4.10 Hydrology and Water Quality

4.10.1 Introduction

This section evaluates impacts to hydrology and water quality from the Proposed Project, reasonably foreseeable distribution components, and alternatives. The impact analysis considers potential impacts in light of existing laws and the hydrologic conditions found in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives.

4.10.2 Regulatory Setting

Federal Laws, Regulations and Policies

Clean Water Act

The CWA is the primary federal law that protects the quality of the nation's surface waters. Relevant sections of the CWA are described below.

Section 303(d)

Under CWA Section 303(d), states are required to identify and make a list of water bodies that are polluted. In California, this responsibility falls to the SWRCB and its nine RWQCBs. In addition to identifying impaired water bodies, states must identify the pollutants causing the impairments; establish priority rankings for waters on the list, and develop a schedule for development of control plans to improve water quality, including development of total maximum daily loads (TMDLs).

Section 402

CWA Section 402 regulates facilities that discharge pollutants into waters of the U.S. through the National Pollutant Discharge Elimination System (NPDES). Under the NPDES, all facilities discharging pollutants from any point source into waters of the U.S. must obtain a NPDES permit. While originally focused on municipal and industrial discharges from pipes or other point sources, Section 402 of the CWA was amended in 1987 to include stormwater discharges which may be non-point source in nature. Phase I of the NPDES Storm Water Program imposed permitting requirements on several types of stormwater discharges, including certain industrial activities, medium (i.e., serving 100,000 to 250,000 people) and large (serving greater than 250,000 people) municipal separate sanitary sewer systems (MS4s), and construction sites disturbing 5 or more acres. Phase II of the Storm Water Program regulations, issued in 1999, expanded permitting requirements to include small (serving less than 100,000 people) MS4s, construction sites of 1 to 5 acres, and other certain previously exempt industrial facilities.

Construction General Permit

Most construction projects that disturb 1 acre or more of land are required to obtain coverage under the SWRCB's *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* ("Construction General Permit") (Order 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ), in accordance with CWA Section 402. The

general permit requires the applicant to file a public notice of intent to discharge stormwater and prepare and implement a SWPPP. The SWPPP must include a site map and a description of the proposed construction activities; demonstrate compliance with relevant local ordinances and regulations, and present a list of BMPs that will be implemented to prevent soil erosion and protect against discharge of sediment and other construction-related pollutants to surface waters. Enrollees in the Construction General Permit are further required to conduct monitoring and reporting to ensure that BMPs are correctly implemented and are effective in controlling the discharge of construction-related pollutants.

Municipal Stormwater Permitting Program

The SWRCB regulates stormwater discharges from MS4s, in accordance with Section 402 of the CWA, through its Municipal Storm Water Permitting Program. As described above, the MS4 permitting requirements were developed in two phases: Phase I and II. MS4 permits continue to be issued under Phase I or Phase II depending on the size of the MS4 seeking authorization. Phase II permits are issued pursuant to SWRCB Order No. 2003-0005-DWQ, NPDES General Permit No. CAS000004. SWRCB has determined that the following unincorporated communities located in San Luis Obispo County are subject to NPDES Phase II requirements:

1. Baywood-Los Osos;
2. San Luis Obispo urban fringe;
3. Nipomo;
4. Atascadero urban fringe;
5. Paso Robles urban fringe;
6. Templeton;
7. Santa Margarita;
8. Garden Farms;
9. Cambria; and
10. Oceano.

This would include portions of the Proposed Project area, which would fall within the Paso Robles urban fringe. To comply with the Phase II NPDES order, San Luis Obispo County has prepared a Storm Water Program, which is discussed further under Section 10.2.3 below. The City of Paso Robles also is subject to the Phase II permit, and has developed a stormwater program, as described in Appendix A of this FEIR.

Spill Prevention, Control, and Countermeasure Rule

The USEPA's SPCC Rule (40 CFR Part 112) applies to facilities with a single AST with a storage capacity greater than 660 gallons, or multiple tanks with a combined capacity greater than 1,320 gallons. The rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans. The SPCC rule applies to oil-filled equipment, including transformers, which store in excess of the threshold quantities of oil described above.

State Laws, Regulations, and Policies

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act (also known as the Porter-Cologne Act), passed in 1969, established the SWRCB and divided the state into nine hydrogeologic regions, each overseen by an RWQCB. In conjunction with the federal CWA, the Porter-Cologne Act is the principal law governing water quality regulation in California. The Porter-Cologne Act requires that each RWQCB develop a water quality control plan (also known as a Basin Plan) to identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. Waters of the State are defined differently than waters of the U.S., described above under CWA Section 404, and include any surface water or groundwater, including saline waters, which are within the boundaries of the state.

The Porter-Cologne Act also implements many provisions of the CWA, such as the NPDES permitting program, described above under "Federal Laws, Regulations, and Policies." Any entity discharging or proposing to discharge materials that could affect water quality must file a report of waste discharge with the applicable RWQCB.

Water Quality Control Plan for the Central Coast Basin

The purpose of the Water Quality Control Plan for the Central Coast Basin (Basin Plan) is to show how the quality of the surface and ground waters in the central coast region should be managed to provide the highest water quality reasonably possible (Central Coast RWQCB 2016). Specifically, the Basin Plan (1) designates beneficial uses for surface waters and groundwater; (2) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's antidegradation policy; (3) describes implementation programs to protect the beneficial uses of all waters in the region; and (4) describes surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan. The Central Coast RWQCB implements the plan by issuing and enforcing waste discharge requirements based on either state waste discharge requirements or federally delegated NPDES permits for discharges to surface water.

Designated beneficial uses for water bodies in the central coast basin potentially affected by the Proposed Project, reasonably foreseeable distribution components, and alternatives are shown in Table 4.10-1 in Section 4.10.3, "Environmental Setting."

Central Coast Post-Construction Requirements

On July 12, 2013, the Central Coast RWQCB adopted the Central Coast Post-Construction Requirements. These standards apply to all new development projects in designated Stormwater Management Areas resulting in 2,500 square feet or more of net impervious surface area. The urbanized portions of the central coast region are categorized into 10 Watershed Management Zones, based on common key watershed processes and receiving water type (e.g., creek, marine nearshore waters, lake).

The primary objective of these requirements is to ensure that the permittee is reducing pollutant discharges to the maximum extent practicable and preventing stormwater discharges from causing or contributing to a violation of water quality standards in all applicable development projects that require approvals and/or permits issued under the permittee's

planning, building, or other comparable authority. The Post-Construction Requirements emphasize protecting and, where degraded, restoring key watershed processes to create and sustain linkages between hydrology, channel geomorphology, and biological health necessary for healthy watersheds. Maintenance and restoration of watershed processes impacted by stormwater management is necessary to protect water quality and beneficial uses. These requirements are adopted by the County of San Luis Obispo (County) under the Stormwater Management Ordinance (Title 19).

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA), passed in 2014, became law in 2015 and created a legal and policy framework to locally manage groundwater sustainably. The SGMA allows local agencies to customize groundwater sustainability plans to their regional economic and environmental conditions and needs, and establish new governance structures, known as Groundwater Sustainability Agencies (GSAs). The SGMA is intended to prevent undesirable results, which are defined as the following:

- Chronic lowering of groundwater levels (not including overdraft during a drought if a basin is otherwise managed).
- Significant and unreasonable reduction of groundwater storage.
- Significant and unreasonable seawater intrusion.
- Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.
- Significant and unreasonable land subsidence that substantially interferes with surface land uses.
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

The portion of the Proposed Project, reasonably foreseeable distribution components, and alternatives within the City of Paso Robles limits would be located within the City of Paso Robles GSA planning area (DWR 2019). The portion of the Proposed Project, reasonably foreseeable distribution components, and alternatives located outside of the City limits would be primarily within the County of San Luis Obispo GSA planning area (DWR 2019).

California Statewide Groundwater Elevation Monitoring Program

In 2009, the California State Legislature amended the California Water Code with SBx7-6, which mandates a statewide groundwater elevation monitoring program to track seasonal and long-term trends in groundwater elevations in California. Pursuant to this amendment, DWR established the California Statewide Groundwater Elevation Monitoring (CASGEM) Program. The CASGEM Program establishes the framework for regular, systematic, and locally managed monitoring in all of California's groundwater basins. To facilitate implementation of the CASGEM Program and focus limited resources, as required by the California Water Code, DWR ranked all

of California's basins by priority: high, medium, low, and very low based on the following factors (DWR 2015):

1. Population overlying the basin;
2. Rate of current and projected growth of the population overlying the basin;
3. Number of public supply wells that draw from the basin;
4. Total number of wells that draw from the basin;
5. Irrigated acreage overlying the basin;
6. Degree to which persons overlying the basin rely on groundwater as their primary source of water;
7. Any documented impacts on the groundwater within the basin, including overdraft, subsidence, saline intrusion, and other water quality degradation; and
8. Any other information determined to be relevant by DWR.

DWR classifies the Paso Robles Area Subbasin of the Salinas Valley Groundwater Basin as a high-priority basin, with noted nitrate and total dissolved solids impacts to groundwater (DWR 2014).

Storm Water Strategy

The SWRCB's Strategy to Optimize Resource Management of Storm Water (Storm Water Strategy) (SWRCB 2016) identifies the goals, objectives, and actions needed for the SWRCB and RWQCBs to improve the regulation, management, and utilization of California's stormwater resources. The overarching intent of the Storm Water Strategy is to establish the value of stormwater as a resource in California and encourage its application to beneficial uses (SWRCB 2016). Goals and objectives in the Storm Water Strategy potentially applicable to the Proposed Project include management of stormwater to preserve watershed processes and increasing source control to prevent pollution.

4.10.3 Environmental Setting

Regional and Watershed Setting

The Proposed Project, reasonably foreseeable distribution components, and alternatives are located in the Salinas Valley, which is within the Central Coast Hydrologic Region. The Central Coast Hydrologic Region includes all of Santa Cruz, Monterey, San Luis Obispo, and Santa Barbara Counties, most of San Benito County, and parts of San Mateo, Santa Clara, and Ventura Counties. Significant geographic features include the Pajaro, Salinas, Carmel, Santa Maria, Santa Ynez, and Cuyama Valleys; the coastal plain of Santa Barbara; and the Coast Ranges. Major drainages in the region include the Salinas, Cuyama, Santa Ynez, Santa Maria, San Antonio, San Lorenzo, San Benito, Pajaro, Nacimiento, Carmel, and Big Sur Rivers (DWR 2003).

