

TABLE OF CONTENTS

4.8	HYDROLOGY AND WATER QUALITY	4.8-1
4.8.1	Introduction.....	4.8-1
4.8.2	Methodology.....	4.8-2
4.8.3	Existing Conditions.....	4.8-2
4.8.4	Potential Impacts.....	4.8-13
4.8.1	Project Design Features and Ordinary Construction/Operating Restrictions ...	4.8-29
4.8.5	Applicant Proposed Measures.....	4.8-29
4.8.6	Detailed Discussion of Significant Impacts.....	4.8-29
4.8.7	References.....	4.8-29

LIST OF FIGURES

Figure 4.8-1:	Watersheds and Impaired Waters Map	4.8-11
Figure 4.8-2:	FEMA Flood Zones Map	4.8-15

THIS PAGE IS INTENDED TO BE LEFT BLANK

4.8 HYDROLOGY AND WATER QUALITY

Would the project:		Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
a.	Violate any other 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 type="checkbox"/>	<input checked="" 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 that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 that 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j.	Expose people or structures to inundation by seiche, tsunami or mud flow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.8.1 Introduction

This section of the PEA presents information about surface water and groundwater and an analysis of potential impacts to hydrology and water quality from construction, operation, and

maintenance of the Proposed Project. The Proposed Project would result in less than significant impacts to hydrology and water quality with implementation of the Proposed Project's SWPPP, which is required by law, as well as implementation of SDG&E's *BMP Manual and SDG&E Subregional NCCP*.

4.8.2 Methodology

The hydrology and water quality in the Proposed Project area were evaluated by reviewing aerial photographs, FEMA maps for flood zones, *San Diego County Multi-Jurisdiction Hazard Plan* maps, and City and County General Plans. The San Diego RWQCB *Water Quality Control Plan for the San Diego Basin (9)* was reviewed to ensure compliance with state and local regulations. Information on groundwater location and quality within the Proposed Project area was obtained from Department of Water Resources *Bulletin No. 106-2*. The California 2010 Integrated Report (303(d) List) for the San Diego Region (9), and the Los Peñasquitos Lagoon Total Maximum Daily Load (TMDL) – Watershed Phase I Sediment Source Identification Study prepared for the City of San Diego were reviewed for information on impaired water bodies and pollution sources. Wetland resources were identified during wetland delineation field studies conducted in September and October 2013 (refer to Jurisdictional Delineation report included in Appendix 4.4-A).

4.8.3 Existing Conditions

In California, the regulation, protection and administration of water quality are carried out by the SWRCB and nine California RWQCBs. The Proposed Project is located within the San Diego Region governed by the San Diego RWQCB. The San Diego RWQCB, under the SWRCB, implements policies and programs that protect the quality of the regional water bodies. These programs include preserving the existing water quality, enhancing water quality, and protecting the beneficial uses of regional water bodies, as defined in the *Water Quality Control Plan for the San Diego Basin (9)*.

The San Diego Region includes most of San Diego County, parts of southwestern Riverside County and southwestern Orange County and is divided into 11 major hydrologic units. The Proposed Project is located in the Coastal Plain primarily within the Peñasquitos Hydrologic Unit (HU). The Peñasquitos HU is approximately 170 square miles extending from Poway west to La Jolla and is drained by several creeks. The portion of the Proposed Project area that occurs in the Peñasquitos HU drains to Peñasquitos Creek which is tributary to the Los Peñasquitos Lagoon. Limited portions of the alignment in Carmel Valley Road lie outside of the Peñasquitos HU within the San Dieguito HU that drains to San Dieguito River and Lagoon.

The Proposed Project is mostly within or alongside developed residential areas for approximately two-thirds of its length west from the Sycamore Substation through Carmel Valley Road where the drainages are largely modified and runoff is captured by storm water conveyance facilities. The alignment spans several natural drainage features between Carmel Valley Road and Peñasquitos Substation where the landscape has more open space. The elevation range along the alignment ranges from approximately 100 to 900 feet above mean sea level.

The drainages in the Proposed Project area are fed by direct precipitation, stormwater runoff, groundwater percolation, and anthropogenic and other dry season flows. The stream flow in the area of the Proposed Project is mostly ephemeral where the streams tend to become active after

rainfall. Weather in the Proposed Project area is characterized by mild, wet winters and mild, dry summers. The topography of the Proposed Project area consists of relatively flat or gently sloping ancient marine terraces that have been incised by canyons and valleys. Topography can be relatively steep in valleys and at the incised edges of the marine terraces. The existing transmission line structures are placed on terraces, ridgelines or hilltops such that the drainages are spanned. Some existing access roads may cross drainages over bridges or culverted crossings.

The groundwater within the Peñasquitos and San Dieguito HUs in the vicinity of the Proposed Project site is generally characterized by high dissolved solids and is rated as marginal to inferior for domestic and irrigation purposes.

4.8.3.1 Regulatory Setting

Based on a review of aerial imagery and the results of the Jurisdictional Waters and Wetlands Delineation Report prepared for the Proposed Project, structures are located on tops of terraces, hilltops and ridgelines and would not be within drainages that are subject to state or federal jurisdiction. Similarly, existing access roads follow mostly along the tops of terraces or ridgelines. To the extent that existing access roads or new spur roads cross drainages that require work within jurisdictional limits, then those areas would be assessed and appropriate state and federal permits would be obtained.

The following sections describe applicable federal, state, and local water quality requirements.

Federal

Clean Water Act

The CWA (33 USC Section 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 the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point sources discharges into surface water. Those discharges are regulated by the NPDES permit process (CWA Section 402). The Proposed Project is under the jurisdiction of the San Diego RWQCB.

Section 401 of the Clean Water Act

Section 401 of the CWA requires that any applicant for a federal permit for an activity that may result in a discharge of pollutants into waters of the United States must obtain a certification that the activity complies with all applicable water quality standards, limitations, and restrictions. A federal agency cannot issue a license or permit for this activity without a Section 401 certification. For the Proposed Project area, the San Diego RWQCB issues Section 401 certifications. Section 4.4, Biological Resources, discusses specific impacts to jurisdictional waters of the United States. In addition, a Jurisdictional Waters and Wetlands Delineation Report was prepared for the Proposed Project and has been included in Appendix 4.4-A.

Section 404 of the Clean Water Act

Under Section 404 of the CWA, USACE regulates the discharge of dredged and/or fill material into waters of the United States. Waters of the United States include navigable waterways and wetlands adjacent to navigable waterways, and non-navigable waterways and wetlands adjacent to non-navigable waters that are contiguous with navigable waterways. The term “waters of the United States” is defined by 33 CFR 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 above, (5) all tributaries to waters mentioned above, (6) the territorial seas, and (7) all wetlands adjacent to waters mentioned above. Refer to the Jurisdictional Waters and Wetlands Delineation Report in Appendix 4.4-A for a complete description of the USACE jurisdictional limits.

Nationwide Permits

Nationwide Permits are general Section 404 permits issued by USACE for categories of activities that have minimal impact on aquatic resources and meet certain conditions. Nationwide Permit 12, Utility Line Activities, authorizes activities required for the construction, maintenance, repair and removal of utility lines and associated facilities in waters of the United States, provided the activities do not result in the loss of greater than one-half acre of waters of the United States. Nationwide Permit 12 requires a preconstruction notification to the USACE district engineer before beginning the activity if the proposed activity results in discharges that result in the loss of greater than one-tenth acre of waters of the United States. If any activity associated with the Proposed Project affects waters of the United States, the activity would be carried out under Nationwide Permit 12 because the discharges from the Proposed Project would not result in the loss of greater than one-half acre of waters of the United States. The Jurisdictional Waters and Wetlands Delineation Report (Appendix 4.4-A) identifies USACE jurisdictional areas that occur within the Proposed Project area.

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 (FIRM) 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, but 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 CFR and enable 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*Streambed Alteration Agreements*

California Fish and Game Code Sections 1600–1616 require any person, state or local government agency, or public utility to notify the CDFW before beginning any activity that will

substantially modify a river, stream or lake. Notification to CDFW through the Section 1602 Streambed Alteration Agreement process is required for a project that will:

- Substantially divert or obstruct the natural flow of any river stream or lake;
- Substantially change or use any material from the bed, channel, or bank of, any river, stream or lake; or
- Deposit or dispose of debris, waste, or other material containing crumbled, flake, or ground pavement where it may pass into any river, stream or lake.

