3.9 HYDROLOGY AND WATER QUALITY

3.9.1 Environmental Setting

Hydrologic Basin

The proposed project area is in the San Juan Hydrologic Unit as defined in the SDRWQCB Water Quality Control Plan for the San Diego Basin (SDRWQCB 1994). Elevations within the proposed project area range from approximately 15 to 460 feet amsl (SDG&E 2016b). Precipitation, runoff, ground water, reclaimed water, ocean desalination, and imported water are the main sources of water in the San Diego Basin (Regional Water Management Group 2013, SDRWQCB 1994).

Annual precipitation at MCB CPEN averages 13.84 inches per year (MCB CPEN 2012a). Unregulated streams on MCB CPEN exhibit extremely low flows during the summers and periods of extreme drought (MCB CPEN 2012a). Natural and manmade changes to the topography and geology have influenced the drainage patterns within MCB CPEN (MCB CPEN 2012a). Stormwater and urban runoff in the proposed project area are collected and conveyed through storm drain systems managed by MCB CPEN, the City of San Clemente, private property owners, and homeowners' associations (City of San Clemente 2014, MCB CPEN 2012a).

Surface Waters

The region has eight main stream systems that originate in the western Peninsular Range and flow westward to the Pacific Ocean (DWR 1967). The proposed project would be located primarily within the San Mateo Creek watershed where the San Mateo Creek is the major drainage feature. A portion of the proposed project would be in the San Onofre Creek-Frontal Gulf of Santa Catalina watershed where the San Onofre Creek is the major drainage feature (SDRWQCB 1994). The watersheds and the ephemeral streams in the proposed project area are shown on Figure 3.9-1.

Water Quality

Surface Water Quality

Section 303(d) of the 1972 federal Clean Water Act (CWA) requires states to identify water bodies that neither meet water quality objectives nor support their beneficial uses. Each state must submit the 303(d) list to the EPA every two years. In addition to identifying water bodies that are not supporting beneficial uses, the list also identifies the pollutant causing impairment and establishes a priority for developing a control plan to address the impairment. The 2014 303(d) list does not include any waterbodies in or downstream of the proposed project area (SDRWQCB 2016). Surface waters within the proposed project area currently meet water quality objectives.

Figure 3.9-1 Watersheds and Surface Waters in the Proposed Project Area (Revised)

Sources: (ESRI 2016, SDG&E 2016a, NRCS, USGS, and EPA 2016)

Groundwater Quality

MCB CPEN extracts most of its potable water from the Las Flores, San Mateo, San Onofre, and Santa Margarita groundwater basins. The SWRCB's Division of Drinking Water evaluated MCB CPEN's groundwater source in July 2002 and determined that drinking water contamination is likely to occur from activities related to military installations, chemical or petroleum processing or storage, historic and operational waste dumps and landfills, airport maintenance areas, and fueling areas (MCB CPEN 2016). Portions of the proposed project overlie the San Mateo Valley and San Onofre Valley groundwater basins (refer to Figure 3.9-2), which are mostly rated suitable for domestic and irrigation uses (DWR 2003, DWR 2004). MCB CPEN regularly monitors drinking water quality for regulated and unregulated contaminants; water quality testing in the proposed project area in October 2015 found most contaminants below detectable levels or maximum contaminant levels[1] with the exception of total coliform (MCB CPEN 2016).

Groundwater Supply

Extractable groundwater is mostly acquired from reservoirs of alluvium and Pleistocene sediments, and smaller amounts from pre-Quaternary sediments, residuum, and crystalline rocks. Rivers in the coastal plain section have created flat, wide, alluvium-filled valleys that act as ground water reservoirs (DWR 1967). Groundwater is accessed on MCB CPEN via 31 active groundwater wells. The nearest groundwater well to the proposed project is located 300 feet east of pole structure 112 (MCB CPEN 2012b). Infiltration from rainfall runoff, reclaimed water, and surface waters recharge the groundwater basins (SDCWA 1997, Orange County 2013). The San Mateo and San Onofre aquifers each have an estimated storage capacity of 6,500 acre-feet (SDCWA 1997). The volume of groundwater stored in these groundwater basins are unknown (DWR 2003, DWR 2004); however, MCB CPEN manages the safe perennial yield, or the rate of annual groundwater extraction that accounts for storage and the chemical integrity of extractable water available over time (MCB CPEN 2012a).

Groundwater basins are generally shallow in the San Diego region (SDRWQCB 1994). Limited hydrologic data from 1955 through 1988 recorded groundwater levels ranging from 5 to 40 feet bgs at a well near the southern portion of Segment A (DWR 2003). Shallow groundwater is also likely to occur in the alluvium surrounding San Onofre Creek (Geocon Incorporated 2015).