The Proposed Project is located within the Salinas Subbasin (HUC 8), and is divided between two watersheds (HUC 10)—the Paso Robles Creek-Salinas River sub-watershed to the west and the Huer Huero Creek sub-watershed to the east (CDOC 2010; San Francisco Estuary Institute 2016), as shown on Figure 4.10-1. Portions of Alternatives PLR-1A and PLR-1C are also located within the Estrella Subbasin (HUC 8), as well as the Salinas Subbasin, whereas Alternatives SE-1A and SE-PLR-2 are entirely located within the Salinas Subbasin; Paso Robles Creek-Salinas River sub-watershed (see Figure 4.10-1). Alternative SS-1 is located in the Estrella River Subbasin; Estrella River sub-watershed. Alternatives PLR-3A and PLR-3B are located within the Salinas Subbasin; Huer Huero Creek sub-watershed. The example FTM battery storage sites under Alternative BS-2 would primarily be located within the Salinas Subbasin; Paso Robles Creek-Salinas River sub-watershed.

Topography and Climate

The Proposed Project site elevation ranges from approximately 650 to 1,000 feet above mean sea level (msl). The surface topography ranges from flat (0 percent) to gently sloping rolling hills (0–20 percent) to steep slopes (>45 percent) along roadside cuts. The majority of the Proposed Project site (i.e., proposed Estrella Substation and new/reconductored 70 kV power line) parallels city and county roads and consists of agricultural land as well as suburban residential and commercial development. The reasonably foreseeable distribution components are located in areas of similar terrain.

The alternatives generally have similar elevation and topography characteristics. The substation sites under Alternatives SS-1 and SE-1A are generally flat, with the Alternative SS-1 site adjacent to the Estrella River. Much of the lengths of the new power line routes under Alternatives PLR-1A and PLR-1C traverse relatively flat agricultural land, whereas the reconductoring segment for these alternatives is similar in nature to the Proposed Project (although longer); which is to say it traverses hilly, at times, residential areas, as well as rural/agricultural areas further to the north. The lengths of the undergrounded routes under Alternative PLR-3 (both options) would have similar elevation and topography characteristics as the Proposed Project 70 kV power line in the area of Golden Hill Road. The Alternative SE-PLR-2 route traverses some hilly areas through mostly rural residential developments. Example FTM battery storage sites considered under Alternative BS-2 are typically flat and several are within areas of existing urban development.

San Luis Obispo County, within which the Proposed Project, reasonably foreseeable distribution components, and all alternatives are located, has a Mediterranean climate, which includes warm to hot, dry summers and mild to cool, wet winters. The coastal climate within San Luis Obispo County is generally mild with average temperatures ranging from 45°F to 70°F. Inland temperatures are much more variable with average temperatures ranging from 35°F to 93°F. Precipitation in the region varies spatially and temporally with increasing precipitation typically occurring near the coast. Average annual rainfall in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives is 15.2 inches with approximately 90 percent of the rain falling between October and April.

Surface Water Hydrology and Quality

Drainage in the Proposed Project area has been affected by agriculture and development such that some natural watercourses no longer exist and some drainage in the area follows human-made channels or diversions. In particular, surface runoff at the Estrella Substation site drains downslope south toward Union Road and into a tributary of Huer Huero Creek. The greater substation vicinity has an overall northwest slope that follows the parallel Huer Huero Creek and Dry Canyon corridors. The proposed 70 kV power line segment crosses Huer Huero Creek and a number of unnamed drainages and swales, which flow into receiving waters, such as Huer Huero Creek, Dry Creek, and Salinas River.

The surface water hydrologic characteristics in the area of the reasonably foreseeable distribution components and alternatives have also generally been impacted by agriculture and development. The reasonably foreseeable distribution components would primarily be installed along existing roads in agricultural areas and/or within the SR 46 right-of-way. The proposed substation sites under Alternatives SS-1 and SE-1A are currently under agricultural production, whereas the example FTM battery storage sites under Alternative BS-2 for the most part have either been disced, graded, or planted over with grass. As noted above, Alternatives PLR-1A and PLR-1C mostly traverse agricultural lands, as well as some rural residential areas. Alternative SE-PLR-2 passes through generally less developed areas following South River Road, which parallels the Salinas River. As noted above, Alternative SS-1 would be located adjacent to the Estrella River, while the reconductoring segments for Alternatives PLR-1A and PLR-1C would cross Huer Huero Creek near North River Road and the confluence with the Salinas River (refer to Figures 3-5 and 3-7 in Chapter 3, *Alternatives Description*, for a detailed view of these alternatives in relation to surface waters).

Surface waters in the area of the Proposed Project, reasonably foreseeable distribution components, and alternatives are described further below. Beneficial uses for water bodies in this area are shown in Table 4.10-1**.**

Salinas River

The Salinas River is the largest river of the central coast, running 170 miles from Santa Margarita and flowing north-northwest through the central California Coast Ranges to Monterey Bay. The Salinas River is a wildlife corridor and provides the principal source of water from its reservoirs and tributaries for the farms and vineyards of the Salinas Valley. In Paso Robles, the river bisects the city, running generally north toward San Miguel, aligned east of U.S. Highway 101. As shown on Figure 4.10-1, the Proposed Project reconductoring segment generally follows the river for 3 miles, but never crosses it. The reconductoring segments for Alternatives PLR-1A and PLR-1C also generally follow the river, as does the alignment under Alternative SE-PLR-2, which follows South River Road south of the Paso Robles Substation.

The Upper Salinas River (from Nacimiento River to Santa Margarita Reservoir; approximately 13.5 miles downstream of the Proposed Project) is listed as impaired by SWRCB on the most recently approved CWA 303(d) listing (SWRCB 2017). Pollutant categories include salinity (chloride and sodium) and pH (miscellaneous pollutants). Although SWRCB has not identified the sources for these pollutants, salinity pollution is typically caused by excessive runoff from agricultural irrigation or mining, although saltwater intrusion into groundwater as a result of aquifer depletion is also a potential cause. The pH of a river can be affected by point sources of

pollution, organic nutrients, domestic and industrial chemicals, and mining runoff (Water Research Center 2014).

Huer Huero Creek

Huer Huero Creek flows over 14 miles in a northwest direction from the Coast Range south of Creston to Salinas River in Paso Robles. The creek is divided into two main drainages, bisected by SR 41. The primary land use along this creek is agriculture, largely dominated by vineyards. Flows are ephemeral and the creek is a dry wash in most locations throughout the year, supporting scattered shrubs and trees (Upper Salinas Las Tablas Resource Conservation District [US-LT RCD] 2012). The Proposed Project 70 kV Power Line spans Huer Huero Creek approximately 1,000 feet east of the intersection of Union Road and Kit Fox Lane. The 70 kV Minor Route Variation 1 is under consideration at roughly the location where the new 70 kV power line would cross Huer Huero Creek along Union Road in the event that an active golden eagle nest is located in this area. As noted above, the reconductoring segments for Alternatives PLR-1A and PLR-1C also cross Huer Huero Creek near the confluence with the Salinas River. Huer Huero Creek is not designated as impaired for any pollutants pursuant to CWA Section 303(d).

Dry Creek

Dry Creek is an ephemeral drainage originating from the coastal mountain foothills approximately 4 miles northeast of Creston, flowing over 13 miles northwest through blue oak woodland to Huerhuero Creek near Airport Road, approximately 0.6 mile north of SR 46. The Proposed Project, at its nearest point, is approximately 1,500 feet south of Dry Creek and does not cross the drainage. Alternative PLR-1A would cross Dry Creek northeast of the proposed Estrella Substation. Dry Creek is not identified as impaired for any pollutants pursuant to CWA Section 303(d).

Estrella River

The Estrella River and some of its tributaries carry perennial underground flows that form a tributary of the Salinas River. The Estrella River forms from the confluence of San Juan Creek and Cholame Creek near Shandon, in the foothills of the Coast Ranges. The confluence of the Salinas and Estrella Rivers occurs in Northern San Luis Obispo County, within the town of San Miguel (US-LT RCD 2014). Alternative SS-1 would be located approximately 200 feet south of the Estrella River. Alternative PLR-1C, Minor Route Variation 1 would route the 70 kV line along Estrella Road west (adjacent to the river), until turning south down Jardine Road. Segments of the Estrella River are listed as impaired by SWRCB on the most recently approved CWA 303(d) listing, including for toxicity, boron, chloride, sodium, conductivity, pH, dissolved oxygen, turbidity, and indicator bacteria (SWRCB 2017). Beneficial uses for the Estrella River are shown in Table 4.10-1.

Table 4.10-1. Beneficial Uses of Surface Waters Potentially Affected by the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives

Water Body	Beneficial Use																					
	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
Salinas River, Reservoir - Headwaters	X	X			X	X	X	X	X		X	X				X			X			
Huerhuero Creek	X	X			X	X	X	X		X				X					X			
Estrella River	X	X			X	X	X	X		X		X							X			

Notes: MUN = Municipal and Domestic Supply; AGR = Agricultural Supply; PRO = Industrial Process Supply; IND = Industrial Service Supply; GWR = Ground Water Recharge; REC1 = Contact Water Recreation; REC2 = Non-contact Water Recreation; WILD = Wildlife Habitat; COLD = Cold Freshwater Habitat WARM = Warm Freshwater Habitat; MIGR = Migration of Aquatic Organisms; SPWN = Spawning, Reproduction, and/or Early Development; BIOL = Preservation of Biological Habitats of Special Significance; RARE = Rare, Threatened, or Endangered Species; EST = Estuarine Habitat; FRSH = Freshwater Replenishment; NAV = Navigation; POW = Hydropower Generation; COMM = Commercial and Sport Fishing; AQUA = Aquaculture; SAL = Inland Saline Water Habitat; SHELL = Shellfish Harvesting.

Source: Central Coast RWQCB 2019

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Wetlands and Other Drainages

SWCA Environmental Consultants (SWCA) performed reconnaissance-level surveys for the Proposed Project substation site and 70 kV power line and reconductoring segment route to identify waters, wetlands, and riparian areas that may be subject to regulatory jurisdiction. All areas within 200 feet (a 400-foot-wide corridor) of the new 70 kV power line segment, 50 feet (a 100-foot-wide corridor) of the reconductoring segment, and 250 feet of the Estrella Substation were surveyed. These surveys identified 12 unnamed ephemeral drainages (likely to be considered jurisdictional) within the study area, eight of which occur along the new 70 kV power line segment and four along the reconductoring segment. These features convey overland flow and eventually drain into Huer Huero Creek and/or Salinas River.

