

3.11 WATER RESOURCES

This section addresses the potential environmental impacts of the proposed Program related to water resources, including drinking water supply, water quality, surface water runoff, drainage patterns, groundwater impacts, and flooding risk. The existing surface water and groundwater hydrologic conditions in the county are characterized, and a summary is provided of relevant laws and regulations as they apply to the proposed Program.

3.11.1 PHYSICAL SETTING

San Luis Obispo County is located within the southern portion of Coast Ranges Geomorphic Province (Coast Ranges), which encompass northwest-trending mountain ranges and valleys that are roughly parallel to the Great Central Valley and the Sierra Nevada range. The county is divided into three broad physiographic regions: a coastal plain, coastal mountains and valleys, and interior mountains and valleys. The county is bordered by the Temblor Range to the east and the Sierra Madre Mountains to the south. The Carrizo Plain is located in the southwestern portion of the county. California is divided into ten hydrologic regions. San Luis Obispo County is located in the Central Coast Hydrologic Region. It is subject to the objectives and limits of the Central Coast Regional Water Quality Control Board's (2011) Water Quality Control Plan for the Central Coastal Basin (Basin Plan).

Climate in the county varies with distance from the coast but is generally temperate, with mild winters and hot, dry summers. Average annual precipitation ranges from 9.85 inches (Shandon) to 32.85 inches (San Simeon), with the majority of precipitation occurring between October and April (SLO County 2014a).

Hydrologic regions are subdivided into hydrologic units (HU). The county includes ten hydrologic units, but is largely covered by only five of those: the Carrizo Plain HU, the Estero Bay HU, the Estrella River HU, the Salinas HU, and the Santa Maria HU. Hundreds of streams and creeks flow throughout the county, of which 186 are named. Major streams, from north to south, include Nacimiento River, Salinas River, San Luis Obispo Creek, Arroyo Grande Creek, Cuyama River, and Santa Maria River.

There are 24 groundwater basins in San Luis Obispo County, six of which extend into adjoining counties. About half of the groundwater basins in the county are small and found along the coast. Major groundwater basins, containing a substantial amount of water, include Carrizo Plain, Cuyama Valley, Salinas Valley, and Santa Maria. The largest groundwater basin both in physical size and storage is the Paso Robles Area Subbasin of the Salinas Valley Groundwater Basin (see **Figure 3.11-1**). The County Master Water Report (MWR) (SLOFCWCD 2012) divided the county into three subregions—North Coast, South Coast, and Inland—and further subdivided these regions into Water Planning Areas, or WPAs. The WPAs represent the geographical organization of the county. Water demand, agricultural water needs, sources of supply, and other information are organized by WPA. The Master Water Report identified 16 WPAs organized in a way intended to recognize important hydrogeologic units or water management areas throughout the county.

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**TABLE 3.11-1
SAN LUIS OBISPO GROUNDWATER BASINS**

Subregion	WPA	Basin Name	Subbasin/Area	
North Coast	1	San Carpofoero Valley Basin		
		Arroyo de la Cruz Valley Basin		
		Pico Creek Valley Basin		
	2	San Simeon Valley Basin		
		Santa Rosa Valley Basin		
		Villa Valley Basin		
	3	Cayucos Valley Basin		
		Old Valley Basin		
		Toro Valley Basin		
	4	Morro Valley Basin		
		Chorro Valley Basin		
5	Los Osos Valley Basin			
South Coast	6	San Luis Obispo Valley Basin	San Luis Valley Subbasin	
			Avila Valley Subbasin	
	7		Edna Valley Subbasin	
			Pismo Creek Valley Subbasin	
			Arroyo Grande Valley Subbasin	
			Nipomo Valley Subbasin	
			Northern Cities Management Area	
			Nipomo Mesa Management Area	
			Santa Maria Valley Management Area	
	8		Huasna Valley Basin	
9	Cuyama Valley Basin			
Inland	10	Carrizo Plain Basin		
	11	Rafael Valley Basin		
		Big Spring Area Basin		
	12	Santa Margarita Valley Basin		
		Rinconada Valley Basin		
		Pozo Valley Basin		
	13	Paso Robles Basin		Atascadero Subbasin
	14			Paso Robles (main basin area)
15	Cholame Valley Basin			
16	(none)	Nacimiento		

WATER QUALITY

The Central Coast Regional Water Quality Control Board (RWQCB) defines beneficial uses for many of the surface water and groundwater resources in the county. Water quality can be stated in terms of whether there is water of sufficient quantity or quality to protect or enhance beneficial uses. These beneficial uses are protected or enhanced through water quality objectives, which are “achieved primarily through the establishment of waste discharge requirements and through implementation of [the] water quality control plan” (Central Coast RWQCB 2011). Tables 2-1 and 2-2 in the Basin Plan list the beneficial uses for surface water in the county. Each beneficial use is accompanied by a water quality objective as defined in the Basin Plan. In addition to water quality objectives, the Basin Plan defines total maximum daily load (TMDL) requirements to protect water quality from non-point source pollution.

Water Quality in Surface Water

Surface waters in San Luis Obispo County are affected by point and non-point sources of pollution. Major potential sources of pollution include sewage treatment plants, septic systems, agricultural livestock operations, mining, farming, oil and gas production, and urban stormwater runoff. Water quality issues for surface water include fecal coliform, boron, low dissolved oxygen, nitrates, pathogens, metals, and nutrients, such as nitrogen and phosphorus. Under Section 303(d) of the Clean Water Act, states must list waterbodies that exceed the established TMDL for a given contaminant. These waterbodies must be listed as impaired. In San Luis Obispo County, the following waterbodies have been identified as impaired: Atascadero Creek, Cholame Creek, Chorro Creek, Chumash Creek, Dairy Creek, Los Osos Creek, Morro Bay, Nacimiento Reservoir, Nipomo Creek, Oso Flaco Creek, Pennington Creek, the Upper Salinas River, San Bernardo Creek, San Luis Obispo Creek, San Luisito Creek, the Santa Maria River, and Walters Creek (SLOFCWCD 2011) (see **Figure 3.11-2**).

Water Quality in Groundwater

Water quality issues related to groundwater in the inland areas of the county include mineral leaching, high nitrate levels found in wells in the Morro Bay, Los Osos, Cuyama Community Services District, and Arroyo Grande Valley regions, high selenium levels found in wells in the Oceano Community Services District, and high total dissolved solids (TDS) found in wells in the Atascadero, Carrizo, and Santa Maria Valley regions. In addition, wells in the Nipomo area are being treated for high concentrations of iron and manganese (SLOFCWCD 2011).

Water Supply

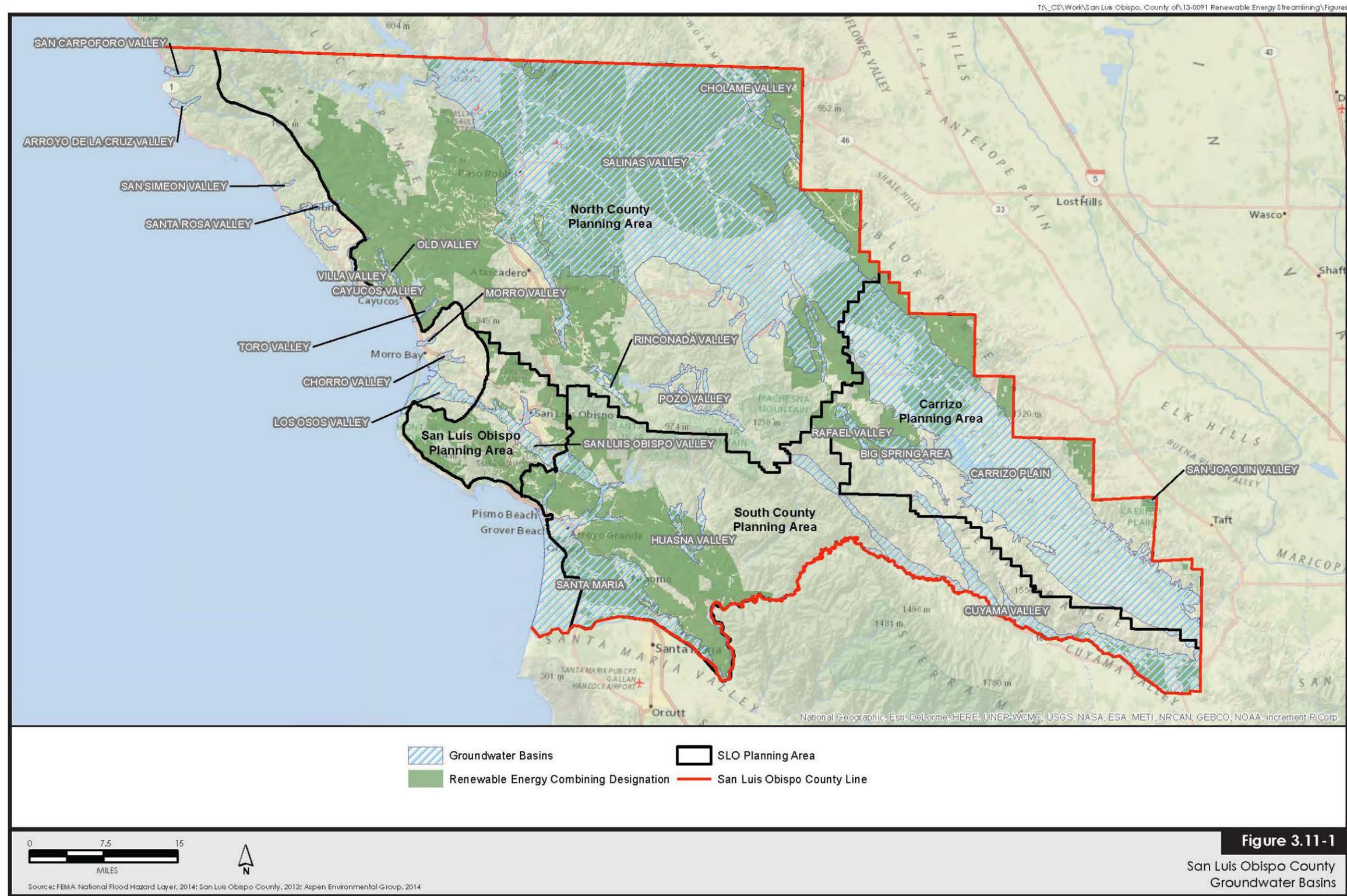
Groundwater supplies approximately 60 percent of water demand within the county, while surface water supplies the remaining 40 percent (SLO County 2007a). In San Luis Obispo County, drinking water sources include rivers, lakes, streams, reservoirs, and wells. The California Department of Water Resources (DWR) owns and operates the State Water Project (SWP). In 1963, the San Luis Obispo County Flood Control and Water Conservation District contracted with the DWR for 25,000 acre-feet per year (AFY) of SWP water. The SWP began delivering water to the Central Coast in 1997 upon completion of the Coastal Branch conveyance and treatment facilities, serving Santa Barbara and San Luis Obispo counties. The SWP is considered a supplementary source of water supply since hydrologic variability, maintenance schedules, and repair requirements can cause reduced deliveries or complete shutdown of the delivery system. Since delivery to the Central Coast began, the SWP has provided between 50 and 100 percent of the contracted allocations, but recently drought coupled with pumping restrictions in