Flood Potential

Precipitation and runoff at MCB CPEN are extremely variable, which increases the potential for large floods. Peak flows are predicted to increase in the future on MCB CPEN due to urbanization of the upper watershed (MCB CPEN 2016). Hydrologic and hydraulic studies predicted peak 100-year flow rates of 56,697 cubic feet per second (cfs) on San Mateo Creek and 14,158 cfs on San Onofre Creek (MCB CPEN 2012a). Wide washes form along San Mateo Creek and San Onofre Creek within MCB CPEN.

---

[1] Maximum contaminant level is the highest level of a contaminant allowed in drinking water.

Figure 3.9-2 Groundwater Basins in the Proposed Project Area (Revised)

Sources: (ESRI 2016, SDG&E 2016a, USGS 2015, SanGIS and SANDAG 2016b)

A 100-year flood zone is an area of land that has a 1 percent chance of being inundated by a flood during any given year. There are no designated 100-year flood zones within the proposed project area (FEMA 2016, SDG&E 2016c). Most of the proposed project, however, would be located in an area of undetermined flood hazard. The San Mateo Substation, most of Talega Substation, and 31 pole structures would be in areas with less than 0.2 percent chance of flooding (refer to Figure 3.9-3 and Figure 3.9-4).

Dam Failure Inundation Areas

There are several dams located in San Diego County regulated by the State Division of Safety of Dams (Office of Emergency Services and Unified Disaster Council 2010). There are no dams or levees in the vicinity of the proposed project. The proposed project would not be located within a dam failure inundation area (Office of Emergency Services and Unified Disaster Council 2010).

Tsunamis

Tsunamis are seismically-induced waves generated by sudden movements of the ocean bottom during earthquakes, landslides, or volcanic activity. The Pacific Ocean borders the proposed project to the west. Several active and potentially active earthquake faults are located offshore near the proposed project area (refer to Figure 3.6-4 in Section 3.6: Geology and Soils). The proposed project would be located within 0.1 mile of the coastline, but no tsunami inundation areas are located within the proposed project area (California Emergency Management Agency [CalEMA] 2009a, CalEMA 2009b).

Seiche

There are no lakes in proximity to the proposed project area and no risk of seiche exists in the area.

