

4.8 HYDROLOGY AND WATER QUALITY

4.8 HYDROLOGY AND WATER QUALITY

This section presents the environmental setting and impact analysis for hydrology and water quality in the vicinity of the Revised Project components and the alternatives.

4.8.1 Consideration of Scoping Comments

The public expressed concerns regarding hydrology and water quality during public scoping for this Subsequent EIR. Table 4.8-1 summarizes the scoping comments received regarding hydrology and water resources and identifies how and/or where these comments are addressed.

Table 4.8-1 Scoping Comments Related to Hydrology

Summary of Comment	Location Comment is Addressed
The Subsequent EIR should address stormwater quality and runoff.	Effects of stormwater quality is considered in Impact Hydro-a of this Subsequent EIR relative to sedimentation and erosion of the Revised Project work sites.

4.8.2 Approach to Data Collection

Baseline hydrology and water resources in the Revised Project vicinity were evaluated by reviewing the following recent data sources on waterbodies, water quality, and local water resource policies to update information provided in the 2013 RTRP EIR (Power Engineers, Inc., 2010):

- Aerial photography (Google, 2017)
- USGS topographic maps (Esri, 2017)
- City of Jurupa Valley Draft 2017 General Plan (City of Jurupa Valley, 2017)
- Jurupa Valley Municipal Code (City of Jurupa Valley, 2012)
- City of Riverside General Plan 2025 (City of Riverside, 2007)
- 303(d) List of Water Quality (SWRCB, 2017)
- Water Quality Control Plan for the Santa Ana River Basin (Santa Ana RWQCB, 1995)
- Watershed Action Plan Santa Ana Region (County of Riverside, 2017)
- Wetland delineation report (ICF, 2017)

4.8.3 Environmental Setting

Surface Water

The Revised Project would be located in the Santa Ana River watershed. Portions of the Revised Project overhead and underground transmission lines would be located along and within City of Jurupa Valley roads, which contain storm drain inlets. The storm drain system in the Revised Project area discharges directly to the Santa Ana River. The Etiwanda Marshalling Yard drains

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towards Dry Creek, which discharges to the Santa Ana River. The Santa Ana River drains southwest to the Pacific Ocean.

A jurisdictional ephemeral channel exists near the underground alignment of Distribution Line Relocation #8 (ICF, 2017). The earthen channel conveys precipitation from uplands and urban runoff from south to north towards the Santa Ana River (ICF, 2017). Figure 4.8-1 and Figure 4.8-2 show the locations of surface waters relative to the Revised Project. Table 4.8-2 identifies the nearest perennial and ephemeral waterbodies and waterways in the Revised Project area. The Revised Project components would not intersect or span reservoirs, ponds, or lakes other than at Distribution Line Relocation #8.

Table 4.8-2 Waterbodies in the Revised Project Area

Revised Project Component	Nearest Waterbodies to the Revised Project	
	Type of Waterbody	Distance to Drainage (feet)
Overhead 230-kV Transmission Line	Streambed	20
Underground 230-kV Transmission Line	Streambed	630
Distribution Line Relocation #7	Streambed	90
Distribution Line Relocation #8	Streambed	Crosses
Etiwanda Marshalling Yard	Channel	930

Sources: (ICF, 2017; SCE, 2017)

Water Quality Impairment

Section 303(d) of the 1972 federal CWA requires states to identify and submit a list to the USEPA of water bodies that neither meet water quality objectives nor support their beneficial uses. If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-source point controls (NPDES permits or Waste Discharge Requirements [WDRs]), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). The TMDL process provides a quantitative assessment of water quality problems, contributing sources of pollution, and the contaminant load reductions or control actions needed to restore and protect the beneficial uses of an individual waterbody or waterway impaired from loading of a contaminant. The project area drains to Reach 3 of the Santa Ana River. Impairments to Reach 3 of the Santa Ana River include copper, lead, indicator bacteria, and nitrate. A TMDL is currently being implemented for nitrate and pathogens/indicator bacteria. The source of copper and lead is unknown, and a TMDL is expected to be completed by 2023 (SWRCB, 2017).