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consideration of endangered species habitat lowered that amount to 35 percent in 2008 and 40 percent in 2009 (SLOFCWCD 2012).

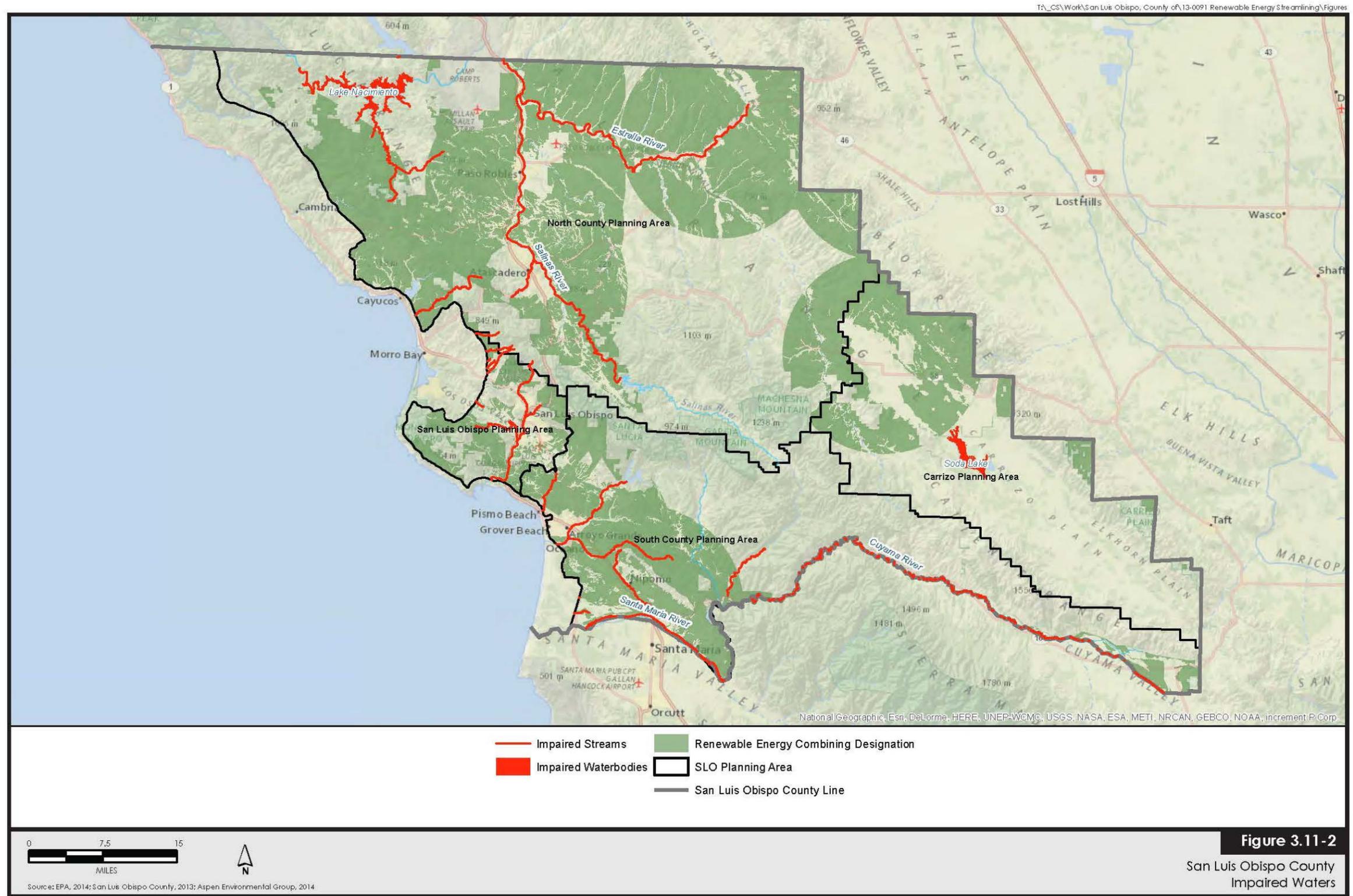
Surface Water

Reservoirs that collect surface water supply approximately 40 percent of the water demand in San Luis Obispo County (SLO County 2007a). The Nacimiento Water Project, which includes Lake Nacimiento Reservoir, supplies 9,655 AFY to the City of Paso Robles, the Templeton Community Services District, the City of San Luis Obispo, the Atascadero Mutual Water Company, and County Service Area (CSA) 10 A. The Whale Rock Reservoir supplies 40,660 AFY to the City of San Luis Obispo, California Polytechnic State University, SLO (Cal Poly), and the California Men's Colony. Lopez Lake and Reservoir supply 4,530 AFY to the City of Pismo Beach, the Oceano Community Services District, the City of Grover Beach, the City of Arroyo Grande, and CSA 12. Twitchell Reservoir supplies approximately 32,000 AFY of recharge to the Santa Maria Valley Groundwater Basin. The reservoir is managed for flood control and groundwater recharge. In addition, the San Luis Obispo County Flood Control and Water Conservation District contracted with the California Department of Water Resources for 25,000 AFY of water supply from the State Water Project (SLOFCWCD 2011). As previously noted, the SWP has provided between 50 and 100 percent of the contracted allocations, but recently drought coupled with pumping restrictions in consideration of endangered species habitat lowered that amount to 35 percent in 2008 and 40 percent in 2009 (SLOFCWCD 2012).



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Groundwater

Groundwater supplies 60 percent of water demand in San Luis Obispo County (SLO County 2007a). The County Resource Management System (RMS), an informational document, provides a biennial assessment of the county's natural and man-made resources, including an assessment on the main groundwater basins and water delivery systems. This public document helps decision-makers make more informed decisions about resource and infrastructure issues. The RMS uses three alert levels regarding water availability, called Level of Severity (LOS):

- LOS I – The first alert level occurs when sufficient lead time exists either to expand the capacity of the resource or to decrease the rate at which the resource is being depleted. For water supply, LOS I occurs when the water demand over the next nine years equals or exceeds the estimated dependable supply.
- LOS II – The second alert level occurs at the point at which some moderation of the rate of resource use must occur to prevent exceeding the resource capacity. For water supply, LOS II occurs when projected water demand over the next seven years equals or exceeds the estimated dependable supply.
- LOS III – The third alert level occurs when the demand for the resource equals or exceeds its supply and is the most critical level of concern. For water supply, LOS III occurs when projected water demand equals or exceeds the estimated dependable supply.

Per the 2012 biennial report, water supply was found sufficient to meet demand in most of the areas evaluated. The RMS Resources Summary Report makes a distinction between “recommended” levels of severity and levels of severity that have been “certified” by the County Board of Supervisors. The Board of Supervisors has certified a LOS III alert level for the Paso Robles Groundwater Basin, the Nipomo Mesa Water Conservation Area, and the Los Osos Groundwater Basin. In addition, the following groundwater basins, Community Services Districts (CSDs), or County Service Areas have a recommended LOS II or III: Santa Margarita Groundwater (LOS III), Cambria CSD (LOS III), CSA 10A (LOS II), Garden Farms County Water District (LOS II), San Miguel CSD (LOS II), San Simeon CSD (LOS III), CSA 23 (LOS III), and Templeton CSD (LOS II) (SLO County 2013b).

Community Water Service Providers

Community Service Districts are citizen-elected governmental agencies with administrative and fiscal independence, charged to provide specific services such as hospitals, sewerage, water, and fire protection. There are nine such CSDs in San Luis Obispo County (a total of 37 private mutual water purveyors are active today in the county). **Table 3.11-2** presents the forecast demand and available supply of CSDs in the county.

