5.10 Hydrology and Water Quality

This section discusses the existing environmental and regulatory setting of the Proposed Project and alternatives, identifies potential impacts related to construction, operation, and maintenance of the Proposed Project and alternatives, and proposes mitigation measures for those impacts determined to be significant. Setting information presented in this section was compiled from the Proponent's Environmental Assessment (PEA) (SCE, 2013), resource agency websites and databases, and Geographic Information System (GIS) data.

5.10.1 Setting

Environmental Setting

Regional Setting and Climate

The Proposed Project is approximately 9 miles in length and traverses portions of the City of Moorpark, unincorporated areas of Ventura County, and the City of Thousand Oaks (see Figure 3-1, *Proposed Project Segments and Substations*). The Proposed Project lies entirely within the Calleguas Creek watershed, and is located in a region characterized by an east/west-trending sequence of ridges and valleys within the Ventura Basin, between the Santa Ynez and the Santa Monica mountains (USACE, 2003). The Proposed Project alignment is located generally north of the Santa Monica Mountains and begins on the northern slopes of the Conejo Valley, continues north over the Camarillo Hills, across the Santa Rosa Valley, and over the Las Posas Hills to Moorpark Substation on the northern side of Little Simi Valley. The Proposed Project crosses over lands primarily in agricultural use (orchards), sparse rural development, and undeveloped open space.

The Calleguas Creek watershed is characterized by a temperate, Mediterranean climate regime, with mild temperatures and little variation in temperature extremes. The summers are typically long and dry, with rain seldom occurring in May through August, and the winters are generally short and wet (VCWPD, 2003). Nearly all precipitation occurs during the months of December through March. Mean annual precipitation is between 12 inches on the Oxnard Plain to 21 inches in the higher elevations (SCE, 2013). Major winter storms generally originate over the Pacific Ocean and often last several days, and are accompanied by heavy precipitation (VCWPD, 2003). Dry periods can be considerable and may extend over many months, or even years (USACE, 2003). Snow rarely occurs within the Calleguas Creek watershed.

Surface Water Hydrology

The Calleguas Creek watershed covers 343 square miles of land from the Los Angeles County Line on the east to Mugu Lagoon on the west, and from the Santa Monica Mountains on the south to Oak Ridge in the north. The watershed is an elongated area with a maximum east-west length of 32 miles and a maximum north-south width of 14 miles. Elevations within the watershed range from 3,700 feet in the upper watershed to sea level at the outlet to the Pacific Ocean at Mugu Lagoon (USACE, 2003). Approximately half of the drainage area is mountainous, with steep

rocky ridges and numerous canyons. The remaining half consists of rolling hills with well-defined stream courses and relatively flat valley areas. The surface waters are primarily arroyos and creeks that have historically carried storm flows and post-storm flows from the upper watershed down to the alluvial valleys and the southeastern portion of the Oxnard Plain (SCE, 2013). Numerous small tributaries draining the mountainous portions of the watershed flow into Calleguas Creek in the upper two-thirds of the watershed. Conejo Creek and Revolon Slough, two major tributaries, enter Calleguas Creek in the lower one-third of the watershed. Calleguas Creek is also known as Arroyo Las Posas and Arroyo Simi in the middle and upper reaches respectively. Extensive urban development, farmland conversion, and the development of orchards on steep slopes have altered the geomorphology of the watershed area and have led to accelerated erosion rates. Water now flows from Calleguas Creek into Mugu Lagoon year round due to urban runoff and discharges from waste water treatment plants. However, the volume and peak of this flow are negligible compared to runoff generated during storm events (USACE, 2003).

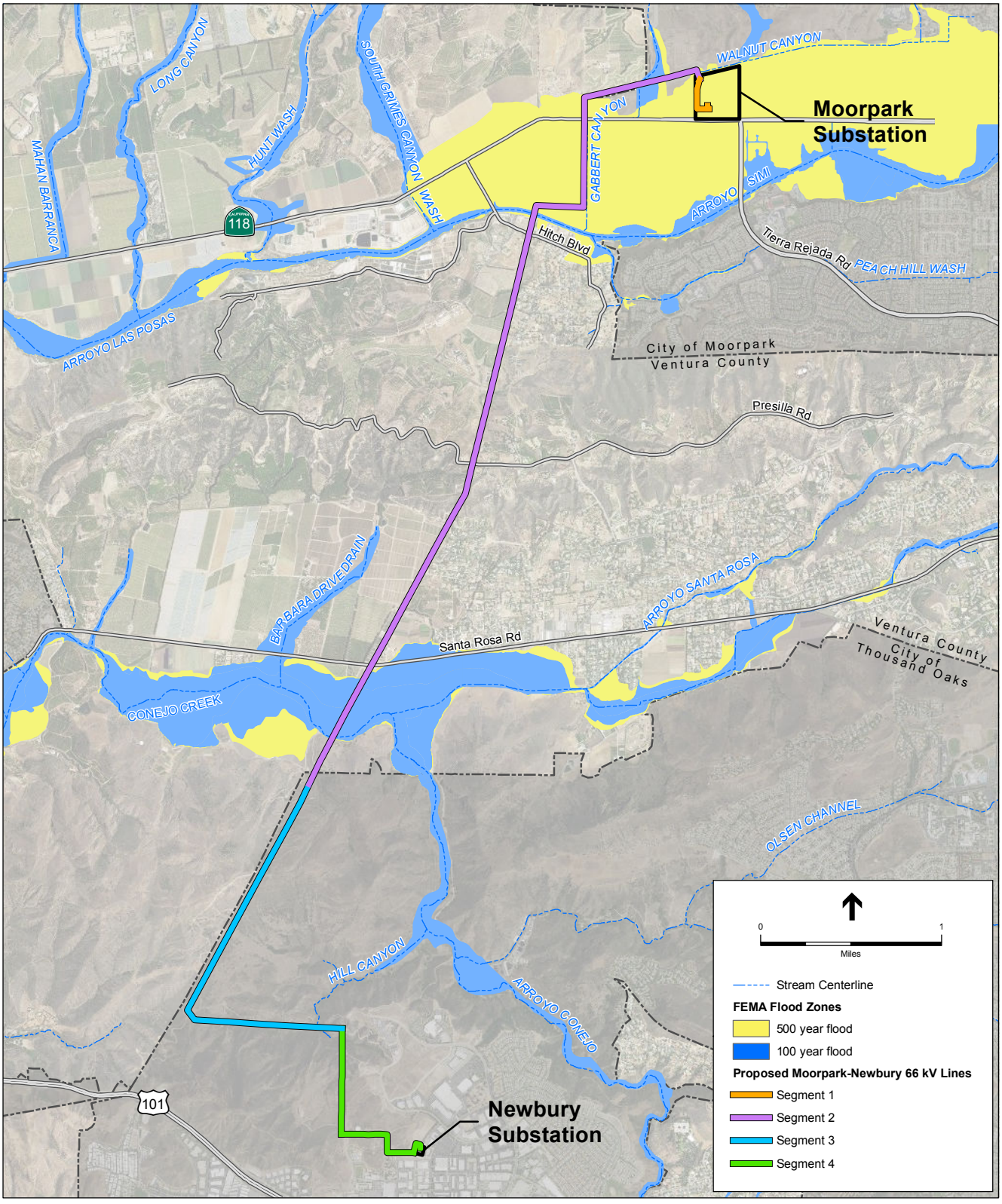
Runoff within the watershed from storm events occurs during and immediately following rainfall. Stream flow increases rapidly in response to effective rainfall. Undeveloped areas of the Calleguas Creek watershed comprise approximately 39 percent of the total area where some of the rainfall is intercepted by vegetation and evaporates, and some percolates into the ground resulting in relatively minor amounts of storm runoff except in very large storms (VCWPD, 2003). High intensity rainfall, in combination with the effects of sparse vegetation, possible denudation by fire, and steep gradients in the upper watershed, result in intense, sometimes sediment laden floods. These high-velocity flows generally produce channel scouring on unimproved channel reaches. Deposition of the sediment being transported in storm flow occurs in lower Calleguas Creek as stream gradients become less steep (USACE, 2003).

