

5.9 Hydrology and Water Quality

HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a. Violate Regional Water Quality Control Board water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater discharge such that there would be a net deficit in the aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Place within 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j. Cause inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.9.1 Setting

The Proposed Project would be located largely within the jurisdiction of the Central Valley Regional Water Quality Control Board (RWQCB), with a portion of the easternmost project (where existing poles would be removed or replaced) located within the jurisdiction of the Lahontan RWQCB.

Surface Waters

Surface waters in the Project area are both ephemeral, containing active flow in direct response to precipitation events, and perennial, containing flow throughout the year. The nearest surface water features consist of several small, perennial ponds located east of the proposed Banducci Substation site, with the nearest feature less than one mile to the east. Brite Lake is located approximately three miles northeast of the proposed substation site. Please see Figure 5.9-1.

Portions of the inundation area associated with the Brite Valley Dam, or the area anticipated to be flooded in the event of a complete dam failure, are located approximately one mile north of the proposed substation site. In the event of failure of the Brite Valley Dam, water stored in the dam would flow through Brite Valley and Cummings Valley, eventually continuing into Stallion Springs through a golf course area. The Brite Valley Dam is 56 feet tall with a storage capacity of 1,820 acre-feet.

Groundwater

Groundwater basins in the Proposed Project area include the Brite Valley, Cummings Valley, and Tehachapi Valley Groundwater Basins. Of these, the Proposed Project traverses the Brite Valley and Cummings Valley Groundwater Basins; please see Figure 5.9-2. Any potential impacts to groundwater resulting from the Proposed Project would affect these basins, which therefore define the study area for groundwater resources and are described below.

Brite Valley Groundwater Basin. The Brite Valley Groundwater Basin has a surface area of 3,170 acres, or approximately five square miles, and is situated in a northwest to southeast trending valley bounded on the north by the Sierra Nevada and on the south by the Tehachapi Mountains. The southeast portion of the basin is drained by Brite Creek, which flows into Tehachapi Valley, and the northwest portion of the basin is drained by an unnamed ephemeral stream which flows into Cummings Valley. Recharge to this basin occurs from percolation of precipitation. Additional recharge occurs through percolation of water from a storage facility owned and operated by the Tehachapi-Cummings County Water District. (DWR, 2004a)

The Brite Valley Groundwater Basin is adjudicated, meaning that a court judgment has identified each water rights holder within the basin, and the quantity of groundwater available to each such party, as well as a Watermaster responsible for administering this judgment. The Tehachapi-Cummings County Water District (TCCWD) is the Watermaster. Based on ongoing groundwater management efforts conducted by the TCCWD, and the successful implementation of the adjudication judgment, it is understood that the Brite Valley Groundwater Basin is not currently affected by long-term overdraft conditions. As of the year 2004, the northwest portion of the basin is characterized by groundwater at the ground surface, exiting the basin by a small stream; this is considered evidence that the basin is full, and not in overdraft. There is currently no injunction against groundwater pumping by the designated water rights holders within this basin. (DWR, 2004a)

Cummings Valley Groundwater Basin. The Cummings Valley Groundwater Basin has a surface area of 10,000 acres, or approximately 16 square miles, bounded on the north by the Sierra Nevada Mountains and on the south by the Tehachapi Mountains. The basin is drained by Chanac Creek, which exits Cummings Valley to the southwest. A small ephemeral creek enters from Brite Valley to the northeast. Recharge to the Cummings Valley Groundwater Basin occurs through percolation of precipitation in the tributary watershed, as thick clay layers at the valley center inhibit the deep percolation of irrigation water, rainfall, and stream recharge; therefore, the majority of recharge occurs within the alluvial fan and foothill areas at the basin margins. Three groundwater recharge sites operated by the TCCWD are located on the higher alluvial fan areas at the east, west, and south sides of the basin, and supplied with State Water Project water through the TCCWD. (DWR, 2004b)

