

**TABLE OF CONTENTS**

**4.9 HYDROLOGY AND WATER QUALITY ..... 4.9-1**  
4.9.0 Introduction..... 4.9-2  
4.9.1 Methodology..... 4.9-2  
4.9.2 Existing Conditions..... 4.9-3  
4.9.3 Impacts..... 4.9-13  
4.9.4 Applicant-Proposed Measures ..... 4.9-19  
4.9.5 References..... 4.9-19

**LIST OF FIGURES**

Figure 4.9-1: Hydrologic Regions and Groundwater Basins Map ..... 4.9-9

**LIST OF TABLES**

Table 4.9-1: Hydrologic Units, Areas, and Subareas within the Proposed Project Area ..... 4.9-8  
Table 4.9-2: Beneficial Uses of Hydrological Features..... 4.9-12  
Table 4.9-3: 303(d)-Listed Waterbodies..... 4.9-13



#### 4.9 HYDROLOGY AND WATER QUALITY

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			✓	
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)?			✓	
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?			✓	
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?			✓	
e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			✓	
f) Otherwise substantially degrade water quality?			✓	
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?				✓

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				✓
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?			✓	
j) Cause inundation by seiche, tsunami, or mudflow?				✓

#### 4.9.0 Introduction

This section discusses the existing conditions in the area for the proposed San Diego Gas & Electric Company (SDG&E) TL674A Reconfiguration & TL666D Removal Project (Proposed Project) and assesses potential hydrology and water quality impacts that may occur as a result of implementing the Proposed Project. It also describes the potential impacts from construction and operation and maintenance (O&M) of the Proposed Project to these resources. The Proposed Project will implement a Storm Water Pollution Prevention Plan (SWPPP) and Spill Prevention, Control, and Countermeasure (SPCC) Plan, which are both required by law. The Proposed Project will also follow SDG&E’s Best Management Practices (BMPs) Manual for Water Quality Construction. As a result, the Proposed Project will result in a less-than-significant impact to hydrology and water quality.

#### 4.9.1 Methodology

Hydrology and water quality in the Proposed Project area were evaluated through a reconnaissance-level survey and review of the following:

- water quality studies and Environmental Impact Reports from other projects in the area,
- the Proposed Project’s Biological Resources Technical Report (BTR),
- county and city general plans,
- United States (U.S.) Geological Survey 7.5-minute series quadrangle maps,
- online geographic information system sources, and
- aerial photographs of the Proposed Project area.

The San Diego Regional Water Quality Control Board’s (RWQCB’s) Water Quality Control Plan for the San Diego Basin (Basin Plan) was reviewed to ensure compliance with state and local regulations. Federal Emergency Management Agency (FEMA) maps were referenced to determine the location and extent of flood zones. In addition, field surveys were conducted in September and October 2016 to map potential wetlands and drainages within the Proposed

Project study area. Additional detail on field survey methodology is provided in Section 4.4 Biological Resources.

## 4.9.2 Existing Conditions

### Regulatory Background

#### *Federal*

##### *Clean Water Act*

The Clean Water Act (CWA) (Title 33 of the U.S. Code [U.S.C.] § 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of waters of the U.S. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water.

##### *Clean Water Act Section 402*

The National Pollutant Discharge Elimination System (NPDES) program was established in 1972 to control discharges of pollutants from defined point sources (33 U.S.C. § 1342). The program originally focused on industrial process wastewater and publicly owned treatment works. In 1987, Section 402 of the CWA was amended to include requirements for five separate categories of storm water discharges, known as Phase I facilities. Phase I facilities include the following:

- facilities already covered by a NPDES permit for storm water,
- facilities that engage in industrial activities,
- large municipal separate storm drain systems that serve more than 250,000 people,
- medium municipal separate storm drain systems that serve between 100,000 and 250,000 people, and
- facilities that are considered significant contributors of pollutants to waters of the U.S.

The U.S. Environmental Protection Agency (EPA) issued a final rule for Phase II discharges in August 1995. Phase II storm water discharges include light industrial facilities, small construction sites (i.e., less than five acres), and small municipalities (i.e., populations of less than 100,000 people).

In California, NPDES permitting authority is delegated to, and administered by, the nine RWQCBs. On August 19, 1999, the State Water Resources Control Board (SWRCB) reissued General Permit for Stormwater Discharges Associated with Construction Activity (Water Quality Order 99-08-DWQ) and, later that year, amended the permit to apply to sites as small as one acre.

On September 2, 2009, the SWRCB adopted Order No. 2009-0009-DWQ (Construction General Permit), which reissued Water Quality Order 99-08-DWQ for projects disturbing one or more acres of land, or that are part of a common plan of development or sale that disturbs more than one acre of land where the rainfall erosivity waiver does not apply. The new permit became

effective July 1, 2010, whereby all existing dischargers and new dischargers are required to obtain coverage under the new permit by submitting Permit Registration Documents.

The Construction General Permit requires the implementation of a SWPPP, which must be prepared before construction begins and kept on site throughout the construction process. In accordance with Order No. 2009-0009-DWQ, the SWPPP must include the following:

- identification of pollutant sources and non-storm water discharges associated with construction activity;
- specifications for BMPs that will be implemented during project construction to minimize the potential for accidental releases and runoff from the construction areas, including temporary construction yards, pull sites, and other temporary work areas;
- calculations and design details, as well as BMP controls for site run-on;
- BMPs used to eliminate or reduce pollutants after construction is complete; and
- certification from a Qualified SWPPP Developer.