Wetlands are also discussed in Section 4.4, "Biological Resources." SWCA identified five potentially jurisdictional wetlands in its Biological Study Area, although only two of these occurred within the Proposed Project area: two seasonal wetlands approximately 200 feet east of Buena Vista Drive. SWCA also observed several non-jurisdictional drainage swales near the proposed Estrella substation, but outside of the Proposed Project footprint. Along the new 70 kV power line segment, SWCA identified various swale features which convey overland sheet flow and agricultural runoff; however, these features lack a defined bed, bank, or ordinary high water mark and, therefore, were not considered to be jurisdictional.

SWCA subsequently mapped wetlands, drainages, vernal pools, and other waters for Alternatives PLR-1A, SE-1A, and SE-PLR-2, as described in response to CPUC Data Request #2 (HWT and PG&E 2019). SWCA did not map features for Alternatives PLR-1C and SS-1 due to lack of property access. SWCA's findings confirmed the presence of many of the unnamed features shown on Figure 4.10-1, as well other unmapped features that occur in proximity to the alternative alignments. No surface waters were identified within the footprint of Alternative SE-1A.

In the vicinity of Alternative PLR-3A and PLR-3B (as well as the Proposed Project 70 kV route), two man-made drainage features were identified, as follows:

1. A rip-rapped swale located along the east side of Golden Hill Road, which receives runoff from the road, directing it to a low-lying grassy area. The low-lying grassy area also receives runoff from the east from the Cava Robles RV Park via a culvert (Sagrafena, pers. comm., 2020).

2. An earthen stormwater detention basin located immediately south of the Cava Robles RV Park driveway/access road, east of Golden Hill Road, and north of San Antonio Winery. Approximately 4 acres in size, this basin receives stormwater runoff from surrounding residential and commercial areas along Golden Hill Road. During a February 2020 survey, the feature did not exhibit ordinary high water marks, bed or banks, hydrophytic vegetation, or connectivity to waters of the United States (SWCA 2020).

Groundwater

The Proposed Project, reasonably foreseeable distribution components, and Alternatives SS-1, PLR-1A, PLR-1C, PLR-3 (both options) and example FTM Sites 1, 2, 3, 4, 5, and 8 would be located within the Salinas Valley Groundwater Basin, Paso Robles Area Subbasin (DWR Basin No.

3-4.06). The Paso Robles Area Subbasin has a surface area of 597,000 acres (932 square miles) and is bordered on the north by the Upper Valley Aquifer Subbasin, on the east by the Temblor Range, on the south by the La Panza Range, and on the west by the Santa Lucia Range. Natural recharge in the subbasin is derived from infiltration of precipitation, seepage from streams, and return flow from irrigation and other uses. Groundwater flow is generally northwestward (County of San Luis Obispo 2005; DWR 2016). Figure 4.10-2 shows the Paso Robles Area Subbasin.

Groundwater is found in Holocene-age alluvium and the Pleistocene-age Paso Robles Formation. Holocene-age alluvium consists of unconsolidated, fine- to coarse-grained sand with pebbles and boulders. This alluvium provides limited amounts of groundwater and reaches 130 feet thick near Salinas River, but is generally less than 30 feet thick in the minor stream valleys. Its high permeability results in a well production capability that often exceeds 1,000 gallons per minute. Groundwater in Holocene alluvium is mostly unconfined. Pleistocene-age Paso Robles Formation, which is the most important source of groundwater in the subbasin, is unconsolidated, poorly sorted, and consists of sand, silt, gravel, and clay. This formation reaches a thickness of 2,000 feet and groundwater within it is generally confined (DWR 2003).

The Paso Robles Area Subbasin supplies water for 29 percent of San Luis Obispo County's population and an estimated 40 percent of the agricultural production of the County (County of San Luis Obispo 2011a). The basin serves the cities of Paso Robles and Atascadero; the communities of Templeton, Shandon, Creston, San Miguel, Bradley, and Camp Roberts; and the small community systems in Whitley Gardens and Garden Farms. Agricultural water users constitute an estimated 67 percent of the pumpage in the basin (County of San Luis Obispo 2011a).

Groundwater levels may fluctuate seasonally and over a period of years, reflecting the net effect of changes in recharge (e.g., percolation of precipitation and streamflow, infiltration of applied water, and subsurface inflow) and changes in outflow (e.g., pumping and subsurface outflow). Over the long term, if outflows are greater than the recharge (or "yield"), it is assumed that water is not being replaced. Outflows exceeding the perennial yield cannot be replaced through normal inflow conditions unless outflows are brought under the perennial yield by the same amount in a future year(s). Therefore, in the long term, basin health is dependent on keeping outflows under the perennial yield (County of San Luis Obispo 2011b).

The estimated perennial yield of the Paso Robles Area Subbasin is approximately 97,700 acre-feet per year (afy). Annual groundwater pumping has grown from approximately 74,061 afy in 1996 to 88,153 afy in 2006, or approximately 90 percent of the total annual yield. Approximately 66 percent of basin outflows occurred as a result of agriculture pumping, while 19 percent was pumped for urban municipal use, 12 percent was pumped for domestic water use in rural areas, and 3 percent was pumped for other use (County of San Luis Obispo 2011b). Groundwater elevation data is variable in nature and does not necessarily reflect current or future conditions. Water wells can be installed to deep aquifers well below typical foundation depth, and do not reflect depth of shallow aquifers or perched water tables.

County well data collected in the Atascadero Subbasin and Paso Robles Airport Area indicate that the water surface generally occurs 100 feet below the ground surface, with historic lows occurring as low as 200 feet below the ground surface (County of San Luis Obispo 2005). Based

on recent well logs available from DWR, static groundwater levels have been reported to be at elevations between 598 and 691 feet and between 30 and 227 feet below the ground surface at well locations, with the shallowest level recorded at Well No. 355878N1206914W001, approximately 3 miles north of Estrella Substation (DWR 2015). Groundwater elevation at Estrella Substation is reported by the adjacent property owner to occur at approximately 340 feet below ground surface. This measurement was registered in December 2009, at the time of well installation.

Although the Central Coast RWQCB reports indicate that groundwater levels have remained steady (DWR 2003), long-term County observation of groundwater levels has found a large area of drawdown. The Proposed Project is located in the Estrella Subarea of the Paso Robles Subbasin, where the greatest change in groundwater elevations has occurred. The Estrella Subarea represents approximately 16 percent of the area of the groundwater basin but approximately 40 percent of all groundwater pumping in the county, and the amount of pumping has caused a substantial drop in groundwater elevations since 1980 (County of San Luis Obispo 2011b). County data indicate that spring groundwater levels declined more than 70 feet between 1997 and 2009 in the most affected area (County of San Luis Obispo 2011a).

Alternative SE-1A and example FTM Site 6 lie within the Atascadero Subbasin, while Alternative SE-PLR-2 lies within both the Atascadero Subbasin and the Paso Robles Area Subbasin (see Figure 4.10-2). FTM Site 7 lies outside of both subbasins. The Atascadero Subbasin has had stable groundwater levels over a period of more than 30 years, even as the Paso Robles Area Subbasin (Estrella Subarea) has shown a trend of significant water level decline (see discussion above). For the period from 1997 to 2013, water level changes in wells within the Atascadero Subbasin remained relatively steady, with a small area in the northern part of the basin showing minor declines, and some areas of the basin showing water level increases over the time period. Wells located in the central portion of the Atascadero Subbasin show that water elevations were generally stable at approximately 770 feet msl until about 2012 to 2013, when slight declines were observed due to the ongoing drought (Templeton Community Services District 2016).

Floodplains, Tsunamis, Seiches, and Mudslides

The 100-year flood hazard zones for several water bodies (Salinas River, Estrella River, Huer Huero Creek) are shown in relation to the Proposed Project, reasonably foreseeable distribution components, and alternatives on Figure 4.10-3. As shown on Figure 4.10-3, a portion of the Proposed Project 70 kV power line route would cross the flood hazard zone for Huer Huero Creek. Portions of the reconductoring segment for the Proposed Project also would overlap with the Salinas River 100-year flood hazard zone.

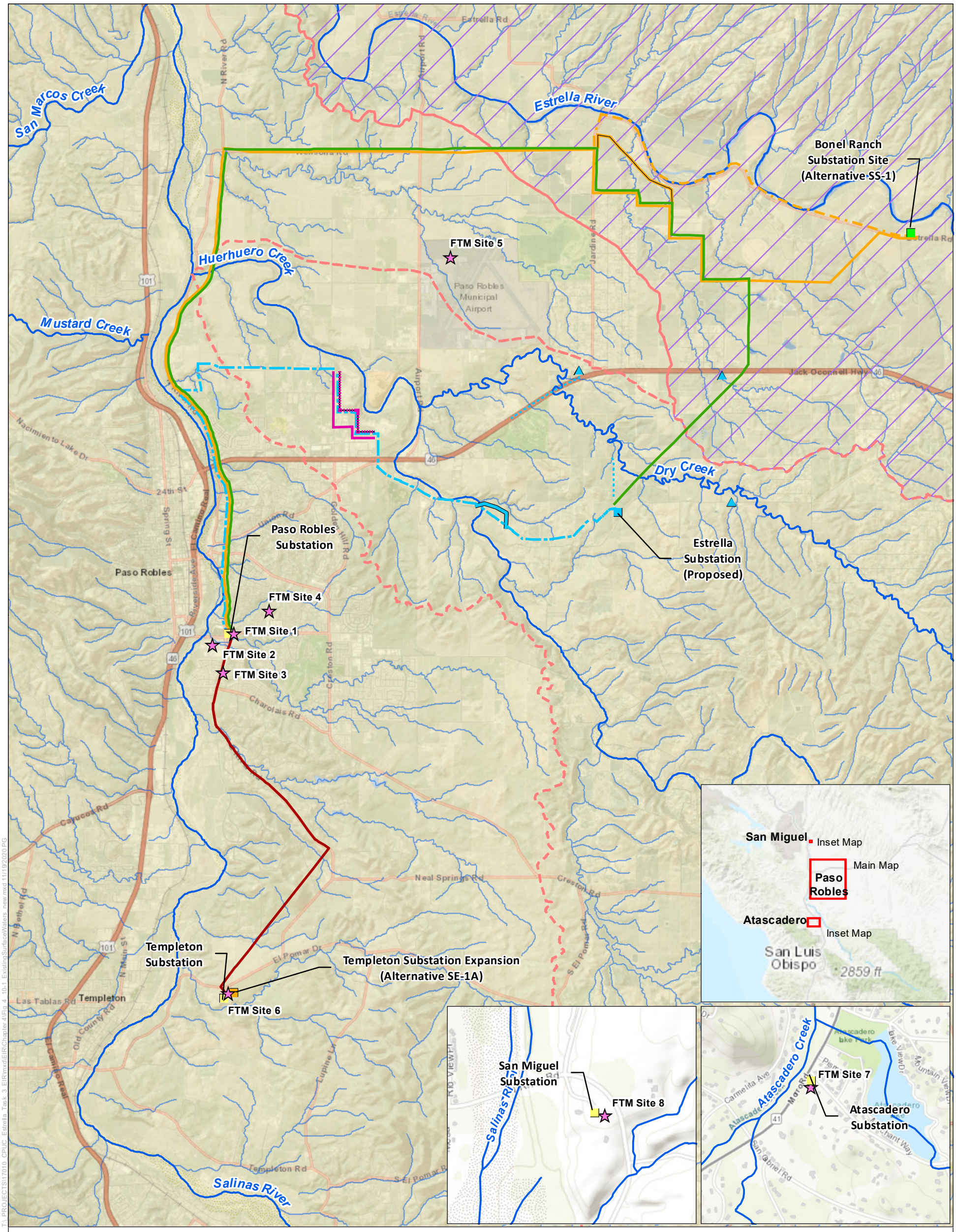
The Bonel Ranch Substation Site (Alternative SS-1) would not be located within the 100-year flood hazard zone for the Estrella River. Alternative PLR-1A would cross the flood hazard zone for Dry Creek, while portions of Alternative PLR-1C would be located within the 100-year flood hazard zone for the Estrella River (primarily Minor Route Variation 1). Both Alternatives PLR-1A and PLR-1C would also cross the 100-year flood hazard zones for Huer Huero Creek and Salinas River in places. Portions of Alternative SE-PLR-2 also would be located within the 100-year flood hazard zone for the Salinas River. Neither the Templeton Substation Expansion site (Alternative SE-1A), Strategic Undergrounding routes (Alternatives PLR-3A and PLR-3B) or any of the example

