

**TABLE OF CONTENTS**

**4.9 HYDROLOGY AND WATER QUALITY.....4.9-1**

4.9.1 Introduction .....4.9-2

4.9.2 Regulatory Setting .....4.9-2

4.9.3 Existing Conditions .....4.9-6

4.9.4 Applicant Proposed Measures .....4.9-9

4.9.5 Potential Impacts .....4.9-9

4.9.6 References .....4.9-15

**LIST OF TABLES**

4.9-1 Summary of Hydrogeologic Parameters for North San Diego County Basins .....4.9-8

**LIST OF APPENDICES**

4.9-A Jurisdictional Delineation Report

THIS PAGE IS INTENDED TO BE LEFT BLANK

## 4.9 HYDROLOGY AND WATER QUALITY

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation 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 offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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.	Inundation by seiche, tsunami or mud flow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### **4.9.1 Introduction**

This section of the PEA describes the existing conditions and potential project-related impacts related to hydrology and water quality in the vicinity of the Proposed Project. The analysis concludes that less than significant impacts related to hydrology and water quality will occur. The Proposed Project's potential effects on this resource were evaluated using the significance criteria set forth in Appendix G of the CEQA Guidelines. The conclusions are summarized in the checklist above, and discussed in more detail in Section 4.9.6.

#### **4.9.2 Regulatory Setting**

##### **4.9.2.1 Federal**

##### **MCB Camp Pendleton**

###### *MCB Camp Pendleton Integrated Natural Resources Management Plan (INRMP)*

In recognition of the fact that military lands contain significant natural resources, Congress enacted the Sikes Act in 1960 to address wildlife conservation and public access on military installations. The Sikes Act (16 U.S. Code [USC] Section 670-670f), as amended, requires the Secretary of Defense to carry out a program to provide for the conservation and rehabilitation of natural resources on military installations in cooperation with the U.S. Fish and Wildlife Service (USFWS) and the state fish and wildlife agencies. The 1997 amendments to the Sikes Act require the Department of Defense to develop and implement an INRMP for each military installation with significant natural resources. INRMPs are prepared in cooperation with the USFWS and the state fish and wildlife agencies, and reflect the mutual agreement of these parties concerning conservation, protection, and management of fish and wildlife resources on military lands.

The MCB Camp Pendleton INRMP (MCB Camp Pendleton 2012) discusses water resource issues that include water rights, water supply, water quality, wastewater, stormwater, flood prevention, and watershed management. MCB Camp Pendleton works proactively to protect its water resources from quality, quantity, and legal threats. MCB Camp Pendleton assures the adequacy of its water supply by implementing conservation programs, and by defending its adjudicated water rights through technical, administrative, and legal mechanisms. The Proposed Project will be consistent with the existing goals and policies identified in the INRMP.

##### **Other Federal Regulations**

###### *Clean Water Act (CWA)*

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 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 sources discharges into surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). The Proposed Project is under the jurisdiction of the San Diego Regional Water Quality Control Board (RWQCB). Applicable sections of the CWA are described in the paragraphs that follow.

###### Section 401

Section 401 of the CWA requires that any activity, including river or stream crossings during road, pipeline, or power line construction, which may result in a discharge into a state waterbody, must be

certified by the state to comply with applicable provisions of Section 301, 302, 303, 306 and 307 of the CWA. In California, this certification is issued by the State Water Resources Control Board (SWRCB) via one of the nine RWQCBs. This certification ensures that the proposed activity does not violate state and/or federal water quality standards.

#### Section 402

The NPDES was authorized by the CWA and is administered in California by the SWRCB through the nine RWQCBs. The purpose of NPDES is to control the discharge of pollutants from point sources into waters of the U.S. The SWRCB has issued a California Construction General Permit (Construction General Permit, Order No. 2009-009) under NPDES that applies to most construction activities in California. Coverage under the Construction General Permit is required for projects that disturb one acre or greater of soil, or less than one acre but part of a larger common plan of development or sale. The project applicant must submit a Notice of Intent to the SWRCB and a Stormwater Pollution Prevention Plan (SWPPP) that complies with the Construction General Permit requirements and 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, and must revise the SWPPP and implement revisions as needed to protect stormwater quality. The applicant must submit a Notice of Termination to the SWRCB after completing a project subject to the Construction General Permit.