As with the Brite Valley basin, the Cummings Valley Groundwater Basin is adjudicated, and the TCCWD is the court-appointed Watermaster responsible for administering the court judgment as to the identified water rights holders and their respective allotments of groundwater. Water rights in this basin are overlying, not prescriptive. As with the Brite Valley Groundwater Basin, implementation of the adjudication judgment in the Cummings Valley Groundwater Basin has yielded positive results on groundwater levels

and water in storage. Since adjudication of the basin, groundwater levels have stabilized and, as of 2004, groundwater levels are comparable to those present in the 1950s, prior to development in the basin and eventual adjudication; this indicates that the basin is not affected by long-term overdraft conditions. (DWR, 2004b)

Flood Hazard Areas

The Federal Emergency Management Agency (FEMA) designates the boundaries of Flood Hazard Areas, or those areas anticipated to be inundated in the event of a 100-year storm event, on Flood Insurance Rate Maps (FIRMs). FIRMs for the Project area indicate that the proposed substation site and the telecommunications routes are located in areas designated as Zone X, or areas with a minimal flood hazard. The Zone X designation means that the area would have a moderate to low risk of inundation following a storm event, and is protected by a levee or dam from 100-year flood events as well as 500-year storm events. There also are some areas designated as Zone A in proximity to the Proposed Project; these areas are associated with perennial water features that are also designated by FEMA as Flood Hazard Areas, or those subject to inundation by a 100-year flood event.

Water Supply

The Proposed Project is located within the Tehachapi-Cummings County Water District (TCCWD) service area. The TCCWD is located in the Tehachapi Mountains, east of the Southern San Joaquin Valley and encompasses approximately 266,000 acres in the Greater Tehachapi Area (GTA). The TCCWD manages two primary sources of water for the GTA: (1) groundwater from the Brite Valley, Cummings Valley, and Tehachapi Valley Basins, and (2) surface water contracted through a State Water Project contract allocation (KCWA, 2011). TCCWD is a member unit of the Kern County Water Agency (KCWA) and, as described above, the TCCWD is the appointed Watermaster for both the Brite Valley and the Cummings Valley Groundwater Basins, which are traversed by the Proposed Project. Any use of groundwater from these basins is evaluated and approved of by the TCCWD, ensuring consistency with the court's adjudication judgment.

Regulatory Background

Federal

Clean Water Act. The Clean Water Act (CWA) (33 USC Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine RWQCBs. The Proposed Project is located within the jurisdictions of both the Central Valley and Lahontan RWQCBs, and is therefore subject to management direction of these agencies.

Section 402 of the Clean Water Act authorizes the California State Water Resources Control Board (SWRCB) to issue NPDES General Construction Storm Water Permit (Water Quality Order 99-08-DWQ), referred to as the "General Construction Permit." Construction activities can comply with and be covered under the General Construction Permit provided that they meet the following requirements.

- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters.
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation.
- Perform inspections of all BMPs.

Section 401 of the CWA requires that any activity, including river or stream crossing during road, pipeline, or transmission line construction, which may result in discharges into a State waterbody, must be certified by the RWQCB. This certification ensures that the proposed activity does not violate State or federal water quality standards. The limits of non-tidal waters extend to the Ordinary High Water Mark (OHWM), defined as the line on the shore established by the fluctuation of water and indicated by physical characteristics, such as natural line impressed on the bank, changes in the character of the soil, and presence of debris.

Section 404 of the CWA requires a permit for construction activities involving placement of any kind of fill material into waters of the U.S. or wetlands. The U.S. Army Corps of Engineers (USACE) may issue either individual, site-specific permits or general, nationwide permits for discharge into U.S. waters. A Water Quality Certification pursuant to *Section 401* of the CWA is required for *Section 404* permit actions. If applicable, construction would also require a request for Water Quality Certification (or waiver thereof) from the Central Valley RWQCB and/or the Lahontan RWQCB.

Section 303(d) of the CWA (CWA, 33 USC 1250, et seq., at 1313(d)) requires states to identify impaired waterbodies as those which do not meet water quality standards. States are required to compile this information in a list and submit the list to the USEPA 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. A TMDL is the maximum amount of a pollutant that a particular waterbody can receive while still meeting water quality standards, or an allocation of that water pollutant deemed acceptable to receiving waters. The SWRCB and RWQCBs have ongoing efforts to monitor and assess water quality, to prepare the *Section 303(d)* list, and to develop TMDL requirements.