While the SWPPP lays out the groundwork for compliance with the Construction General Permit, it is also a repository for completed Rain Event Action Plans (REAPs). During construction, the REAP is a site-specific plan that addresses rain events for each specific phase of construction. The REAP was not previously required under Water Quality Order 99-08-DWQ.

#### *Clean Water Act Section 404*

Section 404 of the CWA authorizes the U.S. Army Corps of Engineers (USACE) to regulate the discharge of dredged or fill material to waters of the U.S., including wetlands (33 U.S.C. § 1344). The USACE issues individual site-specific permits or general permits (i.e., Nationwide Permits or Regional General Permits) for such discharges. The term Waters of the U.S. is defined by 33 Code of Federal Regulations Part 328 and currently includes: (1) all navigable waters (including all waters subject to the ebb and flow of the tide), (2) all interstate waters and wetlands, (3) all other waters (e.g., lakes, rivers, intermittent streams) that could affect interstate or foreign commerce, (4) all impoundments of waters mentioned previously, (5) all tributaries to waters mentioned previously, (6) the territorial seas, and (7) all wetlands adjacent to waters mentioned previously.

#### *Clean Water Act Section 401*

Under Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters must provide the licensing or permitting agency with a Water Quality Certification that the discharge will comply with the applicable CWA provisions or a waiver (33 U.S.C. § 1341). If a federal permit is required, such as a USACE permit for dredged and fill discharges, the project proponent must also obtain a Water Quality Certification from the RWQCB.

*Clean Water Act Sections 303 and 304*

Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the U.S. (33 U.S.C. § 1313). Section 304(a) requires the U.S. EPA to publish water quality criteria that accurately reflect the latest scientific knowledge on the kind of effects and extent of effects that pollutants in water may have on health and welfare (33 U.S.C. § 1314(a)). Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality standards are typically numeric, although narrative criteria based on biomonitoring methods may be employed when numerical standards cannot be established or when they are needed to supplement numerical standards.

Section 303(c)(2)(b) of the CWA requires states to adopt numerical water quality standards for toxic pollutants for which the U.S. EPA has published water quality criteria and which could reasonably be expected to interfere with designated uses in a waterbody.

Under Section 303(d) of the CWA, states, territories, and authorized tribes are required to develop a list of waterbodies where beneficial uses are impaired. The waters on the list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish priority rankings for water segments on the lists and develop action plans, called Total Maximum Daily Loads, to improve water quality.

*Rivers and Harbors Appropriation Act Section 10*

Section 10 of the Rivers and Harbors Appropriation Act of 1899 (33 U.S.C. § 401 et seq.) makes it unlawful to obstruct or alter a navigable river or other navigable water of the U.S.

Construction, excavation, or deposition of materials in, over, or under such waters—or any work that will affect the course, location, condition, or capacity of those waters—require a Section 10 permit and approval from the USACE.

*National Flood Insurance Program*

FEMA is responsible for determining flood elevations and floodplain boundaries based on USACE studies. FEMA is also responsible for distributing the Flood Insurance Rate Maps (FIRMs) used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas, including the 100-year floodplain. FEMA allows non-residential development in floodplains; however, construction activities are restricted within flood hazard areas, depending on the potential for flooding within each area. Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations, enabling FEMA to require municipalities that participate in the NFIP to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains.

*State, Regional, and Local*

The Proposed Project is not subject to local discretionary regulations because the California Public Utilities Commission (CPUC) has exclusive jurisdiction over the siting, design, and construction of the Proposed Project. San Diego Gas & Electric Company (SDG&E) would

comply, when applicable, with the local stormwater ordinances and construction permits and guidelines within each jurisdiction where the project would be constructed.

#### *California Fish and Game Code*

Sections 1601 through 1606 of the California Fish and Game Code require a Lake or Streambed Alteration Agreement (LSAA) between the California Department of Fish and Wildlife (CDFW) and an entity proposing to substantially divert or obstruct the natural flow or affect changes to the bed, channel, or bank of any river, stream, or lake. The LSAA is designed to protect the fish and wildlife resources of a river, lake, or stream.

#### *State Water Resources Control Board Order 2001-11-DWQ*

The SWRCB adopted the Statewide General NPDES Permit for Discharges from Utility Vaults & Underground Structures to Surface Waters (General Permit CAG990002) in 2001. This permit authorizes permittees to discharge uncontaminated water from vaults and substructures to surface waters during the operational phase of projects.

#### *Porter-Cologne Water Quality Control Act*

The Porter-Cologne Water Quality Control Act of 1967 (California Water Code Section 13000 et seq.) requires the SWRCB and the nine RWQCBs to adopt water quality criteria to protect waters of the State. These criteria include the identification of beneficial uses, narrative and numerical water quality standards, and implementation procedures. The criteria for the Proposed Project area are contained in the San Diego RWQCB's Basin Plan.