#### Section 404

Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged and/or fill material into waters of the U.S. Waters of the U.S. 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 U.S.” is defined by 33 Code of Federal Regulations (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. In June 2015, the U.S. Environmental Protection Agency and USACE announced a final Clean Water Rule that defines the scope of waters protected under the CWA. The final rule is effective August 28, 2015. In the final rule, the agencies define “waters of the U.S.” to include eight categories of jurisdictional waters. The following six types of waters are jurisdictional by rule, with no additional analysis required:

- Traditional Navigable Waters (TNWs);
- interstate waters;
- the territorial seas;
- impoundments of jurisdictional waters;
- “tributaries” defined as waters that are characterized by the presence of physical indicators of flow – bed and banks and ordinary high water mark (OHWM) – and that contribute flow directly or indirectly to a TNW, an interstate water, or the territorial seas; and
- “adjacent waters” identified as having one of the following three circumstances:

- waters located in whole or in part within 100 feet of the OHWM of a TNW, interstate water, the territorial seas, an impoundment of a jurisdictional water, or a tributary, as defined in the rule;
- waters located in whole or in part in the 100-year floodplain and that are within 1,500 feet of the OHWM of a TNW, interstate water, the territorial seas, an impoundment, or a tributary, as defined in the rule (“floodplain waters”); and
- waters located in whole or in part within 1,500 feet of the high tide line of a TNW or the territorial seas and waters located within 1,500 feet of the OHWM of the Great Lakes.

The agencies will decide jurisdiction over the following two categories of waters following case-specific analysis to determine if a significant nexus exists:

- Five “similarly situated” types of waters in specific regions that science demonstrates should be subject to a significant nexus. In California, similarly situated types of waters include western vernal pools.
- Waters within the 100-year floodplain of a TNW, interstate water, or the territorial seas and waters within 4,000 feet of the high tide line or the OHWM of a TNW, interstate water, the territorial seas, impoundments, or covered tributary, unless the water is excluded under paragraph (b) of the rule.

Per the new Clean Water Rule, waters have the requisite significant nexus if they, either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of TNWs, interstate waters, or the territorial seas<sup>1</sup>.

#### *Nationwide Permits*

Nationwide Permits are general Section 404 permits for categories of activities which 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 U.S., provided the activities do not result in the loss of greater than one-half acre of waters of the U.S. Nationwide Permit 12 requires a preconstruction notification to the USACE district engineer before beginning the activity if the proposed activity causes discharges that result in the loss of greater than one-tenth acre of waters of the U.S. The Proposed Project's activity and associated access will not result in the loss of more than one-tenth acre of waters of the U.S. The activity will therefore be carried out under non-notifying Nationwide Permit 12 issued by USACE.

#### *National Flood Insurance Program (NFIP)*

The Federal Emergency Management Agency (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 NFIP. These maps identify the locations of special flood hazard areas, including the 100-year floodplain. FEMA allows nonresidential development in floodplains, but

---

<sup>1</sup> The Sixth Circuit Court of Appeals stayed implementation of this Rule on October 9, 2015. Because the Proposed Project will not affect any potentially jurisdictional features, the conclusions of this PEA are not affected by the nationwide stay of the Rule implementation.

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.

#### **4.9.2.2 State**

##### **Streambed Alteration Agreements**

California Fish and Game Code Sections 1600–1616 require a Streambed Alteration Agreement for any project that may obstruct the natural flow of a river, stream, or lake; substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or deposit debris where it may pass into a river, stream, or lake. A project applicant must submit a complete notification package to California Department of Fish and Wildlife describing the portions of a project that would:

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

##### **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 Basin Plan. 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, anyone proposing to discharge waste that could affect the quality of the waters of the state must make a report of the waste discharge to the RWQCB or SWRCB as appropriate, in compliance with Porter-Cologne Water Quality Control Act.

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

The Proposed Project is located within the San Diego Region governed by the San Diego RWQCB, which encompasses the portions of the City of San Clemente that are crossed by the Proposed Project alignment. The San Diego RWQCB, under the SWRCB, implements policies and programs that protect the quality of the regional water; these programs include preserving the existing water quality, enhancing water quality, and protecting the beneficial uses of regional water. The regional plan that sets the standards for compliance is the Basin Plan. The Basin Plan was prepared in accordance with the criteria in the California Porter-Cologne Water Quality Control Act, and other pertinent state and federal rules and regulations.

The Basin Plan describes water quality objectives for surface water in the Proposed Project area. 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.

#### **4.9.2.3 Local**

As provided in CPUC General Order 131-D, the CPUC preempts local discretionary authority over the location and construction of electrical utility facilities. The following discussion of relevant local land use plans and policies that pertain to hydrology and water quality is provided below for informational purposes.