The Jurisdictional Waters and Wetlands Delineation Report (Appendix 4.4-A) identifies CDFW jurisdictional areas that occur within the Proposed Project area. If any activity associated with the Proposed Project could substantially affect CDFW jurisdiction as described above, a Streambed Alteration Agreement notification will be submitted.

California Porter Cologne Water Quality Control Act

The Porter Cologne Water Quality Control Act of 1967, Water Code Section 13000 et seq., requires the SWRCB and the nine RWQCBs to adopt water quality criteria to protect state waters. 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 *Water Quality Control Plan for the San Diego Basin (9)*. Applicable constraints in the water quality control plans relate primarily to the avoidance of altering the sediment discharge rate of surface waters, and the avoidance of introducing toxic pollutants to the water resource. A primary focus of water quality control plans is to protect designated beneficial uses of waters, which range from drinking water quality to recreation and wildlife habitat. In addition, any party proposing to discharge waste that could affect the quality of the waters of the state must make a Report of the Waste Discharge (RoWD) to the RWQCB or SWRCB as appropriate, in compliance with Porter-Cologne.

The San Diego RWQCB has the authority to waive the requirements that a person file a RoWD and/or be issued WDRs prior to initiating a discharge to surface waters not subject to federal NPDES regulations. Specifically, Section 13269 of the Porter-Cologne Water Quality Control Act (Water Code) gives the San Diego RWQCB the authority to waive the requirements of Water Code Sections 13260(a) and (c), 13263(a), and 13264(a) for specific discharges or specific types of discharge, provided the waiver is consistent with the *Water Quality Control Plan for the San Diego Basin (9)* and is in the public interest. A waiver is available for a discharge if it can comply with the conditions of the waiver. Discharges that comply with the conditions of a waiver are expected to pose a low threat to the quality of waters of the state.

RWQCB Conditional Waiver No. 2 – “Low Threat” Discharges to Land

RWQCB Conditional Waiver No. 2 is for “low threat” discharges to land, which are contained on-site and allowed to percolate to groundwater. “Low threat” discharges include liquid wastes containing pollutant concentrations that are not expected to adversely impact the quality of waters of the state under ambient conditions. “Low threat” discharges may include potable water or uncontaminated groundwater. Potable water and uncontaminated groundwater are not considered waste when initially discharged. However, when it comes into contact with pollutants and transports those pollutants in surface runoff or leaches those pollutants into the

soil and groundwater, it becomes a waste. “Low threat” discharges to land are not expected to contain significant concentrations of pollutants that can adversely affect the quality of underlying groundwater.

Discharges from low-volume and short-term construction dewatering operations to land are one type of discharge that may be eligible for Conditional Waiver No. 2.

National Pollutant Discharge Elimination System (NPDES) – Construction General Permit

The NPDES permit program was authorized by the CWA and is administered in California by the SWRCB through the nine RWQCBs. The purpose of NPDES permit program is to control the discharge of pollutants from point sources into waters of the United States. The SWRCB has issued a General Permit for Storm Water Discharges Associated with Construction and Land Disturbance (Construction General Permit, Order No. 2009-0009) under the NPDES permit program. The Construction General Permit applies to construction activities in California that disturb one acre or greater of soil, or less than one acre but part of a larger common plan of development or sale. To obtain coverage under the Construction General Permit, the project applicant must submit Permit Registration Documents, including a Notice of Intent, to the SWRCB and develop a SWPPP that complies with the Construction General Permit requirements. The project applicant must also receive a SWRCB-issued Waste Discharger Identification number before starting construction activities. The project applicant must implement the SWPPP during construction, including requirements for inspections and monitoring, BMPs, and must revise the SWPPP and implement revisions as needed to protect storm water quality.

The SWPPP describes:

- The project location, site features, area of disturbance, dates of construction, and the identification of materials and activities that may result in pollutant discharges;
- BMPs to implement during construction. The BMPs are selected to control erosion, discharge of sediments, and other potential impacts associated with construction activities;
- An inspection and maintenance program for BMPs; and
- A sampling and analysis plan for monitoring pollutant discharges to water bodies, if required.

The project applicant must submit a Notice of Termination (NOT) to the SWRCB after completing a project subject to the Construction General Permit in order to be relieved of the permit requirements. Final soil stabilization throughout the project area must be achieved before the SWRCB will approve the NOT.

Water Quality Control Plan for the San Diego Basin (9)

The Proposed Project is within the San Diego Basin, where the San Diego RWQCB regulates water quality on behalf of the SWRCB. The San Diego RWQCB implements policies and programs that protect regional water quality, including preserving existing water quality, enhancing water quality, and protecting the beneficial uses of regional water.

The Water Quality Control Plan for the San Diego Basin (9) (Basin Plan) designates beneficial uses for surface and groundwater and sets narrative and numerical objectives for protection of the beneficial uses. The Basin Plan was prepared in accordance with the criteria in Porter-Cologne and other pertinent state and federal rules and regulations. Beneficial use designations in the Proposed Project area include: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND), Contact Water Recreation (REC-1), Non-contact Water Recreation (REC-2), Warm Freshwater Habitat (WARM), and Wildlife Habitat (WILD).

The Basin Plan includes a general antidegradation water quality objective to maintain water quality that is better than stated objectives. The Basin Plan has specific inland water quality objectives for water temperature, agricultural supply beneficial use, ammonia, bacteria, biostimulatory substances (e.g., nitrogen and phosphorus), boron, chlorides, color, dissolved oxygen, floating material, fluoride, pH, inorganic chemicals, iron, manganese, methylene blue active substances (e.g. surfactants), nitrate, oil and grease, organic chemicals, sodium, pesticides, phenolic compounds, radioactivity, drinking water, sediment, suspended solids, sulfate, taste and odor, total dissolved solids, toxicity, toxic pollutants, trihalomethanes, and turbidity. There are also specific groundwater objectives listed by groundwater basin.

Wildlife habitat, municipal, industrial, and agricultural supplies, and recreation are among the beneficial uses that the objectives seek to protect. The quality of surface water is affected by stormwater runoff and discharges from industrial, commercial, agricultural, and residential activities in the region. The San Diego RWQCB uses permits and other programs to regulate and reduce pollution of surface waters.

Local

City of San Diego Municipal Codes for Stormwater Management and Discharge Control and Storm Water Runoff and Drainage Regulations

The City of San Diego Municipal Code contains all ordinances for the City of San Diego. The *Stormwater Management and Discharge Control Ordinance* is found in Division 3 of Article 3 of Chapter 4 and was originally adopted in September 1993 with amendments in 2001 and 2008. The stated intent of the ordinance is to protect and enhance the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act [CWA, 33 U.S.C. section 1251 et seq.] and NPDES Permit No. CA0108758, as amended.

The ordinance contains discharge prohibitions and exemptions from those provisions. The ordinance sets out requirements to comply with the ordinance, including BMPs, plan and permit compliance requirements, and responsibilities for the protection of storm water conveyance systems. The ordinance defines the requirements that are legally enforceable by the City.

Division 2 of Article 2 of Chapter 14, *Storm Water Runoff and Drainage Regulations*, states that all storm water runoff control, drainage, and flood control facilities shall be constructed in accordance with standards established in the *Land Development Manual*, and shall comply with Municipal Code Chapter 4, Article 3, Division 3 (*Stormwater Management and Discharge Control*). The following is required by the regulation:

All development shall be conducted to prevent erosion and stop sediment and pollutants from leaving the property to the maximum extent practicable. The property owner is responsible to implement and maintain temporary and permanent erosion, sedimentation, and water pollution control measures to the satisfaction of the City Manager, whether or not such measures are a part of approved plans. The property owner shall install, monitor, maintain, and revise these measures, as appropriate, to ensure their effectiveness.

City of San Diego Land Development Manual

The *Land Development Manual* provides information to assist in the processing and review of applications. Appendix O of the *Land Development Manual* includes the storm water standards for the City of San Diego. The storm water standards provide information to applicants that are processed through the City’s Development Services Department. It provides guidance on the selection, design, and incorporation of BMPs into project design.

City of San Diego General Plan

The *City of San Diego General Plan* provides direction for future growth within the city limits, and provides policies related to various elements including land use, urban design, public facilities, and conservation.

The *City of San Diego General Plan* contains the following relevant policies:

CE-B.4. Limit and control runoff, sedimentation, and erosion both during and after construction activity.