#### *San Diego Regional Water Quality Control Board Basin Plan*

The San Diego RWQCB (Region 9) is responsible for protecting the beneficial uses of surface water and groundwater resources in the San Diego area. The RWQCB adopted the Basin Plan in September 1994. The plan sets forth implementation policies, goals, and water management practices in accordance with the Porter-Cologne Water Quality Control Act and establishes both numerical and narrative standards and objectives for water quality aimed at protecting aquatic resources. Discharges to surface waters within the approximately 3,900 square miles of the San Diego Basin are subject to the regulatory standards set forth in the Basin Plan, which prevents the unauthorized discharge of pollutants into waters of the U.S. and State. NPDES permits, waste discharge requirements (WDRs), and waivers are mechanisms used by the RWQCB to control discharges and protect water quality.

#### *San Diego Regional Water Quality Control Board Municipal Storm Water Permit*

The San Diego RWQCB issued the San Diego Municipal Permit Order No. R9-2013-0001 (NPDES No. CAS0109266) to the County of San Diego, the San Diego Unified Port District, San Diego Regional Airport Authority, and 18 cities in San Diego County (Co-permittees) with the primary goal of preventing polluted discharges from entering the storm water conveyance system and local receiving and coastal waters. Pursuant to the permit, the Co-permittees are required to develop and implement measures that will address and prevent pollution from development projects. Priority development projects are also required to include BMPs in the permanent design to reduce pollutant discharges from project sites.



*State Water Resources Control Board Order 2014-0174-DWQ*

The SWRCB adopted a revised statewide permit for dewatering utility vaults and underground structures (Statewide General NPDES Permit for Discharges from Utility Vaults and Underground Structures to Surface Waters [General Permit CAG990002]) in 2014. This permit authorizes permittees to discharge uncontaminated water from vaults and substructures to surface waters during the operational phase of projects.

*California Coastal Act*

New development proposed within the coastal zone must receive a Coastal Development Permit, exemption, or waiver from the California Coastal Commission (CCC), in accordance with the California Coastal Act of 1976. On land, the coastal zone varies in width from several hundred feet in highly urbanized areas, up to 5 miles in certain rural areas. The CCC has jurisdiction over any wetlands, streams, lakes, and other freshwater resources within the coastal zone. The CCC works in partnership with certified Local Coastal Programs and Land Use Plans, which provide basic planning strategies to the 75 coastal cities and counties that regulate local development.

*County of San Diego Standard Urban Stormwater Mitigation Plan*

To comply with the San Diego RWQCB's San Diego Municipal Permit (NPDES No. CAS0109266), a Standard Urban Stormwater Mitigation Plan (SUSMP) was developed for San Diego County. A Storm Water Management Plan that complies with the criteria provided in the SUSMP must be developed for applicable priority development projects in San Diego County.

**General Setting**

The Proposed Project is located in coastal San Diego County. San Diego is considered to have a Mediterranean climate, with sunny days 70 percent of the year. Most of San Diego County's annual rainfall occurs during the winter months, with 50 percent falling from December to February. Annual average precipitation for the Proposed Project area is approximately 10.1 inches per year. The Proposed Project area ranges in elevation from approximately mean sea level (MSL) to 403 feet above MSL, with the lowest elevation in the San Dieguito and Los Peñasquitos lagoons and the highest elevation near Pole 73, near the Red Ridge Loop Trail.

The Proposed Project is located in the San Diego River Hydrologic Basin Region (San Diego Region), which covers approximately 3,900 square miles in the southwestern portion of California and includes the majority of San Diego County and portions of Riverside and Orange counties. The San Diego Region is bounded as follows:

- to the west by 85 miles of the Pacific Ocean coastline;
- to the north by the hydrologic divide starting near the City of Laguna Beach and extending inland through the City of El Toro and along the ridge of the Elsinore Mountains into the Cleveland National Forest;
- to the east by the Laguna Mountains and the mountains of Cleveland National Forest; and
- to the south by the U.S.-Mexico border.

One of the most significant geographic features in the region is the Peninsula Range, which is characterized by a gently sloped western surface and steeply sloped eastern surface. The Peninsula Range includes the Santa Ana, Agua Tibia, Palomar, Volcan, Cuyamaca, and Laguna mountains.

The San Diego Region is divided into 11 hydrologic units (HUs), 54 hydrologic areas (HAs), and 147 hydrologic subareas (HSAs). As defined in the San Diego RWQCB's Basin Plan, HUs encompass the entire watershed of one or more streams; HAs encompass major tributaries and/or major groundwater basins within an HU; and HSAs encompass major subdivisions of HAs, including both water-bearing and non-water-bearing formations. Each HU is identified by a unique hydrologic unit code.

The Proposed Project is situated within the San Dieguito HU (905.00) and Peñasquitos HU (906.00). Table 4.9-1: Hydrologic Units, Areas, and Subareas within the Proposed Project Area lists the HUs, HAs, and HSAs that occur within the Proposed Project area, and Figure 4.9-1: Hydrologic Regions and Groundwater Basins Map depicts the locations of these areas. Each of the HUs within the Proposed Project area ultimately flows west to the Pacific Ocean, which ranges from 0.4 to two miles west of the Proposed Project, depending on location.