Urbanization within valley areas tends to make the watershed more responsive to rainfall in these locations. Runoff from urban areas in the watershed is characterized by high flood peaks of short duration that result from high-intensity rainfall on areas with a high percentage of impervious cover. Rainfall occurring over an urbanized area of the watershed will typically generate higher peak discharges with a shorter peak time and a greater total volume than the natural watershed lands (USACE, 2003). The major surface water channels of the Calleguas Creek watershed that are proximate to the Proposed Project area, and that are also under the jurisdiction of the Ventura County Watershed Protection District (VCWPD), are shown in **Figure 5.10-1**, *FEMA Flood Zones and Surface Hydrology in the Proposed Project Vicinity.*

Major surface water channels in the Proposed Project vicinity include the upstream reaches of Calleguas Creek (Arroyo Las Posas and Arroyo Simi), Conejo Creek (including its upper reaches, Arroyo Conejo and Hill Canyon Creek), and Arroyo Santa Rosa. Proposed Project Segment 2 crosses Arroyo Las Posas and Conejo Creek, and Segment 3 crosses the uppermost portion of Hill Canyon Creek (within upper Arroyo Conejo drainage area).

Surface Water Quality

The Los Angeles Regional Water Quality Control Board (LARWQCB) is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial



SOURCE: SCE, 2013; VCWPD, 2012; FEMA, 2010

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.10-1

FEMA Flood Zones and Surface Hydrology in the Proposed Project Vicinity

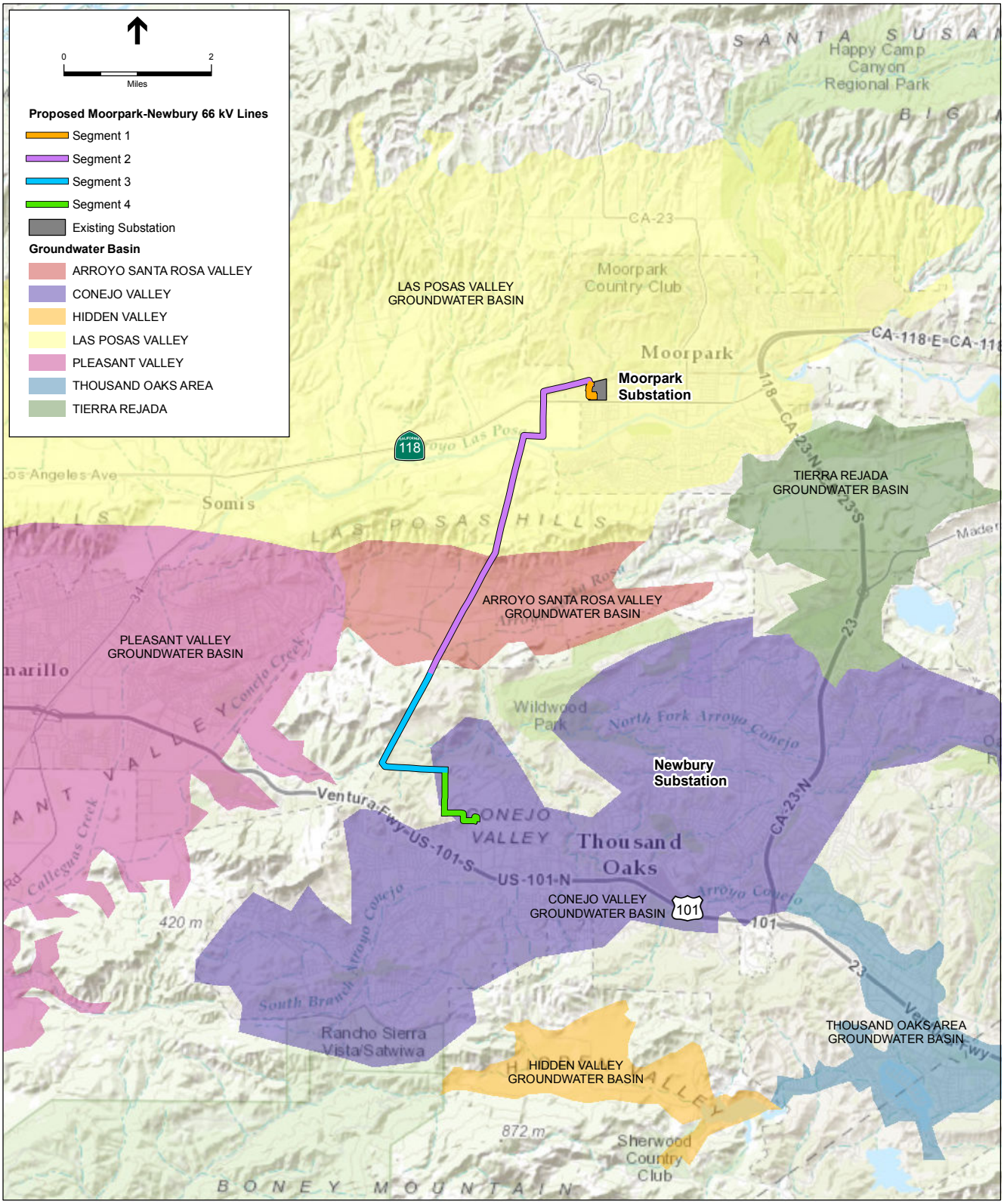
uses within major portions of Los Angeles and Ventura Counties, including the Calleguas Creek watershed. A large portion of the surface waters within the watershed are impaired by one or more water quality constituents. A major portion of this degradation appears to be from nonpoint sources. Nonpoint source pollutants, typically of diffuse origin, can be mobilized and transported to receiving water bodies in sudden pulses and large quantities by storm and irrigation flows within the watershed. Possible sources of nonpoint source pollution include over-application of nitrogen fertilizers and irrigation water, sedimentation and the leaching of salts, pesticides, and herbicides. The use of excessive irrigation water or the effect of precipitation hitting bare ground increases erosion, sediment transport and levels of total dissolved solids. Excessive irrigation also causes soil constituents and minerals to leach out of the soil. This has been cited as one of the causes for the high levels of sodium, calcium, magnesium, and sulfate found within the watershed (CCWMP, 2004).

Applicable water quality standards are identified within the *Water Quality Control Plan Los Angeles Region* (Basin Plan) (LARWQCB, 1995). Water quality is assessed on a biannual basis and impairments are listed on the State of California List of Impaired Water Quality Segments (i.e., the 303(d) list). The Regulatory Setting (below) lists water quality objectives for pollutants appearing on the 303(d) list of impaired water bodies in the Calleguas Creek watershed for surface waters within the vicinity of the Proposed Project. According to the 303(d) List, approximately 344 acres of Mugu Lagoon and approximately 118 miles of streams within the Calleguas, Conejo, and Revolon Slough system are impaired for water quality (CCWMP, 2004). The majority of these listings (64) occur within the Historic Pesticides/PCBs category, followed by Salts, Nutrients, Toxicity, Sedimentation, Bacteria, Metals, Trash, and Organophosphate Pesticides. In addition, the preparation of a chloride Total Maximum Daily Load (TMDL) in the Calleguas Creek watershed required the quantification of salt sources, among which was salts imported with water and urban uses such as water softeners. Studies have indicated that in most urbanized areas, urban storm water runoff is one of the most significant sources of water pollution (CCWMP, 2004).

Groundwater Hydrology and Groundwater Quality

The Calleguas Creek watershed includes several groundwater basins (CCWMP, 2004), three of which underlie the Proposed Project area and alignment: the Las Posas Valley Groundwater Basin (Las Posas Basin), the Arroyo Santa Rosa Valley Groundwater Basin (Arroyo Santa Rosa Basin), and the Conejo Valley Groundwater Basin (Conejo Basin) (see **Figure 5.10-2**, *Groundwater Basins in the Proposed Project Vicinity*). Groundwater in the region is used primarily for agricultural and urban supply, particularly in drought years. In general, these aquifers are bounded by impermeable rock and/or faulting and comprised of alluvial valley fill, and most have upper and lower water-bearing zones separated by distinct layers or deposits. Aquifers range from large, extensive alluvial valleys with thick, multilayered aquifers and aquitards, to small inland valleys and coastal terraces. The characteristics of each groundwater basin within the project area are described below.