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**TABLE 3.11-2
COMMUNITY SERVICE DISTRICTS: FORECAST DEMAND
AND AVAILABLE SUPPLY IN ACRE-FEET PER YEAR (AFY)**

Community Service District	Forecast Demand at County Buildout	Available Supply
Avila Beach CSD	162–170 AFY	134 AFY
Cambria CSD	1,009–1,514 AFY	1,748 AFY
Heritage Ranch CSD	935–1,039 AFY	1,100 AFY
Los Osos CSD	835–1,044 AFY	1,110 AFY
Nipomo CSD	2,948 AFY	2,698 AFY
Oceano CSD	1,277–1,419 AFY	1,598 AFY
San Miguel CSD	466–582 AFY	235 AFY
San Simeon CSD	250 AFY	140 AFY
Templeton CSD	2,034–2,260 AFY	1,932 AFY

Source: SLOFCWCD 2012

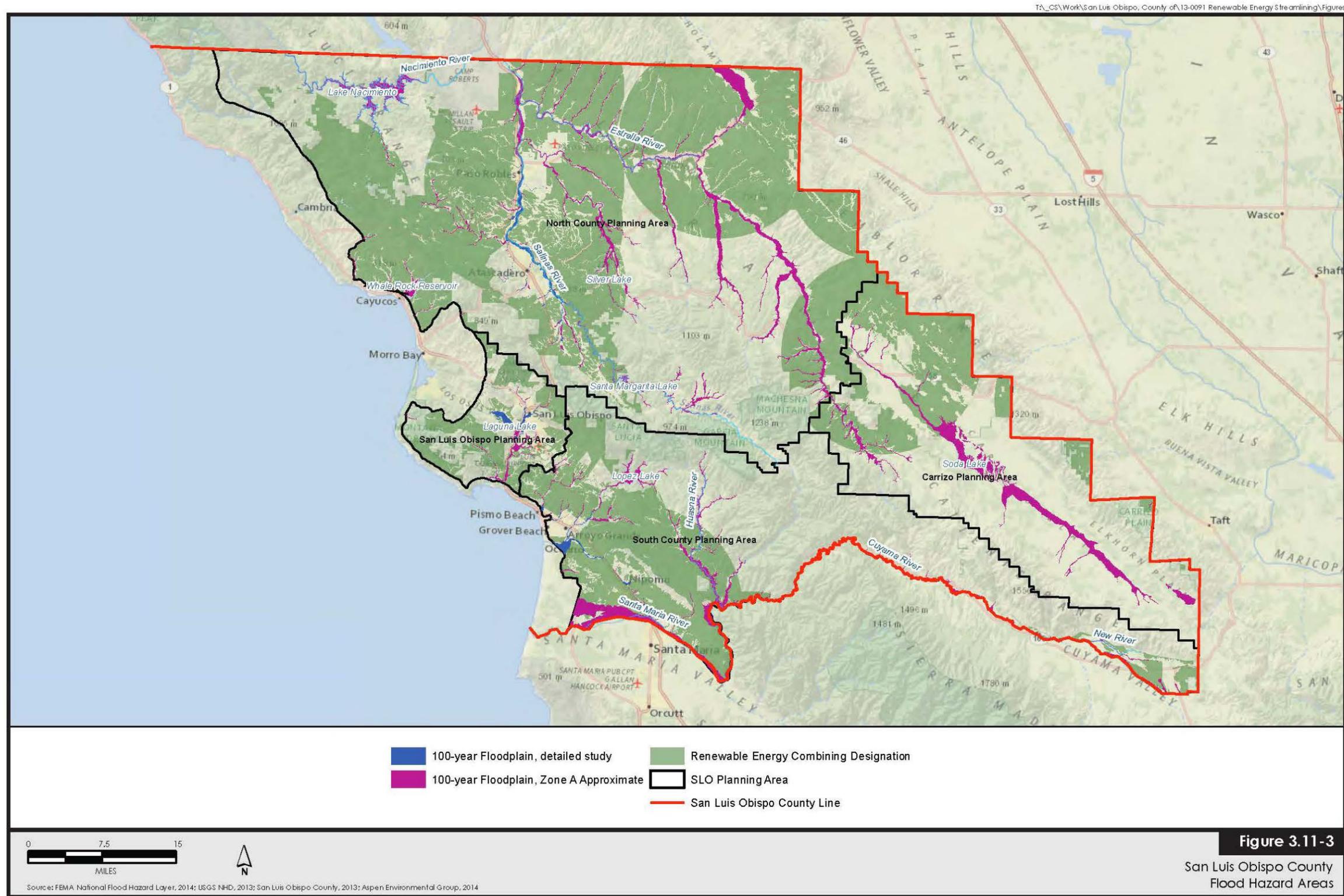
Flood Hazards

In August 2008, the Federal Emergency Management Agency (FEMA) released Flood Insurance Rate Maps (FIRM) for San Luis Obispo County. FEMA Flood Hazard Zones are depicted on **Figure 3.11-3**. Flood Hazard Zones are located primarily along the northern coastal regions of the county, around Morro Bay and Pismo Beach, in the Cholame Valley, in the Shandon Valley, near Arroyo Grande, and in the vicinity of Soda Lake in the Carrizo Plain (SLO County 2014b).

Stormwater Discharge

Pollutants found in stormwater include sediments, nutrients, pathogens, petroleum, hydrocarbons, heavy metals, pesticides, herbicides, and trash. These pollutants can have damaging effects on both human health and aquatic ecosystems. Impervious surfaces prevent infiltration of stormwater. Urbanized portions of the county have a higher concentration of these surfaces, in addition to having a higher concentration of land uses that increase the presence of household and industrial chemicals, vehicles, and commercial products, all of which result in an increase in pollutants to receiving waters.

The US Environmental Protection Agency (EPA) and the State Water Resources Control Board (SWRCB) require stormwater management plans (SWMPs) and stormwater pollution prevention plans (SWPPPs) to comply with the National Pollutant Discharge Elimination System (NPDES). Dischargers whose projects disturb 1 or more acres of soil, or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a SWPPP.



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CARRIZO PLANNING AREA

Water Quality

As previously stated, the County Master Water Report (MWR) (SLOFCWCD 2012) divided the county into three subregions—North Coast, South Coast, and Inland—and further subdivided these regions into Water Planning Areas, or WPAs. The WPAs represent the geographical organization of the county. Water demand, agricultural water needs, sources of supply, and other information are organized by WPA. The Master Water Report identified 16 WPAs organized in a way intended to recognize important hydrogeologic units or water management areas throughout the county. Water quality testing in WPA10, which is contained in the Carrizo Planning Area, reveals high total dissolved solids (TDS) and high concentrations of nitrates in some wells. With treatment, groundwater is usable for drinking purposes (SLOFCWCD 2011).

Water Supply

The planning area has no surface water sources of water supply. The main surface water feature in the area is Soda Lake, a closed depression, alkaline lake. The primary groundwater supplies in the Carrizo Planning Area include the Carrizo Plain and the Rafael and Big Spring Valley groundwater basins. There are no CSDs in the planning area.

Flood Hazards

In August 2008, FEMA released Flood Insurance Rate Maps (FIRM) for San Luis Obispo County. FEMA Flood Hazard Zones are depicted on **Figure 3.11-3**. Within the Carrizo Planning Area, Flood Hazard Zones are located primarily in the Carrizo Plain area in the vicinity of Soda Lake (SLO County 2014b).

Stormwater Discharge

Phase I and Phase II of the NPDES program regulate the water quality of stormwater discharge. No communities in the Carrizo Planning Area are subject to NPDES Phase I or II requirements. The planning area also has no stormwater discharge facilities.

NORTH COUNTY PLANNING AREA

The North County Planning Area includes the following WPAs: WPA 3 Cayucos, WPA 12 Santa Margarita, WPA 13 Atascadero/Templeton, WPA 14 Salinas/Estrella, WPA 15 Cholame, and WPA 16 Nacimiento. The incorporated cities in this planning area are the cities of Atascadero and Paso Robles. In addition to these municipal consumptive uses, agriculture and rural users account for the remaining water demand profile in this planning area (SLOFCWCD 2012).

Water Quality

In WPA 12 Santa Margarita, TDS concentrations are relatively high. Total coliform and fecal coliform levels in shallow and deep aquifer wells suggest possible impacts from local wastewater disposal systems. However, these tests are not conclusive (SLOFCWCD 2011).

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Water Supply

WPA 16 Nacimiento receives surface water from Lake Nacimiento (SLOFCWCD 2012). The primary groundwater supplies include the Santa Margarita, Rinconada, and Pozo Valley groundwater basins and the Santa Margarita Creek Alluvial Aquifer, the Paso Robles Formation, the Atascadero Subbasin, and the Cholame Valley groundwater basin. The County Board of Supervisors has certified LOS III status for the Paso Robles Groundwater Basin due to the high levels of drawdown that have occurred in this basin (SLO County 2013b). Heritage Ranch CSD is located in WPA 16 Nacimiento, San Miguel CSD is located in WPA 14 Salinas Estrella, and Templeton CSD is located in WPA 13 Atascadero/Templeton (SLOFCWCD 2012).

Flood Hazards

FEMA Flood Hazard Zones are depicted on **Figure 3.11-3**. Flood Hazard Zones are located primarily in the Cholame Valley and Shandon Valley areas (SLO County 2014b).

Stormwater Discharge

Under Phase 1 of the NPDES program, the cities of Paso Robles and Atascadero maintain stormwater discharge facilities. Under NPDES Phase II, the unincorporated areas in the Atascadero/Paso Robles region are required to maintain stormwater discharge facilities.

SAN LUIS OBISPO PLANNING AREA

The San Luis Obispo Planning Area includes WPA 6 San Luis Obispo/Avila. The city of San Luis Obispo is the main population center in this planning area. In addition to municipal consumptive uses, the remaining water demand profile consists of Cal Poly, agriculture, and rural water users (SLOFCWCD 2012).

Water Quality

Surface water and groundwater quality in the San Luis Obispo Planning Area is found to meet acceptable standards for drinking water (SLOFCWCD 2011).

Water Supply

The primary surface water sources for the planning area include the State Water Project, Whale Rock Reservoir, the Salinas Reservoir, the Lopez Lake Reservoir, and the Nacimiento Water Project (SLOFCWCD 2012).