**Table 4.9-1: Hydrologic Units, Areas, and Subareas within the Proposed Project Area**

HU	HA	HSA
San Dieguito (905.00)	Solana Beach (905.10)	Rancho Santa Fe (905.11)
Peñasquitos (906.00)	Miramar Reservoir (906.10)	--

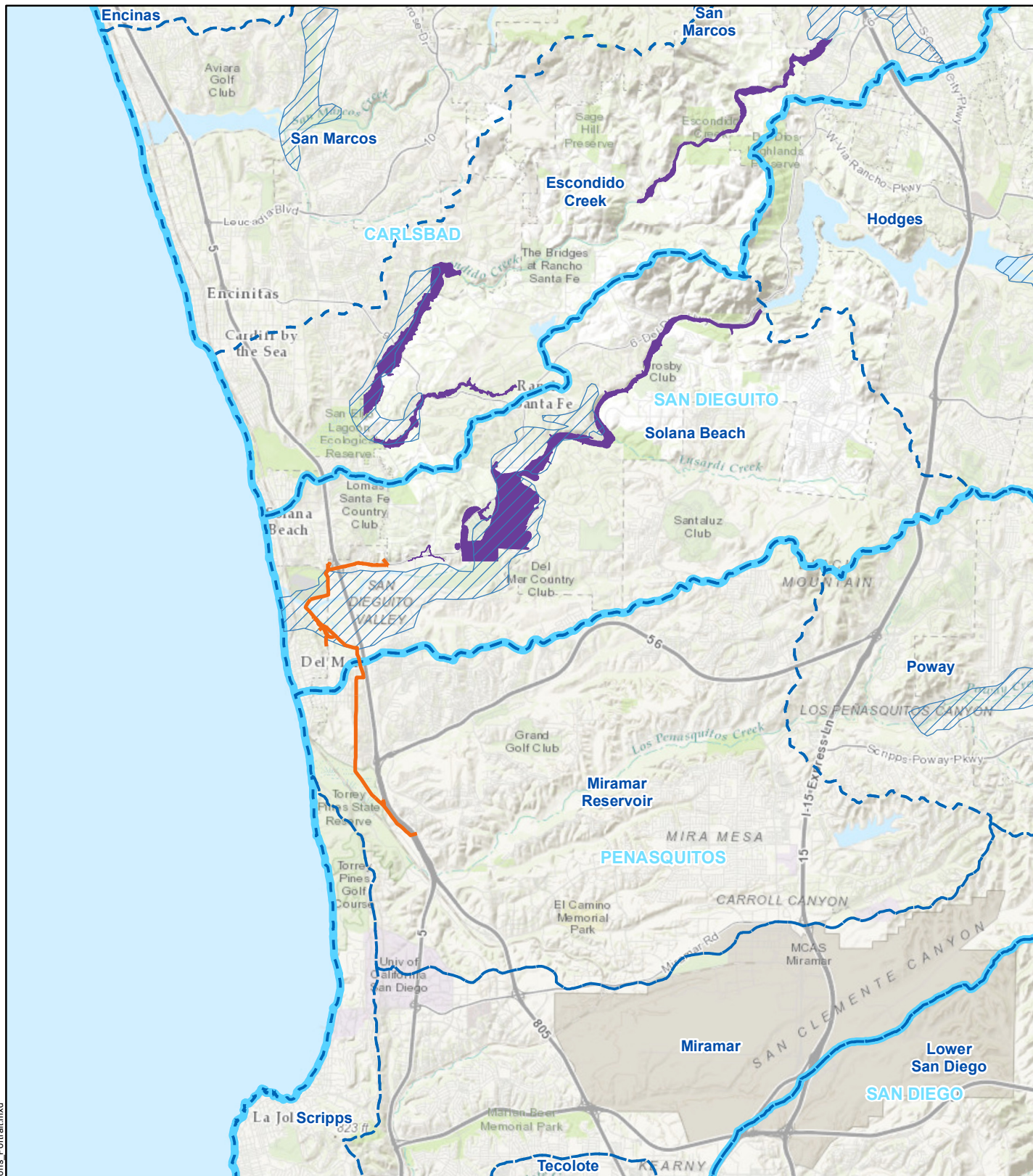
Source: AECOM, 2017

### ***San Dieguito Hydrologic Unit***

The San Dieguito HU extends across approximately 346 square miles of west-central San Diego County. The watershed encompasses portions of the cities of Del Mar, Escondido, Poway, San Diego, and Solana Beach, as well as unincorporated areas of San Diego County. The San Dieguito River, the main drainage channel, forms in eastern San Diego County in the Volcan Mountain Wilderness Preserve. The watershed supports five water storage reservoirs (i.e., Lake Hodges, Lake Sutherland, Lake Poway, Olivenhain Reservoir, and San Dieguito Reservoir) and one coastal lagoon (i.e., the San Dieguito Lagoon). The San Dieguito Lagoon is located in the City of Del Mar at the mouth of the San Dieguito River and is usually isolated from the Pacific Ocean by a sandbar.

### ***Peñasquitos Hydrologic Unit***

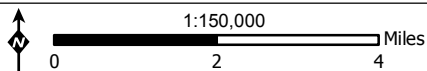
The Peñasquitos HU encompasses the Los Peñasquitos Creek Watershed, the Mission Bay Watershed, and several coastal tributaries, all of which drain a highly urbanized area in coastal San Diego County. The Peñasquitos HU encompasses approximately 170 square miles, extending from the City of Poway on the east to the City of La Jolla on the west. There are no major streams in this HU, but it is drained by numerous creeks. Miramar Reservoir, a major storage facility within this HU, contains imported Colorado River water. These watersheds discharge mainly into Los Peñasquitos Lagoon and Mission Bay.