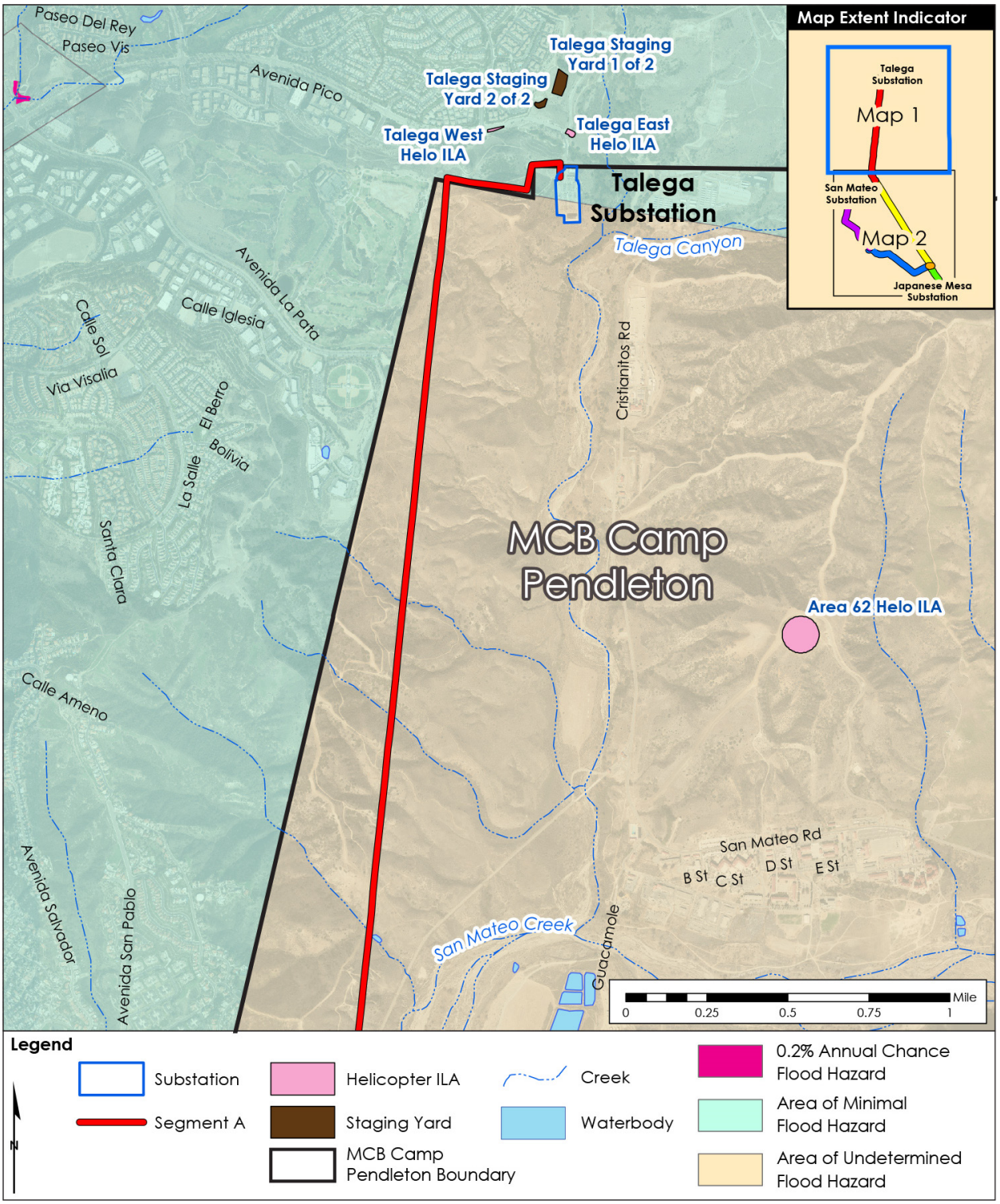
Mudflow

Risk of mudflow is high within Segment A of the proposed project due to the high potential for landslides in the area (see Section 3.6: Geology and Soils) and history of substantial landslides (SDG&E 2016b).

Wetlands

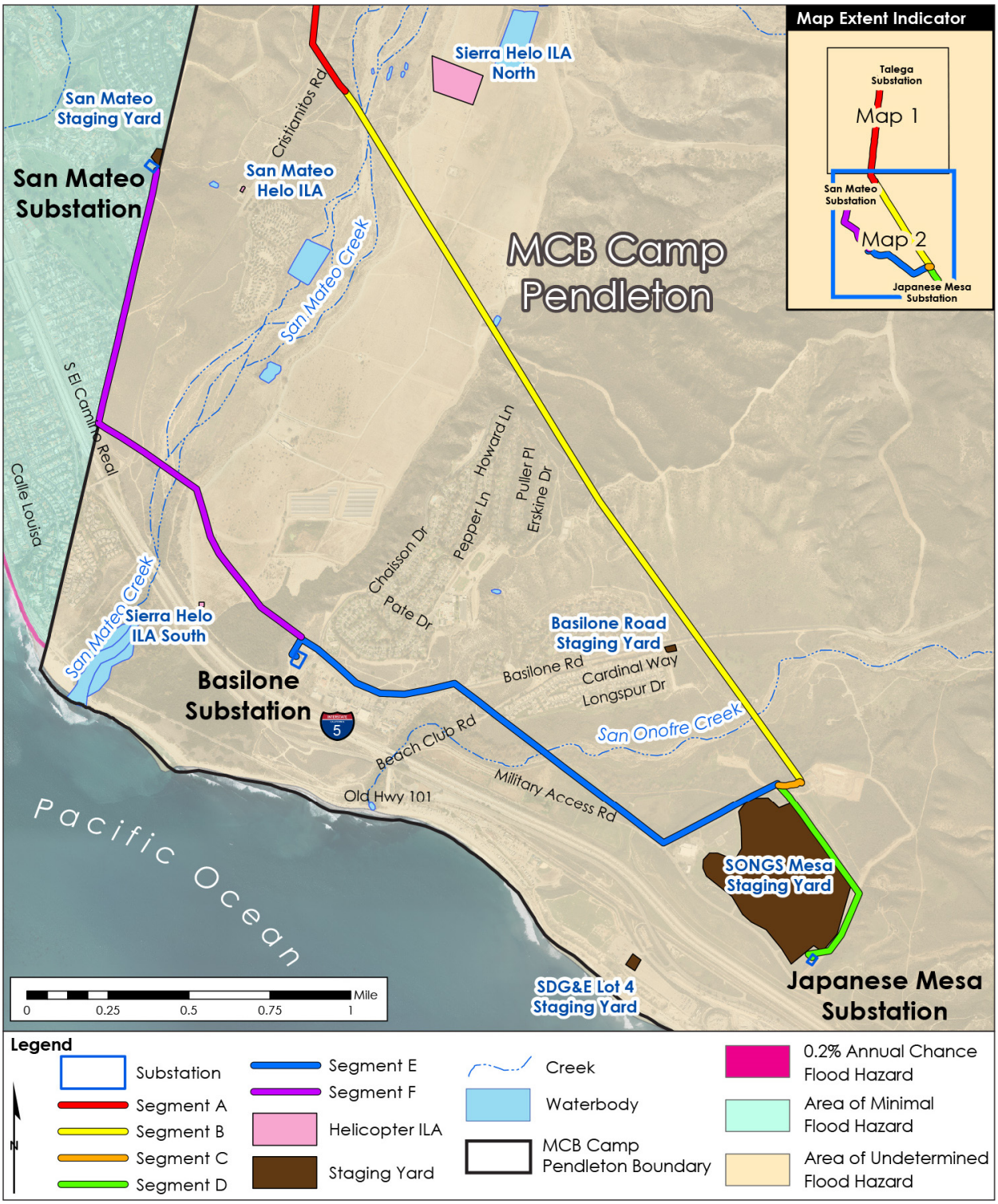
Wetland delineations were conducted for the proposed project by SDG&E. A total of 30 jurisdictional wetland and water features were identified within the PSA (Borcher Environmental Management 2015, Borcher Environmental Management 2016). These riparian areas and wetlands extend beyond the survey area and make up the San Mateo Creek or San Onofre Creek systems (Borcher Environmental Management 2015). The results of the wetland delineations are discussed further in Section 3.4: Biological Resources. Appendix C, Figures C.3-1 through C.3-25 show the locations of all surface water resources, including wetlands and potential vernal pools within the PSA.

