

3.0 ENVIRONMENTAL SETTING

This section provides a general overview of the environmental setting for the proposed Program. More detailed descriptions of the environmental setting germane to each environmental issue can be found in Section 4.0, *Environmental Impact Analysis*.

3.1 REGIONAL SETTING

San Luis Obispo County is located along California's Central Coast. The county is bounded by the Pacific Ocean to the west, Monterey County to the north, Kern County to the east, and San Barbara County to the south. The region is known predominately for agriculture and tourism.

San Luis Obispo County was established in 1850 and the county seat is the City of San Luis Obispo. There are seven incorporated cities within the county: Paso Robles, Atascadero, Morro Bay, San Luis Obispo, Pismo Beach, Grover Beach, , and Arroyo Grande. Urban concentrations and communities in the unincorporated portions of the county include San Miguel, Shandon, Cambria, Templeton, Cayucos, Santa Margarita, Los Osos, Avila Beach, Oceano, and Nipomo. The urban areas within the county are linked to the primary transportation corridors serving the region: Interstate Highways 1 and 101 and State Highway 46. The city of San Luis Obispo is the employment, entertainment, education, and shopping center of the region both geographically and economically. The county's urban and populated areas are concentrated near cities such as San Luis Obispo, Atascadero, and Paso Robles, and in rural communities such as Shandon and Nacimiento.

a. Physical Features. According the U.S. Census Bureau, San Luis Obispo County has a total area of 3,616 square miles. Of this total area, 3,304 square miles are land and 311 square miles are water. The county's coastline spans 96 miles. San Luis Obispo County has a temperate climate. On average, the warmest month is August, with temperatures ranging from 53 to 82 degrees, and the coolest month is December, with temperatures ranging from 42 to 66 degrees. The maximum average precipitation in San Luis Obispo County occurs in February (5.41 inches on average). However, microclimates within the county differ in temperature and rainfall. Areas near the coast remain cooler and more temperate overall, while areas inland are hot in the summer and cool in the winter. Coastal areas have a higher rate of precipitation than inland areas. The county's microclimates affect the diversity and range of plant and animal species within the county. The county includes a wide variety of habitats and ecosystems due to the weather differences. The topography is diverse but generally consists of rolling hills.

b. Land Uses. San Luis Obispo County is physically diverse, ranging from beaches to mountains and valleys. The majority of land in San Luis Obispo County is used for agriculture (more than 60 percent). Of this acreage, approximately 85 percent is used for livestock grazing (primarily cattle) and 8 percent is actively farmed and harvested. Most of the county's remaining land is used for rural land uses and open space. Rural land uses are distributed throughout the county. Open space comprises large areas that extend northwest-southeast in the southern portion of the county's central area.



Less than 10 percent of the county's land is identified as incorporated city or designated for urban land use. Current development patterns are often dominated by low density automobile oriented development outside of the urbanized areas.

3.2 PROGRAM AREA SETTING

In response to the water scarcity concerns throughout San Luis Obispo County, the Board of Supervisors declared three groundwater basins, Nipomo Mesa (part of Santa Maria Groundwater Basin), the Los Osos Groundwater Basin, and the Paso Robles Groundwater Basin, at Level of Severity (LOS) III, which indicates that groundwater demand has met or exceeded the dependable supply.

In addition, the Board of Supervisors authorized the Department of Planning and Building to propose several amendments to the County General Plan and County Codes with the objective of the development and implementation of a Countywide Water Conservation Program to substantially reduce increases in groundwater extraction in areas that have been certified LOS III; provide a mechanism to allow new development and new or altered irrigated agriculture to proceed in certified LOS III areas, subject to the requirements of the County General Plan and County Code, in a manner that fully offsets projected water use; and to reduce the wasteful use of water in the county.

As stated in Section 2.0, *Project Description*, the Water Neutral New Development (WNND) requirements of the overall Program would require that all new development offset new water use at a minimum 1:1 ratio in all groundwater basins certified at Level of Severity (LOS) III by the Board of Supervisors. WNND also requires that, in the Paso Robles Groundwater Basin, all new or more intensively irrigated agriculture offset new water use at a minimum 1:1 ratio.