National Flood Insurance Program (NFIP). The NFIP, implemented by the Congress of the United States in 1968, enables participating communities to purchase flood insurance. Flood insurance rates are set according to the flood-prone status of property as indicated by Flood Insurance Rate Maps (FIRMs) developed by FEMA. FIRMs identify the estimated limits of Flood Hazard Areas, or the 100-year floodplain for mapped watercourses, among other flood hazards. A 100-year floodplain is the area expected to be inundated as a result of the 100-year flood, or the magnitude of a flood with a one percent chance of occurring in any given year. As a condition of participation in the NFIP, communities must adopt regulations for floodplain development intended to reduce flood damage for new development through such measures as flood proofing, elevation on fill, or floodplain avoidance.

State

Porter-Cologne Water Quality Control Act. The SWRCB regulates water quality through the Porter-Cologne Water Quality Act of 1969, which contains a complete framework for the regulation of waste discharges to both surface waters and groundwater of the State. On the regional level, the Proposed Project falls under the jurisdiction of the Central Valley RWQCB and the Lahontan RWQCB, which are responsible for the implementation of State and federal water quality protection statutes, regulations and guidelines. These regions have each developed a Water Quality Control Plan (Basin Plan) to show

how the quality of the surface and groundwater should be managed to provide the highest water quality reasonably possible. The Basin Plans list the various beneficial uses of water within the respective region and describe the water quality that must be maintained to allow those uses and the programs, projects, and other actions necessary to achieve the standards established in these plans. The Basin Plans also summarize plans and policies to protect water quality.

California Fish and Game Code. Section 1602 of the California Fish and Game Code protects the natural flow, bed, channel, and bank of any river, stream, or lake designated by the California Department of Fish and Wildlife (CDFW) in which there is, at any time, any existing fish or wildlife resources, or benefit for the resources. Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State, and requires any person, State or local governmental agency, or public utility to notify the CDFW before beginning any activity that will:

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

Activities that result in the diversion or obstruction of the natural flow of a stream, or which substantially change its bed, channel, or bank, or which use any materials (including vegetation) from the streambed, may require that the Applicant enter into a Streambed Alteration Agreement (SAA) with the CDFW.

California Water Code Section 13260. California Water Code Section 13260 requires that any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the State, other than into a community sewer system, must submit a report of waste discharge to the applicable RWQCB. Any actions related to the proposed Project that would be applicable to Section 13260 would be reported to the Central Valley and/or Lahontan RWQCBs, as applicable.

Local

Kern County General Plan. The Kern County General Plan states that areas within the AP Special Study Zone¹ and other recently active faults shall be designated with Map Code 2.1 (Seismic Hazard) and areas of down-slope ground movement shall be designated with Map Code 2.2 (Landslide; Kern County, 2009). These provisions aim to reduce the potential for exposure of residential, commercial, and industrial development to hazards of landslide, land subsidence, liquefaction, and erosion.

Greater Tehachapi Area Specific and Community Plan. The Greater Tehachapi Area (GTA) is a term used to describe the collection of unincorporated communities located in eastern Kern County along State Route (SR) 58 between the San Joaquin Valley and the Mojave Desert, including the Proposed Project area. Kern County adopted the GTA Specific and Community Plan (GTASCP) to establish land use plan and goals, policies, and implementation measures designed to ensure that future development in the GTA is consistent with the Kern County General Plan. A portion of the Proposed Project is located within the GTASCP.

¹ Alquist-Priolo Earthquake Fault Zones are regulatory zones that encompass surface traces of [active faults](#) that have a potential for future [surface fault rupture](#). "Earthquake Fault Zones" were called "Special Studies Zones" prior to January 1, 1994.