Figure 3.9-3 FEMA Flood Zones in the Proposed Project Area (Map 1 of 2) (Revised)



Sources: (ESRI 2016, SDG&E 2016a, FEMA 2016, SanGIS and SANDAG 2016a)

Figure 3.9-4 FEMA Flood Zones in the Proposed Project Area (Map 2 of 2) (Revised)



Sources: (ESRI 2016, SDG&E 2016a, FEMA 2016, SanGIS and SANDAG 2016a)

3.9.2 Applicant Proposed Measures

SDG&E has proposed measures to reduce environmental impacts. Several APMs proposed by SDG&E have been revised or superseded with mitigation measures to address environmental impacts. Table 3.9-1 provides the APM proposed to reduce impacts on hydrology and water quality. This APM has not been revised or superseded by mitigation measures.

Table 3.9-1 Applicant Proposed Measures for Hydrology and Water Quality

Applicant Proposed Measure	Revised or Superseded?
APM HYD-01: 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 overhead 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.	No revisions.

3.9.3 Impact Analysis

Summary of Impacts

Table 3.9-2 presents a summary of the CEQA significance criteria and impacts on hydrology and water quality that would occur during construction, operation, and maintenance of the proposed project.

Table 3.9-2 Summary of Proposed Project Impacts on Hydrology and Water Quality

Would the Proposed Project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐

Would the Proposed Project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water 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 within a 100-year flood hazard area structures 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?	☐	☐	☐	☒
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

Impact Discussion

a) Would the proposed project violate any water quality standards or waste discharge requirements?	**Significance Determination**
	Less than significant with mitigation

Construction

Water Quality Standards

The proposed project would involve the use of hazardous materials including diesel fuel, gasoline, lubrication oil, hydraulic fluid, antifreeze, transmission fluid, and lubricating grease for construction vehicles, equipment, and helicopters. These hazardous materials could be spilled as a result of leaky equipment or during transport or fueling of vehicles and equipment.

Spilled hazardous materials could potentially be transported to waterways and adversely impact water quality. The volume of hazardous material that would be stored and used for the proposed project would be limited to the volume used in construction vehicles and equipment (including helicopters). All hazardous materials storage and refueling areas would be in upland areas at a distance of 500 feet or more from streams and washes. Potential spills of hazardous materials would not cause violations of water quality standards due to the limited quantity of hazardous material that would be used during proposed project construction activities and the distance between potential spill locations and surface waters. The impact would be less than significant.

All proposed new pole structures would be located outside of the limits of jurisdictional waters (e.g., streambed, wetland, and riparian features). Access to the proposed project could include vehicle travel via existing SDG&E access roads through San Mateo Creek and San Onofre Creek, which are jurisdictional waters. Travel through these creeks would only occur when the creeks are dry. Additionally, the creeks are ephemeral and it would be unsafe for vehicles to pass through the creeks during rain events and when there is flow within the creek. Two existing pole structures, 124 and 125, are located within a freshwater forested wetland as designated by USACE, RWQCB, CDFW and CCC (Borcher Environmental Management 2015). The forested wetland area is isolated from San Mateo Creek by I-5 and does not contain any active channels (Borcher Environmental Management 2015). Construction at the two pole structure sites would include establishing a footpath to provide access, removing the 69-kV conductor, and topping the existing pole structures. The proposed activities at pole structures 124 and 125 would not transport sediment into the wetland and would not cause a significant impact. APM HYD-01 further prohibits digging, filling, or other ground disturbing activity at these pole sites to avoid significant impacts. The impact on jurisdictional waters or other wetlands would be less than significant.

Soil disturbance and other construction activities (e.g., work pad grading, access road grading, pole excavation, trenching) could result in soil erosion and sediment deposition into local waterways. The proposed project would temporarily disturb approximately 7 acres of land during construction. SDG&E is required to obtain coverage under the State of California Construction General Permit (CAS-2012-006-DWQ) because the proposed project would disturb more than 1 acre of land. The Construction General Permit requires preparation and implementation of a SWPPP that would include BMPs for sediment and erosion control. Through compliance with the Construction General Permit, the potential sedimentation from proposed project construction would not violate water quality standards. The impact would be less than significant.