#### **City of San Clemente Centennial General Plan**

The City of San Clemente Centennial General Plan (City of San Clemente 2014) is the comprehensive planning document for the City of San Clemente. The General Plan establishes policies to manage new development, foster economic vitality, conserve natural resources, and to generally guide the City's growth in accordance with an established vision. The General Plan provides the framework by which the City of San Clemente would change and grow, identifying how physical and economic resources are to be managed and used into the future. The City of San Clemente Centennial General Plan contains the following relevant policies:

C-2.01. Beach and Marine Environment. We provide a litter-free and enjoyable beach and marine environment.

C-2.02. Development Proposals. We protect the natural resources found in the Coastal Zone by evaluating development proposals, as required under the California Environmental Quality Act and as described in the Zoning Ordinance.

C-2.03. Stormwater and Urban Runoff Management. We protect our coastal and marine resources by implementing the Clean Ocean Program to address stormwater and urban runoff.

NR-1.02. Natural Areas. In natural areas that are undeveloped or essentially so, we require applicants for proposed projects to:

- a) avoid significant impacts, including retention of sufficient natural space where appropriate; and
- b) retain watercourses.

#### **4.9.3 Existing Conditions**

##### **4.9.3.1 Existing Setting**

#### **Surface Water and Groundwater Resources**

##### *Hydrologic Unit*

The San Diego RWQCB controls Region 9 which includes most of San Diego County, parts of southwestern Riverside County and southeastern Orange County and is divided into 11 major hydrologic units. The Proposed Project is located within the San Diego Region in the San Juan Hydrologic Unit (HU). Encompassing an area of about 500 square miles, the San Juan HU encompasses the entire area of Orange County within the jurisdiction of the San Diego RWQCB. Portions of Riverside County and San Diego County, several cities and unincorporated communities, and a portion of MCB Camp Pendleton are also located in the San Juan HU. The upper reaches of the San Juan HU consist primarily of canyons that are 200 to 2,500 feet deep and 0.5 to 1 mile broad, while the lower watershed is a valley 2.5 to 3 miles wide and less than 1,000 feet deep. The elevation range along the Proposed Project ranges from



approximately 15 to 460 feet above mean sea level. Much of the upper watershed is encompassed by the central Cleveland National Forest and the lower portion lies mostly within MCB Camp Pendleton (RWQCB 1994).

There are five hydrologic areas (HA) in the San Juan HU named Laguna, Mission Viejo, San Clemente, San Mateo Canyon, and San Onofre. The Proposed Project is located in the San Onofre and San Mateo Canyon HAs. The major stream systems in the San Onofre HA drain the San Onofre, Las Flores, and Aliso Canyon basins. The Proposed Project is located within San Mateo Creek watershed which covers 139 square miles mostly in San Diego and Riverside counties and partially in Orange County. It shares boundaries with several watersheds – including San Clemente Coastal Streams Watershed to the west, Arroyo San Onofre to the southwest, and streams draining into Lake Elsinore in the northeast (RWQCB 1994).

### *Surface Waters*

The low-lying creeks, streambeds, drainage features and wetland areas are fed by direct precipitation, dry season nuisance flows (e.g., runoff from irrigation or other sources in excess of normal flows), and stormwater runoff. The stream flow in the area of the Proposed Project is ephemeral and streams tend to become active after rainfall. It is not unusual for these creeks to be dry from July through October (RWQCB 1994). Appendix 3-B, Detailed Route Map, shows the location of the Proposed Project components relative to floodplains and potentially jurisdictional features. The Proposed Project includes existing structures (i.e., pole structures and lattice towers) and proposed new pole structures that are located near several potentially jurisdictional features. This includes San Mateo Creek, an ephemeral stream that is a tributary to San Mateo Creek, and two ephemeral streams that are tributaries to Cristianitos Creek, and San Onofre Creek. None of the existing or proposed pole structures, or existing lattice towers, are situated within any of these features. However, existing pole structures 124 and 125 are located within a freshwater forested wetland but this area is isolated from nearby San Mateo Creek by Interstate 5 and does not contain any active channels (Borcher Environmental Management 2015).