Groundwater recharge areas within the Calleguas Creek watershed are identified within the Calleguas Creek Watershed Management Plan (CCWMP) (CCWMP, 2004). The recharge areas



SOURCE: SCE, 2014; DWR, 2003

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.10-2

Groundwater Basins in the Proposed Project Vicinity

identified occur in certain aquifer outcrop areas and on various reaches of individual streams. The amount of recharge is predicated on the depth and width of the underlying stream channel deposits, the nature of the geologic materials comprising the stream channel deposits, the depth and nature of the geologic materials underlying the stream channel deposits, the depth to groundwater, and the quantity and timing of water flowing into the streams (CCWMP, 2004). The Proposed Project is not located within one of the identified significant groundwater recharge areas of the Calleguas Creek watershed (CCWMP, 2004).

Las Posas Valley Groundwater Basin

Proposed Project Segment 1, including Moorpark Substation, and a portion of Segment 2 overlie the Las Posas Basin. This groundwater basin comprises most of the Los Posas Valley, and is bounded on the south by the City of Camarillo and the Los Posas Hills, on the north by South Mountain and Oak Ridge, on the east by the Santa Susana Mountains, and on the west by the Oxnard sub-basin of the Santa Clara River Valley Groundwater Basin (DWR, 2006a). Water-bearing materials in this basin include alluvium, the San Pablo Foundation, and the Santa Barbara Foundation. Productive aquifers in the basin include an unconfined upper aquifer and two confined aquifers in the lower zones of the basin. Groundwater recharge is mainly through percolation of precipitation. Groundwater storage capacity in this basin is estimated at approximately 345,000 acre feet. In October 1999, the basin was estimated to be approximately 50 to 65 percent full (DWR, 2006a). Groundwater within this basin is calcium bicarbonate in character. Well sampling and monitoring shows that the basin groundwater is generally high in total dissolved solids (TDS) content, routinely exceeding 700 milligrams per liter (mg/L). The upper water bearing unit is approximately 25 to 50 feet below ground surface and the lower is at approximately 350 to 500 feet deep. Generally, the deeper wells tend to have better water quality than those completed in the upper zones; however, that has changed some over the years (VCWPD, 2013a).

Arroyo Santa Rosa Valley Groundwater Basin

A portion of Proposed Project Segment 2 overlies the Arroyo Santa Rosa Basin. This basin comprises the Arroyo Santa Rosa Valley and is bounded to the north by Santa Rosa fault, to the south and east by the Santa Monica Mountains, and to the west by the Pleasant Valley Groundwater Basin. The major hydrologic features in this basin include Arroyo Santa Rosa and Conejo Creek, which drain surface waters to the Pacific Ocean. Water-bearing materials within the basin include alluvium and the San Pedro Formation; depth to water-bearing alluvium is approximately 50 feet (VCWPD, 2013a). Groundwater within the basin is generally unconfined. Groundwater within this basin is generally high in sulfates, TDS, and nitrates (DWR, 2006b; VCWPD, 2013a). The Arroyo Santa Rosa Basin has a large area dedicated to agricultural use and a high number of individual septic systems, which are two main sources of nitrate to the groundwater (VCWPD, 2013a).

Conejo Valley Groundwater Basin

The Newbury Substation and portions of Proposed Project Segments 3 and 4 overlie the Conejo Basin. This groundwater basin includes most of the Conejo Valley. The primary water-bearing

units in the basin are Quaternary alluvium and the Modelo, Topanga, and Conejo Formations. Groundwater in the basin is generally unconfined and flows westward. Recharge to the basin is provided by percolation of rainfall to the valley floor, percolation of surface water from Conejo Creek and its tributaries, and irrigation return. Depth to groundwater averages about 50 feet (VCWPD, 2013a).

Flooding

Flooding within the Proposed Project area (e.g., near the cities of Moorpark and Thousand Oaks) is controlled primarily by Arroyo Las Posas/Arroyo Simi and Conejo Creek. Historically, flood flows in the Calleguas Creek watershed were able to leave the highlands and spread across the Oxnard Plain, lose energy, and deposit sediment, which in turn created the rich agricultural lands in that area. Presently, much of the Oxnard floodplain is used for year-round agricultural activities and significant portions of Calleguas Creek have been channelized to convey larger flows more efficiently and rapidly. Flood management in the Calleguas Creek watershed is administered by the VCWPD. Activities administered by the VCWPD include land use planning and channel maintenance (County of Ventura, 2008). Development in the Calleguas Creek watershed has increased peak flows in these channels, resulting in semi-regular flood events. The Federal Emergency Management Agency (FEMA) is responsible for mapping areas subject to flooding during a 100-year flood event (i.e., one percent chance of occurring in a given year). The Ventura County flood zones mapped by FEMA in the Proposed Project area are illustrated in Figure 5.10-1. Proposed Project Segments 1 and 2 would traverse a 500-year flood hazard zone in the Moorpark area and Segment 2 would cross a 100-year flood hazard zone south of Santa Rosa Road.

Regulatory Setting

Federal

The statutes that govern the activities of the Proposed Project that may affect water quality are the federal Clean Water Act (CWA) (33 U.S.C. §1251) and the Porter-Cologne Water Quality Control Act (Porter-Cologne) (Water Code, §13000 et seq.). These acts provide the basis for water quality regulation in the Proposed Project area.

The California Legislature has assigned the primary responsibility to administer and enforce statutes for the protection and enhancement of water quality to the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs). The SWRCB provides state-level coordination of the water quality control program by establishing statewide policies and plans for the implementation of state and federal regulations. The nine RWQCBs throughout California adopt and implement water quality control plans that recognize the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, and water quality problems. The RWQCB adopts and implements a Water Quality Control Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed

through the plan (California Water Code, §13240-13247). The Proposed Project area is located within the jurisdiction of the LARWQCB.

Beneficial Use and Water Quality Objectives (CWA §303)

The LARWQCB is responsible for the protection of the beneficial uses of waters within the coastal watersheds of Ventura County and Los Angeles County. The LARWQCB uses its planning, permitting, and enforcement authority to meet this responsibility and has adopted the Basin Plan to implement plans, policies, and provisions for water quality management.

In accordance with state policy for water quality control, the LARWQCB employs a range of beneficial use definitions for surface waters, groundwater basins, marshes, and mudflats that serve as the basis for establishing water quality objectives and discharge conditions and prohibitions. The Basin Plan has identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction. The existing and beneficial uses designated in the Basin Plan for the surface water bodies in or adjacent to the Proposed Project area are identified in **Table 5.10-1**. The existing uses of groundwater in the vicinity of the Proposed Project area (i.e., Las Posas Valley, Arroyo Santa Rosa Valley, and Conejo Valley groundwater basins) include: municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); and industrial process supply (PROC) (LARWQCB, 1995). The Basin Plan also includes water quality objectives that are protective of the identified beneficial uses; the beneficial uses and water quality objectives collectively make-up the water quality standards for the region. **Table 5.10-2**, *Selected Water Quality Objectives***,** presents selected, quantitative surface water and groundwater quality objectives relevant to the Proposed Project area.

TABLE 5.10-1
BENEFICIAL USES OF WATER BODIES AT THE
PROPOSED PROJECT SITES AND SURROUNDING AREAS

Surface Water Body	Existing Beneficial Uses
Arroyo Simi	IND*, GWR*, FRSH*, REC1*, REC2*, WARM*, WILD, RARE
Arroyo Las Posas	GWR, FRSH, REC1, REC2, WARM, WILD
Arroyo Conejo	GWR*, FRSH*, REC1*, REC2*, WARM*, WILD, RARE
Conejo Creek	IND, PROC, AGR, GWR, REC1, REC2, WARM, WILD

NOTES:

Beneficial Uses Key:
IND (Industrial Service Supply); AGR (Agricultural Supply); REC-1 (Body Contact Recreation); REC-2 (Noncontact Recreation); WARM (Warm Freshwater Habitat); WILD (Wildlife Habitat); GWR (Groundwater Recharge); RARE (Preservation of Rare and Endangered Species); PROC (Industrial Process Water Supply); FRSH (Freshwater Replenishment).

