4.8 Hydrology and Water Quality

This section describes the environmental and regulatory setting and discusses impacts associated with the construction and operation of the Mesa 500-kilovolt (kV) Substation Project (proposed project) proposed by Southern California Edison Company (SCE, or the applicant) with respect to hydrology and water quality.

Comments received during the scoping period expressed concerns that the proposed project could result in groundwater overdraft or impacts to surface water quality, including the potential drying of the Potrero Grande Arroyo, which drains into the Rio Hondo River. A record of a waterway called *Potrero Grande Arroyo* could not be found; it is presumed that the commenter was referring to the Rio Hondo, which traverses an area that was once the Rancho Potrero Grande. The potential for impacts related to groundwater withdrawal is discussed below under Impact HY-2. The potential for impacts related to changes in surface water flow is discussed below under Impact HY-4.

4.8.1 Environmental Setting

4.8.1.1 Regional Setting

The proposed project would be located in the South Coast Hydrological Region (DWR 2003), which is under the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB). Average precipitation in the proposed project area ranges from 0.02 inches in August to 3.91 inches in February (WRCC 2015). Precipitation in the region generally occurs as rainfall during a few major storms (California Regional Water Quality Control Board, Los Angeles Region 1994). Surface waters in the proposed project area region generally flow south from the San Gabriel Mountains across the coastal plains into the Rio Hondo Wash, then into the Los Angeles River, and finally into the Pacific Ocean.

4.8.1.2 Groundwater

The proposed project would be located within the Central Subbasin of the Coastal Plain of the Los Angeles Groundwater Basin and the San Gabriel Valley Groundwater Basin, which are part of the Los Angeles Subregion and South Coast Hydrologic Region (DWR 2003) as shown in Figure 4.8-1. Water for the proposed project would be obtained from the San Gabriel Valley Groundwater Basin via the City of Monterey Park. The City of Monterey Park Department of Public Works Water Utility Division, which provides approximately 95 percent of the city's water supply, receives its water supply from the San Gabriel Valley groundwater basin.

Groundwater Basins

Central Subbasin of the Coastal Plain of the Los Angeles Groundwater Basin

In the Central groundwater subbasin, the primary water yielding materials are the sands and gravels of the Holocene alluvium and the Pleistocene Lakewood and San Pedro Formations. These aquifers range in maximum thickness from 60 to 350 feet (DWR 2004a). Groundwater recharge in the Central groundwater subbasin occurs primarily in the forebay areas through surface and subsurface flow, percolation of precipitation, stream flow, and application of recycled and imported water on spreading grounds. The Rio Hondo and San Gabriel River Spreading Grounds are located approximately 2 miles southwest of the Whittier Narrows Dam in the Montebello forebay and provide the vast majority of surface recharge to the Central Basin aquifers (WRD 2014).

Total storage capacity of the Central groundwater subbasin is estimated at 13,800,000 acre-feet. An average groundwater budget developed by the United States Geological Survey (USGS) indicates an average annual net water balance of 7,680 acre-feet per year (AFY) (WRD 2004). Groundwater highs were observed in 1935. Following this high, wells began to continually drop over 110 feet until their lows were reached in 1961 due to over-pumping and insufficient natural recharge. Groundwater levels recovered substantially during the early 1960s as a result of replenishment operations and reduced pumping. Since 1995, there have been 100-foot swings in water levels each year from winter to summer. These swings are due to pumping pattern changes by some of the Central Basin producers who operate with more groundwater in the summer months and less groundwater in the winter months (WRD 2014).

San Gabriel Valley Groundwater Basin

In the San Gabriel Valley groundwater basin, groundwater is found within the sediments underlying most of the San Gabriel Valley and portions of the Santa Ana Valley. The primary water yielding materials are the unconsolidated to consolidated Pleistocene and Holocene alluvium and the lower Pleistocene San Pedro Formation. The Holocene alluvium is up to 100 feet thick and forms alluvial fans on the foothills of the San Gabriel Mountains and stream deposits across the valley. The most productive water yielding materials in the basin are the Upper Pleistocene alluvium deposits. The upper Pleistocene alluvium consists of 40- to 4,100-foot thick angular to sub-rounded boulder-bearing gravels to sand and silts (DWR 2004b). The lower San Pedro Formation consists of interbedded marine sand, gravel, and silt and has a thickness of about 2,000 feet (DWR 2004b).

Groundwater recharge in the San Gabriel Valley groundwater basin is primarily from direct percolation of precipitation and stream flow. In addition, groundwater enters the basin through subsurface flow from the Raymond groundwater basin, Chino groundwater subbasin, and fracture systems along the San Gabriel Mountains (DWR 2004b). The Main San Gabriel Basin is in overdraft conditions and has experienced historic lowering of the groundwater table. The preliminary Operating Safe Yield recommendation for the Main San Gabriel Basin for fiscal year 2015–2016 is 150,000 AFY, and for subsequent years through 2020 is approximately 130,000 AFY. About 195,000 acre-feet were pumped in 2014–15. Producers pumping from the groundwater basin can pump more than their annual right, but they are required to fund water for recharging the basin; in 2014–2015, the required recharge amount of water would have been 45,000 acre-feet. Groundwater levels at one well have also decreased from 294 feet in 1983 to 175 feet in 2015. This is in the context of a requirement to recharge the basin to maintain the water level at this well at over 200 feet (Main San Gabriel Basin Watermaster 2015).

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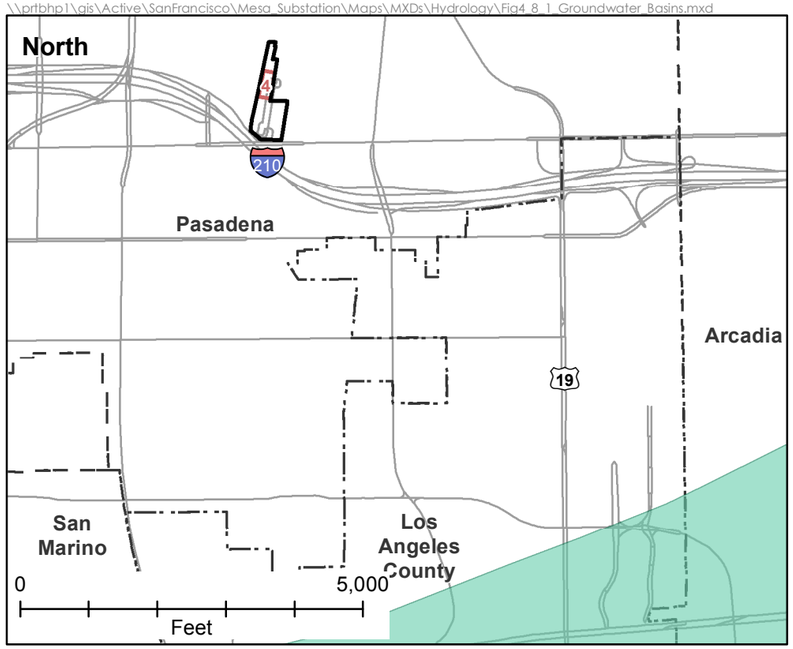