A wetlands and waters determination and delineation assessment was conducted for the Proposed Project area from June 1 through June 5, 2015, with a subsequent survey on October 2, 2015 (Borcher Environmental Management 2015) (Appendix 4.9-A). Potential jurisdictional waters of the U.S. were field-checked for the presence of definable channels and/or wetland vegetation, riparian habitat, soils, and hydrology. Waters of the U.S. were identified pursuant to criteria outlined in Section 404 of the CWA and the new Clean Water Rule. Nineteen features were identified as waters and eight features were identified as wetlands, potentially subject to USACE jurisdiction, within the Proposed Project area (Borcher Environmental Management 2015). Most pole structures will be located outside of the features so that all the water features and all but one of the wetland features will be avoided. Two pole structures, existing pole structures 124 and 125, are located within a freshwater forested wetland that has been determined to be potentially jurisdictional (Borcher Environmental Management 2015). Improvements to existing access roads may be required during construction. Depending upon the condition of existing roads, re-establishment and/or regrading may be necessary to provide adequate and safe access. Depending on the location and nature of these access roadway improvements, they may be determined by the USACE to be jurisdictional by the USFWS and the San Diego RWQCB.

### *Floodplains*

A total of 13 existing structures (pole structures or lattice towers) or proposed new pole structures associated with the Proposed Project are located within floodplains. Of these 13 pole structures associated with the Proposed Project, pole structure 44 (an existing lattice tower) within the San Mateo Creek

floodplain is located within the FEMA 100-year flood zone. Flood zone information for the Proposed Project area is located on FEMA FIRMs.

#### *Dam Failure Inundation Areas*

The Office of Emergency Services is responsible for the identification of inundation areas for dam failures in California. The list is intended to guide local jurisdictions in developing evacuation plans for areas located below such dams to minimize public risk. Estimated times when floodwaters will arrive at certain locations downstream are also provided to guide such planning efforts. The Proposed Project area is not located within an inundation area for dam failure.

#### *Precipitation*

Precipitation in the watershed ranges from 6 to 14 inches per year. The average monthly rainfall in the area varies from approximately 3.2 inches in January to less than 0.25 inch in June. Weather in the Proposed Project area is characterized by mild, fairly-dry winters and mild, dry summers, with most of the rainfall occurring between the months of November and March. The stream flow in the area of the Proposed Project is ephemeral and streams tend to become active after rainfall so it is not unusual for these creeks to be dry from July through October (RWQCB 1994).

#### *Groundwater*

The groundwater within the San Mateo Canyon and San Onofre HAs drain into three groundwater basins. These are the San Mateo Basin, San Onofre Basin, and Las Flores Basin. These basins consist of 496 square miles of drainage area in San Diego, Orange, and Riverside counties, with approximately 150 square miles located in northwest San Diego County. The North San Diego County Basins underlie the service area of the San Diego County Water Authority (Metropolitan Water District of Southern California [Metropolitan] 2007).

A summary of the aquifer characteristics of the North San Diego County Basins is presented in Table 4.9-1 below.

**Table 4.9-1. Summary of Hydrogeologic Parameters for North San Diego County Basins**

<b>Parameter</b>	<b>San Mateo Basin</b>	<b>San Onofre Basin</b>	<b>Las Flores Basin</b>
<b>Aquifer(s)</b>	Unconfined alluvium	Unconfined alluvium	Unconfined alluvium
<b>Depth of Groundwater Basin</b>	Up to 100 feet	Up to 55 feet	Up to 100 feet
<b>Storage Capacity</b>	6,500 acre-feet	6,500 acre-feet	8,400 acre-feet

*Source:* San Diego County Water Authority 1997.

The San Mateo Basin underlies the San Mateo Valley and Cristianitos Canyon in northwestern San Diego County and southeastern Orange County. The basin is bounded by the Pacific Ocean on the west and elsewhere by semi-permeable tertiary marine sedimentary rocks. The valleys are drained westward to the ocean by San Mateo and Cristianitos Creeks (Metropolitan 2007).

The San Onofre Basin underlies the San Onofre Valley in northwestern San Diego County. The basin is bounded by the Pacific Ocean on the west and elsewhere by semi-permeable Tertiary marine sedimentary rocks. The valley is drained westward to the ocean by San Onofre Creek (Metropolitan 2007).

The Las Flores Basin (also known as the Las Pulgas Basin) underlies Las Flores Creek. The basin is bounded by the Pacific Ocean on the west and elsewhere by semi-permeable Tertiary marine sedimentary rocks. The valley is drained westward to the ocean by Las Flores Creek (Metropolitan 2007).