* intermittent beneficial use.

SOURCE: LARWQCB, 1995

TABLE 5.10-2
SELECTED WATER QUALITY OBJECTIVES

Watershed/Water Body	Water Quality Objectives (mg/L)				
	TDS	Sulfate	Chloride	Boron[b]	Nitrogen[c]
Calleguas Creek above Potrero Rd	850	250	150	1.0	10, 45
Groundwater Basins					
Las Posas Valley[a]	2500	1200	400	3.0	10,45
Arroyo Santa Rosa Valley	900	300	150	1.0	10, 45
Conejo Valley	800	250	150	1.0	10, 45

NOTES: mg/L = milligrams per liter; TDS = total dissolved solids;

[a] South Las Posas area (aast of Grimes Canyon Road and Hitch Blvd).
[b] Where naturally occurring boron results in concentrations higher than the stated objective, a site-specific objective may be determined.
[c] The 10 mg/L objective is for nitrate-nitrogen plus nitrite-nitrogen (NO_3-N + NO_2-N), the 45 mg/L objective is for NO_3. The groundwater and surface water objectives are the same.

SOURCE: LARWQCB, 1995

The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the nation's waters." Under CWA Section 303(d), the State of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. The state has listed Arroyo Santa Rosa and Conejo Creek as impaired water bodies. **Table 5.10-3,** *Water Quality Limited Segments in the Proposed Project Area***,** presents the 2006 CWA Section 303(d) list of water quality limited segments in the Proposed Project area and the applicable pollutants/stressors. California is required to establish TMDL for each pollutant/stressor. A TMDL defines how much of a specific pollutant/stressor a given water body can tolerate and still meet relevant water quality standards. TMDLs have already been approved and are being implemented for a number of the pollutants/stressors listed in **Table 5.10-3**, *Water Quality Limited Segments in the Proposed Project Area.*

TABLE 5.10-3
WATER QUALITY LIMITED SEGMENTS IN THE PROPOSED PROJECT AREA

Water Body	Pollutant/Stressor
Calleguas Creek Reach 6 (was Arroyo Las Posas Reaches 1 and 2 on 1998 303d list)	*Ammonia, *chlordane, chloride, *chlorpyrifos, *DDT (sediment), *diazinon, *dieldrin, fecal coliform, *nitrate, sedimentation, sulfates, total dissolved solids, *toxicity.
Calleguas Creek Reach 11 (Arroyo Santa Rosa, was part of Conejo Creek Reach 3 on 1998 303d list)	*Ammonia, ChemA, *chlordane, *DDT (tissue), *dieldrin, endosulfan (tissue), algae growth, fecal coliform, *PCBs, sedimentation, sulfates, total dissolved solids, *toxaphene (tissue and sediment), *toxicity.

* Being addressed by an approved TMDL.

SOURCE: LARWQCB, 2006

Water Quality Certification (CWA §401)

Section 401 of the CWA requires that an applicant for any federal permit (e.g., a United States Army Corps of Engineers [USACE] §404 permit) obtain certification from the state that the discharge would comply with other provisions of the CWA and with state water quality standards. For example, an applicant for a permit under Section 404 of the CWA must also obtain water quality certification per Section 401 of the CWA. Section 404 of the CWA requires a permit from the USACE prior to discharging dredged or fill material into waters of the United States, unless such a discharge is exempt from CWA Section 404.[1] For the Proposed Project area, the LARWQCB must provide the water quality certification required under Section 401 of the CWA. Water quality certification under Section 401 of the CWA, and the associated requirements and terms, is required in order to minimize or eliminate the potential water quality impacts associated with the action(s) requiring a federal permit. There were no wetlands identified in the study area and it is unlikely that the Proposed Project would need a federal permit related to jurisdictional channels or wetlands (see Section 5.4, *Biological Resources*).

National Pollutant Discharge Elimination System (NPDES) Program (CWA §402)

The CWA was amended in 1972 to make the discharge of pollutants to waters of the United States from any point source unlawful unless the discharge is in compliance with a National NPDES permit. The 1987 amendments to the CWA added Section 402(p), which establishes a framework for regulating municipal and industrial *storm water* discharges under the NPDES Program. In November 1990, the United States Environmental Protection Agency (USEPA) published final regulations that also establish storm water permit application requirements for discharges of storm water to waters of the United States from construction projects that encompass 5 or more acres of soil disturbance. Regulations (Phase II Rule) that became final on December 8, 1999, expanded the existing NPDES Program to address storm water discharges from construction sites that disturb land equal to or greater than 1.0 acre and less than 5.0 acres (small construction activity). The regulations also require that storm water discharges from small municipal separate storm sewer systems (MS4s) be regulated by an NPDES permit.

Ventura County MS4 Permit (LARWQCB Order R4-2010-0108). Within the purview of the MS4 permit requirements, the VCWPD, County of Ventura, and the cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, San Buenaventura, Santa Paula, Simi Valley, and Thousand Oaks have formed the Ventura Countywide Stormwater Quality Management Program and are named as co-permittees under a revised municipal NPDES permit for storm water discharges issued by the LARWQCB (Order R4-2010-0108; Ventura County MS4 Permit).[2] Under the Ventura County MS4 Permit, the co-permittees are required to administer, implement, and enforce a Storm Water Quality Management Program (SQMP) to reduce pollutants in urban runoff. The *Ventura County Technical Guidance Manual for Stormwater Quality Control Measures* (Ventura County TGM; 2011) provides guidance for the implementation of storm water

[1] The term "waters of the United States" as defined in the Code of Federal Regulations (40 CFR 230.3[s]) includes all navigable waters and their tributaries.

[2] LARWQCB Order R4-2010-0108, NPDES Permit No. CAS004002, Waste Discharge Requirements for Storm Water (Wet Weather) and Non-Storm Water (Dry Weather) Discharges from the Municipal Separate Storm Sewer Systems within the VCWPD, County of Ventura, and the Incorporated Cities Therein.

management control measures. The Ventura County TGM has been developed to meet the Planning and Land Development requirements contained in the Ventura County MS4 Permit for new development and redevelopment projects and to facilitate successful implementation of the SQMP.

According to the definition of new development projects, the Proposed Project is unlikely to be subject to the requirements and standards set forth in the Ventura County MS4 Permit and within the guidelines (County of Ventura, 2011). According to the Ventura County MS4 Permit, new development projects include all development projects equal to 1.0 acre or greater of disturbed area that add more than 10,000 square feet of impervious surface area. The Proposed Project would add a negligible amount of impervious surface from the installation of 14 tubular steel pole (TSP) foundations.

Construction General Permit (SWRCB Order 2009-09-DWQ). For storm water discharges associated with construction activity in the State of California, the SWRCB has adopted the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (SWRCB Order 2009-0009-DWQ; Construction General Permit) in order to avoid and minimize water quality impacts attributable to such activities.[3] The Construction General Permit applies to all projects where construction activity disturbs 1.0 or more acre of soil. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling and excavation. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which would include and specify best management practices (BMPs) designed to prevent pollutants from contacting storm water and keep all products of erosion from moving off-site into receiving waters. Routine inspection of all BMPs is required under the provisions of the Construction General Permit. In addition, the SWPPP must contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

For the Proposed Project area, the Construction General Permit would be implemented and enforced by the LARWQCB. Dischargers are required to submit a Notice of Intent (NOI) in order to, at the discretion of the SWRCB and the LARWQCB, obtain coverage under the Construction General Permit. Dischargers are responsible for notifying the relevant RWQCB of violations or incidents of non-compliance, as well as for submitting annual reports identifying deficiencies of the BMPs and how the deficiencies were corrected.