The primary groundwater supplies in this basin include the San Luis Obispo Valley basin, Los Osos Valley basin, Chorro Valley basin, San Luis Valley subbasin, and Avilla Valley subbasin. These basins encompass an area of approximately 13,800 acres. The safe yield of both groundwater basins is approximately 6,000 AFY (SLOFCWCD 2012). The Avila Beach Community Services District is located in the San Luis Obispo Planning Area (SLOFCWCD 2012).

Flood Hazards

FEMA Flood Hazard Zones are depicted on **Figure 3.11-3**. Flood Hazard Zones are located primarily in the Los Osos Valley (SLO County 2014b).

Stormwater Discharge

Under Phase 1 of the NPDES program, the City of San Luis Obispo maintains a stormwater discharge facility. Under Phase II, the urban fringe of San Luis Obispo is required to maintain stormwater discharge facilities.

SOUTH COUNTY PLANNING AREA

The South County Planning Area includes WPA 7 South Coast, WPA 8 Huasna Valley, and WPA 9 Cuyama Valley. The main population center in this planning area is Arroyo Grande. In addition to municipal consumptive uses, the remaining water demand profile consists of agriculture and rural users (SLOFCWCD 2012).

Water Quality

Two wells in WPA 7 South Coast are being treated for high levels of iron and manganese. In WPA 9 Cuyama Valley, due to heavy agricultural water use, water from shallow wells has high nitrate concentrations, and some wells contain arsenic at relatively high levels, approaching the maximum contaminant level of 50 parts per billion (ppb) (SLOFCWCD 2011).

Water Supply

The primary sources of surface water include the State Water Project and Lopez Lake Reservoir. A potential water supply project is the Nipomo Supplemental Water Project to be administered by the Nipomo CSD. There are no other CSDs controlling water supply systems in the South County Planning Area.

The primary groundwater supplies in the planning area include the Edna, Pismo Creek, and Arroyo Grande Valley subbasins, the Santa Maria Valley Groundwater Basin, the Pismo Formation, the Huasna Valley Groundwater Basin, and the Cuyama Valley Groundwater Basin, which extends into adjacent counties (SLOFCWCD 2012).

Flood Hazards

FEMA Flood Hazard Zones are depicted on **Figure 3.11-3**. Flood Hazard Zones are located primarily in the Huasna Valley along the Santa Maria River, Arroyo Grande Valley, Pismo Creek, and Cuyama Valley (SLO County 2014b).

Stormwater Discharge

Under Phase II of the NPDES program, the community of Nipomo is required to maintain a stormwater discharge facility.

3.11.2 REGULATORY SETTING

FEDERAL

Clean Water Act

The Clean Water Act (CWA) (33 USC Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical,

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physical, and biological integrity of the waters of the United States. The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and has given the Environmental Protection Agency (EPA) the authority to implement pollution control programs. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine Regional Water Quality Control Boards (RWQCBs). San Luis Obispo County is within the jurisdiction of the Central Coast RWQCB.

Section 401 of the CWA requires that any activity, including river or stream crossing during road, pipeline, or transmission line construction, which may result in discharges into a state waterbody must be certified by the RWQCB. This certification ensures that the proposed activity does not violate state and/or federal water quality standards. The limits of non-tidal waters extend to the ordinary high water line, defined as the line on the shore established by the fluctuation of water and indicated by physical characteristics, such as natural line impressed on the bank, changes in the character of the soil, and presence of debris. The US Army Corps of Engineers (USACE) may issue either individual, site-specific permits or general, nationwide permits for discharge into waters of the United States.

Section 404 of the Clean Water Act establishes programs to regulate the discharge of dredged and fill material in waters of the United States, including wetlands. When an application for a Section 404 permit is made, the applicant must show it has taken steps to avoid impacts to wetlands or waters of the United States where practicable, minimized unavoidable impacts on waters of the United States and wetlands, and provided mitigation for unavoidable impacts.

CWA Section 404 requires a permit for construction activities involving the placement of dredged any kind of or fill material into waters of the United States or wetlands. A Water Quality Certification pursuant to CWA Section 401 is required for most Section 404 permit actions. If applicable, construction would also require a request for Water Quality Certification (or waiver thereof) from the Central Coast RWQCB.

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

National Flood Insurance Program

San Luis Obispo County is a participant in the National Flood Insurance Program (NFIP), a federal program administered by FEMA. Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted, as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year.

STATE

Porter-Cologne Water Quality Control Act

The State Water Resources Control Board regulates water quality through the Porter-Cologne Water Quality Act of 1969, which contains a complete framework for the regulation of waste discharges to both surface waters and groundwater of the state. On the regional level, the proposed Program falls under the jurisdiction of the Central Coast Regional Water Quality Control Board, which is responsible for the implementation of state and federal water quality protection statutes, regulations, and guidelines. The Central Coast RWQCB (2011) has developed a Water Quality Control Plan (Basin Plan) to show how the quality of the surface waters and groundwater in the region should be managed to provide the highest water quality reasonably possible. The Basin Plan lists the various beneficial uses of water in the region, describes the water quality that must be maintained to allow those uses, describes the programs, projects, and other actions that are necessary to achieve the standards established in this plan, and summarizes plans and policies to protect water quality.

California Fish and Game Code

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

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

During final engineering and design of any project associated with the proposed Renewable Energy Streamlining Program (RESP or Program), if it is determined that any project-related actions would have the potential to necessitate a Streambed Alteration Agreement, such an agreement would be prepared and implemented prior to construction of the proposed Program, thus maintaining compliance with Section 1602 of the California Fish and Game Code. A Streambed Alteration Agreement is required if the CDFW determines the activity could substantially adversely affect an existing fish and wildlife resource. The agreement includes measures to protect fish and wildlife resources while conducting the project. The CDFW must comply with the California Environmental Quality Act (CEQA) before it may issue a final Lake or Streambed Alteration Agreement; therefore, the CDFW must wait for the lead agency to fully comply with CEQA before it may sign the draft Lake or Streambed Alteration Agreement, thereby making it final.

California Water Code Section 13260

California Water Code Section 13260 requires that any person discharging waste, or proposing to discharge waste, in any region that could affect the quality of the waters of the State, other than into a community sewer system, submit a report of waste discharge to the applicable Regional Water Quality Control Board. Any actions related to the proposed Program that would

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be applicable to California Water Code Section 13260 would be reported to the Central Coast RWQCB.

LOCAL

San Luis Obispo County Land Use Ordinance – Title 22

The County's Land Use Ordinance (LUO) provides standards to protect water quality and site new development away from hazards. Standards are provided in multiple sections of the LUO, as described below.

LUO – Flood Hazard (FH) Combining Designation

Section 22.14.060 identifies the County's Flood Hazard Area (FH) Combining Designation. The combining designation's purpose is to address areas with a potential for 100-year frequency floods or to minimize the effects of new development on drainage ways and watercourses. Areas within the FH Combining Designation are subject to additional permit and processing requirements. Applications must include Federal Insurance Administration flood data. Construction standards for the FH Combining Designation seek to minimize risks through location and design measures.

LUO – Grading and Drainage Standards

Chapter 22.52 establishes the County's grading and drainage requirements. This chapter seeks to reduce the effects of stormwater runoff and encourage groundwater recharge. Projects subject to the chapter must include groundwater recharge elements and comply with the County's Low Impact Development Handbook standards.

Generally, grading permits are required for projects moving more than 50 cubic yards of earthwork, activity within a watercourse that involves the movement of more than 20 cubic yards, or removal of more than 1 acre of vegetation. Drainage plans are also required for projects that increase runoff volume or velocity or with specified conditions.

LUO – Planning and Community Area Standards

Articles 8 and 9 of Title 22 provide standards for specific communities and sub-areas related to water and drainage. Drainage standards apply to designated areas near bluffs. Additional setbacks from waterways or riparian areas also apply to specified land use designations and areas. In the Paso Robles Groundwater Basin, Community Planning Area standards (Article 9) identify that all discretionary permits are to include offset requirements for new water demand.

San Luis Obispo County Integrated Regional Water Management Plan

The County's (2007c) San Luis Obispo Integrated Regional Water Management Plan (IRWMP) integrates all of the programs, plans, and projects that relate to the region's water supply, water quality, ecosystem preservation and restoration, groundwater monitoring and management, and flood management. For example, by integrating groundwater recharge and ecosystem preservation and restoration with flood control and stormwater management projects, the impacts of urbanization stemming from paving of natural landscapes can be minimized or even reversed. At the time of EIR preparation, the County is preparing an update to the IRWMP.

San Luis Obispo County Master Water Report

The purpose of the Master Water Report (MWR) is to summarize current and future water resource management activities in the county (SLOFCWCD 2012). The MWR includes information on water sources, groundwater basin levels, and water users. It summarizes information from the numerous local and subregional water management studies and reports. Recommendations in the MWR identify the San Luis Obispo Flood Control and Water Conservation District's plan to improve water supply to meet existing and future demands.

County of San Luis Obispo Stormwater Management Program

The County's (2007b) Stormwater Management Program is a comprehensive program developed and administered by the Engineering Division as a requirement of Phase II of the NPDES program. The program comprises various elements and activities designed to reduce stormwater pollution to the maximum extent practicable (MEP) and to eliminate prohibited non-stormwater discharges in accordance with federal and state laws and regulations.

San Luis Obispo County General Plan – Land Use and Circulation Element

The Land Use and Circulation Element (LUCE) policies address land use and transportation, including the protection of water resources. LUCE policies facilitate the protection of natural resources such as watersheds, water supply, and riparian areas.

San Luis Obispo County General Plan – Conservation and Open Space Element

The Conservation and Open Space Element (COSE) provides a comprehensive water policy for the unincorporated county. Specifically, the element's Water Resource chapter integrates the County's IRWMP with the water supply and land use planning issues of the General Plan. Policies seek to conserve water, protect water quality and supply, protect groundwater for agriculture, and limit the water use of new development.