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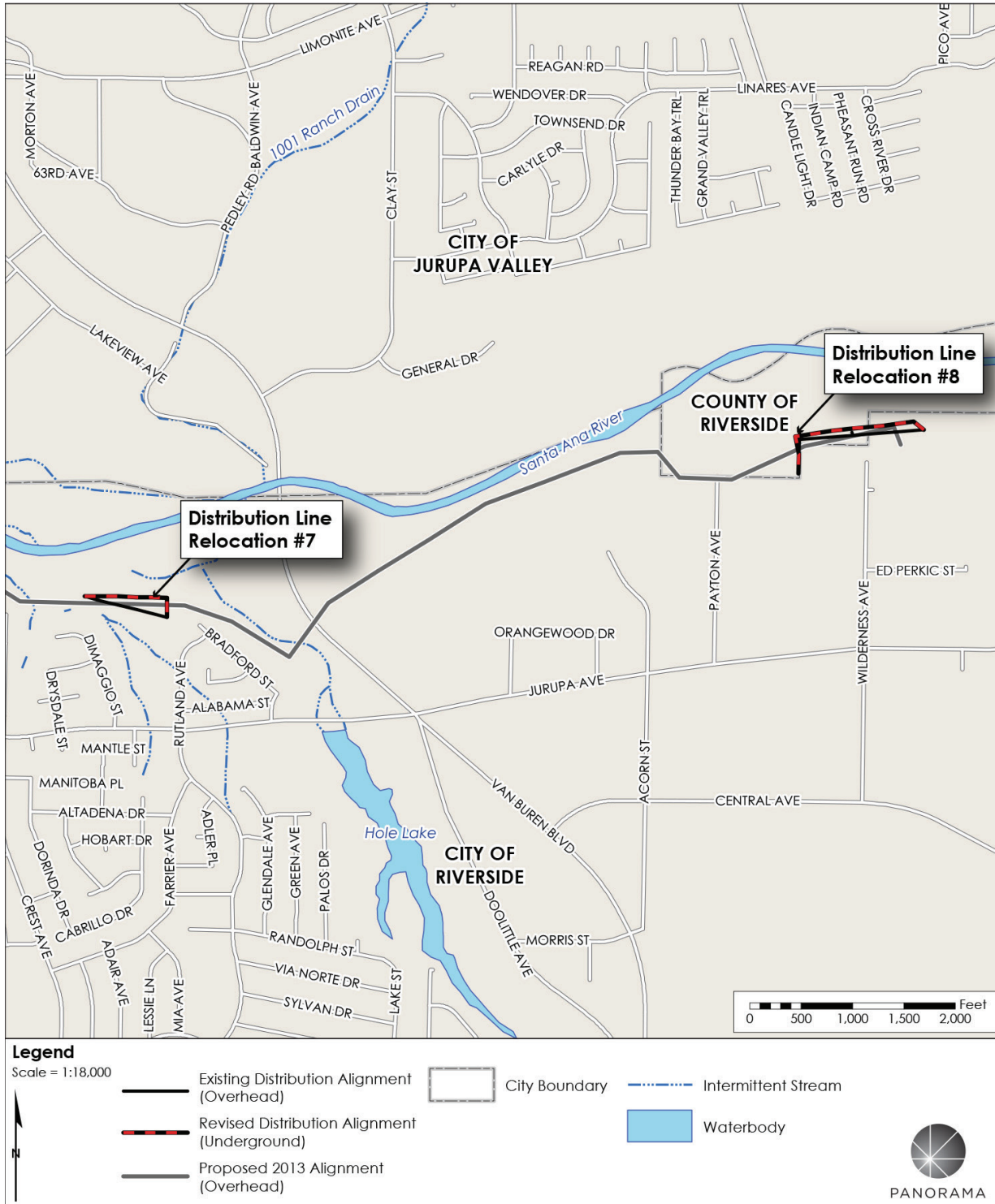
Figure 4.8-1 Surface Waters in the Revised Project Area (Map 1 of 2)



Sources: (Esri, 2017; California Emergency Management Agency Hazard Mitigation, 2015; USGS, 2015)

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Figure 4.8-2 Surface Waters in the Revised Project Area (Map 2 of 2)



Sources: (Esri, 2017; California Emergency Management Agency Hazard Mitigation, 2015; USGS, 2015)

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4.8.4 Regulatory Setting

Federal

Environmental Protection Agency

Clean Water Act

The CWA has regulated the discharge of pollutants to waters of the U.S. from any point source since it was enacted in 1972. The CWA gave the USEPA the authority to implement pollution control programs, such as setting wastewater standards for industry. It also set water quality standards for surface waters and established the NPDES program to protect water quality.

Section 303(d). CWA § 303(d) requires states to identify water bodies that do not meet water quality objectives and are not supporting their beneficial uses. Each state must submit an updated list, called the 303(d) list, to the USEPA every 2 years. In addition to identifying the water bodies that are not supporting beneficial uses, the list also identifies the pollutant or stressor causing impairment and establishes a schedule for developing a control plan to address the impairment. States are required to prioritize 303(d) water bodies for the development of TMDLs.

Section 401. CWA § 401 requires that any activity, including river or stream crossings during road, pipeline, or transmission line construction, that may result in a discharge into a State waterbody must be certified by the SWRCB. Pursuant to CWA § 401, SWRCB considers waters of the State to include, but not be limited to, rivers, streams, lakes, bays, marshes, mudflats, unvegetated seasonally ponded areas, drainage swales, sloughs, wet meadows, natural ponds, vernal pools, diked bay lands, seasonal wetlands, and riparian woodlands. SWRCB has also claimed jurisdiction and exercised discretionary authority over “isolated waters.” Certification under CWA § 401 is issued through the appropriate RWQCB and ensures that a proposed activity does not violate state and/or federal water quality standards.