FTM battery storage sites would be located in a 100-year flood hazard zone. Example FTM Sites 1, 3, and 4 would be located in the 0.2 percent annual chance (500-year) flood hazard zone.

The Salinas Dam is located approximately 21 miles southeast of Santa Margarita in San Luis Obispo County. The dam can currently store up to 23,843 acre-feet of water. The failure of the Salinas Dam would flood an area of 1.07 square miles along Salinas River within the Paso Robles city limits. The depth of flooding due to the failure of this dam is unknown. There have been no recorded dam failures affecting Paso Robles (City of El Paso De Robles 2003).

Several small tsunami events have been recorded in San Luis Obispo County; however, previous studies have predicted a maximum tsunami wave "runup" of approximately 9.5 feet above sea level for a 100-year event (County of San Luis Obispo 1999). The Proposed Project, reasonably foreseeable distribution components, and alternatives are located at 650 to 1,000 feet above msl more than 15 miles away from the Pacific coastline and are not in a tsunami inundation zone (CDOC 2009). Similar to a tsunami, a seiche is a standing wave phenomenon that can occur in an enclosed or partially enclosed body of water such as a large lake or bay as a result of seismic activity or meteorological effects. The Proposed Project site is not located near a lake or reservoir and is not susceptible to seiche.

As described in Section 4.7, "Geology, Soils, Seismicity, and Paleontological Resources," the Proposed Project, reasonably foreseeable distribution components, and alternatives are located in areas of low to high landslide risk. Mudslides are generally triggered by heavy rainfall, high groundwater levels, or floods, and are generally caused by saturated and unstable soils as a result of heavy rains, droughts, or earthquakes. Mudslides most often occur in areas with steep slopes or at the bottom of slopes or canyons. Mountainous areas that have been altered to build homes and roads are often prone to mudslides. When human actions or natural events, such as wildfires, increase erosion in an area, mudslides can be a natural result.



Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Surface Water Features

- HUC 10 Watershed Boundary
- HUC 8 Subbasins Boundary
- Major Streams
- Drainages

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 4.10-1
Existing Surface Waters

Source: ESRI 2018, PG&E 2019, SCWA 2017, USGS NHD 2019

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and Paso Robles Area Reinforcement Project

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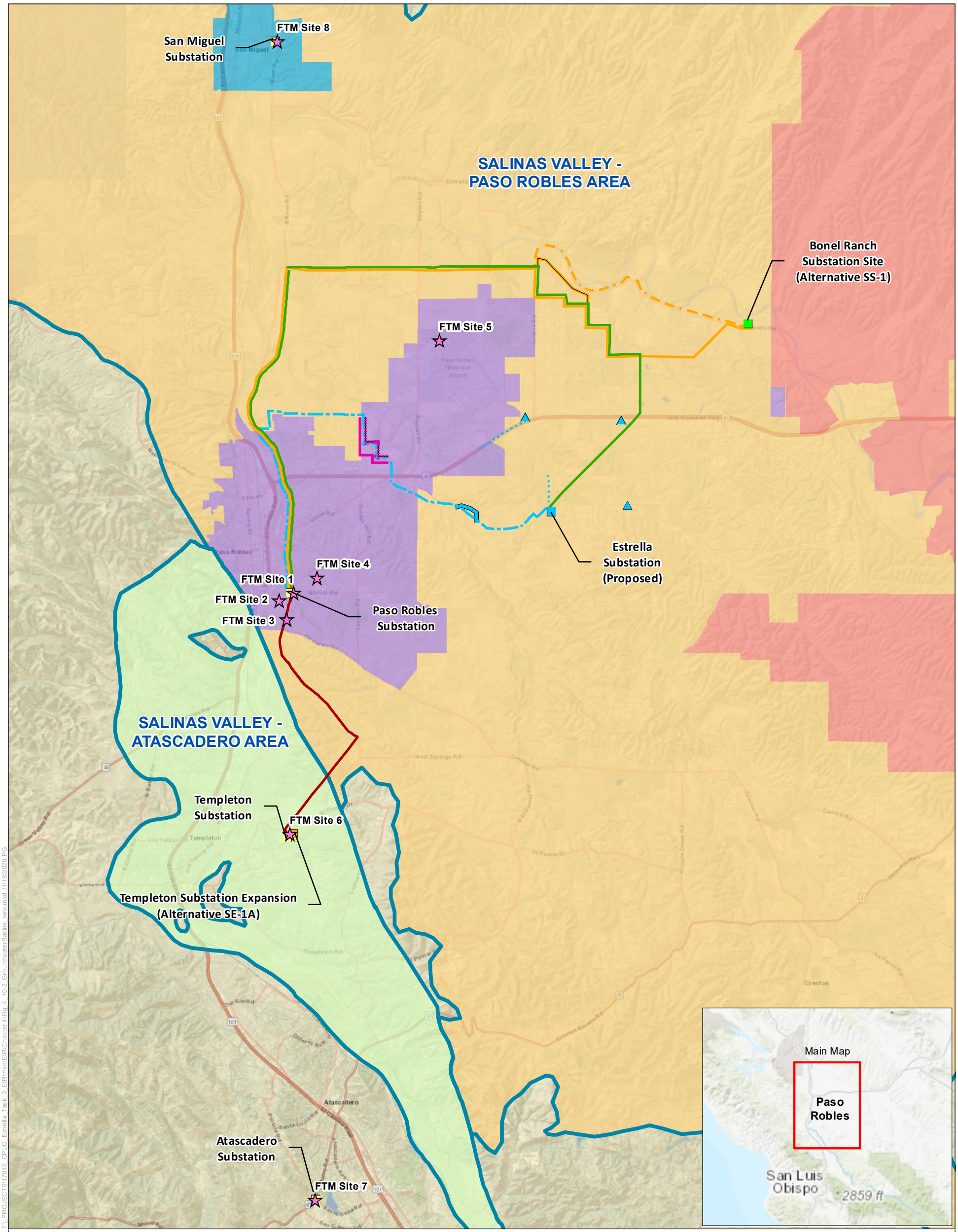

Figure 4.10-2
Groundwater Basins

Source: ESRI 2018, PG&E 2019, DWR 2019, SLO 2017

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and Paso Robles Area Reinforcement Project

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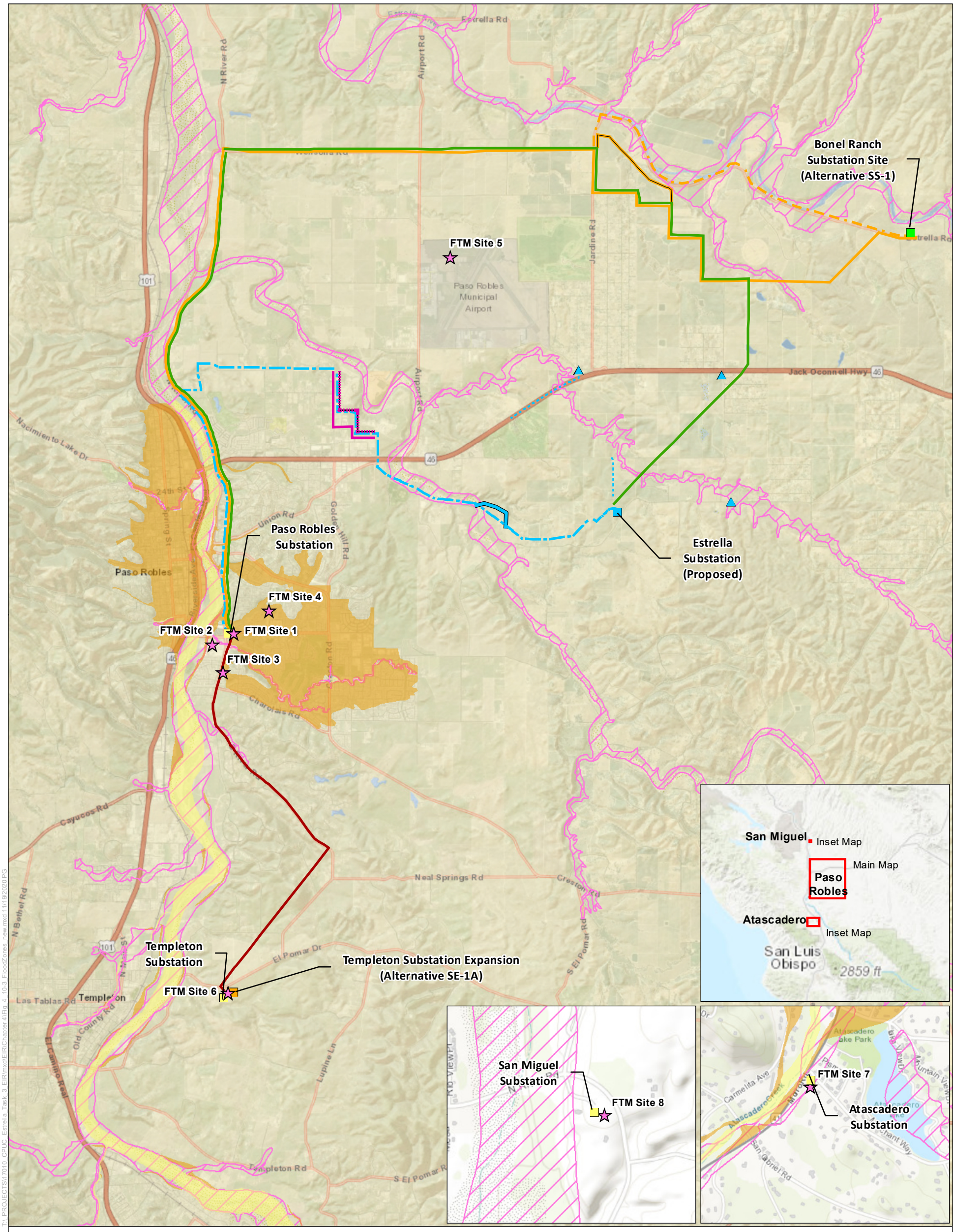

Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Flood Zone Features

- 0.2% Annual Chance Flood Hazard
- Regulatory Floodway
- 1% Annual Chance Flood Hazard

N

0 1 Miles

Source: ESRI 2018, PG&E 2019, FEMA 2012

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Horizon WATER and ENVIRONMENT

Figure 4.10-3
Flood Zones

Estrella Substation and
Paso Robles Area Reinforcement Project

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4.10.4 Impact Analysis

Methodology

Impacts related to hydrology and water quality were evaluated qualitatively by considering aspects of the Proposed Project, reasonably foreseeable distribution components, and alternatives as they relate to applicable CEQA Guidelines Appendix G significance criteria (identified below) and the existing regulatory and environmental settings.

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, and the alternatives would result in a significant impact on hydrology and water quality if they would:

A. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;

B. Substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

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 through the addition of impervious surfaces, in a manner which would:

   i. result in substantial erosion or siltation on- or off-site;

   ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

   iii. 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; or

   iv. impede or redirect flood flows.

D. Risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones.

E. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Environmental Impacts

Proposed Project

Impact HYD/WQ-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality – *Less than Significant*

Applicable water quality standards would include the beneficial uses identified for waters potentially affected by the Proposed Project (see Table 4.10-1). The Proposed Project would not constitute a point-source of pollution and would not be subject to individual WDRs; however, construction of the Proposed Project would be subject to the Construction General Permit (see further discussion below). The Proposed Project also would be subject to stormwater standards and requirements under the Phase II NPDES permits for the City of Paso Robles and County of San Luis Obispo.

Construction

Construction of the Estrella Substation and new and reconductored 70 kV power line segments would involve substantial grading and excavation, and use of construction equipment containing hazardous materials, such as fuel, oil, and grease. Without adequate preventative measures during construction of the Proposed Project elements, erosion of loosened soils or spills of hazardous materials could result in transport of such materials to waterbodies, resulting in adverse water quality impacts. Accidental releases of hazardous materials from construction equipment also could leach through the soil and into the groundwater below, thereby adversely affecting water quality and beneficial uses.

Because the Proposed Project would disturb greater than 1 acre of land, it would be subject to the Construction General Permit. As described in Section 4.10.2, this permit would require development of a SWPPP, which would include BMPs to prevent soil erosion and protect against discharge of sediment and other construction-related pollutants to surface waters. Typical BMPs for erosion and sedimentation control that may be implemented during Proposed Project construction would include scheduling or limiting activities to certain times of the year (i.e., during the dry season); installing sediment barriers (e.g., silt fence and fiber rolls) along the perimeter of the construction area; and implementing sediment-tracking controls, such as stabilizing entrances to the construction site. These BMPs would limit potential for precipitation to wash loose soils and dirt from off the construction site, physically capture and detain sediment that may attempt to wash off the site, and/or stabilize key areas of the construction site to prevent loose soils from being tracked off-site.

The SWPPP also would include good housekeeping measures to prevent spills of fuel and other hazardous materials in construction equipment and vehicles and to ensure proper storage and disposal of materials on the construction site. Implementation of the SWPPP would prevent the vast majority of potential water quality impacts during Proposed Project construction. In addition to the SWPPP, implementation of APM HAZ-1, which would include hazardous materials spill response measures, would further decrease potential for adverse water quality impacts during construction of the proposed substation and power line. As described in Chapter 2, *Project Description,* APM HAZ-1 would provide training to construction workers appropriate to the site worker's role in hazardous substance control and emergency response, including

protocols for stopping work at a location and contacting the County Fire Department Hazardous Materials Unit immediately if visual contamination or chemical odors are detected. Quick identification of hazardous materials spills by construction site workers and awareness of proper emergency response protocols would minimize the potential for construction-related hazardous materials spills to cause uncontrolled, substantial damage to surface or groundwater quality.

In general, the Proposed Project is designed to avoid direct impacts on surface water bodies in the area. As shown in Figure 2-7 (see Chapter 2, *Project Description*), pole locations for the new and reconductored power line segments would avoid mapped waters, and there are no existing drainages within the proposed substation footprint. Implementation of APM HYDRO-1 would further avoid sensitive aquatic features during final project design and final siting/establishment of temporary disturbance areas, including staging areas. APM HYDRO-1, among other things, would require that the Applicants (refer to Chapter 2 for full text of the APM):

- site permanent structures in uplands outside of existing drainage features;
- site staging areas, pole/tower work areas, pull sites, and other temporary staging/materials storage areas in uplands outside of existing drainage features/riparian areas, and
- select access roads and overland travel routes in uplands while avoiding other sensitive features (e.g., steep slopes, rare plant localities, and sensitive wildlife habitats).

Additionally, APM HYDRO-1 would require that sensitive aquatic features slated for avoidance be identified and marked for avoidance in the field (e.g., using flagging tape, fencing, and/or high-visibility signage) and that construction personnel be trained in feature avoidance marking and associated restrictions. Implementation of this APM would reduce potential for impacts on existing aquatic features.

Given compliance with the Construction General Permit and implementation of APMs HAZ-1 and HYDRO-1, construction of the Proposed Project would not violate or degrade any of the beneficial uses identified for waters in proximity to the Proposed Project areas. By complying with the Construction General Permit, construction of the Proposed Project also would not violate any applicable WDRs or otherwise substantially degrade surface or ground water quality. Therefore, this impact would be **less than significant**.

Operation

During operation, the Proposed Project could potentially degrade surface or groundwater quality from discharge of polluted stormwater, accidental releases of hazardous materials, or erosion-related impacts from use of access roads during operations and maintenance activities. The new Estrella Substation would create approximately 2 acres of new impervious surface (the new and reconductored 70 kV power line segments would create minimal isolated impervious surfaces associated with the pole foundations). Compared to the current ground cover at the substation site, this new surface would generate greater quantities of stormwater (i.e., less precipitation during storm events would infiltrate into the soil), some of which could be polluted. Hazardous materials, such as transformer oil, would be stored on the substation site, and routine maintenance activities at the substation could involve use of solvents and paints, which could adversely affect water quality if discharged from the site in stormwater.

As described in Chapter 2, *Project Description,* the new Estrella Substation would include stormwater and hazardous materials management features, which would minimize potential for discharges of contaminated stormwater or releases of hazardous materials. This would include a concrete skimmer and weir device for settling and collection of sediment washed down by stormwater at the 70 kV substation, as well as a secondary containment structure for the transformer oil stored at the 230 kV substation. Additionally, as noted under "Construction" above, the Applicants would implement APM HAZ-1, which would include worker training, proper hazardous materials storage and handling, and spill prevention and control procedures. The Applicants also would prepare an HMBP in accordance with the California Hazardous Waste Control Act (see Section 4.9, "Hazards and Hazardous Materials"), which would describe materials storage, management, and disposal protocols required during operation. Preparation and implementation of the HMBP would be subject to oversight and enforcement by the San Luis Obispo County Department of Environmental Health Services. Inclusion of the stormwater management and spill containment features in the substation design, as well as implementation of APM HAZ-1 and the HMBP, would minimize potential for adverse water quality effects from stormwater or hazardous materials releases.

Routine maintenance of the power line structures and conductors would require travel overland on access roads or off-road and may require use of helicopters to access the site. Travel over rough terrain and unpaved roads could result in erosion or disturbance of loose soils, which could result in sediment being transported to downstream water bodies in precipitation events. Routine maintenance activities for the power line segments also could involve use of hazardous materials, which could accidentally spill, resulting in water quality impacts. Implementation of APM HYDRO-1 would reduce potential for water quality impacts by selecting access roads and overland travel routes in uplands while avoiding other sensitive features (e.g., steep slopes, rare plant localities, and sensitive wildlife habitats). By utilizing access routes and travel routes in uplands and avoiding sensitive features, including aquatic features, this would reduce the potential for erosion and sedimentation to degrade downstream water bodies, potentially resulting in violations of water quality objectives supporting designated beneficial uses.

Additionally, implementation of APM HAZ-1 would minimize potential for accidental discharges of hazardous materials and reduce impacts should a spill occur (i.e., through a quick and effective spill cleanup response) during routine maintenance activities. As described under "Construction" above, APM HAZ-1 would provide training to workers appropriate to the site worker's role in hazardous substance control and emergency response, including protocols for stopping work at a location and contacting the County Fire Department Hazardous Materials Unit immediately if visual contamination or chemical odors are detected. This would apply to workers conducting operation and maintenance activities as well as site construction workers. Quick identification of hazardous materials spills by maintenance workers and awareness of proper emergency response protocols would minimize the potential for hazardous materials spills to cause uncontrolled, substantial damage to surface or groundwater quality.

Overall, with incorporation of stormwater management and spill containment design features and implementation of applicable APMs, operation of the substation and new and reconductored power line segments would not violate or degrade any designated beneficial uses for waters in proximity to the Proposed Project features. Given the substation's remote location (lack of connection to the municipal stormwater system) and inclusion of on-site

stormwater management features, it also would not violate requirements in the Phase II NPDES permit for San Luis Obispo County. Therefore, this impact would be **less than significant.**

Impact HYD/WQ- 2: Substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin – *Less than Significant*

Water required for Proposed Project construction may come from several sources, including a private well located adjacent to the western edge of the Estrella Substation site; a municipal water source, delivered by water trucks; or Lake Nacimiento, which is located northwest of Paso Robles. It is estimated that construction of the substation and 70 kV power line will require approximately 10.3 million gallons (roughly 32 acre-feet) of water, the majority of which would be used for dust control.