There are three areas of the county that are currently certified at LOS III for water supply. These areas are the Paso Robles Groundwater Basin, the Los Osos Groundwater Basin (Los Osos Basin), and the Nipomo Mesa portion of the Santa Maria Groundwater Basin (known as the Nipomo Mesa Water Conservation Area). These basins were certified at LOS III for water supply in February 2011, February 2007, and November 2004, respectively. If the WNND is approved, the new development offset provisions could also apply to any areas certified at LOS III for water supply in the future. However, any changes to implement the WNND in other areas of the County would need to go through a new public vetting and hearing process. Currently, the Cuyama Valley, Morro-Chorro and North Coast groundwater basins are all recommended in the 2010-2012 Resource Summary Report at LOS III but have not yet been certified by the Board of Supervisors.

The Water Waste Prevention (WWP) program component of the overall Program would apply throughout the unincorporated areas of the county wherever a similar program is not already in place.

Water levels in groundwater basins, including the three groundwater basins currently certified at LOS III for water supply, and surface lakes and reservoirs throughout the County have been in decline for over a decade. These issues have been exacerbated by the current "exceptional drought" situation.



On January 15, 2014, the United States Department of Agriculture designated San Luis Obispo County, along with 26 other counties in California, as a primary natural disaster area due to a recent drought. Subsequently, on January 17, 2014, California Governor Edmund G. Brown, Jr. declared a drought state of emergency and directed state officials to take all necessary actions to prepare for drought conditions. In response to the Governor's declaration, the California Department of Water Resources (DWR) reported on January 31, 2014 that customers of the State Water Project (SWP) would receive no deliveries in 2014, with the exception of a small amount of carryover water from 2013. The DWR noted that areas served by the SWP would have to rely on other sources of water, such such as groundwater, local reservoirs, and other supplies (DWR, January 2014).

In response to the exceptional drought conditions, the County of San Luis Obispo Board of Supervisors adopted Resolution No. 2014-64 on March 19, 2014, proclaiming a local emergency in the entire County. According to the U.S. Drought Monitor report released on March 19, 2015, the County of San Luis Obispo is experiencing an "exceptional drought" (D4), the the worst federal drought rating (U.S. Drought Monitor, March 2015).

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3.2.1 Paso Robles Groundwater Basin

The Paso Robles Groundwater Basin encompasses an area of approximately 790 square miles and ranges from the Garden Farms area south of Atascadero in San Luis Obispo County to San Ardo in Monterey County, and from the Highway 101 corridor east to Shandon. The Atascadero Sub-basin is located in the western portion of the Paso Robles Groundwater Basin and has an area of approximately 0.02 square miles, which makes up about three percent of the area of the Paso Robles Groundwater Basin. The Atascadero Sub-basin is a hydrologically distinct Sub-basin within the Basin, and encompasses the Salinas River corridor area south of Paso Robles and includes the communities of Garden Farms, Atascadero, and Templeton.



The Atascadero Sub-basin has not experienced the same groundwater depletion as the rest of the basin, and is therefore excluded from the proposed Program. The Paso Robles Groundwater Basin (including the Atascadero Sub-basin) supplies water for 29 percent of San Luis Obispo County's population and an estimated 40 percent of its agricultural production. The municipal and industrial water demands on the portion of the Paso Robles Groundwater Basin covered by the Program include the cities City of Paso Robles and Atascadero, the communities of ~~Templeton~~, Shandon, Creston, and San Miguel, Bradley, Camp Roberts, and the small community systems in Whitley Gardens ~~and Garden Farms~~ (City of Paso Robles, February 2011).

The LOS III designation for water supply was certified by the Board of Supervisors based on a Resource Capacity Study prepared by the County in February 2011. The Resource Capacity Study confirmed that, for the Paso Robles Groundwater Basin, demand had met or exceeded perennial yield. Therefore, LOS III was recommended, and certified by the Board of Supervisors, for the water resources of the Paso Robles Groundwater Basin.¹ According to the Draft 2012-2014 Resource Summary Report (January 2015a), portions of the Paso Robles Groundwater Basin have experienced significant water level declines over the past 15 to 20 years.

On August 27, 2013, the Paso Robles Groundwater Basin Urgency Ordinance was adopted by the County Board of Supervisors, establishing a moratorium on new or expanded irrigated crop production, conversion of dry farm or grazing land to new or expanded irrigated crop production, as well as new development dependent upon a well in the Paso Robles Groundwater Basin unless such uses offset their total projected water use by a ratio of 1:1. The Paso Robles Groundwater Basin Urgency Ordinance does not cover the Atascadero Sub-basin.

