2016 -2018

Resource Summary Report

Volume I of II – Findings and Recommendations

San Luis Obispo County General Plan

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INTRODUCTION

Scope and Purpose

This 2016-2018 biennial edition of the Resource Summary Report (RSR) covers the fiscal years July 1, 2016 through June 30, 2018. The report is based on information gathered from service providers, County agencies, reports from state and regional agencies, environmental impact reports for major projects, research compiled for the ongoing Land Use and Circulation Element Update program, and personal communications with agency staff. Additional resource information is provided by staff of community services districts (CSD), school districts, other special districts, and private water companies.

The primary purpose of the RSR is to provide a comprehensive biennial summary of the state of the County's natural and human-made resources. Recommended actions in the RSR may also address resource use by existing development and recommend improvements to resource infrastructure and efficiencies.

Organization of the Resource Summary Report

The 2016-2018 RSR provides an assessment of the following resources:

- Water Supply
- Water Systems
- Wastewater Collection and Treatment
- Roads and US Hwy 101 Interchanges
- Schools
- Parks
- Air Quality

The assessment is presented in two volumes. Volume I provides an overview of the resources assessed by the RSR, including a brief discussion of relevant environmental and regulatory issues and the current status of resources for each service provider. The criteria for assessing the levels of severity are explained, followed by recommended Levels of Severity and recommended actions.

Volume II provides the detailed analysis for each topic that supports the findings and recommendations. Key aspects of the analysis include:

- The discussion of resources and Levels of Severity is organized by resource. Maps and illustrations are provided where necessary for geographic context.

- An analysis of resource constraints affecting the seven incorporated cities is not included. Although certain resources serving the cities also serve the

County and its many unincorporated communities, decisions made by the cities are outside the jurisdiction of the County. If an incorporated City impacts a resource such as a groundwater basin, that impact is included in the analysis of that resource.

- Countywide resources associated with motor vehicle miles travelled, fuel and energy use, and greenhouse gas emissions are not included because data used to generate these analyses are no longer available from Caltrans. These issues will continue to be addressed by the Conservation and Open Space Element of the County General Plan and by the County's EnergyWise Plan (climate action plan).

- In 2014, the Board (the Board) revised the criteria used for assessing the Levels of Severity. In 2018, and based on actions taken by the California Coastal Commission, the Board directed staff to apply the 1996 RMS Level Of Severity criteria for water resources and wastewater treatment in the Coastal Zone portions of the County. The revised criteria are discussed below under *Criteria for Determining Levels of Severity*.

The Resource Management System

The RSR is one of the key parts of the Resource Management System (RMS), which is described in the Framework for Planning, Part I of the Land Use Element of the County General Plan. The RMS provides information to guide decisions about balancing land development with the resources necessary to sustain such development. To accomplish this goal, the RMS focuses on:

- Collecting data;
- Identifying problems; and
- Helping decision-makers develop solutions.

When a resource deficiency becomes apparent, several courses of action are possible to protect the public health, safety and welfare:

- The resource capacity may be expanded;
- Conservation measures may be introduced to extend the availability of unused capacity;
- Resource efficiencies may be introduced;
- Development may be restricted or redirected to areas with remaining resource capacity.

In this way, the RMS addresses development in terms of appropriate distribution, location, and timing rather than growth versus no-growth.

Resource and Infrastructure Needs

San Luis Obispo County continues to face serious resource and costly infrastructure challenges. These challenges include protecting groundwater levels, securing new water supplies, constructing water distribution facilities, and funding improvements to major circulation facilities such as freeway interchanges. As people continue to be drawn to the Central Coast to enjoy our beaches, rural character and quality of life, a focused effort will continue to be needed to address these resource and infrastructure constraints.

Some of our communities and rural areas have both long-term and short-term resource and infrastructure needs. In the case of water supply, additional supplies are potentially available to some areas, but are not being used to the fullest extent (water recycling, for example). Providing for resource and infrastructure needs will require both well-considered policy choices and funding of important infrastructure.

How Was Information Gathered for this Report?

The information and data gathered for this report are requested and received from the relevant service providers and agencies and are also derived from various planning documents. This Information has been provided on a completely voluntary basis by service providers; as such, the report reflects the most accurate information provided to date.

Population

Population forecasts in the RSR are derived from projections prepared by the San Luis Obispo County Department of Planning and Building (Planning and Building) in July 2018.

Water System, Supply, Usage & Rates

Each July, the County Public Works Department (Public Works) in conjunction with the Department of Planning and Building (Planning and Building) asks water suppliers and water system operators throughout the County to report on water demand and supply for their jurisdiction[1]. Staff contacts service providers who have not submitted the requested information within the requested timeframes.

As the RSR reporting system is voluntary, service providers are not obligated to respond to requests for information; however, many do. As a result, data gaps in the RSR may occur each year if requested information is not provided. The cooperation

[1] Over the years there has been a high level of participation by water providers within the cities and the unincorporated county.

and participation of the service providers who do respond each year is greatly appreciated.[2]

The RSR also references the annual monitoring reports prepared for the Nipomo Mesa and Los Osos for their groundwater rights adjudication requirements.

Agricultural and Rural Water Usage and Supply Estimates

Water usage in areas outside the service area of one or more water purveyors is uncertain and must be estimated. Water supply and demand estimates for rural and agricultural areas are based on methodologies used in the 2012 Master Water Report and 2014 Integrated Water Management Plan.

Wastewater Collection and Treatment (Including Septic Systems)

Information pertaining to wastewater system operations is obtained from the Regional Water Quality Control Board.

Roads and U.S. 101 Interchanges

In 2009, the Board directed staff to include the condition of interchanges in the unincorporated communities along the U.S. Highway 101 corridor in the RSR. Accordingly, Public Works provides updated information on roads and U.S. Highway 101 interchanges. The results of these analyses may be found in the applicable section of Volume II. Additional interchanges may be evaluated in subsequent years.

Schools

Planning and Building staff requests each school district to provide enrollment and capacity information for the past two school years.

Parks

Planning and Building staff coordinates with San Luis Obispo County Parks staff in preparing this report. Park acreage and needs are derived from the Parks and Recreation Element of the County General Plan, with updates on current developments provided by Parks staff.

Air Quality

The assessment of air quality is provided by the staff of the San Luis Obispo Air Pollution Control District.

County Population

[2] Information on current water use, historical water use and water rates are taken from the Water System Reports submitted to Public Works on a fiscal year basis.

Population provides an important context for the consideration of resources and resource constraints. The demand for resources is proportional to the current and future populations to be served, and any estimate of future demand must account for the demand associated with new residential development that has received final building permit approval but has yet to be constructed.

Table I-1 provides an estimate of the County's current (2018) and projected future population estimated by Department of Planning and Building for regional planning purposes. Future population is provided in five-year increments beginning in 2010 and continuing into the future to the year 2040. The seven incorporated cities in San Luis Obispo County (Arroyo Grande, Atascadero, Grover Beach, Morro Bay, Paso Robles, Pismo Beach and San Luis Obispo) account for approximately 55% of the county's total population (2010 Census). The population of the unincorporated County is concentrated in the urban areas of Avila Beach, Cambria, Cayucos, Los Osos, Nipomo, Oceano, Santa Margarita, San Miguel, Shandon, San Simeon and Templeton and in smaller residential areas that include Heritage Ranch, Garden Farms and Edna Valley.

A key policy of the County General Plan is to direct development to existing and strategically planned communities. In addition, a key element of the draft SLOCOG 2019 Regional Transportation Plan[3] – Sustainable Communities Strategy (RTP-SCS) is to encourage development in existing urbanized areas with access to existing businesses and services.

Table I-1 -- Estimate of Present (2018) and Future County Population

	2010 US Census	**2015**	**2018**	**2020**	**2025**	**2030**	**2035**	**2040**
Cities	151,519	157,425	160,805	163,059	168,817	173,626	177,371	179,383
Unincorporated Areas	118,118	118,950	121,738	123,597	128,279	132,066	134,975	136,539
Total County	**269,637**	**276,375**	**282,544**	**286,657**	**297,095**	**305,692**	**312,346**	**315,922**

Source: Planning and Building, 2018

1. Group quarters include nursing homes, school dormitories, military barracks, prisons, jails, and hospitals.

[3] Scheduled for adoption in June, 2019.

Levels of Severity

The RMS uses three alert levels called *levels of severity* (LOS) to identify differing levels of resource deficiencies.

- **Level I** is the first alert level and 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.

- **Level II** identifies the crucial point at which some moderation of the rate of resource use must occur to prevent exceeding the resource capacity.

- **Level III** occurs when the demand for the resource currently equals or exceeds its supply and is the most critical level of concern. Accordingly, the County should take a series of actions to address resource deficiencies before Level III is reached. In the case of water supply, for example, LOS III occurs when either the demand projected over 15 years (or other lead time determined by a resource capacity study) equals or exceeds the estimated dependable supply, or the time required to correct the problem is longer than the time available before the dependable supply is reached.

The RMS identifies a variety of steps that can be taken by the Board when it is determined that a resource has reached a particular LOS. Potential solutions to declining resource availability, or "action requirements," are not automatically invoked in response to recommended LOS. If the Board determines that a particular resource situation is not being dealt with adequately, or that a failure to act could result in serious consequences, it sets in motion the certification process. Certification involves the completion of a *Resource Capacity Study* (RCS) which investigates the resource issue in more detail than the preliminary analysis which resulted in the "recommended" LOS. The RCS is the subject of public hearings by the County Planning Commission and the Board. If the Board certifies a LOS, the appropriate “action requirements” are implemented.

It is important to distinguish between "recommended" LOS and LOS that have been certified by the Board. All LOS are initially the recommendations of staff based on information provided by the various service providers or recommendations from the Water Resource Advisory Committee (WRAC)[4]. These recommended LOS should be taken as general indicators of declining resource availability.

Criteria for Determining Levels of Severity

The RMS defines LOS for the following resources:

- Water Supply (including groundwater and surface water)
- Water Systems
- Wastewater Collection and Treatment (including septic systems)
- Roads and Highway Interchanges
- Schools
- Parks
- Air Quality

RMS Criteria for the Coastal Zone and Inland Areas

On December 16, 2014, the Board of Supervisors approved amendments to portions of the Resource Management System (RMS) in the Inland and Coastal Framework for Planning. The purpose of these amendments was to update the RMS so that it more closely reflected current efforts to effectively deal with resource and infrastructure needs and limitations, and to add Parks and Highway 101 interchanges as monitored resources.

Amendments to the Inland Framework for Planning became effective on January 16, 2015, while amendments to the Coastal Framework for Planning were forwarded to the CCC for review and action. Following their review, CCC staff recommended significant modifications to the LOS Action Requirements for LOS I, II and III based on their concern that the amendments adopted by the Board "weakened" the effectiveness of the LCP portion of the RMS by making the Action Requirements discretionary rather than mandatory. The subsequent resolution of certification adopted by the CCC incorporated the language recommended by CCC staff. At its meeting of June 5, 2018, the Board took no action on the modifications adopted by the CCC, effectively rejecting the CCC modifications. Rejection of the CCCs modifications had the following effects:

[4] The WRAC is composed of representatives of the various water resources stakeholders in the County and charged with the responsibility of advising the Board on water-related policy. The WRAC includes appointees from of each of the five supervisorial districts, as well as representatives of each of the seven cities, community services districts, resource conservation districts, agricultural, environmental and development interests, water agencies and institutions.

- The language of the RMS section of the Coastal Zone Framework for Planning, including the criteria for Levels of Severity and Action Requirements, remains unchanged.

- Amendments to the Inland Framework for Planning adopted by the Board in 2014 remain in effect for the inland areas, only.

On March 12, 2019, the Board of Supervisors approved this 2016-2018 Resource Summary Report. The Board's approval included the removal of all references to resources within Board of Supervisor District 2 due to concerns about the water supply sections. On August 18, 2020, the Board of Supervisors approved revisions to this 2016-2018 Resource Summary Report to add District 2 information back into the report, including an updated water supply analysis for the Los Osos Area, based on the 2019 Annual Monitoring Report prepared for the Los Osos Basin Management Committee and clarification of the agricultural and rural water demand estimates for San Simeon, Cayucos, and Cambria areas.

Methodologies

Water Supply

Groundwater is the principal source of water in the County, and groundwater basins may serve multiple purveyors. Accordingly, the discussion of recommended Levels of Severity has been grouped by regions which generally coincide with the major groundwater basins. Information regarding the current status of each basin was derived from a variety of sources, including (but not limited to) the following:

- The San Luis Obispo County Master Water Report, 2012
- The Updated Basin Plan for the Los Osos Groundwater Basin, January 2015
- Los Osos Basin Annual Monitoring Reports, 2016, 2017, 2018, 2019
- The Paso Robles Groundwater Basin Management Plan, 2011
- The Paso Robles Groundwater Basin Computer Model, 2016
- The 2014 San Luis Obispo County Integrated Regional Water Management Plan
- The 2017 Nipomo Mesa Management Area Annual Report
- 2017 Northern Cities Management Area Annual Report
- Recently updated Urban Water Management Plans

A complete list of sources is provided in the Appendix.

Coastal Zone Areas

To determine the LOS for a groundwater basin that lies entirely within the Coastal Zone, the 1996 Coastal RMS Criteria were applied. Forecasted demand from urban, rural, and agricultural users over 9 years (LOS I), 7 years (LOS II), and at present (2018) was derived from fiscal year 2017/2018 water use forms submitted to the County, from the 2012 Master Water Report and from the 2014 San Luis Obispo Integrated Regional Water Management Plan and compared with the dependable supply, including supplemental sources such as surface water supplies, imported water, and other non-groundwater basin supplies. LOS were assigned based on whether the projected demand would exceed the dependable supply of the groundwater resource over these time periods.

Inland Areas

To determine the LOS for a groundwater basin that lies entirely within the Inland Area, the 2014 Inland RMS Criteria were applied. Forecast demand from urban, rural, and agricultural users over 15 years, 15-20 years, and 20 years was derived from 2018 water use forms submitted to the County, from the 2012 Master Water Report, and from the 2014 San Luis Obispo Integrated Regional Water Management Plan and compared with the dependable supply, including supplemental sources such as surface water supplies, imported water, and other non-groundwater basin supplies. LOS were assigned based on whether the projected demand would exceed the dependable supply over these time periods.

Groundwater Basins That Underlie Portions of the Coastal and Inland Areas

To determine the LOS for a groundwater basin that extends inland from the Coastal Zone, both sets of RMS criteria were applied. In such cases, the Recommended Action Requirements are based on the higher LOS (when they differ) or the Recommended Action Requirements of the more strict LOS if they are the same.

<u>Wastewater Treatment</u>

To determine the LOS for a wastewater treatment plant that serves both Coastal and Inland Areas, the location of the treatment plant (Coastal or Inland) will determine the appropriate criteria to apply.

<u>Water Systems, Septic Systems, Air Quality, Schools, Parks, Roads and Freeway Interchanges</u>

The Inland LOS Criteria will apply regardless of location.

WATER SUPPLY

Level of Severity	Water Supply Criteria*	
	Coastal Zone	**Inland Areas**
I	Timeframe for remaining dependable water supply is 9 years	Water demand projected over 20 years equals or exceeds the estimated dependable supply. LOS I provides five years for preparation of resource capacity studies and evaluation of alternative courses of action.
II	Timeframe for remaining dependable water supply is 7 years	Water demand projected over 15-20 years (or other lead time determined by a resource capacity study) equals or exceeds the estimated dependable supply.
III	Supply equal or exceeds estimated dependable supply	Water demand projected over 15 years (or other lead time determined by a resource capacity study) equals or exceeds the estimated dependable supply, OR The time required to correct the problem is longer than the time available before the dependable supply is reached.

*These criteria do not consider the cyclical effects of drought or above-average rainfall years.

WATER SYSTEMS

Level of Severity	Water System Criteria (Coastal Zone and Inland Areas)
I	The water system is projected to be operating at the design capacity within seven years. Two years would then be available for preparation of a resource capacity study and evaluation of alternative courses of action.
II	A five-year or less lead time (or other lead time determined by a resource capacity study) needed to design, fund and construct system improvements necessary to avoid a LOS III problem.
III	Water demand equals available capacity: a water distribution system is functioning at design capacity or will be functioning at capacity before improvements can be made. The capacity of a water system is the design capacity of its component parts: storage, pipelines, pumping stations and treatment plants.

WASTEWATER TREATMENT

Level of Severity	Wastewater Treatment Criteria	
	Coastal Zone	**Inland Areas**
I	Projected average daily flow = plant capacity within 6 years	The service provider or RWQCB determines that monthly average daily flow will or may reach design capacity of waste treatment and/or disposal facilities within 4 years. This mirrors the time frame used by the RWQCB to track necessary plant upgrades.
II	5 year projected average daily flow = plant capacity	RWQCB determines that the monthly average daily flow will or may reach design capacity of waste treatment and/or disposal facilities within 2 years.
III	Average daily flow = plant capacity or the plant will be at capacity before improvements can be made	Peak daily flow equals or exceeds the capacity of a wastewater system for treatment and/or disposal facilities.

WASTEWATER COLLECTION SYSTEMS

Level of Severity	Wastewater Collection Criteria (Coastal Zone and Inland Areas)
I	2-year projected flows equal 75% of the system capacity. A 2-year period is Recommended for the preparation of resource capacity study.
II	System is operating at 75% capacity OR The five-year projected peak flow (or other flow/time period) equals system capacity OR The inventory of developable land in a community would, if developed, generate enough wastewater to exceed system capacity.
III	Peak flows fill any component of a collection system to 100% capacity.

1. A wastewater collection system includes facilities that collect and deliver wastewater to a treatment plant for treatment and disposal (sewer pipelines, lift stations, etc.)

SEPTIC SYSTEMS

Level of Severity	Septic Systems Criteria (Coastal Zone and Inland Areas)
I	Failures occur in 5% of systems in an area or other number sufficient for the County Health Department to identify a potential public health problem.
II	Failures reach 15% and monitoring indicates that conditions will reach or exceed acceptable levels for public health within the time frame needed to design, fund and build a project that will correct the problem, based upon projected growth rates.
III	Failures reach 25% of the area's septic systems and the County Health Department and RWQCB find that public health is endangered.

1. Includes septic tank systems or small aerobic systems with subsurface disposal. Typical disposal systems include leach fields, seepage pits, or evapotranspiration mounds.

ROADS

Level of Severity	Roads, Circulation Criteria
I	Traffic volume projections indicate that Level of Service "D"* would be reached within five years.
II	Traffic volume projections indicate that Level of Service "D"* would be reached within two years.
III	Traffic volume projections indicate that the road or facility is operating at Level of Service "D."*

*Level of Service “D” is the criteria threshold for urban roads. For rural roads, the criteria threshold is Level of Service “C.”

HIGHWAY INTERCHANGES

Level of Severity	Highway Interchange Criteria
I	Traffic volume projections indicate that Level of Service "D" would be reached within 10 years**.**
II	Traffic volume projections indicate that Level of Service "D" would be reached within five years.
III	Traffic volume projections indicate that the interchange is operating at Level of Service "D."

SCHOOLS

Level of Severity	Schools Criteria
I	When enrollment projections reach school capacity within seven years.
II	When enrollment projections reach school capacity within five years.
III	When enrollment equals or exceeds school capacity.

PARKS

Level of Severity	Parks Criteria
I	**Regional Parks**. The county provides between 10 and 15 acres of regional parkland per 1,000 persons in the entire county (i.e., incorporated and unincorporated population). **Community Parks**. An unincorporated community has between 2.0 and 3.0 acres of community parkland per 1,000 persons.
II	**Regional Parks**. The county provides between 5 and 10 acres of regional parkland per 1,000 persons in the entire county (i.e., incorporated and unincorporated population). **Community Parks**. An unincorporated community has between 1.0 to 2.0 acres of community parkland per 1,000 persons.
III	**Regional Parks**. The county provides less than 5 acres of regional parkland per 1,000 persons in the entire county (i.e., incorporated and unincorporated population). **Community Parks**. An unincorporated community has 1.0 acre or less of community parkland per 1,000 persons.

AIR QUALITY

Level of Severity	Air Quality Criteria
I	Air monitoring shows periodic but infrequent violations of a state air quality standard, with no area of the county designated by the state as a non-attainment area.
II	Air monitoring shows one or more violations per year of a state air quality standard and the county, or a portion of it, has been designated by the state as a non-attainment area.
III	Air monitoring at any county monitoring station shows a violation of a federal air quality standard on one or more days per year, and the county or a portion of the county qualifies for designation as a federal non-attainment area.

RECOMMENDED LEVELS OF SEVERITY AND RECOMMENDED ACTIONS

The LOS recommended for each resource are summarized below along with the recommended actions. There are no LOS established for cities. Table I-2 provides a summary of the recommended changes to the LOS in the 2016-2018 RSR compared to the 2014-2016 RSR.

Table I-2 – Recommended Changes to LOS Compared With Those Adopted In The 2014-2016 Resource Summary Report

Resource	2014-2016 Level of Severity	2016-2018 Recommended Level of Severity	Notes
Water Supply			
Los Osos Groundwater Basin	III	No Change	
Pico Creek Groundwater Basin	III	**II**	Applying the 1996 RMS Criteria to coastal groundwater basins changed the recommended LOS.
San Simeon Valley Groundwater Basin	None	**III**	Applying the 1996 RMS Criteria to coastal groundwater basins changed the recommended LOS.
Santa Rosa Valley Groundwater Basin	None	**III**	Applying the 1996 RMS Criteria to coastal groundwater basins changed the recommended LOS.
Other	Various	No Changes	
Water Systems			
	None	No Changes	All of the RMS water systems are operating within capacity.
Wastewater Treatment			
	None	No Changes	All of the RMS wastewater treatment plants outside of District 2 are operating within capacity.
Wastewater Septic Systems			
Santa Margarita	I	No Change	
Shandon	None	No Change	

Table I-2 – Recommended Changes to LOS Compared With Those Adopted In The 2014-2016 Resource Summary Report			
Resource	**2014-2016 Level of Severity**	**2016-2018 Recommended Level of Severity**	**Notes**
Los Osos	III	**No Recommended LOS**	Reflects completion of the Water Recycling Facility and decommissioning of septic systems.
Nipomo	III for the Prohibition Zone	No Change	
Roads			
Avila Beach Drive	None	No Change	Reflects a change in the methodology for determining the roadway level of service.
Halcyon Road	III	No Change	Increased traffic.
Los Osos Valley Road	II	**I**	
Los Berros Road	None	**III**	Not assessed in 2014-2016 RSR.
Price Canyon Road	III	**II**	
Las Tablas Road	None	No Change	Based on the level of service standard for urban roadways.
South Bay Boulevard	III	No Change	
Tank Farm Road	III	No Change	
Interchanges			
Las Tablas Road	None	**I**	Not assessed in the 2014-2016 RSR
HWY 46 West	III	**II**	Improvements to SB ramps.
Los Berros Road/ Thompson Blvd.	I	No Change	Traffic decreased due to traffic now using the Willow Road interchange.
Willow Road	I	No Change	The Willow Road interchange was new in 2014 and was added for the 2014-2016 RSR.
SR 166	I	**II**	Based on the latest update of South County Circulation Study.
Tefft Street SB ramps	III	No Change	
North Main Street	III	No Change	
Avila Beach Drive	III	No Change	The Avila Beach Drive interchange was added for the 2014-2016 RSR.

Table I-2 – Recommended Changes to LOS Compared With Those Adopted In The 2014-2016 Resource Summary Report			
Resource	**2014-2016 Level of Severity**	**2016-2018 Recommended Level of Severity**	**Notes**
San Luis Bay Drive	III	No Change	The San Luis Bay Drive interchange was added for the 2014-2016 RSR.
Schools			
Atascadero Unified School District	None	No Change	
Belleview-Santa Fe Charter School	None	No Change	
Coast Unified School District	None	No Change	
Cayucos Elementary School District	I	No Change	
Grizzly Youth Academy	II	**++**	No data provided.
Lucia Mar School District – Elementary Schools	II	**III**	Increased enrollment.
Lucia Mar School District – Middle Schools	II	None	Enrollment has leveled off.
Lucia Mar School District – High Schools	None	No Change	
Paso Robles Joint Unified School District	None	++	No data provided.
Pleasant Valley Joint Union School District	None	No Change	
San Miguel Joint Union School District	None	No Change	
San Luis Coastal – Elementary Schools	II	No Change	Enrollment has leveled off.
Shandon Joint Unified School District	None	No Change	
Templeton Unified School District	None	++	No data provided.
Parks			
Regional Parks	None	No Change	
Community Parks	Various	**The recommended LOS for community parks for Cambria has changed from LOS II to LOS III.**	Based on a more accurate calculation of community park acreage.
Air Quality			

Table I-2 – Recommended Changes to LOS Compared With Those Adopted In The 2014-2016 Resource Summary Report			
Resource	**2014-2016 Level of Severity**	**2016-2018 Recommended Level of Severity**	**Notes**
Ozone	III for East Co. II for West County	No Changes	
Particulate Matter – $PM_{2.5}$	III for Nipomo Mesa II for All Other Areas	No Changes	
Particulate Matter – PM_{10}	III for Nipomo Mesa II for All Other Areas	No Changes	
Sulfur Dioxide	I for Nipomo Mesa	No Change	
Nitrogen Dioxide, Carbon Monoxide, Lead	None	No Changes	
Toxic Air Contaminants	None. LOS for Toxics not evaluated because toxics are not criteria pollutants and strategies are in place to mitigate impacts.	No Changes	

Changes shown in bold.

++ No data were provided.

Water Supply and Water Systems

Findings

- Groundwater continues to be the primary source of water for unincorporated areas of the county. According to the Department of Water Resources, three of the basins in this report remain critically overdrafted: Cuyama Valley, Los Osos, and Paso Robles.

- Surface water supplies include the four reservoirs (Whale Rock, Santa Margarita Lake, Lopez Lake and Lake Nacimiento) and the State Water Project. Together, surface water supplies account for about 46 percent of water deliveries to customers in the unincorporated county.

- The County has 14,423 AFY of unsubscribed State Water Project Table A allocation. State Water Project reliability and deliveries continue to be affected by the variability of precipitation from year to year.

- A groundwater basin Boundary Modification has been pursued for the Atascadero Basin.

- The Shandon-San Juan Water District (SSJWD) and Estrella-El Pomar-Creston Water District (EPCWD) were formed for the purpose of serving as (or part of) Groundwater Sustainability Agencies in accordance with the Sustainable Groundwater Management Act (SGMA).

- In March 2018, the Board of Supervisors decided not to withdraw from serving as the Groundwater Sustainability Agency (GSA) within the service area of the EPCWD.

- The Cambria Community Services District has applied for a Coastal Development Permit for the Sustainable Water Facility which is intended to improve reliability of the community's water supply.

- The Los Osos Basin Management Committee reports usage rates within their target basin yield metric.

- Recycling and re-use of treated wastewater continues to increase.

- Water systems serving unincorporated areas continue to operate within their design capacities.