The Construction General Permit requires a risk-based permitting approach, dependent upon the likely level of risk imparted by a project. To ensure compliance and protection of water quality, the permit implements monitoring, reporting, and training requirements for management of potential storm water pollutants. The permit contains several compliance items, including: (1) mandatory BMPs to reduce erosion and sedimentation, which may include incorporation of

[3] SWRCB Order 2009-0009-DWQ (as amended by SWRCB Order 2010-0014-DWQ), NPDES Permit No. CAS000002, General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities.

vegetated swales, setbacks and buffers, rooftop and impervious surface disconnection, bioretention cells, rain gardens, rain cisterns, implementation of pollution/sediment/spill control plans, training, and other structural and non-structural actions; (2) sampling and monitoring for non-visible pollutants; (3) effluent monitoring and annual compliance reports; (4) development and adherence to a Rain Event Action Plan; (5) requirements for the post-construction period; (6) numeric action levels and effluent limits for pH and turbidity; (7) monitoring of soil characteristics on-site; and (8) mandatory training under a specific curriculum.

The Proposed Project would disturb more than 1.0 acre of soil and would thus be subject to the provisions and requirements of the General Construction Permit. Southern California Edison (SCE) would submit an NOI to the SWRCB and obtain coverage under, and comply with, the General Construction Permit. As summarized previously, the preparation of a SWPPP would be required in accordance with the General Construction Permit. The SWPPP would include, but not be limited to, relevant measures, conditions, and obligations which would reduce or eliminate the impacts of construction activities on storm water and receiving water quality and quantity. Further, a sediment monitoring plan would be required as part of the SWPPP for the Proposed Project because of the relevant, sediment-impaired reaches (LARWQCB, 2006) described above.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act (codified in the California Water Code, §13000 *et seq*.) is the basic water quality control law for California. As mentioned above, it is implemented by the SWRCB and the nine RWQCBs. The SWRCB establishes statewide policy for water quality control and provides oversight of the RWQCBs' operations. In addition to other regulatory responsibilities, the RWQCBs have the authority to conduct, order, and oversee investigation and cleanup where discharges or threatened discharges of waste to waters of the state[4] could cause pollution or nuisance, including impacts to public health and the environment. Evident from the preceding regulatory discussion, the Porter-Cologne Act and the CWA overlap in many respects, as the entities established by the Porter-Cologne Act are in many cases enforcing and implementing federal laws and policies. However, there are some regulatory tools that are unique to the Porter-Cologne Act.

Dredge/Fill Activities and Waste Discharge Requirements

Actions that involve, or are expected to involve, discharge of waste are subject to water quality certification under Section 401 of the CWA (e.g., if a federal permit is being sought or granted) and/or waste discharge requirements (WDRs) under the Porter-Cologne Act. Chapter 4, Article 4 of the Porter-Cologne Act (California Water Code, §13260-13274), states that persons discharging or proposing to discharge waste that could affect the quality of waters of the state (other than into a community sewer system) shall file a Report of Waste Discharge with the applicable RWQCB. For discharges directly to surface water (waters of the United States) an NPDES permit is required, which is issued under both state and federal law. For other types of discharges, such as waste discharges to land (e.g., spoils disposal and storage), erosion from soil disturbance, or discharges to waters of the state (such as isolated wetlands), WDRs are required and are issued exclusively

4 "Waters of the state" are defined in the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Water Code, § 13050 (e).)

under state law. WDRs typically require many of the same BMPs and pollution control technologies as required by NPDES-derived permits. Further, the WDR application process is generally the same as for CWA Section 401 water quality certification, though in this case it does not matter whether the particular project is subject to federal regulation.

General WDRs for Discharges to Land with a Low Threat to Water Quality. In SWRCB Order 2003-0003-DWQ, the SWRCB adopted General Waste Discharge Requirements (General WDRs) for discharges to land that are considered to be a low threat to water quality and are of low volume with minimal pollutant concentrations (SWRCB, 2003). All WDRs must implement the Basin Plan and require dischargers (e.g., SCE) to comply with all applicable Basin Plan provisions and water quality objectives. The General WDRs establish minimum standards and monitoring requirements with respect to a few specific categories of discharge, including boring waste discharge, small dewatering projects (e.g., temporary dewatering during construction excavation activity), and miscellaneous discharges such as small, inert solid waste disposal operations.

The Proposed Project may require temporary dewatering during TSP foundation installation. Any dewatering activity that would discharge to the land surface would need to comply with the provisions of these General WDRs (or, alternatively, SCE or its contractor would need to obtain an individual WDR). Accordingly, to obtain coverage under these General WDRs and ensure compliance with the Basin Plan, SCE or its contractor would submit the following to the LARWQCB: an NOI to comply with these General WDRs, a Proposed Project map, evidence of California Environmental Quality Act (CEQA) compliance, the requisite fee, a discharge monitoring plan (DMP), and any additional information requested by the LARWQCB.[5] As described above, locally high concentrations of TDS and nitrate within groundwater are likely to preclude the option of directing dewatering discharges to surface waters. RWQCB staff would determine whether or not coverage under the General WDRs is appropriate and, if so, would notify SCE by letter of coverage. In the event of any conflict between the provisions of the General WDRs and the Basin Plan, the more stringent provision would prevail.

WDRs for Construction Dewatering Discharges to Surface Water. In June of 2008, the LARWQCB adopted Order R4-2008-0032, which regulates discharges to surface waters of treated or untreated groundwater from dewatering operations, including those related to construction excavation, and other waste waters (LARWQCB, 2008). As stated previously, the Proposed Project may require dewatering during TSP installation, and any dewatering activity that would discharge to surface waters would need to comply with the provisions of these WDRs (or, alternatively, SCE or its contractor would need to obtain individual WDRs).

To be covered under this order, a discharger must demonstrate that pollutant concentrations in the discharge would not violate any applicable water quality objectives or exceed water quality criteria for specific toxic pollutants (and that there would be no reasonable potential to cause or

[5] Further details concerning the requirements for coverage under these General WDRs, such as the necessary contents of a DMP, can be found in the SWRCB Order implementing these General WDRs (SWRCB Order 2003-0003-DWQ; see LARWQCB, 2008).

contribute to an excursion above the criteria),[6] perform a reasonable potential analysis using a representative sample of the groundwater to be discharged, and, if necessary, design and implement a treatment system for the water to be discharged. To obtain discharge authorization under this order, SCE or its contractor would submit an NOI to the Executive Officer of the LARWQCB (Executive Officer), obtain and analyze a representative sample of the groundwater to be discharged, and, upon request, submit any additional information deemed necessary by the Executive Officer. Among other things as described in the order, the NOI should include a demonstration of direct hydrologic connection and similar water chemistry between the groundwater and the receiving surface water(s), a description of BMPs for preventing degradation of water quality, and a description of the treatment system (if necessary).

Upon receipt of a completed application (e.g., NOI, requisite sampling and assessment), the Executive Officer would determine the applicability of this order to the Proposed Project and the intended discharge. If the discharge is eligible, the Executive Officer would notify SCE or its contractor that the proposed discharge is authorized under the terms and conditions of this order and prescribe an appropriate monitoring and reporting program.

Executive Order 11988

Under Executive Order 11988, FEMA is responsible for management of floodplain areas defined as the lowland and relatively flat areas adjoining inland and coastal waters subject to a 100-year floodplain. FEMA requires that local governments covered by federal flood insurance pass and enforce a floodplain management ordinance that specifies minimum requirements for any construction within the 100-year floodplain.

County and Local Plans, Policies, and Regulations

Per California Public Utilities Commission (CPUC)-adopted General Order (GO) 131-D, local jurisdictions are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to CPUC's jurisdiction, but in locating such projects, the public utilities shall consult with local agencies regarding land use matters. As such, the following local regulations are included for informational purposes only.