Department of Building and Safety Requirements. The Proposed Project would be subject to Kern County's ministerial building and safety requirements. The Kern County Code of Building Regulations requires a grading permit from the building official for any grading activity, subject to certain specific exemptions. Under the Kern County Code, grading activities over 2,000 cubic yards must be performed in accordance with the approved grading plan prepared by a civil engineer or architect, and shall be designated as "engineered grading."

Applicant Proposed Measures

There are no Applicant Proposed Measures relevant to hydrology and water quality.

5.9.2 Environmental Impacts and Mitigation Measures

a. Would the project violate any water quality standards or waste discharge requirements?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The Proposed Project is anticipated to occur in full compliance with all applicable water quality standards and waste discharge requirements. There is potential that soil erosion and sedimentation, and/or the accidental release of hazardous materials such as vehicle fuels, could occur during Project-related soil disturbing activities. Such occurrences could result in direct or indirect water quality degradation, should the materials be allowed to migrate to local surface water or groundwater resources. Given the generally flat and dry nature of the Project site and area, and with the BMPs and project design features to be implemented, it is considered unlikely that such an occurrence would result in the violation of a water quality standard or waste discharge requirement.

The Project-specific SWPPP, to be implemented for compliance with the Clean Water Act, would include a suite of BMPs designed to minimize or avoid erosion and sedimentation including stormwater runoff quality control measures such as boundary protection, dewatering procedures, and concrete waste management. Furthermore, protocols and standards included as part of the Project design would minimize the potential for accidental releases of hazardous materials to occur, thereby minimizing potential for the violation of a water quality standard or waste discharge requirement. Material Safety Data Sheets would be made available at the construction site for all crew workers. The SWPPP would also identify locations for the storage of hazardous materials during construction, as well as protective measures, notifications, and cleanup requirements for any incidental spills or other potential releases of hazardous materials. If contaminated material is encountered during Project excavations, work would stop at that location and SCE's Spill Response Coordinator would be called to the site to make an assessment and notify the proper authorities. In addition, implementation of the Worker Environmental Awareness Program included as part of the Proposed Project, would provide site personnel with instruction on the individual responsibilities under the Clean Water Act, the project-specific SWPPP, and BMPs. Therefore, potential impacts associated with the violation of a water quality standard or waste discharge requirement would be less than significant.

Mitigation Measure HYD-1 (Stormwater Pollution Prevention Plan and Best Management Practices) is required to ensure that appropriate BMPs are implemented, and the Project occurs in compliance with water quality permits and waste discharge requirements such that potential impacts would be less than significant.

Mitigation Measure for Impacts to Water Quality

MM HYD-1 Develop Stormwater Pollution Prevention Plan and Implement Best Management Practices. The Applicant shall develop a Stormwater Pollution Prevention Plan (SWPPP), as outlined in General Permit 2009-0009-DWQ, which will describe best management

practices (BMPs) to prevent the acceleration of natural erosion and sedimentation rates. The SWPPP will include a written site-specific Construction Site Monitoring Program (CSMP). A monitoring program, which shall include a reporting requirement to the CPUC, will be established to ensure that the prescribed BMPs are followed during project construction. BMPs shall include but not be limited to the following:

- Use of silt fences or other sediment containment methods placed around and/or down slope of disturbed areas prior to construction;
- Protection of drain inlets from receiving polluted stormwater through the use of filters, such as fabrics, gravel bags, or straw wattles;
- Construction of a stabilized construction entrance/exit to prevent tracking onto roadways;
- Establishment of a vehicle storage, maintenance, and refueling area, if needed, to minimize the spread of oil, gas, and engine fluids. Use of oil pans under stationary vehicles is strongly recommended; and
- No overnight parking of mobile equipment within 100 feet of wetlands, culverts, or creeks. Stationary equipment (e.g., pumps, generators) used or stored within 100 feet of wetlands, culverts, or creeks will be positioned over secondary containment.

A worker education program shall be established for all field personnel prior to initiating fieldwork to provide training in the appropriate application and construction of erosion and sediment control measures contained in the SWPPP. This education program will also discuss appropriate hazardous materials management and spill response.