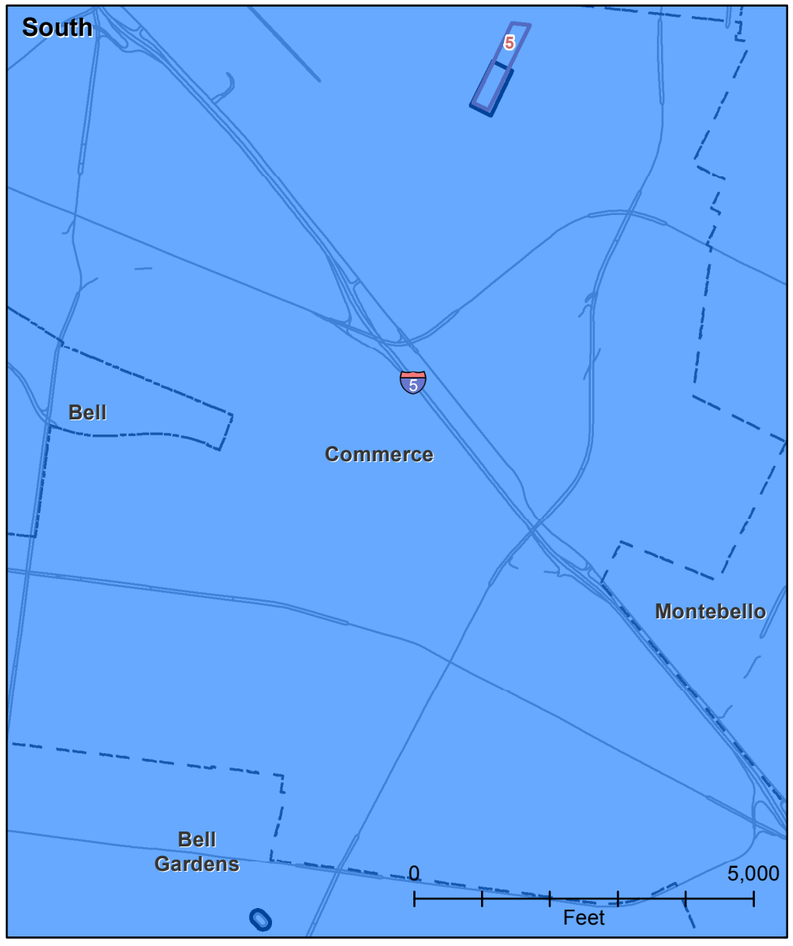

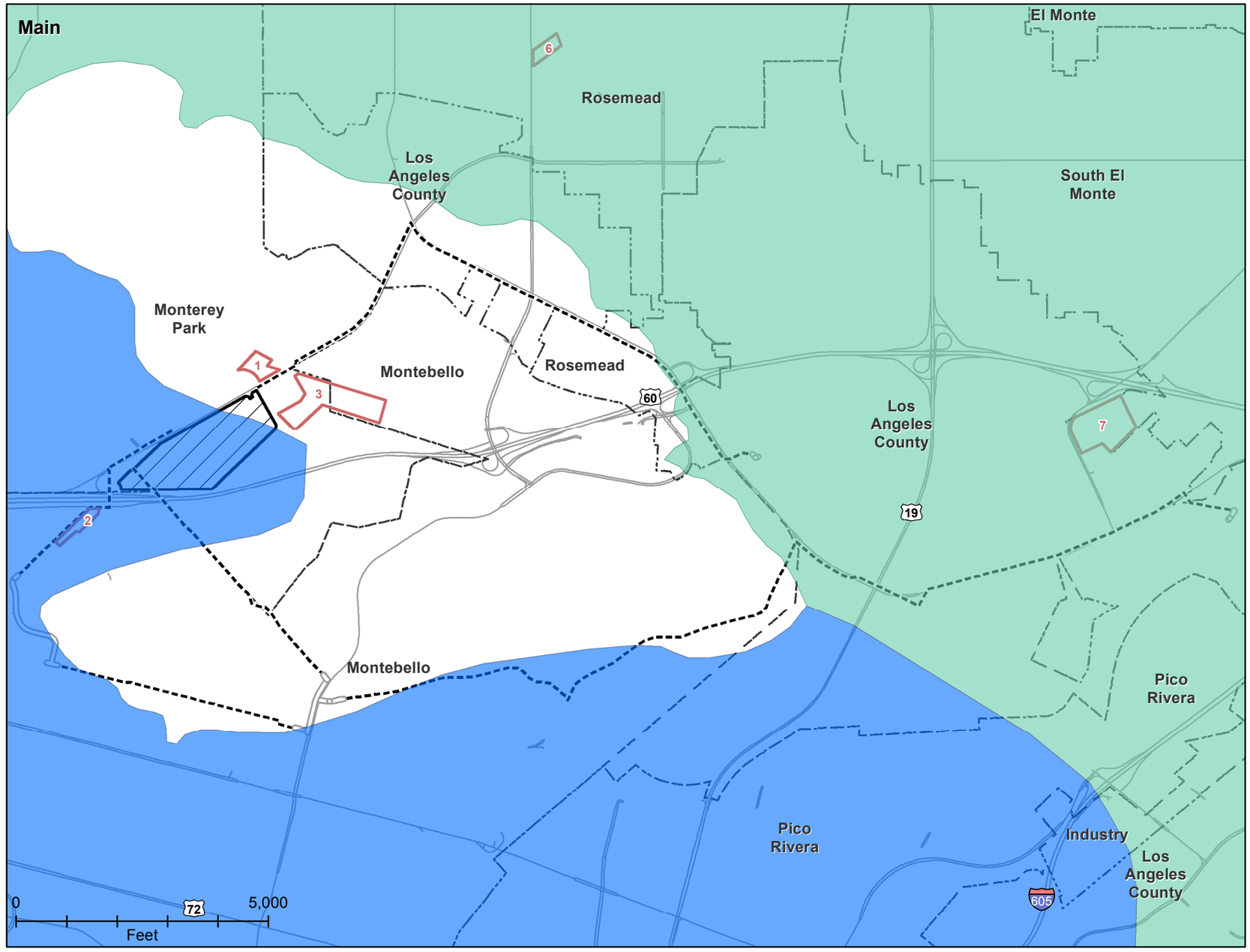

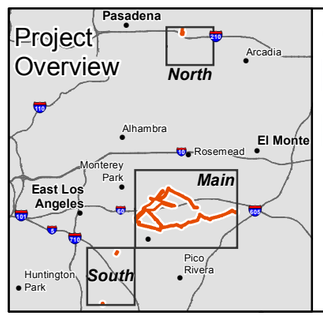

Ground Water Basins
- Central Basin
- Main San Gabriel Basin

- Telecommunications route
- Manholes, vaults, and underground construction
- Staging yard
- Proposed Mesa substation area

- Study Area (North and South)
- City boundary

Sources: SCE 2015 | Basemap: ESRI Media Kit, 2010

Figure 4.8-1
Groundwater Basins
Mesa Substation
Los Angeles County, CA

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Groundwater Quality

Groundwater contamination in the San Gabriel Valley has been an item of ongoing concern. There are several groundwater treatment systems installed as part of Superfund cleanups. In the project area level, groundwater contaminant levels have measured up to 100 times maximum contaminant levels as specified under the Safe Drinking Water Act. Contaminants include trichloroethylene, perchloroethylene, and rocket fuel (EPA 2014). In association with the adjacent Operating Industries, Inc., Superfund site, groundwater underlying a portion of the proposed Mesa Substation site is known to be historically contaminated with leachate that is considered by the United States Environmental Protection Agency (EPA) to be Resource Conservation and Recovery Act-regulated hazardous waste. Hazardous substances found in the groundwater include both organic and inorganic chemical compounds. The specific compounds in the leachate and groundwater that are of greatest concern due to their toxicity are vinyl chloride, trichloroethylene, and benzene (EPA 1998). The contaminated groundwater elevation under the proposed component ranges from 266 to 283 feet above mean sea level and is located at depths from 40 to 80 feet below ground surface (Geosyntec Consultants 2013).

4.8.1.3 Surface Water

Water Bodies

Major surface waters in the vicinity of the Main, North, and South Project Areas are shown in Figure 4.8-2 and include:

- Alhambra Wash
- Mission Creek
- San Gabriel River
- Los Angeles River
- Rio Hondo
- Legg Lake
- Eaton Wash

There are also several minor surface water features in, and in close proximity to, the proposed project area, including ephemeral drainages, and intermittent drainages, which are also shown on Figure 4.8-2. Stormwater at the proposed Mesa Substation flows toward the southeast area of the site where it is collected in storm drains that flow into the Rio Hondo Channel. The Rio Hondo empties into the Los Angeles River approximately 9 miles south and southwest of the proposed Mesa Substation.

As a result of dense development in the vicinity of all project components, most of the surface water bodies have been modified to improve drainage, prevent flooding, and provide more space for development. Some watercourses such as the Rio Hondo, Los Angeles River, and Alhambra Wash have been channelized and lined with concrete while others like the San Gabriel River have been channelized without concrete lining.

Jurisdictional Waters

SCE has performed wetland delineations on the Mesa Substation site per United States Army Corps of Engineers' (USACE's) *Wetlands Delineation Manual* and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. Figure 4.8-3 shows the result of delineations. SCE submitted a request for an Approved Jurisdictional Determination on April 23, 2015 for waters on the Mesa Substation site. SCE has not yet received approval from USACE (SCE 2015). Because USACE has not yet issued an Approved Jurisdictional Determination, all features

are considered to be potentially jurisdictional and subject to regulation by the USACE, Regional Water Quality Control Board, and California Department of Fish and Wildlife for the purposes of this Environmental Impact Report.

Surface Water Quality

Under section 303(d) of the Clean Water Act, states identify water bodies as impaired for certain pollutants. The only listed water body in the vicinity of the project area is Legg Lake, which is located 0.2 mile northeast of Staging Area 7 and about .02 mile north of Telecommunications Route 3. The proposed Mesa Substation site area is located approximately 2.5 miles northeast of the lake. Legg Lake is listed as impaired due to ammonia, copper, lead, odors, trash, and pH. The only completed total maximum daily load for Legg Lake is for zero trash.

Hazards

Flood Zones

None of the substation area is mapped in areas designated as a flood zone. About 0.4 mile of Telecommunications Route 3 adjacent to San Gabriel Boulevard (within Whittier Narrows) is located in an area mapped as a 100-year flood zone. About 0.1 mile of Telecommunications Route 1 adjacent to San Gabriel Boulevard in Montebello and about 0.9 mile of telecommunications Route 3 on the north side of East Lincoln Avenue in Montebello are located in an area mapped as undetermined but possible flood hazards. Pardee Substation is also in an area mapped as having an undetermined but possible flood hazards. The south side of East Lincoln Avenue is the area behind Whittier Narrows Dam, which is mapped as a floodway. All other portions of the proposed project are located in areas designated as having minimal flood hazard. Refer to Figure 4.8-3 for Federal Emergency Management Agency (FEMA) flood hazard mapping.

Dam Inundation Areas

To help prevent flooding from watercourses that have been disconnected from their floodplains, flood control dams like the Whittier Narrows Dam and Eaton Wash Dam have been constructed. The flood control dams provide storage basins for excess stormwater flow that allow for gradual discharge at a rate that does not cause flooding of nearby development. As flood control structures, none of these dams maintains a pool except temporarily after higher than normal flow events.