Table I-3 -- Recommended Levels of Severity And Recommended Actions – Water Supply

Groundwater Basins and Affected Water Purveyors	**Recommended LOS**	**Recommended Actions**
Water Planning Area 1 – San Simeon/Cambria		
Pico Creek Valley Groundwater Basin *Water Purveyors* San Simeon CSD	**II**	Recommended Level of Severity II based on the 1996 RMS criteria. Continue to support San Simeon CSD efforts to improve water conservation, the efficient use of water, and water re-use.

Table I-3 -- Recommended Levels of Severity And Recommended Actions – Water Supply		
Groundwater Basins and Affected Water Purveyors	**Recommended LOS**	**Recommended Actions**
		Continue to collect development impact fees for the construction of water supply infrastructure. Support San Simeon CSD efforts to develop sustainable supplemental sources of water.
San Simeon Valley Groundwater Basin Santa Rosa Valley Groundwater Basin *Water Purveyors* Cambria CSD	**III** **III**	Maintain LOS III based on unreliability of groundwater basins. Collaborate with the Cambria Community Services District for the issuance of a limited number of intent-to-serve letters and building permits based on the continued use of a demand offset conservation program that offsets new demand from new water connections. Revise the County Growth Management Ordinance in collaboration with the Cambria Community Services District to accommodate the issuance of an allowable number of building permits for new development. Collaborate with the Cambria Community Services District to prepare and obtain a Coastal Development Permit for its recently completed Sustainable Water Facility (SWF) along the lower San Simeon Creek aquifer.
Water Planning Area 2 – Cayucos/Morro Bay/Los Osos		
Cayucos Valley Groundwater Basin Old Valley Groundwater Basin *Water Purveyors* CSA 10A Morro Rock Mutual Water Co.	None None	Continue to support efforts to improve water conservation, the efficient use of water, and water re-use.

Table I-3 -- Recommended Levels of Severity And Recommended Actions – Water Supply		
Groundwater Basins and Affected Water Purveyors	**Recommended LOS**	**Recommended Actions**
Cayucos Beach Mutual Water Co.		Continue to collect development impact fees for the construction of water supply infrastructure. Support efforts to develop a reliable water supply reserve as an alternative to groundwater. Recycled water should be considered as an alternative supply.
Los Osos Valley Groundwater Basin *Water Purveyors* Los Osos CSD S&T Mutual Water Co. Golden State Water Co.	LOS III	LOS III to remain in place based on the 1996 RMS criteria. Continue to support efforts to implement the Basin Management Plan. Implement the water management strategies of the Los Osos Community Plan following adoption. To the extent necessary pending DWR's consideration of boundary changes, continue to support efforts of the GSA to actively and cooperatively meet SGMA requirements.
Water Planning Area 3 – San Luis Obispo/South County		
San Luis Obispo Valley Groundwater Basin – San Luis and Edna Valley Sub-basins *Water Purveyors* Golden State Water Co. San Luis Obispo Valley Groundwater Basin – Avila Valley Sub-basin *Water Purveyors* Avila Beach CSD Avila Valley Mutual Water Co. San Miguelito Mutual Water Co. CSA 12	None None	Support efforts to determine the safe yield of the Avila Valley Sub-basin.

Table I-3 -- Recommended Levels of Severity And Recommended Actions – Water Supply		
Groundwater Basins and Affected Water Purveyors	**Recommended LOS**	**Recommended Actions**
Santa Maria Groundwater Basin – Northern Cities Management Area *Water Purveyors* Oceano CSD	None	No recommended LOS for the NCMA based on either the 1996 or 2014 RMS criteria. Support implementation of the NCMA 2014 Strategic Plan and the 2015 Water Supply, Production and Delivery Plan. Continue to help fund area wide water conservation through the fee on new construction. Collaborate with NCMA to develop a groundwater model that supports efforts towards achieving groundwater sustainability and supports SGMA compliance in the basin "fringe areas" subject to SGMA. Continue to support efforts of the GSAs to actively and cooperatively develop a Groundwater Sustainability Plan that meets SGMA requirements.
Santa Maria Groundwater Basin – Nipomo Mesa Management Area *Water Purveyors* Nipomo CSD	**II/III**	LOS II for the NMMA based on the 1996 RMS criteria. LOS III for the NMMA based on the 2014 RMS criteria. Consider ending the Title 8 retrofit-upon-sale ordinance in the Nipomo Mesa Water Conservation Area.

Table I-3 -- Recommended Levels of Severity And Recommended Actions – Water Supply		
Groundwater Basins and Affected Water Purveyors	**Recommended LOS**	**Recommended Actions**
Woodlands Mutual Water Co. Woodland Park MWC Golden State Water Co.		Support implementation of NCSD Supplemental Water Project. Coordinate any needed County actions such as an AB 1600 study to quantify the costs and benefits of the identified supplemental water project for groundwater users outside the Nipomo CSD. Collaborate with the Nipomo CSD, South County Sanitation District and other stakeholders to assist in their efforts to improve water supply reliability, including the use of recycled water. Continue to help fund area wide water conservation through the fee on new construction. Collaborate with the NMMA to develop a groundwater model that supports efforts towards achieving groundwater sustainability and supports SGMA compliance in the basin "fringe areas" subject to SGMA. Continue to support efforts of the GSAs to actively and cooperatively develop a Groundwater Sustainability Plan that meets SGMA requirements.
Water Planning Area 4 Cuyama Valley – Not assessed. No recommended actions.		
Water Planning Area 5 – North County		
Paso Robles Groundwater Basin *Water Purveyors* San Miguel CSD CSA 16 – Shandon	**III**	Maintain LOS III for the Basin based on LOS Designation of previous (2014-2016) RSR. Continue to support efforts of the GSAs to actively and cooperatively develop a Groundwater

Table I-3 -- Recommended Levels of Severity And Recommended Actions – Water Supply		
Groundwater Basins and Affected Water Purveyors	**Recommended LOS**	**Recommended Actions**
		Sustainability Plan that meets SGMA requirements.
Atascadero Basin *Water Purveyors* Templeton CSD Atascadero Mutual Water Co. CSA 23	None	Continue to support efforts of the GSA to actively and cooperatively develop a Groundwater Sustainability Plan that meets SGMA requirements. Prepare a Resource Capacity Study to determine the safe yield of the Santa Margarita Groundwater Basin. Support efforts to develop additional sustainable water supplies for CSA 23.
Lake Nacimiento Area *Water Purveyors* Heritage Ranch CSD Nacimiento Water Co.	None	Continue to support efforts to improve water conservation, the efficient use of water, and water re-use. Continue to collect development impact fees for the construction of water supply infrastructure. Support efforts to develop sustainable supplemental sources of water.
Water Planning Area 6 -- Carrizo Plain -- Not assessed. No recommended actions.		

Water Systems

No Levels of Severity are recommended.

Wastewater

Findings

- All of the treatment plants serving the unincorporated county are operating below design capacity. No Levels of Severity are recommended.
- The Los Osos Water Recycling Facility is complete and nearly 100% of the community has connected.
- Three communities continue to be served by septic systems: Shandon (No LOS), Santa Margarita (LOS I) and the Prohibition Zone in Nipomo (LOS III).

Table I-4 -- Recommended Levels of Severity And Recommended Actions – Wastewater Treatment and Septic Systems

Wastewater Treatment	Recommended Levels of Severity	Recommended Actions
No Levels of Severity are recommended		
Septic Systems	**Recommended Levels of Severity**	**Recommended Actions**
Santa Margarita	**I**	Monitor septic system failures continue to occur in the community of Santa Margarita. The carry over of solids from the septic tank to the leach field is the most common cause of absorption system clogging and failure. Encourage property owners to properly maintain their septic systems. Remove Level of Severity III for Los Osos because of implementation of the Water Recycling Facility project and the decommissioning of on-site septic systems in the prohibition zone. Maintain Level of Severity III for the "prohibition zone" in the Nipomo Area. Consult with County Environmental Health and RWQCB on actions and monitor water quality for communities in which septic systems continue to be used. Evaluate alternatives to septic systems such as a public sewer system, a community septic system maintenance program, or a collection and disposal system to existing onsite treatment tanks in communities in where septic systems continue to be used. Identify funding for communities that have a community wastewater treatment facility identified in an approved Public Facility Financing Plan.
Shandon	None	
Los Osos	None	
Nipomo	III for the "prohibition zone".	

Roads and Interchanges

Findings

- Roadway operations have improved for Price Canyon Road. The recommended LOS for the remaining RMS roadway segments remain unchanged.

- Interchange operations have improved for the State HWY 46 interchange but have degraded for the SR 166 interchange. The recommended LOS for the remaining interchanges remain unchanged.

Table I-5 -- Recommended Levels of Severity And Recommended Actions – Roads and Interchanges

Roadway Segment	Community/Planning Area	Recommended Levels of Severity	Recommended Actions
Avila Beach Drive	Avila	None	Based on revised method for determining level of service. Public Works to monitor Levels of Service on RMS roadways; Continue to use area circulation studies to identify roadway improvements necessary to achieve and maintain Level of Service "C" or better on RMS roadways; Use the area circulation studies to inform the assessment of levels of severity and to recommend action requirements; Continue to establish and collect road impact fees (AB 1600 fees); and Pursue other funding options including (but not limited to) State and federal grants.
Los Osos Valley Road west of Foothill Boulevard	Los Osos/San Luis Obispo	**I**	
Price Canyon Road south of Highway 227	South County	**II**	
Halcyon Road south of Arroyo Grande Creek	Oceano	**III**	
Los Berros Road south of El Camo Road	South County		
South Bay Boulevard south of State Park Road	Morro Bay/Los Osos		
Tank Farm Road west of Santa Fe Road	San Luis Obispo		

Interchanges	Community/Planning Area	Recommended Levels of Severity	Recommended Actions
Las Tablas Road	Templeton	I	Public Works in conjunction with SLOCOG and Caltrans to monitor Levels of Service on RMS interchanges; Continue to use area circulation studies to identify interchange improvements necessary to achieve and maintain Level of Service "C" or better on RMS interchanges; Pursue other funding options including (but not limited to) State and federal grants.
Los Berros Road/Thompson Road NB ramps, South County	Nipomo area		
Willow Road NB ramps	Nipomo		
State HWY 46 West, SB ramps, Templeton area	Templeton area	II	
US HWY 166 SB ramps, South County	Nipomo area		
North Main Street SB and NB ramps, Templeton	Templeton	III	
San Luis Bay Drive NB ramps	Avila		
Avila Beach Drive SB ramps	Avila		
Tefft Street SB ramps, Nipomo	Nipomo		

Schools

Findings

- School enrollment and capacities remain largely unchanged from the 2014-2016 RSR with exception of the Lucia Mar and San Luis Coastal School District where a total of four elementary schools are operating at or near capacity.

Table I-6 -- Recommended Levels of Severity And Recommended Actions -- Schools

District	School Level	Recommended Levels of Severity	Recommended Actions
Atascadero Unified School District	Elem.	None	Continue to cooperate with the school districts to investigate ways of using existing regulations to enhance revenues available for school construction, including the formation of community facilities districts. Consult from time-to-time with County Counsel to consider whether new legislation and court rulings regarding school mitigation present the county with additional policy options for helping to address the need for school facilities.
	Middle	None	
	High	None	
Belleview-Santa Fe Charter School	K-6	None	
Coast Unified School District	Elem.	None	
	Middle	None	
	High	None	
Cayucos Elementary School District	Elem.	**I**	
Grizzly Youth Academy Challenge Program	High	No data provided	
Lucia Mar School District	Elem.	**III**	
	Middle	None	
	High	None	
Paso Robles Joint Unified School District	Elem.	No data provided	
	Middle	No data provided	
	High	No data provided	
	Alt.	No data provided	
Pleasant Valley Joint Union School District	Elem.	None	
San Luis Coastal Unified School District	Elem	**II**	
	Middle	None	
	High	None	
San Miguel Joint Union School District	K - 8	None	
Shandon Joint Unified School District	Elem.	None	
	Middle	None	
	High	None	
Templeton Unified School District	Elem.	No data provided	
	Middle	No data provided	
	High	No data provided	

Parks

Findings

- The acreage of regional park acreage per 1,000 population continues to exceed County standards.

- The analysis of park acreage per 1,000 is based on a more accurate calculation of county park acreage.

- The ratio of community park acreage per 1,000 residents continues to be below County standards except for the communities of Nipomo, Shandon, and Cambria.

Table I-7 -- Recommended Levels of Severity And Recommended Actions -- Parks

Park Type and Location	Recommended Levels of Severity	Recommended Actions
Regional Parks (countywide)	None	Continue to pursue strategies for the acquisition and development of parks, including the dedication of parkland and the collection of development impact (Quimby) and public facility fees. Collaborate with County Parks to review the Parks and Recreation Project List in the Parks and Recreation Element and make recommendations to the Board regarding which park projects to implement. Collaborate with other potential parks operators such as CSDs and school districts to provide park and recreation opportunities. When preparing Resource Capacity Studies for parks, address the following issues: a. Provide an updated inventory of existing parkland in the affected unincorporated community. b. Document existing shortfalls in park acreage.
Community Parks		
Avila	**III**	
Cambria	**III**	
Cayucos	**II**	
Los Osos	**III**	
Nipomo	None	
Oceano	**III**	
San Miguel	**III**	
Santa Margarita	**III**	
Shandon	None	
Templeton	**III**	

Air Quality

Findings

- Ozone continues to be a concern in the eastern portion of the County where the State standard has been exceeded.

- Particulates (PM2.5 and PM10) continue to be a problem on the Nipomo Mesa.

Table I-8 -- Recommended Levels of Severity And Recommended Actions -- Air Quality			
Criteria Pollutant	**Area of County**	**Recommended Levels of Severity**	**Recommended Actions**
Ozone	East County	**III**	Support APCD's efforts to address East County non-attainment.
	West County	**II**	
Particulate Matter – $PM_{2.5}$	Nipomo Mesa	**III**	Support APCD's implementation of the Stipulated Abatement Order and Particulate Matter Reduction Plan.
	All Other Areas	**II**	
Particulate Matter – PM_{10}	Nipomo Mesa	**III**	Support APCD's implementation of the Stipulated Abatement Order and Particulate Matter Reduction Plan.
	All Other Areas	**II**	
Sulfur Dioxide	Nipomo Mesa	**I**	Support APCD's implementation of the Federal Consent Decree.
Nitrogen Dioxide, Carbon Monoxide, Lead	All Areas	None	No actions needed.
Toxic Air Contaminants	All Areas	None. LOS for Toxics not evaluated because toxics are not criteria pollutants and strategies are in place to mitigate impacts.	No actions needed.

APPENDIX

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Terms and Acronyms

AFY	Acre Feet per Year; an acre-foot contains 325,851.429 gallons
BMP	Best Management Practices / Basin Management Plan
BRP	Buildout Reduction Program
CAWO	Cayucos Area Water Organization
CIP ProjectCDP	Capital Improvement Program/Capital Improvement Coastal Development Permit
CSA	County Service Area
CSD	Community Services District
District	San Luis Obispo County Flood Control and Water Conservation District
DWR	California Department of Water Resources
EAP	Estero Area Plan
I&I	Inflow and infiltration
IRWMP	Integrated Regional Water Management Plan
ISJ	Interlocutory Stipulated Judgment
LAFCo	Local Agency Formation Commission
LOCP	Los Osos Community Plan
LOS	Levels of Severity
LOWWP	Los Osos Wastewater Project
MCWRA	Monterey County Water Resources Agency
MGD	Million gallons per day
MWC	Mutual Water Company
NCMA	Northern Cities Management Area of the Santa Maria Groundwater Basin

NMMA	Nipomo Mesa Management Area of the Santa Maria Groundwater Basin
NWC	Nacimiento Water Company
NWP	Nacimiento Water Project
Quimby Fees	Fees collected for the acquisition of parkland.
PRIOR	Paso Robles Imperiled Overlying Rights
RCS	Resource Capacity Study
RMS	Resource Management System
RSR	Resource Summary Report
RTP-SCS	Regional Transportation Plan – Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
Safe Yield	The maximum dependable draft that can be made continuously upon a source of water supply over a given period of time during which the probable driest period, and therefore period of greatest deficiency in water supply, is likely to occur.
SGMA	Sustainable Groundwater Management Act
SLOCOG	San Luis Obispo Council of Governments
SMVMA	Santa Maria Valley Management Area of the Santa Maria Groundwater Basin
SMMWC	San Miguelito Mutual Water Company
SMVGB	Santa Maria Groundwater Basin
SSLOCSD	South San Luis Obispo County Sanitation District
SWP	State Water Project
SWRCB	State Water Resources Control Board
URL	Urban Reserve Line
WMP	Water Master Plan

WMWC	Woodlands Mutual Water Company
WPA	Water Planning Area
WRAC	Water Resource Advisory Committee
WWTP	Wastewater treatment plant

List of Agency Participation

Table A-1 -- Agency Participation		
Agency or Organization	**Provided Data**	**Provided Comments On Draft RSR**
State Agencies		
California Department of Resources, Central Coast Regional Water Quality Control Board	Yes	No
County Departments and Agencies		
San Luis Obispo Council of Governments	Yes	No
San Luis Obispo County Flood Control and Water Conservation District	No	No
San Luis Obispo County Department of Parks and Recreation	Yes	No
San Luis Obispo County Public Works Department	Yes	Yes
County Service Areas		
CSA 10A – Cayucos	Yes	No
CSA 12 – Avila Beach	Yes	No
CSA 23 – Santa Margarita	Yes	No
CSA 16 – Shandon	Yes	No
CSA 18 – Country Club Estates	Yes	No
Community Services Districts		
Avila Beach CSD	Yes	No
Cambria CSD	Yes	Yes
Heritage Ranch CSD	Yes	Yes
Los Osos CSD	Yes	Yes
Nipomo CSD	Yes	Yes
Oceano CSD	Yes	Yes
San Miguel CSD	Yes	Yes
San Simeon CSD	Yes	Yes
Templeton CSD	Yes	Yes
Special Districts		
Cayucos Sanitary District	No	No
San Luis Obispo Air Pollution Control District (APCD)	Yes	Yes
South San Luis Obispo County Sanitation District	No	No
Private Water Purveyors		
Atascadero Mutual Water Co.	Yes	No
Avila Valley Mutual Water Co.	No	No

Table A-1 -- Agency Participation		
Agency or Organization	**Provided Data**	**Provided Comments On Draft RSR**
Cayucos Beach Water Assoc.	Yes	Yes
Garden Farms	Yes	No
Golden State Water Co.	Yes	Yes
Morro Rock Mutual Water Co.	Yes	No
Nacimiento Water Co.	No	Yes
San Miguelito Mutual Water Co.	Yes	No
Santa Margarita Ranch	Yes	No
S&T Mutual Water Co.	Yes	No
Woodlands Mutual Water Co.	Yes	Yes
School Districts		
Atascadero Unified School District	Yes	No
Belleview-Santa Fe Charter School	Yes	No
Cayucos Elementary School District	Yes	No
Coast Unified School District	No	No
Grizzly Youth Academy Challenge Program	No	No
Lucia Mar School District	Yes	No
Paso Robles Joint Unified School District	No	No
Pleasant Valley Joint Union School District	Yes	No
San Luis Coastal Unified School District	Yes	No
San Miguel Joint Union School District	Yes	No
Shandon Joint Unified School District	Yes	No
Templeton Unified School District	No	No
Other Organizations		
Economic Vitality Commission	No	No
Los Osos Basin Management Committee	Yes	Yes
Nipomo Mesa Management Area	Yes	Yes
Northern Cities Management Area	Yes	Yes
SLO County Water Resources Advisory Committee (WRAC)	Yes	Yes
Cities		
City of Arroyo Grande	No	Yes
City of Grover Beach	No	Yes

2016 -2018

Resource Summary Report

San Luis Obispo County General Plan

Volume II of II – Supporting Data and Analysis

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Adopted by the Board of Supervisors March 12, 2019
Revised by the Board of Supervisors August 18, 2020

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I. INTRODUCTION

The chapters that follow provide an overview of the resources considered by the Resource Summary Report, including a discussion of relevant environmental and regulatory issues and the current status of resources for each service provider. The criteria for assessing the levels of severity are explained in Volume I along with the recommended Levels of Severity and recommended actions. The discussion of resources and Levels of Severity is organized by resource, rather than by areas of the county. Maps and illustrations are provided where necessary for geographic context.

On March 12, 2019, the Board of Supervisors approved this 2016-2018 Resource Summary Report. The Board's approval included the removal of all references to resources within Board of Supervisor District 2 due to concerns about the water supply sections. On August 18, 2020, the Board of Supervisors approved revisions to this 2016-2018 Resource Summary Report to add District 2 information back into the report, including an updated water supply analysis for the Los Osos Area, based on the 2019 Annual Monitoring Report prepared for the Los Osos Basin Management Committee, and clarification of the agricultural and rural water demand estimates for San Simeon, Cayucos, and Cambria areas..

II. WATER SUPPLY AND WATER SYSTEMS

Level of Severity Criteria

WATER SUPPLY

Level of Severity	Water Supply Criteria*	
	Coastal Zone	Inland Areas
I	Timeframe for remaining dependable water supply is 9 years	Water demand projected over 20 years equals or exceeds the estimated dependable supply. LOS I provides five years for preparation of resource capacity studies and evaluation of alternative courses of action.
II	Timeframe for remaining dependable water supply is 7 years	Water demand projected over 15-20 years (or other lead time determined by a resource capacity study) equals or exceeds the estimated dependable supply.
III	Demand equals or exceeds estimated dependable supply	Water demand projected over 15 years (or other lead time determined by a resource capacity study) equals or exceeds the estimated dependable supply, OR The time required to correct the problem is longer than the time available before the dependable supply is reached.

*These criteria do not consider the cyclical effects of drought or above-average rainfall.

WATER SYSTEMS

Level of Severity	Water System Criteria (Coastal Zone and Inland Areas)
I	The water system is projected to be operating at the design capacity within seven years. Two years would then be available for preparation of a resource capacity study and evaluation of alternative courses of action.
II	A five-year or less lead time (or other lead time determined by a resource capacity study) needed to design, fund and construct system improvements necessary to avoid a LOS III problem.
III	Water demand equals available capacity: a water distribution system is functioning at design capacity or will be functioning at capacity before improvements can be made. The capacity of a water system is the design capacity of its component parts: storage, pipelines, pumping stations and treatment plants.

Water Purveyors Discussed in This Resource Summary Report

Water purveyors discussed in this Resource Summary Report are summarized in Table II-1 and include those serving unincorporated communities as well as those that derive all, or a portion of, their water supplies from sources shared with purveyors serving unincorporated communities.

Table II-1 – Water Purveyors Discussed in This Resource Summary Report

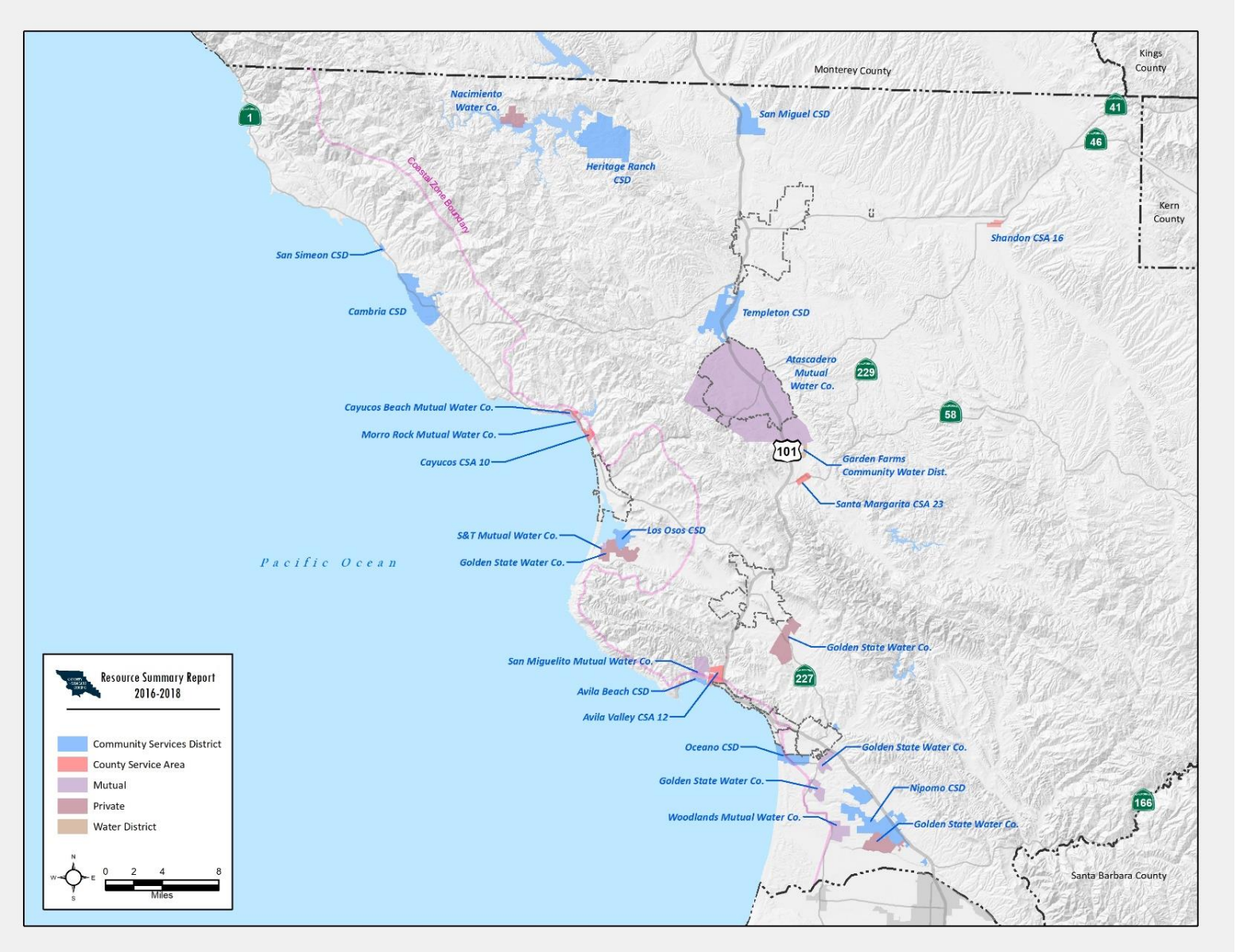
Community	Major Water Purveyors	Approx. Population Served (2018)	2016-17 Water Deliveries to Customers[1] (AFY)	2017-18 Water Deliveries to Customers[1] (AFY)
Atascadero[6]	Atascadero MWC	31,500+	4,471.4	4,784.1
Avila Area	Avila Beach CSD	1,000	73.8	67.7
	Avila Valley MWC	104	+++[3]	+++
	San Miguelito MWC	1,400	130.3	151.6
	CSA 12	+++	144.1	158.1
Cambria	Cambria CSD	6,200	383.4[2]	452.7
Cayucos	Cayucos Beach MWC	1,350	89.8	94.4
	CSA 10	2,148	94.3	100.2
	Morro Rock MWC	2,583	120.3	130.5
Edna Valley	Golden State Water Co.	1,299	178.5	201.3
Garden Farms	Garden Farms CWD	400	39.5	41.5
Heritage Ranch	Heritage Ranch CSD	3,100	343.5	399.6
Los Osos	Golden State Water Co.	7,086	461.1	470.0
	Los Osos CSD	5,516	432.5	442.9
	S&T MWC	591	31.3	32.6
Nipomo	Nipomo CSD	13,479	1,619.4	1,834.4
	Woodlands MWC	1900	687.2	840.5
	Golden State Water Co.	4,406	594.7	658.8
	Cypress Ridge System (GSW)[3]	2,554	516.8	564.9
Oak Shores	Nacimiento Water Co.	+++	173.4	+++
Oceano	Oceano CSD	7,600	643.3	711.9
Paso Robles[6]	City of Paso Robles	31,398	4,885.0	5,471.6[5]
Santa Margarita	CSA 23	1,400	105.3	119.7
San Miguel	San Miguel CSD	2,600	244.9	292.5
San Simeon	San Simeon CSD	462	69.7	66.1
Shandon	CSA 16	1,260	99.1	119.7
Templeton	Templeton CSD	6,885	985.7	1,344.2

Sources: July 2016-June 2017 and July 2017- June 2018 Water Usage

Notes:

1. Data for annual deliveries for the period July 1 through June 30 provided voluntarily by purveyors.
2. Water main leak affects March, April, May, and June consumption numbers.
3. The Rural Water Company was acquired by the Golden State Water Company in October 2015. The Cypress Ridge area is also served by the Golden State Water Company.
4. +++ Indicates data were not provided.
5. Represents total water deliveries from all sources. However, for purposes of recommending a Level of Severity, only that portion of the City's water supply derived from the Paso Robles Groundwater Basin was used, as reported in the City's 2015 Urban Water Management Plan.
6. The Atascadero Mutual Water Company and the City of Paso Robles derive a portion of their water supplies from groundwater basins shared with one or more water purveyors serving the unincorporated county.