MCB Camp Pendleton reports the estimated safe yield for long-term balance of recharge and discharge for the San Mateo Basin at 3,180 acre-feet per year (AFY), the San Onofre Basin at 1,420 AFY, and the Las Flores Basin at 600 AFY (Metropolitan 2007).

According to MCB Camp Pendleton's 2013 Consumer Confidence report published in May 2014 (MCB Camp Pendleton 2014), MCB Camp Pendleton is divided into two water systems, the Northern Water System and Southern Water System. The Proposed Project will lie primarily on federal military lands in the western portion of MCB Camp Pendleton within the Northern Water System. Local groundwater wells located in the San Onofre and San Mateo River basins are the primary water source for the Northern Water System of MCB Camp Pendleton. This system serves all areas north of Las Pulgas Road except for the 43 Area (also known as Las Pulgas or Camp Las Pulgas) and San Mateo Point Housing area. The 43 Area and all areas south of Las Pulgas Road are served by the Southern Water System, which obtains its water from groundwater wells in the Las Pulgas and Santa Margarita River basins. San Mateo Point Housing receives imported water supplies from the South Coast Water District. Past water quality monitoring has indicated that the region's surface waters are high in total dissolved solids and several elevated constituents have been noted including nitrates, iron, sodium, and E. Coli, although there appear to be no long-term trends.

#### **4.9.4 Applicant Proposed Measures**

The Proposed Project will implement the following APMs to avoid or minimize impacts to hydrology and water quality.

##### **APM HYD-01. Supplemental Surveys**

SDG&E will conduct supplemental jurisdictional delineation surveys to address the impacts, if any, associated with components that were subsequently added to the Proposed Project, but which lie outside of the survey area covered in the Jurisdictional Delineation Report (Borcher Environmental Management 2015).

##### **APM HYD-02. Work within and near Jurisdictional Wetlands**

Pole structures 124 and 125 are located within a jurisdictional wetland. Activities within a jurisdictional wetland will be limited to top of pole work only. No digging, filling or other ground disturbing activity shall occur at these locations. Minor vegetation trimming to create an access footpath is permitted.

#### **4.9.5 Potential Impacts**

The Proposed Project includes reconductoring, removal of existing wood pole structures, and installation of new steel pole structures for the existing TL 695 and TL 6971 power lines. The operation and maintenance activities required for the power lines will not change from those currently required for the existing system; thus, no additional operation-related impacts related to hydrology and water quality will occur. Furthermore, maintenance will decrease slightly due to the removal of wood pole structures and the installation of steel pole structures. Therefore, the impact analysis is focused on construction activities that are required to install the new conductor, remove the existing wood pole structures, install the new steel pole structures, and establish required access and temporary work areas, as described in Chapter 3.0, Proposed Project Description.

##### **4.9.5.1 Methodology**

Hydrology and water quality in the Proposed Project area were evaluated by reviewing aerial photographs, FEMA maps for flood zones, USFWS National Wetlands Inventory, the Biological

Constraints Evaluation and Survey (AECOM 2014), and the Jurisdictional Delineation Report (Borcher Environmental Management 2015). The San Diego RWQCB Basin Plan was also reviewed to ensure consistency with state and local regulations.

#### **4.9.5.2 Significance Criteria**

According to Section 15002(g) of the CEQA Guidelines, “a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project.” As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. The potential significance of project-related impacts on hydrology and water quality were evaluated for each of the criteria listed in the checklist, as discussed below.

##### **a) Would the project violate any water quality standards or waste discharge requirements? Less than Significant**

The Proposed Project will not violate any water quality standards or waste discharge requirements. Potential, temporary, short-term impacts on surface water and groundwater quality could occur during construction of the Proposed Project, on the existing access roads, at pole structure locations, and at temporary work staging areas by an accidental release of diesel fuel, gasoline, lubrication oil, hydraulic fluid, antifreeze, transmission fluid, or lubricating grease from a vehicle or construction equipment. Such spills could wash into nearby drainages or infiltrate into the soil, resulting in surface or groundwater quality degradation. Hazardous materials will be delivered, stored, managed and disposed of according to SDG&E's Best Management Practices Manual for Water Quality Construction. These potential, temporary, short-term indirect impacts will be minimized by compliance with applicable federal, state, and local laws, and the proper implementation of SDG&E's Best Management Practices Manual for Water Quality Construction. Potential discharges will be prevented and no water quality standards or impacts to water quality will occur with the Proposed Project construction. No new sources of point discharge water pollution will result from the Proposed Project construction. As a result, impacts will be less than significant.