**Figure 4.9-1: Hydrologic Regions and Groundwater Basins Map**

**TL674A Reconfiguration & TL666D Removal Project**

- Proposed Project
- Hydrologic Unit
- Hydrologic Area
- Groundwater Basin
- 100-Year Floodplain





## Surface Waters

The Proposed Project crosses the San Dieguito Lagoon and Los Peñasquitos Lagoon, as well as six unnamed drainages under the jurisdiction of the USACE, CDFW, RWQCB, and the CCC. The Proposed Project study area also contains approximately 8.5 acres of potential waters of the U.S. and 52 acres of potential wetlands under the jurisdiction of the USACE, CDFW, RWQCB, and CCC. The Proposed Project also crosses six non-jurisdictional brow ditches or erosional features. The results of the jurisdictional wetlands assessment are provided in the BTR.

## Groundwater

The Proposed Project is located in the San Diego Subregion of the South Coast Hydrologic Region of California. Within the San Diego Subregion, there are 27 delineated groundwater basins. While the majority of the Proposed Project is not located within a groundwater basin, approximately two miles of the TL666D removal is underlain by the San Dieguito Creek Groundwater Basin. This approximately 3,560-acre basin in coastal, central San Diego County is bounded to the west by the Pacific Ocean and elsewhere by nonwater-bearing parts of the La Jolla Group, a geologic unit consisting mostly of sandstone, shales, and conglomerates that exists throughout much of coastal San Diego County. The California Department of Water Resources (DWR) calculated the total storage for the San Dieguito Creek Groundwater Basin to be approximately 63,000 acre-feet (California DWR 2012). There are no estimates for the amount of groundwater currently stored in the San Dieguito Creek Groundwater Basin.

Natural recharge of the basin is primarily from percolation of flow in the San Dieguito River. Additional sources of natural recharge may include percolation of precipitation to the valley floor, underflow beneath the Hodges Dam, and underflow through the La Jolla Group sediments. Return from irrigation is also estimated to range from 160 to 210 acre-feet per year. The average annual precipitation across the basin ranges from seven to 11 inches, and groundwater wells in the San Dieguito Creek Groundwater Basin yield an average of approximately 700 gallons per minute. Historically, groundwater has flowed west toward the Pacific Ocean. However, recent pumping depressions have created an inland flow of seawater.

## Surface Water Quality

The Basin Plan designates beneficial uses for surface and groundwaters in the basin, and it also sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and to conform to the state's antidegradation policy. Table 4.9-2: Beneficial Uses of Hydrological Features describes the designated beneficial use of each surface water located with the Proposed Project area.

Table 4.9-3: 303(d)-Listed Waterbodies presents the two waterbodies within the Proposed Project work areas are listed as impaired pursuant to Section 303(d) of the CWA. Stringing Sites 3, 4, 5, 6, and 7, as well as 13 work areas for the TL666 removal, are located adjacent to the San Dieguito River. Nine work areas for the TL666D removal are located within the Los Peñasquitos Lagoon.

**Table 4.9-2: Beneficial Uses of Hydrological Features**

Beneficial Uses	Waterbody	
	San Dieguito Lagoon	Los Peñasquitos Lagoon
Industrial Service Supply (IND)		
Navigation (NAV)		
Contact Water Recreation (REC1)	•	•
Non-contact Water Recreation (REC2)	•	•
Commerical and Sport Fishing (COMM)		
Preservation of Biological Habitats of Special Significance (BIOL)	•	•
Estuarine Habitat (EST)	•	•
Wildlife Habitat (WILD)	•	•
Rare, Threatened, or Endangered Species (RARE)	•	•
Marine Habitat (MAR)	•	•
Aquaculture (AQUA)		
Migration of Aquatic Organisms (MIGR)	•	•
Spawning, Reproduction, and/or Early Development (SPWN)	•	•
Shellfish Harvesting (SHELL)	•	

Source: San Diego RWQCB, 2016

**Table 4.9-3: 303(d)-Listed Waterbodies**

<b>Waterbody</b>	<b>Water Type</b>	<b>Pollutants (Potential Sources)</b>	<b>Approximate Area Assessed</b>
San Dieguito River	River and Stream	<ul style="list-style-type: none"> <li>• Enterococcus (Non-Point Source, Point Source, Urban Runoff/Storm Sewers)</li> <li>• Fecal Coliform (Non-Point Source, Point Source, Urban Runoff/Storm Sewers)</li> <li>• Nitrogen (Non-Point Source, Point Source, Urban Runoff/Storm Sewers)</li> <li>• Phosphorus (Non-Point Sources, Point Sources, Urban Runoff/Storm Sewers)</li> <li>• Total Dissolved Solids (Non-Point Sources, Point Sources)</li> <li>• Toxicity (Source Unknown)</li> </ul>	19 miles
Los Peñasquitos Lagoon	Estuary	<ul style="list-style-type: none"> <li>• Sedimentation (Non-Point Source, Point Source)</li> </ul>	469 acres

Source: AECOM, 2017

**Floodplains**

According to FEMA’s FIRMs, the Proposed Project crosses 100-year floodplains. These floodplains are represented by a number of different FEMA zones, including Zones A, AE, AO, D, and X. Of these different zones, those with ratings of A, AE, and AO represent 100-year flood zones. The TL666D removal crosses approximately 1.6 miles of a 100-year flood zone within and near San Dieguito Lagoon, and approximately one mile of a 100-year floodplain within and near Los Peñasquitos Lagoon.