CE-D.2. Protect drinking water resources by implementing guidelines for future development that may affect water supply watersheds, reservoirs and groundwater aquifers. The guidelines should address site design, BMPs and storm water treatment measures.

- a) Collaborate with other jurisdictions to reduce the potential for polluted runoff to water supply reservoirs.

CE-E.7. Manage floodplains to address their multi-purpose use, including natural drainage, habitat preservation, and open space and passive recreation, while also protecting public health and safety.

City of Poway Stormwater Management and Discharge Control, Excavation and Grading, and Standard Urban Stormwater Mitigation Plan Ordinances

Ordinances related to urban runoff include the Stormwater Management and Discharge Control Ordinance, the Excavation and Grading Ordinance, and the Standard Urban Stormwater Mitigation Plan Ordinance. The ordinances contain specific enforcement provisions or are enforceable under generally applicable enforcement provisions. The Stormwater Management and Discharge Control Ordinance is the principal City ordinance addressing urban runoff. It contains discharge prohibitions and BMP requirements. This ordinance is regulatory, and applies to all development projects. The Excavation and Grading Ordinance includes provisions to, among other things, establish a set of standards regulating the design and construction of building sites by grading; protect adjacent properties from damage caused by blockage,

diversion, or channeling of natural runoff waters; and to provide for erosion control and proper drainage. Objectives of the Standard Urban Stormwater Mitigation Plan Ordinance include ensuring that dischargers do not cause or contribute to a violation of water quality standards; prohibiting non-storm water discharges in urban runoff; and reducing the discharge of pollutants from urban runoff conveyance systems to the maximum extent practicable. The regulations apply to the development plan approval process for discretionary development applications.

City of Poway Jurisdictional Urban Runoff Management Program

In 2002, the City of Poway adopted a Jurisdictional Urban Runoff Management Program (JURMP) as required by San Diego Regional Water Quality Control Board Order No. 2001- 01. The purpose of the JURMP is to present a strategy to reduce the discharge of pollutants from the municipal separate storm sewer system (MS4) to the maximum extent practicable. This involves improving existing programs and developing new programs intended to minimize or eliminate the effects of urban runoff from the City on receiving water bodies. The goal is to improve the quality of the discharge from the MS4 which will have beneficial effects on the local receiving water bodies. The JURMP includes management measures for a variety of different sectors and activity types such as municipal, industrial, commercial, construction, and significant development and re-development activities.

San Diego County Multi-Jurisdiction Hazard Mitigation Plan

The *San Diego County MJHMP* is a countywide plan that identifies risks and ways to minimize damage by natural and manmade disasters, consistent with the Federal Disaster Mitigation Act of 2000. The Disaster Mitigation Act establishes a pre-disaster hazard mitigation program and new requirements for the national post-disaster Hazard Mitigation Grant Program. Section 322 of Disaster Mitigation Act of 2000 specifically addresses mitigation planning at the state and local levels.

The MJHMP is intended to serve many purposes; including helping County residents better understand the natural and manmade hazards that threaten public health, safety, and welfare; economic vitality. The Plan also highlights the operational capability of important institutions. The MJHMP includes relevant hazard profiles for tsunamis, dam failure, flooding, and rain-induced landslides.

4.8.3.2 Hydrology and Water Quality Setting

Surface Water and Groundwater Resources

San Diego County's watersheds are characterized by lagoons, lakes, reservoirs, rivers, and creeks. These water bodies capture the region's surface water runoff and become a blend of natural runoff and imported water. In addition to supporting natural habitat and supplying residents with potable water, these water bodies supply water for fire suppression and serve as popular recreation areas. Watersheds support lakes and reservoirs, which offer a variety of recreational activities, including fishing, boating, sailing, bike and horseback riding, and picnicking.

Los Peñasquitos Creek, Deer Creek, and McGonigle Canyon Creek are the primary east-west drainage channels that pass within the Proposed Project area. McGonigle Canyon and Deer

Canyon Creeks merge downstream of the Proposed Project area and form Carmel Creek. Based on a review of aerial imagery and the Jurisdictional Waters and Wetlands Delineation Report, USACE, RWQCB, and CDFW jurisdictional areas can be found within valleys that are spanned by the proposed transmission lines. Within the 500-foot wide survey area, the Jurisdictional Waters and Wetlands Delineation Report for the Proposed Project identified 9.21 acres of USACE jurisdictional waters, of which 5.15 acres was wetland; 9.34 acres of RWQCB jurisdictional waters, of which 5.15 acres was wetland; and 14.92 acres of CDFW jurisdictional waters, of which 2.88 acres was unvegetated streambed and 12.04 acres was vegetated with riparian species (see Appendix 4.4-A).

CWA Section 303(d) requires states to develop a list of water bodies with impaired water quality. The waters on the list are those that do not meet water quality standards even after known point sources of pollution have installed the minimum required levels of pollution control technology. A 12-mile segment of Los Peñasquitos Creek through the Proposed Project area is on the State's Section 303(d) list of impaired waters for Enterococcus, Fecal Coliform, Selenium, Total Dissolved Solids, Total Nitrogen, and Toxicity (see Figure 4.8-1, Watershed and Impaired Waters Map). The sources for these pollutants are listed as unknown. Section 303(d) of the FCAA requires states to develop TMDLs for impaired water bodies. TMDLs for Los Peñasquitos Creek are expected by 2021. No other water bodies within the Proposed Project area are listed as impaired.

Alluvial and sedimentary aquifers are the primary source of groundwater in the Proposed Project area. These aquifers are usually found in river and stream valleys, near the coast line, around lagoons and in the intermountain valleys. Groundwater within the Proposed Project area generally occurs at less than 50 feet and wells are typically less than 400 feet deep. Most structures that would be installed for the Proposed Project would be on topographical high points (terraces and ridges) where the depth to ground water would be greater than 50 feet.

Watersheds





The majority of the Proposed Project is located within the Los Peñasquitos Watershed and is drained by Peñasquitos and Carmel Creeks that flow to the Pacific Ocean through Peñasquitos Lagoon. Only a small portion of the Proposed Project (mainly associated with Segment B - Carmel Valley Road) is within the San Dieguito River watershed (refer to Figure 4.8-1).


The remainder of this page is intentionally left blank.

