a  
31 Polluted Runoff Control Plan, which shall describe how pollutant runoff will be minimized during  
32 construction.

33  
34 Chapter 30.75 of the City of Del Mar Local Coastal Plan contains ordinances specific to CDPs. Major  
35 public works projects and/or energy facility projects within the Coastal Zone are subject to CDP issuance,  
36 pursuant to the provisions described in the California Coastal Act Section 30600. In instances in which a  
37 development project within the Coastal Zone would cross jurisdictional boundaries, as would the  
38 proposed project, the developer must obtain a CDP from each jurisdiction for the corresponding work that  
39 would occur in each area (City of Del Mar 2001).

### 5.9.3 Environmental Impacts and Assessment

#### Approach to Impact Assessment

The following impact analyses consider whether implementation of the proposed project would result in significant impacts to hydrology and water quality. The analyses focus on reasonably foreseeable project construction activities to result in substantial and adverse hydrological impacts compared to baseline conditions. The analyses use significance criteria based on the California Environmental Quality Act Appendix G Guidelines. They define potential direct and indirect effects of the proposed project during the construction and operation and maintenance phases, and identify mitigation measures to avoid or reduce significant impacts to hydrology and water quality.

#### Applicant-Proposed Measures

The applicant has not incorporated applicant-proposed measures (APMs) into the proposed project to specifically minimize or avoid impacts related to hydrology and water quality. A list of all project APMs is included in Table 4.-1. However, as part of the process required to obtain a Construction General Permit (Order 2009-0009-DWQ [as amended by 2010-0014-DWQ and 2012-0006-DWQ] and a NPDES permit for Phase II Small MS4s, the applicant would develop a Stormwater Pollution and Prevention Plan (SWPPP) with best management practice measures, including (but not necessarily limited to) the following, to prevent stormwater runoff, erosion, sedimentation, and pollution associated with project construction (County of San Diego Department of Planning and Land Use 2010):

- Silt fences for onsite soil retention and along streams, channels, and project boundaries;
- Preservation of existing vegetation to the extent practicable;
- Identification of pollutant sources and non-stormwater discharges that could result from project construction;
- Consideration of temporary soil stabilization methods such as mulch, hydroseeding, and/or approved mats or blankets in disturbed/graded areas for erosion control;
- Fiber/straw wattles along grade breaks, stockpiles, perimeters, etc.;
- Gravel bags and sandbag barriers for flow diversion or parallel to roadways to keep sediment off of paved areas; and
- Using dewatering strategies such as a dewatering tank, or a sediment/desilting basin, in the instance of a need to conduct dewatering activities associated with trenching.

#### Significance Criteria

Table 5.9-2 includes the significance criteria from Appendix G of the CEQA Guidelines' hydrology and water quality section to evaluate the environmental impacts of the proposed project.

Table 5.9-2 Hydrology and Water Quality Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Expose people or structures to a significant risk of inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1  
2 The project would result in the installation of some permanent features, including one aboveground pad-  
3 mounted transformer within a 4.2-foot tall steel enclosure along the underground duct bank route, and  
4 steel and wood poles. All other existing project features would be removed from their existing alignment,  
5 and either be topped in their existing locations or installed underground in existing right-of-way (ROW)  
6 that would be backfilled to preexisting conditions or realigned to existing poles. There would therefore be  
7 substantial increase in the footprint of impervious surfaces within the project alignment upon project

1 completion, when compared to existing conditions. No permanent operational features associated with the  
2 project components would involve altering the existing course of a stream, river, or water feature or  
3 would increase the potential for flooding within or surrounding the project alignment. Project operation  
4 and maintenance activities would occur within an existing ROW where utilities operations and  
5 maintenance activities already occur, and there would be no change of such activities associated with  
6 project construction, with respect to hydrology.

7  
8 ***a. Would the project violate any water quality standards or waste discharge requirements?***  
9

10 Trenching activities associated with underground duct bank construction could potentially encounter  
11 water, which would require dewatering activities. However, strategies to manage project-related water  
12 resources, would be part of SDG&E's mandatory Stormwater Pollution and Prevention Plan (SWPPP).  
13 The approved SWPPP would incorporate measures such as desiltation tanks and/or additional treatment  
14 or filtering methods that would be performed until and encountered water meets applicable permit  
15 requirements. The SWPPP would also apply to the potential for stormwater runoff, sedimentation, and  
16 other water-related concerns during project construction. In operation, the proposed project would not  
17 discharge any water. Therefore, through incorporation of the SWPPP, no violations of water quality  
18 standards or waste discharge requirements are anticipated, and impacts would be less than significant.  
19