Figure II-1 – Water Purveyors Discussed in this Resource Summary Report



Water Resources

Information regarding water resources serving the unincorporated county was derived from a variety of sources, including the 2012 San Luis Obispo County Master Water Report and the 2014 Integrated Regional Water Management (IRWM) Plan which are available in their entirety at the following County websites, respectively:

http://www.slocountywater.org/site/Frequent%20Downloads/Master%20Water%20Plan/

http://www.slocountywater.org/site/Frequent%20Downloads/Integrated%20Regional%20Water%20Management%20Plan/IRWM%20Plan%20Update%202014/

Where available, more recent information was used. It should be noted that water demand data for the period covered by this Resource Summary Report (RSR) is a "snapshot" and may not be representative of long-term demand.

Sustainable Groundwater Management Act (SGMA)

The Sustainable Groundwater Management Act (SGMA) took effect on January 1, 2015, and substantially changed California groundwater management by enacting requirements and providing new statutory authority related to groundwater use and the creation of new groundwater management agencies. More specifically, SGMA includes new financial and enforcement tools to carry out effective local sustainable groundwater management through the formation of one or more Groundwater Sustainability Agencies (GSAs) and the development and implementation of one or more Groundwater Sustainability Plans (GSPs). GSAs and their respective GSPs are required to ensure basins are managed sustainably within 20 years of GSP adoption. However, SGMA leaves many of the details related to the establishment of GSAs and the development of GSPs up to local agencies (if compliant with regulations).

SGMA compliance is required in all basins that are designated by the California Department of Water Resources (DWR) as either high or medium priority. DWR is responsible for prioritizing basins and assessing existing conditions (e.g. chronic lowering of groundwater levels, seawater intrusion) that might warrant faster action to mitigate impacts of unsustainable basin uses (designated to be in a critical condition of overdraft).[1]

[1] DWR Bulletin 118 (2003) provides that "[a] basin is subject to critical conditions of overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts."

Six high and medium priority groundwater basins[2] are located partially or entirely within San Luis Obispo County including: San Luis Obispo Valley, Santa Maria Valley, Paso Robles, Atascadero, Cuyama Valley, and Los Osos Valley Basins.

SGMA's next critical deadline is for each GSA within the high and medium priority basins to develop and adopt a GSP by January 31, 2020 or 2022[3] (where there is more than one GSA, the GSAs may jointly adopt a single GSP or separate coordinated GSPs). The GSAs in each of these basins are developing GSPs to meet the SGMA regulations. The GSPs will study the groundwater conditions, estimate the current and future water budget, define what sustainability looks like for each basin, and set measurable objectives and thresholds for ongoing monitoring of progress towards achieving sustainability within 20 years of GSP adoption. Given the anticipated contents of the GSPs for these six basins based on statutory and regulatory requirements, the Resource Summary Report does not attempt to re-evaluate these basins, and simply references and relies on the previous Resource Summary Report Level of Severity designation. Once GSPs are adopted and more information becomes available for review, the county may consider how best to incorporate the findings into future Resource Summary Reports. More details of SGMA efforts in individual basins are included within the appropriate water supply discussions below.

Recent Water Conservation Regulations

2015 Executive Orders B-29-15 and B-36-15

Executive Order B-29-15 mandated a 25 percent water use reduction by users of urban water supplies across California. In May 2015, the State Water Board adopted an emergency regulation requiring a cumulative 25 percent reduction in overall potable urban water use over the following 9 months. To achieve this goal, the State Water Resources Control Board established a tiered system, in which urban water suppliers who serve more than 3,000 customers or deliver more than 3,000 AF of water per year – which account for more than 90 percent of urban water use – were each assigned a conservation standard. A sliding scale was used so that communities that have already reduced their residential gallons per capita per day (R-GPCD) through past conservation had lower mandates than those that had not made such gains since the last major drought. Water suppliers serving fewer than 3,000 connections, and commercial, industrial, and institutional users with independent supplies, are required to achieve a 25 percent conservation standard or restrict outdoor irrigation to no more than two days a week. These smaller urban suppliers

[2] As of October 26, 2018, DWR's published, final priorities and designations for local basins are: San Luis Obispo Valley (medium), Santa Maria Valley (high), Paso Robles (high and critical conditions of overdraft), Atascadero (priority under assessment by State), Cuyama Valley (medium and critical conditions of overdraft), and Los Osos Valley (high and critical conditions of overdraft). In May 2018, DWR published a draft statewide basin re-prioritization which identifies Atascadero and Los Osos Valley as very low priority basins; however, DWR's designations may be changed upon final publication.

[3] Pursuant to Water Code § 10720.7(a), high or medium priority basins subject to critical conditions of overdraft shall adopt a GSP by January 31, 2020. All other high and medium priority basins shall adopt a GSP by January 31, 2022.

serve less than 10 percent of Californians. Enforcement of the supply cuts includes potential fines of up to $10,000 a day.

Conservation tiers for urban water suppliers were set between eight percent and 36 percent, based on residential per capita water use for the months of July - September 2014. During this time, statewide water conservation was unprecedented. In those 10 months alone, the state realized nearly a 24 percent savings in water use as compared to the same months in 2013, resulting in some 1.30 million acre-feet of water conserved throughout California, enough to supply 6.5 million people with water for an entire year.

2016 Emergency Regulations

Based on Executive Order B-36-15, on Feb. 2, 2016 the State Water Board approved an updated and extended emergency regulation that continued mandatory reductions through October 2016. The 2016 Emergency Regulation responded to calls for continuing the conservation structure that has spurred such dramatic savings while providing greater consideration of some localized factors that influence water needs around the state including climate differences, population growth, and significant investments in new local, drought-resilient water supplies such as potable wastewater reuse and desalination.

Recognizing persistent, yet less severe, drought conditions throughout California, on May 18, 2016, the State Water Board adopted an emergency water conservation regulation that was in effect from June 2016 through January 2017. The regulation required locally developed conservation standards based upon each agency's specific circumstances. It replaced the prior percentage reduction-based water conservation standard with a localized "stress test" approach. These standards require local water agencies to ensure a three-year supply assuming three more dry years like the ones the state experienced from 2012 to 2015. Water agencies that would face shortages under three additional dry years will be required to meet a conservation standard equal to the amount of shortage.

The revised regulation requires individual urban water suppliers to self-certify the level of available water supplies they have, assuming three additional dry years. Wholesale water agencies were also required to include documentation about how regional supplies would fare under three additional dry years. Both urban water suppliers and wholesale suppliers are required to report the underlying basis for their assertions, and urban water suppliers are required to continue reporting their conservation levels. The State Water Board has not independently verified the information but reserves the ability to reject certifications later found to be erroneous.

The new Emergency Regulation required small water suppliers (serving 3,000 or fewer customers) to either achieve a 25 percent conservation standard or restrict outdoor irrigation to no more than two days per week through October 2016. These suppliers were required to submit a small water supplier report that either (a) identified total potable water production, by month, from December 2015 through August 2016, or (b) confirmed compliance with the maximum two day per week outdoor irrigation restriction. The small water supplier report was due to the State Water Board by September 15, 2016.

The purpose of the three-year "stress test" was to acknowledge both the level of water supplies available to different areas, through improved hydrology and/or significant investments in new supplies, e.g., recycled water, groundwater banking, local surface and groundwater storage, desalination, stormwater capture, or other methods. By choosing a three-year conservative planning horizon, the state could step back this year from its unprecedented specific target setting.

Water suppliers that would experience shortage conditions in 2019 under the three-dry-years assumptions must meet a state-imposed conservation standard equal to the shortage level. For example, a supplier with a 12 percent shortage will now have a 12 percent conservation standard. Water suppliers whose submittals show no shortage conditions are limited to their 2013 water use and are encouraged to conserve more.

Submitting a self-certification was optional. Water suppliers that did not submit self-certifications retained their conservation standard from March 2016. Others, even if they meet the "stress test," are expected to have retained either a percentage or other requirement-based conservation program. The State Water Board will continue to monitor and require reporting of water use and conservation results monthly throughout the year.

Water purveyors within San Luis Obispo County who submitted self-certification data to the State as of August 2016 are summarized in Table II-2 which includes the target conservation percentage, the achieved percent cumulative water conservation, and the status of their "stress-test" self-certification. Of the purveyors who elected to submit self-certification data to the State, all exceeded the target conservation standard.

Table II-2 -- Status of Self-Certification "Stress Test" Of Water Purveyors Serving Unincorporated County Areas[2]			
Purveyor	**March 2016 Conservation Standard (March 2016 – May 2016)**	**Achieved Cumulative Conservation (June 2016)**	**Status of Self-Certification[1]**
Nipomo Community Services District	28%	32%	Certified
City of Paso Robles	24%	30%	Certified
Atascadero Mutual Water[1] Company	28%	29%	Certified

Notes:

1. Water purveyors who elected to submit self-certification data to the State Board. "Certified" means the submitted data demonstrates to the satisfaction of the State Board the availability of an adequate water supply assuming three more years of drought.
2. Includes purveyors who derive all or a portion of their water supplies from sources shared with purveyors serving the unincorporated county.

In response to Executive Order B-40-17, discussed below, the Executive Director for the State Water Resources Control Board rescinded the water supply stress test requirements and remaining mandatory conservation standards for urban water suppliers in April 2017.

Executive Order B-37-16 – Making Conservation a California Way of Life

Executive Order B-37-16 enacted in May 2016 sets forth actions to use water more wisely, eliminate water waste, strengthen local drought resilience, and improve agricultural water use efficiency and drought planning. Under EO B-37-16, State agencies were required to prepare a conservation framework report for the Governor's Office, Legislature, and the public. The final report was published in April 2017 and summarizes recommendations and actions to achieve the goal of making water conservation a California way of life.

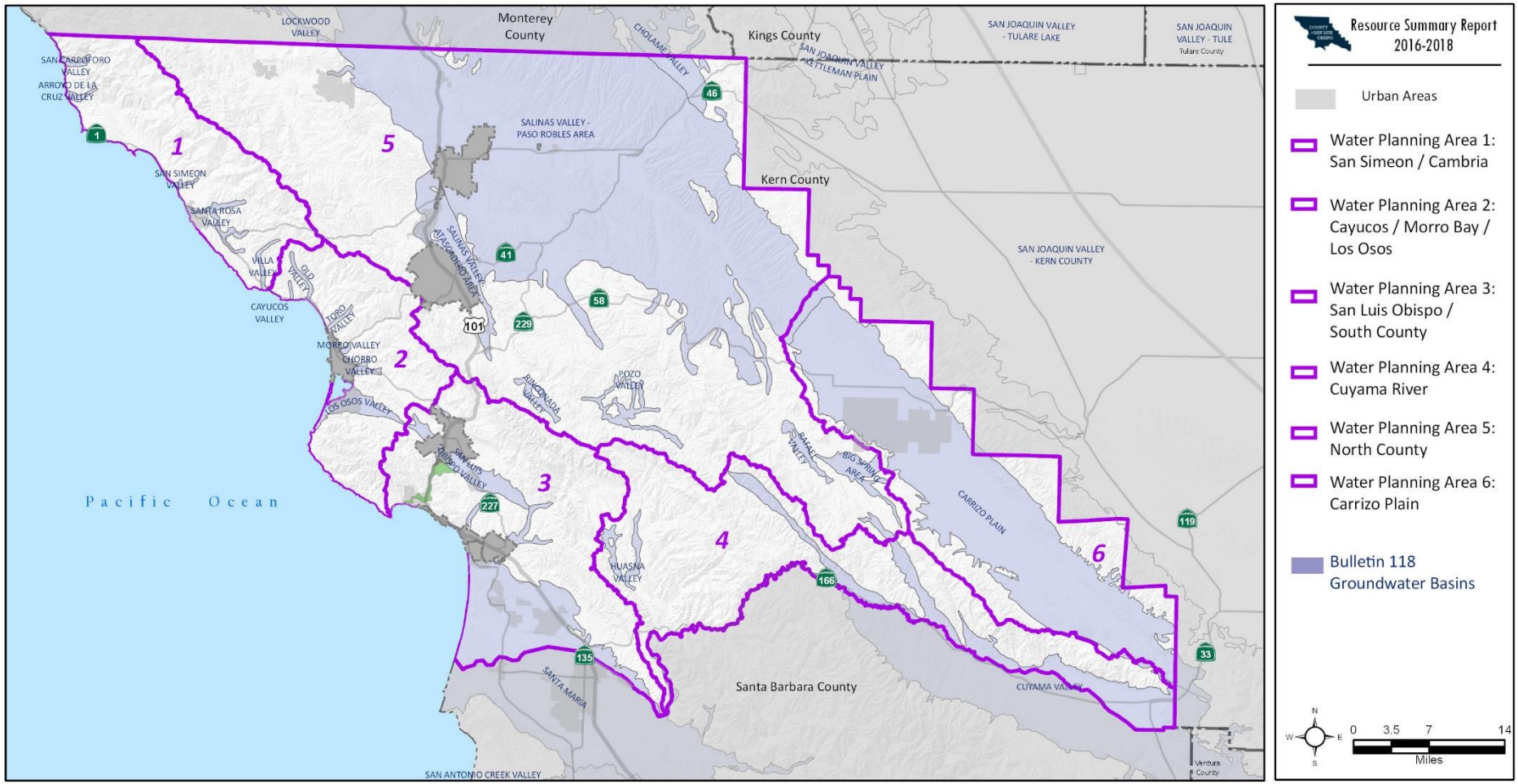
Executive Order B-40-17

In April 2017, the Governor signed Executive Order B-40-17 lifting the drought emergency in all California counties except for Fresno, Kings, Tulare and Tuolumne, where emergency drinking water projects continue to address diminished groundwater supplies. The Executive Order retains the prohibitions on wasteful practices required by Executive Order B-37-16 and advances measures to make conservation a way of life. The order also rescinds the 2016 Emergency Regulations described above as well as Executive Orders B-29-15 and B-36-15 described above.

Water Planning Area Update

The Integrated Regional Water Management Plan is currently being updated to meet the new plan standards provided in the DWR 2016 IRWM Grant Program Guidelines, Volume 2 (DWR, 2016). The local Water Planning Areas (WPAs) for the region have been modified to better align with the regional watershed and water system boundaries including those of major-water related infrastructure, flood management infrastructure, major land-use divisions, surface and groundwater sources, municipalities and service areas for water and wastewater of agencies and water purveyors. These updated WPA boundaries are different than those used in the 2012 Master Water Report and 2014 Integrated Regional Water Management Plan referenced in this Report, specifically for agricultural and rural water supply and demand estimates. Figure II-2 shows the draft WPAs for the upcoming IRWM Plan update, including the DWR Bulletin 118 groundwater basins.

Figure II-2 – IRWMP Water Planning Areas



Surface Water Resources Serving the Unincorporated County

State Water Project (SWP)

DWR owns and operates the State Water Project (SWP). In 1963 the San Luis Obispo County Flood Control and Water Conservation District (District) contracted with DWR for 25,000 AFY of water from the SWP. The SWP began delivering water to the Central Coast in 1997 upon completion of the Coastal Branch conveyance and treatment facilities (Figure II-3), serving Santa Barbara and San Luis Obispo Counties. The SWP is considered a supplemental source of water supply.

Table II-3 provides a summary of SWP allocations to water purveyors serving the unincorporated county. Table II-3 lists the Water Service Amount, Drought Buffer, and Total Reserved allocations for SWP Subcontractors within the unincorporated County.

Estimating the long-term delivery reliability of the SWP depends on many issues, including possible future regulatory standards in the Delta, population growth, water conservation, increased use of recycled water, and water transfers. For long-term planning, it is assumed that SWP Contractors will receive 66 percent of the maximum allocation in any given year.[4] To secure additional delivery reliability of SWP water during times of reduced allocations, most SWP Subcontractors have entered into "Drought Buffer Water Agreements" with the District for use of an additional portion of the District's SWP allocation.

Table II-3 – State Water Project Water Service Amounts (AFY) To Water Purveyors Contracting for State Water Within The Unincorporated County

SWP Subcontractor	Water Service Amount	Drought Buffer	Total Reserved
Oceano CSD	750	750	1,500
San Miguelito MWC	275	275	550
Avila Beach CSD	100	100	200
Avila Valley MWC	20	60	80
California Men's Colony	400	400	800
County Operations Center	425	425	850
Cuesta College	200	200	400
San Luis Coastal USD	7	7	14
CSA 16 (Shandon)	100	0	100
Total:	**2,277**	**1,185**	**4,494**

[4] 2012 Master Water Report, 4-59.

Source: San Luis Obispo County, 2016, DWR State Water Project Delivery Capability Report 2017

Many factors affect annual SWP deliveries to the District, and therefore Water Service Amount deliveries to the SWP Subcontractors within the County, including pumping restrictions for the Sacramento Delta and annual hydrology. Since delivery to the Central Coast began, DWR has generally provided between 50 and 100 percent of the contracted allocations. However, due to recent drought conditions coupled with DWR pumping restrictions to provide for improved water quality, increased environmental flows and endangered species habitat protection within the Delta (driven by the 2009 Delta Reform Act), the annual allocations from DWR averaged only 43% from 2008 to 2016, with 2014 hitting an all-time project low of 5 percent. However, due to the Drought Buffer, storage of unused allocation in the San Luis Reservoir, and the District's excess allocation amounts, SWP Subcontractors were able to receive their requested delivery.

Nacimiento Water Project

The Monterey County Flood Control and Water Conservation District (now known as the Monterey County Water Resources Agency (MCWRA)) constructed the Nacimiento Dam in 1957. The dam and reservoir continue to be operated by MCWRA. Nacimiento lake has a capacity of 377,900 AF and a surface area of 5,727 acres. Water is collected from a 365 square mile watershed that is comprised of grazing lands and rugged wilderness. Long-term reliability may be adversely affected by siltation and other losses although this has not been an issue to date

In 1959, the District contractually secured the rights to 17,500 AFY from Lake Nacimiento. The District has adopted a policy of reserving 1,750 AFY for lakeside users. After a series of studies, negotiations, design and construction, the Nacimiento Water Project (NWP) was completed and became operational in 2011. The NWP is designed to deliver 15,750 acre-feet of water per year (Figure II-3). The NWP delivers raw lake water from Lake Nacimiento to communities within the County. At its April 19, 2016 meeting, the Board entered into contract amendments with the NWP participants and additional contracts with two new participants to fully allocate the 15,750 AFY (i.e. allocating all of what had previously been Reserve Water (6,095 AFY)), as shown in the Table II-4.

Table II-4 – Allocation of Nacimiento Water Project	
NWP Participants	**Allocations (AFY)**
City of Paso Robles	6,488
Atascadero MWC	3,244
City of San Luis Obispo	5,482
Templeton CSD	406
CSA 10A (via exchange)[1]	40
Santa Margarita Ranch MWC [3]	80
Bella Vista Mobil Home Park[3]	10
Total Allocations:	**15,750**
Unallocated[2]:	**0**

Source: Amendment 3 to the Water Delivery Entitlement Contracts, 2016. Board of Supervisor's Agenda Item 275/2016 discussed at the April 19, 2016 Board of Supervisor's Meeting. The relevant agenda items can be found here: http://agenda.slocounty.ca.gov/agenda/sanluisobispo/Proposal.html?select=5891

Notes:
1. Discussed below under Whale Rock Reservoir.
2. Based on a project design capacity of 15,750 AFY.
3. New participant as of April 16, 2016.

Whale Rock Reservoir

Whale Rock Reservoir is located on Old Creek Road approximately one-half mile east of the community of Cayucos. DWR supervised the Reservoir's planning, design, and construction which took place between October 1958 and April 1961. The Reservoir is jointly owned by the City of San Luis Obispo, the California Men's Colony, and Cal Poly. These three agencies, with the addition of a representative from DWR, form the Whale Rock Commission, which is responsible for operational policy and administration of the Reservoir and related facilities. Day-to-day operation is provided by the City of San Luis Obispo.

The Reservoir is formed by an earthen dam and was able to store an estimated 40,662 acre-feet of water at the time of construction. Calculation of the yield available in the Reservoir is coordinated with Salinas Reservoir (operated by the County for the benefit of the City of San Luis Obispo) using a safe annual yield computer model. The model also evaluates the effect of siltation. In 2013, the Whale Rock Commission commissioned a siltation study of the Reservoir. The volumetric study was completed in 2013 and concluded that the current Reservoir capacity is 38,967 AF. Since the original capacity was 40,662 AF, the loss of capacity due to siltation was determined to be 4.2 percent.

Reservoir Rights Holders and Water Allocations

Table II-5 summarizes the current capacity rights for the joint right-holders (downstream water rights are accounted for separately and discussed below). Each rights-holder manages reservoir withdrawals individually from its available water storage allocation. The Whale Rock Commission tracks withdrawals and reports available volume on a monthly basis.

Table II-5 – Whale Rock Reservoir Allocations

Rights Holder	Percent	Allocations[1] (AFY)
City of San Luis Obispo	55.05	22,383
Cal Poly	33.71	13,707
California Men's Colony	11.24	4,570
Total:	**100**	**40,660**

Source: San Luis Obispo County Master Water Report, 2012, Table 4.7

Notes:

1. Allocations if the reservoir is at full capacity.
2. On TABLE II-6: County (CSA 10A) exchanged 40 AFY for Whale Rock water from the City of San Luis Obispo; Bella Vista Mobile Home Park exchanges 10 AFY for Whale Rock water from the City of San Luis Obispo.

Downstream Water Rights

Several agreements establish policy for the operation of the Whale Rock system and actions of the member agencies. The Downstream Water Rights Agreement (the original 1958 agreement was amended in April 1996) defines water entitlements for adjacent and downstream water users, including water purveyors serving the unincorporated County. The Cayucos Area Water Organization (CAWO), one of the three parties to this agreement, consists of three public water purveyors and the cemetery, all in the Cayucos area. In addition to the agencies, water entitlements were identified for two separate downstream landowners. An exchange agreement between the County and the City of San Luis Obispo (2018) allows for the delivery of up to 50 AFY of the City's Whale Rock water allocation to CSA 10 in exchange for the County's and Bella Vista Mobile Home Park's (BVMHP's) Nacimiento Water for delivery to the City. Via an agreement approved on October 2, 2018, CSA 10 now has a total allocation of 40 AFY of Nacimiento Water.

Total Whale Rock Reservoir downstream entitlements are summarized on Table II-6.

Table II-6 – Whale Rock Reservoir Downstream Entitlements	
Water Users	**Downstream Water Entitlements (AFY)**
Cayucos Area Water Organization (CAWO)[1]	
• Cayucos Beach MWC	222
• Morro Rock MWC	170
• County (CSA 10A)	230[3, 4]
• Cayucos-Morro Bay Cemetery District	18
Sub-Total for CAWO:	600
BVMHP	10[3]
Mainini Ranch[2]	50
Ogle[2]	14
Total:	**664**

Source: San Luis Obispo County Master Water Report, 2012, Table 4.8; Amendment 3 to the Water Delivery Entitlement Contracts, 2016. Board of Supervisor's Agenda Item 275/2016 discussed at the April 19, 2016 Board of Supervisor's Meeting. The relevant agenda items can be found here: http://agenda.slocounty.ca.gov/agenda/sanluisobispo/Proposal.html?select=5891

Notes:
1. The referenced agreement establishes the amount of 600 AFY to CAWO. The allocations to the CAWO members are part of an internal agreement amongst the members.
2. The agencies generally receive their entitlements via pipeline from the reservoir, while the land owners' entitlement is released from the reservoir.
3. County (CSA 10A) exchanged 40 AFY for Whale Rock water from the City of San Luis Obispo.
4. Bella Vista Mobile Home Park exchanges 10 AFY for Whale Rock water from the City of San Luis Obispo.

Lopez Lake/Reservoir

The District completed the Lopez Dam in 1968 to provide a reliable water supply for agricultural and municipal needs as well as flood protection for coastal communities. Lopez Reservoir has a capacity of 49,388 AF. The Lake covers 950 acres and has 22 miles of oak covered shoreline.

Allocations of Lopez Lake water to the local agencies that are a part of Zone 3 of the District (formed for the purposes of constructing, financing and operating the dam, terminal, treatment and conveyance facilities) (Zone 3) and have entered into water supply contracts with the District is identified in the water supply contracts as 8,730 AFY. Of that amount, 4,530 AFY are for pipeline deliveries and 4,200 AFY are reserved for downstream releases. The dam, terminal reservoir, treatment and conveyance

facilities are a part of Zone 3. Water purveyors serving the unincorporated County that contract for Lopez water in Zone 3 include the community of Oceano and the County on behalf of CSA 12 (including the Avila Beach area). Lopez Lake allocations to these purveyors are shown in Table II-7.

Two issues could change the amount of water available to contractors and the safe yield:

- The Arroyo Grande Creek Habitat Conservation Plan (HCP), which is currently being developed, will likely require additional downstream releases. An interim downstream release schedule was prepared to provide guidance regarding releases from the reservoir into Arroyo Grande Creek pending completion of the HCP.

- In December 2014, the Low Reservoir Response Plan was adopted to reduce deliveries during the then declared water emergency while reservoir storage was below 20,000 AF, reducing the amount of water available to municipalities.