Ventura County General Plan

For information purposes, the following goals and policies identified in the Ventura County General Plan were considered to inform the significance determination related to the protection of water resources and minimization of flood hazards in the study area (County of Ventura, 2013):

> **Water Resources**
>
> *Goal 1*: Inventory and monitor the quantity and quality of the County's water resources.
>
> *Goal 2*: Effectively manage the water resources of the County by adequately planning for the development, conservation and protection of water resources for present and future generations.

[6] Specific toxic pollutants are identified in Attachment A, Attachment B, and Part V of LARWQCB Order R4-2008-0032 (LARWQCB, 2008).

Goal 3: Maintain and, where feasible, restore the chemical, physical and biological integrity of surface and groundwater resources.

Goal 4: Ensure that the demand for water does not exceed available water resources.

Goal 5: Protect and, where feasible, enhance watersheds and aquifer recharge areas.

Policy 1: Discretionary development which is inconsistent with the goals and policies of the County's Water Management Plan (WMP) shall be prohibited, unless overriding considerations are cited by the decision-making body.

Policy 2: Discretionary development shall comply with all applicable County and State water regulations.

Policy 3: The installation of on-site septic systems shall meet all applicable State and County regulations.

Policy 4: Discretionary development shall not significantly impact the quantity or quality of water resources within watersheds, groundwater recharge areas or groundwater basins.

Flood Hazards

Goal 1: Minimize the risk of loss of life, injury, damage to property, and economic and social dislocations resulting from flood hazards.

Goal 2: Design and construct appropriate surface drainage and flood control facilities as funding permits.

Goal 3: Prevent incompatible land uses and development within floodplains.

Goal 4: Prohibit residential development within the regulatory floodway.

Policy 1: Land use in the regulatory floodway should be limited to open space, agriculture, or passive to low intensity recreational uses, subject to the approval of the County Public Works Agency. The floodway's principal use is for safely conveying floodwater away from people and property.

Policy 2: Within areas subject to flooding as determined by the Federal Emergency Management Agency on the latest available Digital Flood Insurance Rate Maps (DFIRMs), the County shall require the recordation of a Notice of Flood Hazard or dedication of a flowage easement with the County Recorder for all divisions of land and discretionary permits.

Policy 3: Development proposed within the floodplain shall be designed and built to standards intended to mitigate to the extent possible the impacts from the one percent annual chance storm.

Policy 4: The design of any structures which are constructed in floodplain areas as depicted on the County Hazards Protection Maps, shall be governed by Federal regulations, specifically Title 44 Code of Federal Regulations Sections 59 through 70, as well as the County Floodplain Management Ordinance (discussed below) and shall incorporate measures to reduce flood damage to the structure and to eliminate any increased potential flood hazard in the general area due to such construction.

Ventura County Watershed Protection District

The Proposed Project is located within the VCWPD jurisdiction. The VCWPD was formed in 1944 to provide for the "control and conservation of flood and storm waters and for the protection of watercourses, watersheds, public highways, life, and property in the district from damage or destruction from these waters" (VCWPD, 2014).

The VCWPD's authority over its jurisdictional channels is established through a number of ordinances and policies passed by its Board of Supervisors. The primary ordinance establishing VCWPD authority and the requirement to obtain permits for any encroachment into VCWPD jurisdictional channels, including rights-of-way (ROWs), is Ventura County Watershed Protection Ordinance WP-2, *An Ordinance Relating to the Protection and Regulation of Flood Control Facilities and Watercourses* (VCWPD, 2014). Specifically, without first obtaining a permit, ordinance WP-2 (VCWPD, 2013b) states that no person shall:

- Impair, divert, impede, or alter the characteristics of the flow of water running in any jurisdictional red line channel, or establish any new drainage connection to a VCWPD jurisdictional channel (where applicable, watercourse or Encroachment Permit applications must be submitted to the District for any proposed work); or

- Construct or place any structure in, upon, or across a watercourse.

Segments of the Proposed Project would cross a few delineated watercourses (see Figure 5.10-1 *FEMA Flood Zones and Surface Hydrology in the Proposed Project Vicinity*); however, only the subtransmission conductor would actually cross or span the watercourses, and these are unlikely to be considered "structures" in the context of this ordinance.

The VCWPD also implements flood hazard and flood management ordinances. The primary ordinance establishing the VCWPD's authority and requirements to obtain permits for encroachments in jurisdictional waters and ROWs is Ventura County Ordinance FC-18. Ordinance FC-18 relates to protection and regulation of flood control facilities and watercourses. This ordinance has been amended by FC-19 through FC-23 and FC-27. Additionally, the VCWPD implements the Flood Plain Management Ordinance 3841 on behalf of the County of Ventura to ensure compliance with FEMA regulations. This includes all proposed residential and non-residential development within the 1 percent annual chance base flood area (100-year floodplain). The Proposed Project includes routing subtransmission source lines through parts of 100-year floodplain areas; therefore, some of the FEMA regulations would be applicable.

City of Thousand Oaks General Plan

For information purposes, the following Conservation Element policies and implementation measures identified in the City of Thousand Oaks General Plan were considered to inform the significance determination related to the protection of water resources and water quality in the study area (City of Thousand Oaks, 2013):

Streams and Creeks Policies

- Streams and creeks should be protected as open space and maintained in as natural a state as possible, and appropriate measures taken to manage urban runoff, in order to protect the City's and other downstream communities' water quality, wildlife diversity, native vegetation, and aesthetic value. This will contribute to the regional effort to improve the quality of Calleguas Creek, Malibu Creek and Mugu Lagoon.

- Use of concrete for flood control improvements in natural drainage courses should occur only when no reasonable alternatives can be found that would maintain natural hydrological and ecological functions.

Streams and Creeks Implementation Measures

- All development projects should be reviewed to ensure protection of streams and creeks onsite, as long as there is no threat to public safety.

- All new developments and redevelopment of built areas shall comply with standards adopted by the City for minimizing storm water pollution, excess runoff, and siltation.

- Erosion and pollution from construction sites will be reduced as the City implements NPDES standards for construction sites.

- Continue monitoring and enforcement of pollution standards for existing commercial and industrial uses, pursuant to the countywide NPDES permit, to reduce storm water pollution.

- Continue public outreach and education programs to help reduce stormwater pollution.

- Any development proposed over, under, adjacent, or within the boundaries of a VCWPD jurisdictional red line channel shall obtain a permit from the District prior to any site disturbance.

Floodplains Policy

- Protect remaining floodplains in order to help retain stormwater runoff from tributary watersheds and reduce the potential for erosion and periodic flooding within downstream reaches of the Arroyo Conejo and Calleguas Creek.

Floodplains Implementation Measures

- Natural floodplains have been acquired and conserved as open space with limited recreational uses that are compatible with public safety considerations. Any remaining undeveloped areas within a 100-year flood plain should also be considered for open space or recreational use.

- Existing developed floodplains located immediately adjacent to floodplains in the unincorporated areas of Ventura County should be coordinated with the Ventura County Floodplain Manager to ensure no adverse or cumulative impacts within the unincorporated area.

City of Thousand Oaks Municipal Code

For information purposes, the following provisions contained in the City of Thousand Oaks municipal code pertain to flood damage prevention (City of Thousand Oaks, 1988):

> ***Title 4, Public Safety, Chapter 7 – Flood Damage Prevention***
>
> Provisions for flood hazard reduction are established in §4.7.05. This section includes standards for construction for residential, non-residential, and utilities development. Section 4.7.06 outlines variance procedures for floodplain regulations. Sections 4.7.10, 4.7-11, and 4.7-12 establish additional standards.

City of Moorpark General Plan

For information purposes, the following goal and policy identified in the City of Moorpark General Plan were considered to inform the significance determination related to the protection of water resources and water quality in the study area (City of Moorpark, 1986):

> *Goal 4:* Preserve and maintain the physical and biological environment from future growth-related degradation. In those areas where degradation is inevitable, ensure the restoration of affected areas.
>
> *Policy 4.2:* Conserve and protect water quality supplies through cooperative efforts with the Ventura County Water Conservation Plan and any future regional water quality and water supply plans and programs that may be instrumental in reducing water quality-related problems.