**Sycamore to Peñasquitos
230 kV Transmission
Line Project**


Watershed and Impaired Waters Map

Figure 4.8-1

-  Proposed Route
-  Impaired Waters
-  Impaired Waterbodies
-  Hydrologic Units



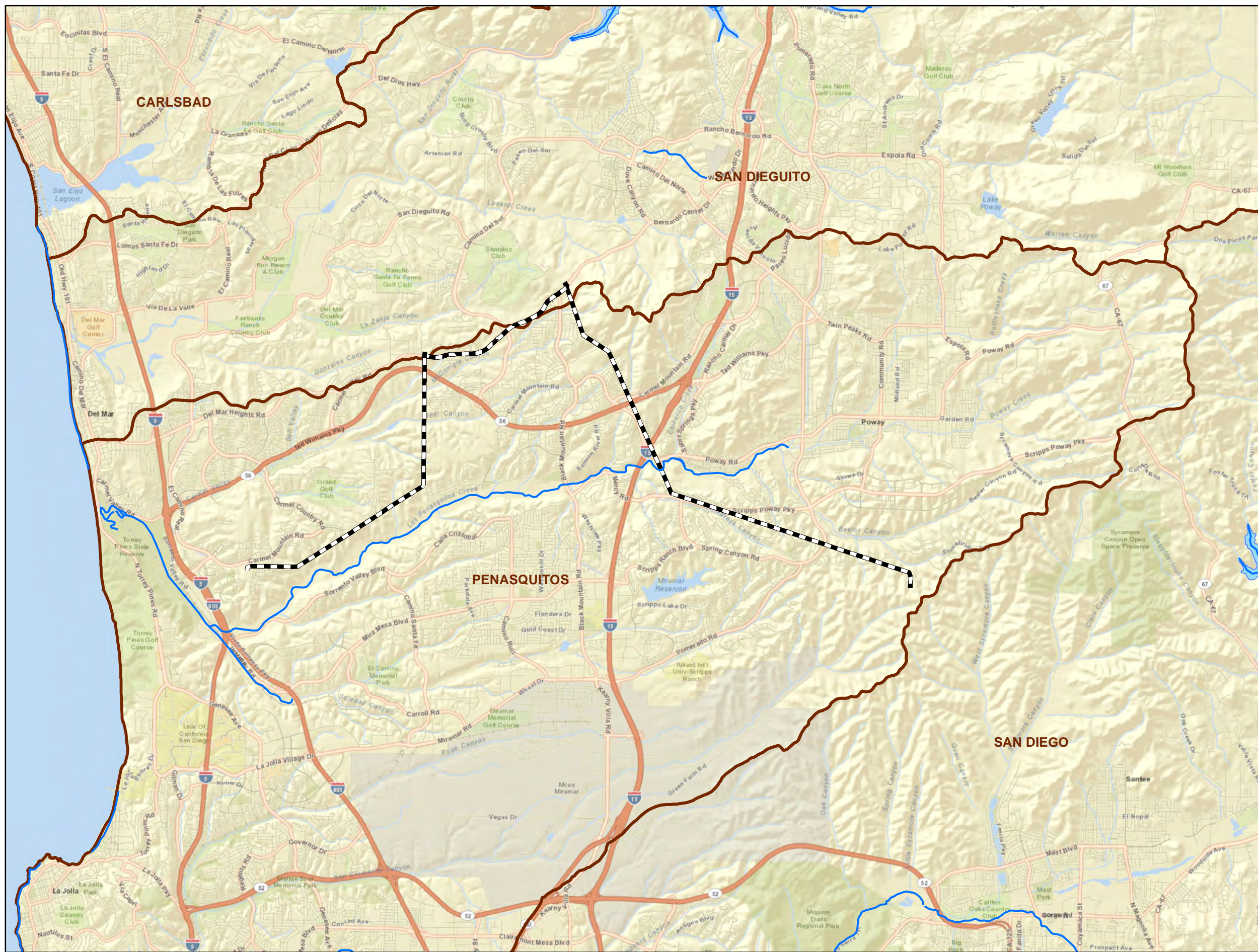
3/13/2014



SDG&E is providing this map with the understanding that the map is not survey grade. Certain technology used under license from AT&T Intellectual Property I, L.P. Copyright ©1998 – 2007 AT&T Intellectual Property 1, L.P. All Rights Reserved.



Sources: SDG&E, 2013; SanGIS/SANDAG Data Warehouse (http://www.sangis.org/Download_GIS_Data.htm). USDA 2002; Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community; National Geographic DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC



THIS PAGE IS INTENDED TO BE LEFT BLANK

BACK OF FIGURE 4.8-1

Precipitation

Rainfall across San Diego County is variable, with most rain falling from November to April. Generally, the average rainfall is highest in the mountains and least along the coast and in the desert. Most of the county experiences light rainfall, although some of the central mountain areas receive more than 30 inches per year. The average seasonal precipitation along the coast is 10 inches or less. The annual precipitation in the Los Peñasquitos Watershed HU ranges from approximately 8 inches near the coast to 18 inches inland.

Floodplains

The Proposed Project spans Los Peñasquitos Creek, Carmel Creek, and one tributary to each of these drainages that are shown to have a one percent chance to annually flood (i.e., within the 100-year flood zone). No structures would be located within the 100-year flood zone. Flood zone information is provided by FEMA on FIRM and is shown for the Proposed Project on Figure 4.8-2, FEMA Flood Zones Map.

Dam Failure Inundation Areas

Dam owners submit inundation maps to the California OES for review and approval in accordance with guidance issued by OES. The OES is responsible for the identification of inundation areas for dam failures in California and provides city and county emergency services coordinators with approved maps of dam failure inundation areas. The Proposed Project is not located within an identified inundation area for dam failure.

4.8.4 Potential Impacts

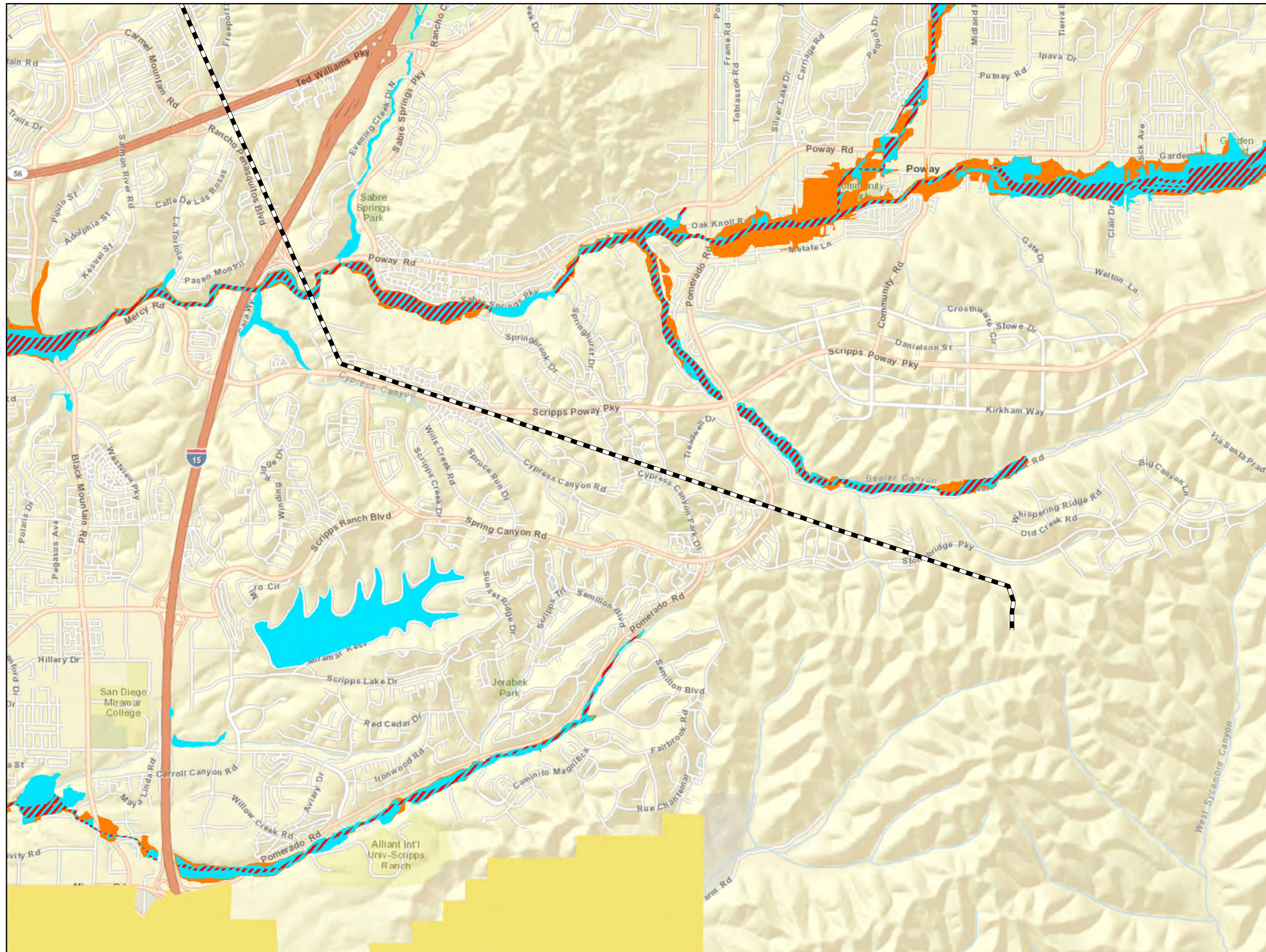
This section describes potential impacts to hydrology and water resources as a result of the Proposed Project. Potential impacts would be less than significant through compliance with regulatory requirements for protection of surface water quality, and implementation of the SWPPP and BMPs, all of which are design features of the Proposed Project.






The remainder of this page is intentionally left blank.