Changes in operation of the dam are being considered for reducing spills and optimizing future deliveries. Additionally, the City of Pismo Beach, on behalf of the Zone 3 agencies, has taken the lead on conducting a study to consider the feasibility of modifying the dam to augment capacity of the Reservoir. However, according to the City[5], this option is no longer being considered.

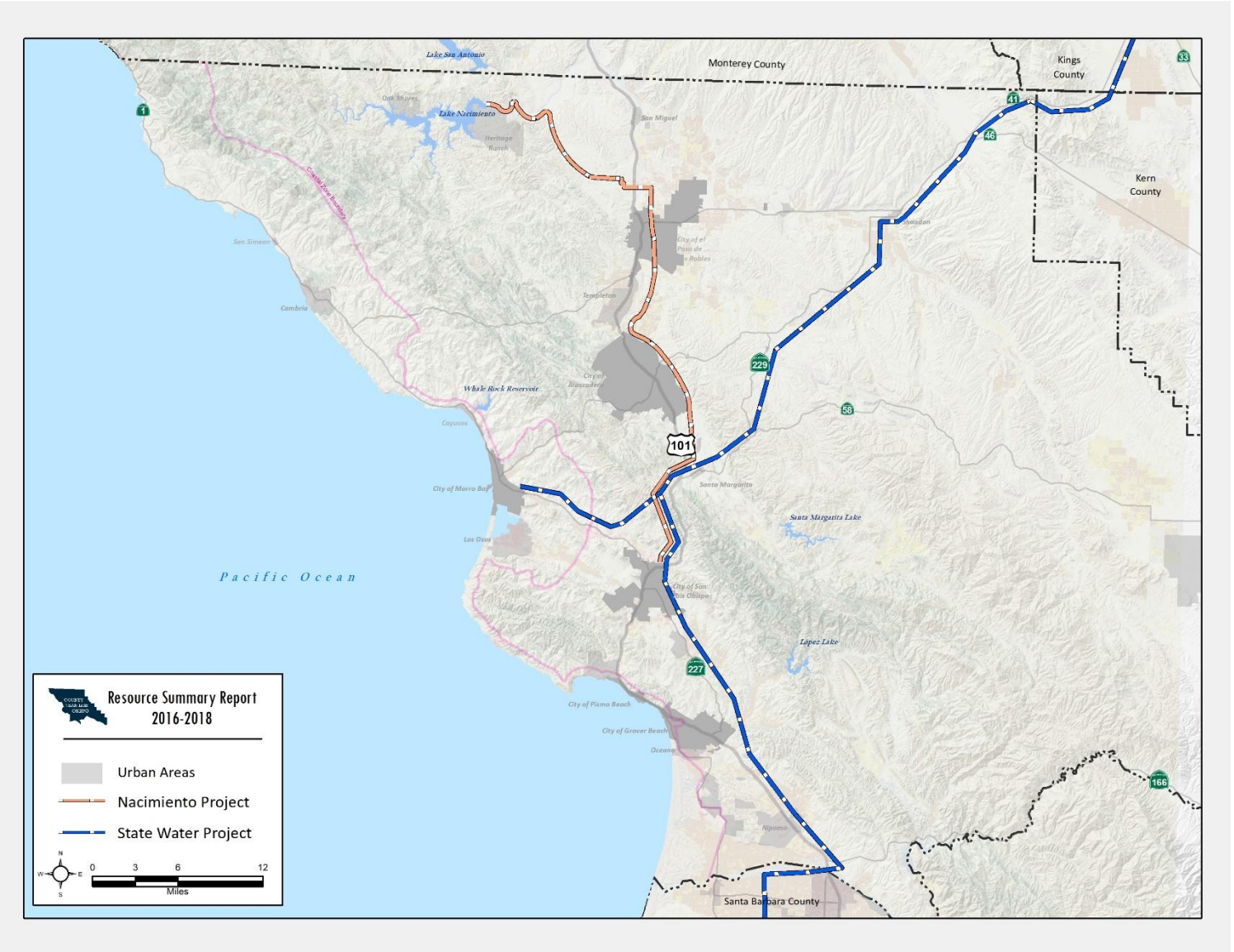
Table II-7 – Lopez Lake Water Allocations to Water Purveyors Serving the Unincorporated County

Water Users	Allocations (AFY)
Oceano CSD	303
CSA 12 (Avila Beach area)	241
Total:	**544**

Source: San Luis Obispo County Master Water Report, 2012, Table 4.9

[5] Eric Eldridge, Senior Engineer, City of Pismo Beach, personal communication August 19, 2016.

Figure II-3 – Surface Water Supplies and State Water Project Conveyance



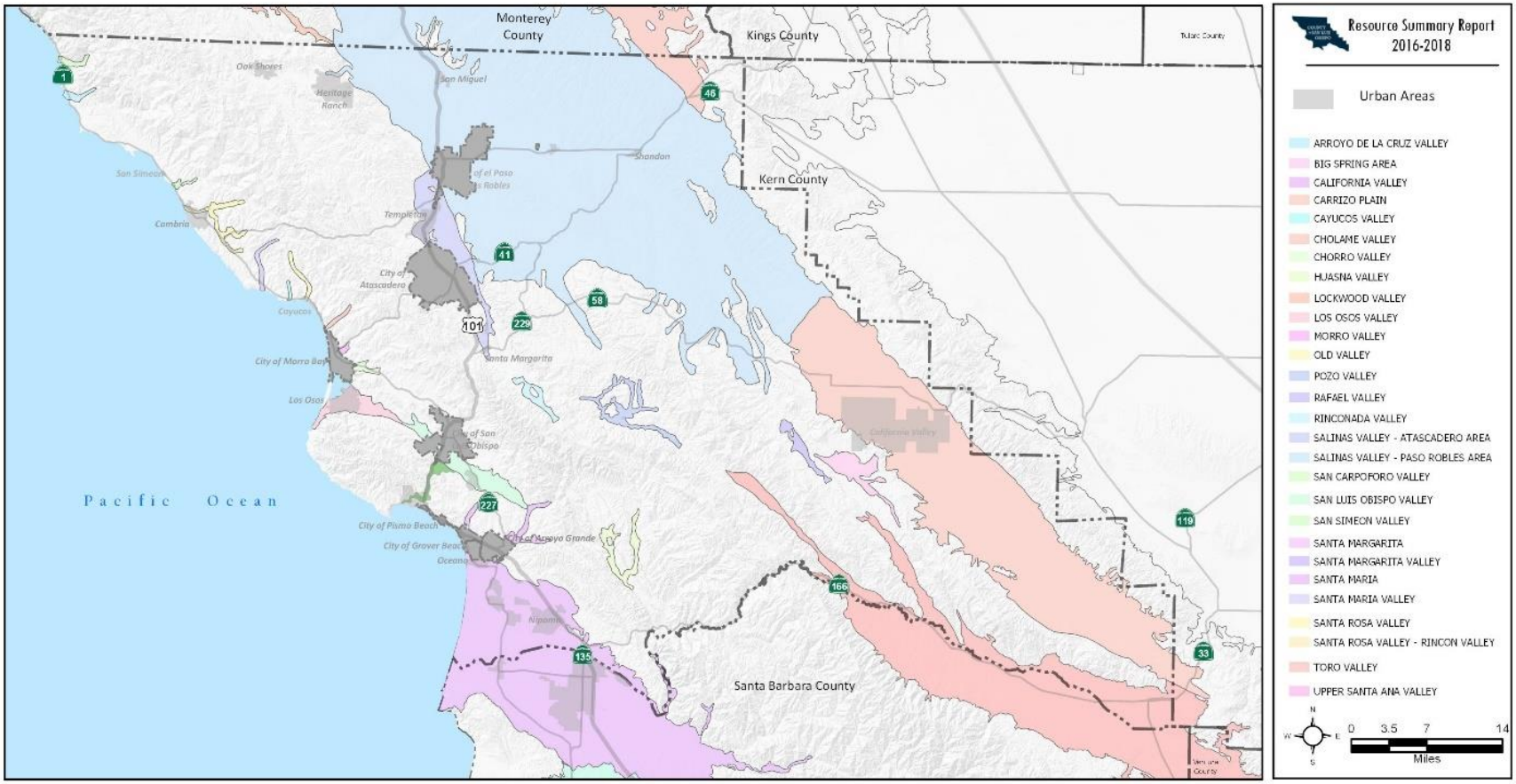
Groundwater

Groundwater basins identified in this Resource Summary Report are defined in the DWR Bulletin 118 Interim Update 2016 and are provided herein for informational purposes only. These groundwater basins are summarized in Table II-8 and shown on Figure II-4.

Table II-8 – Groundwater Basins

Water Planning Area (WPA) (Draft IRWMP Update 2018)	DWR Bulletin 118 Interim Update 2016 Groundwater Basins
WPA 1 San Simeon / Cambria	San Carpoforo Valley (3-033)
	Arroyo de la Cruz Valley (3-034)
	San Simeon Valley (3-035)
	Santa Rosa Valley (3-036)
	Villa Valley (3-037)
WPA 2 Cayucos / Morro Bay / Los Osos	Cayucos Valley (3-038)
	Old Valley (3-039)
	Toro Valley (3-040)
	Morro Valley (3-041)
	Chorro Valley (3-042)
	Los Osos Valley (3-008)
WPA 3 San Luis Obispo / South County	San Luis Obispo Valley (3-009)
	Santa Maria (3-012) Northern Cities Management Area (NCMA) Nipomo Mesa Management Area (NMMA) Santa Maria Valley Management Area (SMVMA) Other "fringe areas" subject to SGMA
WPA 4 Cuyama River	Huasna Valley (3-045)
	Cuyama Valley (3-013)
WPA 5 North County	Rinconada Valley (3-043)
	Pozo Valley (3-044)
	Salinas Valley – Atascadero Area (3-004.11)
	Salinas Valley – Paso Robles Area (3-004.06)
	Cholame Valley (3-005)
	Rafael Valley (3-046)
	Big Spring Area (3-047)
WPA 6 Carrizo Plain	Carrizo Plain (3-019)

Figure II-4 DWR Bulletin 118 Groundwater Basins



This RSR does not independently estimate the yield of groundwater basins, the current or future population of communities, or capacities of water systems. The discussions in the RSR related to water supply and water systems draw from various existing reports or studies and past analyses. In addition, the summaries in this RSR endeavor to employ the terminology related to water supply "yield" utilized in the applicable source report or study (e.g. safe yield, safe annual yield, sustainable yield, dependable yield, perennial yield). The referenced estimated yields are based and vary depending on numerous factors such as the base period and boundaries considered, area studies, and others.

Other water supply and/or water system specific planning and implementation efforts are underway, separate from the Resource Management System and the Resource Summary Report. Those efforts are noted under each community discussion herein and may be considered in the recommendations for levels of severity as commitments are established and progress is made to implement projects or agreements that would improve water supply or water system capacities.

Recycled Water

Several agencies in the County recycle municipal wastewater to partly offset potable water production. Recycled water qualities range from secondary quality (as defined by Title 22 California Code of Regulations (CCR)) to the highest level of treatment for unrestricted use.

Water recycling projects serving the unincorporated County are listed in Table II-9. The planned future use of recycled water is included in the forecasted water supply portfolios discussed for each region. It could be that recycled water is used and/or planned to be used by other agencies within the County not listed in Table II-9, which includes only those areas affected by the Resource Management System. For example, the City of Atascadero wastewater treatment plant discharges approximately 1.34 mgd (1,500 AFY) back into the Atascadero Basin.

Table II-9 – Existing and Projected Recycled Water Use Serving the Unincorporated County

Agency	Existing Effluent		Inland Discharge	Ocean/Coastal Discharge	Existing Reuse	Planned Future Reuse
	MGD	AFY	AFY	AFY	AFY	AFY
Cambria CSD	0.50	540	540	--	(1)	--
Cayucos CSD	0.25	275	--	275	--	560
Los Osos WWTP[2]	1.20	1,340	1,340	--	500	--
San Simeon CSD	0.07	80	--	80	(3)	--
Heritage Ranch CSD	0.20	230	230	--	--	--
San Miguel CSD	0.10	130	130	--	--	--
Templeton CSD Meadowbrook WWTP[1]	0.15	170	170[2]	--	--	750
Avila Beach CSD	0.05	50	--	50	--	--
Nipomo CSD Blacklake WWTP	0.05	50	--	--	50	80
Nipomo CSD Southland WWTF	0.60	640	640[6]	--	--	1,900
Cypress Ridge Sewer Co.	0.05	50	--	--	50	50
San Miguelito MWC	0.15	170	--	170	--	--
South SLO County Sanitation District	2.60	2,910	--	2,910	--	3,920
Woodlands MWC	0.05	50	--	--	50	50
Total:	**6.02**	**6,685**	**2,510**	**4,025**	**150**	**7,310**

Source: San Luis Obispo County Regional Recycled Water Strategic Plan, 2014

Notes:

1. Cambria CSD uses nearly all of its wastewater effluent for a seawater intrusion barrier, a sustainable water facility (an indirect potable reuse facility).
2. Los Osos WWTP began operating in 2016.
3. Trucking of recycled water for irrigation started in 2014. The system is designed to provide a maximum of approximately 0.036 mgd.
4. Templeton CSD is constructing facilities to return existing wastewater flows to the Meadowbrook WWTP for treatment, discharge into the river alluvium that contains the Salinas River underflow and subsequent conveyance to District wells that divert from the underflow downstream.
5. Templeton CSD retrieves the percolated water at downstream wells.

Recommended Levels of Severity

RMS Criteria for the Coastal Zone and Inland Areas

On December 16, 2014, the Board of Supervisors approved amendments to portions of the Resource Management System (RMS) in the Inland and Coastal Framework for Planning. The purpose of these amendments was to update the RMS so that it more closely reflected current efforts to effectively deal with resource and infrastructure needs and limitations, and to add Parks and Highway 101 interchanges as monitored resources.

Amendments to the Inland Framework for Planning became effective on January 16, 2015, while amendments to the Coastal Framework for Planning were forwarded to the California Coastal Commission (CCC) for review and action.[6] Following their review, CCC staff recommended significant modifications to the LOS Action Requirements for LOS I, II and III based on their concern that the amendments adopted by the Board "weakened" the effectiveness of the Local Coastal Plan (LCP) portion of the RMS by making the Action Requirements discretionary rather than mandatory. The subsequent resolution of certification adopted by the CCC incorporated the language recommended by CCC staff. At its meeting of June 5, 2018, the Board took no action on the modifications adopted by the CCC, effectively rejecting the CCC modifications. Rejection of the CCCs modifications had the following effects:

- The language of the RMS section of the Coastal Zone Framework for Planning, including the criteria for LOS and Action Requirements, remains unchanged.
- Amendments to the Inland Framework for Planning adopted by the Board in 2014 remain in effect for the inland areas, only.

Methodologies

Water Supply

The total amount of water used by all sectors in a water service area or groundwater basin is the water demand. Water purveyors determine the portfolio of water supplies needed to meet current and project water demand for the communities they serve. For most of the County, groundwater is the principal source of water and groundwater basins typically

[6] Under the Coastal Act, a general plan amendment in the coastal zone must be forwarded to the Coastal Commission for final approval. The CCC may approve or deny the amendment or approve the amendment with modifications. Following CCC action, the amendment is sent back to the Board of Supervisors for acceptance or rejection of the modifications. The Board must either accept or reject **all** the modifications; it cannot partially accept or reject the modifications.

provide a supply of water to multiple water users across all types of sectors, such as municipal, rural residential, small community/commercial and agricultural.

Accordingly, the discussion of recommended LOS has been grouped by regions or water planning areas which generally coincide with the major groundwater basins[7]. Information regarding the current status of each basin was derived from a variety of sources, including (but not limited to) the following:

- San Luis Obispo County Master Water Report, 2012
- Updated Basin Plan for the Los Osos Groundwater Basin, 2015
- Los Osos Basin Annual Monitoring Reports, 2016 - 2019
- San Luis Obispo County Integrated Regional Water Management Plan, 2014
- 2017 Nipomo Mesa Management Area Annual Report
- 2017 Northern Cities Management Area Annual Report
- Various recently updated Urban Water Management Plans, 2015

A complete list of sources is provided in the Appendix.

Coastal Zone Areas

To determine the LOS for an area that lies entirely within the Coastal Zone, the 1996 Coastal RMS Criteria were applied. Forecasted demand from urban, rural, and agricultural users over 9 years (LOS I), 7 years (LOS II), and at present (2018) was derived from 2018 water use forms submitted to the County, from the 2012 Master Water Report and from the 2014 San Luis Obispo Integrated Regional Water Management Plan and compared with the dependable supply, including supplemental sources such as surface water supplies, imported water, recycled water, and other non-groundwater basin supplies. LOS were assigned based on whether the projected demand would exceed the estimated dependable supply over these time periods.

Inland Areas

To determine the LOS for an area that lies entirely within the Inland Area, the 2014 Inland RMS Criteria were applied. Forecasted demand from urban, rural, and agricultural users over 15 years, 15-20 years, and 20 years was derived from 2018 water use forms submitted to the County, from the 2012 Master Water Report, and from the 2014 San Luis Obispo Integrated Regional Water Management Plan and compared with the dependable supply, including supplemental sources such as surface water supplies, imported water, recycled water, and other non-groundwater basin supplies. LOS were assigned based on whether the projected demand would exceed the estimated dependable supply over these time periods.

Areas That Underlie Portions of the Coastal and Inland Areas

[7] As discussed above, groundwater basins identified in this RSR are defined in the DWR Bulletin 118 Interim Update 2016.

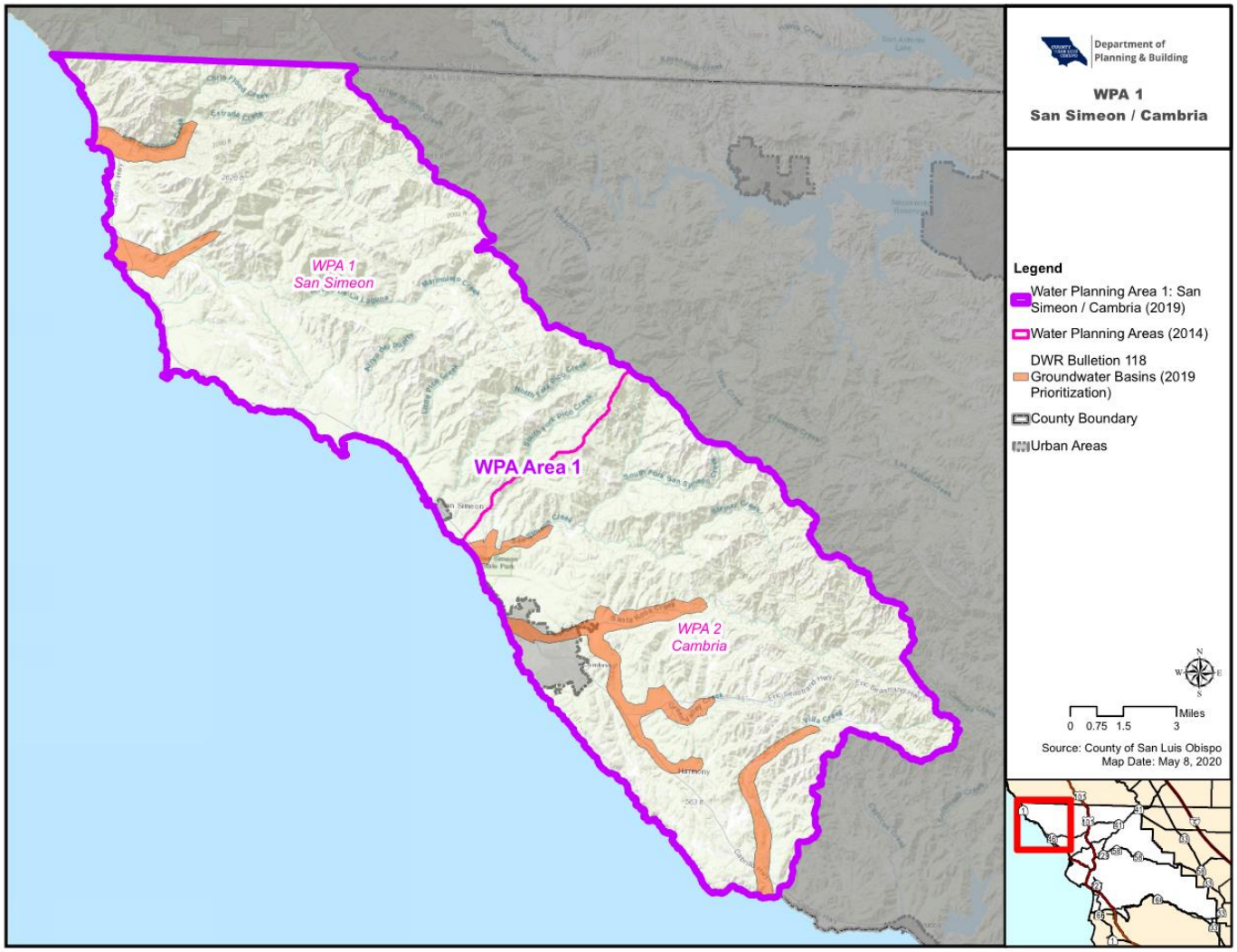
To determine the LOS for an area that extends inland from the Coastal Zone, both sets of RMS criteria were applied. In such cases, the Recommended Action Requirements are based on the higher LOS (when they differ) or the Recommended Action Requirements of the stricter LOS if they are the same.

Water Systems

To determine recommended LOS for water systems, water purveyors were asked to identify water system improvements necessary to accommodate current and projected water demand and the timeframe for the needed improvements. The timeframe for needed improvements were then compared with the LOS timeframes to assign a recommended LOS.

WPA 1 San Simeon / Cambria

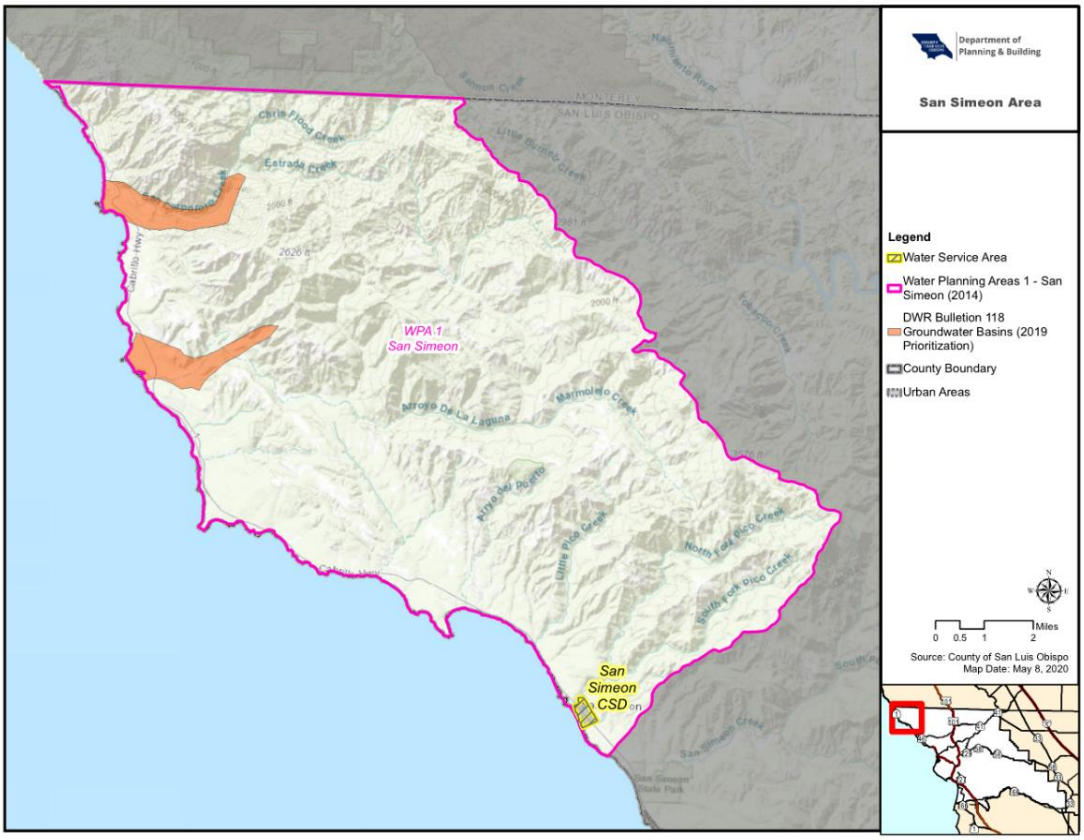
Figure II-5 – Water Planning Area 1 – San Simeon/Cambria



Water Supply

San Simeon Area

Figure II-6 – San Simeon CSD Water Service Area



San Simeon CSD provides water and wastewater services for the community of San Simeon. The primary groundwater source for San Simeon CSD is the Pico Creek Valley Groundwater Basin, which is not an identified groundwater basin according to DWR Bulletin 118 2019 Basin Prioritization. Surrounding rural and agricultural users also rely on this groundwater resource.

Seventy percent of water used by the San Simeon CSD is for commercial use (tourist/hotels). Due to the supply limitations of the Pico Creek Valley Groundwater Basin, alternative supply enhancement and demand management strategies are necessary to meet future demands. Water conservation and recycling measures have been implemented and there is minimal opportunity to further reduce water demands.

The safe yield of Pico Creek Valley Groundwater Basin was initially estimated to be 120 AFY (Carollo, 2012; Cleath, 1986). Contamination of water supply wells due to seawater intrusion is a major water quality concern in the basin (Cleath, 1986). Lowering of groundwater levels

below sea level in the basin during the summer months when creek flows are absent and pumping is active can result in the landward migration of the sea water/fresh groundwater interface. Since at least the mid-1980s, sea water intrusion has occurred within the Pico Creek Valley Groundwater Basin (Cleath, 1986). Seawater intrusion occurs routinely and increases chloride levels above secondary drinking water standards. The primary constraints on water availability in the basin include physical limitations and water quality issues.

Three water management strategies are likely the most feasible options to consider for San Simeon CSD's future water supply:

- Recycled water (trucking of recycled water to offset potable water use for landscape irrigation began in 2014)
- Groundwater supply sources (other than Pico Creek Valley Groundwater Basin)
- Desalination

The Arroyo De La Cruz Groundwater Basin is a possible option for a future water supply. Unfortunately, published hydrogeologic information for this basin is compiled from older reports and may not be representative of current conditions. The safe basin yield should be determined as part of any investigation of this basin as a future water supply.

In 2014, groundwater availability within the Pico Creek Valley Groundwater Basin was re-evaluated, and it was concluded that the perennial yield estimate remains at 120 AFY (Cleath-Harris, 2014).

In July 2016, San Simeon CSD completed the construction of a wellhead treatment system that uses reverse osmosis technology to improve water quality from their water supply wells during drought conditions. Future water management strategies are likely to be considered as part of the update to their master water plan.