As described in Section 4.10.3, the estimated perennial yield of the Paso Robles Area Subbasin is approximately 97,700 afy, while annual groundwater pumping in this subbasin is roughly 88,150 afy. As such, in any given year, there is approximately 9,550 acre-feet of available water in the Paso Robles Area Subbasin (i.e., difference between estimated perennial yield and annual groundwater pumping) that can be obtained without overdrawing the basin. The estimated 32 acre-feet-plus needed for construction of the Proposed Project would be well within the perennial yield of the Paso Robles Subbasin taking into account other users. Thus, even if all of the construction water was obtained from groundwater, it would not substantially impact supplies or impede sustainable management of the basin.

Over the long term, the new impervious surface (approximately 2 acres) from the Estrella Substation would reduce groundwater recharge in the immediate area (the minor additional impervious surface from new power line pole foundations would have a negligible effect on groundwater recharge). Existing groundcover at the proposed substation site is pervious (vineyard row crops); therefore, rain falling on the site currently may infiltrate into soil down to the groundwater table below. Following development of the substation, rain falling on the site would not be able to infiltrate into the soil immediately, but instead may flow off the substation pad onto adjacent undeveloped surfaces. Once discharged from the substation site, however, captured stormwater would still have the opportunity to infiltrate into soil and groundwater, thereby minimizing potential impacts to groundwater recharge.

Overall, given the size of the new substation relative to the surrounding undeveloped area (the substation would occupy 15 acres of a ~~15~~20-acre site within a 98.6-acre agricultural parcel, which itself is located within a tract of hundreds of acres of agricultural land on the north side of Union Road), development of the Proposed Project would be unlikely to substantially affect recharge rates in the Paso Robles Subbasin. As described in Section 4.10.2, groundwater sustainability planning efforts are underway for the Paso Robles Area Subbasin and, while Groundwater Sustainability Plans (GSPs) are not yet completed, the Proposed Project components would not conflict with or obstruct sustainable management of the groundwater basin. As such, this impact would be **less than significant.**

Impact HYD/WQ-3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site – *Less than Significant*

Construction of the Proposed Project would involve ground clearing, excavation, and other ground-disturbing activities at the substation site and along the proposed 70 kV power line route and reconductoring segment. These activities would temporarily alter existing drainage patterns at these locations. During the construction period, open excavations may collect rainwater while loosened soil denuded of vegetation may increase rates of erosion. New access roads and temporary work areas and staging areas also may change the topography of existing sites (i.e., typically by flattening or reducing slope). Generally, existing topography of disturbed sites would be restored following completion of construction. As described in Chapter 2, all areas temporarily disturbed by the Proposed Project would be restored to the extent practicable, including returning areas to their original contours and drainage patterns (this would be accomplished through re-grading or other earthmoving processes).

As described in Impact HYD/WQ-1, the Proposed Project would be required to obtain coverage under the Construction General Permit, including implementing a SWPPP. The SWPPP would include construction BMPs for erosion prevention and to control site runoff (e.g., scheduling or limiting construction activities to the dry season, installing silt fence or fiber rolls around the perimeter of the construction area, and stabilizing construction site entrances), which would avoid or minimize potential impacts from erosion or siltation on- or off-site. The SWPPP BMPs would limit potential for precipitation to wash loose soils and dirt from off the construction site, physically capture and detain sediment that may wash off the site, and/or stabilize key areas of the construction site to prevent loose soils from being tracked off-site, thereby reducing potential for polluted construction stormwater runoff to migrate off-site. Therefore, this impact would be **less than significant.**

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite – *Less than Significant*

The new impervious surface from the Estrella Substation would increase the rate and amount of surface runoff in this immediate area, as precipitation falling on the site would no longer be able to infiltrate directly into the soil and would travel more quickly across the hard surface. As discussed under Impacts HYD/WQ-1 and HYD/WQ-2 above, the proposed substation would include stormwater management features, including a concrete skimmer and weir device for collecting sediment-laden stormwater. The velocity of stormwater generated on-site also would be controlled through manual operation of release valves and rock-lining at the outfall structures.

Flow calculations were conducted as part of the PEA for a 25-year storm event at the proposed substation. During such an event, it was estimated that rainfall of 1.6 inches per hour would result in a flow towards the drainage ditch along Union Road of approximately 9 cubic feet per second, resulting in a depth of flow of approximately 0.5 feet (NEET West and PG&E 2017). This would be below the ditch depth of 1 foot and would not result in flooding. Although not quantitatively modeled, if a 100-year storm event occurred at the site, it could potentially result in flooding along the drainage ditch; however, this flooding would be limited to Union Road and

would not reasonably threaten any homes or structures in the area. Additionally, with this level of precipitation, some flooding might occur even without the substation and the additional 2 acres of impervious surface that would be created through the Proposed Project. Due to the low probability of a precipitation event with greater than a 25-year frequency interval and the limited potential effects on structures or people from potential flooding along or adjacent to the substation site, this impact would not be significant. Overall, the new substation would not substantially affect existing drainage patterns such as to result in flooding on- or off-site. Therefore, this impact would be **less than significant.**

iii. 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 – *Less than Significant*

As described above, the new substation would generate increased volumes of stormwater runoff from the new impervious surfaces. This stormwater would be managed on-site and released through outfall structures towards the drainage ditch along Union Road. This drainage ditch is not part of a municipal stormwater collection system, and flow calculations conducted as part of the PEA found that stormwater from a 25-year storm event at the proposed substation would not exceed the capacity of the ditch such as to cause flooding. Although it is possible some flooding along the ditch could occur during a precipitation event with greater than a 25-year frequency interval, due to the low annual probability of such an event and the limited potential effects of such flooding on the surrounding area (no homes or other structures are located in harm's way and the ditch is not connected to a municipal stormwater system), this impact would not be significant. In accordance with the Construction General Permit Post-Construction Standards, the substation also would be designed to balance runoff flows with pre-project conditions.

Stormwater from the Estrella Substation would not include substantial additional sources of pollutants, as the substation would include a concrete weir and skimmer structure (a flow measurement device) to settle sediments. This device settles and collects sediment that is washed down by stormwater before it is discharged from the substation. Additionally, the substation would include a transformer oil secondary containment structure (a concrete basin-like structure with raised walls surrounding the transformer that would be capable of containing the volume of oil in the transformer plus the precipitation volume from a 25-year, 24-hour storm event), which would prevent any spilled transformer oil from being discharged off-site. As described in Impact HYD/WQ-1 above, the Applicants also would implement APM HAZ-1 requiring hazardous materials spill emergency response training for workers, as well as an HMBP outlining hazardous materials storage, management, and disposal protocols during operation. These components/measures would reduce potential for accidental releases of hazardous materials on the substation site and subsequent potential discharge of contaminated runoff.

In general, there are relatively few existing stormwater facilities along the 70 kV power line route and reconductoring segment. Where the power line does pass through areas that may have storm drains adjacent to new pole locations, implementation of BMPs in the SWPPP and APM HAZ-1 would minimize adverse effects on existing facilities from construction activities (e.g., BMPs would prevent discharge of polluted runoff from pole installation sites). The final power line structures would include minimal areas of new impervious surfaces and would not

substantially increase stormwater discharges at pole locations. As such, this impact would be **less than significant.**

iv. Impede or redirect flood flows – *Less than Significant*

As shown in Figure 4.10-3, the proposed Estrella Substation is not located within a 100-year flood hazard zone; therefore, the site would not be expected to experience significant flooding and the proposed above-ground structures associated with the substation would not impede or redirect flood flows. The proposed 70 kV power line alignment would cross Huer Huero Creek, including the area designated by FEMA as a special flood hazard zone. However, given their limited diameter and surface area, power line poles, even if inundated, would not substantially impede or redirect flood flows. As a result, this impact would be **less than significant.**

Impact HYD/WQ-4: Risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones – *Less than Significant*

As noted under Impact HYD/WQ-3, subsection iv above, the proposed Estrella Substation would not be located in an area subject to flooding, as identified on FEMA's flood hazard zone mapping. The substation site is also not within an area potentially subject to tsunami or seiche hazards. The substation would include a transformer oil secondary containment structure that would be sized to capture the volume of the transformer oil plus the precipitation from a 25-year storm. Additionally, the Applicants would manage hazardous materials and other pollutants (e.g., sediment) through implementation of a SWPPP, APM HAZ-1, and the HMBP, such that even if the substation were to experience minor flooding, it would be unlikely to release significant amounts of pollutants. The new and reconductored 70 kV power line alignments cross over or come close to mapped areas of flood hazard in several places; however, even if inundated, the power line poles would not include any pollutant materials that could be released during a flood event.

During construction, none of the staging areas would be located within a flood hazard zone or tsunami or seiche zone. Some temporary work areas may occur within mapped 100-year flood hazard zones (e.g., pole work areas). If such a flood event occurred during the construction period at one of these sites, it could result in a release of pollutants (e.g., hazardous materials storage areas on the construction site could be inundated, thereby resulting in failure of the containment systems); however, given the low probability of a 100-year event occurring in any given year and the temporary nature of the construction activities, this is a very unlikely occurrence and is therefore considered less than significant. Overall, this impact would be **less than significant.**

Impact HYD/WQ-5: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan – *Less than Significant*

As described under Impact HYD/WQ-1 above, the Proposed Project would implement a SWPPP and APMs HYDRO-1 and HAZ-1, which would minimize potential discharges of pollutants to surface water or groundwater during construction. These measures would prevent substantial impacts to beneficial uses in surface waters near the Proposed Project and would ensure that construction of the Proposed Project would not conflict with or obstruct implementation of the Basin Plan. Construction of the Proposed Project also would not be expected to conflict with the GSPs for the Paso Robles Subbasin (currently in preparation), as the amount of water needed for

construction, even if sourced entirely from groundwater, would not exceed (or contribute to an exceedance of) the perennial yield for the subbasin.

Over the longer term, the Proposed Project could increase the volume and velocity of runoff from the proposed substation site from the addition of 2 acres of new impervious surface for the Estrella Substation. This additional source of stormwater from a new industrial facility could increase the potential for discharge of polluted runoff, which could potentially violate water quality objectives or impair beneficial uses. However, as described in the preceding impact discussions, the Estrella Substation would include stormwater management features (e.g., sediment detention pond) and the Applicants would implement hazardous materials management measures (APM HAZ-1, HMBP), which would minimize potential for adverse effects. The new impervious surface from the Estrella Substation also would not substantially interfere with groundwater recharge in the area such as to conflict with a sustainable groundwater management plan. As a result, this impact would be **less than significant**.