The County Board of Supervisors established the Paso Robles Groundwater Basin Advisory Committee (PBAC) to advise policy decisions related to implementation of the Basin Groundwater Management Plan, development of an "enhanced" Groundwater Management Plan for the Basin, formation of a new water district, the Computer Modal Update, and other policies and ordinances. The PBAC also serves as a public forum to discuss and collect comments on Paso Robles Groundwater Basin issues. A Draft Final Report for the Paso Robles Groundwater Basin Computer Model Update, distributed for public review and comment on November 13, 2014, reported updated outcomes of the Paso Robles Groundwater Basin's perennial yield estimate and future year simulations based on "no-growth" and "growth" scenarios (San Luis Obispo County, January 2015). In summary, the period of 1982 to 2010 is representative of the historical average rainfall over the Paso Robles Groundwater Basin. The updated estimate for the perennial yield based on that period is 89,648 acre-feet per year (AFY). For the period of 1981 to 2011, outflows exceeded inflows to the Paso Robles Groundwater Basin by 2,473 AF on an average annual basis (i.e. more water left the Paso Robles Groundwater Basin than was replenished). Future year simulations project that the "no-growth" scenario projects would exceed inflows on an average annual basis over the thirty year period by 5,592 AFY. The "growth" scenario projects have projected outflows to exceed inflows on an average annual basis over the thirty year period by ~~20,900~~ 26,159 AFY (Geoscience and Todd Groundwater, December 2014).

¹ The 2011 RCS recommended a separate LOS I for the Atascadero Sub-basin.



3.2.2 Los Osos Groundwater Basin

The Los Osos Basin underlies the unincorporated communities of Los Osos, Baywood Park and Cuesta-by-the-Sea in San Luis Obispo County. The onshore portion of the Los Osos Basin covers approximately 12 square miles, of which approximately four square miles underlie the bay (Morro Bay) and sand spit, and eight square miles underlie the Los Osos communities. The majority of groundwater (52 percent) is extracted for residential, commercial and community uses by the three water purveyors within Los Osos, although the basin also supports agriculture (24 percent), private domestic wells (22 percent), and community facilities (2 percent) (County of San Luis Obispo, 2013).

The LOS III designation for water supply was certified by the Board of Supervisors based on a Resource Capacity Study prepared by the County in February 2007. The Resource Capacity Study confirmed that, for the Los Osos area water demand exceeds sustainable yield and that the lower aquifer system in the Los Osos Basin was experiencing sea water intrusion.

The primary constraint on water availability in the Los Osos Groundwater Basin is deteriorating water quality due to sea water intrusion in the lower aquifer and nitrate contamination in the upper aquifer (San Luis Obispo County, January 2015b). A wastewater collection, treatment, and disposal system is currently under construction to address nitrate contamination in the upper aquifer. The three local water purveyors (Golden State Water Company, S&T Mutual, the Los Osos Community Services District), along with the County of San Luis Obispo, prepared a Basin Management Plan (BMP) under a court-approved Interlocutory Stipulated Judgment (ISJ Working Group). The Basin Plan (County of San Luis Obispo, January 2015b) indicates that seawater intrusion has the potential to irreparably damage the lower aquifer as a source of water supplies for Los Osos. To halt seawater intrusion, the purveyors must largely discontinue production of groundwater from the lower aquifer. According to the Basin Plan, to stop producing groundwater from that portion of the basin, the Los Osos community will need to decrease its water demands (County of San Luis Obispo, January 2015b).

3.2.3 Nipomo Mesa portion of the Santa Maria Groundwater Basin

The ~~NMMA~~ Nipomo Mesa Water Conservation Area is located completely within San Luis Obispo County and encompasses an area of approximately 27.5 square miles. The Basin contains Black Lake Canyon and Black Lake (California Department of Water Resources, 2002).

The LOS III designation for water supply was certified by the Board of Supervisors based on a Resource Capacity Study prepared by the County in November 2004. The Resource Capacity Study confirmed that, for the Nipomo Mesa Water Conservation Area, demand equaled or exceeded the dependable yield. Therefore, LOS III was recommended for the water resources of the Nipomo Mesa Water Conservation Area.