San Luis Obispo County General Plan – Agriculture Element

The Agriculture Element recognizes the importance of water resources for the county's agricultural industry. This element includes policies that protect water for agricultural use.

San Luis Obispo County General Plan – Land Use and Circulation Element and Resource Management System

The Land Use and Circulation Element establishes the County's Resource Management System (RMS). The RMS serves as an information tool for the LUCE to monitor five resources including water. The purpose of the RMS is to provide information that guides decisions for balancing land development with natural resources.

The RMS identifies when resources achieve levels of severity established in the Land Use and Circulation Element. Three levels of severity are used to identify levels of resource deficiencies. Once a resource has achieved a level of severity, corrective actions are triggered to address resource capacity and enact conservation measures. Once every two years, County staff prepares a Resource Management System Biennial Summary to monitor resource levels. Action requirements triggered by the levels of severity are only enacted upon certification by the County Board of Supervisors. Policies in the LUCE and COSE reference levels of severity to guide

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decision-making. Once the Board has certified groundwater and water supply levels of severity, policies impose new limitations on development.

Summary of Local Regulations and Policies

Table 3.11-3 summarizes regulations and policies from the documents described above that address water and hydrology, including General Plan elements, the Land Use Ordinance, and other regulations. Information is organized by planning area.

**TABLE 3.11-3
LOCAL POLICIES AND REGULATIONS FOR WATER AND HYDROLOGY ISSUES**

Code or Policy Section	Summary
Countywide	
Title 22, Chapter 22.52	Grading permit is required for all projects moving more than 50 cubic yards of earthwork, work in a watercourse, or removal of more than 1 acre of vegetation. Agricultural accessory structures are exempt. Permit application must include a stormwater pollution prevention plan, sedimentation plan, and grading plan that demonstrates grading will not accelerate erosion or sedimentation. Standards in Section 22.52.150 include limitations on grading near watercourses, drainage standards, and flood-proofing measures.
Title 22, Section 22.14.060	Applications for projects within the Flood Hazard Area (FH) must provide Federal Insurance Administration flood data and comply with additional construction standards to minimize flood risk.
Title 22, Section 22.52.040	Low Impact Development (LID) handbook requirements are imposed on all construction and grading projects.
Title 22, Section 22.52.110	Drainage plan is required for projects increasing or decreasing runoff, involving land disturbance of more than 20,000 square feet, resulting in impervious surface of more than 20,000 square feet, located within a Flood Hazard (FH) Combining Designation, located within 100 feet of any watercourse in USGS maps, involves development on slopes steeper than 10%, or is subject to other pond or drainage conditions.
Title 22, Section 22.52.120	Erosion and sedimentation plans are required for construction and grading projects proposed within 100 feet of a watercourse, or other site disturbance activities.
Title 22, Section 22.52.130	Stormwater pollution prevention plan (SWPPP) required for all construction and grading permit projects or for projects resulting in site disturbance of more than once acre of land or part of a project encompassing more than one acre of site disturbance.
Agriculture Element, Policy AG 2.b	Agricultural (AG) land use designation or used for production agriculture: Conserve the soil and water that are the vital components necessary for a successful agricultural industry.
Agriculture Element, Policy AG P10	Agricultural (AG) land use designation or used for production agriculture: Encourage water conservation best management practices.
Agriculture Element, Policy AG P11.a	Agricultural (AG) land use designation or used for production agriculture: Maintain water resources for production agriculture, both in quality and quantity, so as to prevent the loss of agriculture due to competition for water with urban and suburban development.
Agriculture Element, Policy AG P11.b	Agricultural (AG) land use designation or used for production agriculture: Do not approve proposed General Plan amendments or rezonings that result in increased residential density or urban expansion if the subsequent development would adversely affect: (1) water supplies and quality, or (2) groundwater recharge capability needed for agricultural use.

Code or Policy Section	Summary
Conservation and Open Space Element, Policy BR 4.1	<p>Protect streams and riparian vegetation to preserve water quality and flood control functions and associated fish and wildlife habitat.</p> <ol style="list-style-type: none"> Require preservation of natural streams and associated riparian vegetation in an undisturbed state to the greatest extent feasible in order to protect banks from erosion, enhance wildlife passageways, and provide natural greenbelts Include stream and riparian corridors as part of a network of wildlife corridors. Protect steam corridors and setback areas through easements or dedications. Protect the needs of wildlife when watercourse alteration is undertaken, explore alternatives to alteration, and assure that stream diversion structures protect habitats. (Implementation Strategy BR 4.1.1)
Conservation and Open Space Element, Policy BR 4.2	<p>Minimize the impacts of public and private development on streams and associated riparian vegetation due to construction, grading, resource extraction, and development near streams.</p> <ul style="list-style-type: none"> Set back development on public lands and all private development subject to discretionary review a minimum of 50 feet from the top of the bank of any stream or outside the dripline of riparian vegetation, whichever distance is greater. Limitations are imposed on grading within the setback, limiting the alteration of riparian vegetation, and habitat protection with Low Impact Strategies. (Implementation Strategy BR 4.2.1)
Conservation and Open Space Element, Policy BR 4.4	<p>Promote use and maintenance of engineered, vegetated treatment systems such as constructed wetlands, vegetated swales, or vegetated filter strips where they will reduce nonpoint source pollution from private and public development.</p>
Conservation and Open Space Element, Policy BR 4.7	<p>Contamination from the use of commercial, residential, and public application of pesticides and herbicides into all inland and coastal waters, including but not limited to rivers, streams, wetlands, and intertidal areas, shall be eliminated.</p>
Conservation and Open Space Element, Policy BR 4.9	<p>Encourage all landowners and pesticide applicators to consult with agencies such as the Natural Resources Conservation Service, UC Cooperative Extension, and Resource Conservation Districts to (1) reduce pesticide use, explore use of integrated pest management, (2) consider environmental impacts in choosing pesticides, and (3) otherwise reduce contamination of surface water and groundwater from pesticides.</p>
Conservation and Open Space Element, Policy BR 5.1	<p>Require development to avoid wetlands and provide upland buffers.</p> <ul style="list-style-type: none"> Require development applications to include wetland delineation for sites with jurisdictional wetlands and wetlands that support rare, threatened, or endangered species and to demonstrate compliance with these wetlands policies, standards, and criteria, and with state and federal regulations. (Implementation Strategy BR 5.1.1)
Conservation and Open Space Element, Policy BR 5.2	<p>Ensure that all public and private projects avoid impacts to wetlands if feasible. If avoidance is not feasible, ensure no net loss of wetlands, consistent with state and federal regulations and this element.</p> <ul style="list-style-type: none"> For projects subject to discretionary review: (1) require a report from a qualified biologist to determine the extent of wetlands, potential impacts of the project and recommended mitigation measures, and (2) minimize impacts to wetlands through measures such a clustering development, low impact development (LID) and use of vegetated swales. (Implementation Strategy BR 5.2.1)
Conservation and Open Space Element, Policy BR 5.1	<p>Require development to avoid wetlands and provide upland buffers.</p>
Conservation and Open Space Element, Policy BR 5.2	<p>Ensure that all public and private projects avoid impacts to wetlands if feasible. If avoidance is not feasible, ensure no net loss of wetlands.</p>

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Code or Policy Section	Summary
Conservation and Open Space Element, Policy BR 5.3	Avoid the conversion of wetlands, including vernal pools, except where grazing may improve the health and function of those wetlands. Where grazing occurs in and around wetlands and vernal pools, encourage grazing management that improves the health and function of those wetlands.
Conservation and Open Space Element, Policy BR 6.1	<p>Require all proposed discretionary land use projects and land divisions to avoid impacts to freshwater and saltwater fisheries and wildlife habitat to the maximum extent feasible. When avoidance is not feasible, offset potential losses of fisheries and wildlife.</p> <ul style="list-style-type: none"> Prohibit construction activities within the channel of any waterway identified to contain existing or potential spawning habitat for special-status fish species during periods of spawning activities. (Implementation Strategy BR 6.1.1)
Conservation and Open Space Element, Policy BR 7.4	<p>Support efforts on public and private lands to keep Chorro Creek, Los Osos Creek, and other watercourses free of excessive sediment and other pollutants to maintain freshwater flow into the Morro Bay National Estuary and the Monterey Bay National Marine Sanctuary, nurture steelhead trout, and support other plant and animal species.</p> <ul style="list-style-type: none"> Implement provisions of total maximum daily loads (TMDLs) as they are developed for Chorro Creek, Los Osos Creek, and the Morro Bay estuary, and other watersheds consistent with the requirements of the Regional Water Quality Control Board. (Implementation Strategy BR 7.4.1)
Conservation and Open Space Element, Policy SL 2.1	Give high priority to protecting watersheds, aquifer-recharge areas, and natural drainage systems when reviewing applications for discretionary development.
Conservation and Open Space Element, Policy WR 1.13	Do not approve General Plan amendments or land divisions that increase the density or intensity of nonagricultural uses in rural areas that have a recommended or certified Level of Severity II or III for water supply until a Level of Severity I or better is reached, unless there is an overriding public need.
Conservation and Open Space Element, Policy WR 1.14	Groundwater basins with Levels of Severity II or III Severity: Avoid a net increase in nonagricultural water use in groundwater basins that are recommended or certified as Level of Severity II or III for water supply.
Conservation and Open Space Element, Policy WR 1.3	Use existing water resources before securing new supplies.
Conservation and Open Space Element, Policy WR 1.6	Protect water sources for water-dependent species and the continuity of riparian communities.
Conservation and Open Space Element, Policy WR 1.8	Limit the use of surface water projects only to development in existing urban and village reserve lines.
Conservation and Open Space Element, Implementation Strategy WR 2.2.4	Require all discretionary land use permits for new non-agricultural uses in groundwater basins with a Level of Severity of I, II, or III to monitor and report annual water use.
Conservation and Open Space Element, Policy WR 3.1	Take actions to prevent water pollution, consistent with federal and state water policies and standards, including but not limited to the federal Clean Water Act, Safe Drinking Water Act, and National Pollutant Discharge Elimination System (NPDES).
Conservation and Open Space Element, Policy WR 3.2	Protect watersheds, groundwater and aquifer recharge areas, and natural drainage systems from potential adverse impacts of development projects.