Table II-10 – San Simeon Area: Existing and Forecasted Water Supply and Demand ***Based on the 1996 Coastal RMS Criteria***			
Demand	**San Simeon CSD**	**Agriculture[3]**	**Rural[3]**
FY 2017/2018 Demand (AFY)	66.1[1]	70	20
Forecast Demand In 7 Years (AFY)	156	~~85~~ 57	33
Forecast Demand in 9 Years (AFY)	178	~~89~~ 53	37
Buildout Demand (30 Or More Years) (AFY)[5]	250[2]	10-60	50
Supply			
Pico Creek Valley Basin (AFY)	120	0[4]	0[4]
Other GW Supplies	0	0	22
Surface Water	0	8[6]	10
Total:	120	22	50
Water Supply Versus Forecasted Demand	Water demand projected over 7 years will equal or exceed the estimated dependable supply.		

Sources: Water System Usage forms: July 2016 – June 2017; July 2017 – June 2018; San Luis Obispo County Master Water Report, 2012, Table 4.54; 2014 Integrated Regional Water Management Plan, Table D-13

Notes:

1. See Table II-1. Demand fluctuates due to changes in tourism.
2. Most recent master plan forecasts a build-out demand of 224 AFY, but San Simeon CSD's current build-out demand estimate is 250 AFY.
3. Agricultural and rural demand and supply have a high margin of error. The calculations are based on linear regressions of estimates in the 2012 Master Water Report and 2014 Integrated Regional Water Management Plan for the San Simeon Water Planning Area. These reports base demand on crop-specific applied water factors and 2013 irrigated crop data from the Ag Department. They do not account for livestock operations, and likely underestimate actual water demands.
4. Seventy (70) AFY of Pico Creek livestock and domestic usage was reported by Hearst Holdings Inc. to the State Water Resources Control Board (SWRCB) in June 2010.
5. Population within the San Simeon area is expected to decline slightly over the next 30 years.
6. Diversions from sources other than the three basins noted above total 238 AFY according to diversion reporting forms to the SWRCB from Hearst Holdings Inc. (June 2010) and the SWRCB diversion database.

Key observations for the area include:

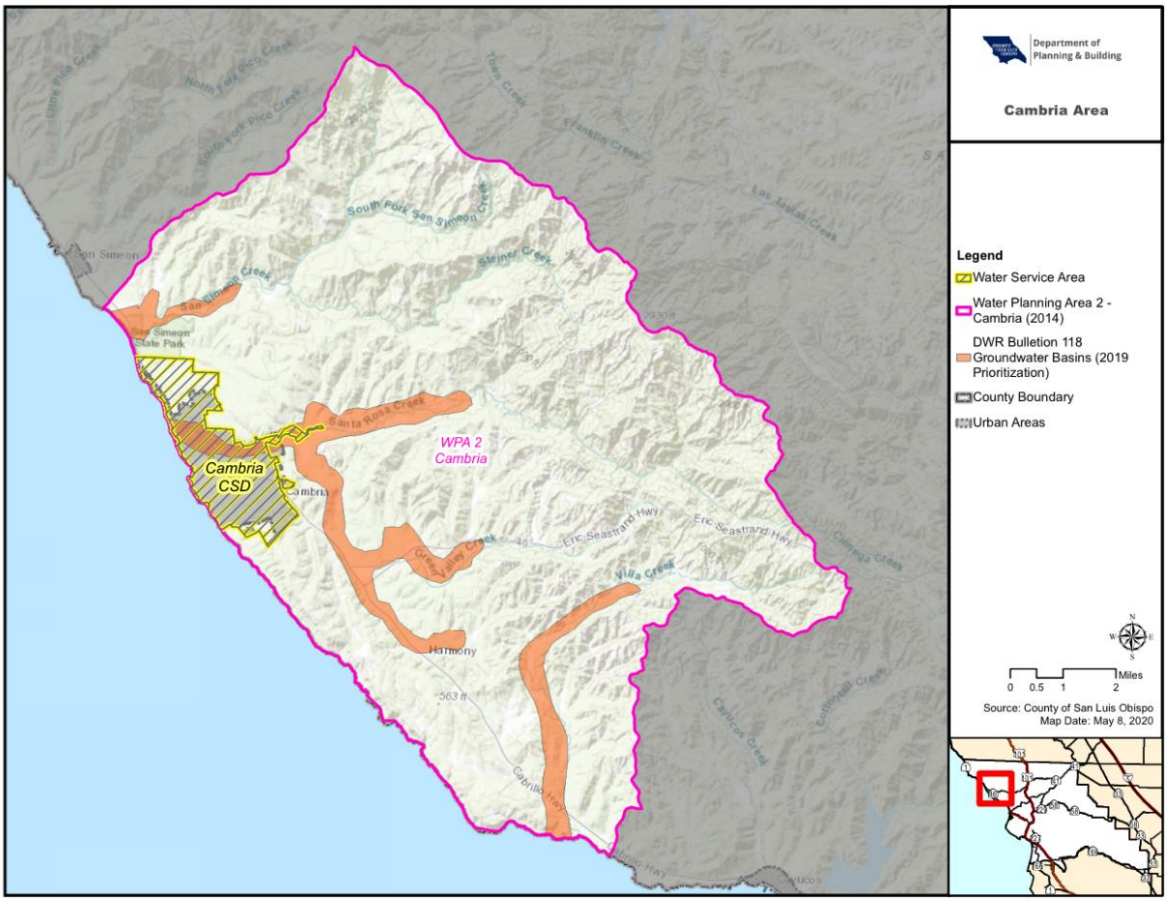
- The current estimated demand from urban, rural and agricultural users (156.1 AFY) exceeds the safe yield of the basin (120 AFY).
- Forecasted demand from all sources in 30 or more years is expected to be between 310 and 360 AFY which exceeds the safe yield of the basin (120 AFY).

- Evidence of seawater intrusion and lowered groundwater levels during the dry season or times of drought.
- An absence of available supplemental sources of supply.
- Population of the area is expected to remain stagnant over the next 30 years.
- The reliability and availability of the supply from non-basin areas are unknown, however no issues in the area have been reported.

Based on the 1996 Coastal RMS Criteria, **Recommended Level of Severity II.**

Cambria Area

Figure II-7 – Water Purveyors in the Cambria Area



Water users in the Cambria area include Cambria CSD and overlying rural and agricultural users. The primary constraints on water availability in the area include physical limitations and potential water quality issues.

The State Water Resources Control Board (SWRCB) has previously allowed Cambria CSD a maximum extraction of 1,230 AFY in the San Simeon Valley (DWR Bulletin 118 No. 3-035) groundwater basin and a maximum dry season extraction of 370 AF (Cambria CSD Water Master Plan (WMP), 2008). Although the actual dates will vary each year depending on creek flows and rainfall occurrence, the dry season generally spans from May through October. In general, groundwater levels in the basin are typically highest during the wet season, steadily decline from these levels during the dry season, and recover again to higher levels during the next wet season.

Cambria CSD is in the process of licensing aquifer diversions from San Simeon Valley from the SWRCB. The licensing process would set the maximum annual aquifer diversion from

San Simeon Valley at 798.82 AF. With licensing, the dry season San Simeon Creek underflow will remain at 370-acre feet. Cambria CSD is also pursuing a permanent Coastal Development Permit for the Sustainable Water Facility (SWF) which is discussed in more detail below in the water systems section for Cambria CSD. The SWF re-injects the water it produces back into the San Simeon Creek aquifer, which is subsequently extracted by existing Cambria CSD potable wells SS1 or SS2. Therefore, the SWF brackish water extraction would not be subtracted from the 798.82 AF limit that would be licensed by SWRCB. Cambria CSD also provides approximately 20 AF per year of agricultural riparian use water from its San Simeon potable wells to a rancher north of San Simeon Creek Road (the Warren ranch). This agriculture water use was metered from a potable water service connection downstream from the San Simeon aquifer production well meters and is being provided as part of a 2006 water rights agreement between the CSD and Warren. Therefore, the 20 AF provided by Cambria CSD as riparian agricultural water would also not count towards the licensed annual diversion limit of 798.82 AF.

Cambria CSD is in process of licensing aquifer diversions from the Santa Rosa Valley (DWR Bulletin 118 No. 3-036) groundwater basin from the SWRCB. The licensing process would set the maximum annual aquifer diversion from Santa Rosa Valley at 217.92 AF. Cambria CSD has used Santa Rosa Valley as a means of augmenting its primary supply from the San Simeon acquifer during the dry season, and as an emergency backup water supply.

In response to the severe drought of 2014, and to improve reliability, Cambria CSD undertook the following actions:

- Completed construction of the SWF to improve water supply reliability (discussed in greater detail below);
- Restored its potable Well SR-1 for non-potable use, and
- Pursued an aggressive program of water conservation.

As part of its adopted 2016 Urban Water Management Plan Update, the Cambria CSD commissioned Maddaus Water Management to develop a more aggressive conservation program, which reduced future water demand. This recommended conservation program (Program B) includes measures such as point of use recycled water (e.g., graywater treatment systems to allow toilet flushing via dual plumbing); and not allowing the use of potable water on any future home's landscaping. This resulted in approximately 691 acre-feet per year demand at buildout for existing and future connections (a combined total of 4,650 existing and future residences). Table II-11 shows the demand modeling results under recommended conservation Program B, which is further described in the Cambria CSD's 2016 adopted Urban Water Management Plan Update.

Table II-11 – Cambria Area Existing and Forecasted Water Supply and Demand *Based on the 1996 Coastal RMS Criteria*			
Demand	**Cambria CSD**	**Agriculture[7]**	**Rural[7]**
FY 2017/2018 Demand (AFY)[1]	452.7	521	100
Forecast Demand in 7 Years (AFY)	586[2]	777	145
Forecast Demand in 9 Years (AFY)	617[2]	850	158
Buildout Demand (30 Or More Years) (AFY)	691[2]	1158	205
Supply			
San Simeon Valley Basin (AFY)	519-799[3]	11	2
Santa Rosa Valley Basin (AFY)	155-218[4]	301	55
Other GW Supply	0-195[5]	691	127
Surface Supply	0	0	0
Recycled Water	100	0	0
Total Supply:	689-1,017	1,003	184
Water Supply Versus Forecasted Demand	Water demand projected over 9 or more years will not equal or exceed the estimated dependable supply.[6]		

Sources: Water System Usage forms: July 2016 – June 2017; July 2017 – June 2018; San Luis Obispo County Master Water Report, 2012, Table 4.55, Cambria CSD 2016; 2014 Integrated Regional Water Management Plan, Tables D-15 and D-16.

Notes:

1. See Table II-1.
2. From Maddaus Water Management Decision Support System (DSS) Modeling, (August 2016) for recommended conservation program B of the 2016 Urban Water Management Plan Update (UWMP). Note that Table 4-2 of the CCSD UWMP used only existing plumbing code updates, and therefore shows higher demand values than conservation Program B.
3. The 519 AF minimum assumes the Sustainable Water Facility is not operating and there is a 15% reduction in supply per Table 7-1a of the 2016 Cambria CSD Urban Water Management Plan. The 799 AF (798.82 rounded) upper range assumes the CCSD licenses its existing diversion permit with the SWRCB at this value. SWRCB allows Cambria CSD 518 AFY maximum extraction and 260 AF dry season extraction. The table uses a conservative assumption for dry-weather extractions.
4. This assume the State Board licenses the CCSD allowable diversion from the Santa Rosa underflow at 218 AFY and 155.3 AFY for the dry period of May 1 through October 31.
5. Alternatives identified in a 2004 Assessment of Long-Term WS Alts included: seawater desalination, an exchange of buying Nacimiento reservoir water for the use of water stored in the Whale Rock Reservoir, and direct transmission of Nacimiento reservoir. As of 2018, an emergency project to desalinate brackish water has been developed which can temporarily produce up to 250 AFY during the dry season. A

permanent CDP is currently under review for the SWF and is expected to be considered by the Planning Commission in the fall of 2018.

6. Based on continued conservation and obtaining a regular CDP for its SWF. Although the existing annual supply and demand indicates a surplus, the dry season extraction limits could otherwise create a seasonal supply deficit.
7. It is uncertain whether an agricultural or rural supply deficit exists. Agricultural and rural demand and supply have a high margin of error. The calculations are based on linear regressions of estimates in the 2012 Master Water Report and 2014 Integrated Regional Water Management Plan for the Cambria Water Planning Area. These reports base demand on crop-specific applied water factors and 2013 irrigated crop data from the Ag Department. They do not account for livestock operations, and likely underestimate actual water demands.

Key observations for the area include:

- Groundwater extractions projected over the next nine years from all sources will likely equal the reliable supplies associated with the San Simeon Valley and Santa Rosa Valley Groundwater Basins. Because of limitations associated with dry weather extractions, the San Simeon Valley and Santa Rosa Valley Groundwater Basins are considered an unreliable source of water within the timeframes prescribed by the 1996 RMS Criteria.
- Although the SWF is expected to help improve long-term reliability of the community's water supply, the combination of seawater intrusion along with lowering groundwater levels during the dry season or times of drought remain a concern.
- An absence of available supplemental sources of supply.
- The reliability and availability of the supply from non-basin areas is unknown.

Based on the 1996 Coastal RMS Criteria, Recommended Level of Severity III.

Water Systems

San Simeon CSD

In 2014, San Simeon CSD received approval from the Department of Public Health to use treated effluent as recycled water for landscape irrigation, decorative fountains, firefighting and for certain construction activities. The facility is authorized to produce 36,000 gallons of Title 22 recycled water per day but is currently only available to commercial trucks that connect to an on-site tank. The long-term plan is to construct a recycled water distribution system.

No significant water system limitations were identified. No recommended Level of Severity.

Cambria CSD

To enhance Cambria's major water and wastewater infrastructure and other key projects that protect the safety and quality of life for Cambrians, Cambria CSD has prioritized a number of Capital Improvement Projects (CIP) as well as the non-CIP Buildout Reduction Program (BRP). In 2014, the Cambria CSD completed several significant projects to improve water supply reliability. These included an Emergency Water Supply Project that utilizes brackish water from the lower San Simeon Creek aquifer, rehabilitation of its SR-3 well and associated wellhead treatment plant, and the completion of a non-potable water fill station using well SR-1.

Emergency Water Supply Project (SWF). In January 2014, the Cambria CSD Board of Directors (Board) declared a Stage 3 Water Shortage Emergency Condition, the most severe of three levels. In light of the urgency of the situation, Cambria CSD decided to construct an emergency water supply system that could be completed as quickly as possible. The chosen approach involved the construction and operation of the SWF at the CCSD's existing San Simeon well field and treated wastewater effluent land disposal system property. The SWF is based on a reuse/recycling process through which treated effluent and lost aquifer underflow are recovered and treated through advanced treatment processes to produce "advanced treated water" which is then injected directly into the groundwater basin to augment the community's potable water supply. Potable water is then consumed and converted to wastewater where it is treated by the wastewater treatment plant, pumped to the percolation ponds (after secondary treatment), and infiltrated back into the groundwater to restart the cycle.

The project's advanced treatment provides several stages of treatment to remove solids, salt, organic chemicals and other contaminants so that it is safe to drink. To meet Title 22 indirect reuse criteria, the highly treated water is injected into the Cambria CSD's San Simeon well field where it must travel at least 60 days before being pumped by the existing well field pumps. The brackish water being treated is a combination of creek underflow, percolated wastewater treatment plant effluent, and a mix of freshwater and seawater that is within a deeper saltwater wedge. The extracted brackish water will have salt concentrations much lower than that of pure seawater. The project's intake well and treatment plant is located about one-half mile inland from the ocean.

An emergency Coastal Development Permit (CDP) was issued by the County for the SWF in May of 2014 and construction began soon thereafter. The SWF began operation in January 2015 and can produce approximately 300 gallons per minute of potable water. This is about 1.32 acre-feet per day or nearly 40 acre-feet per month. The plant is expected to run mainly during the dry months, supplying about 240 acre-feet of water in a six-month dry season, which is about one-third of the community's normal water consumption for a full year.

Condition No. 1 of the emergency CDP limits the SWF to the production of 250 AFY of water to serve existing authorized water connections, only (not new development). Condition No.

2 allows the SWF to operate only so long as a Stage 3 Condition exists or the SWF has been authorized to continue to serve existing development through approval of a regular Coastal Development Permit. Condition No. 6 required Cambria CSD to apply for a regular CDP within 30 days of the issuance of the emergency permit and Cambria CSD applied for a Regular CDP in June 2014. The application is currently under review by the County and is expected to be considered by the Planning Commission in the fall of 2018.

The CCSD is also pursuing options for the disposal of brine generated by the SWF. Wastes generated by the SWF (brine) has been stored in an impoundment regulated in accordance with Waste Discharge Requirements (WDR) Order No. R3-2014-0047 issued by the Regional Water Quality Control Board (RWQCB). However, because of violations of the discharge order, the RWQCB issued a Cease and Desist Order in 2017 which prohibits the CCSD from discharging wastewater to the surface impoundment until corrective actions are taken to protect the groundwater. Under the cease-and-desist order, the CCSD was given 30 days to submit a plan to remove all brine wastes from its pond. The district submitted a plan, but, according to the RWQCB, the plan did not assure the water board that the brine in the impoundment would be removed quickly enough.

The CCSD is proposing to decommission the impoundment as part of the permanent Coastal Development Permit for the ongoing operation of the SWF. Under this plan, the RO concentrate would be pumped out of the evaporation pond and the residual slurry would be hauled away for disposal at an appropriate Class II waste disposal facility. The evaporation pond liner would be cleaned using high pressure hoses to sluice the RO concentrate to the pond's lowest spot. The rinse water would similarly be hauled away for offsite disposal.

In addition to the current emergency project, Cambria CSD and Army Corps of Engineers are completing a long term supply project through a Water Resources Development Act authorization. An Environmental Impact Statement is currently being completed by the Corps, which will identify a preferred long-term water supply alternative. The project, if implemented, is expected to produce up to 602 AFY, and is planned to operate during the summer season to augment supply during the summer and high demand periods (from summer tourism). A recycled water system is also planned, with an estimated 65 AFY made available for unrestricted outdoor irrigation use.

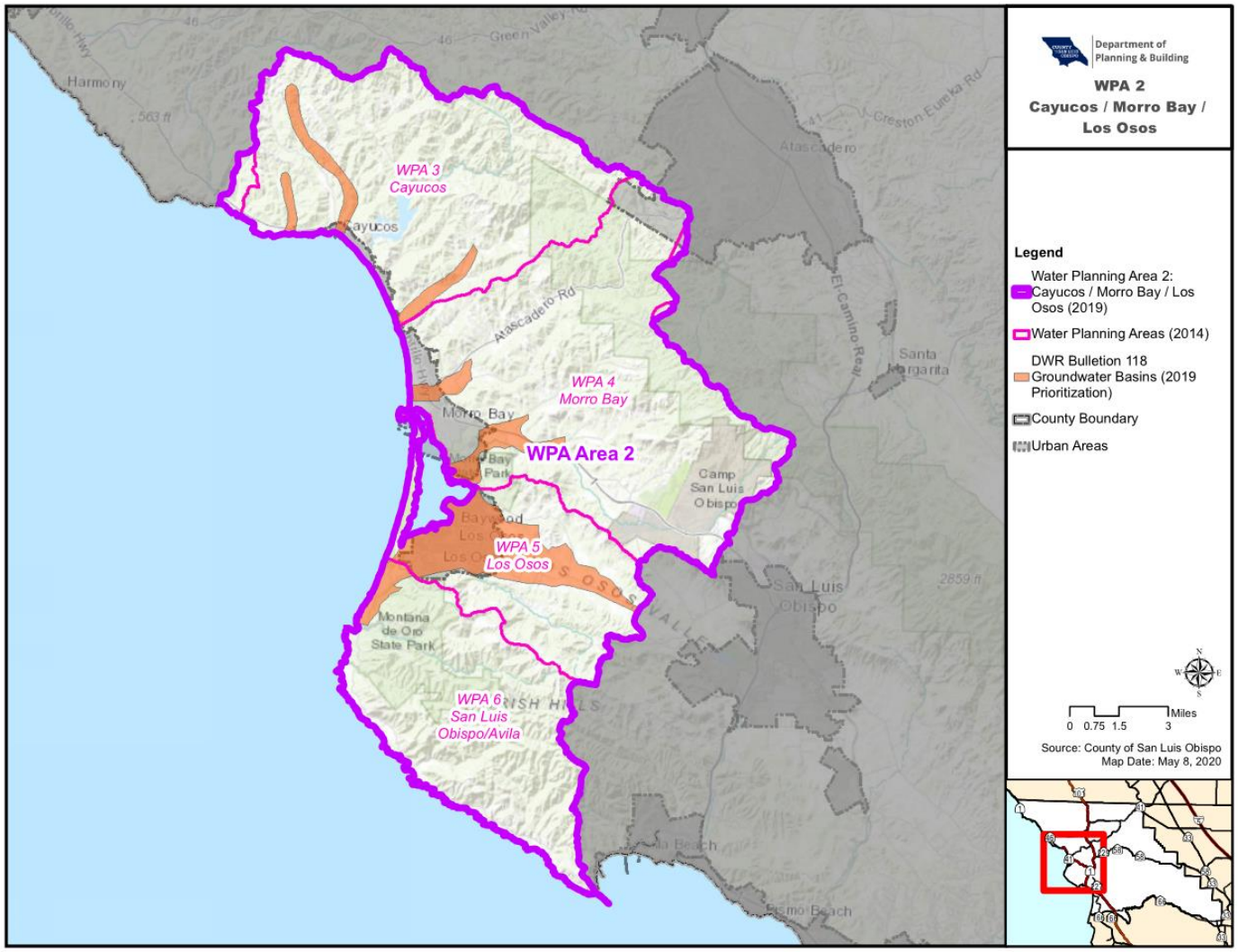
Well SR-3 Rehabilitation. Cambria CSD replaced its well pump for SR-3 well along the Santa Rosa Creek aquifer while also separating its discharge piping from its lower SR-1 well system. This allowed for only the SR-3 well discharge to enter into, and be treated by, the existing Filtronics iron and manganese removal filter. As part of this effort, Cambria CSD's mothballed Filtronics plant was also rehabilitated and made operational. The sole use of SR-3 also placed the potable well water extraction point for the lower Santa Rosa aquifer water more upgradient from an MTBE plume that was discovered in 2000. The operation of SR-3 well, coupled with monitoring for MTBE (which was also found to be non-detectible), allowed access to approximately 114 acre-feet of deeper groundwater that was not otherwise

available to Cambria CSD's only other operational Santa Rosa aquifer well (SR-4 Well, which is located much further up gradient along the aquifer).

Conversion of SR-1 Well for Non-potable Use. The Cambria CSD replaced its SR-1 well pump while also separating its discharge from the potable supply system. The SR-1 discharge was rerouted to non-potable polyethylene storage tanks installed at the Cambria CSD's Rodeo Grounds Road facility. Separate fill stations were installed for non-potable water use. The new non-potable fill stations replaced ones that had been previously in use at the CSD's San Simeon Creek Road property. No significant water system limitations were identified. **No recommended Level of Severity.**

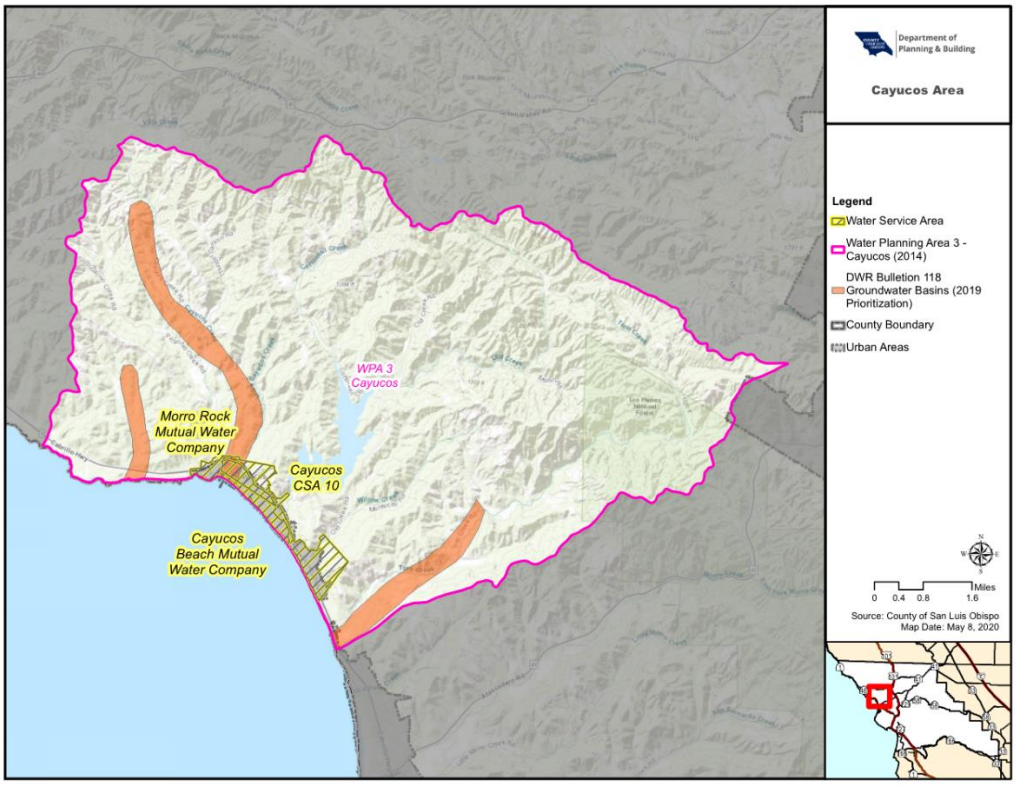
WPA 2 Cayucos / Morro Bay / Los Osos

Figure II-8 – Water Planning Area 2 – Cayucos/Morro Bay / Los Osos



Cayucos Area

Figure II-9 –Water Purveyors in the Cayucos Area



Water supply for the Cayucos area primarily comes from the Whale Rock Reservoir, groundwater basins, surface water diversions, and exchanges from the Nacimiento Water Project.

The Cayucos Valley Groundwater Basin (DWR Bulletin 118 No. 3-038) includes both physical limitations and water quality issues. Water level and well capacity declines during drought will limit the availability of the resource, while in the lower valley area; sea water intrusion will be the primary constraint. The Morro Rock Mutual Water Company and Cayucos Beach Mutual Water Company service areas overlie a portion of the basin; however, these purveyors do not pump from the Cayucos Valley basin. As shown in Table II-12 the basin also supplies agricultural and rural users.

Water users downstream of Whale Rock reservoir include members of the Cayucos Area Water Organization (CAWO), which include Morro Rock Mutual Water Company, the Cayucos Beach Mutual Water Company, the County, the Cayucos Cemetery District, and two landowners. The combined groundwater and Whale Rock Reservoir surface water allocation for CAWO in Old Valley Groundwater Basin (DWR Bulletin 118 No. 3-039) is 664 AFY, distributed as follows:

- Morro Rock Mutual Water Co.: 170 AFY
- Cayucos Beach Mutual Water Company: 222 AFY
- County (CSA 10A): 190 AFY (plus 40 AFY of City of San Luis Obispo's Whale Rock water allocation via exchange for Nacimiento water)
- Cayucos Cemetery District: 18 AFY
- Downstream land owners: 64 AFY
- BVMHP: 10 AFY (of City of San Luis Obispo's Whale Rock water allocation via exchange for Nacimiento water)

Constraints on water availability in this basin include physical limitations, water rights, and environmental considerations. Shallow alluvial deposits upstream of the reservoir are susceptible to drought impacts, having limited groundwater in storage. For the area below the reservoir, dam underflow may provide a source of recharge. Water rights permits limit the amount of groundwater available to the members of CAWO and downstream landowners in Old Valley to 664 AFY. Whale Rock Reservoir allocations to CAWO members are sufficient to provide existing demands and meet forecast buildout demands.