All BMPs shall be inspected on a weekly basis, and at least once every 24-hour period during extended storm events. BMPs shall be inspected as described in the SWPPP, maintained on a regular basis, and replaced as necessary through the course of construction. For each inspection required, an inspection checklist will be completed using a form as described in Attachment C of General Permit 2009-0009-DWQ. This checklist will remain onsite with the SWPPP.

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., 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)?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. It is anticipated that construction of the Proposed Project would require water for dust abatement, concrete manufacturing, fire suppression (as needed), and potable uses. SCE estimates the Proposed Project's water requirements for construction to be approximately 2,782,000 gallons. Potable water (bottled drinking water) would be obtained from a local vendor. Water for fire suppression would be provided by local hydrants and/or emergency response trucks, as necessary. Concrete would be obtained from a local vendor and produced using water obtained by the vendor under applicable permits. Water for dust abatement, the primary construction water demand, would be supplied through existing entitlements and resources located in and/or surrounding the Proposed Project site. Groundwater basins underlying the Proposed Project (Brite Valley Groundwater Basin and Cummings Valley Groundwater Basin) are adjudicated and are administered by the TCCWD; any use of groundwater to meet Project water requirements would occur in accordance

with the standing adjudication orders, with approval of the TCCWD. As described above, these groundwater basins are understood to have stable groundwater levels. Based on available data and information, as well as ongoing implementation of adjudication judgments designed to stabilize and maintain groundwater levels, it is understood that these groundwater basins are not currently affected by long-term overdraft conditions. To ensure that Project water supply requirements would be consistent with water conservation during the existing statewide drought and not create or exacerbate any water shortage conditions in the area, Mitigation Measure HYD-2 (Non-potable Water Use for Dust Control or Soil Compaction) would be required. As of August 2014, the Tehachapi-Cummings County Water District's recycled water is fully subscribed for us on a local golf course and a sod farm. During the winter, some excess may be available. The water district also can supply non-potable water from the State Water Project through a truck fill approximately 0.5 miles from the substation site (Martin, 2014)

During operation and maintenance of the Proposed Project, water would be required for minimal landscaping, and for restroom facilities. Landscaping water would likely be provided by the same source used for dust abatement during construction. Due to the minimal nature of landscaping water requirements, and the implementation of Mitigation Measure HYD-2 (Use Non-potable Water for Dust Control or Soil Compaction), potential impacts to groundwater supply would be less than significant. Restrooms would be stand-alone facilities maintained by a local vendor and any associated water requirements would be met by the local vendor under applicable permits, such that impacts to local groundwater resources would not occur.

In addition, the Proposed Project could affect groundwater resources if substantial new areas of impervious surfaces are introduced, such that groundwater recharge rates and patterns are adversely affected. This could particularly influence the Brite Valley Groundwater Basin, which receives a substantial portion of recharge from surface water infiltration, as opposed to the Cummings Valley Groundwater Basin, which is characterized by subsurface clay materials that inhibit infiltration. During construction of the Proposed Project, a majority of the area would use permeable applications such as gravel or crushed rock, or would remain largely in the existing condition. Therefore, the Proposed Project would not introduce substantial new areas of impermeable surfaces and would not interfere with existing groundwater recharge rates or patterns.

Also during construction of the Proposed Project, excavation activities may encounter shallow groundwater such that construction site dewatering activities would be required. As described above, the Project's SWPPP is anticipated to include BMPs for dewatering procedures. Mitigation Measure HYD-3 (Construction Site Dewatering) would be required to supplement the anticipated SWPPP BMPs and ensure that potential impacts to groundwater resulting from dewatering activities would be less than significant.

Mitigation Measures HYD-2 (Use Non-potable Water Use for Dust Control or Soil Compaction) and HYD-3 (Dewater Construction Site As Needed) are required to ensure that potential impacts to groundwater supply would be less than significant.

Mitigation Measures for Impacts to Groundwater Supply

MM HYD-2 Use Non-potable Water for Dust Control or Soil Compaction. Project water supply for dust control or soil compaction activities shall be obtained from non-potable sources, if available, and ensured in a water contract through a local water agency or district.