5.10.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would result in significant hydrology and water quality effects on the environment if it would:

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 a site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;

d) Substantially alter the existing drainage pattern of a 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; or

j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

5.10.3 Applicant Proposed Measures

No applicant proposed measures (APMs) have been identified by SCE to reduce Proposed Project impacts on hydrology and water quality.

5.10.4 Impacts and Mitigation Measures

Approach to Analysis

Reconnaissance field investigations were conducted and regional and site-specific technical documents were reviewed to identify hydrology and water quality resources that could be affected by the Proposed Project. Potential impacts on hydrologic resources and water quality during construction, operations, and maintenance were determined and evaluated with respect to identified hydrologic features.

a) Violate any water quality standards or waste discharge requirements.

f) Otherwise substantially degrade water quality.

Impact 5.10-1: Construction, operation, and maintenance activities could result in increased erosion and sedimentation and/or pollutant (e.g., fuels and lubricants) loading to surface waters, which could increase turbidity, suspended solids, settleable solids, or otherwise degrade water quality. *Less than significant with mitigation* (Class II)

Construction activities associated with the Proposed Project could increase the turbidity or otherwise degrade the water quality of receiving stream channels or other surface waterways. Activities that disturb the ground near or within a stream channel (e.g., clearing and grading) could make soils and sediments more susceptible to erosion by altering their existing structure or state. Depending on the distance and ground slope, some portion of the eroded material could eventually be delivered to a receiving stream channel or other type of waterway over a relatively short time period (e.g., during the next rain event). In this case, increased erosion rates would likely lead to increased sediment concentrations and turbidity levels in the receiving stream channel and have a potentially adverse impact on the beneficial uses identified by the LARWQCB (1995). Further, moderate increases in surface runoff from construction areas could initiate or exacerbate an erosion and sediment delivery problem. An increase in the runoff rate

from a construction area may result from temporarily decreasing ground surface resistance to overland flow (e.g., clearing of native vegetation or slope grading), decreasing the infiltration capacity of the soil by means of compaction (e.g., with heavy equipment), or by increasing the velocity of runoff (e.g., concentrating flow into manmade features or into existing rills or gullies). In addition, if construction equipment or workers inadvertently release pollutants (e.g., hydraulic fluid or petroleum) on-site, these compounds could be entrained by runoff and discharged into receiving channel(s) causing water quality degradation. The extent of erosion or pollution that could occur at any given construction site varies depending on soil type, vegetation/cover, and weather conditions.

Construction of the Proposed Project would require only short-term (i.e., within a single season) construction activities, and thus the associated potential impacts would be short-lived in nature. Actions associated with the Proposed Project that would include notable construction and land-disturbing components include trenching; surface modifications to rehabilitate existing access and spur roads; the rehabilitation of conductor stringing sites; and the installation of guard locations (all other Proposed Project components would utilize previously disturbed areas). Specific construction activities referenced under this potential impact include, but are not limited to, clearing and grading, excavation work, and the stockpiling of soil and/or sediments.

The Proposed Project would be required to adhere to a number of federal and state water quality provisions. These provisions would serve to minimize or eliminate the potential water quality impacts associated with the construction activities, and some of the operational activities and features, described above. As summarized in Chapter 3, *Project Description*, SCE would need to acquire the Construction General Permit from the LARWQCB in order to carry out the proposed construction activities. SCE would be required to submit an NOI to the SWRCB in order to obtain approval to carry-out construction activities under the General Construction Permit. This permit would include a number of design, management, and monitoring requirements for the protection of water quality and the reduction of construction and phase impacts related to storm water (and some non-storm water) discharges. Permit requirements would include the preparation of a SWPPP, implementation and monitoring of BMPs, implementation of best available technology for toxic and non-conventional pollutants, implementation of best conventional technology for conventional pollutants, and periodic submittal of performance summaries and reports to the LARWQCB. The SWPPP would apply to the Proposed Project as a whole and would include reference to major construction areas as appropriate. Also, SCE would contact the LARWQCB and file a Report of Waste Discharge; the LARWQCB would then determine whether an issuance or a waiver of WDRs is necessary considering the permits already required for the Proposed Project.

Construction, operation, and maintenance of the Proposed Project would require the limited use of hazardous materials; all hazardous materials would be stored, handled, and used in accordance with the applicable regulations. The SWPPP would provide detail on locations where hazardous materials may be stored during construction, and the protective measures, notifications, and cleanup requirements for any accidental spills or other releases of hazardous materials that could occur.

Throughout the construction and operation phases of the Proposed Project, access to the 66 kV subtransmission lines would be achieved through the use of approximately 21 miles of existing dirt access roads and existing spur roads that are accessible from paved public and private roads. Prior to construction, some segments of the existing access and spur roads would require improvement or rehabilitation, such as light grading and vegetation removal, to facilitate the safe movement of construction vehicles and personnel. In general, unpaved roads commonly lead to increases in the volume of surface runoff as well as increases in erosion and sediment delivery. This is attributable to the fact that roads tend to intercept and elongate overland flow paths, substantially reduce the infiltration capacity of soils, and disturb the existing soil structure, making the soil more susceptible to erosion and entrainment by runoff. Further, as discussed in Section 5.7*, Geology and Soils*, some of the soils within the Proposed Project area have a moderate to severe erosion hazard associated with them, according to classifications by the Natural Resources Conservation Service (NRCS). The beneficial uses of the surface water channels within the Proposed Project area could be adversely affected by temporary increases in erosion and delivery of sediment from the improvement or rehabilitation (e.g., clearing) of existing roads that may currently have notable vegetation coverage and/or have developed gullies.

The existing measures required of SCE (e.g., the Construction General Permit, water quality certification, and/or WDR) would reduce potential construction-related water quality impacts, but are not necessarily sufficient to reduce potential impacts from improving or rehabilitating roads for access purposes to a less-than-significant level. Mitigation Measure 4.10-1 would be required to specifically address the potential water quality impacts associated with proposed road work. [7]

> **Mitigation Measure 5.10-1:** For all improved or rehabilitated access roads that would be within 300 feet of an existing surface water channel (i.e., one that has a distinct bed and banks, including irrigation ditches where no berm/levee is currently in place) and traverse a ground slope greater than two percent, the following protective measures shall be adhered to and/or installed:
>
> - All access roads shall be out-sloped;
> - Cross-drains (road surface drainage, e.g., waterbars, rolling dips, or channel drains) shall be installed at intervals based upon the finished road slope: road slope 5 percent or less, cross-drain spacing shall be 150 feet; road slope 6 to 15 percent, cross-drain spacing shall be 100 feet; 16 to 20 percent, cross-drain spacing shall be 75 feet; and 21 to 25 percent, cross-drain spacing shall be 50 feet; and
> - Energy dissipation features (e.g., rock rip-rap, rock-filled containers) shall be installed at all cross-drain outlets.

Significance after mitigation: Less than significant.

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[7] The mitigation measures for roads are based on measures and recommendations contained in the *Handbook for Forest and Ranch Roads – A Guide for Planning, Designing, Constructing, Reconstructing, Maintaining, and Closing Wildland Roads* (Weaver and Hagans, 1994).

Impact 5.10-2: Dewatering during construction activities could release previously contaminated groundwater to surface water bodies and/or increase sediment loading to local surface water channels through overland discharge and subsequent erosion, degrading water quality in receiving surface waters. *Less than significant with mitigation* (Class II)

The proposed excavations for the TSPs would be up to 46 feet deep and could encounter groundwater in select locations, in which case dewatering would be necessary. No TSP installations or excavations are proposed within the Las Posas Valley Groundwater Basin, which generally has the shallowest depths to groundwater. However, the southern portion of Segment 2 would traverses the Arroyo Santa Rosa Valley Groundwater Basin, where spring groundwater depths can range from approximately 29 to 39 feet based on measurements made over the 2011-2013 time frame (VCWPD, 2013a). Further, Segment 4 would be within the Conejo Valley Groundwater Basin, where the average depth to water is approximately 50 feet (based on all measurements, i.e., in the fall and spring; VCWPD, 2013a), though spring groundwater levels may be slightly shallower. Where the groundwater table is relatively shallow, some groundwater seepage may occur into pole excavation or auger holes, requiring dewatering on a one-time basis immediately prior to pole foundation placement and installation.