Waste Discharge Requirements

Construction of the proposed project may require dewatering in trenches and excavations where localized shallow groundwater is encountered. Very moist soils were encountered at 40 feet bgs in two borings located north of San Onofre Creek (Geocon Incorporated 2015), and groundwater is known to occur at depths of 5 feet to 40 feet bgs at groundwater wells near Segment A (DWR 2003). Direct-bury poles and concrete pier foundations would extend down to

30 feet and 40 feet bgs respectively. Dewatering would be required to construct deeper foundations if shallow groundwater is encountered in the excavation. The approach for dewatering is described in Section 2.4.4 of the Project Description. The proposed project could violate waste discharge requirements and cause a significant impact if pumped shallow groundwater were discharged to waters of the state without obtaining a permit for waste discharge requirements. MM Hydrology-1 requires SDG&E to properly use or dispose of shallow groundwater and avoid discharge to streams and storm drains. The impact would be less than significant with mitigation.

Operation and Maintenance

Operation and maintenance activities would involve the use of existing access roads and would not involve new ground-disturbing activities that could result in erosion or sedimentation, or that would otherwise affect water quality in the proposed project area. On-going maintenance and grading of access roads would be expected to result in similar water quality impacts to existing access road maintenance activities since the access roads would continue to be maintained in the same manner as the existing access roads. Access road grading would not result in violation of a water quality standard. SDG&E would continue to regularly inspect, maintain, and repair the power line and substations following construction completion. The proposed project operation and maintenance would not create any new water quality violation. The impact would be less than significant.

Mitigation Measures: MM Hydrology-1

b) Would the proposed 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 uses for which permits have been granted)?	**Significance Determination**
	Less than significant

Construction

Water would be required for dust control on existing roads and wash pens for concrete clean-out. An estimated 8 million gallons of water would be used during the 8-month construction period. SDG&E would purchase potable water from the City of San Clemente (Aposhian 2016, SDG&E 2016d). The majority of San Clemente's potable water is imported by the Metropolitan Water District of Southern California (Metropolitan Water District)[2] and supplemented with groundwater (Aposhian 2016). The City of San Clemente acquired 8,917 acre-feet (or 2.9 billion gallons) of imported or purchased water in 2015 (City of San Clemente 2016), which was

[2] The Metropolitan Water District imports water from Northern California through the State Water Project and the Colorado River via the Colorado River Aqueduct and relies on local resources which include reclaimed water, desalination, and groundwater. The Metropolitan Water District does not own or control groundwater basins but collaborates with agencies in Southern California to manage groundwater storage and conservation efforts (Metropolitan Water District 2015).

approximately 84 percent of the total available supply. The City also extracted approximately 118 acre-feet (or 38.5 million gallons) of water from the San Clemente groundwater basin in 2015 (City of San Clemente 2016). The City is restricted to the safe pumping yield of 500 acre-feet per year to prevent seawater intrusion and overdraft for the San Clemente groundwater basin. The City of San Clemente works with the Metropolitan Water District and the Municipal Water District of Orange County to ensure a safe drinking water supply (City of San Clemente 2016). The proposed project water use would not deplete groundwater supplies because the groundwater use is capped at 500 acre-feet per year~~; therefore, groundwater would not be used to supply water for proposed project construction~~.

As discussed above, dewatering systems may be installed in trenches and excavations where localized shallow groundwater is encountered. Dewatering activities can affect the local groundwater table level, but such effects would be temporary (less than seven days for dewatering at any given excavation). Temporary groundwater declines would be highly localized (extending a few feet from the excavation) and would not impact the production rate of nearby wells. There would be no net deficit in aquifer volume or lowering of the groundwater table level. The limited surface disturbance would not substantially interfere with groundwater basin recharge in the area. Impacts would be less than significant.

Operation and Maintenance

No groundwater use is anticipated for the operation or maintenance of the proposed project. The proposed project pole structures would replace existing poles in the area. The proposed project would have no net increase in impervious surfaces and would not affect groundwater recharge. No impacts would occur.

Mitigation Measures: None required.

c) Would the proposed 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 which would result in substantial erosion or siltation on- or off-site?	**Significance Determination**
	Less than significant with mitigation

Construction

Construction activities would not require any creek diversions or modifications to the course of a stream, river, or wash. The proposed project would not substantially alter the existing drainage pattern or the course of a stream or river. The impact on existing drainage patterns would be less than significant. No mitigation is required.