Code or Policy Section	Summary
Conservation and Open Space Element, Policy WR 4.7	Require Low Impact Development (LID) practices in all discretionary projects.
Conservation and Open Space Element, Policy WR 6.4	Assure that proposed development integrates ecosystem enhancement, drainage control, and natural recharge as applicable.
Economic Element, Policy 1.3	Balance the capacity for growth with the efficient use or reuse of available resources (energy, land, water, infrastructure) and reasonable acquisition of new resources.
Land Use and Circulation Element, Principle 1, Policy 3	Preserve and sustain important water resources, watersheds, and riparian habitats.
Carrizo Planning Area	
No additional policies or regulations for the Carrizo Planning Area.	
North County Planning Area	
Title 22, Section 22.94.025	Discretionary permits in the Paso Robles Groundwater Basin shall require offset requirements for new water demand.
Shandon Community Plan, Appendix D EIR Mitigation Measures, BIO-1(b)	Requires setbacks, buffers, and avoidance for wetland habitats, or mitigations if impacts cannot be avoided. Designated infill parcels are exempt.
San Luis Obispo Planning Area	
No additional policies or regulations for the San Luis Obispo Planning Area.	
South County Planning Area	
Title 8, Section 8.92.030	Requires retrofitting to water efficient fixtures prior to sale of property in the Nipomo Mesa Water Conservation Area.
Title 19, Section 19.07.042.D	New structures or structures receiving substantial retrofits in the Nipomo Mesa Water Conservation Area shall be required to install water-efficient fixtures as specified.
Title 22, Article 9, 22.108.040.A.4-5	In the Nipomo area: Additional drainage and creek protection measures for new development.
Title 22, Article 9, 22.98.070.H	In the South County sub-area: Additional standards for runoff on the Nipomo Mesa edge to accommodate a 100-year storm.

3.11.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

A water resources impact is considered significant if implementation of the RESP would result in any of the following:

- 1) Violate any water quality standards.
- 2) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the groundwater table level (e.g., the production rate of pre-existing nearby wells would

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drop to a level which would not support existing land uses or planned uses for which permits have been granted).

- 3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
- 4) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff.
- 5) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.
- 6) Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- 7) Expose people to a risk of loss, injury, or death involving flooding (e.g., dam failure) or inundation by seiche, tsunami, or mudflow.
- 8) Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental issues.

While the county contains several large publicly owned dams, as well as a number of smaller privately owned dams, these dams are under the jurisdiction of the State of California Division of Safety of Dams (DSD), which performs annual maintenance inspections of these and other dams under state jurisdiction, including monitoring for compliance with seismic stability standards. Regular inspection by the DSD ensures that dams are kept in safe operating condition. As such, failure of these dams is considered to have an extremely low probability of occurring and is not considered to be a reasonably foreseeable event. For these reasons, the Program would not expose people or structures to a significant risk of loss, injury, or death as a result of the failure of a dam.

No impact would occur and this issue will not be further discussed in this EIR. The potential for impacts due to tsunami and seiche are considered low throughout the county since there are no lakes large enough to produce substantial seiche events. While coastal regions would be most susceptible to tsunami, the Program boundaries do not include the Coastal Zone. Therefore, there would no impact associated with tsunamis or seiches and these issues will not be discussed further.

PROJECT IMPACTS AND MITIGATION MEASURES

Violate Any Water Quality Standards (Threshold 1)

Impact 3-11-1 – Solar

Implementation of the proposed Program could indirectly violate water quality standards. This impact is considered **less than significant (Class III)**.

Short-Term Construction

The State Water Resources Control Board (SWRCB) is responsible for implementing the Clean Water Act and has issued a statewide General Permit (Water Quality Order 2009-0009-DWQ) for construction activities in the state. At renewable energy facility construction sites in the county,

the Construction General Permit (CGP) is implemented and enforced by the Central Coast Regional Water Quality Control Board (RWQCB). In accordance with the requirements of the CGP, prior to construction of the ground-mounted solar energy facilities larger than 1 acre, a risk assessment must be prepared and submitted to the Central Coast RWQCB to determine the project's risk level and associated water quality control requirements. These requirements will, at a minimum, include the preparation and implementation of a stormwater pollution prevention plan (SWPPP) identifying specific best management practices to be implemented and maintained on the site in order to comply with the applicable narrative effluent standards.

The best management practices (BMPs) that must be implemented as part of a SWPPP can be grouped into two major categories: (1) erosion and sediment control BMPs; and (2) non-stormwater management and materials management BMPs. Erosion and sediment control BMPs fall into four main subcategories:

- Erosion controls
- Sediment controls
- Wind erosion controls
- Tracking controls

Erosion controls include practices to stabilize soil, to protect the soil in its existing location, and to prevent soil particles from migrating. Examples of erosion control BMPs are preserving existing vegetation, mulching, and hydroseeding. Sediment controls are practices to collect soil particles after they have migrated, but before the sediment leaves the site. Examples of sediment control BMPs are street sweeping, fiber rolls, silt fencing, gravel bags, sand bags, storm drain inlet protection, sediment traps, and detention basins. Wind erosion controls prevent soil particles from leaving the site in the air. Examples of wind erosion control BMPs include applying water or other dust suppressants to exposed soils on the site. Tracking controls prevent sediment from being tracked off-site via vehicles leaving the site to the extent practicable. A stabilized construction entrance not only limits the access points to the construction site but also functions to partially remove sediment from vehicles prior to leaving the site.

Non-stormwater management and material management controls reduce non-sediment-related pollutants from potentially leaving the construction site to the extent practicable. The CGP prohibits the discharge of materials other than stormwater and authorized non-stormwater discharges (such as irrigation water and pipe flushing and testing water). Non-stormwater BMPs tend to be management practices with the purpose of preventing stormwater from coming into contact with potential pollutants. Examples of non-stormwater BMPs include preventing illicit discharges and implementing good practices for vehicle and equipment maintenance, cleaning, and fueling operations, such as using drip pans under vehicles. Waste and materials management BMPs include implementing practices and procedures to prevent pollution from materials used on construction sites. Examples of materials management BMPs include:

- Good housekeeping activities such as storing of materials covered and elevated off the ground, in a central location.
- Securely locating portable toilets away from the storm drainage system and performing routine maintenance.
- Providing a central location for concrete wash-out and performing routine maintenance.
- Providing several dumpsters and trash cans throughout the construction site for litter/floatable management.

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- Covering and/or containing stockpiled materials and overall good housekeeping on the site.
- The CGP also requires that construction sites be inspected before and after storm events and every 24 hours during extended storm events. The purpose of the inspections is to identify maintenance requirements for the BMPs and to determine the effectiveness of the BMPs that are being implemented. The SWPPP is a “living document” and as such can be modified as construction activities progress. Additional requirements include compliance with post-construction standards focusing on preparation of Rain Event Action Plans.
- The SWRCB has also issued a statewide General Permit (Water Quality Order R5-2008-0081, NPDES No. CAG995001) for dewatering and other low-threat discharges to surface waters in the state. Should construction of the proposed project require dewatering of encountered groundwater, the project proponent would be required to submit a Notice of Intent, as well as a Best Management Practices Plan, to comply with the General Permit. The BMP Plan would include disposal practices to ensure compliance with the General Permit such as the use of sediment basins or traps, dewatering tanks, or gravity or pressurized bag filters. Monitoring and reporting would also be performed to ensure compliance with the permit.

In addition, County Conservation and Open Space Element Policy 4.2 seeks to minimize the impacts of development on streams and associated riparian vegetation due to construction or grading near streams by requiring a setback of a minimum of 50 feet from the top of the bank of any stream or outside the dripline of riparian vegetation, whichever distance is greater. Grading is prohibited within the setback in most circumstances. County Code Title 22, Section 22.52.120 states that erosion and sedimentation plans are required for construction and grading projects, projects proposed within 100 feet of a watercourse, or other site disturbance activities.

Compliance with the requirements of the SWRCB statewide general permits for construction and dewatering as well as the County Conservation and Open Space Element and the County Code would ensure that water quality degradation during the construction phase of projects proposed under the Program would be less than significant.

Long-Term Operations

Runoff from solar energy generation facilities could include oils, grease, fuel, antifreeze, and byproducts of combustion (such as lead, cadmium, nickel, and other metals), as well as sediment, herbicides, and other pollutants. Precipitation during the early portion of the wet season displaces these pollutants into the stormwater runoff, resulting in high pollutant concentrations in the initial wet weather runoff.

County Conservation and Open Space Element Policy 4.2 seeks to minimize the impacts of development on streams due to development and requires a setback of a minimum of 50 feet from the top of the bank of any stream. Proposed setback requirements in Section 22.32.050.B and Section 22.32.060.B specify additional setbacks for solar electric facilities (SEF) and wind energy conversion systems (WECs), respectively, to protect sensitive water resources and habitat.

County Code Title 22, Section 22.52.110 requires a drainage plan for any project that increases or decreases runoff, any project that involves land disturbance of more than 20,000 square feet, or any project that results in impervious surface of more than 20,000 square feet. Therefore, such a drainage plan would be required of most SEF projects. The drainage plans will have to ensure

that an on-site drainage system is in place which prevents increases or decreases in peak storm runoff levels. The drainage plans would also address stormwater discharge quality issues with site-specific stormwater protection mechanisms.