The Mesa Substation site is in an inundation area for the Garvey Reservoir if the south dam fails. Flood depths would be 6 to 7 feet. From there, water would come up against State Route 61 and then eventually flow through freeway undercrossings (City of Monterey Park 2001). Staging Yard 5 and structure replacement in the City of Commerce are also in the Garvey Reservoir inundation zone, but farther from the reservoir itself. Floodwaters would reach the City within 15 minutes (City of Commerce 2008). Staging Yard 6 is in the inundation area of the Garvey Reservoir should the north dam fail (City of Rosemead 2010; City of Monterey Park 2001). The average water depth would be about 5 feet (City of Monterey Park 2001). The Garvey Reservoir was repaired in 1999 to fix seepage and to increase the integrity of the reservoir (City of Monterey Park 2001).

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North

Eaton Wash

Pasadena

4

210

Los Angeles County

19

0 5,000 Feet

South

Los Angeles County

72

5

Montebello

Bell

Commerce

Los Angeles River

710

Bell

Bell Gardens

Rio Hondo

Downey

0 5,000 Feet

Main

6

Rosemead

Los Angeles County

Alhambra Wash

El Monte

South El Monte

Monterey Park

1

3

Montebello

Rosemead

60

19

Mission Creek

7

2

Los Angeles County

Rio Hondo

Pico Rivera

San Gabriel River

Pico Rivera

Los Angeles County

605

0 72 5,000 Feet

Project Overview

Pasadena

North

Arcadia

Alhambra

El Monte

Rosemead

Monterey Park

East Los Angeles

Main

Huntington Park

South

Pico Rivera

National Hydrography Dataset flowline

National Wetland Inventory wetland

Anticipated impacts to waters

Permanent

Temporary

Telecommunications route

Manholes, vaults, and underground construction

Staging yard

Proposed Mesa substation area

Study Area (North and South)

City boundary

Sources: SCE 2015, USFWS 2014, USGS 2014
Basemap: ESRI Media Kit, 2010

Figure 4.8-2
Hydrology
Mesa Substation
Los Angeles County, CA

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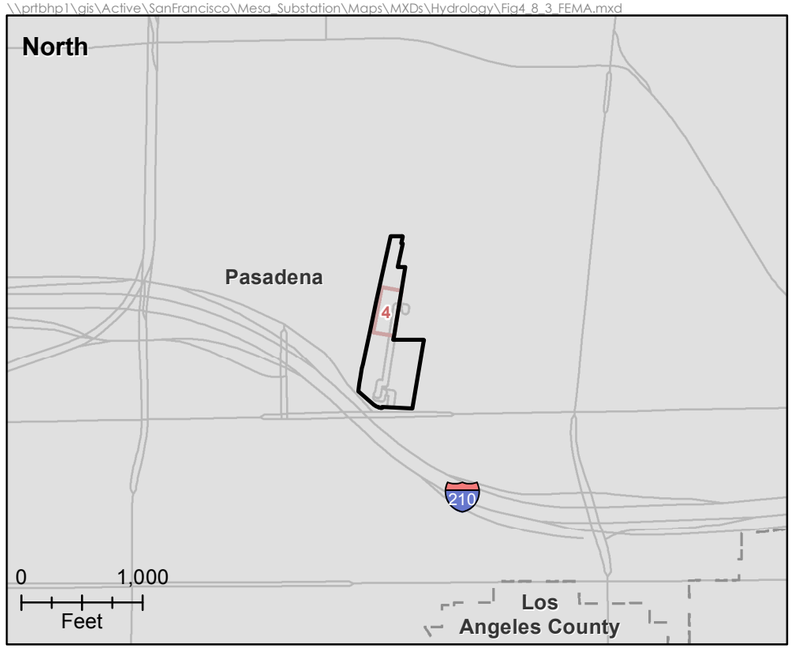

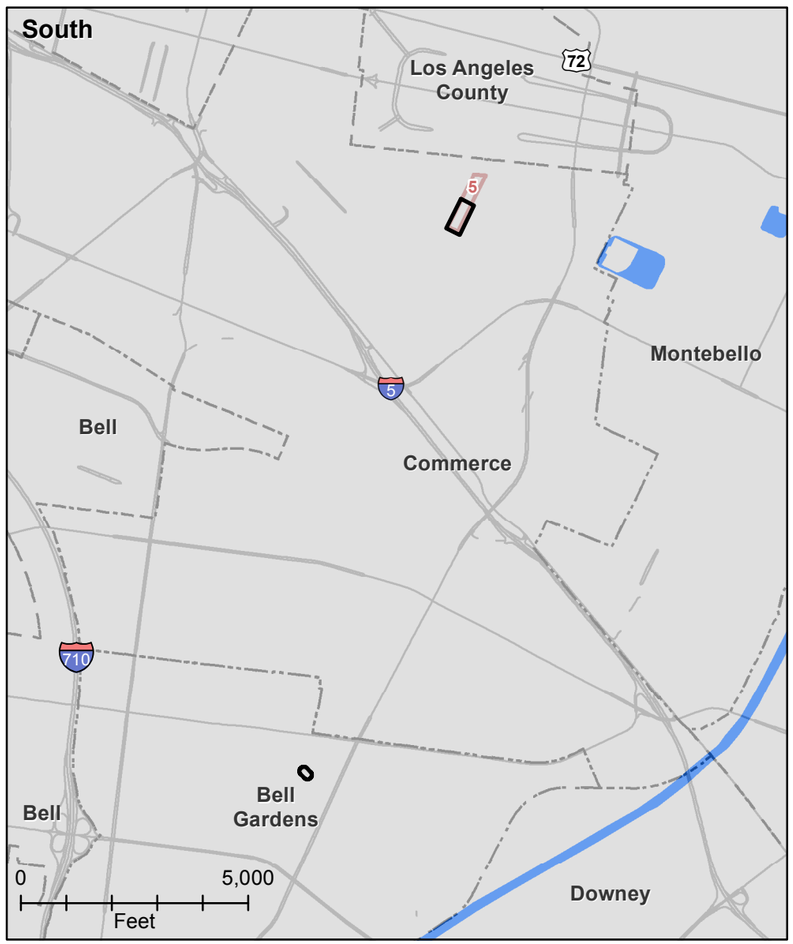

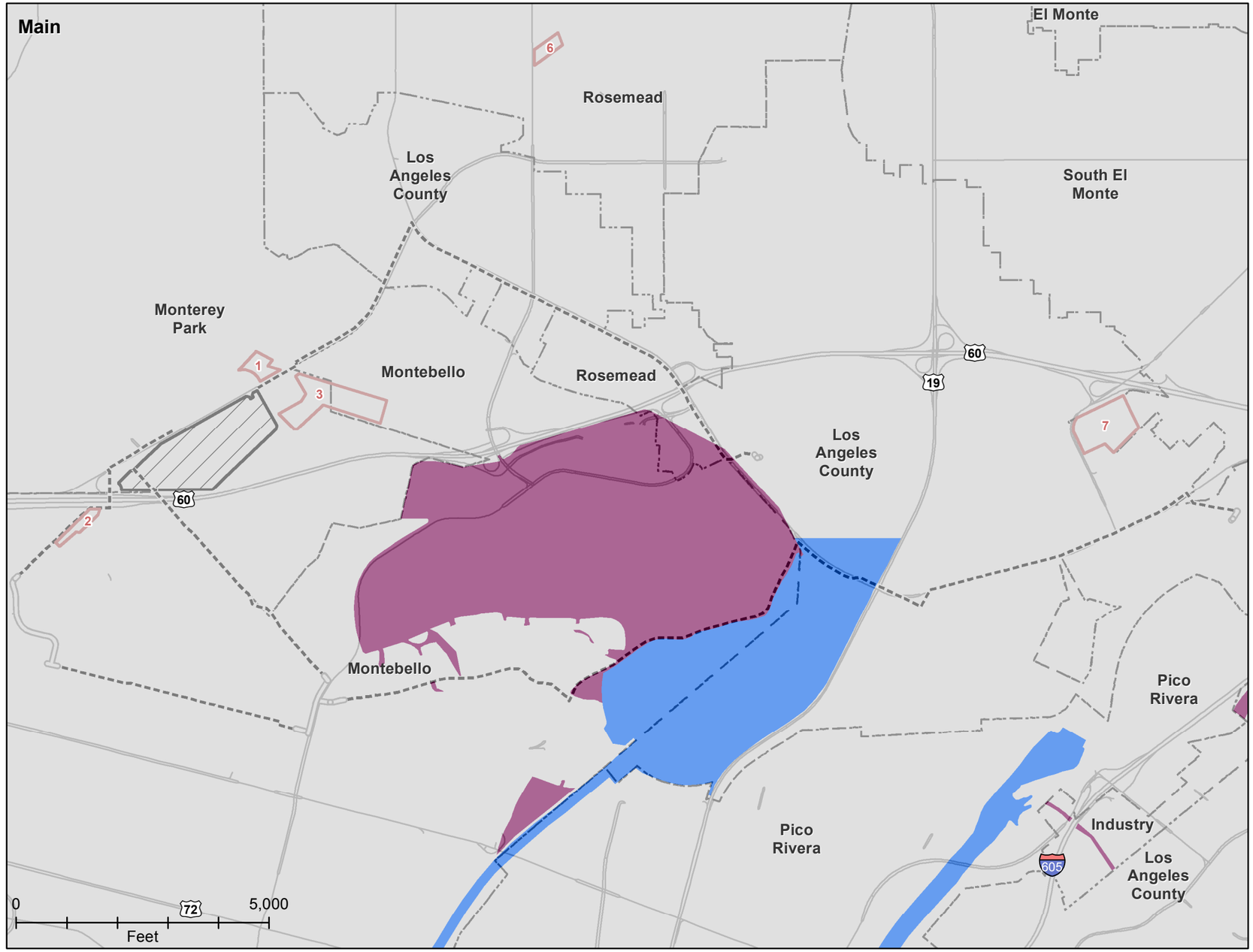

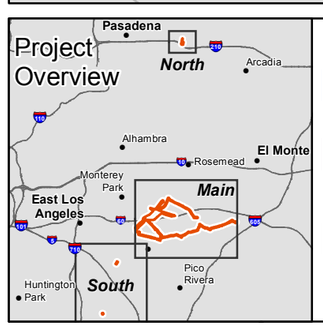

FEMA Floodplains
- 1% Annual Chance of
- Areas of Possible but Undetermined Flood Hazards
- Area of Minimal Flood Hazard