Section 402. CWA § 402 prohibits discharge of contaminants to navigable waters unless the discharge is in compliance with a NPDES permit. Implementation and enforcement of the NPDES program is conducted through the SWRCB and the nine RWQCBs. The local RWQCB (i.e., Santa Ana RWQCB) has set standard conditions for each permittee in County of Riverside, which includes effluent limitation and monitoring programs.

Section 404. CWA § 404 authorizes USACE to regulate the discharge of dredged or fill material to waters of the U.S. and adjacent wetlands. USACE issues individual site specific or general (Nationwide) permits for such discharges.

State

State Water Resources Control Board

Porter-Cologne Water Quality Control Act

SWRCB administers the Porter-Cologne Water Quality Control Act and CWA § 401 through its RWQCBs. The Porter-Cologne Water Quality Control Act, Water Code §13260, requires that “any person discharging waste, or proposing to discharge waste, within any region that could

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affect the ‘waters of the State’ file a report of discharge” with the appropriate RWQCB. Waters of the State, as defined in the Porter-Cologne Water Quality Control Act (Water Code § 13050 [e]), are “any surface water or groundwater, including saline waters, within the boundaries of the state.”

National Pollutant Discharge Elimination System Program

General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (*De Minimis*) Threat to Water Quality. Construction dewatering would be covered under the NPDES permit for waste discharges (Order No. R8-2015-0004; NPDES No. CAG998001). The waste discharge requirements include limits on the concentration of contaminants such as petroleum hydrocarbons, chlorine, suspended soils, and sulfides. The waste discharge requirements also restrict discharge of water with visible oil or grease.

Construction General Permit. The Construction General Permit (CGP) (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-006-DWQ; NPDES No. CAS000002), regulates storm water discharges from construction sites which result in a Disturbed Soil Area of 1 acre or greater, and/or are smaller sites that are part of a larger common plan of development. For all projects subject to the CGP, applicants are required to develop and implement an effective SWPPP.

By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least 1 acre must comply with the provisions of the CGP. Construction activity that results in soil disturbances of less than 1 acre is subject to the CGP if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop a SWPPP; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the CGP.

The CGP separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined for the project. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and pre- and post-construction aquatic biological assessments during specified seasonal windows.

Riverside County Municipal Separate Storm Sewer System Permit. Stormwater runoff in the Riverside County Flood Control and Water Conservation District, which includes the cities of Jurupa Valley and Riverside, are regulated by the Riverside County Municipal Separate Storm Sewer System (MS4) Permit (Santa Ana Region Order No. R8-2013-0024, NPDES No. CAS 618033) adopted by the Santa Ana RWQCB in 2010 (2010 MS4 Permit). The 2010 MS4 Permit exists to prevent pollutants from being washed or dumped into the local municipal sewer systems, many of which are discharged directly into local surface waters. The Riverside County Flood Control and Water Conservation District is the principal municipal Permittee. Permittees are required to develop a Watershed Action Plan under the 2010 MS4 Permit. The

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Watershed Action Plan addresses the impact of urbanization on water quality and hydromodification at the watershed scale. The Watershed Action Plan includes potential local and regional water quality impacts that could arise from development to serve as a resource for the development process. Existing urban runoff programs implemented under the 2010 MS4 Permit include:

- **Drainage Area Management Plan.** Identifies program and policies (including BMPs for existing facilities, new development, and significant redevelopment) to achieve Water Quality Standards in receiving waters and includes technologies and practices for water quality and stormwater management.
- **Local Implementation Plan.** Describes the Permittee's individual programs for implementing the Drainage Area Management Plan and is revised to maintain compliance with the 2010 MS4 Permit.
- **Consolidated Monitoring Plan.** Monitors both Storm Event and Dry Weather event of MS4 outfalls and receiving waters, Illicit Connection/Illegal Discharge, and various special studies throughout Riverside County.
- **Comprehensive Bacteria Reduction Plan.** Long-term plan designed to achieve compliance with § 303(d) and 2010 MS4 Permit requirements in Dry Weather condition wasteload allocations for Bacterial Indicators established by the Middle Santa Ana River Bacterial Indicator TMDL.
- **Water Quality Management Plan.** Required plan for New Development and Significant Redevelopment projects that meet the "Priority Development Project" categories and thresholds in order to ensure compliance.
- **Hydromodification Management Plan.** Manages increases in runoff volumes and decreases in times of concentration that may result from New Development and Significant Redevelopment projects over one acre.

Independent regional efforts include One Water One Watershed, the Western Riverside County MSHCP, the Chino Basin Master Plan, and additional water conservation efforts of permittees outside of the 2010 MS4 Permit.

Local

Santa Ana RWQCB

Overview

The Revised Project area is under the jurisdiction of the Santa Ana RWQCB. The objective of the NPDES program is to control and reduce pollutant discharge to water bodies.