Table II-12 – Cayucos Area:
Existing and Forecasted Water Supply and Demand
Based on the 2014 Inland RMS Criteria

Demand	Morro Rock MWC	Cayucos Beach Water Assoc.	CSA 10A	Cayucos Cemetery District	Agriculture[5]	Rural[5]
FY 2017/2018 Demand (AFY)[1]	100.2	130.5[1]	94.4[1]	Not provided	562	91
Forecast Demand in 15 Years (AFY)	168	212	226	17	603	124
Forecast Demand in 20 Years (AFY)	168	212	226	18	617	135
Buildout Demand (30 Or More Years) (AFY)	164-173	207-218	220-232	17-18	430-800	130-140
Supply						
Whale Rock Reservoir	170	222	190	18	0	0
Nacimiento Water Project	0	0	50[2]	0	0	0
SWRCB Water Diversions	3[3]	0	0	0	0	0
Cayucos Valley Basin	0	0	0	0	49[4]	11[4]
Old Valley Basin	0	0	0	0	12	3
Other GW Sources	0	0	0	0	555	122
Total Supply:	173	222	248	18	617	135
Water Supply Versus Forecasted Demand	Water demand projected over a period exceeding the LOS timeframe of 20 years will not equal or exceed the estimated dependable supply. Whale Rock Reservoir allocations are sufficient to provide for forecasted demand.					

Sources: Water System Usage forms: July 2016 – June 2017; July 2017 – June 2018, San Luis Obispo County Master Water Report, 2012, Table 4.56; 2014 Integrated Regional Water Management Plan, Tables D-17 and D-18.

Notes:
1. See Table II-1. All data are as reported separately by purveyors in 2016. Not apportioned.
2. County (CSA 10A) exchanged 40 AFY for Whale Rock water from the City of San Luis Obispo; Bella Vista Mobile Home Park exchanges 10 AFY for Whale Rock water from the City of San Luis Obispo.
3. Only 3 AFY is diverted for a school and park irrigation, but up to 56 AFY is the permitted diversion from Little Cayucos Creek underflow. 56 AFY is part of the 600 AFY safe yield for the Cayucos Valley Basin. Due to water quality, the remaining 53 AFY could be used for domestic supply following treatment.
4. Estimated safe yield is 600 AFY and the majority of pumping is for agricultural or rural users, but a small public water system does serve a mobile home park.

5. Agricultural and rural demand and supply have a high margin of error. The calculations are based on linear regressions of estimates in the 2012 Master Water Report and 2014 Integrated Regional Water Management Plan for the Cayucos Water Planning Area. These reports base demand on crop-specific applied water factors and 2013 irrigated crop data from the Ag Department. They do not account for livestock operations.

Table II-13 – Cayucos Area:
Existing and Forecasted Water Supply and Demand
Based on the 1996 Coastal RMS Criteria

Demand	**Morro Rock MWC**	**Cayucos Beach Water Assoc.**	**CSA 10A**	**Cayucos Cemetery District**	**Agriculture[5]**	**Rural[5]**
FY 2017/2018 Demand (AFY)[1]	100.2	130.5[1]	94.4[1]	Not provided	562	91
Forecast Demand in 7 Years (AFY)	128	165	202	17	584	109
Forecast Demand in 9 Years (AFY)	138	178	234	18	~~690~~590	114
Buildout Demand (30 Or More Years) (AFY)	164-173	207-218	220-232	17-18	430-800	130-140
Supply						
Whale Rock Reservoir	170	222	190	18	0	0
Nacimiento Water Project	0	0	58[2]	0	0	0
SWRCB Water Diversions	3[3]	0	0	0	0	0
Cayucos Valley Basin	0	0	0	0	49[4]	11[4]
Old Valley Basin	0	0	0	0	12	3
Other GW Sources	0	0	0	0	555	122
Total Supply:	173	222	248	18	617	135
Water Supply Versus Forecast Demand	Water demand projected over a period exceeding the LOS timeframe of 9 years will not equal or exceed the estimated dependable supply. Whale Rock Reservoir allocations are sufficient to provide for forecast demand.					

Sources: Water System Usage forms: July 2016 – June 2017; July 2017 – June 2018, San Luis Obispo County Master Water Report, 2012, Table 4.56; 2014 Integrated Regional Water Management Plan, Tables D-17 and D-18.

Notes:

1. See Table II-1. All data are as reported separately by purveyors in 2016. Not apportioned.
2. County (CSA 10A) exchanged 40 AFY for Whale Rock water from the City of San Luis Obispo; Bella Vista Mobile Home Park exchanges 10 AFY for Whale Rock water from the City of San Luis Obispo.
3. Only 3 AFY is diverted for a school and park irrigation, but up to 56 AFY is the permitted diversion from Little Cayucos Creek underflow. 56 AFY is part of the 600 AFY safe yield for the Cayucos Valley Basin. Due to water quality, the remaining 53 AFY could be used for domestic supply following treatment.
4. Estimated safe yield is 600 AFY and the majority of pumping is for agricultural or rural users, but a small public water system does serve a mobile home park.
5. Agricultural and rural demand and supply have a high margin of error. The calculations are based on linear regressions of estimates in the 2012 Master Water Report and 2014 Integrated Regional Water Management Plan for the Cayucos Water Planning Area. These reports base demand on crop-specific applied water factors and 2013 irrigated crop data from the Ag Department. They do not account for livestock operations.

Staff of the Department of Planning and Building estimates that General Plan buildout for Cayucos is likely to be reached by the year 2044 (in 26 years) which is beyond the timeframe of either the Coastal RMS or Inland RMS LOS criteria. Since the forecast buildout demands will push the CAWO members to their supply limit, an alternative supply should be developed as a reliability reserve over the next ten years. The most viable option for a reliability reserve supply is the NWP, since the 2018 agreement with the County, on behalf of CSA 10A, allows up to 50 AFY to be exchanged. In 2016, the County procured an additional 40 AFY from this source.

The Cayucos Sanitary District (CSD) is pursuing the construction of a wastewater treatment plant separately from the City of Morro Bay (discussed in greater detail in Chapter III, Wastewater). The wastewater recycling and recovery facility (WRRF) will be designed to treat wastewater that meets safe drinking water standards. Accordingly, the project includes a pipeline to be used to convey treated water that meets safe drinking water standards from the WRRF to the CSA 10A water treatment plant where it would augment the existing water supply by about 370 – 560 AFY at such time as the water purveyors deem the supplemental water to be beneficial and implement the necessary improvements to receive and process the supplemental water from the WRRF.

The combination of full 90 AFY NWP exchange, future production of potable water from the CSD wastewater project, and emergency conservation measures would provide the CAWO members with a reliable supply for the next twenty or more years.

Key observations for the area include:

- Forecasted demand for the basin from all sources is expected to remain below the projected supplies.
- The combination of full 90 AFY NWP exchange, future production of potable water from the CSD wastewater project, and emergency conservation measures will provide the CAWO members with a reliable supply for the next twenty or more years.

Based on either the 2014 Inland or the 1996 Coastal RMS Criteria, **no recommended Level of Severity.**

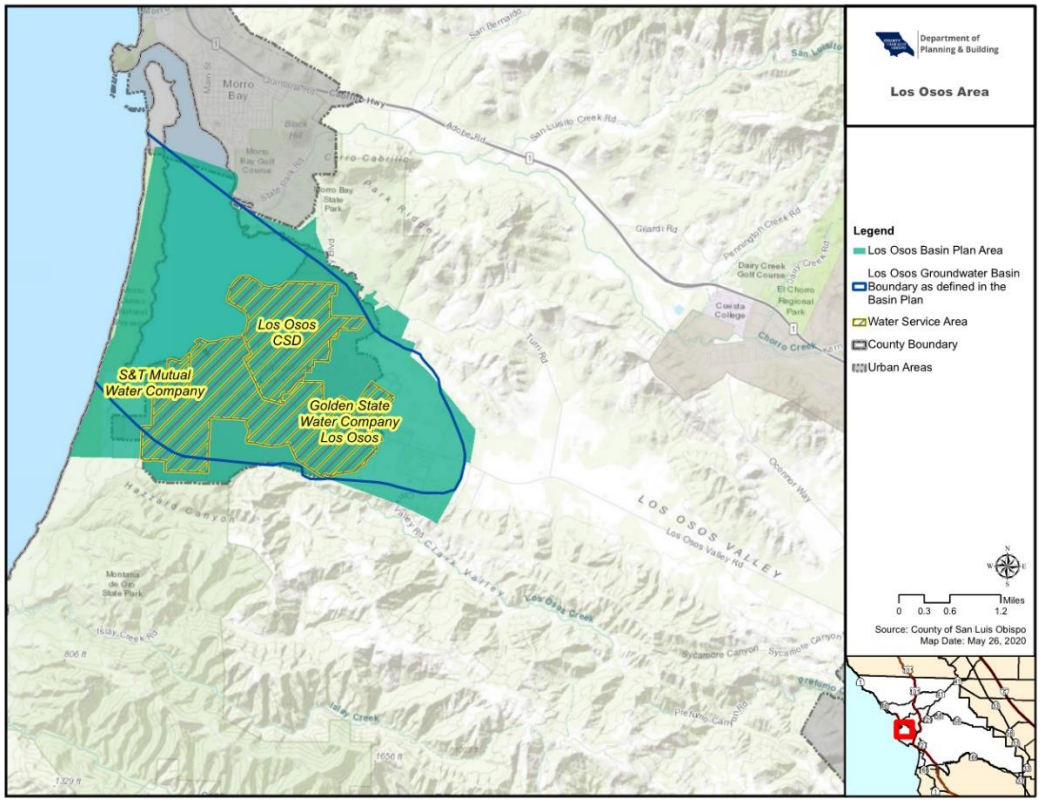
Water Systems

County Service Area (CSA) 10A

CSA 10A continues to make improvements to the overall water system to replace deteriorated and substandard waterlines and storage facilities. No significant water system limitations were reported by the other water purveyors. **No recommended Level of Severity**.

Los Osos Area

Figure II-10 –Water Purveyors Serving the Los Osos Area



The Los Osos Valley Groundwater Basin (DWR Bulletin 118 No. 3-008)[1] is the primary source of water supply in the Los Osos area and is affected by nitrate contamination and seawater intrusion. Groundwater extractors are the three water purveyors in the urban area – Golden State Water Company, S&T Mutual Water Company, and the Los Osos Community Services District -- and overlying private well owners, including rural residents, community facilities and agricultural operations. The 2015 Updated Basin Plan for the Los Osos Groundwater Basin ("Basin Plan") was prepared by the three water purveyors, along with the County, as a part of the settlement of groundwater rights litigation, which was approved by the San Luis Obispo Superior Court in October 2015. The purveyor boundaries, Basin Plan management area, and the locally defined groundwater basin boundary used in the Basin Plan are shown in the figure above.

[1] A map of the DWR Bulletin 118 boundary may be found in the 2019 annual monitoring report prepared for the Los Osos Basin Management Committee. The Final 2018 Basin Boundary Modifications were released by the California Department of Water Resources on February 11, 2019, which identified two subbasins of the Los Osos Valley Groundwater Basin: the Los Osos Area Subbasin (No. 3-008.01) and the Warden Creek Subbasin (No. 3-008.02).

The section of the groundwater basin assessed by the Basin Plan consists of five layered coastal aquifers. Historically the urban area relied on septic systems, which resulted in nitrate contamination in the Upper Aquifer. Overpumping in the Lower Aquifer contributed to seawater intrusion. The Basin Plan recommends programs to address nitrate contamination and seawater intrusion. The Basin Management Committee, composed of the three water purveyor and the County, is responsible for implementing the Basin Plan programs and preparing annual reports summarizing monitoring data and program implementation status.

Nitrate Contamination

The Los Osos Water Recycling Facility (LOWRF) community sewer/recycled water system became operational in 2016. This facility allowed the community to move off of individual septic systems in the majority of the urban area, reducing the nitrate loading on the basin, and also providing tertiary-treated effluent to offset basin uses and recharge the basin, which is projected to push back the seawater intrusion front over time. Nearly 100% of the community within the sewer service area are now connected to the community wastewater system, which is discussed in greater detail in Chapter III -- Wastewater. With the point source of contamination significantly reduced, the nitrate contamination in the Upper Aquifer is expected to degrade over time. Groundwater production wells with nitrate concentrations exceeding the State drinking water limit use nitrate removal systems or blending with other sources with lower nitrate levels.

A technical memo prepared for the Basin Management Committee in November 2019 indicated increasing nitrate concentration measurements in some groundwater production wells the Lower Aquifer, resulting from leakage from the Upper Aquifer, that could cause exceedance of nitrate drinking water standards for groundwater production wells that do not currently have nitrate removal systems in place, such as S&T Mutual Water Company's main water supply well. S&T is concerned that the nitrate contamination in the Lower Aquifer threatens the sustainability of their water supply for existing users. The Basin Plan does not include programs to address nitrate contamination in the Lower Aquifer. The Basin Management Committee is considering further studies of this issue and potential adaptive management provisions.

Seawater Intrusion

The annual reports prepared by the Basin Management Committee map the seawater intrusion front based on monitoring well measurements and hydrologic modeling. The 2019 annual reports show the seawater intrusion front retreated from 2016 to 2018 but moved inland from 2018 to 2019 and recommends 1) improving monitoring procedures for more reliable chloride concentration data, 2) re-evaluating the Water Level Metric, including adding monitoring wells in Zone E and water level transducer, 3) further reduction of pumping from the Lower Aquifer to mitigate seawater intrusion, and 4) continuing to monitor the effectiveness of the Broderson leach field that recharges treated wastewater into the aquifer,

which is anticipated to take 5-7 years to create a mounding effect to begin to push back the seawater intrusion front.

Annual Monitoring of Basin Metrics

The 2016-2019 annual monitoring reports prepared for the Basin Management Committee include metrics that indicate the status of seawater intrusion and nitrate contamination in the basin, calculated from monitoring data and hydrologic modeling. The Basin Management Committee uses these metrics to gauge the effectiveness of the implemented Basin Plan programs and inform adaptive management decisions. The metrics in the reports are summarized as follows:

- **Basin Yield Metric.** Indicates if the annual pumping volume is sustainable.
    - Definition: Annual groundwater extraction volume divided by annual estimated sustainable basin yield * 100
    - Target Goal: 80 or less
    - 2019 value: 69
    - 2018 value: 74
    - 2017 value: 75
    - 2016 value: 78
    - Trend: Meeting target goal since 2016.
    - 2019 Recommendation: Consider changes to Basin Programs per adaptive management and monitoring of program effectiveness in estimating the annual sustainable basin yield.

- **Water Level Metric.** Indicates seawater intrusion.
    - Definition: Average groundwater elevation measured at five key wells in the Lower Aquifer.
    - Target Goal: 8 feet above mean sea level or higher
    - 2019 value: 1.8 feet above mean sea level
    - 2018 value: 2.0 feet above mean sea level
    - 2017 value: 1.5 feet above mean sea level
    - 2016 value: 1.0 feet above mean sea level
    - Trend: Improvement from 2016 to 2018. Deterioration from 2018 to 2019 based on inclusion of data from a new monitoring well. A technical memo prepared in June 2020 projects the metric to not reach the target goal until 2033 (CHG, 2020).
    - 2019 Recommendation: Re-evaluate the Water Level Metric, including adding monitoring wells in Zone E and water level transducers to help identify and interpret trends in the metric.

- **Chloride Metric.** Indicates seawater intrusion.
    - Definition: Weighted average chloride concentration measured at four key wells in Lower Aquifer.
    - Target Goal: 100 mg/L or less
    - 2019 value: 162 mg/L
    - 2018 value: 145 mg/L
    - 2017 value: 132 mg/L
    - 2016 value: 225 mg/L
    - Trend: Improvement from 2016 to 2018. Deterioration from 2018 to 2019. A technical memo prepared in June 2020 projects the metric to rise for 10 years and then decline to meet the target goal by 2046, 30 years from when the Basin Yield Metric target goal was met (CHG, 2020).
    - 2019 Recommendation: Improve monitoring procedures for more reliable data.

- **Nitrate Metric.** Indicates nitrate contamination.
    - Definition: Average nitrate concentration measured at five key wells in the Upper Aquifer.
    - Target Goal: 10 mg/L or lower (State drinking water standard)
    - 2019 value: 22 mg/L
    - 2018 value: 24 mg/L
    - 2017 value: 32 mg/L
    - 2016 value: 26 mg/L
    - Trend: The Basin Plan projects the target goal will be met in 2050.
    - 2019 Recommendation: Monitor leakage of nitrate contamination from the Upper Aquifer to the Lower Aquifer.

The Basin Management Committee is considering developing additional metrics and a contingency plan if the metric tends fail to demonstrate progress towards Basin Plan target goals.

Basin Plan Programs

The sustainable basin yield refers to the volume of groundwater that can be extracted while halting and reversing seawater intrusion. The Basin Plan estimated the sustainable basin yield as 2,450 acre-feet per year (AFY) for a "No Programs" scenario without implementation of any of the recommended programs in the Basin Plan. The Basin Plan recommends two phases of programs for implementation to increase the sustainable basin yield: 1) programs to halt and reverse seawater intrusion and provide a sustainable supply for existing development, and 2) programs to accommodate buildout demand, if new development is allowed by adoption of the Los Osos Community Plan (LOCP) and Community-Wide Habitat Conservation Plan (HCP). The Basin Plan requires ongoing monitoring to verify the

effectiveness of the programs once they are implemented and iterative adaptive management.

Phase 1 Basin Plan Programs

The goal and status of each of the six Phase 1 Basin Plan Programs are summarized below, based on information from the 2017, 2018, and 2019 annual monitoring reports.

- Program "M" – Groundwater Monitoring
- Program "E" – Urban Water Use Efficiency
- Program "U" – Urban Water Reinvestment
- Program "A" – Infrastructure Program A
- Program "C" – Infrastructure Program C
- Program "P" – Wellhead Protection

Program "M" – Groundwater Monitoring (Complete). The groundwater monitoring program includes annual reporting on metrics to measure nitrate impacts to the Upper Aquifer, seawater intrusion within the Lower Aquifer, and the effect of implemented Basin Plan programs and adaptive management efforts, with flexibility to adapt over time. This program is operational and subject to ongoing adaptive management. In 2019 an additional monitoring well was constructed in Cuesta by the Sea to improve assessment of the seawater intrusion front. The 2019 annual report recommends re-evaluating the Water Level and Chloride Metrics and creating additional metrics.

Program "E" – Urban Water Use Efficiency (99% Complete). This program retrofits commercial and institutional uses and requires residential properties to retrofit existing fixtures to be water efficient before connecting to the LOWRF and also provides rebate programs to incentivize further conservation efforts. At the end of 2017, only 177 properties remained to be retrofitted within the sewer service area. As of April 2020, only 44 properties remained to be retrofitted and connected to the sewer (CHG, 2018, 2020). More efficient urban water use allows purveyors and well users to decrease the amount of groundwater extracted from the Basin to stabilize the freshwater-seawater interface. The 2019 annual report recommends expanding the water efficiency program to continue to reduce pumping volumes and estimates at least 160 AFY of available water savings potential from identified retrofit projects for existing uses.

Program "U" – Urban Water Reinvestment. This program reinvests treated wastewater from the LOWRF back into the hydrologic cycle to reduce extraction volumes and reverse seawater intrusion over time. In 2017, this program came online and 452 AFY of recycled water from the LOWRF was reinvested to the Broderson (445 AFY) and Bayridge Estates (7 AFY) leach fields The average wastewater flows were 200 AFY less than the anticipated volume of 780 AFY (CHG, 2018). In 2018, 505 AFY of

recycled water was reinvested to the Broderson (486 AFY) and Bayridge Estates (20 AFY) leach fields (CHG, 2019). In 2019, 516 AFY of recycled water was reinvested to the Broderson (431 AFY) and Bayridge Estates (14 AFY) leach fields and 71 AFY to the Sea Pines Golf Course. The mounding at the leach fields is being monitored and is projected to take 5-7 years to form before it begins to push through the 50-feet thick clay layer and raise water levels in the Lower Aquifer to help halt and reverse seawater intrusion; however, preliminary signs of a small mound were detected hydraulically downgradient of the Broderson leach field beginning in June 201 (CHG, 2020). As part of Basin Plan adaptive management, as of 2019, the Basin Management Committee approved a contract for a Creek Discharge Program for recycled water from the LOWRF and approved funding for an urban storm water recovery project (CHG, 2020).

Program "A" – Basin Infrastructure Program A. Program A supports the mitigation of seawater intrusion by shifting groundwater production from the Lower Aquifer to the Upper Aquifer to the greatest extent practicable without construction of large-scale nitrate removal facilities. One Upper Aquifer well on 8th Street remains to be complete, although it is fully funded and the design in complete (CHG, 2020).

Program "C" – Basin Infrastructure Program C. Program C shifts groundwater production within the Lower Aquifer from the Western Area to the Central Area with three expansion wells and purveyor interconnection to mitigate seawater intrusion. The first expansion well at Los Olivos was completed, resulting in an estimated increase in basin yield of 110 AFY (CHG, 2017). One well remains to be completed and is fully funded, although it still needs environmental permitting and to identify a site. One well has been deferred per the adaptive management process (CHG, 2020).

Program "P" – Wellhead Protection. This program manages activities within a delineated source area or protection zone around drinking water wells to protect water quality. This program consists primarily of the purveyors conducting Drinking Water Source Assessment and Protection surveys for each of their wells. Some of the purveyors have deferred performing the surveys (CHG, 2020).

<u>Phase 2 Basin Plan Programs</u>

The Basin Plan identifies the following Phase 2 programs that could be implemented to increase the sustainable basin yield to accommodate buildout demand and buffer for uncertainties such as climate change. The goal and status of each are summarized below, based on information from the 2017, 2018, and 2019 annual monitoring reports.

- Program "B" – Basin Infrastructure Program B
- Program "D" – Basin Infrastructure Program D
- Program "G" – Agricultural Water Reinvestment
- Program "S" – Supplemental Water

Program "B" – Basin Infrastructure Program B. Program B is the construction of a community nitrate removal facility and additional purveyor wells to maximize production from the Upper Aquifer. This program is not complete. Completion of Program B is estimated to contribute 350 AFY and achieve a sustainable basin yield of 3,350 AFY.

Program "D" – Basin Infrastructure Program D. Program D is constructing additional purveyor wells to shift groundwater production within the Lower Aquifer from the Western Area to the Central and Eastern Areas to induce less seawater intrusion and increase the sustainable basin yield. This program is currently deferred. Completion of Program D is estimated to contribute 150 AFY and achieve a sustainable basin yield of 3,500 AFY.

Program "G" – Agricultural Water Reinvestment. Program G is to reinvest treated wastewater from the LOWRF or recycled water for agricultural purposes to reduce agricultural groundwater pumping. This program is not complete. Program G would not increase the sustainable yield of the basin.

Program "S" – Supplemental Water. Potential sources of supplemental water include rainwater harvesting, stormwater capture, greywater reuse, and groundwater desalination. Program S is not recommended in the Basin Plan but is estimated to decrease basin demand by 250 AFY or 750 AFY, although proposed updates to the urban water use efficiency program include offering rebates for rainwater harvesting and greywater reuse.

Climate Change Impacts

The Basin Plan recommends that total annual groundwater extraction not exceed 80% of the estimated sustainable annual basin yield to account for uncertainties in the projected basin yield and demand over time, such as reduced basin yield due to climate change or an increase in agricultural water demand. A 2013 study funded by the US EPA's Climate Ready Water Utilities Project determined that reduced precipitation would have the most significant effect on basin yield, compared to increased temperature and sea-level rise. The sea-level rise projections that CHG considered correspond with the 5% probability scenario appropriate for medium risk averse decisions per the 2018 California Ocean Protection Council (OPC) Sea-Level Rise Guidance. The study projected the basin yield may reduce to 2,325 AFY by 2050 due to climate change with basin infrastructure improvements in place. The planning horizon for the draft Estero Area Plan Los Osos Urban Area (commonly known as the "Los Osos Community Plan") is 2040. If the programs needed to achieve buildout as identified in the Basin Plan are implemented by 2040, the climate change study estimates that keeping groundwater extraction within 80% of the estimated basin yield is enough buffer for the potential reduction in yield due to climate change.

Planning Document Updates

The County is in the process of updating the Los Osos Community Plan (LOCP) and and adopting a Community-Wide Habitat Conservation Plan (HCP). The Coastal Development Permit for the LOWRF prohibits undeveloped lots within the service area from connecting to the sewer until the LOCP and HCP are adopted. Undeveloped parcels within the sewer service area are also prohibited from using septic systems, so they are unable to develop until the LOCP and HCP are adopted. The County maintains a waitlist for undeveloped properties within the sewer service area until they can apply for construction permits. As of May 14, 2020, there were 215 requests for single family dwellings and 130 requests for multi-family dwellings on the waitlist. In addition, the County Construction Ordinance (Title 19) requires new development to offset its water use at a 2:1 ratio by completing retrofit projects on existing uses within the groundwater basin. An average of two dwelling units are constructed each year, but the new development decreases overall demand.

The LOCP must include sufficient standards to ensure that new development does not exceed the available sustainable water supply.

Basin Boundary Modification

In June 2017, the County, initiated a hydrogeological basin characterization study of the fringe areas, to support a Basin Boundary Modification Request to the CA Department of Water Resources (DWR). In September 2018, the County submitted a Basin Boundary Modification Request to DWR, which included: (1) a jurisdictional basin subdivision to create two proposed subbasins (i.e., Los Osos Area subbasin and Warden Creek subbasin), and (2) a scientific basin exclusion to remove two non-basin areas from Bulletin 118 basin boundary. The proposed Los Osos Area subbasin underlies the adjudicated area, except for a minor northern fringe area, and is covered under the court approved Basin Plan. DWR approved the boundary modification in its 2019 Basin Prioritization. The Los Osos Area subbasin (3-008.01) and the Warden Creek subbasin (3-008.02) are classified as very low priority and are no longer subject to the Sustainable Groundwater Management Act (SGMA) requirements. Therefore, the Level of Severity for water supply is assigned to the Los Osos Basin Plan Area to align with the annual reporting data from the Basin Management Committee.