Conformance with the County Code as well as with the requirements of state and federal water quality regulations, which would apply to all SEFs, would reduce the risk of violation of water quality standards to **less than significant (Class III)**.

Impact 3-11-1 – Wind

Implementation of the proposed Program could violate water quality standards. This impact is considered **less than significant (Class III)**.

Short-Term Construction

Tier 1 WECS, which would be mounted on a rooftop or existing structure, would be streamlined under the Program. Since Tier 1 WECS would be roof-mounted, no soil disturbance or excavation would occur, and the WECS would be mounted on structures sited in primarily urban areas, away from natural streams and wetlands. While Tier 2 WECS could be ground-mounted, the same state and County requirements would apply as described for the construction of SEF projects. Compliance with these requirements would ensure that water quality degradation during the construction phase of WECS projects would be less than significant.

Long-Term Operations

County Code Title 22, Section 22.52.110 requires a drainage plan for any project that increases or decreases runoff, any project that involves land disturbance of more than 20,000 square feet, or any project that results in impervious surface of more than 20,000 square feet. Therefore, such a drainage plan would be required of some Tier 2 WECS. The drainage plans will have to ensure that an on-site drainage system is in place which prevents increases or decreases in peak storm runoff levels. The drainage plans would also address stormwater discharge quality issues with site-specific stormwater protection mechanisms.

Conformance with the County Code as well as with the requirements of state and federal water quality regulations, which would apply to all Tier 2 WECS (Tier 1 WECS would be mounted on a rooftop or existing structure and therefore streamlined under the Program), would reduce the risk of violation of water quality standards to **less than significant (Class III)**.

Impact 3-11-1 – Policy Changes

Implementation of the proposed Program could result in changes to countywide policies that could violate water quality standards. This impact is considered **less than significant (Class III)**.

Conformance with the County Code as well as with the requirements of state and federal water quality regulations, which would apply to all Tier 2 and higher projects, would reduce the risk of violation of water quality standards to **less than significant (Class III)**.

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Substantially Deplete Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such That There Would Be a Net Deficit in Aquifer Volume or a Lowering of the Groundwater Table Level (e.g., the Production Rate of Pre-Existing Nearby Wells Would Drop to a Level Which Would Not Support Existing Land Uses or Planned Uses for Which Permits Have Been Granted) (Threshold 2)

Impact 3-11-2 – Solar Implementation of the proposed Program could interfere with groundwater recharge. This impact is considered **less than significant (Class III)**.

As stated in Section 2.0, Project Description, the county covers 3,616 square miles, which is the equivalent of 2,314,240 acres. Therefore, the total reasonably foreseeable land footprint of the development under the proposed Program (1,500 acres) would constitute 0.06 percent of the county. As the majority of this land would remain in a permeable state, this would constitute a **less than significant (Class III)** impact to groundwater recharge.

Impact 3-11-2 – Wind Implementation of the proposed Program could interfere with groundwater recharge. This impact is considered **less than significant (Class III)**.

As previously stated, it is assumed that the majority of renewable energy facilities allowed under the proposed Program would be solar projects, with minor numbers of wind projects. Furthermore, Tier 1 WECS projects would be mounted on an existing rooftop or existing structure and therefore would not contribute to increases in impervious surfaces. Resulting impacts would be **less than significant (Class III)**.

Impact 3-11-2 – Policy Changes Implementation of the proposed Program could interfere with groundwater recharge. This impact is considered **less than significant (Class III)**.

The implementation of the proposed policy changes would enable streamlined reviews and approvals of qualifying SEF and WECS projects to be achieved either through the building permit process, zoning clearance process, or site plan review process. The development of SEFs and WECS would be a **less than significant (Class III)** impact to groundwater recharge since the potential increase in impermeable surfaces is insignificant.

Substantially Alter the Existing Drainage Pattern of the Site or Area, Including Through the Alteration of the Course of a Stream or River, in a Manner Which Would Result in Substantial Erosion or Siltation On- or Off-Site (Threshold 3)

Impact 3-11-3 – Solar Implementation of the proposed Program could result in substantial erosion or siltation on- or off-site. This impact is considered **less than significant (Class III)**.

As previously stated, the construction of SEF projects would be required to comply with state and County requirements. These requirements will, at a minimum, include the preparation and implementation of a SWPPP identifying specific best management practices to be implemented and maintained on the site in order to comply with the applicable narrative effluent standards as described more fully under Threshold 1. Erosion controls include practices to stabilize soil, to protect the soil in its existing location, and to prevent soil particles from migrating. Examples of erosion control BMPs are preserving existing vegetation, mulching, and hydroseeding.

Sediment controls are practices to collect soil particles after they have migrated, but before the sediment leaves the site. Examples of sediment control BMPs are street sweeping, fiber rolls, silt fencing, gravel bags, sand bags, storm drain inlet protection, sediment traps, and detention basins. Wind erosion controls prevent soil particles from leaving the site in the air. Examples of wind erosion control BMPs include applying water or other dust suppressants to exposed soils on the site. Tracking controls prevent sediment from being tracked off-site via vehicles leaving the site to the extent practicable. A stabilized construction entrance not only limits the access points to the construction site but also functions to partially remove sediment from vehicles prior to leaving the site. Compliance with these requirements would ensure that erosion and siltation during the construction phase of SEF projects would be less than significant.

Runoff from operating solar energy generation facilities could include sediment. Precipitation during the early portion of the wet season displaces sediment into the stormwater runoff, resulting in high pollutant concentrations in the initial wet weather runoff. County Code Title 22, Section 22.52.110 requires a drainage plan for any grading project that increases or decreases runoff, any project that involves land disturbance of more than 20,000 square feet, or any project that results in impervious surface of more than 20,000 square feet. Therefore, such a drainage plan would be required of SEF projects that exceed any of these thresholds. The drainage plans will have to ensure that an on-site drainage system is in place which prevents increases of siltation discharge via stormwater with site-specific protection mechanisms.

Conformance with the requirements of state and County water quality regulations, which would apply to all SEFs, would result in erosion and siltation impacts that are **less than significant (Class III)**.

Impact 3-11-3 – Wind

Implementation of the proposed Program could result in substantial erosion or siltation on- or off-site. This impact is considered **less than significant (Class III)**.

Tier 1 WECS, which would be mounted on a rooftop or existing structure, would be streamlined under the Program. Since Tier 1 WECS would be roof-mounted, no soil disturbance or excavation would occur, and the WECS would be mounted on structures sited in primarily urban areas, away from natural streams and wetlands. While Tier 2 WECS could be ground-mounted, the same state and County requirements would apply as under existing conditions. Compliance with these requirements would ensure that erosion and water siltation during the construction phase of the WECS projects would be less than significant.

Conformance with the requirements of state and County water quality regulations would result in impacts related to erosion and siltation that are **less than significant (Class III)**.

Impact 3-11-3 – Policy Changes

Implementation of the proposed Program could result in substantial erosion or siltation on- or off-site. This impact is considered **less than significant (Class III)**.

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Continued conformance with the County Code, as well as with the requirements of state water quality regulations is expected with implementation of the Program., Policy changes proposed under the Program would result in erosion and siltation impacts that are **less than significant (Class III)**.

Create or Contribute Runoff Water Which Would Exceed the Capacity of Existing or Planned Stormwater Drainage Systems or Provide Additional Sources of Polluted Runoff (Threshold 4)

Impact 3-11-4 – Solar

Implementation of the proposed Program could result in the creation of runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff. This impact is considered **less than significant (Class III)**.

As previously stated, the construction of SEF projects would be required to comply with state and County requirements. These requirements will, at a minimum, include the preparation and implementation of a SWPPP identifying specific best management practices to be implemented and maintained on the site during construction in order to comply with the applicable narrative effluent standards as described more fully under Threshold 1.

Concerning operations, County Code Title 22, Section 22.52.110 requires a drainage plan for any project that increases or decreases runoff, any project that involves land disturbance of more than 20,000 square feet, or any project that results in impervious surface of more than 20,000 square feet. Therefore, such a drainage plan would be required of any SEF projects that exceed this threshold. The drainage plans will have to ensure that an on-site drainage system is in place which prevents increases of siltation discharge via stormwater with site-specific protection mechanisms.

Conformance with the requirements of state and County water quality regulations, which would apply to all SEFs, would reduce the risk of violation of water quality standards to **less than significant (Class III)**.

Impact 3-11-4 – Wind

Implementation of the proposed Program could result in the creation of runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff. This impact is considered **less than significant (Class III)**.

Tier 1 WECS, which are the only wind energy projects streamlined under the Program, would not result in topographic modifications or the creation of new impervious surfaces because they would all be mounted on rooftops or existing structures. Also, Tier 1 WECS would not require water for construction or operation. Therefore, construction and operation of Tier 1 WECS would not create additional runoff and impacts would be **less than significant (Class III)**.

Impact 3-11-4 – Policy Changes

Implementation of the proposed Program could result in changes to countywide policies that could indirectly result in the creation of runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff. This impact is considered **less than significant (Class III)**.

Conformance with the County Code and with the requirements of state water quality regulations, which would apply to all Tier 2 and higher projects, would reduce runoff and stormwater drainage impacts to **less than significant (Class III)**.

Substantially Alter the Existing Drainage Pattern of the Site or Area, Including Through the Alteration of the Course of a Stream or River, or Substantially Increase the Rate or Amount of Surface Runoff in a Manner Which Would Result in Flooding On- or Off-Site (Threshold 5)

Impact 3-11-5 – Solar Implementation of the proposed Program could result in the creation of runoff that could result in flooding. This impact is considered **less than significant (Class III)**.