- Telecommunications route
- Manholes, vaults, and underground construction
- Staging yard
- Proposed Mesa substation area
- Study Area (North and South)

- City boundary

Sources: FEMA 2014, SCE 2015
Basemap: ESRI Media Kit, 2010

Figure 4.8-3
FEMA Flood Hazard
Mesa Substation
Los Angeles County, CA

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Staging Yard 7 would also be located in the inundation area for the Santa Fe Dam (City of Rosemead 2010), which is about 7 miles northeast of Staging Yard 7. Inundation waters could be up to 7 feet deep (City of South El Monte 2000).

The Goodrich Substation (in the North Area) is located in the inundation area for the Eaton Canyon Dam, which is located about 1.2 miles north of Goodrich Substation (City of Pasadena 2002).

The portion of the South Area in the City of Bell Gardens is located within the inundation zone of Sepulveda Dam, which is about 27 miles northwest of Bell Gardens. Breach of the dam would result in about 2 feet of water covering the City of Bell Gardens about 12 hours after dam failure (City of Bell Gardens 1995).

The Whittier Narrows Dam is a flood control structure designed to impound storm flows from the San Gabriel River and the Rio Hondo for the dual purposes of aquifer recharge and controlled release from the dam at a rate that prevents down-stream flooding. The west end of the Whittier Narrows dam is located adjacent to Telecommunications Route 3.

Tsunami

A tsunami is an ocean wave caused by seismic activity. Large tsunamis can result in significant damage and devastation when they come onshore. The proposed project is located inland from the Pacific Ocean, so it is not at risk by inundation by a tsunami (CDC 2009a, 2009b).

Seiche

A seiche is a standing wave in an enclosed body of water, such as a lake or reservoir. Seismicity is a cause of seiches, but they can also be caused by landslides. Seiches can be large enough to cause damage on land near the body of water. Legg Lake is about 0.1 mile north of Telecommunications Route 3. There is potential for a seiche on Legg Lake as a result of an earthquake. The wave would be small, however, due to the small size of the lake and because the lake ranges from 3 to 10 feet deep (LARWQCB 2007).

4.8.2 Regulatory Setting

4.8.2.1 Federal

The Clean Water Act of 1972

The Clean Water Act (CWA) regulates water quality in the United States. Several sections are pertinent to the proposed project, including the following:

Section 303(d) (Impaired Waters)

Section 303(d) of the CWA (CWA, 33 USC 1250 et seq., at 1313(d)) requires states to identify "impaired" water bodies as those that do not meet water quality standards. States are required to compile this information in a list and submit the list to the EPA for review and approval. This list is known as the Section 303(d) list of impaired waters. As part of this listing process, states are required to prioritize waters and watersheds for future development of total maximum daily load (TMDL) requirements. The State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards have ongoing efforts to monitor and assess water quality, to prepare the Section 303(d) list, and to develop TMDL requirements.

Section 401 (Water Quality Certification)

Section 401 of the CWA requires that activities resulting in discharge of materials into Waters of the U.S. obtain a certification that the activity complies with applicable water standards.

Section 402 (National Pollution Discharge Elimination System)

As authorized by Section 402 of the CWA, the SWRCB administers the statewide National Pollution Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit) (NPDES Permit, 2009-0009-DWQ and 2010-0014-DWQ) that covers a variety of construction activities that could result in wastewater discharges. Under this system, the state grants coverage under the Construction General Permit for projects that disturb more than one acre of land. The SWRCB Construction General Permit process involves the notification of the construction activity by providing a Notice of Intent to the SWRCB, the development of a Stormwater Pollution Prevention Plan (SWPPP), and the implementation of water quality monitoring activities if needed. The purpose of a SWPPP is to:

- Identify all pollutant sources that may affect the quality of discharges of storm water associated with construction activity from the construction site;
- Identify non-storm water discharges;
- Identify, construct, implement, and maintain best management practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site during construction;
- Develop a maintenance schedule for BMPs installed during construction that are designed to reduce or eliminate pollutants after construction is completed;
- Identify a sampling and analysis strategy and sampling schedule for discharges from construction activity that discharge directly to a water body listed for impairment due to sedimentation, in accordance with CWA Section 303(d); and
- Identify a sampling and analysis strategy and sampling schedule for discharges that have been discovered through visual monitoring to be potentially contaminated by pollutants not visually detectable in the runoff.

The SWPPP would apply to all components of the proposed project that would result in ground disturbance.

Safe Drinking Water Act

The Safe Drinking Water Act (42 U.S. Code §300(f) et seq. (1974)) was passed in 1974 (and amended in 1986 and 1996) to protect public health by regulating the nation's public drinking water supply. This law requires many actions to protect drinking water and its sources, which include rivers, lakes, reservoirs, springs, and groundwater wells. It authorizes the EPA to set national health-based standards for drinking water to protect against both naturally occurring and human-caused contaminants that may be found in drinking water. It also mandates the development of a Groundwater/Wellhead Protection Program by each state in order to protect groundwater resources that serve as a public drinking water source.

National Flood Insurance Program

The National Flood Insurance Program (NFIP) is administered by FEMA, an agency within the Department of Homeland Security. The NFIP is a federal program enabling property owners in

participating communities to purchase insurance protection against losses from flooding. Participation in the NFIP is based on an agreement between local communities and the federal government, which states that if a community adopts and enforces a floodplain management ordinance to reduce future flood risks to new construction in Special Flood Hazard Areas, the federal government will make flood insurance available within the community as a financial protection against flood losses.

In support of the NFIP, FEMA identifies flood hazard areas throughout the United States and its territories by producing Flood Hazard Boundary Maps, Flood Insurance Rate Maps, and Flood Boundary and Floodway Maps. Several areas of flood hazards are commonly identified on these maps. One of these areas is a Special Flood Hazard Area; this term designates any area with a 1 percent chance of being inundated by a flood in any given year.

Rivers and Harbors Appropriation Act of 1899

Section 14 of the Rivers and Harbors Act of 1899 as codified in Title 33, Section 408 of the U.S. Code (commonly referred to as "Section 408") authorizes the Secretary of the Army, on the recommendation of the Chief of Engineers of the USACE, to grant permission for the alteration or occupation or use of a USACE civil works project if the Secretary determines that the activity will not be injurious to the public interest and will not impair the usefulness of the project (USACE n.d.). When a project is anticipated to encroach upon or otherwise alter an existing USACE project, review and approval of such encroachment or alteration is required from the USACE. Portions of Telecommunications Route 3 would be located in the Whittier Narrows Natural Area and Whitter Narrows Recreation Area, which are part of a USACE civil works project.

4.8.2.2 State

Porter-Cologne Water Quality Control Act (Porter-Cologne Act)

Article 4 of the Porter-Cologne Water Quality Control Act (California Water Code 13260 et seq.) states that discharge of waste in an area that could affect Waters of the State requires filing a report of discharge with the Regional Water Quality Control Board. Waters of the State include surface water and groundwater in the state. Dischargers must obtain Waste Discharge Requirements (WDRs). If waters are also Waters of the U.S., then the WDR is covered by the section 401 Water Quality Certification, previously discussed.

4.8.2.3 Regional and Local

Los Angeles County General Plan

The Resource and Conservation Element of the Los Angeles County General Plan (Los Angeles County 2015) includes the following goals and policies that are relevant to the proposed project:

- ***Goal C/NR 5:*** *Protected and usable local surface water resources.*
  - ***Policy C/NR 5.6:*** *Minimize point and non-point source water pollution.*
- ***Goal C/NR 6:*** *Protected and usable local groundwater resources.*
  - ***Policy C/NR 6.3:*** *Actively engage in stakeholder efforts to disperse rainwater and stormwater infiltration BMPs at regional, neighborhood, infrastructure, and parcel-level scales.*

Los Angeles County Code

A grading permit is required for the proposed project for excavation or fill that would exceed 50 cubic yards of soil, per Title 26, Appendix J, section J103 of the Los Angeles County Code. To be exempt from the requirement, the excavation or fill must be 50 cubic yards or less and be less than 2 feet in depth or must not create a slope below a certain degree. A grading plan must be submitted with the permit application.