Santa Ana Region Basin Plan

The SWRCB requires individual RWQCBs to develop Basin Plans (water quality control plans) designed to preserve and enhance water quality and protect the beneficial uses of all Regional Board regulated waters. Specifically, Basin Plans designate beneficial uses for surface waters and groundwater, set narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's antidegradation policy, and describe implementation programs to protect all Regional Board waters.

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The Santa Ana Region Basin Plan establishes water quality standards for the ground and surface waters of the region. The term “water quality standards,” as used in the federal CWA, includes both the beneficial uses of specific waterbodies and the levels of quality that must be met and maintained to protect those uses. The Santa Ana Region Basin Plan includes an implementation plan describing the actions by the Santa Ana RWQCB and others that are necessary to achieve and maintain the water quality standards. The Santa Ana Region Basin Plan incorporates by reference all applicable State and Regional Board plans and policies, and other pertinent water quality policies and regulations.

County of Riverside

General Plan

The County General Plan was prepared in 2008. Amendments to several elements of the General Plan were adopted in 2015 (County of Riverside, 2015). The Multipurpose Open Space Element identifies the policies intended to address the County’s water supply, water quality, and management of watersheds, floodplains and riparian areas. The following water quality policy is applicable to the Revised Project analysis:

Policy OS 3.3 Minimize pollutant discharge into storm drainage systems and natural drainage and aquifers.

City of Jurupa Valley

2017 Draft General Plan

The City of Jurupa Valley adopted the 2017 Draft General Plan on August 17, 2017. The following measures outlined in the Land Use Element (Chapter 2), Mobility Element (Chapter 3), Conservation and Open Space Element (Chapter 4), and Community Safety, Services, and Facilities Element (Chapter 8) are applicable to the Revised Project (City of Jurupa Valley, 2017):

Policy LUE 5.53 **Utilities.** Discourage utility lines within the river corridor and floodplain. If approved, lines shall be placed underground where feasible and shall be located and designed in a manner to harmonize with the natural environment and to be visually unobtrusive.

Policy ME 8.46 **Runoff Control.** Implement National Pollutant Discharge Elimination System Best Management Practices relating to construction of roadways to control runoff contamination from affecting the groundwater supply.

Goal COS 3 Working with the Jurupa Community Services District, Rubidoux Community Services District and other community services districts and agencies to help meet Jurupa Valley’s urban water needs without substantial harm to the natural environment or to agriculture, to help meet water needs including requiring conservation measures such as drought-tolerant landscaping and water-saving fixtures in new homes, and to:

- a. Protect and maintain water quality in aquifers, the Santa Ana River, streams, and wetlands that help support beneficial uses, including

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domestic and commercial/industrial uses, agricultural uses, and wildlife habitat.

- b. Protect and improve the quality of local water sources, including groundwater and the Santa Ana River.
- c. Encourage Jurupa Community Services District and Rubidoux Community Services District to retain and, where possible, expand the capacity of wells, aquifers, and other groundwater reserves.
- d. Preserve natural floodways, floodplains, and wetlands, and avoid actions that adversely affect waterways or riparian areas, or that increase flood hazards to urban uses.

Policy COS 3.3

Water Quality. Employ the best available practices for pollution avoidance and control and encourage others to do the same. “Best available practices” means actions and equipment that result in the highest water quality, considering available equipment, life-cycle costs, social and environmental side effects, and the regulations of other agencies.

Policy COS 3.9

Pollution Discharge. Minimize pollutant discharge into storm drainage systems and natural drainage and aquifers.

Program COS 3.1.4

Floodway Protection and Enhancement. Working with other responsible agencies, help implement the following actions:

- c. Eliminate sources of water pollutants and improper water diversions.
- e. Discourage the placement and, where possible, remove man-made elements such as buildings, paving, structural elements, concrete lining of waterways, signs, streets, and utilities within floodways or floodplains, unless they are needed for public health or safety, or for implementation of City plans.

Jurupa Valley Municipal Code

The City of Jurupa Valley passed the Storm Water/Urban Runoff Management and Discharge Controls Ordinance (No. 2012-07; Chapter 6.10 of the City of Jurupa Valley Municipal Code) in 2012. The intent of the ordinance is to protect and enhance the water quality of the city watercourses, water bodies, ground water, and wetlands in a manner pursuant to and consistent with applicable requirements contained in the Santa Ana Region Order No. R8-2013-0024, NPDES No. CAS 618033 regulated by the SRWQCB (Title 33 U.S.C. § 1251 *et seq.*), Porter-Cologne Water Quality Control Act (California Water Code § 1300 *et seq.*), applicable state or federal regulations, and related administrative orders or permits. The ordinance contains discharge prohibitions and exemption from the provisions. The ordinance sets out legally enforceable requirements to comply with the ordinance, including BMPs, plan and permit compliance requirements, and responsibilities for the protection of stormwater conveyance systems. The reduction of pollutants in stormwater for new development and redevelopment

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includes BMPs to increase permeable areas where highly porous soil and low-lying areas are left undisturbed.