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

The reasonably foreseeable new distribution lines, reconductoring of existing distribution lines, and installation of three new 21/12 kV pad-mounted transformers would have relatively minimal potential to substantially adversely affect hydrology and water quality compared to the Proposed Project components. Similarly, facilities for ultimate substation buildout, including the 230/70 kV transformer and secondary containment structure, 230 kV interconnection, and/or additional 70/21 kV transformers would have relatively minimal potential to substantially adversely affect hydrology and water quality compared to the Proposed Project components. Note that the routes for any additional distribution feeders and/or 70 kV power lines that could be established through ultimate substation buildout are not known, and thus the impacts associated with these facilities are speculative and are not evaluated in this EIR. In general, construction activities associated with the reasonably foreseeable distribution and ultimate substation buildout components would be minor in scale compared to the Proposed Project. As shown in Figure 4.10-1, the northern new distribution line segment would cross Dry Creek, as well as an unnamed drainage, although the new distribution line would be installed within the median of SR 46 and would not directly impact these waters. As shown in Figure 2-18, the equipment and facilities associated with ultimate substation buildout would primarily be placed within the fence line of the already-constructed Estrella Substation. Ground disturbance would be limited to that required for equipment foundations and substation wiring.

The Applicants would implement APM HYDRO-1 for the reasonably foreseeable distribution and ultimate substation buildout components, which would limit potential for construction work areas to be sited on or near any sensitive water features or for access routes to be used that could impact water features. The Applicants also would implement APM HAZ-1, which would provide hazardous materials spill response training to construction workers, thereby reducing potential for a substantial, uncontrolled release of hazardous materials into waters during construction. Given that the reasonably foreseeable distribution components would not disturb a total of one acre of land, their construction would not be subject to the Construction General Permit and preparation of a SWPPP. Therefore, **Mitigation Measure HYD/WQ-1** would require implementation of construction BMPs for erosion control in instances where construction activities are not covered under the Construction General Permit. With implementation of APMs

and Mitigation Measure HYD/WQ-1, impacts under significance criteria A and C (subsection i) would be **less than significant with mitigation.**

The reasonably foreseeable distribution components and ultimate substation buildout facilities would have minimal impervious surface areas/footprints and therefore would not substantially interfere with groundwater recharge; result in the addition of substantial volumes of polluted stormwater, or otherwise substantially impede sustainable groundwater management or affect surface or groundwater quality. Once constructed, neither the reasonably foreseeable distribution components nor the ultimate substation buildout components would consume water. Although construction water demands have not been estimated, they would not be particularly substantial (certainly far less than what is required to construct the Proposed Project) and would not substantially affect groundwater supplies even if entirely sourced from groundwater. Therefore, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

While the northern new distribution line segment would cross the mapped flood hazard zone for Dry Creek, this distribution line segment would be installed within the SR 46 median, which passes over Dry Creek via a culvert/bridge. Therefore, there would be minimal risk for the distribution work areas to be inundated during construction activities, such as to result in a release of pollutants. Additionally, once constructed, the new distribution line poles would have minimal surface area and would not substantially impede or redirect flood flows. Because ultimate substation buildout components would be primarily constructed within the already-built Estrella Substation site, they would not be within a mapped flood zone, and would not affect movement of flood flows. None of the other reasonably foreseeable new distribution line segments or pad-mounted transformers would be located in a flood hazard zone. Therefore, impacts under significance criteria C (subsection iv) and D would be **less than significant.**

Mitigation Measure HYD/WQ-1: Implement Construction Best Management Practices for Erosion Control.

For ground-disturbing construction activities that do not require coverage under the Construction General Permit (e.g., total ground disturbance associated with that action does not exceed 1 acre), HWT, PG&E, and/or their contractors shall implement the following measures during construction of the alternative components, or shall implement alternative measures that are equally or more effective:

- Implement practices to reduce erosion of exposed soil and stockpiles, including watering for dust control, establishing perimeter silt fences, and/or placing fiber rolls.
- Minimize soil disturbance areas.
- Implement practices to maintain water quality, including silt fences, stabilized construction entrances, and storm-drain inlet protection.
- Where feasible, limit construction to dry periods.
- Revegetate disturbed areas.

Alternatives

No Project Alternative

Under the No Project Alternative, no impacts to hydrology and water quality would occur. No new substation or new and reconductored 70 kV power line would be constructed; therefore, there would be no potential for violation of water quality standards, discharges of polluted runoff, conflicts with sustainable groundwater management, or any other impacts to surface water or groundwater. As such, **no impact** would occur under any of the significance criteria.

Alternative SS-1: Bonel Ranch Substation Site

Alternative SS-1 would have similar potential for impacts to hydrology and water quality as the proposed Estrella Substation. Like the Proposed Project, this alternative would comply with the Construction General Permit and implement a SWPPP, along with APMs HAZ-1 and HYDRO-1, which would reduce potential impacts. The Bonel Ranch Substation Site would be located close (approximately 200 feet) to the Estrella River, so there would be increased potential for impacts to this water body; however, implementation of the SWPPP and APMs HAZ-1 and HYDRO-1 (see Impact HYD/WQ-1 for detailed discussion of these measures) would ensure that substantial quantities of pollutants (e.g., sediment, hazardous materials) are not discharged from the construction site to the adjacent Estrella River such as to potentially violate water quality standards. As such, impacts under significance criteria A and C (subsection i) would be **less than significant.**

The substation located at the Bonel Ranch site would include roughly the same features and same amount of impervious surface as the Estrella Substation (2 acres), and would have similar potential for discharge of polluted runoff during construction and operation. Construction of the substation at the Alternative SS-1 site also would use the same water sources and require the same amount of water as the proposed Estrella Substation. As discussed in Impact HYD/WQ-2 and HYD/WQ-3, the addition of the substation site with 2 acres of impervious surface would reduce groundwater recharge on the immediate site relative to baseline conditions; however, once water is discharged from the site it would still have an opportunity to percolate into the soil. Additionally, the inclusion of stormwater management features (same as the Proposed Project) would minimize potential for discharge of pollutants from the substation site via runoff. As the Alternative SS-1 site is located in a rural area of San Luis Obispo County, the substation would not discharge stormwater to a municipal system and thus would have no potential to exceed the capacity of such a system or contribute additional sources of polluted runoff to a planned or existing municipal stormwater system. As a result, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

The Alternative SS-1 site is not located within a flood hazard zone, nor is it within a tsunami or seiche zone. As such, there would be no potential for the alternative to substantially impede or redirect flood flows or risk release of pollutants due to project inundation during construction or operation. Therefore, **no impact** would occur under significance criteria C (subsection iv) and D.

Alternative PLR-1A: Estrella Route to Estrella Substation

Due to its longer length (6.5 miles longer) and longer duration of construction (16 months longer), Alternative PLR-1A would have greater potential for construction-related impacts to hydrology and water quality (e.g., erosion and sedimentation, discharge of polluted runoff)

compared to the Proposed Project. Like the Proposed Project, however, this alternative would implement a SWPPP in compliance with the Construction General Permit as well as APMs HAZ-1 and HYDRO-1. For the reasons described in Impact HYD/WQ-1, implementation of these measures would reduce potential for the alternative to violate water quality standards, otherwise substantially degrade surface or groundwater quality, or result in substantial erosion or siltation on- or off-site. Therefore, impacts under significance criteria A and C (subsection i) would be **less than significant.**

Similar to the Proposed Project's 70 kV power line, the new poles associated with Alternative PLR-1A would result in minimal new impervious surface area. Therefore, these new power line structures would not substantially affect existing runoff patterns or interfere substantially with groundwater recharge. Construction of Alternative PLR-1A would use the same water sources, but require a greater amount of water (2.8 million gallons) compared to the Proposed Project's 70 kV power line (2 million gallons). As discussed under Impact HYD/WQ-2, this water use, even if sourced entirely from groundwater, would not substantially affect groundwater supplies sustainability. Alternative PLR-1A would use minimal water during operation. Therefore, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

As shown in Figure 4.10-3, the Alternative PLR-1A alignment would cross the mapped flood hazard zones for Huer Huero Creek and Dry Creek and poles could be placed within the 100-year flood zone. Due to their relatively small diameter and surface area, these new power poles would not substantially impede or redirect flood flows. While a 100-year flood event could occur during the construction period for Alternative PLR-1A, potentially resulting in a release of pollutants that might be used in pole temporary work areas within the flood zone; due to the temporary nature of the Alternative PLR-1A construction activities and low probability of such a flood event in any given year, this risk would be less than significant. As a result, impacts under significance criteria C (subsection iv) and D would be **less than significant**.

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Alternative PLR-1C would be similar in length to Alternative PLR-1A and would require a similarly extended construction duration compared to the Proposed Project. As such, this alternative would have similar potential for increased construction-related hydrology and water quality impacts compared to the Proposed Project as Alternative PLR-1A (see above) (note: if selected, Alternative PLR-1C, Minor Route Variation 1 would be constructed along the Estrella River, which could further increase potential for off-site movement of pollutants to waterbodies). However, Alternative PLR-1C would implement a SWPPP in compliance with the Construction General Permit and APMs HAZ-1 and HYDRO-1, which would minimize potential for substantial off-site discharge of pollutants (e.g., sediment, hazardous materials) to water bodies. As such, impacts under significance criteria A and C (subsection i) would be **less than significant.**

The new poles associated with Alternative PLR-1C would result in minimal new impervious surface area. Therefore, these new power line structures would not substantially affect existing runoff patterns or interfere substantially with groundwater recharge. Construction of Alternative PLR-1C would use the same water sources, but require a greater amount of water (2.7 million gallons) compared to the Proposed Project's 70 kV power line. As discussed under Impact HYD/WQ-2, this water use, even if sourced entirely from groundwater, would not substantially affect groundwater sustainability. Like the Proposed Project, Alternative PLR-1A

would use minimal water during operation. Therefore, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

Alternative PLR-1C would cross mapped flood hazard zones in several places; in particular, much of the length of Alternative PLR-1C, Minor Route Variation 1 is within the 100-year flood zone for Estrella River. As discussed above, due to their relatively small diameter and surface area, the new power line poles for Alternative PLR-1C would not substantially impede or redirect flood flows if a 100-year event were to occur in the areas where the poles would be located. While it is possible that a 100-year flood event could occur during construction of the portion of Alternative PLR-1C within the mapped flood zone, which could potentially result in a release of pollutants (e.g., fuel or oil used at temporary work areas), this occurrence is very unlikely. Therefore, impacts under significance criteria C (subsection iv) and D would be **less than significant.**