Table II-14 – Los Osos Basin Plan Area[1]: Existing and Forecasted Water Supply and Demand ***Based on the 1996 Coastal RMS Criteria***					
Demand	**Los Osos CSD**	**S&T Mutual Water Co.**	**Golden State Water Co.**	**Agriculture**	**Rural**
FY 2017/2018 Demand (AFY)[2]	470.0	32.6	443	(2)	(2)
2017 Demand (AFY)[3]	568	32	450	670	350
2018 Demand (AFY)[3]	522	32	464	670	340
2019 Demand (AFY)[3]	506	31	454	630	280
Forecast Demand in 7 Years (AFY)[5]	(4)			270-750	290
Forecast Demand in 9 Years (AFY)[5]	(4)			270-750	290
Buildout Demand (30 or More Years) (AFY)[5]	1,840			270-750	290
Supply					
Los Osos Basin Plan Area[1]	2,048 AFY[6] 2,208 AFY when Program A 8th Street expansion well is complete[6]				
Water Supply Versus Forecasted Demand	In 2017, the total water demand (2,070 AFY) exceeded the estimated supply. In 2018 and 2019, the water demand (2,030 AFY and 1,900 AFY) did not exceed the estimated supply. However, the estimated water supply is based on the Basin Plan modeling and is being verified with ongoing monitoring, and the Basin Plan programs recommended to meet existing demand have not been completed. The forecasted demand in 7 and 9 years may exceed the water supply if existing usage rates increase or if the estimated water supply is adjusted. For these reasons, the RSR conservatively recommends LOS III for the Los Osos Basin. The LOS may be reduced as Basin Plan programs are completed and depending on monitoring results.				

Sources: [1]Water System Usage forms: July 2016 – June 2017 and July 2017 – June 2018, 2015 Basin Plan, 2017, 2018, and 2019 Annual Monitoring Reports prepared for the Basin Management Committee, 2012 Basin Model Results for Los Osos Climate Ready Water Utilities Project.

Notes:

1. As defined locally in the 2015 updated Basin Plan for the Los Osos Groundwater Basin.
2. Based on water purveyor reported data. See Table II-1. Fiscal year data is not available for non-purveyor usage rates.
3. Based on 2017, 2018, and 2019 annual monitoring reports prepared for the Basin Management Committee based on a calendar year reporting period rather than fiscal year. Rural water demand is extraction from private wells, listed as "domestic" and "community" usage in the annual monitoring reports.
4. Subject to authorization of new development through approval of the Los Osos Community Plan and Community-Wide Habitat Conservation Plan. The Los Osos Community Plan must include standards that ensure new development does not exceed available sustainable basin yield, which depends Basin Plan programs implementation and monitoring.
5. Based on the 2015 Basin Plan, Table 44. Summary of Water Demand Program Combinations with Programs E+U or E+UG implemented. Of 2,060 AFY for urban and 70 AFY for community usage, 220 AFY of "urban" use is considered domestic private wells, listed under "rural" for this report.
6. Water supply is considered 80% of the sustainable basin yield estimated in the Basin Plan, per the Basin Plan goal of extraction not exceeding 80% of estimated yield to account for uncertainty. The annual reports indicate 2,760 AFY as the sustainable yield, but the Program A 8th Street expansion well is not yet completed. Until the well is complete, the sustainable basin yield estimate for the Basin Plan "No Programs" scenario is used, with a 110 AFY increase in yield estimated for completion of first Program C expansion well (CHG, 2017). The estimated sustainable basin yield may be adjusted based on ongoing monitoring of Basin Plan program effectiveness.

Key observations for the area include:

- A coastal aquifer subject to seawater intrusion that has been contaminated with nitrate is the sole water supply source for the community of Los Osos.
- Completion of the LOWRF and decommissioning of septic systems within the sewer service area reduced the point source of nitrate contamination. The nitrate contamination is expected to degrade over time. Recharged water from the LOWRF is projected to help reverse seawater intrusion over time.
- A Habitat Conservation Plan will be adopted before significant increase in new development to address water supply availability for ecological needs.
- The Basin Management Committee has almost completed the programs recommended for immediate implementation, which are projected to halt seawater intrusion based on the existing development scenario with marginal population growth.

- Los Osos participated in the US EPA Climate Ready Water Utilities Project to identify potential reductions in basin yield due to reduced precipitation, sea-level rise, and increased temperature through the rest of the century. Implementation of additional Basin Plan programs is projected to increase sustainable basin yield and reduce demand to accommodate buildout demand and potential reductions in basin yield due to climate change.

- The 2016 – 2019 annual monitoring reports prepared for the Basin Management Committee have shown the annual groundwater production to be below 80% of the sustainable basin yield (2,760 AFY) estimated assuming the Basin Plan programs recommended for immediate implementation are complete, except for two Program C expansion wells (CHG, 2017). However, one Program A expansion well remains to be completed. The 2017 estimated production (2,070 AFY) was 75% of this estimated sustainable basin yield. The 2018 estimated production (2,030 AFY) was 74% of this sustainable basin yield. The 2019 estimated production (1,900 AFY) was 69% of this estimated sustainable basin yield.

- The estimated groundwater production in 2017 (2,070 AFY) was 81% of the estimated sustainable basin yield for a "No Programs" scenario in the Basin Plan (2,450 AFY). However, one well for Program C was completed, which increased the estimated sustainable basin yield by 110 AFY (2,560 AFY). Assuming 2,560 AFY sustainable basin yield, the 2017 production was 81% of the sustainable basin yield.

- The estimated groundwater production in 2019 (1,900 AFY) was 78% of the estimated sustainable basin yield for a "No Programs" scenario in the Basin Plan (2,450 AFY). However, one well for Program C was completed, which increased the estimated sustainable basin yield by 110 AFY (2,560 AFY). Assuming 2,560 AFY sustainable basin yield, the 2019 production was 74% of the sustainable basin yield.

- The Basin Management Committee maintains a groundwater monitoring network, releases annual monitoring reports with updates on program status and effectiveness, and practices adaptive management. The estimated sustainable basin yield may be re-evaluated based on the Basin Plan programs' effectiveness, especially considering halting and reversing seawater intrusion.

Based on the 1996 Coastal RMS Criteria, **Recommended Level of Severity III.** While in 2018 and 2019 water supply was estimated as sufficient to meet demand, the RSR conservatively estimates LOS III for the Los Osos Basin since the Basin Plan programs for immediate implementation were not completed as of the end of the 2016-2018 RSR reporting period. The LOS may be revised down as the Basin Plan programs are completed and depending on basin monitoring results.

Water Systems

Los Osos CSD

Los Osos CSD continues to make improvements to the overall water system to replace deteriorated and substandard waterlines and storage facilities. In conjunction with the LOWWP, the following water system improvements have been completed:

- South Bay Nitrate Removal
- Palisades Well Modifications
- Blending Project
- Water Meters – installation of meters on all S&T connections
- Water Systems Interconnection between LOCSD and GSWC
- Upper Aquifer Well – (LOCSD adopted mitigated negative declaration in May 2015 and is pursuing a coastal development permit)
- Rosina Nitrate Removal (Ion Exchange plant addition to GSWC's Skyline Well – designed and funded)
- Expansion Well 2 (Lower Aquifer D well at GSWC Los Olivos Plant – designed and soon out to bid for construction)

No significant water system deficiencies were identified. **No recommended Level of Severity**.

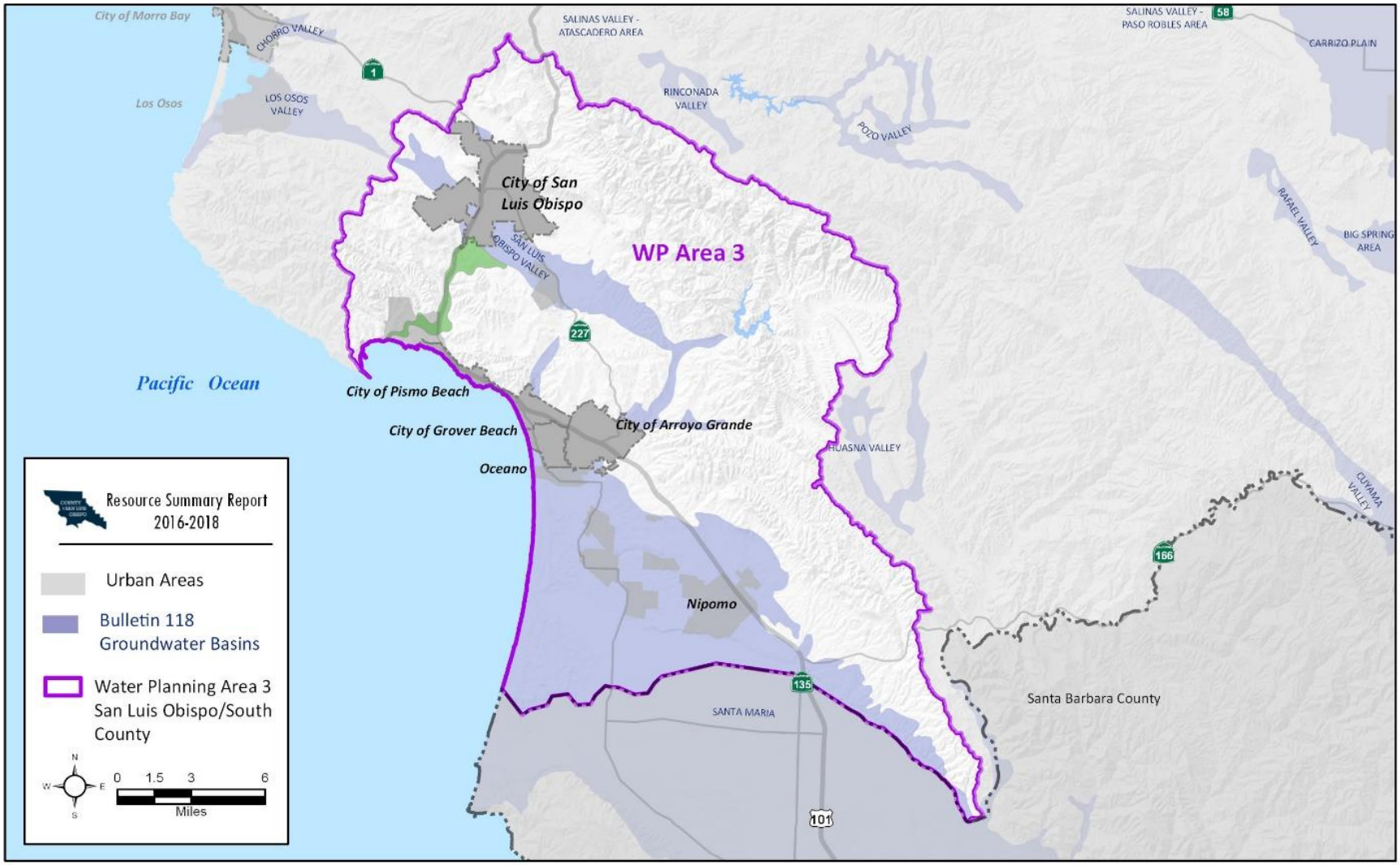
Golden State Water Company – Los Osos

Golden State Water Co. invested more than $2 million in local infrastructure improvements in 2014. These improvements include water supply enhancements, distribution and ongoing improvements designed to replace old meters, mains and safety equipment.

No significant water system deficiencies were identified. **No recommended Level of Severity.**

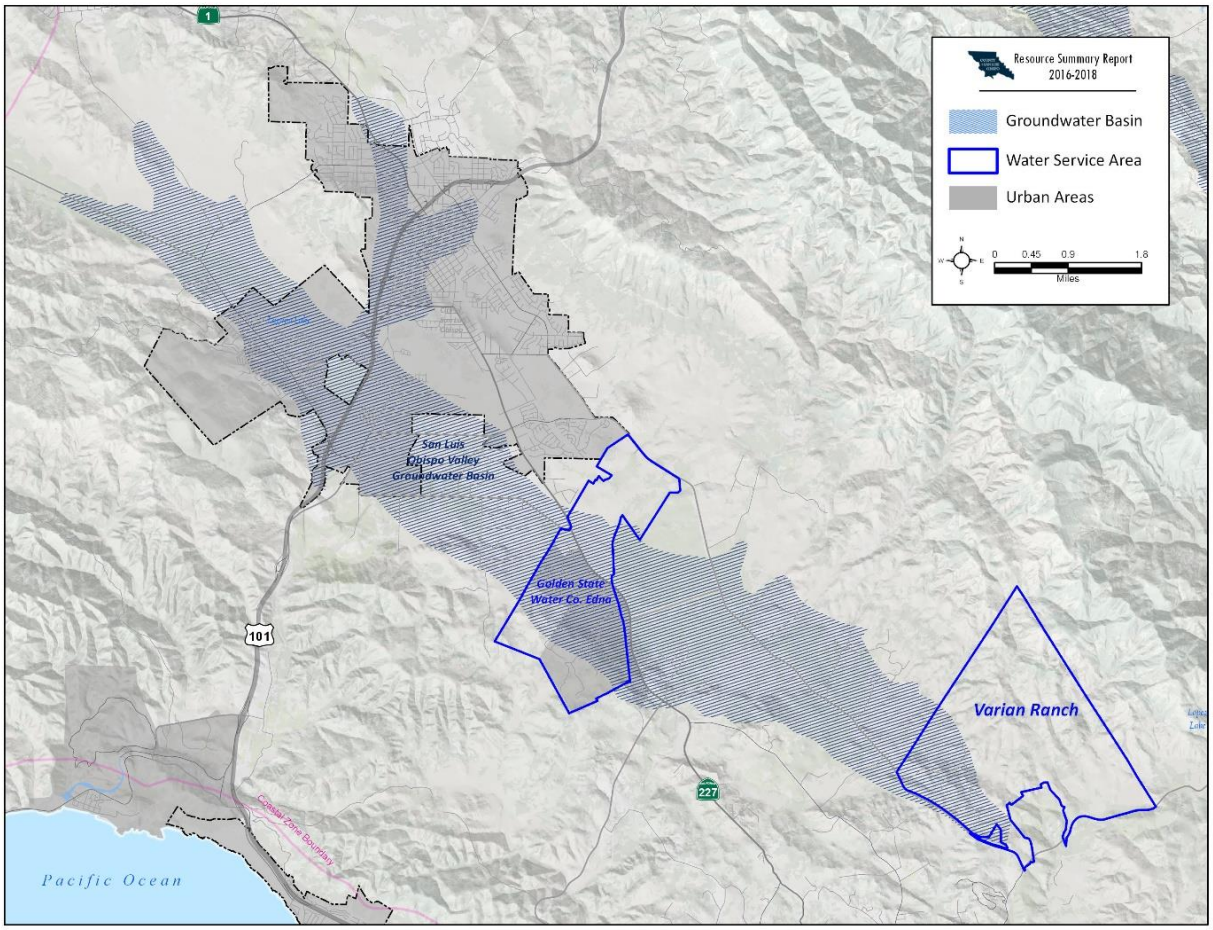
WPA 3 San Luis Obispo / South County

Figure II-11 – Water Planning Area 3 – San Luis Obispo/South County



San Luis Obispo Area

Figure II-12 – San Luis Obispo Area Water Purveyors



DWR designated the San Luis Obispo Valley Groundwater Basin (referred to as SLO Basin) as a medium priority basin; therefore, this area is required to comply with SGMA. In May 2017, both the City of San Luis Obispo and County formed GSAs, resulting in full coverage of the SLO Basin. Although GSAs were formed by the two local public agencies, SGMA provides that other entities are eligible to participate in GSAs. Representatives of eligible entities within the SLO Basin, including the Golden State Water Company, Edna Ranch Mutual Water Company, Varian Ranch Mutual Water Company, and Edna Valley Growers Mutual Water Company, were engaged in developing the governance structure for the SLO Basin and in engaging local stakeholders since 2015. In January 2018, the County GSA, City GSA, and the other entities eligible to participate in a GSA listed above entered into a Memorandum of Agreement that established the Groundwater Sustainability Commission (an advisory body to the GSAs) and the terms under which the City GSA and County GSA will jointly develop a single GSP, in coordination with the Groundwater Sustainability Commission.

The County (acting as the contracting agent on behalf of the County and City GSAs) is in the process of soliciting a GSP Consultant. Once hired, the GSP Consultant will develop a

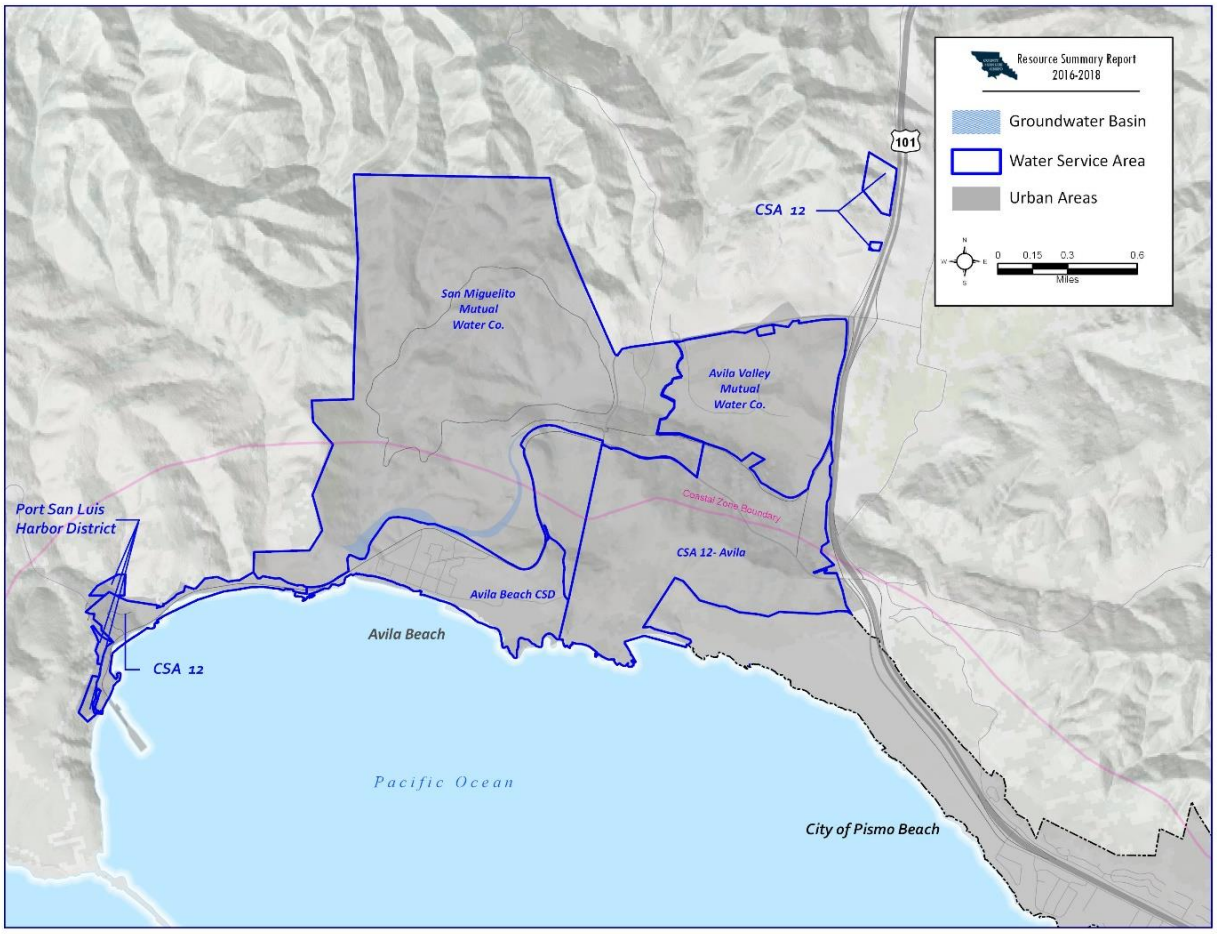
stakeholder outreach and engagement plan in consultation with the GSAs and Commission, as part of the GSP development process. The GSP will study the groundwater conditions, estimate the current and future water budget, define what sustainability looks like for each basin, and set measurable objectives and thresholds for ongoing monitoring of progress towards achieving sustainability within 20 years of GSP adoption. SGMA requires that the GSA Board finalize and adopt the GSP no later than January 31, 2022

Given the anticipated contents of the GSP based on statutory and regulatory requirements, the 2016-2018 Resource Summary Report recommends maintaining the recommendation of the 2014-2016 Resource Summary Report:

San Luis Obispo Valley Groundwater Basin **- No recommended Level of Severity.**

Avila Beach and Avila Valley Area

Figure II-13 – Water Purveyors in the Avila Beach and Avila Valley Areas



Urban development and overlying private well users in the Avila Beach and Avila Valley area rely on multiple sources of water including surface water and groundwater supplies (although DWR Bulletin 118 does not delineate any basin(s) in this valley).

Water purveyors serving the area include the Avila Beach CSD, Avila Valley MWC, San Miguelito MWC, CSA 12 and Port San Luis. Avila Beach CSD, Avila Valley MWC, San Miguelito MWC, and CSA 12 receive imported water from the SWP. Avila Beach CSD, Avila Valley MWC, and CSA 12 receive surface water from Lopez Lake (Zone 3).

The SWP is considered a supplemental source of water since hydrologic variability, maintenance schedules, and repair requirements can cause reduced deliveries or complete shutdown of the delivery system. As discussed in more detail under Surface Water Supplies, since delivery to the Central Coast began, the SWP has provided between 50 and 100 percent of the contracted allocations, but recently, the drought coupled with pumping restrictions in consideration of endangered species habitat lowered that amount to 35 percent in 2008 and 40 percent in 2009. The Low Reservoir Response Plan is no longer in effect. However, the

parties are working on an update to the Plan that was implemented during the recent drought emergency and that would be effective during future drought emergencies.

Table II-15 – Avila Beach and Avila Valley Area: Existing and Forecasted Water Supply and Demand
Based on the 2014 Inland RMS Criteria

	Avila Beach CSD	Avila Valley MWC	San Miguelito MWC	CSA 12[6]
Demand				
FY 2017/2018 Demand (AFY)	67.7	+++	151.6	158.1[1]
Forecast Demand in 15 Years (AFY)	166	31	383	66
Forecast Demand in 20 Years (AFY)	166	31	383	66
Buildout Demand (30 Or More Years) (AFY)	162-170[2]	30-32[2]	373-393[2]	65-68[2]
Supply				
State Water Project[3]	66[4]	20	275	7[5]
Lopez Lake Reservoir	68	12	0	61
Other GW Supplies	0	20	118	0
Total Supply:	134	52	393	68
Water Supply Versus Forecasted Demand	It cannot be determined with any degree of certainty whether water demand projected over 20 years will not equal or exceed the estimated dependable supply. This is due primarily to a lack of information regarding the safe yield of the sub-basin.			

Sources: Water System Usage forms: July 2016 – June 2017; July 2017 – June 2018, San Luis Obispo County Master Water Report, 2012, Table 4.59 and Table 4.38; San Luis Obispo Integrated Regional Water Management Plan, Table D-23 and D-24. San Luis Obispo Valley Basin Characterization and Monitoring Well Installation January 18, 2018

Notes:
1. 2011 data.
2. The low end of the forecast demand range assumes 5% additional conservation (beyond what has already been accomplished) at buildout for all urban users.
3. SWP average allocation assumes 66 percent of contract water service amount.

4. Avila Beach CSD has a 100 AFY allocation from the SWP, but no drought buffer. Therefore, the 66 percent assumption for SWP delivery is 66 AFY.
5. Seven (7) AFY of SWP water allocated to the San Luis Coastal Unified School District.
6. CSA 12 serves the Port San Luis Harbor District which is included in the total deliveries. Individual water users within CSA 12 boundary could request an exemption to install a private well and pump water from the Avila Valley Sub-basin. It is unknown the number of users with private wells, but it is likely minimal.
7. +++ Indicates no data were received

Table II-16 – Avila Beach Area:
Existing and Forecasted Water Supply and Demand
Based on the 1996 RMS Coastal Criteria

	Avila Beach CSD	Avila Valley MWC	San Miguelito MWC	CSA 12[1]
Demand				
FY 2017/2018 Demand (AFY)	67.7[1]	+++	151.6[1]	158.1[2]
Forecast Demand in 7 Years (AFY)	111	29	251	67
Forecast Demand in 9 Years (AFY)	122	30	287	67
Buildout Demand (30 Or More Years) (AFY)	162-170[3]	30-32[3]	373-393[3]	65-68[3]
Supply				
State Water Project[4]	66[5]	20	275	7[6]
Lopez Lake Reservoir	68	12	0	61
Other GW Supplies	0	20	118	0
Total Supply:	134	52	393	68
Water Supply Versus Forecast Demand	It cannot be determined with any degree of certainty whether water demand projected over 9 years will not equal or exceed the estimated dependable supply. This is due primarily to a lack of information regarding the safe yield of the sub-basin.			

Sources: Water System Usage forms: July 2016 – June 2017; July 2017 – June 2018, San Luis Obispo County Master Water Report, 2012, Table 4.59 and Table 4.38; San Luis Obispo Integrated Regional Water Management Plan, Table D-23 and D-24.

Notes:
1. See Table II-1. Current year data for agriculture and rural are from 2012.
2. 2011 data.
3. The low end of the forecast demand range assumes 5% additional conservation (beyond what has already been accomplished) at buildout for all urban users.
4. State Water Project average allocation assumes 66 percent of contract water service amount.
5. Avila Beach CSD has a 100 AFY allocation from the State Water Project, but no drought buffer. Therefore, the 66 percent assumption for State Water Project delivery is 66 AFY.
6. Seven (7) AFY of SWP water allocated to the San Luis Coastal Unified School District.
7. +++ Indicates no data were received

In 2016 the Board initiated completion of an update of the Avila Community Plan. That process is expected to be completed in 5 or more years and will likely recommend policies and programs that could affect water demand.

Key observations for the area include:

- A conservative forecast of future demand for urban users suggests that the available supply will be equaled or exceeded at General Plan buildout which is expected to be reached by 2047. This timeframe is beyond the timeframe of both the Inland and Coastal RMS LOS criteria.

- Because of uncertainty regarding the safe yield of the basin, it is unknown whether water demand projected over 20 or more years will equal the estimated dependable supply.

- The reliability and availability of the supply from non-basin areas is unknown, however no issues in the area have been reported.

- It cannot be determined with any degree of certainty whether water demand projected over 20 years will not equal or exceed the estimated dependable supply. This is due primarily to a lack of information regarding the safe yield of the subbasin.

Based on either the 2014 Inland or 1996 Coastal Zone RMS criteria, **No recommended Level of Severity.**

Water Systems

No significant water system limitations were reported for Avila Beach CSD or CSA 12. **No recommended Level of Severity**.