City of Riverside 2025 General Plan

The City of Riverside has prepared the 2025 General Plan which was adopted in November 2007 and amended in November 2012. The following objectives and policies outlined in the Land Use Element (Chapter 4), Public Safety Element (Chapter 10), Open Space Element (Chapter 12), and Public Facilities and Infrastructure Element (Chapter 14) are applicable to the Revised Project.

Objective OS-10	Preserve the quantity and quality of all water resources throughout Riverside.
Policy OS-10.6	Continue to enforce RWQCB regulations regarding urban runoff.
Policy OS-10.7	Work with the RWQCB in the establishment and enforcement of urban runoff water quality standards.
Objective PF-4	Provide sufficient levels of storm drainage service to protect the community from flood hazards and minimize the discharge of materials into the storm drain system that are toxic or which would obstruct flows.
Policy PF-4.2	Continue to cooperate in regional programs to implement the National Pollutant Discharge Elimination System program.

4.8.5 Applicant's Environmental Protection Elements

SCE has proposed EPEs to reduce environmental impacts. The EPEs that avoid or reduce potentially significant impacts of the Revised Project would be incorporated as part of any CPUC project approval, and SCE would be required to adhere to the EPEs as well as any identified mitigation measures. The EPEs are included in the MMRP for the Revised Project (refer to Chapter 9: Mitigation Monitoring and Reporting Plan of this Subsequent EIR), and the implementation of the EPEs will be monitored and documented in the same manner as mitigation measures. The EPEs that are applicable to the hydrology and water quality analysis are provided in Table 4.8-3.

Table 4.8-3 Environmental Protection Elements for Hydrology and Water Quality

Environmental Protection Element	Requirements
EPE GEO-02: Implement Soil Erosion Protection Measures	Transmission line, substation construction and upgrades, access roads, distribution line relation and fiber optic line construction would be performed in accordance with the soil erosion and water quality protection measures specified in the Construction SWPPP.

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Environmental Protection Element	Requirements
EPE HYDRO-03: Dewatering Operations	If groundwater is encountered during construction as indicated by geologic borings, dewatering operations, as described in the construction SWPPP, shall be implemented. Groundwater shall not be discharged to storm drains or to Waters of the U.S., and shall be contained within the work area, using standard stormwater BMPs (e.g., straw wattles) and allowed to percolate back to the ground.

4.8.6 CEQA Significance Criteria

Appendix G of CEQA Guidelines (14 CCR 15000 *et seq.*) provides guidance on assessing whether a project would have significant impacts on the environment. Changes to the Proposed Project or changes in baseline conditions that were not analyzed in the 2013 RTRP EIR require additional analysis to fully disclose potential impacts of the Revised Project. The CPUC prepared an Initial Study Checklist (Appendix B of this Subsequent EIR) to identify new potentially significant or increased impacts that may occur as a result of the Revised Project elements, or changes in baseline conditions.

The Initial Study Checklist indicated that the Revised Project has the potential for new or increased impacts under the hydrology and water quality significance criteria included below. Note that the Initial Study Checklist found Impact a), which was combined with Impact f) in the 2013 RTRP EIR, and Impact c) to have no new significant impact. Upon further review, the CPUC has determined that the Revised Project has the potential to violate water quality standards and alter drainage patterns resulting in siltation. Impact a) and Impact c) are analyzed below. The remaining Appendix G significance criteria that were determined to not have a greater impact as described in the 2013 RTRP EIR are not addressed in this section. CEQA significance criteria are lettered below to match the criteria lettering in the 2013 RTRP EIR. Consistent with Appendix G, the Revised Project would have significant impacts on hydrology and water quality if it would:

- a. Violate any water quality standards or waste discharge requirements, create new sources of polluted runoff, or otherwise substantially degrade water quality
- 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

4.8.7 Revised Project Impact Analysis

Approach to Impact Analysis

This impact analysis considers whether implementation of the Revised Project would result in significant impacts on hydrology and water quality and focuses on reasonably foreseeable effects of the Revised Project as compared with baseline conditions. The analysis uses significance criteria based on the CEQA Appendix G Guidelines. These criteria may be modified to address project impacts. The potential direct and indirect effects of the Revised

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Project are addressed below, and the cumulative effects are addressed in Chapter 5: Cumulative Impacts. Refer to the 2013 RTRP EIR for analysis of other elements of the Proposed Project.

The significance of an impact is first considered prior to application of EPEs and a significance determination is made. The implementation of EPEs is then considered when determining whether impacts would be significant and thus would require mitigation. Mitigation measures included in the 2013 RTRP EIR, with modifications when appropriate, and/or additional new mitigation measures are identified to reduce significant impacts of the Revised Project.

Summary of Impacts

Table 4.8-4 provides a summary of the CEQA significance criteria and impacts on hydrology and water quality that would occur during construction, operation, and maintenance of the Revised Project.