As discussed under Impact a) above, SDG&E is required to comply with the State of California Construction General Permit and implement a SWPPP and stormwater BMPs. The SWPPP and associated BMPs would reduce potential erosion or siltation on- or off-site. Siltation and erosion could still occur if the BMPs were not properly maintained until disturbed areas achieve final stabilization, which could result in a significant impact. MM Hydrology-2 requires regular inspection and repair or replacement of BMPs as necessary throughout the construction period and until final stabilization has been achieved. While MM Hydrology-2 and the SWPPP would

reduce erosion and sedimentation impacts from the new poles and work areas, significant impacts from access road grading could occur if the access road grading activities were not addressed in the project-specific SWPPP. MM Hydrology-3 requires implementation of stormwater BMPs and compliance with the MS4 permit. Potential erosion and sedimentation impacts would be less than significant with mitigation. SDG&E compliance with a future access road agreement from MCB CPEN could satisfy the requirements of MM Hydrology-3 if the agreement conditions are equal or more effective in mitigating impacts on erosion and sedimentation.

Operation and Maintenance

Operation and maintenance activities would not alter drainage patterns in the proposed project area or alter the course of a stream or river in a way that would result in substantial erosion or siltation in the proposed project vicinity. Inspection, maintenance, and repair of new power lines would continue to be performed at the same frequency as inspection and maintenance of the existing lines. The impact would be less than significant. No mitigation is required.

Mitigation Measures: MM Hydrology-2 and MM Hydrology-3

d) Would the proposed 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 which would result in flooding on- or off-site?	**Significance Determination**
	No impact

As discussed under Impact c) above, construction, operation, and maintenance would not substantially alter or redirect the existing drainage patterns in the proposed project area. Water used for dust control would be applied to moisten soils but would not be applied in a manner that would contribute to substantial runoff. The proposed project would involve the replacement of existing power poles with new power pole structures that would be similar in size to the existing poles. The proposed project would not introduce additional impervious surfaces to the area; therefore, the rate and amount of surface runoff would not change as a result of the project. No impact would occur.

Mitigation Measures: None required.

e) Would the proposed project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	**Significance Determination**
	Less than significant

Construction

Runoff Water Capacity

Construction of the proposed project would use approximately 8 million gallons of water for dust control. Runoff from application of water would be minimal because water for dust control would be applied to saturate the soil without producing additional runoff. Construction activities would not create or contribute runoff water that would exceed the capacity of existing

or planned stormwater drainage systems. No substantial increase in runoff water would occur. The impact would be less than significant. No mitigation is required.

Sources of Polluted Runoff
As discussed under Impact a) above, implementation of the proposed project could result in accidental release of hazardous materials from construction vehicle and equipment leaks or spills from refueling. Potential spills of hazardous materials would not create additional sources of polluted runoff due to the limited quantity of hazardous materials that would be used during construction and the distance between the potential spill locations in upland areas and surface waters. The impact would be less than significant.

Operation and Maintenance

As discussed in Impact d) above, the proposed project would not create additional impervious surfaces. The reconductored power lines and maintenance activities would not contribute to runoff water or additional sources of pollutants. No impact would occur.

Mitigation Measures: None required.

f) Would the proposed project otherwise substantially degrade water quality?	**Significance Determination**
	No impact

The proposed project's potential impacts on water quality include causing erosion, causing sedimentation, and resulting in pollution from use of hazardous materials. These impacts are discussed in the analysis under Impacts a), c), and e), above. The proposed project would not otherwise substantially degrade water quality. No impact would occur.

Mitigation Measures: None required.

g) Would the proposed project 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?	**Significance Determination**
	No impact

The proposed project would not involve the building or replacement of new housing. No impact would occur.

Mitigation Measures: None required.

h) Would the proposed project place within a 100-year flood hazard area structures which would impede or redirect flood flows?	**Significance Determination**
	Less than significant

No proposed project structures would be located within a 100-year flood hazard area as defined by the Federal Emergency Management Agency (FEMA). Eighty percent of the proposed pole structures would be located within an area of undetermined flood hazard. These pole structures

would replace structures of similar size in the same flood risk area. Water would flow with minimal diversion around the pole structures because each pole structure would occupy a small area. Construction, operation, and maintenance of the proposed project would occur within the same alignment as the existing power lines. The potential for the proposed structures to impede or redirect flood flows would be similar to existing conditions and, therefore, impacts from flooding from the proposed project would be less than significant.

Mitigation Measures: None required.

i) Would the proposed 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?	**Significance Determination**
	No impact

The proposed project would not be located near levees or in a dam inundation area. No proposed project structures would be located within a FEMA 100-year flood zone and the proposed project would not impede or redirect flood flows as discussed in Impact h). The proposed project would be unattended during operation and maintenance. Construction, operation, and maintenance of the proposed project would not expose people or structures to risk of loss, injury, or death from flooding. No impact would occur.

Mitigation Measures: None required.

j) Would the proposed project expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	**Significance Determination**
	Less than significant

The proposed project would not be located in an area that is susceptible to inundation from seiche or tsunami. No impacts from seiche or tsunamis would occur as a result of the proposed project. The proposed project would be located in an area with high potential for landslides that could be subject to inundation by mudflow. The poles and foundation would be installed at depths suitable for the given soil properties to ensure stability without increasing landslide risk (refer to Section 3.6: Geology and Soils). Proposed project pole structures would be located an average of 12 feet from the existing TL 695 and TL 6971 power poles in areas that have a similar potential for inundation by mudflow as the existing power pole locations; therefore, the impact from exposure to mudflows would be less than significant.