Including proposed staging yards, the Proposed Project footprint will disturb more than one acre and therefore requires coverage under an NPDES permit for stormwater discharges during construction. SDG&E will obtain coverage under the State General Construction Permit (Order No. 2009-009), and comply with its relevant requirements, including implementation of a SWPPP with associated best management practices (BMPs) for water quality protection. The Construction General Permit requires prevention of unauthorized discharges and implementation of a SWPPP with BMPs needed to prevent discharges from construction activities that would otherwise violate water quality standards. The Construction General Permit further requires SDG&E to implement inspections, monitoring, and reporting to ensure that the SWPPP BMPs are implemented and effective and modified if needed to ensure protection of water quality. SDG&E will implement the SWPPP BMPs consistent with the Construction General Permit requirements, NPDES and SDG&E's Best Management Practices Manual for Water Quality Construction.

Additionally, the Proposed Project will fall under the Linear Underground/Overhead Project requirements of the Construction General Permit. Linear Underground/Overhead Project 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, pole structures, cables, wires, connectors, switching equipment, regulating equipment, transforming equipment, and associated ancillary facilities). This includes, but is not limited to: underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access road re-establishment,

cable/wire pull sites, substructure installation, construction of foundations, pole structure installations, welding, concrete and/or pavement repair or replacement, and stockpile/borrow locations.

The Proposed Project will not violate any water quality standards or waste discharge requirements. SDG&E will prepare a SWPPP under the state General Construction Permit and will implement BMPs from the SDG&E Best Management Practices Manual for Water Quality Construction to avoid or minimize potential impacts to water quality. Therefore, impacts related to construction for the Proposed Project will be less than significant.

- b) Would the project 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)?**  
***No Impact***

The water demand from construction of the Proposed Project will be minor and short-term, will be met through existing military sources and/or municipal sources, and will not result in new groundwater pumping. Surface disturbance will be limited and negligible and will not alter the ability for groundwater basins to recharge and thus have no impact.

Although no substantial dewatering is anticipated during construction, where localized shallow groundwater is encountered, dewatering systems, as outlined in SDG&E's Best Management Practices Manual for Water Quality Construction, may be installed in trenches and excavations, as appropriate to allow construction under dry conditions. Dewatering activities may have localized effects on groundwater levels; however, such effects will be temporary and are not expected to affect any area wells. Potentially contaminated water will be handled and disposed offsite in accordance with applicable state and federal laws. For these reasons, there will be no net deficit in aquifer volume or lowering of the groundwater table and no impact on groundwater supplies or recharge. Therefore, no impacts related to groundwater supplies will occur.

- c) Would the project 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? *Less than Significant***

Stormwater run-on and runoff have the potential to detach and transport soil particles and deleterious material from bare soils and deposit them in nearby waterways. Sediment can result in increased turbidity in waterways, impair riparian habitat, restrict recreational uses, and cause the transport of other pollutants. Construction vehicles and equipment may also disturb underlying soils through the transport of soils from construction areas to adjacent area roadways, thereby further eroding the ground surface. Re-establishment and/or regrading of existing roads may be necessary to provide temporary access during construction depending upon the condition of existing roads at the time of construction.

The Proposed Project includes existing structures (i.e., pole structures and lattice towers) and proposed new pole structures that are located near several potentially jurisdictional features. This includes San Mateo Creek, an ephemeral stream that is a tributary to San Mateo Creek, and two ephemeral streams that are tributaries to Cristianitos Creek, and San Onofre Creek. None of the existing or proposed pole structures, or existing lattice towers, are situated within any of these features. However, existing pole structures 124 and 125 are located within a freshwater forested wetland but this area is isolated from nearby San Mateo Creek by Interstate 5 and does not contain any active channels (Borcher Environmental Management 2015). Proposed activities at these two pole structures will involve the removal of 69

kilovolt conductor and the topping of the existing pole structures. A footpath will be established to provide access to these pole structures to complete the work. Minor vegetation trimming may be necessary to establish the footpath. In accordance with APM HYD-02, no digging, filling, or other ground disturbing activity shall occur at these locations. Accordingly, the nature of work involved with the Proposed Project will not substantially alter the course of these waterways or existing drainage patterns in a manner that will result in substantial erosion or siltation.