City of Monterey Park General Plan

The Resources Element of the City of Monterey Park General Plan (City of Monterey Park 2001) includes the following goal and policy that are relevant to the proposed project:

- ***Goal 4.0:*** *Conserve and protect groundwater supply and water resources.*
  - ***Policy 4.2:*** *Promote the use of drought-tolerant trees and native plant material in landscapes, especially in City-owned landscapes.*

City of Monterey Park Municipal Code

Chapter 16.21 requires obtaining a grading permit for most types of grading. Grading for utility trenches is excluded. It requires, among other things, submittal of a site plan and a soils report. The permit also requires protection of waterways from erosion and flooding.

City of Montebello General Plan

The Conservation Element of the City of Montebello General Plan includes the following objective that is relevant to the proposed project:

- ***Objective 1:*** *Maintain underground water supplies free of all pollution which would prevent the use of such water for domestic purposes without treatment.*

City of Montebello Municipal Code

Section 15.48.060 of the Montebello Municipal Code requires obtaining a permit prior to conducting any grading. The code outlines allowable slope angles and fill compaction as well as requirements for surface water drainage.

City of Bell Gardens Municipal Code

Section 12.12.010 of the Bell Gardens Municipal Code requires a permit for placing utilities in a public street. All debris from the work must be removed in a reasonable amount of time after completion of the work.

Other General Plans and Municipal Codes

The General Plans and municipal codes for the following jurisdictions were also reviewed, but none of the goals and policies related to hydrology and water quality contained in these documents were found to be applicable to the proposed project:

- City of Rosemead General Plan (City of Rosemead 2010) and municipal code
- City of South El Monte General Plan (City of South El Monte 2000) and municipal code
- City of Commerce General Plan (City of Commerce 2008) and municipal code

- City of Bell Gardens General Plan (City of Bell Gardens 1995)
- City of Pasadena General Plan (City of Pasadena 2002)and municipal code
- City of Industry General Plan (City of Industry 2014) and municipal code

4.8.3 Impact Analysis

4.8.3.1 Methodology and Significance Criteria

The potential environmental impacts to hydrology and water quality from the project were evaluated using significance criteria based on the checklist items in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. An impact is considered significant if the project would:

a) Violate any water quality standards or WDRs;

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;

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site;

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or a substantial increase in the rate or amount of surface runoff in a manner which would result in flooding on or off site;

e) Create or contribute to runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

f) Otherwise substantially degrade water quality;

g) Place housing within a 100-year floodplain, 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.

Criterion (g) does not apply to the proposed project. Housing is not included as part of the proposed project. Therefore, the project would have no impacts associated with the placement of housing within a 100-year floodplain, and this item is not applied as a criterion in the analysis of environmental impacts presented herein.

4.8.3.2 Applicant Proposed Measures

There are no Applicant Proposed Measures for hydrology and water quality associated with the proposed project.

4.8.3.3 Environmental Impacts

Impact HY-1: Violate water quality standards or waste discharge requirements.
LESS THAN SIGNIFICANT WITH MITIGATION

Construction

Main Project Area

Construction and demolition activities occurring in the Main Project Area would include activities that could result in the release of hazardous materials or sediment to drainages on site that may drain into water bodies (see Figure 4.8-2) because they require use of equipment that could release hazardous substances. Many of these activities would also require ground disturbance that can mobilize sediment. These activities have the potential to adversely affect water quality. Such activities include:

- Grading
- Vegetation clearing
- Groundwater well decommissioning
- Transmission and subtransmission construction, including trenching
- New substation construction
- Existing substation demolition
- Telecommunications line installation, including trenching
- Horizontal directional drilling

Acreages of soil disturbance are provided in Table 2-7. Total disturbance for the substation site, transmission lines, subtransmission lines, distribution lines, telecommunications lines, and access roads would be 152.8 acres. The substation site itself would require extensive cut and fill. Work in the Main Project Area has the potential to increase sedimentation, given that there are numerous drainages in the area (see Figure 4.8-2). This could adversely impact water quality and could result in a violation of water quality standards. In addition to sedimentation, ground-disturbing activities could initiate the release of existing contaminates into waters or into drainage systems. Construction vehicles would also use hazardous materials, such as fuels and lubricants. The substation equipment itself would contain hazardous materials, like transformer oil. Spills of hazardous materials used during construction could also result in a discharge that could adversely impact water quality. Any of these impacts would be significant. Mitigation measure (MM) HY-1 would require preparation of a SWPPP, which would contain BMPs (discussed in detail below) to reduce the potential for contamination of water during construction activities. MM HZ-2 would require training of construction workers for proper response to a hazardous materials spill as well as for their responsibilities with regard to the SWPPP and BMPs. MM HZ-3 requires preparation and implementation of a Spill Prevention, Control, and Countermeasure Plan. MM HZ-4 would require preparation and implementation of a Contaminated Soil Contingency Plan to outline steps to take in the event that contaminated soils are encountered, including cleanup procedures. Impacts would be less than significant with implementation of mitigation.

Groundwater well decommissioning would involve work within the well casing. Since groundwater wells are a conduit to groundwater, there is a potential for contamination of groundwater during

well decommissioning. The applicant would decommission existing groundwater monitoring wells following the general requirements established in the California Department of Water Resources (CDWR) Bulletin 74-90, California Well Standards, which has requirements related to preventing pollution and groundwater contamination. Requirements include sealing the upper 20 feet of the well, undertaking actions to prevent vertical movement of water between aquifers if such movement would cause a deterioration of water quality, using water of drinking water quality to prepare sealing mixtures, and using low-permeability materials to seal wells (DWR 1991). Impacts would be less than significant.

The proposed project would require construction near, and filling of, waters that are potentially Waters of the State (refer to Figure 4.8-2). Dewatering may also be required if the applicant encounters shallow groundwater during excavation. Discharge of water, fill, or other materials without filing a report of waste discharge and obtaining WDRs from the Regional Water Quality Control Board would result in a significant impact. SCE would be required to obtain WDRs and to adhere to all conditions in the WDRs. MM HY-2 would require implementing measures in the WDRs, which could include compensatory mitigation as well as avoidance measures. It would also require that any discharged water be removed from the site or discharged away from Waters of the State unless such activities are covered by a WDR. Impacts related to violation of WDRs would be less than significant with implementation of this mitigation.

North Area

Goodrich Substation is adjacent to the Eaton Wash. Trenching activities for the telecommunications conduit and installation activities for the temporary 220-kV structure would result in ground disturbance and the potential for a minor hazardous material (e.g., fuel, lubricant) spill. However, all work at Goodrich Substation would take place on the east side of the substation, furthest from the wash. The Goodrich Substation and a parking lot are graded flat and located between the work area and the wash. Thus, there is no potential for sediment and hazardous materials to enter Eaton wash. There would be no impact.

South Area

In Bell Gardens, an existing overhead street light source line would be converted to an underground line. This would require about 300 feet of trenching, which would take place in the paved portion of Loveland Street, adjacent to the curb and gutter. In Commerce, a 220-kV structure would be replaced in a partially paved area off Corvette Street. There is a potential that sediment and hazardous materials (if released) from construction activities at these locations could enter the storm drain system and adversely affect water quality. This would be a significant impact. MM HY-1 would be implemented to prevent polluted runoff from the project site from entering the storm drain system. Impacts would be less than significant with mitigation.

Staging Yards

Of the seven staging yards, all yards are entirely unpaved except for Staging Yard 5, which is partially paved. Preparation of staging yards could include minor grading, blading, brushing, soil compaction and application of gravel or crushed rock. These activities could mobilize sediment and, if done near a drainage, wash, or other water body, could result in increased sedimentation if the sediment is allowed to drain into the water body. Likewise, equipment that uses hazardous materials (such as fuels and lubricants) as well as the hazardous materials themselves would be stored at staging areas. A hazardous materials spill in a staging area near a drainage, wash, or other water body could adversely affect water quality if the material is allowed to drain into the water body. Staging Yards 1, 2, and 3 contain waterways. Staging Yards 4, 5, 6, and 7 are adjacent to

waterways or to a roadway, where polluted runoff could enter the storm drain system. Adverse impacts to water quality at staging yards would be significant. MM HY-1 would be required to reduce impacts. Impacts would be less than significant with mitigation.

Minor Modifications to Existing Substations

Most work at existing substations would be within existing structures at those substations. There would be no impact to water quality at these substations. Work at Vincent, Pardee, and Walnut Substations involves rerouting fiber optic lines within the substation perimeter, which will require minor trenching activities. All work would take place inside the substation perimeters. The substation areas are flat and graded. Any spills of hazardous materials would be small and localized, such that they would not breach the substation perimeter and impact water quality. Likewise, ground disturbance would not result in sedimentation due to the limited areas of ground disturbance and location within the substation perimeter fence. Impacts would be less than significant.

Work at Lighthipe and Laguna Bell Substations involves replacement of 220-kV switchrack equipment and upgrading of line protection. Any spills of hazardous materials would be small and localized, such that they would not breach the substation perimeter and impact water quality. There is no ground disturbance at either of these substations that could result in sedimentation. Impacts would be less than significant.

Operation and Maintenance

Operations and maintenance would not result in any new ground disturbance that would increase the potential for sedimentation. Dewatering would not be required for operations and maintenance.