THIS PAGE IS INTENDED TO BE BLANK

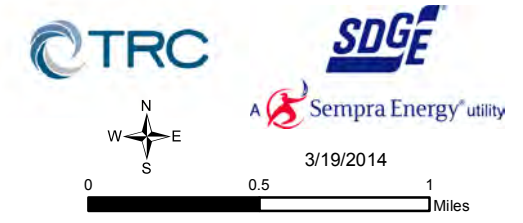
**Sycamore to Peñasquitos
230 kV Transmission
Line Project**
FEMA Flood Zones Map
Figure 4.8-2

Sheet 1 of 3

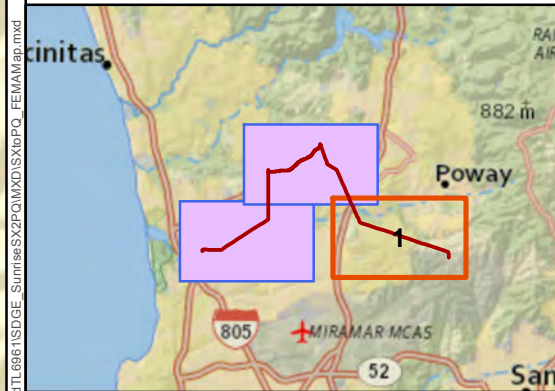


-  Proposed Route
-  1% Annual Chance Flood Hazard
-  Regulatory Floodway
-  0.2% Annual Chance Flood Hazard
-  Area of Undetermined Flood Hazard

SDG&E is providing this map with the understanding that the map is not survey grade. Certain technology used under license from AT&T Intellectual Property I, L.P. Copyright ©1998 – 2007 AT&T Intellectual Property 1, L.P. All Rights Reserved.



3/19/2014




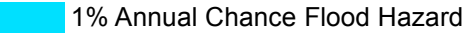
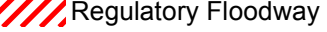
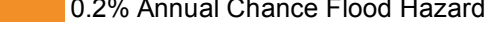
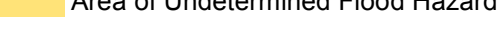
Sources: SDG&E, 2013; SanGIS/SANDAG Data Warehouse; FEMA Mapping Service Center (<https://hazards.fema.gov/femaportal/wps/portal/NFHLWMS>); Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community; National Geographic DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC

THIS PAGE IS INTENDED TO BE LEFT BLANK


BACK OF FIGURE 4.8-2 (SHEET 1 OF 3)

**Sycamore to Peñasquitos
230 kV Transmission
Line Project**
FEMA Flood Zones Map
Figure 4.8-2

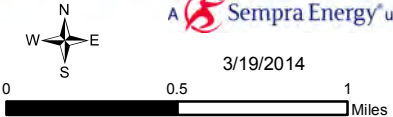
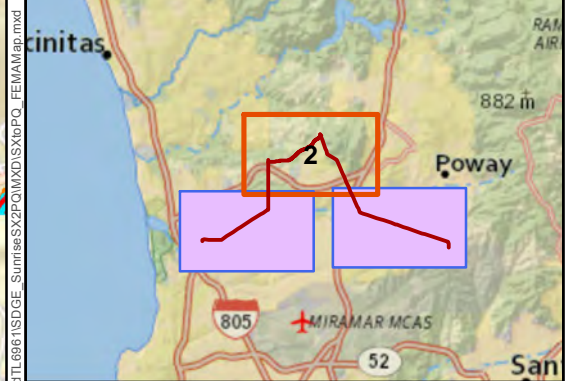
Sheet 2 of 3

-  Proposed Route
-  1% Annual Chance Flood Hazard
-  Regulatory Floodway
-  0.2% Annual Chance Flood Hazard
-  Area of Undetermined Flood Hazard

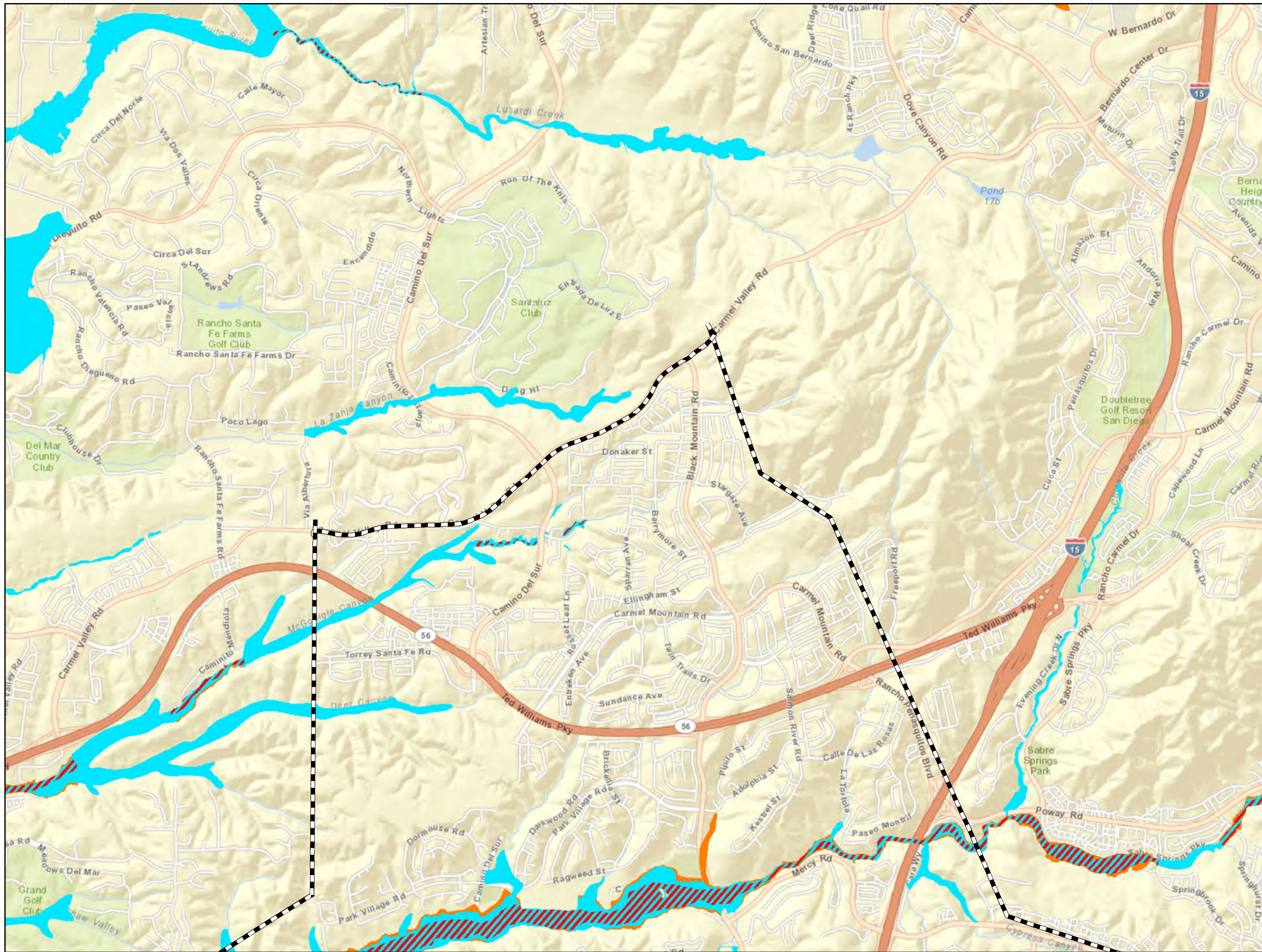
SDG&E is providing this map with the understanding that the map is not survey grade. Certain technology used under license from AT&T Intellectual Property I, L.P. Copyright ©1998 – 2007 AT&T Intellectual Property 1, L.P. All Rights Reserved.



3/19/2014

Sources: SDG&E, 2013; SanGIS/SANDAG Data Warehouse; FEMA Mapping Service Center (<https://hazards.fema.gov/femaportal/wps/portal/NFHLWMS>); Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community; National Geographic DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC



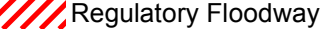
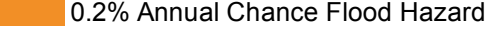



THIS PAGE IS INTENDED TO BE LEFT BLANK


BACK OF FIGURE 4.8-2 (SHEET 2 OF 3)

**Sycamore to Peñasquitos
230 kV Transmission
Line Project**
FEMA Flood Zones Map
Figure 4.8-2

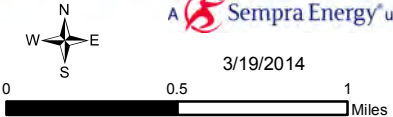
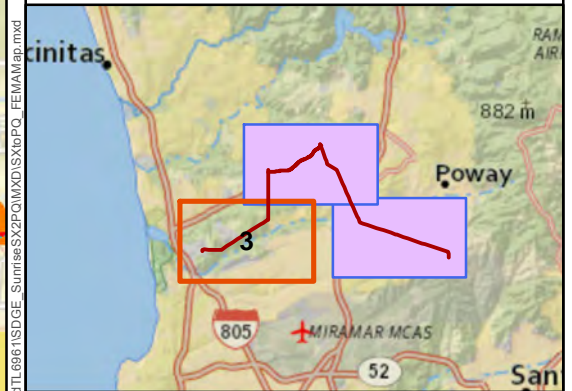
Sheet 3 of 3