Mitigation Measures: None required.

3.9.4 Mitigation Measures

MM Hydrology-1: Groundwater Extraction

Groundwater extracted during construction dewatering shall not be discharged to any surface waters or storm drains. If dewatering is necessary, the water shall either be used: (i) to irrigate upland areas, (ii) for dust control, or (iii) as makeup for a construction process (e.g., concrete production). If dewatering of contaminated groundwater is necessary, the water shall be disposed of in accordance with all applicable laws and procedures described in the Stormwater Pollution Prevention Plan (SWPPP).

Applicable Locations: Areas of groundwater dewatering

Performance Standards and Timing:

Before Construction: N/A

During Construction:

Groundwater extracted during construction dewatering is not discharged to streams or storm drains

After Construction: N/A

MM Hydrology-2: Best Management Practices Inspection and Maintenance

All BMPs shall be inspected by a qualified SWPPP Practitioner on a daily basis, and at least once every 24-hour period before, during, and after extended storm events. BMPs shall be inspected as described in the SWPPP, maintained on a regular basis, and repaired or replaced as necessary through the course of construction. Should any BMP failure be observed during monitoring, additional BMPs shall be implemented to prevent further erosion or sedimentation to downstream waters. For each inspection required, an inspection checklist shall be completed using a form as described in General Permit 2012-0006-DWQ. This checklist shall remain on site with the SWPPP. BMP monitoring reports shall be provided to the CPUC on a monthly basis throughout the duration of construction.

Post-construction BMPs (permanent BMPs) shall be inspected and maintained/repaired as needed after the completion of construction and until final stabilization of all disturbance areas has been achieved. Areas of temporary disturbance shall be revegetated and restored to approximate pre-construction conditions. SDG&E shall supply annual monitoring reports to the CPUC until the Construction General Permit requirements are met for filing of a Notice of Termination.

Applicable Locations: All areas where BMPs are applied

Performance Standards and Timing:

Before Construction: N/A

During Construction:

(1) A qualified SWPPP Practitioner inspects BMPs weekly

(2) BMPs are adequately installed, inspected, and repaired/replaced as needed

(3) Additional BMPs are applied wherever needed to prevent sedimentation to downstream waters

(4) BMP monitoring reports are submitted monthly to the CPUC

After Construction:

(1) Permanent BMPs are inspected and maintained/repaired as needed until all disturbance areas are stabilized

(2) Areas of temporary disturbance are revegetated and restored to approximate pre-construction conditions

(3) Annual monitoring reports are submitted to the CPUC until the SWPPP coverage ends

MM Hydrology-3: Stormwater Controls for Access Road Grading
1. Access road grading must comply with specific stormwater design standards found in the Camp Pendleton Requirements (CPR), latest edition, which can be obtained from Public Works. 2. Camp Pendleton has been designated a Nontraditional Permittee under the California Phase 2 Small Municipal Separate Storm Sewer System (MS4) Permit, State Water Resources Control Board (SWRCB) Order No. 2013-0001-DWQ (NPDES No. CAS000004). Contractors must comply with Post Construction Standards found in Section F.5.g of the Small MS4 Permit. Design storm criteria are given in the permit. 3. This project contains activities subject to the Source Control Measures found in Section F.5.g.2.a of the Small MS4 permit. Pollutant-generating activities and sources must be designed consistent with the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment. Activities subject to source control standards include, but are not limited to maintenance and storage areas. Storm Water BMPs shall be implemented where applicable to prevent sediment, oil and other pollutants from reaching storm drains and surface waters.
Applicable Locations: All road grading areas
Performance Standards and Timing: **Before Construction:** N/A **During Construction:** Implement appropriate stormwater control measures found in the CPR **After Construction:** N/A

3.9.5 References

Aposhian, Sheri (San Clemente Water Utility). 2016. Personal communication with Naomi Takahashi. 2016. November 9.

Borcher Environmental Management. 2016. "San Diego Gas & Electric Company, ETS 25240 TL 695/6971 Reconductor Project, Supplemental Jurisdictional Delineation Letter Report."

Borcher Environmental Management and Pangea Biological Consulting. 2015. "Preliminary Jurisdictional Delineation Report: San Diego Gas & Electric Company TL 695/6971 Reconductor Project." Prepared for SDG&E. November.

CalEMA. 2009a. "Tsunami Inundation Map for Emergency Planning: San Clemente Quadrangle." March 15. Accessed November 10, 2016. http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/Orange/Documents/Tsunami_Inundation_SanClemente_Quad_Orange.pdf.

—. 2009b. "Tsunami Inundation Map for Emergency Planning: San Onofre Bluff Quadrangle." June 1. Accessed November 10, 2016. http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/SanDiego/Documents/Tsunami_Inundation_SanOnofreBluff_Quad_SanDiego.pdf.