**Dam Failure Inundation Areas**

The California Governor’s Office of Emergency Services is responsible for the identification of areas of potential inundation in the event of dam failures throughout California. The Proposed Project is located within inundation areas for the following three dams:

- Lake Hodges Dam,
- Lake Miramar Dam, and
- Sutherland Dam.

**4.9.3 Impacts**

**Significance Criteria**

According to Appendix G of the California Environmental Quality Act Guidelines, impacts to hydrology and water quality will be considered significant if the Proposed Project:

- Violates any water quality standards or WDRs

- Substantially depletes groundwater supplies or interferes substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level
- Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site
- Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increases the rate or amount of surface runoff in a manner that would result in flooding on site or off site
- Creates or contributes to runoff water that would exceed the capacity of existing or planned storm water drainage systems, or provides substantial additional sources of polluted runoff
- Otherwise substantially degrades water quality
- Places housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary, FIRM, or other flood hazard delineation map
- Places structures that would impede or redirect flood flows within a 100-year flood hazard area
- Exposes 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
- Causes inundation by seiche, tsunami, or mudflow

#### **Question 4.9a – Water Quality Standards and Waste Discharge Violations**

##### ***Construction – Less-than-Significant Impact***

Construction of the Proposed Project will comply with the wastewater requirements of the San Diego RWQCB. The Proposed Project will cross the San Dieguito River and Los Peñasquitos Lagoon, which are both 303(d)-listed waterbodies. The San Dieguito River is impaired due to enterococcus, fecal coliform, nitrogen, phosphorus, total dissolved solids, and toxicity; and the Los Peñasquitos Lagoon is impaired due to sedimentation and siltation. The Proposed Project will not contribute to these water quality impairments as there are no anticipated discharges of enterococcus, fecal coliform, nitrogen, phosphorus, total dissolved solids, toxicity, or sedimentation and siltation.

Construction of the Proposed Project will result in ground-disturbing activities that could expose soil to erosion and subsequent sedimentation. Sediment transport from construction work areas to adjacent water resources could contribute to water quality degradation and violate regulatory standards. Sediment can cause turbidity, bury riparian habitat, impair recreational uses, and transport other pollutants. Sedimentation from work areas will primarily occur from vehicles tracking and transporting soil onto adjacent paved surfaces. Sediment transport from work areas



could also occur from surface water run-on and runoff, heavy rains, or overwatering during grading or dust-abatement activities. As discussed in Section 4.6 Geology and Soils, the Proposed Project is primarily located within a coastal region made up of moderately well-drained to well-drained soils with slight to severe erosion potential. To address the potential for erosion and sedimentation, SDG&E will conduct a risk assessment prior to construction and prepare a Proposed Project-specific SWPPP in accordance with the Construction General Permit requirements described in Section 4.9.2 Existing Conditions. The risk assessment will take into consideration the receiving waters, soil type, slopes, construction duration, and rainfall to determine the potential erosion and estimate the volume of sediment that could be discharged from disturbed areas during the Proposed Project. Based on the risk assessment, site-specific BMPs will be identified in the SWPPP that will ensure water quality standards are met. BMPs to be implemented will include erosion control and stabilization, sediment controls, good housekeeping measures, waste management and hazardous materials controls, and guidelines for working around waterbodies. Any grading that will occur in these areas will be stabilized during construction and following its completion. Implementation of the SWPPP will ensure that the Proposed Project will meet water quality and waste discharge standards. Therefore, impacts will be less than significant.

Hazardous materials used during construction (e.g., diesel fuel, hydraulic fluid, oils, grease, and concrete) have the potential to be transported by storm water runoff. These hazardous materials could violate water quality standards if they come in contact with storm water and/or are transported to nearby water resources. The handling, storage, and disposal of potentially hazardous materials are discussed in Section 4.8 Hazards and Hazardous Materials, and specific measures to manage hazardous materials will be addressed in the SWPPP and in the Hazardous Materials Management Plan (HMMP) prepared for the Proposed Project. As a result, impacts will be less than significant.

During construction, portable toilets will be provided for on-site use by construction workers and will be maintained by a licensed sanitation contractor. Portable toilets will be used in accordance with applicable sanitation regulations established by the Occupational Safety and Health Administration, which generally require one portable toilet for every 10 workers. The amount of wastewater associated with the portable toilets will be commensurate with the number of workers on site during construction (i.e., six to 125 workers). Therefore, the maximum volume of wastewater that will be generated during a single week of construction is estimated to be 60 to 1,120 gallons.<sup>1</sup> The licensed contractor will dispose of the waste at an off-site location and in compliance with standards established by the local regulatory agency. As a result, impacts will be less than significant.

In the event that groundwater is encountered, it will be treated and discharged in accordance with applicable permits or taken to an off-site facility for disposal.

---

<sup>1</sup> Industry standard rates assume that one portable toilet provides adequate restroom facilities for 10 people for one standard workweek. SDG&E estimates that up to 124 personnel may be required to construct the Proposed Project during the peak of construction. Estimated volumes were calculated assuming that 124 personnel will require at least 16 portable restrooms. The estimated volume range of 60 to 1,120 gallons per week was calculated using industry standard capacities for portable toilet wastewater, which were 60 and 70 gallons, respectively.