The potential for hazardous material release impacts to the public or the environment would be similar to current operations and maintenance activities. However, the proposed project would result in an increase in the total volume of mineral oil used and stored on the site. Several transformers with a total oil-containing capacity of 379,000 gallons of insulating mineral oil would be present at the Mesa Substation during operations. In the event of equipment failure or deterioration or in an upset condition such as an earthquake, mineral oil could leak. Leaked mineral oil could percolate into the soil or leak into adjacent waterbodies, adversely affecting water quality and violating water quality standards. This is an increase of approximately 212,963 gallons from current operation of the existing Mesa Substation. The applicant would update its operational Spill Prevention Control and Countermeasures Plan in accordance with the Aboveground Petroleum Storage Act and CWA for the existing Mesa Substation. The Spill Prevention Control and Countermeasure Plan would be updated to describe how hazardous materials released from electrical equipment would be diverted and directed toward containment structures and how containerized hazardous materials would be stored in a temporary containment area with sufficient containment capacity. Operations personnel would be trained and equipped to respond in the event of a spill, in accordance with applicable regulations. Therefore, impacts under this criterion would be less than significant during operations.

Impact HY-2: Substantial depletion of groundwater supplies or substantial interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.
LESS THAN SIGNIFICANT

Construction

Groundwater Use

The Monterey Park Department of Public Works Water Utility Division would supply water for construction of the proposed project. An estimated 279 acre-feet of water would be used throughout the 55-month duration of construction. This analysis conservatively assumes that up to half of the estimated construction water, or up to 140 acre-feet per year (AFY), may be used in the first year of construction when the majority of grading activities would occur.

The Main San Gabriel Basin is in overdraft conditions and has experienced historic lowering of the groundwater table. The preliminary Operating Safe Yield recommendation for the Main San Gabriel Basin for fiscal year 2015–2016 is 150,000 AFY and for subsequent years through 2020 is approximately 130,000 AFY. About 195,000 acre-feet were pumped in 2014–2015. Producers pumping from the groundwater basin can pump more than their annual right, but they are required to fund water for recharging the basin; in 2014–2015, the required recharge amount would have been 45,000 acre-feet. Groundwater levels at one well have also decreased from 294 feet in 1983 to 175 feet in 2015. There is a requirement to recharge the basin to maintain the water level at this well at over 200 feet (Main San Gabriel Basin Watermaster 2015).

Even though the basin is in overdraft and groundwater levels are below the 200-foot goal, the proposed project's water use would not be a substantial use of groundwater that would result in a net deficit in aquifer volume or a lowering of the local groundwater table level. One hundred-forty AFY equates to about 0.3 percent of the 2014–2015 overdraft. Spread across the basin, this would not cause a noticeable decrease in groundwater volume or groundwater level. This pumping level would also last only one year, with consecutive construction years using less and less water. The use would therefore not be permanent. Impacts would be less than significant.

Groundwater Recharge

The largest groundwater recharge sources to the Main San Gabriel Basin are rainfall infiltration and runoff from mountains (Main San Gabriel Basin Watermaster 2015). The proposed project is not adjacent to any mountains, so it would not affect recharge from runoff. The proposed project would result in a minor increase in the amount of impermeable surfaces at the site. Only the permanent access driveways would be paved; two equipment buildings would also add impermeable surfaces. The buildings and permanent access driveways would cover about 1.1 acres of an 86.2-acre site, leaving a majority of the site unpaved and permeable. Further, runoff would be allowed to travel through the site into a detention basin. The footings of transmission structures and the aboveground components (e.g., manholes) associated with underground infrastructure would be small in size (less than 0.1 acre each) and dispersed along the length of the proposed project. Permeable areas would remain nearby. These small impermeable areas would not impact groundwater recharge in any significant way. Impacts would be less than significant.

Operation and Maintenance

Groundwater Use

During operations, SCE has indicated that there would be no increase in water use from existing operations and maintenance activities at the proposed project site. SCE currently uses an annual average of 3 AFY. The applicant has indicated that it would continue to use water for the restroom facilities, irrigation, and equipment maintenance. Because there is no anticipated increase in water use, there would be no impact to groundwater depletion.

Groundwater Recharge

While the substation would result in a minor increase in the amount of impermeable surfaces at the site during construction, no additional impervious surfaces would be created during operation and maintenance of the proposed project. Therefore, there would be no impact to recharge as a result of operation of the proposed project.

Impact HY-3: Substantial alteration of the existing drainage pattern of the site or area that results in substantial erosion or siltation on or off site.
LESS THAN SIGNIFICANT WITH MITIGATION

Construction

Main Project Area

Mesa Substation

The Mesa Substation would require about 85.1 acres of grading, including substantial cut and fill and filling of waterways. Drainage on the site would change substantially as a result of the proposed project. The change in drainage could result in substantial erosion or siltation on or off site. This would be a significant impact. Construction activities would change drainages and elevations of the site, which could substantially increase quantity of runoff water, which could also cause erosion off site. The applicant intends to prepare and implement a drainage plan in compliance with the jurisdictional agency requirements to minimize potential surface water and erosion impacts during the proposed site preparation and construction. Runoff from the substation site would be directed toward a detention basin, which would be constructed during Phase 2 (see Section 2.3.2.2, "Construction Phases"). Increases in runoff water could cause significant erosion during Phase I, prior to construction of the detention basin. Increases in runoff water could cause significant erosion after construction of the detention basin if the detention basin is not sufficiently large enough to hold runoff water. Impacts would be significant. MM HY-3 would be implemented to ensure the drainage plan would adequately address increased runoff water. MM HY-4 would require designing the basin to be of adequate capacity. MM HY-1 would require preparation of a SWPPP, which would contain BMPs to reduce the potential for sedimentation during construction activities. These impacts would be less than significant with implementation of mitigation.

After construction, there would be about 72.2 acres of permanent new disturbance at the Mesa Substation. This would increase stormwater runoff and the potential for erosion and sedimentation because it would involve altered drainages and grade on the site. It would also increase the area of disturbed land, reducing infiltration at the site. The applicant would construct a retention basin in the southwest corner of the proposed Mesa Substation site and would implement site and source control BMPs into the design to help mitigate surface runoff. Drainage systems would be constructed along the perimeter of the substation to direct interior runoff to the retention basin. Impacts would be significant if the detention basin could not accommodate the amount of runoff

generated. MM HY-4 would require designing the basin to be of adequate capacity. These impacts would be less than significant with mitigation.

Transmission, Subtransmission, and Distribution Lines

Work areas and permanently disturbed areas around transmission, subtransmission, and distribution lines would be small and interspersed along the transmission, subtransmission, and distribution line alignments. Proposed work areas would be distributed such that construction of transmission, subtransmission, and distribution lines would not cause substantial alteration of drainages that could result in substantial erosion or siltation on or off site. Impacts would be less than significant.

Telecommunications Routes

Most telecommunications work would involve installation of new lines on existing poles. No changes in drainage would happen in these areas, which represent the majority of telecommunications work areas. A total of 1.2 miles of telecommunications routes would be placed underground via trenching. The excavated area would be narrow and would not substantially alter drainage in the area in a way that would result in substantial erosion or siltation on or off site. Impacts would be less than significant.

North and South Project Areas

Ground disturbance in the North Project Area and South Project Area would be minor. The ground disturbance in the North Area for the temporary 220-kV structure and the telecommunications work and in the South Area for the street light source undergrounding and 220-kV structure replacement would take place in areas that are already flat and are, in some cases, paved. There would be no alteration to existing drainages. There would be no impact.

Staging Yards

All seven staging yards are entirely unpaved, except Staging Yard 5, which is partially paved, some contain gravel overlay. Preparation of the staging yards could include minor grading, blading, brushing, soil compaction and application of gravel or crushed rock. Staging Yards 4 and 5 have no drainages. There would be no impacts to drainages in these locations. Staging Yards 1, 2, and 3 contain waterways, but these waterways would not be filled. Staging Yards 1, 2, 3, 6, and 7 are not paved and could be uneven, meaning that staging yard preparation could substantially alter drainages across these parcels, resulting in erosion. MM HY-1 would be required to reduce impacts from staging yard sedimentation. Impacts would be less than significant with mitigation.

Modifications to Existing Substations

All modifications to existing substations would take place inside the perimeter of the substations. There would be no alteration to drainages. There would be no impact.

Operation and Maintenance

Operation and maintenance would not result in any new ground disturbance that would change drainages. There would be no impact.

Impact HY-4: Substantial alteration of the existing drainage pattern or rate or amount of surface runoff in a manner which would result in flooding.
LESS THAN SIGNIFICANT WITH MITIGATION

Construction

Main Project Area

Mesa Substation

About 85.1 acres of land would be disturbed at the substation site during construction of the substation; about 18.5 acres would be disturbed for access road construction (see Table 2-7). Though much of the substation site is already disturbed, construction activities would substantially change drainages and elevations of the site, which could substantially increase quantity of runoff water and result in flooding. The applicant intends to prepare and implement a drainage plan in compliance with the jurisdictional agency requirements to minimize potential surface water and erosion impacts during the proposed site preparation and construction. Runoff from the substation site would be directed toward a detention basin, which would be constructed during Phase 2 (see Section 2.3.2.2, "Construction Phases"). Increases in runoff water could be significant during Phase I, prior to construction of the detention basin. Increases in runoff water could be significant after construction of the detention basin if the detention basin is not sufficiently large enough to hold runoff water. This could result in flooding, which would be a significant impact. MM HY-3 would be implemented to ensure the drainage plan would adequately address increased runoff water. MM HY-4 would require designing the basin to be of adequate capacity. These impacts during construction would be less than significant with MM HY-3 and MM HY-4.