Table 4.8-4 Summary of Revised Project Impacts on Hydrology and Water Quality

Significance Criterion	Project Phase	Significance before EPEs	Significance after EPEs and before Mitigation	Significance after Mitigation
Impact Hydro-a: Would the Revised Project violate any water quality standards or any waste discharge requirements, create new sources of polluted runoff, or otherwise substantially degrade water quality?	Construction	Significant	Significant EPE GEO-02 EPE HYDRO-03	Less than Significant MM HAZ-04
	Operation and Maintenance	Less than Significant	---	---
Impact Hydro-c: Would the Revised Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?	Construction	Less than Significant	Less than Significant EPE GEO-02	---
	Operation and Maintenance	No Impact	---	---

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Impact Discussion

Impact Hydro-a: Would the Revised Project violate any water quality standards or waste discharge requirements, create new sources of polluted runoff, or otherwise substantially degrade water quality?	Significance Determination
	Construction: <i>Less than Significant with Mitigation</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Overview

The Initial Study Checklist indicated that the Revised Project would not have the potential for substantial new or greater sources of polluted runoff than what was analyzed in the 2013 RTRP EIR (refer to Appendix B). Refer to the 2013 RTRP EIR for an analysis of project-related polluted runoff.

Table 4.8-2 identifies the types of drainages in the Revised Project area and the distance from each Revised Project component. The change in location of the overhead alignment along Wineville Avenue would not substantially degrade water quality or create a more significant impact than the overhead transmission line construction activities analyzed in the 2013 RTRP EIR.

Discharge of Runoff

Soil disturbance from work pad grading, vault installation, and trenching during construction could result in the accidental release of sediment into local waterways. Stormwater runoff could convey sediment and other construction waste into nearby waterways. Coverage under the CGP (NPDES No. CAS000002), 2010 MS4 Permit (NPDES No. 618033), or other applicable permit is required because the construction activities would disturb more than 1 acre of land. SCE would either file a Notice of Intent under the CGP or the Permittee of the 2010 MS4 Permit would file a Notice of Intent for SCE, if the Permittee chooses to accept the liability following negotiation (Fischer, 2018). The CGP and 2010 MS4 Permit require that a SWPPP be prepared and implemented by a Qualified SWPPP Developer and Qualified SWPPP Practitioner that would include BMPs to reduce erosion of disturbed soils. Implementation of the requirements of the CGP would ensure that stormwater runoff complies with water quality standards. Compliance with the appropriate permits would ensure that water quality standards and WDRs are met. *Impacts would be less than significant.*

Discharge of Dewatering Water

Trench and vault installation would require excavations up to 15 feet deep. Groundwater could be encountered during excavation, necessitating dewatering of the trench. EPE HYDRO-03 requires that groundwater extracted during dewatering not be discharged to storm drains or waters of the U.S. The project would not discharge groundwater to waters of the U.S. and would not violate WDRs with EPE HYDRO-03. *Impacts would be less than significant.*

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Release from Existing Utilities

Construction of the Revised Project underground alignment would include excavation and trenching within paved roadways that contain buried utility lines. Construction activities could damage or rupture an underground utility line such as a sewer main, resulting in the discharge of raw sewage. Accidental release of pollutants from existing utility lines could result in a significant impact on water quality.

The underground segment would be constructed in streets where an active sewer main and operational main also exist along the Revised Project alignment (Jurupa Community Services District, 2012; Jurupa Community Services District, 2016) (refer to Table 4.11-2 in Section 4.11: Public Services and Utilities). Construction of the underground alignment within the Goose Creek Golf Club could encounter water lines and underground utilities serving the golf course. SCE would reduce the likelihood of damaging subsurface utilities during construction by notifying utility companies with high priority subsurface installation along the underground alignment and verifying the location of underground utilities prior to trenching as mandated by California Government Code (CGC) § 4216. CGC § 4216 requires contractors to hand excavate 24 inches on either side of an underground utility line prior to using power equipment. Compliance with CGC § 4216 would ensure that existing high-priority utilities are avoided and hazardous materials do not impact water quality. Nonpressurized sewer lines are not subject to the requirements of CGC § 4216. Nonpressurized lines are at risk of damage from trenching activities, which could potentially cause a leak of raw sewage. The impact from leaking sewer lines on water quality would be significant. MM HAZ-04 requires SCE to conduct exploratory excavations (i.e., potholing) to verify the locations of existing facilities marked out in the field prior to excavating to avoid damaging underground utilities. *The impact from accidentally released pollutants on water quality would be less than significant with mitigation.*

Operation and Maintenance

Inspection and maintenance would be performed by SCE staff on a routine and as-needed basis. Activities could include maintenance of access roads and implementation of erosion control measures. Maintenance would not require new ground disturbing activities. Operation of the Revised Project would not generate polluted runoff that could violate water quality standards or otherwise substantially degrade water quality. *The impact on water quality from operation and maintenance activities would be less than significant.*

Mitigation Measures: MM HAZ-04 (refer to Section 4.7: Hazards and Hazardous Materials)

Significance after Mitigation: Less than Significant

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Impact Hydro-c: Would the Revised Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?	Significance Determination
	Construction: <i>Less than Significant</i>
	Operation & Maintenance: <i>No Impact</i>