In summary, the Proposed Project will expose soil to erosion and sedimentation; however, a SWPPP will be prepared and implemented to minimize the potential for adverse effects to water quality from erosion and sedimentation. In addition, hazardous materials will also be used during construction, but the handling, storage, and disposal of these materials will be addressed in the SWPPP and HMMP, thereby reducing impacts to less than significant. With implementation of the Proposed Project-specific BMPs provided in the SWPPP and adherence to the Construction General Permit, the Proposed Project is not expected to violate water quality standards or WDRs. Therefore, no wastewater treatment established by the local regulatory agencies will be exceeded, and impacts will be less than significant.

### ***Operation and Maintenance – Less-than-Significant Impact***

O&M activities for the Proposed Project will be continue to be conducted in the same manner as they have been prior to construction of the Proposed Project. As described in Chapter 3 – Project Description, the proposed underground duct banks within Via De La Valle will be installed parallel to existing facilities where O&M activities are currently being conducted. The TL666D removal will eliminate all future O&M activities associated with these facilities. The C510 and C738 conversions will eliminate O&M requirements associated with approximately 4,530 feet of existing overhead distribution line. Although these conversions will introduce approximately 4,230 feet of new underground duct bank, SDG&E currently owns and operates existing underground distribution facilities in the vicinity of these Proposed Project components. In addition, the C738 conversion will involve the installation of underground facilities in the same general location as the existing overhead facilities that will be removed. Based on the removal of existing overhead facilities and the installation of Proposed Project components in areas already covered by existing O&M activities, post-construction O&M requirements in the Proposed Project area will be reduced, and no new impacts will occur.

Further, O&M activities typically do not impact water quality as ground-disturbing activities are not typically part of O&M. However, if ground disturbance is necessary, BMPs will be implemented to protect water quality. Therefore, impacts will be less than significant.

### **Question 4.9b – Groundwater Depletion or Recharge**

#### ***Construction – Less-than-Significant Impact***

Construction of the Proposed Project will generally occur above the groundwater table and will not encounter groundwater. However, trenching activities may encounter groundwater that will be dewatered in order to maintain a safe work area and/or to complete tie-ins. The amount of groundwater that is anticipated to be dewatered is expected to be minimal, and dewatering will be temporary and localized in nature. In addition, groundwater may be discharged to land or surface waters and allowed to percolate back into the groundwater system. Water required for dust control will be obtained from a municipal source and will not affect local groundwater supplies. Any groundwater encountered during construction will not be used for dust control. Further, construction is not expected to interfere with storm water infiltration and/or groundwater recharge because the site will be approximately 100-percent pervious during the construction phase. Therefore, impacts to groundwater supplies and recharge will be less than significant.

***Operation and Maintenance – No Impact***

O&M activities for the Proposed Project will be continue to be conducted in the same manner as they have been prior to construction of the Proposed Project. Long-term O&M of the Proposed Project will not deplete groundwater. The Proposed Project will not expand impervious surfaces that will preclude groundwater recharge. Therefore, no impact to groundwater will result.

**Question 4.9c – Drainage Patterns – Erosion/Siltation*****Construction – Less-than-Significant Impact***

Construction-related activities will result in minor deviations to the existing drainage patterns on site, due to minor grading and construction or removal of the Proposed Project components. Such changes will not substantially increase the existing velocity or volume of storm water flows either on site or in off-site areas. All areas disturbed during grading will be restored to their original contours, and the surrounding area will be restored and repaired, as appropriate. Therefore, the drainage patterns in the Proposed Project area will return to near pre-construction conditions, and the Proposed Project will not significantly alter the existing, on-site drainage patterns or significantly increase the amount of runoff generated from the site. No net change will occur in the amount of storm water released from the Proposed Project area, which will preclude any off-site soil erosion that may otherwise result. Impacts to drainage patterns, as well as subsequent erosion and off-site siltation resulting from construction of the Proposed Project, will be less than significant.

***Operation and Maintenance – No Impact***

As described previously in response to Question 4.9a, O&M activities will be reduced as part of the Proposed Project due to the TL666D removal and the placement of new facilities adjacent to existing ones. These new facilities will be operated and maintained in the same manner as the existing facilities. Once construction of the Proposed Project components has been completed, no additional changes to on-site or off-site drainages are anticipated. The Proposed Project will not result in the potential for increased runoff volumes, and storm water facilities in the surrounding area will not be further affected. Therefore, no impact resulting from storm water runoff or flooding is anticipated from O&M of the Proposed Project.

**Question 4.9d – Drainage Patterns – Runoff/Flooding*****Construction – Less-than-Significant Impact***

As discussed in the response to Question 4.9c, construction-related activities will result in minor deviations to the existing drainage patterns on site. Such changes will not substantially increase the existing velocity or volume of storm water flows either on site or in off-site areas. As such, flow rates and volumes will not be substantially altered, and potential impacts from runoff or flooding will be less than significant.

***Operation and Maintenance – No Impact***

As described previously in response to Question 4.9a, O&M activities will be reduced as part of the Proposed Project. Once construction of the Proposed Project facilities and associated improvements has been completed, no additional changes to on-site or off-site drainage are anticipated. The Proposed Project will not result in the potential for increased runoff volumes,

and storm water facilities in the surrounding area will not be further affected. Therefore, no impact resulting from storm water runoff or flooding is anticipated from O&M of the Proposed Project.