20 **Significance: Less than Significant**  
21

22 ***b. Would the project substantially deplete groundwater supplies or interfere substantially with***  
23 ***groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the***  
24 ***local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a***  
25 ***level which would not support existing land uses or planned uses for which permits have been***  
26 ***granted)?***  
27

28 As indicated in the ~~Section~~ Chapter 4.0, "Project Description", and 5.3, "Air Quality", the proposed  
29 project would require water to suppress fugitive dust on non-paved portions of roads and access ways  
30 throughout the project alignment. SDG&E estimates that between 584,000 and up to 700,000 gallons of  
31 water (or about 2 acre-feet) would be required for this effort. This is considered a conservative estimate  
32 because the data assumes a 20 percent buffer for areas surrounding stringing sites, fly yards, staging  
33 yards, work areas, and existing access roads where dust suppression may be necessary, and a 0.05-inch  
34 deep treatment area across all described work areas (SDG&E 2018). SDG&E and/or its contractors would  
35 acquire this water from municipal water suppliers and in so doing would not result in depletion of  
36 groundwater supplies or interfere with ground water recharge. The proposed project's operation and  
37 maintenance activities would not alter water usage within the area from its current conditions in a way  
38 that would deplete groundwater supplies or interfere with groundwater recharge. Therefore, no  
39 operational impacts to groundwater resources are anticipated.  
40

41 **Significance: Less than Significant**  
42

1 *c. Would the project substantially alter the existing drainage pattern of the site or area, including*  
2 *through the alteration of the course of a stream or river, in a manner, which would result in*  
3 *substantial erosion or siltation on- or off-site?*  
4

5 Trenching activities during construction would be temporary and would occur in segments of 300 to 500  
6 feet. If a rain event were to occur during trenching activities, water could drain into the trench, which  
7 would be a substantial change in the existing drainage pattern of the site or area and could result in  
8 erosion, siltation, or sedimentation.  
9

10 During construction, equipment would be staged adjacent to active waterways, including streams and  
11 rivers, but not within active waterways such that equipment or project-related activities would alter  
12 existing drainage patterns or stream/river courses in a manner that would lead to erosion or siltation. The  
13 four project laydown yards and staging areas would be placed entirely within flat, previously disturbed, or  
14 developed areas (two on flat, pre-compacted dirt in developed areas, one within an athletic field, and one  
15 within a parking lot), so staging yard preparation would not involve substantial earth moving that could  
16 alter existing drainage patterns. Grading throughout construction would be minor and may be required  
17 incidentally within portions of the 24 0.1-acre stringing sites associated with overhead power line  
18 construction, depending on topography. Most stringing sites are located along existing roadways or in  
19 pre-disturbed areas adjacent to existing poles and would not require substantial grading. Additionally,  
20 helicopter activities within the San Dieguito Lagoon and Los Peñasquitos Lagoon would be brief  
21 (approximately 10 days), and work would be restricted to Helicopter Drop Zones (100 square feet to 256  
22 square feet), temporary footpaths/access roads, and work areas surrounding existing pole features during  
23 the dry season, when rain events that could cause interference between project activities and existing  
24 drainage patterns would be unlikely to occur.  
25

26 To minimize the potential for erosion or siltation associated with construction activities, the applicant  
27 would be required to develop a SWPPP that includes appropriate BMPs such as silt fencing and soil  
28 stabilization methods that would minimize erosion and/or siltation, to be submitted to the SWRCB for  
29 approval as part of compliance with the Construction General Permit. The SWPPP will additionally  
30 minimize the potential for increased flooding associated with construction activities.  
31

32 Upon installation, most of the proposed project would be within existing ROW, where operation and  
33 maintenance activities similar to those that would result from the proposed project already occur.  
34 Additionally, no new structures or operation and maintenance activities would substantially increase the  
35 extent of impervious surfaces within the project alignment or would alter the existing drainage pattern of  
36 the site or area, and no substantial surface runoff would occur from operation and maintenance procedures  
37 associated with the proposed project.  
38

39 **Significance: Less than Significant**  
40

41 *d. Would the project substantially alter the existing drainage pattern of the site or area, including*  
42 *through the alteration of the course of a stream or river, or substantially increase the rate or*  
43 *amount of surface runoff in a manner which would result in flooding on- or off-site?*  
44

45 No aspects of construction associated with the proposed project would alter existing drainage patterns  
46 associated with streams or rivers. No new paved areas would be installed as part of the proposed project.



1 Trenching activities would be temporary, and would occur in segments of 300-500 feet. If a rain event  
2 were to occur during trenching activities, water could drain into the trench, which would be a substantial  
3 change in the existing drainage pattern of the site or area. To minimize the potential for increased  
4 flooding associated with construction activities, the applicant shall adhere to protocols outlined in their  
5 required SWPPP, including appropriate BMPs that would minimize flooding.