Construction

Construction activities including trenching and grading would occur through a drainage in the Goose Creek Golf Club. Following construction, the site would be recontoured to existing conditions. Construction within the drainage may require temporary diversion and dewatering to allow for drying of the work area. The drainage is a terminal drainage that is seasonally wet and conveys minimal flow volumes. Temporary diversion of the water would not cause erosion off-site due to the minimal amount of water that would be diverted or dewatered. Construction within the area and temporary diversion/dewatering could last two months. The project would not substantially alter the drainage pattern of the site because the drainage would be recontoured to existing conditions. *Impacts from alteration of drainage patterns on erosion and siltation would be less than significant.*

Operation and Maintenance

Inspection and maintenance would be performed by SCE staff on a routine and as-needed basis. Activities could include maintenance of access roads and implementation of erosion control measures. Maintenance would not require new ground disturbing activities that could alter drainage patterns. *No impact would occur.*

Mitigation Measures: None Required

4.8.8 Alternatives Setting

Environmental Setting

The hydrologic and water quality setting for the alternatives is described in Section 4.8.3, above, and the 2013 RTRP EIR. The alternatives are located within the same watershed, groundwater basin, and drainage area as the Proposed Project.

Regulatory Setting

The regulatory settings for hydrology and water quality under Alternatives 1 through 4 would include the federal, state, and Jurupa Valley policies and regulations identified for the Revised Project (refer to 4.8.4: Regulatory Setting). Regulations that pertain to the City or County of Riverside are not applicable because none of the alternatives considered in this analysis occur in the City or unincorporated County of Riverside.

4.8.9 Alternatives Impact Analysis

Alternatives Analysis Scope

The following analysis considers only the environmental impacts resulting from construction and operation of each alternative alignment segment. Any specific alternative replaces only a

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portion of the Revised Project and would require combination with the remaining unaffected segments of the Revised Project to form a complete alternative route through Jurupa Valley. Impacts resulting from construction and operation of the additional Revised Project elements necessary to form a complete alternative route are not considered in this section. A discussion of the environmental impacts resulting from construction and operation of the complete alternative route, comprised of each alternative alignment plus the unaffected Revised Project elements, is provided in Chapter 6: Comparison of Alternatives.

Impacts Avoided by the Alternatives

Alternatives 1 through 4 would be constructed in the same general project area as the revised project and would have no impact on the following six CEQA Appendix G significance criteria:

- c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
- d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.
- g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
- j. Cause inundation by seiche, tsunami, or mudflow.

There are no water features within 1,000 feet of the alternative alignments. Alternatives 1 through 4 would not substantially alter the existing drainage pattern of the site or area, resulting in off-site erosion or surface runoff causing flooding. Alternatives 1 through 4 would not place housing or flow-impeding structures within a 100-year flood hazard area; expose people or structures to risks from flooding; or cause inundation by seiche, tsunami, or mudflow.

Alternatives 1 through 4 Environmental Impacts and Mitigation Measures

Alternative 1 and Alternative 2 involve construction of two riser poles at the northwest corner of Wineville Avenue and Cantu-Galleano Ranch Road. The Alternative 1 underground transmission line would be located within Wineville Avenue, Bellegrave Avenue, and Pats Ranch Road. The Alternative 2 underground transmission line would be located within Wineville Avenue and Limonite Avenue. Both Alternative 1 and Alternative 2 would meet the Revised Project underground alignment at the intersection of Limonite Avenue and Pats Ranch Road. Alternative 3 involves extending the underground segment of the Revised Project by 0.25 mile along I-15 in the Revised Project alignment. The riser poles would be constructed at the north end of the extended underground segment. Alternative 4 involves construction of a segment of underground transmission line that follows Wineville Avenue and Landon Drive. Two riser poles would be constructed at either end of the underground segment.

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Impact Hydro-a: Would Alternative 1, 2, 3, or 4 violate any water quality standards or waste discharge requirements?	Significance Determination
	Construction: <i>Less than Significant with Mitigation</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Construction of Alternatives 1 through 4 would involve earthwork and use of hazardous materials as describe in Impacts Hazards-a, above. Alternative 1 and Alternative 2 work areas are located 3,200 feet or more from the closest water feature. Alternative 3 work areas are located 1,297 feet from a lake, and Alternative 4 work areas are located 3,847 feet from the nearest water feature. A rain event could transport sediment or untreated spill of hazardous materials into nearby waterways if proper erosion prevention measures and spill containment procedures were not applied. SCE is required to obtain coverage under the Riverside County MS4 Permit (NPDES No. CAS 618033), which requires the preparation and implementation of a SWPPP, because the project would disturb more than 1 acre of land. SCE would avoid working during rain events and would implement sedimentation and erosion control BMPs in compliance with the MS4 Permit. Compliance with the appropriate permits would ensure that water quality standards and waste discharge requirements are met. *The impact would be less than significant.*

Construction of Alternatives 1 through 4 may encounter and require discharge of shallow groundwater. Alternatives 1 through 4 would violate waste discharge requirements and cause a significant impact if pumped shallow groundwater or fill materials were discharged to waters of the state or U.S. SCE would implement EPE HYDRO-03 (dewatering), which would contain groundwater within the work areas and prevent violation of waste discharge requirements. *The impact would be less than significant.*

Excavation and trenching under Alternatives 1, 2, and 4 would occur within paved roadways that contain buried sewer lines. Alternative 3 would be located in an agricultural field and would not cross any underground utility lines. Construction activities could damage or rupture a nearby sewer main, resulting in a significant impact from the release of pollutants.