#### **Question 4.9e – Storm Water Runoff**

##### ***Construction – Less-than-Significant Impact***

The volume of storm water during construction of other Proposed Project components is expected to be the same as it was prior to construction, because limited grading is required to install power line poles and trenching is required to construct the duct banks. Pre-construction contours and elevations will be re-established following the completion of construction; therefore, storm water runoff is anticipated to remain unchanged when compared to pre-construction conditions. Construction will introduce new sources of pollutants that could enter storm water and be transported off site. Sources of pollutants are discussed in detail in response to Question 4.9a. Such pollutants include hazardous materials (e.g., diesel fuel, hydraulic fluid, oil, and grease), as well as typical construction materials, sediment, and trash. With implementation of the SWPPP and BMPs in the SDG&E’s BMPs Manual for Water Quality Construction, impacts associated with introducing pollutants to storm water runoff will be less than significant.

##### ***Operation and Maintenance – Less-than-Significant Impact***

As described previously in response to Question 4.9a, O&M activities will be reduced as part of the Proposed Project. In addition, O&M activities will not substantially change drainage patterns, provide an increase in polluted runoff, or increase impervious surfaces. Therefore, potential impacts will be less than significant.

#### **Question 4.9f – Water Quality Degradation – Less-than-Significant Impact**

Potential sources of pollutants and activities that can contribute to water quality degradation are discussed in detail in response to Question 4.9a. No other foreseeable sources of pollution are anticipated to be associated with construction or operation of the Proposed Project. As a result, impacts will be less than significant.

#### **Question 4.9g – Housing in Flood Hazard Areas – No Impact**

No housing will be constructed as part of the Proposed Project. Therefore, no housing will be placed within a 100-year flood hazard area, and no impact will occur.

#### **Question 4.9h – Structures in Flood Hazard Areas – No Impact**

Portions of the Proposed Project are located within 100-year and 500-year flood hazard areas, as depicted in Figure 4.9-1: Hydrologic Regions and Groundwater Basins Map. FEMA defines a structure as “a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.” No permanent aboveground structures or facilities of any type will be constructed within a 100-year flood hazard area. Therefore, no impacts will occur as a result of the placement of structures within 100-year flood hazard areas.

**Question 4.9i – Flood Exposure – *Less-than-Significant Impact***

As discussed previously, structures associated with the Proposed Project will not be impacted by floods and will not impede or redirect flood flows. Water discharge resulting from construction activities will not constitute a sufficient volume to result in risk of loss, injury, or death due to flooding. Various portions of the Proposed Project are within dam inundation zones, as described in Section 4.9.2 Existing Conditions. In the event of a dam failure, construction or operation workers will evacuate the area in accordance with the County of San Diego Operational Area Evacuation Annex. Therefore, although portions of the Proposed Project will be constructed within FEMA flood hazard zones and dam inundation zones, impacts to flood exposure that can result in a significant risk of loss, injury, or death will be less than significant.

**Question 4.9j – Flooding, Seiche, Tsunami, and Mudflow – *No Impact***

The Proposed Project is located within tsunami inundation zones associated with the San Dieguito and Los Peñasquitos lagoons. However, the Proposed Project will not affect the tsunami inundation zones because the Proposed Project involves the removal and installation poles that have little impact on the topography associated with tsunami flooding. Therefore, construction and O&M of the Proposed Project will have no impact on the tsunami inundation zones.

Seiches are typically associated with impounded waterbodies. The Proposed Project will not be located near any lakes or other impounded waterbodies; therefore, no impact from seiches will occur.

The Proposed Project is not located within a landslide hazard area. Therefore, the Proposed Project will have no impact on inundation from landslides.

**4.9.4 Applicant-Proposed Measures**

The Proposed Project will result in less-than-significant impacts to hydrology and water quality with implementation of the Proposed Project’s SWPPP, SPCC, and SDG&E’s BMPs Manual for Water Quality Construction, as described in Chapter 3 – Project Description. Therefore, no applicant-proposed measures are proposed.

**4.9.5 References**

AECOM. 2017. Biological Technical Report for the San Diego Gas & Electric Company, TL674A Reconfiguration & TL666D Removal Project. May 2017.

California Department of Conservation. 2009. *Tsunami Inundation Map for Emergency Planning*. Online.  
[http://www.conservation.ca.gov/cgs/geologic\\_hazards/Tsunami/Inundation\\_Maps/SanDiego/Documents/Tsunami\\_Inundation\\_DelMar\\_Quad\\_SanDiego.pdf](http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/SanDiego/Documents/Tsunami_Inundation_DelMar_Quad_SanDiego.pdf). Site visited on November 29, 2016.

California DWR. 2012. *California’s Groundwater, Bulletin 118*. Online.  
<http://www.water.ca.gov/groundwater/bulletin118/basindescriptions/9-12.pdf>. Site visited on November 29, 2016.

San Diego RWQCB. 2016. *San Diego Region Basin Plan*. Online.

[http://www.waterboards.ca.gov/sandiego/water\\_issues/programs/basin\\_plan/](http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/). Site visited on November 29, 2016.

SWRCB. 2001. Statewide General NPDES Permit for Discharges from Utility Vaults & Underground Structures to Surface Waters (General Permit CAG990002).

SWRCB. 2009. Order No. 2009-0009-DWQ (Construction General Permit).