Alternative PLR-3: Strategic Undergrounding (Both Options)

Construction of Alternative PLR-3 (both options) would have potential to adversely affect hydrology and water quality without adequately protective measures. Trenching along the length of the undergrounding alignments would loosen soils and involve use of hazardous materials (e.g., fuel and oil in construction equipment), which would create potential for off-site movement of pollutants to waterbodies or discharges into soil and groundwater. Like the Proposed Project, however, implementation of the SWPPP and APM HAZ-1 would prevent the vast majority of potential water quality impacts during construction, including minimizing erosion, sedimentation, and potential for accidental release of hazardous materials (see Impact HYD/WQ-1 for detailed discussion). Implementation of APM HYDRO-1 also would minimize potential for Alternative PLR-3 components to permanently impact any of the drainage features identified along Golden Hill Road, although construction of Alternative PLR-3 could result in temporary impacts to these features. As such, impacts under significance criteria A and C (subsection i) would be **less than significant.**

Once installed, the majority of the length of the new underground power line would not create any new impervious surface area. The transition stations at either end of the underground power line alignment would create a small amount of new impervious surface area (150-foot by 150-foot area for each transition station). Given the limited size of the new impervious surface areas, these new facilities would not substantially interfere with groundwater recharge or substantially increase surface water runoff. Construction of Alternative PLR-3 would use the same water sources, but require a greater amount of water (1,702,600 gallons) compared to the same section of the Proposed Project (2,000,000 gallons for the entire 70 kV power line). Nevertheless, this water use, even if sourced entirely from groundwater, would not substantially affect groundwater sustainability (see Impact HYD/WQ-2 for detailed discussion). Like the Proposed Project, Alternative PLR-3 would use minimal water during operation. Therefore, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

The Alternative PLR-3 alignments (Option 1 & 2) would not cross any mapped flood hazard zones. As a result, the new aboveground features (transition stations) associated with Alternative PLR-3 would not impede or redirect flood. Likewise, the Alternative PLR-3 construction work areas would not reasonably be subject to flooding such as to potentially

result in a release of pollutants. Therefore, **no impact** would occur under significance criteria C (subsection iv) and D**.**

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

The proposed new 230/70 kV substation that would be constructed adjacent to the existing Templeton Substation site under Alternative SE-1A would have similar potential hydrology and water quality impacts as the proposed Estrella Substation. Like the Proposed Project, Alternative SE-1A would require implementation of a SWPPP in compliance with the Construction General Permit and APMs HAZ-1 and HYDRO-1, which would minimize potential adverse effects such as erosion, releases of hazardous materials, generation of polluted runoff, and direct impacts on sensitive aquatic features (see Impact HYD/WQ-1 for detailed discussion). The Alternative SE-1A site is not located in immediate proximity to any named waterbodies, although there is an unnamed drainage to the south of the site that ultimately drains to the Salinas River. With implementation of the measures noted above, construction and operation of Alternative SE-1A would not cause substantial erosion and would not violate water quality objectives or otherwise substantially degrade surface water or groundwater quality. Therefore, impacts under significance criteria A and C (subsection i) would be **less than significant.**

The substation under Alternative SE-1A would include similar facilities and the same amount of new impervious surface area as the Estrella Substation (2 acres). Construction of the substation at the Alternative SE-1A site also would use the same water sources and require the same amount of water as the proposed Estrella Substation. As discussed in Impact HYD/WQ-2 and HYD/WQ-3, the addition of the substation site with 2 acres of impervious surface would reduce groundwater recharge on the immediate site relative to baseline conditions; however, once water is discharged from the site it would still have an opportunity to percolate into the soil and groundwater. Additionally, the inclusion of stormwater management features (same as the Proposed Project) would minimize potential for discharge of pollutants from the substation site via runoff. As the Alternative SE-1A site is located in a rural area of San Luis Obispo County, the substation would not discharge stormwater to a municipal system and thus would have no potential to exceed the capacity of such a system or contribute additional sources of polluted runoff to a planned or existing municipal stormwater system. As a result, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

The Alternative SE-1A site is not located within a flood hazard zone, nor is it within a tsunami or seiche zone. As such, there would be no potential for the alternative to substantially impede or redirect flood flows or risk release of pollutants due to project inundation during construction or operation. Therefore, **no impact** would occur under significance criteria C (subsection iv) and D.

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Alternative SE-PLR-2 would involve similar construction processes as the Proposed Project new 70 kV power line, although the new power line for this alternative would be shorter (5.2 miles) and the 3-mile-long reconductoring segment would not be needed; as a result, the construction schedule for Alternative SE-PLR-2 would be 9 months shorter than the Proposed Project. This reduced construction activity could result in less overall construction-related impacts to hydrology and water quality; however, the alternative route passes through hilly and undeveloped areas, which would increase potential for erosion and water quality impacts due to

the need to construct poles on slopes in some locations. Like the Proposed Project, this alternative would comply with the Construction General Permit, which will require preparation and implementation of a SWPPP, and the Applicants would also implement APMs HAZ-1 and HYDRO-1. As described in Impact HYD/WQ-1, these measures would reduce potential for the alternative to violate water quality standards, otherwise substantially degrade surface or groundwater quality, or result in substantial erosion or siltation on- or off-site to a level that is less than significant. Therefore, impacts under significance criteria A and C (subsection i) would be **less than significant.**

The new poles associated with Alternative SE-PLR-2 would result in minimal new impervious surface area. Therefore, these new power line structures would not substantially affect existing runoff patterns or interfere substantially with groundwater recharge. The construction water demand for Alternative SE-PLR-2 (715,000 gallons), even if sourced entirely from groundwater, would not substantially affect groundwater sustainability (see discussion under Impact HYD/WQ-2). Alternative SE-PLR-2 would use minimal water during operation. Therefore, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

As shown in Figure 4.10-3, small portions of the Alternative SE-PLR-2 alignment would be within the mapped 100-year flood zone. However, even if inundated, due to their relatively thin profile and mass, the power line poles would not significantly affect the movement of flood flows. Additionally, the power poles would not contain hazardous materials that could be released during an inundation event such as to affect water quality. While a 100-year flood event could occur during the construction period for Alternative SE-PLR-2, potentially resulting in a release of pollutants that might be used in pole temporary work areas within the flood zone; due to the temporary nature of the Alternative SE-PLR-2 construction activities and low probability of such a flood event in any given year, this risk would be less than significant. As a result, impacts under significance criteria C (subsection iv) and D would be **less than significant**.

Alternative BS-2: Battery Storage to Address the Distribution Objective

Installation of FTM storage facilities at the illustrative sites identified in Chapter 3, *Alternatives Description,* would have potential for adverse effects to hydrology and water quality. Grading and earth-moving activities could loosen soils and allow for off-site movement of sediments, while improper use of hazardous materials during construction could result in leaks and accidental discharges to soil and waterbodies. Further, because FTM facilities under Alternative BS-2 may not individually or collectively exceed 1 acre (the size of the facilities would ultimately depend on future load growth), their construction may not require coverage under the Construction General Permit or preparation and implementation of a SWPPP. It is assumed, however, that all applicable federal, state, and local laws would be followed during BESS construction.

None of the illustrative FTM storage sites include mapped water features or occur in close proximity to waters that could be impacted during construction or operation. Additionally, development of individual FTM storage facilities at the potential FTM sites would add impervious area in the respective site locations (based on the ultimate size of individual facilities to be determined in the future). The precise amount of new impervious surface area associated with the FTM BESSs under Alternative BS-2 is not known at this time. Example FTM Sites 1-4 are located in developed areas within the City of Paso Robles and runoff from these sites would

likely be discharged to the municipal stormwater collection system. By contrast, example FTM Sites 5-8 are located in relatively rural areas and stormwater discharges would not be collected by the municipal system whose capacity could be exceeded. While the construction water use for FTM BESSs under Alternative BS-2 is not precisely known, it is unlikely that construction of these facilities would require more water than the Proposed Project (10.3 million gallons). As discussed in Impact HYD/WQ-2, even if sourced entirely from groundwater, this amount of water use would not substantially affect groundwater supplies in the area or groundwater sustainability.

Several of the potential FTM sites (1, 3, and 4) are within the 0.2 percent annual chance flood hazard area, but none of the FTM sites are within the 1 percent annual chance (100-year) flood zone (see Figure 4.10-3). While BESSs could potentially be damaged by floodwaters, they would not include uncontained pollutants that would be released during a flood event. As described in previous impact discussions, while a 500-year flood event could occur during the construction period for BESSs at FTM Site 1, 3, and 4, potentially resulting the release of pollutants that be used or stored on these sites; the probability for such an event to occur in any given year would be very low due to the temporary nature of the construction activities. The mapped 500-year flood hazard zone covers much of Paso Robles and thus such an event would affect much of the city.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third-Party, Behind-the-Meter Battery Solar and Battery Storage

The specific locations of development sites under Alternative BS-3 are unknown. As described in Chapter 3, *Alternatives Description,* individual BTM solar and storage facilities would likely be installed on or within existing buildings. In these situations, installation of BTM facilities would have little to no potential to impact hydrology and water quality. In situations where a commercial, industrial, or residential property owner were to install new BTM solar and/or BESS facilities on previously undeveloped portions of their property, this could increase potential for erosion and discharge of pollutants. Since individual BTM facilities are unlikely to exceed 1 acre in size, they would not be subject to the Construction General Permit. Furthermore, any third-party DER provider selected via the DIDF would be required to follow all local design, siting, and permitting requirements.

Development of most individual BTM solar and storage facilities would not add any impervious area above baseline conditions. Solar systems installed on the roofs of commercial, industrial, and residential buildings would not change ground surface runoff patterns, while BESSs installed within buildings would not affect runoff patterns or groundwater recharge. Even BTM solar systems and BESSs that could potentially be installed on undeveloped portions of existing properties would not be expected to substantially affect groundwater recharge or stormwater runoff due to their relatively small individual size (assumed to be no larger than 0.25 acre for this analysis). These facilities would also be integrated within the existing developed landscape for the most part, and thus would not substantially change groundwater recharge or surface water runoff conditions.

It is possible that some individual BTM solar systems or BESSs could be installed in areas within the mapped 100-year flood hazard zone; however, given that these facilities would primarily be installed on or within existing buildings, they would not substantially change existing conditions with respect to impeding or redirecting flood flows. BTM facilities also generally would not include uncontained pollutants/hazardous materials that could be released during a flood event.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

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