Pole structures 22 and 71 and stringing site 15 are near jurisdictional water features. SDG&E will implement standard operating procedures to avoid impacts to these features, including ensuring that activities near the features are in accordance with approved plan drawings, and taking care to avoid digging, filling, or other ground disturbing activities occurring within nearby drainages. With implementation of standard operating procedures, the Proposed Project will avoid potential impacts to adjacent or nearby jurisdictional water features. Furthermore, SDG&E standard operating procedures for road grading include demarcating all jurisdictional features with red flagging prior to construction, and lifting the blade of grading equipment within 25 feet of all flagged jurisdictional features. Due to the nature of the construction activities within and adjacent to potentially jurisdictional areas, no permits will be required for the construction of the Proposed Project. Therefore, the impacts are less than significant. With implementation of SDG&E's water quality construction BMPs and the General Construction Permit incorporation of a site specific SWPPP to address erosion and sediment control, the potential for the Proposed Project to impact water quality in these potentially jurisdictional areas and other downstream surface waters as a result of erosion and sedimentation will remain less than significant. In accordance with SDG&E's Best Management Practices Manual for Water Quality Construction, a drainage plan will be prepared to address storm water flows across the site and runoff from within the site including the implementation of silt fences, fiber rolls and gravel bags to minimize potential sediment run-off. Sediment will be prevented from entering the storm drain system through use of gravel bag berms, and tracking controls will be used to minimize construction traffic tracking dirt onto adjacent roadways. Incorporation of these, as well as other BMPs outlined in the manual and the SWPPP will ensure that potential impacts are less than significant.

- d) Would the project 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? No Impact**

The Proposed Project will not substantially alter the existing drainage patterns of the affected areas in a manner that will result in flooding onsite or offsite. Minor road re-establishment of existing access roads may be required at the Proposed Project sites to ensure that existing access is adequate to accommodate reconductoring and the proposed removal of existing wood pole structures and installation of new steel pole structures. However, such road work will be conducted only to maintain existing access roads that have since revegetated. Also, the Proposed Project will involve the construction of an approximately 50-foot long unpaved, one-lane access roadway segment adjacent to Japanese Mesa Substation. Such changes will not substantially increase the existing velocity or volume of stormwater flows either on-site or to off-site areas. As such, flow rates and volumes will not be substantially altered with implementation of the Proposed Project, and no impacts from runoff or flooding either onsite or offsite are anticipated.

- e) **Would the project 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? Less than Significant**

The Proposed Project will not substantially alter existing drainage patterns of the site or surrounding area in a manner that will result in significant impacts to the capacity of the existing or planned stormwater drainage systems. New sources of pollutants generated during the construction phase may potentially be released into off-site water bodies via stormwater runoff. Potential sources of pollutants may include hazardous materials, such as diesel fuel, hydraulic fluid, oil and grease, as well as construction materials, sediment, and trash.

In compliance with the Construction General Permit, SDG&E will prepare a SWPPP and implement associated BMPs to ensure that such pollutants or sediment are not carried to on-site or off-site surface waters via stormwater runoff. The Construction General Permit requires prevention of unauthorized discharges and implementation SWPPP BMPs needed to prevent discharges of polluted runoff. The Construction General Permit also requires inspections, monitoring, and reporting to ensure that polluted runoff is not discharged from the construction site. The Proposed Project will not adversely impact the capacity of existing stormwater drainage systems because no substantive increase in runoff is expected and grading is designed to return runoff to existing drainages. As the Proposed Project will not result in the exceedance of the stormwater drainage capacity, the Proposed Project will not require modifications to the existing drainage systems. The construction phase of the Proposed Project will not result in a substantial source of polluted runoff considering compliance with the regulatory requirements for protection of water quality, including implementation of the SWPPP and associated BMPs and will not exceed the capacity of existing or planned stormwater drainage. Therefore, the impacts will be less than significant.

- f) **Would the project otherwise substantially degrade water quality? Less than Significant**

Construction of the Proposed Project will comply with the Construction General Permit, which includes implementation of a SWPPP with associated BMPs to prevent degradation of water quality from stormwater runoff and other permitted discharges. No other discharges to surface or groundwater are anticipated during construction. Other potential pollutants are not anticipated to result in a degradation of groundwater quality as a result of the Proposed Project. Implementation of APM HYD-02 and standard operating procedures, including preparation of a SWPPP and implementation of SDG&E's Best Management Practices Manual for Water Quality Construction, will ensure that potential impacts to water quality remain less than significant.