MM HAZ-04 requires SCE to conduct exploratory excavations (i.e., potholing) to verify the locations of existing facilities marked out in the field prior to excavating to avoid damaging underground utilities. *The impact would be less than significant with mitigation.*

Operation and Maintenance

Operation and maintenance activities for Alternatives 1 through 4 would not involve new ground-disturbing activities that could result in erosion or sedimentation, impair water quality, or violate waste discharge requirements. The potential risks of releasing hazardous materials from vehicles and equipment during operation and maintenance would be comparable to the

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baseline conditions of vehicles traveling on the roadways in the Alternative 1 through 4 project areas. *Impacts would be less than significant.*

Mitigation Measures: MM HAZ-04 (Refer to Section 4.7.9: Revised Project Mitigation Measures)
Significance after Mitigation: Less than Significant

Impact Hydro-b: Would Alternative 1, 2, 3, or 4 substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	Significance Determination
	Construction: <i>Less than Significant</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Substantially Deplete Groundwater Supplies

Construction of Alternatives 1 through 4 would use water on an as-needed basis for dust control, as described in Section 2.5.2 of the 2013 RTRP EIR. SCE would obtain a temporary supply of water from a local agency to construct the alternative. Groundwater could be used for dust control during construction; however, the volume of groundwater that would be used would be minimal relative to storage within the underlying aquifer and the use would be temporary. Groundwater resources would be replenished after the temporary use of water is completed. *The impact would be less than significant.*

Lowering of Local Groundwater Table

As discussed under Impact Hydro-a, construction of Alternatives 1 through 4 may require dewatering during trenching and excavation if shallow groundwater is encountered. Dewatering activities would be temporary, highly localized, and would not result in a deficit in aquifer volume or a lowering of the local groundwater table. *Impacts would be less than significant.*

Interfere with Groundwater Recharge

The underground alignments in Alternatives 1, 2 and 4 would be installed in paved roadways, and would result in less of an increase in impervious surfaces than the Revised Project. The construction of Alternative 1, 2 or 4 would not interfere substantially with groundwater recharge. Alternative 3 would be constructed in an agricultural field with no impermeable surfaces and would not interfere substantially with groundwater recharge. *The impacts would be less than significant.*

Operation and Maintenance

Operation and maintenance activities for Alternatives 1 through 4 would not involve activities that would deplete groundwater supplies or interfere with recharge. No routine use of water would be required and the impervious surface area would only be located at the riser poles and would not interfere with recharge. *Impacts would be less than significant.*

Mitigation Measures: None Required

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Impact Hydro-e: Would Alternative 1, 2, 3, or 4 create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Significance Determination
	Construction: <i>Less than Significant</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Water used for dust control during construction of Alternatives 1 through 4 could create or contribute to runoff if it were accidentally over-applied or the water truck had a leak. The water truck capacity (approximately 5,000 gallons of water) would not exceed the capacity of existing stormwater drainage systems. *Impacts would be less than significant.*

Operation and Maintenance

Construction of Alternatives 1 through 4 would not produce additional impervious surfaces that would create or contribute to runoff water exceeding stormwater drainage system capacities during operation and maintenance. *Impacts would be less than significant.*

Mitigation Measures: None Required

Impact Hydro-f: Would Alternative 1, 2, 3, or 4 otherwise substantially degrade water quality?	Significance Determination
	Construction: <i>Less than Significant</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

The potential impacts of Alternatives 1 through 4 on water quality resulting from erosion, sedimentation, and contamination from hazardous materials are discussed under Impact Hydro-a above. *The impact would be less than significant.*

Operation and Maintenance

Operation and maintenance activities for Alternatives 1 through 4 would involve routine inspections and replacement of equipment. Operation and maintenance would not create new areas of soil disturbance and would not otherwise substantially degrade water quality. *Impacts would be less than significant.*

Mitigation Measures: None Required

4.8.10 No Project Alternative Impact Analysis

Alternatives 13 and 16 (refer to Chapter 3: Alternatives) would avoid impacts within the floodplain of the Santa Ana River. The No Project Alternative would likely involve installation of battery storage; however, battery storage facilities have limited physical space requirements and would not create substantial areas of impervious surface. The additional generation at an existing power plant would not result in additional hydrology or water quality impacts. *The impact would be less than significant.*

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4.8.11 References

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