City of San Clemente. 2014. "Centennial General Plan." February. Accessed August 28, 2016. http://san-clemente.org/department-services/planning-services/general-plan.

—. 2016. "2015 Urban Water Management Plan." June.

DWR. 1967. "Ground Water Occurrence and Quality: San Diego Region." June, Bulletin No. 106-2 ed.

—. 2003. "Hydrologic Region South Coast: San Mateo Valley Groundwater Basin." Vers. Last updated October 1, 2003. California's Groundwater Bulletin 118. Accessed September 20, 2016. http://www.water.ca.gov/groundwater/bulletin118/basindescriptions/9-02.pdf.

—. 2004. "Hydrologic Region South Coast: San Onofre Groundwater Basin." California's Groundwater Bulletin 118 (Updated February 27, 2004). Accessed September 20, 2016. http://www.water.ca.gov/groundwater/bulletin118/basindescriptions/9-03.pdf.

ESRI. 2016. "Vector, Raster, On-line Datasets."

FEMA. 2016. National Flood Hazard Layers.

Geocon Incorporated. 2015. SDG&E TL695 and TL6971 Wood to Steel Improvements. Geotechnical Investigation, San Diego, California: Richard Brady & Associates, Inc., August 17, 2015. Revised September 10, 2015. .

MCB CPEN. 2012a. "Integrated Natural Resources Management Plan." http://www.pendleton.marines.mil/Staff-Agencies/Environmental-Security/Natural-Resources-Management-Plan/.

—. 2012b. "Well GIS Point Data Used for the 2011 Consumer Confidence Report."

—. 2016. "2015 Consumer Confidence Report." June. Accessed September 28, 2016. http://www.pendleton.marines.mil/Portals/98/Docs/Environmental/CCR/2015%20CCR_Final.pdf?ver=2016-06-14-164840-343.

Metropolitan Water District. 2015. Sources of Supply. Accessed December 27, 2016. http://www.mwdh2o.com/AboutYourWater/Sources%20Of%20Supply/Pages/default.aspx.

NRCS, USGS, and EPA. 2016. "Watershed Boundary GIS Dataset for San Diego and Orange Counties, California."

Office of Emergency Services and Unified Disaster Council. 2010. "Multi-jurisdictional Hazard Mitigation Plan." San Diego County, California. Accessed September 30, 2016. http://www.sandiegocounty.gov/oes/emergency_management/oes_jl_mitplan.html.

Orange County. 2013. "South Orange County Watershed Management Area: Integrated Regional Watershed Management Plan." July. Accessed November 21, 2016. http://ocwatersheds.com/programs/ourws/wmaareas/wmasouthoc/soc_wma_irwmp.

Regional Water Management Group. 2013. "2013 San Diego Integrated Regional Water Management Plan: An Update of the 2007 IRWM Plan." September. Accessed October 3, 2016. http://sdirwmp.org/2013-irwm-plan-update.

SanGIS and SANDAG. 2016a. "1-foot pixel resolution (0.3-meter), 4-band (natural color RGB plus NIR band) orthoimages covering the San Diego region." Imagery/SD2014_Foot. http://gis1.sandag.org/sdgis/services/Imagery/SD2014_1Foot/ImageServer.

—. 2016b. "Groundwater Basin GIS dataset."

SDCWA. 1997. Groundwater Report. San Diego County Water Authority Water Resources Department.

SDG&E. 2016a. "Pendleton Reconductoring Project GIS Datasets."

—. 2016b. "Proponent's Environmental Assessment for the Tie-Line 695 and Tie-Line 6971 Reconductor Project." April 25.

—. 2016c. "SDG&E Response to CPUC Request for Additional Data #2; Permit to Construct the TL 695 and 6971 Reconductoring Project -- Application No. A.16-04-022." November 11. http://www.cpuc.ca.gov/environment/info/panoramaenv/TL695_TL6971/Pendleton_Attachments.html.

—. 2016d. "SDG&E Response to Energy Division's Data Request 1 Qs2-21, 23-27, Permit to Construct the TL 695 and 6971 Reconductoring Project -- Application No. A.16-04.022." October 17.

SDRWQCB. 1994. "Water Quality Control Plan for the San Diego Basin (9). With amendments effective on or before May 17, 2016." September 8. Accessed September 19, 2016.

—. 2016. "Draft Clean Water Act Sections 305(b) and 305(d) Integrated Report for the San Diego Region." San Diego Region - Clean Water Act Section 305(b) Surface Water Quality Assessment and Section 303(d) List of Water Quality Limited Segments (Updated 08-26-16). July. Accessed September 19, 2016. http://www.swrcb.ca.gov/sandiego/water_issues/programs/303d_list/index.shtml.

USGS. 2015. "National Hydrography Dataset Stream Data."

This page is intentionally left blank.