After construction, there would be about 72.2 acres of permanent new disturbance at the Mesa Substation. This would increase stormwater runoff and could result in flooding because it would involve alterations in drainages and grade on the site. It would also increase the area of disturbed land, reducing infiltration at the site and further increasing the potential for flooding. The applicant would construct a retention basin in the southwest corner of the proposed Mesa Substation site and would implement site and source control BMPs into the design to help mitigate surface runoff. Drainage systems would be constructed along the perimeter of the substation to direct interior runoff to the retention basin. Impacts would be significant if the detention basin could not accommodate the amount of runoff generated, resulting in an overflow and flooding of downstream drainages. MM HY-4 would require designing the basin to be of adequate capacity. These impacts would be less than significant with mitigation.

Transmission, Subtransmission, and Distribution Lines

Work areas and permanently disturbed areas around transmission, subtransmission, and distribution lines would be small and interspersed along the entire transmission, subtransmission, and distribution line alignments. The work areas are distributed such that construction of transmission, subtransmission, and distribution lines would not cause substantial alteration of drainages or increased runoff that results in flooding. Impacts to runoff quantity would be minimal due to the small interstitial nature of disturbance and existing disturbance. Impacts would be less than significant.

Telecommunications Routes

Most telecommunications work would involve installation of new lines on existing poles. No changes in drainage would happen in these areas, which represent the majority of telecommunications work areas. A total of 1.2 miles of telecommunications routes would be placed

underground via trenching. The excavated area would be narrow and would not substantially alter drainage in the area in a way that would increase runoff or result in flooding. Impacts would be less than significant.

North and South Project Areas

Ground disturbance in the North Project Area and South Project Area would be minor. The ground disturbance in the North Area for the temporary 220-kV structure and the telecommunications work and in the South Area for the street light source undergrounding and 220-kV structure replacement would take place in areas that are already flat and are, in some cases, paved. There would be no alteration to existing drainages. There would be no impact.

Staging Yards

All seven staging yards are entirely unpaved except for Staging Yard 5, which is partially paved. Preparation of staging yards could include minor grading, blading, brushing, soil compaction and application of gravel or crushed rock. Staging Yards 4 and 5 have no drainages. There would be no impacts to drainages in these locations. Staging Yards 1, 2, and 3 contain waterways, but these waterways would not be filled or otherwise altered. Staging Yards 1, 2, 3, 6, and 7 are not paved and could be uneven, meaning that staging yard preparation could alter drainages across these parcels. However, these parcels are substantially flat and no large drainages would be filled or otherwise altered. Water would still be allowed to infiltrate. Impacts related to increased runoff and flooding would be less than significant.

Modifications to Existing Substations

All modifications to existing substations would take place inside the perimeter of the substations. There would be no alteration to drainages. There would be no impact.

Operation and Maintenance

Operations and maintenance would not result in any new ground disturbance that would change drainages. There would be no impact.

Impact HY-5: Create or contribute to runoff water exceeding the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff.
LESS THAN SIGNIFICANT WITH MITIGATION

Construction

This section describes impacts to runoff quantity. The potential for sedimentation and pollution of runoff water is addressed under Impact HY-1, which would be less than significant with mitigation during construction.

Water would be used for dust control and may also be used to maintain soil cohesiveness during excavations. Water trucks would be used to apply water to a degree where it would infiltrate the soil. Water would not be applied in a manner that would create runoff. Impacts would be less than significant.

Main Project Area

Mesa Substation

About 85.1 acres of land would be disturbed at the substation site during construction of the substation; about 18.5 acres would be disturbed for access road construction (see Table 2-7). Though much of the substation is already disturbed, construction activities would change drainages and elevations of the site, which could substantially increase quantity of runoff water. The applicant intends to prepare and implement a drainage plan in compliance with the jurisdictional agency requirements to minimize potential surface water and erosion impacts during the proposed site preparation and construction. Runoff from the substation site would be directed toward a detention basin, which would be constructed during Phase 2 (see Section 2.3.2.2, "Construction Phases"). Increases in runoff water could be significant during Phase I, prior to construction of the detention basin. Increases in runoff water could be significant after construction of the detention basin if the detention basin is not sufficiently large enough to hold runoff water. MM HY-3 would be implemented to ensure the drainage plan would adequately address increased runoff water. MM HY-4 would require designing the basin to be of adequate capacity. These impacts during construction would be less than significant with MM HY-3 and MM HY-4.

After construction, there would be about 72.2 acres of permanent new disturbance at the Mesa Substation. This would increase stormwater runoff because it would involve alterations in drainages and grade on the site. It would also increase the area of disturbed land, reducing infiltration at the site. The applicant would construct a retention basin in the southwest corner of the proposed Mesa Substation site and would implement site and source control BMPs into the design to help mitigate surface runoff. Drainage systems would be constructed along the perimeter of the substation to direct interior runoff to the retention basin. Impacts would be significant if the detention basin could not accommodate the amount of runoff generated. MM HY-4 would require designing the basin to be of adequate capacity. These impacts would be less than significant with mitigation.

Transmission, Subtransmission, and Distribution

About 47.5 acres of land would be disturbed during construction activities for the transmission, subtransmission, and distribution lines (see Table 2-7). This acreage would be distributed across 132 sites, and much of this area is already disturbed due to existing transmission, subtransmission, and distribution infrastructure. Runoff from the transmission, subtransmission, and distribution work areas would follow existing natural drainages in these areas. Impacts to runoff quantity would be minimal due to the small, distributed nature of proposed and existing disturbance. Impacts would be less than significant, and no mitigation would be required.

Telecommunications Routes

Telecommunications route work would mainly involve stringing fiber optic lines on existing poles, which would have no impact on runoff water quantity. Some undergrounding would occur, resulting in 0.8 acres of disturbance distributed along 1.2 miles. Pull and tension sites would also require vegetation removal and grading, resulting in 0.9 acres of disturbance distributed across 19 sites. These small acreages of disturbed and potentially compacted soil distributed across a large area would not appreciably increase runoff quantity. Impacts would be less than significant.

North and South Project Areas

The streetlight source conversion in Bell Gardens would take place in an existing paved roadway. The structure in Commerce and the work areas at the Goodrich Substation are already located in areas of disturbance, including pavement and graded unpaved areas. Thus, though there would be ground disturbance for these activities, the activities would not increase storm water runoff. Impacts would be less than significant.

Staging Yards

As part of staging yard preparation, soil may be compacted. Compacted soil would increase runoff. Given that the staging yards are all generally flat and that compacted soil would still allow some infiltration, increased runoff would be minimal. Impacts related to increased runoff would be less than significant.

Modifications to Existing Substations

Modifications to Existing Substations would take place within the perimeter of the existing substations in areas that are already disturbed, including paved and unpaved areas. Work at Vincent, Pardee, and Walnut Substations involve rerouting fiber optic lines within the substation perimeter. All work would take place inside the substation perimeters. The substation areas are flat and graded, such that the work would not change runoff quantities. Impacts would be less than significant.

Operation and Maintenance

Operation and maintenance would not result in any new ground disturbance that would increase runoff or create new sources of polluted runoff.

Impact HY-6: Other substantial degradation of water quality.
LESS THAN SIGNIFICANT

Herbicides may be used during operations and maintenance for vegetation management around structures installed as part of the proposed project. Normal application would not be in sufficient quantities to result in runoff that would substantially degrade water quality. In addition, the applicant may use chemical dust suppressants for dust control during construction. Chemical dust suppressants would be used in accordance with the manufacturer's specifications. The applicant would choose a chemical dust suppressant that is not prohibited for use as a dust suppressant by any regulatory agency, including the LARWQCB and the EPA. Impacts would be less than significant, and no mitigation would be required.

Impact HY-7: Project structures would impede or redirect flood flows within a 100-year flood hazard
NO IMPACT

A 0.4-mile portion of Telecommunications Route 1 adjacent to San Gabriel Boulevard in Montebello would be located in a 100-year flood zone. The telecommunications cables would be strung on existing poles; no new structures would be placed in a 100-year flood zone. No other project components would be located in a 100-year flood zone. There would be no impact.

Impact HY-8: 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.
LESS THAN SIGNIFICANT WITH MITIGATION

Construction

Main Project Area

A 0.4-mile portion of Telecommunications Route 1 adjacent to San Gabriel Boulevard in Montebello would be located in a 100-year flood zone. Workers would be in this area for less than a week because work would involve stringing telecommunications lines on existing poles. The proposed project would not exacerbate the existing flood conditions. Further, there is high ground to either side of the work area. Impacts would be less than significant, and no mitigation would be required.

The Mesa Substation site, transmission lines, subtransmission lines, nearby telecommunications lines, and Staging Yards 1, 2 and 3 would be located within the inundation area of the Garvey Reservoir should the south dam fail. A failure of the Garvey Reservoir south dam is unlikely during construction. Although the proposed project would not exacerbate the existing flood conditions, a dam failure when workers are present, however, could result in significant impacts due to the close proximity of the dam. MM HY-5 would be implemented to require training on an evacuation route in the event of a dam failure. Impacts would be less than significant after mitigation.

North Area

During construction, a temporary structure would be installed and then removed at the Goodrich Substation, which is located in the inundation area for the Eaton Canyon Dam. Telecommunications lines would also be installed underground at the substation. Staging Area 4 would also be located adjacent to Goodrich Substation. Work in this area would be minimal and short term. A failure of the Eaton Canyon Dam is unlikely during construction given the short period of time construction would occur. Although the proposed project would not exacerbate the existing flood conditions, a dam failure when workers are present, however, could result in significant impacts due to the close proximity of the dam. MM HY-5 would be implemented to require training on an evacuation route in the event of a dam failure. Impacts would be less than significant after mitigation.