6  
7 Upon installation, most of the proposed project would be within existing ROW, where operations and  
8 maintenance activities similar to those that would result from the proposed project already occur.  
9 Additionally, no new structures or operations and maintenance activities would substantially increase the  
10 extent of impervious surfaces within the proposed project alignment or would alter the existing drainage  
11 pattern of the site or area, no substantial surface runoff would occur from operations and maintenance  
12 procedures associated with the proposed project.

13  
14 **Significance: Less than Significant**

15  
16 *e. Would the project create or contribute runoff water which would exceed the capacity of existing or*  
17 *planned storm water drainage systems or provide substantial additional sources of polluted runoff?*  
18

19 Water use associated with project construction would be minimal and would primarily be associated with  
20 dust control on unpaved roads. Water application would be restricted to the amount necessary to control  
21 dust and would not result in substantial runoff.

22  
23 Upon installation, most of the proposed project would be within existing ROW, where operation and  
24 maintenance activities similar to those that would result from the proposed project already occur.  
25 Operation and maintenance activities associated with the proposed project would not require substantial  
26 water resources. Additionally, no new structures or operation and maintenance activities would  
27 substantially increase the extent of impervious surfaces within the proposed project alignment or would  
28 alter the existing drainage pattern of the site or area, and no substantial surface runoff would occur from  
29 operation and maintenance procedures associated with the proposed project.

30  
31 **Significance: No Impact**

32  
33 *f. Would the project otherwise substantially degrade water quality?*  
34

35 While the four laydown yards and staging areas would be restricted to flat, pre-disturbed areas, two of  
36 them (the Durante Fly Yard and the Torrey Pines Fly Yard) would be located adjacent to water features.  
37 If a spill were to occur within these staging areas/laydown yards, it could potentially enter nearby water  
38 features and degrade water quality. Spills within helicopter drop zones in the San Dieguito or Los  
39 Peñasquitos Lagoons could also substantially degrade water quality.

40  
41 To minimize the risk of contaminants and/or pollutants entering water bodies from laydown yards/staging  
42 areas, helicopter drop zones and associated work areas, the applicant shall adhere to **MM HAZ-1**, which  
43 would require the implementation of a Hazardous Materials and Waste Management Plan and Emergency  
44 Spill and Evacuation Training that, among other things, would train workers in appropriate spill  
45 prevention and response measures in the event that such a spill were to occur at a staging area/laydown  
46 yard, and would restrict fueling and equipment maintenance activities to laydown yards/staging areas to  
47 prevent the potential for spills within helicopter drop zones in the lagoons. Additionally, though

1 incorporation of the anti-erosion, runoff containment, and pollution prevention measures as defined by the  
2 applicant's required SWPPP, the applicant would reduce the risk of substantially degrading water quality  
3 through project construction activities. The SWPPP would also include BMPs prohibiting the  
4 accumulation of trash at work areas that could flow offsite and degrade water quality.  
5

6 Upon completion, most project components would be within existing ROW, where operation and  
7 maintenance activities similar to those that would result from the proposed project already occur.  
8 Operation and maintenance activities would not require the use of pollutants that could substantially  
9 degrade water quality. Additionally, no new structures or operation and maintenance activities would  
10 substantially increase the extent of impervious surfaces within the project alignment that could potentially  
11 inadvertently direct pollutants from offsite into nearby water resources, therefore substantially degrading  
12 water quality.  
13

14 **Significance: Less than Significant**

15  
16 *g. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood*  
17 *Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*  
18

19 There are no housing units or developments associated with the proposed project, and the proposed  
20 project would not redirect potential floodwaters to a new route with existing housing units. Therefore,  
21 there would be no impacts associated with proposed project's construction or operation and maintenance  
22 activities with respect to housing within a 100-year flood hazard area.  
23

24 **Significance: No Impact**

25  
26 *h. Would the project place within a 100-year flood hazard area structures, which would impede or*  
27 *redirect flood flows?*  
28

29 During construction, temporary structures such as fences, construction trailers, portable restrooms, and  
30 storage containers would be installed within the project alignment, which would be located partially  
31 within a 100-year flood hazard area. These structures would be small and impermanent, and would not  
32 impede or redirect flood flows during a significant flooding event.  
33