MM HYD-3 Dewater Construction Site As Needed. If groundwater is unexpectedly encountered during construction, operation, or decommissioning of the Project, dewatering activities shall be performed in compliance with the California Stormwater Quality Association

(CASQA) Handbook for Construction or other similar guidelines, as approved by the Central Valley and/or Lahontan RWQCB, as applicable based on jurisdiction. The Applicant shall submit a written description of all executed dewatering activities, including steps taken to return encountered groundwater to the subsurface and/or to dispose of the dewatered groundwater upon the completion of dewatering activities at the affected site(s).

c. *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on or off site?*

LESS THAN SIGNIFICANT. The Project would not alter the course of any stream or river. Implementation of the proposed Project would include localized drainage pattern alterations associated with the installation of permanent features, but sites would be graded such that water would run toward the direction of the natural drainage, and drainage patterns would be designed to prevent ponding and erosive water flows that could damage structure footings. In total, construction of the Proposed Project, including construction yards, would temporarily disturb approximately 34.61 acres and permanently disturb approximately 6.44 acres. As described above, erosion and sedimentation control measures would be implemented via BMPs as part of the required SWPPP. Therefore, although the Project would result in localized drainage pattern alterations, impacts associated with erosion and siltation on- or off-site would be less than significant.

d. *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?*

LESS THAN SIGNIFICANT. The proposed Project would not substantially alter existing drainage patterns of the site or area, and would not alter the course of any stream or river. In addition, as described in the analysis of potential groundwater impacts (item b above), disturbed areas associated with the Proposed Project would be surfaced with permeable materials, and the Project would not substantially alter recharge or runoff patterns in the area. Therefore, although the Project would result in localized drainage pattern alterations, impacts associated with flooding on- or off-site would be less than significant.

e. *Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems to provide substantial additional sources of polluted runoff?*

NO IMPACT. There are no existing stormwater drainage systems on or adjacent to the Project site. As described above, the Proposed Project would be designed to maintain existing drainage patterns as much as possible, and potential impacts associated with increased runoff and flooding would be less than significant. Also, potential impacts associated with water quality degradation would be less than significant. The impact discussions provided above fully characterize potential impacts of the Project associated with increased runoff water and water quality degradation. No additional impact would occur.

f. *Would the project otherwise substantially degrade water quality?*

NO IMPACT. All potential water quality impacts of the Proposed Project are characterized under the discussions above in items a through e. No additional impact to water quality would occur as a result of the Proposed Project, and no additional mitigation is required.

g. Would the project 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?

NO IMPACT. The Proposed Project does not include the construction of any housing, and would not alter existing drainage patterns and flood areas in such a way that existing housing would be mapping as being in a new Flood Hazard Area. No impact would occur.

h. Would the project place within a 100-year floodplain structures that would impede or redirect flood flows?

NO IMPACT. The Proposed Project is not located within a 100-year floodplain or a FEMA-designated Flood Hazard Area and would not place structures within a floodplain such that flood flows would be impeded or redirected. Consistent with standard engineering design practices, all structures and facilities associated with the Proposed Project would be designed to withstand surface runoff and sheetflow that may occur in response to storms typical of the Project area. No impact would occur.

i. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

NO IMPACT. The proposed Banducci Substation site is located within approximately one mile of the inundation area defined for Brite Lake, or the area that would experience flooding in the event the Brite Valley Dam should fail. The proposed Project would have no influence on the boundaries of this inundation area, and would not include any activities that could contribute to the dam's potential for failure. The Project would involve no activities which could result in the failure of a levee or dam. No impact would occur.

j. Would the project cause inundation by seiche, tsunami, or mudflow?

NO IMPACT. The Project site is not located near any body of water that could be subject to seiche or tsunami, and would not include any activities that may result in seiche or tsunami events on regional waterbodies. Additionally, the Project site is relatively level and is not situated near steep slopes that could be subject to mudflow events. The Project would not include any activities that could facilitate mudflow events on regional slopes. Potential impacts associated with inundation such as flooding are characterized in the discussions presented above. No impact would occur.