South Area

During construction, workers would be located in Bell Gardens in the inundation zone of the Sepulveda Dam. However, if the Sepulveda Dam fails, it would take about 12 hours for about 2 feet of water to cover the work area. Given the low speed of the water, the shallow depth of the water, the low potential for dam failure, and the fact that the proposed project would not exacerbate the existing flood conditions, impacts would be less than significant. No mitigation would be needed.

During construction, workers would be temporarily located in Commerce in the inundation zone of the Garvey Reservoir south dam. However, if the Garvey Reservoir south dam fails, it would take about 15 hours for flood waters to cover the work area. The flood waters would have traveled through State Route 60 underpasses, which should slow the water. There is a large area for floodwaters to disperse south of State Route 60, which would decrease the depth of the flood. Given the low speed of the water, the shallow depth of the water, the low potential for dam failure, and the fact that the proposed project would not exacerbate the existing flood conditions, impacts would be less than significant. No mitigation would be needed.

Staging Yards

Staging Yard 6 is in the inundation area of the Garvey Reservoir north dam. Inundation waters would be about 5 feet deep. A failure of the Garvey Reservoir south dam is unlikely during construction. Although the proposed project would not exacerbate the existing flood conditions, a dam failure when workers are present, however, could result in significant impacts due to the close proximity of the dam and the depth of the water. MM HY-5 would be implemented to require training on an evacuation route in the event of a dam failure. Impacts would be less than significant after mitigation.

Staging Yard 7 is in the inundation area of the Santa Fe Dam. Inundation waters could be up to 7 feet deep. Although the proposed project would not exacerbate the existing flood conditions, a dam failure when workers are present could result in significant impacts due to the depth of the waters. MM HY-5 would be implemented to require training on an evacuation route in the event of a dam failure. Impacts would be less than significant after mitigation.

Operation and Maintenance

Main Project Area

A 0.4-mile portion of Telecommunications Route 1 adjacent to San Gabriel Boulevard in Montebello would be located in a 100-year flood zone. The new telecommunications cable would be located on existing poles. The proposed project therefore would not result in new structures located in a 100-year flood zone. There would be no impact.

The Mesa Substation and nearby telecommunications, transmission, subtransmission, and distribution infrastructure would be located in the inundation area of the Garvey Reservoir. The total number of telecommunications, transmission, subtransmission, and distribution structures in the inundation zone would be reduced as a result of the proposed project. Thus, there would be no adverse impact related to structures in a dam inundation area with regards to transmission, subtransmission, and distribution structures. A dam failure is a very low probability event, given that repairs were conducted in 1999, and the proposed project would not exacerbate the existing conditions. However, impacts to the substation in the event of a dam failure could be catastrophic, including potentially widespread outages and severe damage to substation equipment. This would be a significant impact. MM HY-6 would be implemented to reduce dam inundation impacts. Impacts would be less than significant with mitigation.

North Area and South Area

The underground telecommunications line at the Goodrich Substation would be located in the inundation zone of Eaton Canyon Dam. The underground telecommunications line in Bell Gardens would be located in the inundation zone of Sepulveda Dam. They would not be subject to loss due to dam failure given that the telecommunications line would be underground.

The 220-kV structure installed in the South Area in Commerce would be in the inundation zone of Garvey Reservoir's south dam. The structure would replace one structure, resulting in no change in current conditions. There would be no impact.

Impact HY-9: Risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.
NO IMPACT

The proposed project is located inland from the Pacific Ocean, which means it is not at risk for inundation from a tsunami (CDC 2009a, 2009b). Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury, or death by tsunami, nor would it exacerbate the effects of a tsunami. In addition, the proposed project area is generally flat with well-drained soils; therefore, there is a low potential that the proposed project would expose people or structures to a significant risk of loss, injury, or death by landslides or mudflows.

Legg Lake is the nearest bounded water body to the proposed project and is approximately 0.1 mile north of Telecommunications Route 3 on Durfee Avenue. Given that Legg Lake measures only about 800 feet by 2,000 feet and is only up to 10 feet deep, it is anticipated that any seiche that could form after seismic activity would be small. Further, any wave that goes on shore from the lake would dissipate or disappear over the 0.1-mile distance between the lake shore and Telecommunications Route 3. There would be no risk to workers during construction or to components of Telecommunications Route 3 during operations.

4.8.4 Mitigation Measures

MM HY-1: Stormwater Pollution Prevention Plan. The applicant will obtain coverage for the project under the Construction General Permit (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ). The applicant will prepare a SWPPP to reduce the potential for water pollution and sedimentation from construction. BMPs to be included in the SWPPP that must be submitted to the SWRCB shall include, but are not limited to, the following:

- The applicant shall not stockpile brush, loose soils, excavation spoils, or other similar debris material within sensitive habitats.
- If visible dust is present during construction activities, standard dust suppression techniques (e.g., water spraying) will be used in all ground disturbance areas.
- During construction activities, measures would be in place to ensure that contaminants are not discharged from construction sites. The SWPPP would define areas where hazardous materials and trash would be stored; where vehicles would be parked, fueled and serviced; and where construction materials would be stored.
- Runoff, sedimentation, and erosion would be minimized through the use of BMPs such as water bars, silt fences, staked straw bales, wattles, and mulching and seeding of all disturbed areas. These measures will be designed to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water, and to preserve roadways and adjacent properties. BMPs would be included for areas where helicopters would be landed, fueled, and serviced or used for construction activities.
- Equipment storage, fueling, and staging areas would be located in upland sites away from riparian areas or other sensitive habitats. These designated areas would be located in such a manner as to prevent any runoff from entering sensitive habitat. Where vehicle maintenance (excluding fueling) cannot be avoided in areas outside those previously specified, these maintenance activities shall be performed at least 150 feet from all aquatic resources or as specified by agency permits, on an impermeable bladder or tarp specified for such maintenance activities. Project-related spills of hazardous materials would be cleaned up immediately and contaminated soils removed to approved disposal areas.

- Implement measures such as sandbags, silt screens, cleanup of spills of hazardous materials, and cleanup of sediment to prevent polluted (with sediment or hazardous materials) runoff from work areas in paved streets from entering the storm drain system
- Implement measures such as silt screens, cleanup of spills of hazardous materials, cleanup of sediment, secondary containment for hazardous materials, and avoidance of activities that disturb sediment or have a high potential for hazardous materials spills immediately before or during rain to prevent polluted (with sediment or hazardous materials) runoff from staging areas from draining into water ways such as washes, drainages, and ditches and from entering municipal storm drain systems.

Verification of Construction General Permit coverage approval and the approved SWPPP(s) will be provided to the California Public Utilities Commission (CPUC) at least 30 days prior to start of construction. Updated SWPPPs will be provided to the CPUC on request during construction.

MM HY-2: Compliance with WDRs. Work in waters of the state shall be conducted in conformance with WDRs obtained for the proposed project. Mitigation measures shall be implemented in accordance with WDRs, and they may include avoidance, reduction, or compensatory measures.

Groundwater extracted as a result of dewatering during construction shall not be discharged to Waters of the State unless such activities are covered by a WDR. Extracted groundwater shall be disposed of in one of the following manners in the absence of a WDR:

- Discharge to an upland area where it will not enter Waters of the State but would instead evaporate or infiltrate.
- Use for dust control.
- Use for irrigation water.
- Use for other construction needs.
- Dispose of at a licensed facility if water is suspected of being contaminated or degraded.

MM HY-3: Construction Drainage Plan. SCE shall prepare and implement a Drainage Plan that ensures runoff during construction activities at the Mesa Substation site will not exceed drainage capacity of the storm water system and other drainage facilities. Measures that can be employed can include:

- Constructing the detention basin earlier in construction.
- Constructing temporary detention basins on site.
- Creating infiltration areas to limit runoff that enters the storm water system.

SCE shall submit the plan to Monterey Park and CPUC for review and approval prior to beginning construction activities at the substation site.

MM HY-4: Detention Basin Design. SCE shall design the detention basin on the proposed Mesa Substation site in accordance with the Los Angeles County Department of Public Works Hydrology Manual (LACDPW 2006). The Hydrology Manual contains techniques to calculate runoff flow rates and volumes based on Los Angeles County's historic precipitation and runoff. As applicable, the detention basin shall be designed in accordance with the Los Angeles County Department of Public Works Low Impact Development Standards Manual (LACDPW 2014).

MM HY-5: Dam Failure Evacuation Training. As part of the Worker Environmental Awareness Program, SCE shall train construction workers on evacuation routes in the event of dam failure. Workers to be trained shall include those located in the dam inundation areas of the Garvey Reservoir south dam, Eaton Canyon Dam, Garvey Reservoir north dam, and Santa Fe Dam.

MM HY-6: Dam Inundation Substation Protection. SCE shall incorporate dam inundation measures into its substation at the design phase to reduce the potential for widespread outages and equipment damages in the event of failure of the south dam at Garvey Reservoir. Measures could include:

- Concrete perimeter wall and flood gates at entry ways;
- Elevation of key substation equipment above inundation levels; or
- Sealing of equipment buildings.