34 The only new permanent structures associated with operation and maintenance of the proposed project  
35 that would have a footprint within a 100-year flood hazard area would be an encased transformer, three  
36 steel poles, and five wood poles. All combined structures would have a total footprint of less than 0.01  
37 acres, across the approximately 7-mile-long proposed project alignment. The total footprint of these  
38 operational structures would not substantially redirect flood flows. Moreover, no project operation and  
39 maintenance activities would require the installation of any new impervious surfaces that could  
40 substantially redirect flood flow runoff or floodwaters.  
41

42 **Significance: No Impact**

43  
44 *i. Would the project expose people or structures to a significant risk of loss, injury or death involving*  
45 *flooding, including flooding as a result of the failure of a levee or dam?*  
46

47 Proposed project construction activities within and near the San Dieguito River would be located within a  
48 dam inundation hazard area, were the Lake Sutherland Dam or the Lake Hodges Dam to breach or require

1 emergency water discharge. Temporary construction-related structures such as fences, construction  
2 trailers, portable restrooms, and storage containers would be installed in areas adjacent to the San  
3 Dieguito River. These structures would be temporary and would not impede or redirect flood flows during  
4 significant flooding.  
5

6 Some proposed project activities would occur within the San Dieguito Lagoon, which would be subject to  
7 extreme flooding resulting from a dam inundation event. This would present a significant risk to  
8 construction workers. As a safety and protection measure, and in accordance with **MM HAZ-1**, the  
9 applicant shall develop a Dam Failure Evacuation Safety Training session as part of the Worker  
10 Environmental Awareness Program that would train workers in how to safely evacuate in the rare event of  
11 a dam failure that could inundate the San Dieguito River. In addition, in accordance with **MM BR-6** (see  
12 Section 5.4, “Biological Resources” for more information), work in the lagoon would be limited to  
13 September 1 to November 14, prior to the rainy season. Therefore, activities would be unlikely to  
14 coincide with extreme rain events that could yield upstream dam inundations.  
15

16 The only new permanent structures associated with operation and maintenance of the proposed project  
17 within a 100-year flood hazard area would be an encased transformer, three steel poles, and five wood  
18 poles. All combined structures would have a total footprint of less than 0.01 acres, across the  
19 approximately 7-mile-long project alignment. The total footprint of these operational structures would not  
20 substantially redirect flood flows. Additionally, there would be no increase in impervious surfaces  
21 associated with project operation and maintenance that would substantially redirect runoff associated with  
22 flood flows, or redirect floodwaters. Moreover, operation and maintenance activities within the project  
23 alignment would be sporadic, as upon completion the facility would not be permanently staffed. It would  
24 therefore be highly unlikely that staff would be present during a rare 100-year flood or dam inundation  
25 event.  
26

27 **Significance: Less than Significant with Mitigation Incorporation**  
28

29 *j. Would the project expose people or structures to a significant risk of inundation by seiche,*  
30 *tsunami, or mudflow?*  
31

32 Project construction activities within and near the San Dieguito Lagoon and the Los Peñasquitos Lagoon  
33 would occur within Tsunami Emergency Response Planning Zones (Cal OES 2015). During construction,  
34 temporary construction-related structures such as fences, construction trailers, portable restrooms, and  
35 storage containers would be installed in areas adjacent to the San Dieguito Lagoon and the Los  
36 Peñasquitos Lagoon. Such structures could potentially be damaged in the rare event of a tsunami. Upon  
37 completion, the proposed project’s removal of poles would result in fewer structures in the risk area than  
38 exist under current conditions. As such, the proposed project would not increase the risk of damage to  
39 infrastructure resulting from a tsunami inundation. During proposed project construction, employees  
40 would be familiar with safe evacuation procedures in accordance with **MM HAZ-1**, in the rare event of  
41 an emergency such as a potential tsunami during proposed project construction.  
42

43 No project component would traverse areas of high landslide risk. Identified hydrologic features that  
44 would be crossed by the proposed project include drainages, scours, and estuaries and associated estuarine  
45 components (tidal inlets, saltpan, and perennial marshlands). These are not the types of hydrologic

1 features that generally pose a high risk of seiches, which require closed or nearly closed basins, such as  
2 lakes and reservoirs. Therefore, the proposed project does not pose risk of exposure to seiche activity.

3  
4 Project operations and maintenance would be similar to those already occurring within existing utility  
5 ROW along the existing project alignment. Therefore, operation and maintenance activities would not  
6 increase people's risk of exposure to tsunamis, seiches, or mudflows. There will be some new permanent  
7 facilities associated with operation and maintenance of the proposed project that would be located within  
8 a tsunami risk zone, though these facilities would be replacing existing facilities also within the risk  
9 zones. There would therefore not be any changes in risk associated with operation and maintenance of the  
10 proposed project.

11 **Significance: Less than Significant with Mitigation Incorporation**

12  
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