- g) **Would the project 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? No Impact**

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

- h) **Would the project place structures within a 100-year flood hazard area which would impede or redirect flood flows? No Impact**

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. The Proposed Project will be consistent with these standards. A FIRM is the official map produced by FEMA which uses water

surface elevations combined with topographic data to illustrate areas that will be inundated during a 100-year flood. One existing structure, a lattice tower, is located in the FEMA 100-year flood zone, an area with the potential for 100-year floods. However, the proposed construction, maintenance, and operational activities will not result in a significant impact that will impede or redirect flows due to the character of the work required (i.e., reconductoring, pole structure removal, pole structure installation, and a 400-foot segment of trenching within existing utility corridors). No new structures will be constructed that impede or redirect flood flow within a 100-year flood hazard area. As a result, the Proposed Project will not impact flood flows. Therefore, there will be no impact.

**i) Would the project 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? No Impact**

The County of San Diego Multi-Jurisdictional Hazard Mitigation Plan (County of San Diego 2010) identifies dam failure risk levels based on dam inundation map data. No dam inundation areas are located in the vicinity of the Proposed Project area. A total of 13 structures associated with the Proposed Project (i.e., existing pole structures or towers, or proposed new pole structures) are located within floodplains. The proposed construction, operation and maintenance activities will not result in exposure of people or structures to a risk of significant loss from flooding due to the character of the work involved (i.e., reconductoring, pole structure removal, pole structure installation, and a 400-foot segment of trenching within existing utility corridors). The potential for risk, loss, injury, or death from installation of new structures, and removal or modifications to existing structures within dam inundation areas will be minimal. The Proposed Project will not involve construction of inhabited or staffed structures in an inundation area, nor will it change the structural integrity of any dams or levees. During construction, operation, and maintenance, the Proposed Project will not 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 a dam. Therefore, there will be no impact.

**j) Inundation by seiche, tsunami, or mudflow? No Impact**

Due to its coastal location, the Proposed Project and surrounding land characteristics, have some potential for being exposed to a tsunami. The County of San Diego Multi-Jurisdictional Hazard Mitigation Plan (County of San Diego 2010) identifies areas that will be subject to tsunami inundation, coastal erosion, and landslides. Because the Proposed Project is located on MCB Camp Pendleton these areas are not identified within the County of San Diego Multi-Jurisdictional Hazard Mitigation Plan maps. However, the MCB Camp Pendleton 2030 Master Plan indicates that MCB Camp Pendleton has experienced substantial landslides in the past. Therefore, some portion of the Proposed Project could lie within high risk areas. However the proposed construction, operation and maintenance activities will not result in a cause of inundation by seiche, tsunami, or mudflow because of the character of the work required (i.e., removal and installation of pole structures within existing areas devoted to electric utilities). Because the Proposed Project does not involve the development of residential uses, there will be no impacts associated with flooding of residences or occupied structures, or the exposure of people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami or mudflow. Therefore, no impacts related to inundation by seiche, tsunami, or mudflow will occur.



#### 4.9.6 References

- AECOM. 2014. Biological Resource Surveys for the Transmission Line 695 Wood to Steel Pole Replacement Project, San Diego and Orange Counties, California. November 2014.
- Borcher Environmental Management. 2015. Jurisdictional Delineation Report. November 2015.
- City of San Clemente. 2014. City of San Clemente Centennial General Plan. February 2014.
- County of San Diego. 2010. Multi-Jurisdictional Hazard Mitigation Plan. August 2010.
- MCB Camp Pendleton. 2012. Integrated Natural Resources Management Plan. March 2012.
- MCB Camp Pendleton. 2014. Consumer Confidence Report. Online  
at <http://www.pendleton.marines.mil/Portals/98/Docs/Environmental/2013%20CCR.PDF>.  
Accessed May 2015.
- Metropolitan. 2007. Ground Water Basins Report San Diego County Basins. September. Online  
at <http://www.mwdh2o.com/mwdh2o/pages/about/AR/AR08/AR2008complete.pdf>. Accessed  
May 2015.
- RWQCB. 1994. Water Quality Control Plan for the San Diego Basin. (With April 4, 2011 Amendments).  
Online: [http://www.swrcb.ca.gov/rwqcb9/water\\_issues/programs/basin\\_plan/index.shtml](http://www.swrcb.ca.gov/rwqcb9/water_issues/programs/basin_plan/index.shtml).  
Accessed May 2015.
- San Diego County Water Authority. 1997. Groundwater Report.
- SDG&E. 2011. Best Management Practices Manual for Water Quality Construction (Water Quality Construction BMP Manual). Revised July 2011.

THIS PAGE IS INTENDED TO BE LEFT BLANK