For the Proposed Project, if dewatering is required for pole placement, the water may be discharged to a sediment tank and, after adequate residence time for settling of sediments and other solids, subsequently discharged into the local storm drain or sewer system. However, as described above, locally high concentrations of TDS and nitrate within groundwater are likely within the Proposed Project area. Concentrations of TDS and nitrate in groundwater within the Proposed Project area groundwater basins have been measured at levels that exceed the water quality objectives in the Basin Plan. If not treated, discharging such water directly to a storm drain and/or surface channel would likely result in a violation of existing water quality standards contained within the Basin Plan. Thus, this would preclude the option of directing dewatering discharges to surface waters (including storm drains that discharge to surface waters).

Groundwater within the Proposed Project area could exceed surface water quality standards for some constituents (e.g., TDS), and thus all dewatering activities, when necessary, should ultimately discharge to the land surface in the vicinity of the particular installation or construction site. These discharges should be contained, such that the water is allowed to infiltrate back into the soil and the potential for inducing erosion and subsequent sediment delivery to nearby surface waterways is eliminated. Concerning such activities, SCE shall apply and comply with the provisions of SWRCB Order 2003-0003-DWQ, including development and submittal of a discharge monitoring plan.

Though the dewatering process would be temporary, yielding only a small volume of groundwater, the potential exists for such water or saturated soils to already be contaminated. Discharge (i.e., through dewatering) or displacement of contaminated water or soil, as a result of excavation related to the Proposed Project, could potentially impact the beneficial uses of surface water or groundwater identified in the Basin Plan. Mitigation Measure 5.10-2 would be required to specifically address the potential water quality impacts associated with dewatering discharge of

previously contaminated groundwater, or of groundwater which exceeds existing surface water quality criteria or objectives for one or more constituents.

Mitigation Measure 5.10-2: Regarding dewatering activities and discharges, the following measures shall be implemented as part of Proposed Project construction:

- If degraded soil or groundwater is encountered during excavation (e.g., there is an obvious sheen, odor, or unnatural color to the soil or groundwater), SCE and/or its contractor shall excavate, segregate, test, and dispose of degraded soil or groundwater in accordance with state hazardous waste disposal requirements.

- All dewatering activities shall, where feasible, discharge to the land surface in the vicinity of the particular installation or construction site. The discharges shall be contained, such that the water is allowed to infiltrate back into the soil, and eventually to the groundwater table, and the potential for inducing erosion and subsequent sediment delivery to nearby surface waterways is eliminated. Further, the holding tank or structure shall be protected from the introduction of pollutants including but not limited to oil or fuel contamination from nearby equipment. Concerning such activities, SCE shall apply and comply with the provisions of SWRCB Order 2003-0003-DWQ, including development and submittal of a discharge monitoring plan.

- If discharging to a community sewer system is feasible or necessary, SCE shall discharge to a community sewer system that flows to a wastewater treatment plant. Prior to discharging, SCE shall inform the responsible organization or municipality and present them with a description of and plan for the anticipated discharge. SCE shall comply with any specific requirements that the responsible organization or municipality may have.

- If discharging to surface waters, including to storm drains, would be necessary, SCE shall obtain and comply with the provisions of the LARWQCB Dewatering General Permit. SCE shall perform a reasonable analysis using a representative sample(s) of the groundwater to be discharged; this shall include analyzing the sample(s) for the constituents listed in the LARWQCB Dewatering General Permit, including TDS and nitrate. Further, the sample(s) shall be compared to the screening criteria listed in the LARWQCB Dewatering General Permit and the Basin Plan, and it shall be demonstrated that the discharge would not exceed any of the applicable water quality criteria or objectives. If necessary, SCE shall develop and submit to the LARWQCB a treatment plan and design.

- SCE shall provide to the CPUC proof of compliance with LARWQCB plans and permits prior to the commencement of construction activities.

Significance after mitigation: Less than significant.

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). (No Impact)

During installation of subsurface structures, there is a possibility that shallow groundwater would be encountered. If dewatering should occur, it would be for a short period of time and would not affect groundwater levels in the region. The impermeable surfaces associated with the Proposed Project would be very minimal (i.e., limited to construction of 14 TSP foundations approximately 6 to 8 feet in diameter) and would not substantially interfere with groundwater recharge. As a result, construction, operation, and maintenance of the Proposed Project would not 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 (No Impact).

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c) Substantially alter the existing drainage pattern of a 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.

Impact 5.10-3: Construction activities could impact local drainage patterns, or the course of a given stream, resulting in substantial on- or off-site erosion or sedimentation. *Less than significant with mitigation* (Class II)

The Proposed Project, in disturbing the ground and hillsides during construction activities, may alter existing drainage pathways so as to make surface soils more susceptible to erosive forces (i.e., overland flow) and/or generate enough increased runoff through removal/clearing of existing vegetation to increase surface erosion. This potential impact is synonymous with the potential impact of construction activities upon erosion processes, sediment delivery, and water quality, and it is fully addressed in Impact 5.10-1 (above).

Mitigation: Implement Mitigation Measure 5.10-1.

Significance after mitigation: Less than significant.

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d) Substantially alter the existing drainage pattern of the site or area, including through 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. (No Impact)

The Proposed Project would not alter drainage patterns or otherwise substantially increase runoff (e.g., through installation of impervious surfaces) to the extent that a substantial increase in on- or off-site flooding would occur (No Impact).

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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. (No Impact)

There is no potential for the Proposed Project or alternatives to impact stormwater drainage systems or provide additional sources of polluted runoff not addressed in the context of the other criteria. All potential impacts concerning runoff and erosion resulting from implementation of the Proposed Project are addressed under criteria a), c), and f) (No Impact).

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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. (No Impact)

The Proposed Project does not involve housing within a 100-year floodplain; therefore, there are no impacts associated with placing housing within a 100-year floodplain (No Impact).

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h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows. (No Impact)

Installation of some of the Proposed Project components would occur in a 100-year flood zone; however, the poles and foundations would not alter drainage patterns and do not have a large cross section that would significantly impede flood flows. Therefore, there would be no effect related to impeding or redirecting flood flows from placing structures within a 100-year flood plain (No Impact).

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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. (No Impact)

The Proposed Project is not located down gradient of a levee or dam. The closest dam or levee is Bard Reservoir, located in an adjacent drainage basin, and its failure would not expose people or structures associated with the Proposed Project to any risk of loss, injury, or death from flooding. Therefore, there is no impact to people or structures associated with construction, operation, or maintenance of the Proposed Project from the risk from dam or levee failure (No Impact).

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j) Expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow. (No Impact)

The Proposed Project area is not subject to seiches, tsunamis, or mudflows, and would have no impact regarding people's exposure to risk with respect to these phenomena (No Impact).

5.10.5 Alternatives

No Project Alternative 1

Under No Project Alternative 1, the construction, operation, and maintenance related impacts that would result under the Proposed Project, as discussed in Section 5.10.4, would not occur. There would be no impact under No Project Alternative 1 (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. No Project Alternative 2 has the same hydrology and water quality setting as described above for the Proposed Project. Though the ground-disturbing and construction activities under the No Project Alternative 2 would be related to the removal of previously installed infrastructure, the potential construction-related impacts pertaining to ground disturbance, erosion, and/or access road rehabilitation would likely be similar to the Proposed Project (see Impacts 5.10-1 and 5.10-3, above). However, under No Project Alternative 2, there would likely be no potential impacts related to construction dewatering (see Impact 5.10-2, above). Aside from the dewatering potential impact, implementation of No Project Alternative 2 would likely warrant the same mitigation measures as those required for the Proposed Project. Therefore, depending on the condition of the access roads needed for infrastructure removal, Mitigation Measure 5.10-1 would also be required for No Project Alternative 2 and the potential impacts of this alternative to hydrologic resources and water quality would be less than significant with mitigation (Class II).

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