Operation of SEFs could result in runoff that could result in flooding. As previously stated, the construction of larger SEF projects, or those involving grading, would be required to comply with County requirements relating to site disturbance (County Code Title 22, Section 22.52.110). These requirements include the preparation of a drainage plan for any project that increases or decreases runoff, any project that involves land disturbance of more than 20,000 square feet, or any project that results in impervious surface of more than 20,000 square feet. Therefore, such a drainage plan would be required of most SEF projects. The drainage plans will have to ensure that an on-site drainage system is in place which adequately regulates stormwater. Per Conservation and Open Space Element Policy 6.4, drainage plans must also identify measures to detain or retain stormwater as appropriate in order to assist infiltration. Conformance with County water quality regulations, which would apply to all SEFs exceeding these thresholds, and would reduce the risk of violation of water quality standards to **less than significant (Class III)**.

Impact 3-11-5 – Wind Implementation of the proposed Program could result in the creation of runoff that could result in flooding. This impact is considered **less than significant (Class III)**.

Tier 1 WECS, which are the only wind energy projects streamlined under the Program, would not result in topographic modifications or the creation of new impervious surfaces because they would all be mounted on rooftops or existing structures. Therefore, operation of Tier 1 WECS would not create additional runoff. would not create or contribute any substantial runoff water and impacts would be **less than significant (Class III)**.

Impact 3-11-5 – Policy Changes Implementation of the proposed Program could result in changes to countywide policies that could result in flooding. This impact is considered **less than significant (Class III)**.

Conformance with the County Code as well as with the requirements of state water quality regulations, which would apply to all Tier 2 and higher projects, would reduce runoff and flooding impacts to **less than significant (Class III)**.

Place Within a 100-Year Flood Hazard Area Structures Which Would Impede or Redirect Flood Flows (Threshold 6)

Impact 3-11-6 – Solar Implementation of the proposed Program could place within a 100-year Flood Hazard Area structures that would impede or redirect flood flows. This impact is considered **less than significant (Class III)**.

3.11 WATER RESOURCES

The County Safety Element regulates the potential to place structures within a 100-year Flood Hazard Area. Safety Element Standard S-16 states that to the extent practicable development in areas of high flood hazard potential shall not be allowed, and Standard S-18 mandates the review of all plans for construction in low-lying areas or any area which may pose a serious drainage or flooding condition. Standard S-19 prohibits all development which would create or worsen known flood and drainage problems. Such a determination would most likely be made through the preparation of a drainage report (and remedial measures, as applicable), which would be required for all SEF projects exceeding certain thresholds or found to be potentially problematic areas, per County Code Title 22, Section 22.52.110. This impact is **less than significant (Class III)**.

Impact 3-11-6 – Wind

Implementation of the proposed Program could place within a 100-year Flood Hazard Area structures that would impede or redirect flood flows. This impact is considered **less than significant (Class III)**.

Tier 1 WECS, which are the only wind energy projects streamlined under the Program, would not result in impacts to floodwaters because the projects would all be mounted on rooftops or existing structures and therefore would result in **less than significant (Class III)** impacts from floodwaters.

Impact 3-11-6 – Policy Changes

Implementation of the proposed Program could result in changes to countywide policies that could indirectly result in placement within a 100-year Flood Hazard Area structures that would impede or redirect flood flows. This impact is considered **less than significant (Class III)**.

The implementation of the proposed policy changes would enable streamlined reviews and approvals of SEF and WECS facility projects to be achieved either through the building permit process, zoning clearance process, or site plan review process. Safety Element Standard S-16 states that to the extent practicable development in areas of high flood hazard potential shall not be allowed, and Standard S-18 mandates the review of all plans for construction in low-lying areas or any area which may pose a serious drainage or flooding condition. The proposed Program does not conflict with these policies as it does not direct or otherwise influence placement of renewable energy project in flood hazard areas. Impacts are **less than significant (Class III)**.

Require or Result in the Need to Construct New Water Treatment Facilities or Expansion of Existing Facilities, the Construction of Which Could Cause Significant Environmental Issues (Threshold 8)

Impact 3-11-7 – Solar

Implementation of the proposed Program could result in an adverse effect on the service capacity or operations of a community water service provider. This impact is considered **less than significant (Class III)**.

Activities including water spraying are typically used to reduce fugitive dust during construction. These activities would be undertaken on an as-needed basis following standard industry best management practices. Solar photovoltaic (PV) systems do not require water during operations other than for panel washing. Panel washing requirements and frequency would depend on technologies and site conditions, but could occur up to four times a year. A typical 20 MW facility would be expected to use approximately 215,000 gallons per year during operations.

As previously stated, 60 percent of the county's water supply comes from groundwater sources. Furthermore, Conservation and Open Space Element Policy WR 1.8 restricts the use of water from surface water projects (e.g., Lopez Lake, Lake Nacimiento) to only serve development within urban and village reserve lines and not development in rural areas, where the majority of SEF projects would be constructed.

The Conservation and Open Space Element (Implementation Strategy WR 1.12.2) requires applications for land divisions, which would increase density or intensity in groundwater basins with recommended or certified Levels of Severity II or III for water supply or water systems and are not in adjudication, to include a water supply assessment (WSA) prepared by the applicable urban water supplier (as defined by California Water Code Section 10617). The WSA would determine whether the total projected water supplies for the project during the next 20 years will meet the projected water demand associated with the proposed Program in addition to existing and planned future uses, and if water supplies will be insufficient, in which case the WSA would include the water purveyor's plans for acquiring additional water supplies.

Policy WR 1.13 prohibits the County from approving General Plan amendments or land divisions that increase the density or intensity of nonagricultural uses in rural areas that have a recommended or certified Level of Severity II or III for water supply until a Level of Severity I or better is reached, unless there is an overriding public need. Conservation and Open Space Element Policy WR 1.14 requires the County to avoid a net increase in nonagricultural water use in groundwater basins that are certified as RMS Level of Severity III for water supply. The County is required to place limitations on further land divisions in such areas until plans are in place and funded to ensure that the safe yield will not be exceeded.

SEF projects would require the use of water during construction to reduce fugitive dust as well as during operations for panel washing purposes. These activities would not demand water to the extent that new water-producing and treating facilities would need to be constructed, potentially causing environmental impact, since they do not represent a substantial increase in water demand. For instance, as previously stated a typical 20 MW facility would be expected to use approximately 215,000 gallons of water per year during operations, which is roughly the equivalent to the average annual water consumption for one single-family residence (CHF 2010). Therefore, impacts related to the need to construct new water supply and treatment facilities which could then result in an environmental impact are **less than significant (Class III)**.

Impact 3-11-7 – Wind

Implementation of the proposed Program could result in an adverse effect on the service capacity or operations of a community water service provider. This impact is considered **less than significant (Class III)**.

Operation of WECS would not impact the quantity or movement of available surface water or groundwater. Only Tier 1 WECS, which would be mounted on a rooftop or existing structure, would be streamlined under this Program. These projects would not use any water during operation since wind turbines do not require water for maintenance. Water spraying is typically used to reduce fugitive dust during construction. However, the construction of Tier 1 WECS would not require the use of water for this purpose since no ground disturbance is necessary. Impacts would be **less than significant (Class III)**.

3.11 WATER RESOURCES

Impact 3-11-7 – Policy Changes Implementation of the proposed Program could result in changes to countywide policies that could indirectly result in an adverse effect on the service capacity or operations of a community water service provider. This impact is considered **less than significant (Class III)**.

The implementation of the proposed policy changes to the General Plan would enable streamlined reviews and approvals of SEF and WECS facility projects to be achieved either through the building permit process, zoning clearance process, or site plan review process. No component of the Program, including policy changes, would result in the need to construct new water supply and treatment facilities which could then result in an environmental impact. Impacts are **less than significant (Class III)**.

CUMULATIVE IMPACTS

Cumulative impacts to water quality could occur due to erosion and sedimentation from the construction of individual SEF and WECS projects and other nearby projects or accidental releases of contaminants that make direct or indirect contact with surface water or groundwater resources. Earth-disturbing activities such as large-scale grading and the use of heavy vehicles and equipment are expected to occur on project sites throughout the county. It is expected that these projects would comply with all applicable water quality permits issued by the County and other permitting agencies, in addition to a SWPPP with measures to minimize erosion, sedimentation, and potential water quality impacts. These measures would reduce potential cumulative water quality impacts from construction to less than significant levels. Similarly, potential cumulative water quality impacts from operations would also be less than significant due to required conformance with the County Code as well as with the requirements of state and federal water quality regulations, which would apply to individual SEF and WECS projects and other nearby projects.

Increased drainage flows could exceed existing and/or planned drainage facilities, resulting in flooding. However, the construction of renewable energy facility projects would be required to comply with County requirements (County Code Title 22, Section 22.52.110). These requirements include the preparation of a drainage plan for any project that increases or decreases runoff, any project that involves land disturbance of more than 20,000 square feet, or any project that results in impervious surface of more than 20,000 square feet. The drainage plans will have to ensure that an on-site drainage system is in place which adequately regulates stormwater. Conformance with County water quality regulations would reduce the risk of violation of water quality standards to less than cumulatively considerable levels.

As development occurs in the region, the demand for water resources will increase, resulting in greater withdrawals from the county's groundwater aquifers and surface water supplies. However, the operation of most individual SEFs would require an insubstantial amount of water annually or the equivalent of one single-family residence. WECS would not use any water during operation since wind turbines do not require water for maintenance. The small project demand for water coupled with existing County water resource protection provisions would not necessitate the need to construct new water supply and treatment facilities which could then result in an environmental impact. Overall, the Program's contribution to water resources impacts is less than cumulatively considerable.

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