-  Proposed Route
-  1% Annual Chance Flood Hazard
-  Regulatory Floodway
-  0.2% Annual Chance Flood Hazard
-  Area of Undetermined Flood Hazard

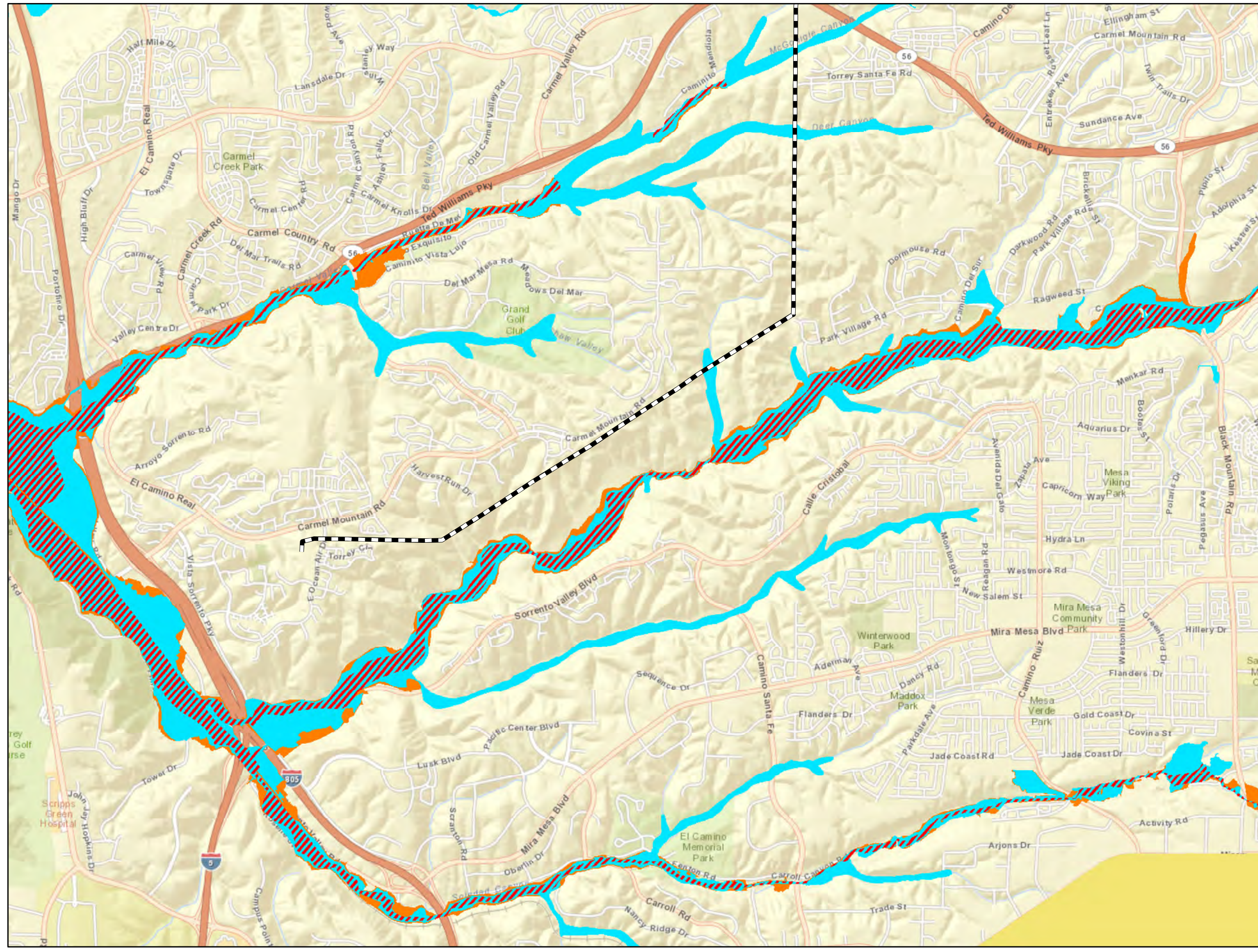
SDG&E is providing this map with the understanding that the map is not survey grade. Certain technology used under license from AT&T Intellectual Property I, L.P. Copyright ©1998 – 2007 AT&T Intellectual Property 1, L.P. All Rights Reserved.



3/19/2014

Sources: SDG&E, 2013; SanGIS/SANDAG Data Warehouse; FEMA Mapping Service Center (<https://hazards.fema.gov/femaportal/wps/portal/NFHLWMS>); Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community; National Geographic DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC



THIS PAGE IS INTENDED TO BE LEFT BLANK

BACK OF FIGURE 4.8-2 (SHEET 3 OF 3)

4.8.4.1 Significance Criteria

Standards of impact significance were derived from Appendix G of the *CEQA Guidelines*. Under these guidelines, the Proposed Project could have a potentially significant impact to hydrology and water quality if it would:

- a) Violate any water quality standards or waste discharge requirements;
- b) Substantially deplete 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 (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 that 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 that would result in flooding on- or off-site;
- e) Create or contribute to runoff water which 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;
- h) Place structures within a 100-year flood hazard area which 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; or
- j) Expose people or structures to inundation by seiche, tsunami, or mudflow.

4.8.4.2 Question 8a - Violate any water quality standards or waste discharge requirements?

Construction – Less than Significant Impact

As detailed below, the Proposed Project would not violate any water quality standards or waste discharge requirements. No new sources of point discharge water pollution would result from the Proposed Project construction.

Los Peñasquitos Creek is listed as a Section 303(d) impaired water body that does not currently meet water quality standards. Thus, any substantial contribution of listed pollutants to Los Peñasquitos Creek would be considered a significant impact.

Construction of the Proposed Project has the potential to affect surface water quality. Construction would use mechanized equipment requiring fuels and lubricants and involve fabrication of structures that require hazardous materials such as coatings, adhesives, and solvents. Construction also generates trash and debris. Saw cutting of pavement for the underground segment along Carmel Valley Road could result in potential pollutant discharge to stormwater conveyance facilities along the road. Construction materials such as concrete and drilling mud could impact water quality if released. Dewatering of trenches along the underground segment could be required if water accumulates during construction. In addition, construction would disturb soil surfaces and would locally modify soil grades. This would create a temporary potential for erosion and sediment transport. To protect water quality and address all these factors, BMPs would be implemented to address any potential impacts created by the Proposed Project.

The Proposed Project would disturb more than one acre and therefore requires coverage under the statewide Construction General Permit. SDG&E would obtain coverage under the Construction General Permit and comply with its relevant requirements, including development and implementation of a SWPPP and BMP plan for water quality protection.

The Linear Underground/Overhead Project (LUP) requirements of the Construction General Permit would apply to the Proposed Project. LUP activities covered under the Construction General Permit include, but are not limited to, those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, poles, cables, wires, connectors, switching equipment, regulating equipment, transforming equipment, and associated ancillary facilities). These activities include, but are not limited to, underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access roads, pole/tower pads, cable/wire pull stations, substation construction, substructure installation, construction of tower footings and/or foundations, pole and tower installations, welding, concrete and/or pavement repair or replacement, and stockpile borrow locations.

The Construction General Permit requires prevention of unauthorized discharges and implementation of a SWPPP with BMP guidance to prevent discharges from construction activities that would otherwise violate water quality standards. The Construction General Permit further requires inspections, monitoring, and reporting to ensure that BMPs are implemented and effective and modified if needed to ensure protection of water quality. SDG&E would implement BMPs consistent with the Construction General Permit requirements and its *BMP Manual*. Specific requirements for LUPs are provided in the Order and Attachment A of the Construction General Permit (Order No. 2009-0009). The *SDG&E Subregional NCCP* also contains protocols for avoiding and minimizing potential erosion and water quality issues.

Other than the Construction General Permit, no waste discharge requirements apply to construction of the Proposed Project because no discharges other than stormwater are anticipated. Whereas some dewatering may be required from structural foundation excavations or trenches excavated for the underground segment along Carmel Valley Road, this activity would be considered a low threat discharge and eligible for Conditional Waiver No. 2 from the San Diego RWQCB if the water is discharged.