According to the Nipomo Mesa Management Area Annual Report (April 2014), potentially severe water shortage conditions continue to exist in the Nipomo Mesa Management Area. Potentially severe water shortage conditions reflect that water levels beneath the Nipomo Mesa Management Area as a whole are at a point at which voluntary conservation measures, augmentation of supply, or other steps may be desirable or necessary to avoid further declines



in water levels (Nipomo Mesa Management Area Technical Group, April 2014). In addition, the Key Wells Index, which indicates trends in groundwater elevations within inland areas of the Nipomo Mesa Management Area, reached the Severe Water Shortage Condition criterion in 2014. At the Severe Water Shortage Condition, water levels are at a point where programs to increase the supply or implementation of other measures to reduce Groundwater use may be warranted (Nipomo Mesa Management Area Technical Group, April 2014). It is important to note that the Nipomo Mesa Management Area is slightly larger than the Nipomo Mesa Water Conservation area, extending slightly more to the west. Therefore the information provided in the Nipomo Mesa Management Area Annual Report (April 2014) regarding water shortage conditions also applies to the area covered by the Nipomo Mesa Water Conservation Area.

3.3 CUMULATIVE DEVELOPMENT

CEQA defines “cumulative impacts” as two or more individual events that, when considered together, are considerable or will compound other environmental impacts. Cumulative impacts are the changes in the environment that result from the incremental impact of implementation of the proposed Program and other nearby projects. For example, traffic impacts of two nearby projects may be insignificant when analyzed separately, but could have a significant impact when analyzed together. Cumulative impact analysis allows the EIR to provide a reasonable forecast of future environmental conditions and can more accurately gauge the effects of a series of projects.

For this analysis the cumulative projects are assumed to be the buildout of the County of San Luis Obispo General Plan. The Land Use Element of the County of San Luis Obispo General Plan projects that implementation of the General Plan would result in a buildout capacity population of 238,000 persons outside Urban Reserve Lines (URL). Current population in the county as a whole is 272,357 (California Department of Finance, 2014).

The Paso Robles Groundwater Basin is located within multiple area plans including Adelaida, El Pomar-Estrella, Los Padres, Salinas River, and Shandon-Carrizo. The Los Osos Basin is located within the Estero Area Plan. The ~~NMMA~~ Nipomo Mesa Water Conservation Area is located within the South County Area Plan. The baseline populations of these areas from the General Plan and the buildout populations are shown in Table 3-1.



**Table 3-1
Area Plan Buildout Populations**

Plan Area	2000 Population	Buildout Population	Projected Buildout Year
Paso Robles Groundwater Basin			
Adelaida	3,114	3,136	1990
El Pomar-Estrella	7,294	7,603	2010
Los Padres	319	1,191	2020+
Salinas River	61,906	95,166	1990 to 2020+
Shandon Carrizo	2,476	53,691	2020+
Los Osos Basin			
Estero	28,626	53,691	2020+
Nipomo Mesa Management Area			
South County	21,464	37,323	1995 to 2020+

Source: San Luis Obispo County General Plan Land Use Element, 2014

**Table 3-1
Community Buildout Populations**

Community	2010 Population	General Plan Buildout Population	Projected Buildout Year
Paso Robles Groundwater Basin			
Creston Village	94	336	2040+
San Miguel	2,337	6,829	2040+
Shandon	1,295	5,259	2040+
Urban Paso Robles: Unincorporated	2,054	3,904	2040+
Whitley Gardens Village	274	392	2040+
Rural ¹	18,094	38,679	2040+
Los Osos Groundwater Basin			
Los Osos ²	13,908	21,304	2040+
Nipomo Mesa Water Conservation Area			
Black Lake Village	867	867	Built out
Callender-Garrett Village	1,192	2,440	2040+
Los Berros Village	213	213	Built out
Nipomo	15,267	23,462	2040+
Palos Mesa Village	2,341	2,908	2040+
Woodlands Village	576	2,812	2040+
Rural ³	11,192	20,291	2040+

Source: San Luis Obispo County Department of Planning and Building, 2014, based on 2010 US Census, and San Luis Obispo County 2040 Population, Housing and Economic Forecast prepared for San Luis



Obispo Council of Governments, by AECOM, August 2011

Notes:

1) Population figures for rural area in the North County Planning Area include those that overlie the Paso Robles Groundwater Basin and those that do not

2) Population figures for Los Osos include only those within the URL and does not include those that overlie the Los Osos Groundwater Basin, but outside the URL

3) Population figures for rural area in the South County Planning Area include those that overlie the Nipomo Mesa Water Conservation Area and those that do not