The Proposed Project would not violate any water quality standard or waste discharge requirement because SDG&E will comply with the regulatory requirements for protection of water quality, including implementation of the SWPPP and BMPs in accordance with SDG&E's *BMP Manual* and the *SDG&E Subregional NCCP*. Therefore, potential impacts would be less than significant.

Operation & Maintenance – Less than Significant Impact

SDG&E currently maintains and operates existing electric transmission, power, distribution, and substation facilities throughout the Proposed Project site. SDG&E's existing facilities and operations and maintenance activities are included in the baseline for evaluating the impacts of the Proposed Project. The Proposed Project's transmission and power lines would be installed along an existing transmission and power line corridor, where regular operations and maintenance activities already occur. The new underground 230 kV transmission line proposed within Carmel Valley Road would marginally add to SDG&E's annual inspection requirements. The Proposed Project would include new maintenance pads and spur roads that would require regular maintenance, but these new maintenance pads and spur roads would only marginally increase current requirements.

Throughout the operation and maintenance of the Proposed Project, SDG&E would continue to implement BMPs consistent with its *BMP Manual* and the *SDG&E Subregional NCCP* and any future revisions to those documents. SDG&E already does this under the existing conditions.

At both the Sycamore Canyon and Peñasquitos Substations, one CVT would be installed to be used for synch potential. Hazardous materials are already present at both existing substations, and its presence would be the same after the substations are modified. SDG&E would maintain the current conditions of containing the oils in equipment with secondary containment. SDG&E would also prepare and implement a Spill Prevention, Control, and Countermeasures (SPCC) Plan and follow ordinary operating restrictions to control containment of hazardous materials at substations, as is currently the case. No violation of any water quality standard would be anticipated from use of hazardous materials during operation and maintenance of the Proposed Project.

No waste discharge requirements apply to operation and maintenance of the Proposed Project because no discharges are anticipated to occur. The Proposed Project would not violate any water quality standard or waste discharge requirements during operation and maintenance because SDG&E will comply with the regulatory requirements for protection of water quality, including implementation of the SWPPP and BMPs, and implement BMPs in the *BMP Manual* and *SDG&E Subregional NCCP*. Therefore, potential impacts would be less than significant.

4.8.4.3 Question 8b - Substantially deplete 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 (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)?

Construction – No Impact

The estimated water demand from construction of approximately 25 million gallons over 12 months would be minor and short-term, would be met through existing municipal sources, and would not result in new ground water pumping. Surface disturbance would be limited and negligible compared to the affected watershed areas, so there would be no impact on ground water recharge.

Dewatering may be required during construction where localized shallow groundwater is encountered in structure foundation excavations or other project excavations. Dewatering may have localized effects on groundwater levels, but the effects would be isolated to a small area due to the short duration of pumping. Dewatering is not expected to affect area wells, which rely on deeper water-bearing zones. For these reasons, there would be no net deficit in aquifer volume or lowering of the groundwater table and no impact on ground water supplies or recharge. Therefore, no impacts related to groundwater supplies would occur.

Operation & Maintenance – No Impact

SDG&E currently maintains and operates existing electric transmission, power, distribution, and substation facilities throughout the Proposed Project site. SDG&E’s existing facilities and operations and maintenance activities are included in the baseline for evaluating the impacts of the Proposed Project. The Proposed Project’s transmission and power lines would be installed along an existing transmission and power line corridor, where regular operations and maintenance activities already occur. The new underground 230 kV transmission line proposed within Carmel Valley Road would marginally add to SDG&E’s annual inspection requirements but would not be expected to require dewatering. Operations and maintenance activities for the Proposed Project would therefore not materially increase in frequency or intensity compared to baseline conditions. Any future construction activities related to potential maintenance would be evaluated under General Order 131-D and CEQA to assess whether further CPUC approval is required. There would be no net deficit in aquifer volume or lowering of the groundwater table and no impact on ground water supplies or recharge. Therefore, no impacts related to groundwater supplies would occur.

4.8.4.4 Question 8c - 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 that would result in substantial erosion or siltation on- or off-site?

Construction – Less than Significant Impact

The underground portion of the Proposed Project would be within Carmel Valley Road and would result in no change to existing drainage patterns. BMPs would be implemented during construction to contain sediment and pollutants from saw cutting/trenching activities, and protect

overall water quality. The Proposed Project would cross two drainages along Carmel Valley Road. The Proposed Project's underground transmission lines would be attached to an existing bridge in one case and would be installed over the top of a box culvert in another, thereby avoiding any work within these drainages.

The above ground portion of the Proposed Project would result in grading that would not substantially alter any existing drainage patterns or alter the course of any stream or river. Most work locations would be accessible with minor grading and smoothing of existing access roads. The Proposed Project would require approximately one new spur road (i.e., road from access roads to structure sites), and installation of approximately 62 new structures that would require grading for new and/or restoration of existing pads to accommodate construction and maintenance work. Work to develop the pole foundations would result in approximately 4,500 cubic yards of excavation and approximately 7.758 acres of grading disturbance. Any excess soil would be spread on site to match existing contours or hauled away. Grading would disturb the soil surface, resulting in a possible change in the infiltration and absorption capacity of the affected areas. Graded areas would be stabilized to promote infiltration and reduce runoff potential. None of the Proposed Project's structures are located in drainages, on flood plains, or at any location that could alter the course of a stream or river or modify flood condition water levels.

SDG&E does not propose any grading in creeks or drainages that could alter the flow. The Construction General Permit would require BMPs to prevent excessive erosion and sediment transport and would also require that disturbed areas be stabilized. The RWQCB would accept the Notice of Termination of the Construction General Permit only after demonstration of stabilization.

Construction of the Proposed Project would not substantially alter existing drainage patterns of the site or area because: (1) the Proposed Project does not include grading in creeks or drainages that would affect flow of water; (2) grading would be designed to return runoff to existing drainage patterns without increasing runoff; and (3) erosion protection and sediment control BMPs would be implemented in compliance with the Construction General Permit, SWPPP, *BMP Manual*, and *SDG&E Subregional NCCP*. Therefore, the impact on existing drainage patterns would be less than significant.

Operation & Maintenance – No Impact

SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing operations and maintenance activities are the baseline against which the impacts of the Proposed Project are evaluated. The Proposed Project's transmission and power lines would be installed along an existing transmission and power line corridor, where regular operations and maintenance activities already occur. The new underground 230 kV transmission line proposed within Carmel Valley Road would marginally add to SDG&E's annual inspection requirements but would not alter drainage patterns. Operations and maintenance activities for the Proposed Project would therefore not materially increase in frequency or intensity compared to baseline conditions. Any future construction activities related to potential maintenance would be evaluated under General Order 131-D and CEQA to assess whether further CPUC approval is required.

SDG&E would continue to implement BMPs during grading work associated with operations and maintenance, including returning runoff to existing drainage patterns and stabilizing surface disturbances. This would prevent any substantial alteration of the existing drainage pattern of the site in a manner that would result in substantial erosion or siltation on or off-site. For these reasons, there would be no impacts from substantial erosion or siltation off- or on-site due to substantial alteration of existing drainage patterns of the site or area.

4.8.4.5 Question 8d - 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 that would result in flooding on- or off-site?

Construction – Less than Significant Impact

See discussion under Question 8c above.

Operation & Maintenance – No Impact

See discussion under Question 8c above.

4.8.4.6 Question 8e - Create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Construction – Less than Significant Impact

Surface conditions would be restored as part of construction for the underground portion of the transmission line in Carmel Valley Road so there would be no change to infiltration or runoff. Where Proposed Project facilities require alteration of surface conditions (e.g., grading), graded areas would be stabilized to promote infiltration and reduce runoff potential. With the grading that would occur and implementation of BMPs including surface stabilization, material/sediment increase in runoff from the Proposed Project's footprint is not anticipated. The Proposed Project would not adversely impact the capacity of existing or planned storm water drainage systems because no substantive increase in runoff is expected, and grading would be designed to return runoff to existing drainages.

SDG&E would comply with the Construction General Permit and would develop and implement a SWPPP outlining BMPs for water quality protection. The Construction General Permit requires prevention of unauthorized discharges and implementation of BMPs needed to prevent discharges of polluted runoff to the maximum extent practicable. The Construction General Permit also requires inspections, monitoring, and reporting to ensure that polluted runoff is not discharging from the construction site.

SDG&E would implement BMPs in accordance with the Construction General Permit and its *BMP Manual*. Construction of the Proposed Project would not be a substantial source of polluted runoff considering the regulatory requirements for protection of water quality, including implementation of the SWPPP and BMPs. Therefore, potential impacts would be less than significant.

Operation & Maintenance – No Impact

SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing operations and maintenance activities are the baseline against which the impacts of the Proposed Project are evaluated. The Proposed Project's transmission and power lines would be installed along an existing transmission and power line corridor, so regular operations and maintenance activities already occur. The foundations required for the Proposed Project's new structures would not constitute substantial areas of new impermeable surfaces. No material increase in runoff from the Proposed Project's footprint is anticipated. Surface conditions would be restored as part of construction for the underground portion of the transmission line in Carmel Valley Road so there would be no change to infiltration or runoff. Operations and maintenance activities for the Proposed Project would therefore not materially increase in frequency or intensity compared to baseline conditions. Any future maintenance-related construction projects would be evaluated under General Order 131-D and CEQA for purposes of assessing whether further CPUC approval is required. SDG&E would continue to implement BMPs during maintenance work. Therefore, operations and maintenance of the Proposed Project would not affect drainage capacity of existing or planned stormwater drainage systems or cause a substantial additional source of polluted runoff.

4.8.4.7 Question 8f - Otherwise substantially degrades water quality?

Construction – Less than Significant Impact

Construction of the Proposed Project would comply with the Construction General Permit, which includes implementation of a SWPPP with BMPs to prevent degradation of water quality from storm water runoff and other permitted discharges. No other discharges to surface or ground water are anticipated during construction. Implementation of project design features and ordinary construction restrictions, including BMPs, would ensure that potential impacts to water quality remain less than significant.

Operation & Maintenance – No Impact

SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing operations and maintenance activities are the baseline against which the impacts of the Proposed Project are evaluated. The Proposed Project's transmission and power lines would be installed along an existing transmission and power line corridor, where regular operations and maintenance activities already occur. The new underground 230 kV lines proposed within Carmel Valley Road would marginally add to SDG&E's annual inspection requirements but the inspection and maintenance activities would not be expected to lead to a degradation of water quality. Operations and maintenance activities for the Proposed Project would therefore not materially increase in frequency or intensity compared to baseline conditions. Any future construction activities related to potential maintenance would be evaluated under General Order 131-D and CEQA to assess whether further CPUC approval is required. SDG&E would continue to implement BMPs during maintenance work. Therefore, operations and maintenance of the Proposed Project would not otherwise substantially degrade water quality.

4.8.4.8 Question 8g - Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map or other flood hazard delineation map?

Construction, Operation and Maintenance – No Impact

The Proposed Project does not involve the construction of housing. Therefore, no impacts related to placement of housing in a 100-year floodplain would occur.

4.8.4.9 Question 8h – Place structures within a 100-year flood hazard area which would impede or redirect flood flows?

Construction, Operation and Maintenance – No Impact

The Proposed Project would not place structures within in an area with the potential for 100-year floods. No new structures would be constructed that would impede or redirect flood flow within a 100-year flood hazard area. As a result, the Proposed Project would not impact flood flows. Therefore, no impacts to 100-year floodplains would occur.

4.8.4.10 Question 8i - 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?

Construction, Operation and Maintenance – No Impact

The Proposed Project is not located within an identified inundation area for dam failure. No levees are located within the Proposed Project area. Therefore, impacts related to loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or a dam, are not anticipated.

4.8.4.11 Question 8j – Expose people or structures to inundation by seiche, tsunami, or mudflow?

Construction – Less than Significant Impact

The MJHMP identifies areas that would be subject to tsunami, coastal erosion, and landslide. According to the MJHMP, wave heights and run-up elevations from tsunami along the San Diego Coast have historically fallen within the normal range of the tides with the highest risk zones located along the immediate coast and lagoons west of I-5. The Proposed Project is approximately 2.5 miles inland of the coast and 1.6 miles east of the furthest point that a tsunami is projected to run-up through the Los Peñasquitos Lagoon. There are no dams or large bodies of water nearby or upstream of the Proposed Project area. Therefore, no impacts related to seiche or tsunami would occur.

According to the County of San Diego Guidelines for Determining Significance of Hydrology impacts, mudflows are the most common disaster in San Diego County. They are most commonly associated with steep slopes in mountainous areas underlain by geologic formations that produce sandy soils or weathered gabbroic soils that have large amounts of clay. Mudflows can be exacerbated by activities that result in large areas of vegetation removal such as fires and

can also be caused by the incorrect diversion of runoff concentrated from developed areas. Some of the slopes adjacent to Los Peñasquitos Creek and other locations are shown in the MJHMP to be prone to landslides. BMPs would include measures to minimize disturbance to soils and stabilizing of disturbed areas, which would minimize the likelihood of construction contributing to the potential for mudflows. With the implementation of BMPs, the risk that the Proposed Project would contribute to the occurrence of mudflows or be affected by a mudflow is less than significant.

Operation & Maintenance – No Impact

As noted above, the MJHMP identifies areas that would be subject to tsunamis, coastal erosion, and landslides. The Proposed Project is well inland of the coast and there are no large bodies of water nearby. Therefore, no impacts related to seiche or tsunamis would occur.

Some of the slopes adjacent to Los Peñasquitos Creek and other locations are shown in the MJHMP to be landslide prone. However, aerial photo analysis indicates that Proposed Project structures would be situated on hill tops and ridge lines in these areas rather than on steep slopes, and are therefore not located in areas prone to mudflows. Operation and maintenance of the Proposed Project would not be expected to contribute to the occurrence of mudflows or be affected by a mudflow.

4.8.5 Project Design Features and Ordinary Construction/Operating Restrictions

With implementation of the ordinary construction restrictions (as outlined within Section 3.8), potential impacts relating to hydrology and water quality will remain less than significant.

4.8.6 Applicant Proposed Measures

The Proposed Project has no potentially significant impacts relating to hydrology and water quality. Therefore, no APMs are proposed.

4.8.7 Detailed Discussion of Significant Impacts

Based upon the preceding analysis, no significant impacts relating to hydrology and water quality are anticipated from the Proposed Project.

4.8.8 References

City of San Diego. 2008. *City of San Diego General Plan*. City of San Diego Development Services. March 2008.

City of San Diego. 2008. *Revised Final, Program Environmental Impact Report for the City of San Diego Draft General Plan*. City of San Diego Development Services. December 2008.

City of San Diego. 2012. *Storm Water Standards*. Included as Appendix O of the San Diego Land Development Manual. January 2012.

- City of San Diego Stormwater Division. 2013. *Plans and Reports*. Online: <http://www.sandiego.gov/stormwater/plansreports/index.shtml>. Site visited on October 3, 2013.
- City of Poway. 2008. *Jurisdictional Urban Runoff Management Program*. Prepared by D- Max Engineering. San Diego, CA. March 2008.
- County of San Diego. 2007. *Guidelines for Determining Significance Hydrology*.
- County of San Diego. 2007. *Guidelines for Determining Significance Surface Water Quality*.
- County of San Diego. 2010. *Final Draft San Diego County Multi-jurisdictional Hazard Mitigation Plan*. July 2012.
- Department of Water Resources. 1967. *Ground Water Occurrence and Quality San Diego Region*. Bulletin No. 106-2. Volume 1: Text. 235 pp.
- Google Earth. 2012. Aerial imagery date November 2, 2012.
- San Diego Regional Water Quality Control Board. 1994. *Water Quality Control Plan for the San Diego Basin*. (With April 4, 2011 Amendments)
- San Diego Regional Water Quality Control Board. 2013. *Permits, Waivers, and Forms*. Online: http://www.swrcb.ca.gov/rwqcb9/publications_forms/permits_waivers_forms.shtml. Site visited on October 9, 2013.
- State Water Resources Control Board. 2010. *Final California 2010 Integrated Report (303(d) List/305(b) Report)*. Regional Board 9 – San Diego Region. Los Peñasquitos Creek. Online: http://www.waterboards.ca.gov/water_issues/programs/tmdl/2010state_ir_reports/01617.shtml#16568. Site visited on October 3, 2013.
- Weston Solutions, Inc. 2009. *Los Peñasquitos Lagoon TMDL – Watershed Phase I Sediment Source Identification Study*. Prepared for Storm Water Pollution Prevention Program, Storm Water Department, City of San Diego. June 2, 2009.