South County Area

Figure II-14 – Management Areas of the Santa Maria Groundwater Basin

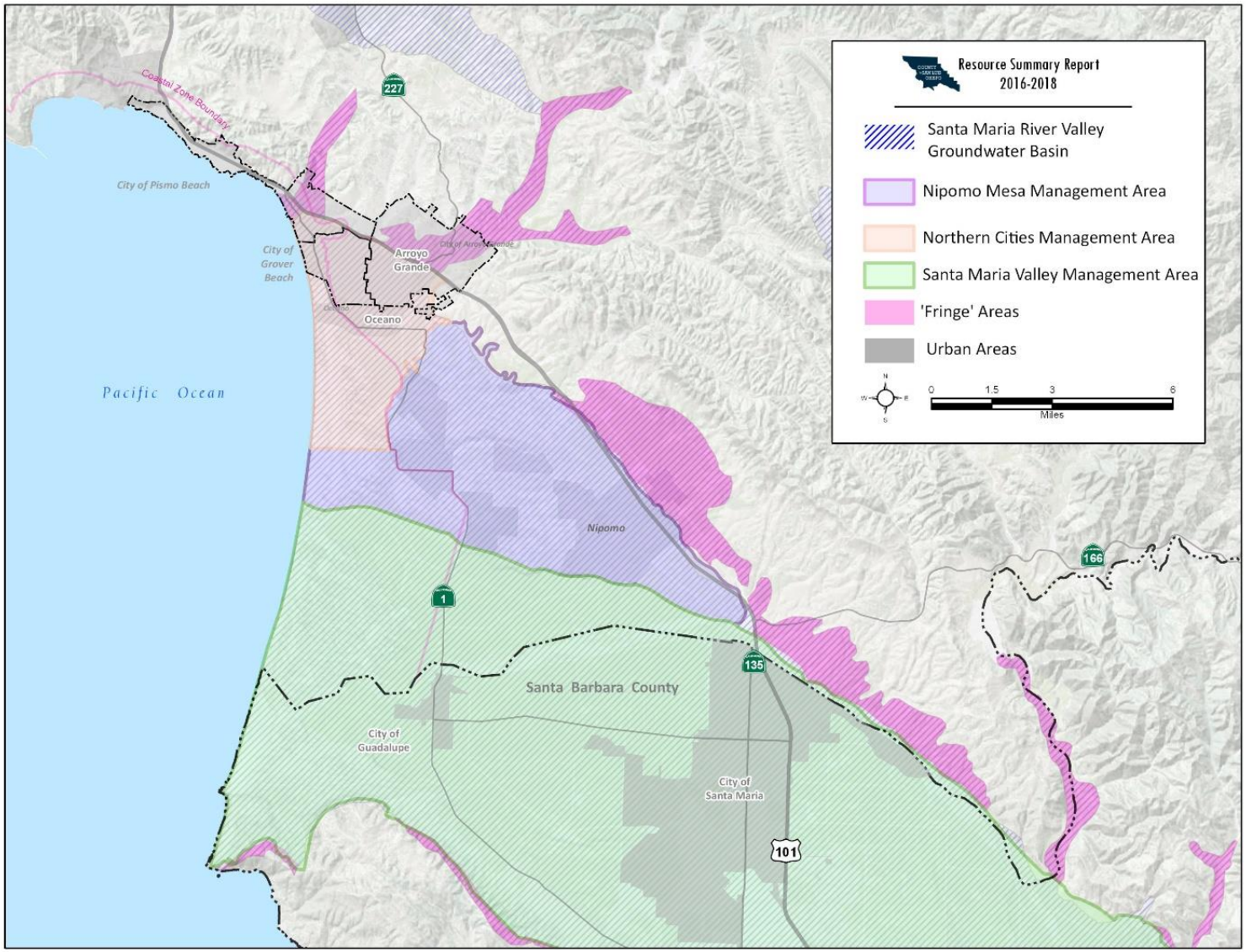
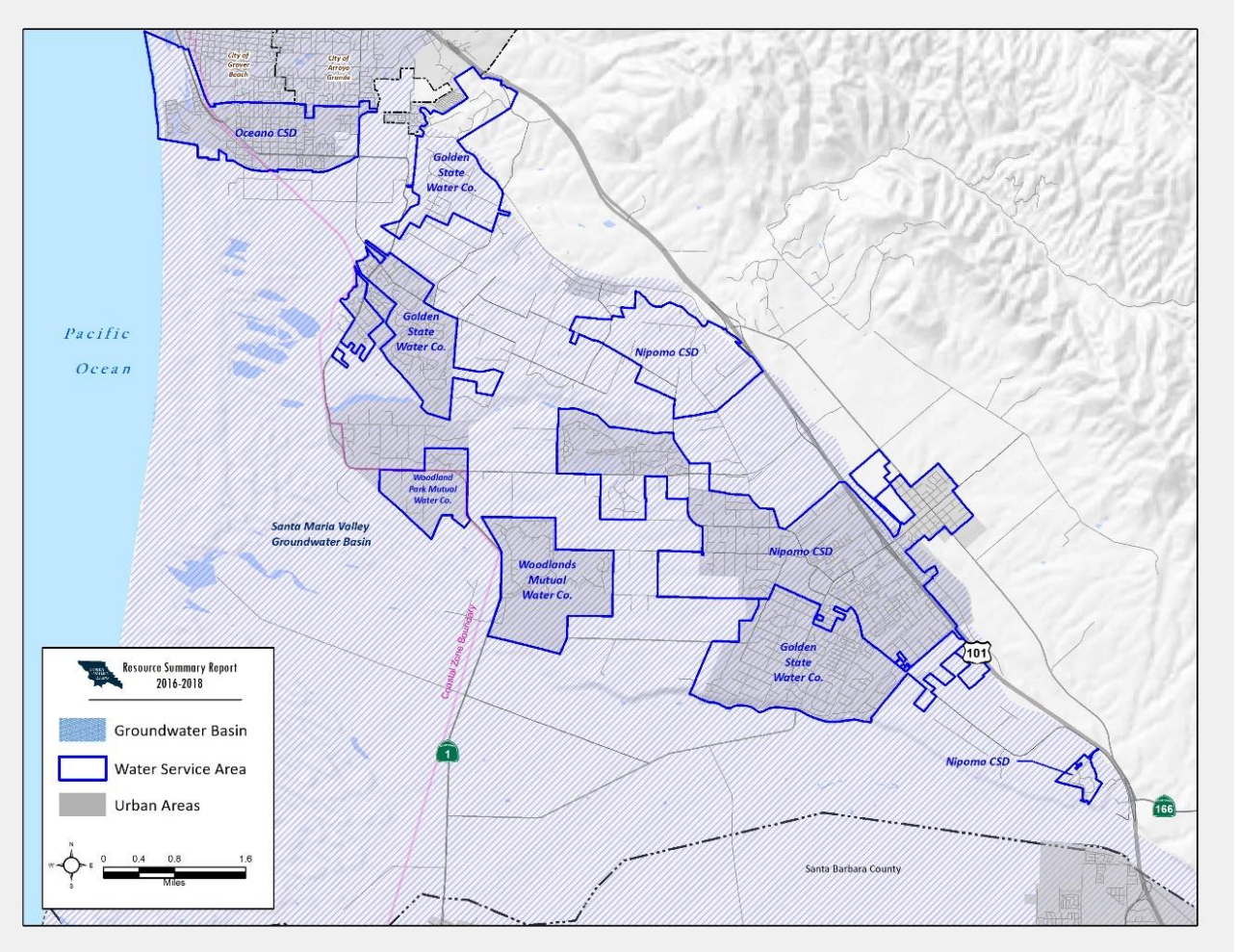


Figure II-15 -- Water Purveyors in the South County Area



Water supply for the South County area comes from multiple sources including the Santa Maria Groundwater Basin (DWR Bulletin 118 No. 3-012), Lopez Reservoir, Twitchell Reservoir, State Water Project, and other sources.

The Santa Maria Groundwater Basin (SMGB) underlies the coastal portion of northern Santa Barbara and southern San Luis Obispo Counties. In addition to the basin boundary defined by DWR in the Bulletin 118 2019 Basin Prioritization, the Superior Court of California also defines an adjudicated area boundary, which covers a majority of SMGB.

The SMGB was the subject of litigation from 1997 to 2008, collectively called the Santa Maria Groundwater Litigation (*Santa Maria Valley Water Conservation District vs. City of Santa Maria, et al.*, Case No. 770214), and the Court has retained jurisdiction. By Stipulation and the Court's Judgment After Trial (herein "Judgment") dated January 25, 2008, three separate management areas were established: the Northern Cities Management Area (NCMA), the Nipomo Mesa Management Area (NMMA), and the Santa Maria Valley Management Area (SMVMA). Of the three management areas, the NCMA and NMMA are located entirely within San Luis Obispo County, while only a portion of the SMVMA is located in San Luis Obispo County (Figure II-9). The Stipulation contains specific provisions with regard to development

of groundwater monitoring programs and plans and programs to respond to water shortage conditions.

DWR designated the SMGB as a high priority basin; however, SGMA does not apply to the portion of the Santa Maria Basin that is at issue in Santa Maria Valley Water Conservation District v. City of Santa Maria, et al. ("adjudicated area") and that is managed by three management areas (i.e. the Northern Cities Management Area, the Nipomo Mesa Management Area and the Santa Maria Valley Management Area), provided that certain requirements are met (Water Code Section 10720.8). Although the adjudicated area covers a majority of the Santa Maria Basin; there are multiple "fringe areas" located outside of the adjudicated area (i.e., areas located outside of the adjudicated area but within the State's Bulletin 118 Basin boundary). In particular, five non-contiguous "fringe areas" have been identified in San Luis Obispo County: Pismo Creek Valley, Arroyo Grande Creek Valley, Nipomo Valley, Southern Bluffs, and Ziegler Canyon fringe areas.

On May 16, 2017, the County Board formed the Santa Maria Basin Fringe Areas – County of San Luis Obispo GSA (County GSA) covering the five "fringe areas" within San Luis Obispo County, excluding the portions of the fringe areas covered by the City of Arroyo Grande. The three (3) GSAs (County GSA, City of Arroyo Grande and Santa Barbara County Water Agency) collectively cover all of the Santa Maria Groundwater Basin fringe areas.

In June 2017, the County GSA initiated a hydrogeologic basin characterization study of the fringe areas, to support a Basin Boundary Modification Request to DWR. In September 2018, the County submitted a Basin Boundary Modification Request to DWR. The proposed basin boundary modifications, if approved by DWR, would be subject to DWR's next basin re-prioritization assessment in 2019[8]. Pending DWR's final basin re-prioritization, the proposed subbasin and/or fringe areas may or may no longer be mandated to meet SGMA requirements; however, the County GSA received grant funding that it intends to use to develop a GSP over the fringe area(s), regardless of DWR's re-prioritization. The GSP will study the groundwater conditions, estimate the current and future water budget, define what sustainability looks like for the fringe area(s), and set measurable objectives and thresholds for ongoing monitoring of progress towards achieving sustainability within 20 years of GSP adoption. SGMA requires that the GSAs finalize and adopt the GSP no later than January 31, 2022.

Northern Cities Management Area

The Northern Cities Management Area (NCMA) is part of the Santa Maria Groundwater Basin adjudicated area. The Oceano CSD is the only water purveyor within the NCMA serving the unincorporated County. An agreement executed in 1983 to cooperatively manage the northwestern portion of the basin was superseded in 2002 by the 2002 Groundwater Management Agreement (the "Gentlemen's Agreement") among the Northern Cities which

[8] Consistent with Water Code Section 10722.4(c), DWR will reassess statewide basin prioritization in early 2019 once basin boundary modifications have been finalized for the basin.

includes the cities of Arroyo Grande, Pismo Beach and Grover Beach, along with the Oceano CSD, allocates an assumed "safe yield" of 9,500 AFY. The "safe yield" as used in the agreement includes subdivisions for agricultural irrigation (5,300 AFY), subsurface flow to the ocean (200 AFY) and urban uses (4,000 AFY). It also provides that urban groundwater allocations can be increased when land within the incorporated boundaries is converted from agricultural uses to urban uses, referred to as an agricultural conversion credit, or "ag credit."

However, the use of a reported "safe yield" of 9,500 AFY for the NCMA may not be appropriate for a variety of reasons. For example, the following summary is based on a reference document (Todd Engineers, 2007) cited in the 2015 NCMA annual report:

> *"While often equated with total recharge (i.e., inflow), safe yield, which is not a fixed number, but varies with changing hydrologic conditions and with management practices, is better defined as the portion of total inflow that can be effectively captured by wells and pumped from a basin without causing negative effects, such as chronic groundwater level declines and seawater intrusion".*

An analysis of the 1983 agreement indicates that derivation of the reported 9,500 AFY "safe yield" value from the 1979 DWR report is problematic for several reasons. As a result, there is uncertainty regarding the assumption that the 4,000 AFY allocated to the Northern Cities as part of the 1983 agreement can be counted in perpetuity as guaranteed supplies.

The 2013 Annual Monitoring Report for the Northern Cities Management Area (NCMA) summarizes the groundwater allocations for the Northern Cities as follows:

Table II-17 -- Allocation of Water Among Parties to the 2002 Northern Cities Management Agreement

Urban Area	Groundwater Allotment (AFY)	Ag Credit (AFY)	Total (AFY)
Arroyo Grande	1,202	121	1,323
Grover Beach	1,198	209	1,407
Pismo Beach	700	0	700
Oceano CSD	900	0	900
Total:	4,000	330	4,330

Source: San Luis Obispo County Master Water Report, 2012, page 4-30; NCMA 2013 Annual Monitoring Report

The Arroyo Grande Plain Hydrologic Sub-area (part of the Santa Maria Groundwater Basin) provides from 30 to 100 percent of the water supply for the urban users. The range reflects the fact that each NCMA agency also obtains a portion of their water supplies from surface sources such as the SWP and Lopez Lake. The only water purveyor serving the unincorporated areas of the Northern Cities Management Area is the Oceano CSD. However,

the urban groundwater extraction allocations are shared by agreement among Pismo Beach, the City of Arroyo Grande, the City of Grover Beach, and the Oceano CSD. As party to the SMGB litigation, extraction allocations may be increased or decreased at a future date. Groundwater availability in the NCMA is primarily constrained by water quality issues and water rights. The major purveyors have agreed to share the water resources through a cooperative agreement that also sets aside water for agricultural use and for basin outflow, although the amount allocated for basin outflow has been deemed unreasonably low (Todd, 2007).

Following the detection of evidence of seawater intrusion in 2009, the NCMA water purveyors worked cooperatively with each other and the County to reduce groundwater pumping. The improvement of water quality after 2009, however, also coincided with a subsequent average rainfall year (2010) and well head improvements to the monitoring well to reduce possible surface water contamination. As a result, Oceano CSD does not believe that the sea water intrusion evidence is conclusive and is developing its own groundwater elevation monitoring to more closely evaluate pumping in comparison to groundwater levels and water quality changes.

Water availability in the NCMA is primarily constrained by water quality issues and water rights. Basin sediments in the management area extend offshore along several miles of coastline, where seawater intrusion is the greatest potential threat to the supply. Low coastal groundwater levels indicated a potential for seawater intrusion that was locally manifested in sentry wells 32S/13E 30N02 and 30N03 in 2009 after 3 dry years, with levels and water quality improving after an average rainfall year in 2010. Following the detection of evidence of seawater intrusion in 2009, the NCMA water purveyors worked cooperatively with each other to reduce groundwater pumping. This approach included the following management strategies:

- Increased surface water use through delivery of surplus supplies from Lopez Reservoir
- Expanded conservation programs and customer education
- Negotiations to secure an emergency allocation of additional SWP supplies, if needed
- Hydraulic evaluation and maintenance of the Lopez pipeline
- Increased groundwater monitoring
- Expanded regional cooperation
- Adoption of the Low Reservoir Response Plan (LRRP) during the declared water emergency for the Lopez Project

Going forward, the NCMA water purveyors plan to implement several initiatives to improve the long-term management and sustainability of their water supplies. These initiatives could include:

- Development of a groundwater model for the Santa Maria Groundwater Basin
- Enhanced conjunctive use of the groundwater basin

- Regional recycled water projects
- Development and adoption of an updated LRRP
- Consider amending Lopez Water Supply contracts to obtain storage rights in Lopez Reservoir and enhance multi-year water resource planning

Table II-18 – South County Area -- Northern Cities Management Area
Existing and Forecasted Water Supply and Demand
Based on the 2014 Inland RMS Criteria

Demand	**Oceano CSD**	**Agriculture**	**Rural**
FY 2017/2018 Demand (AFY)	711.9[1]	2,056	38
Forecast Demand in 15 Years (AFY)	1,348	2,513	38
Forecast Demand in 20 Years (AFY)	1,348	2,650	38
Buildout Demand (30 Or More Years) (AFY)	1,277 -1,419[2]	2,742	38
Supply			
State Water Project (AFY)[3]	750[4]	0	0
Lopez Lake Reservoir (AFY)	303	0	0
Santa Maria Groundwater Basin -- Arroyo Grande Plain Sub-Area (AFY)[5]	900	5,300[7]	36
Total Supply:	1,953	Uncertain	Uncertain
Water Supply Versus Forecasted Demand	It cannot be determined with any degree of certainty whether water demand projected over 20 years will equal or exceed the estimated dependable supply. [8]		

Sources: Water System Usage forms: July 2016 – June 2017; July 2017 – June 2018, San Luis Obispo County Master Water Report, 2012, Table 4.60; San Luis Obispo Integrated Regional Water Management Plan Tables D-26 and D-27.

Notes:
1. See Table II-1. Current year data for agriculture and rural are from 2012.
2. Ten percent additional water conservation (beyond what has already been accomplished) assumed for the low end of the forecast buildout demand, except for Grover Beach, which assumed 20% additional reduction.
3. SWP average allocation assumed 66 percent of contract water service amount.
4. In 2016 the Oceano CSD approved a 750 AFY drought buffer
5. "Safe yield" of 9,500 AFY with subdivisions for applied irrigation (5,300 AFY), subsurface outflow to the ocean (200 AFY), and urban use (4,000 AFY). The Gentlemen's Agreement "safe yield" allotment for urban use is broken down per the number shown.
6. Arroyo Grande had a temporary agreement to purchase 100 AFY of Oceano CSD supplies from groundwater or Lopez Lake water. The temporary agreement expired in 2014.

7. "Safe yield" of 9,300 AFY with subdivisions for applied irrigation (5,300 AFY, and urban use (4,000 AFY)). Subsurface outflow to the ocean is allocated at 200 AFY. The Gentlemen's Agreement "safe yield" allotment for urban use is broken down per the numbers shown.
8. NCMA cities, NMMA water purveyors, County, District, and local land owners actively and cooperatively manage surface and groundwater with the goal of preserving the long-term integrity of water supplies in the NCMA and NMMA.

Table II-19 – South County Area -- Northern Cities Management Area
Existing and Forecasted Water Supply and Demand
Based on the 1996 Coastal RMS Criteria

Demand	**Oceano CSD**	**Agriculture**	**Rural**
FY 2017/2018 Demand (AFY)	711.9[1]	2,056	38
Forecast Demand in 7 Years (AFY)	963	2,241	38
Forecast Demand in 9 Years (AFY)	1,059	2,293	38
Buildout Demand (30 Or More Years) (AFY)	1,277 -1,419[2]	2,742	38
Supply			
State Water Project (AFY)[3]	750[4]	0	0
Lopez Lake Reservoir (AFY)	303	0	0
Santa Maria Groundwater Basin -- Arroyo Grande Plain Sub-Area (AFY)[5]	900	5,300[7]	36
Total Supply:	1,953	Uncertain	Uncertain
Water Supply Versus Forecast Demand	It cannot be determined with any degree of certainty whether water demand projected over 7 or 9 years will not equal or exceed the estimated dependable supply. [8]		

Sources: Water System Usage forms: July 2016 – June 2017; July 2017 – June 2018, San Luis Obispo County Master Water Report, 2012, Table 4.60; San Luis Obispo Integrated Regional Water Management Plan Tables D-26 and D-27.

Notes:
1. See Table II-1. Current year data for agriculture and rural are from 2012.
2. Ten percent additional water conservation (beyond what has already been accomplished) assumed for the low end of the forecast buildout demand, except for Grover Beach, which assumed 20% additional reduction.
3. State Water Project average allocation assumed 66 percent of contract water service amount.
4. In 2016 the Oceano CSD approved a 750 AFY drought buffer
5. "Safe yield" of 9,500 AFY with subdivisions for applied irrigation (5,300 AFY), subsurface outflow to the ocean (200 AFY), and urban use (4,000 AFY). The 2002 Groundwater Management Agreement" safe yield" allotment for urban use is broken down per the number shown.

6. Arroyo Grande had a temporary agreement to purchase 100 AFY of Oceano CSD supplies from groundwater or Lopez Lake water. The temporary agreement expired in 2014.
7. "Safe yield" of 9,300 AFY with subdivisions for applied irrigation (5,300 AFY, and urban use (4,000 AFY)). Subsurface outflow to the ocean is allocated at 200 AFY. The 2002 Groundwater Management Agreement "safe yield" allotment for urban use is broken down per the numbers shown.
8. NCMA cities, NMMA water purveyors, County, District, and local land owners actively and cooperatively manage surface and groundwater with the goal of preserving the long-term integrity of water supplies in the NCMA and NMMA.

Key observations for the area include:

- Oceano CSD maintains adequate supply to meet existing and forecast buildout demands. With sufficient conservation, Oceano CSD should have adequate supply to not only meet its customer's needs, but also maintain a reliable supply.

- It cannot be determined with any degree of certainty whether projected water demand will equal or exceed the estimated dependable supply for the unincorporated areas of the Northern Cities Management Area based on either the 1996 Coastal RMS Criteria or the 2014 Inland RMS Criteria. This is due primarily to a lack of information regarding the safe yield of the sub-basin in either the Coastal Zone or Inland Areas.

Based on either the 2014 Inland or 1996 Coastal Zone RMS criteria, **No recommended Level of Severity.**

Nipomo Mesa Management Area

The Judgment granted no specific pumping allocations to individual water producers in the NMMA, nor imposed any obligations on water producers, either individually or collectively, to operate in a way to ensure that any amount of groundwater will migrate to any other management area. However, Nipomo CSD, with cost sharing by Golden State Water Company (GSWC), Rural Water Company (acquired by GSWC in 2015), and Woodlands Mutual Water Company (Woodlands), undertook a prescribed program to transfer water from the City of Santa Maria in the SMVMA to NCSD in the NMMA, to supplement their customers' water demand. Nipomo CSD's prescribed program, named the Nipomo Supplemental Water Project (NSWP) in the Judgment, ultimately aims to purchase and transmit to the NMMA a minimum of 2,500 acre-feet of supplemental water each year.

In 2006 the County certified a Level of Severity III for the NMMA based on a Resource Capacity Study (RCS) prepared in 2004. The County subsequently adopted Ordinance No. 3090 to implement the recommendations of the RCS. Pursuant to the Judgment, a Water Shortage Conditions and Response Plan was included as part of the Monitoring Program for the NMMA and presented to the Court in April 2009. The water shortage conditions are characterized by two different criteria – those for Potentially Severe Water Shortage

Conditions and those for Severe Water Shortage Conditions. The response to these conditions includes voluntary and mandatory actions by the parties to the Judgment.

The Judgment requires the preparation of a Well Management Plan (WMP) when either Potentially Severe Water Shortage Conditions or Severe Water Shortage Conditions exist prior to the completion of a NSWP project. The WMP provides for steps to be taken by the Nipomo CSD, GSWC (formerly named Southern California Water Company), and Woodlands, under these water shortage conditions. The WMP has no applicability to either Phillips 66 or Overlying Owners as defined in the Judgment. The WMP was submitted to the Court in April 2010. The NMMA Water Shortage Response Stages (WSRS) were submitted in April 2014 to the Court, as an addendum to the WMP and as a means of identifying steps to be taken to manage NMMA water supplies during continued shortage conditions.

The WSRS is based on five escalating stages of drought. In the spring of 2015, groundwater levels indicated that the NMMA had entered a Stage III water shortage in accordance with a WSRS. In Stages III through V, there are targeted reductions in water use designed to protect long-term groundwater supplies. Stage III represents Severe Water Shortage Conditions and sets a goal of reducing groundwater pumping by 30%. In July 2016, the NMMA had entered a Stage IV water shortage, which triggered additional mandatory conservation measures that prohibits municipal irrigation and targets a reduction in groundwater pumping by 50%. By the end of 2017 the NMMA water purveyors had reduced groundwater pumping by 40% compared to the amount of groundwater extracted from the NMMA aquifers in 2013.

Even with additional conservation measures in place, GSWC, Woodlands, and Nipomo CSD could experience supply deficits if groundwater is insufficient to meet increases in demands. To address this need, desalination, increased recycled water use, or increasing delivery from the NSWP (discussed below) are also being considered as long-term alternative sources of supply for the Nipomo CSD and others in the region.

Nipomo Supplemental Water Project. In 2015, the Nipomo CSD completed the initial phase of the planned 3,000 AFY NSWP (2,500 AFY to replace existing demand and 500 AFY for new development within the Nipomo CSD service boundaries). Nipomo CSD began delivering water to the NMMA in July 2015. With the initiation of NSWP deliveries, a minimum purchase schedule 'time clock' was triggered in accordance with the Nipomo CSD/City of Santa Maria Wholesale Agreement. Commencing no later than delivery year eleven (2026), Nipomo CSD is required to purchase from the City of Santa Maria (and import to the NMMA) a minimum of 2,500 AFY.

The initial phase of the NSWP included the construction of a two-mile long pipeline that traverses under the Santa Maria River, across the Santa Barbara/San Luis Obispo County boundary and interconnects the City of Santa Maria's water system to Nipomo CSD's. This interconnection provides the NMMA with its first and only means of importing water and links the NMMA with the City of Santa Maria. The two-mile-long pipeline connecting the City of Santa Maria and NMMA is capable of delivering 6,200 AFY. The License Agreement issued

by County of Santa Barbara to facilitate the pipeline crossing the County's flood control levee currently constrains the project to a maximum delivery of 3,000 AFY. Accordingly, the project was designed to deliver 3,000 AFY.

Nipomo CSD is planning additional phases of work to ramp up capacity well ahead of the minimum purchase schedule contained in the Wholesale Agreement. The project initially was capable of delivering 645 AFY. Beginning in July 2016, Nipomo CSD increased delivery from the City of Santa Maria through the NSWP beyond the 800 AFY minimum take stated in the purchasing agreement. A 500,000-gallon reservoir designed to help manage deliveries from the City of Santa Maria was completed in April 2017.

Funding to bring the NSWP to a full 3,000 AFY has not been fully determined. It is Nipomo CSD's goal to have funding for the NSWP secured by 2023 and the project completed by January 2025. Should basin health further diminish due to drought or other cause, Nipomo CSD will make every effort to accelerate project construction and work with the City of Santa Maria to increase its available water for wholesale.

The highest priority use of NSWP water is generally to offset groundwater pumping within those regions of the NMMA where depressed groundwater levels exist. The major purveyors plan to periodically meet and confer regarding the anticipated distribution of the NSWP water, given the aforementioned priority. Based on input from these meetings, the status of points of interconnection, and other relevant hydrologic conditions, Nipomo CSD will determine the distribution of NSWP water among the purveyors. Nipomo CSD intends to make its determination based upon a reasonable interpretation of how best to manage the then existing hydrologic conditions within the NMMA, the availability of NSWP water, and the ability to rely on existing points of interconnection and will explore the feasibility of establishing a point of interconnection with the GSWC Cypress Ridge system. If the purveyors determine all points of interconnection are necessary to make optimal use of NSWP water, Nipomo CSD and GSWC will develop the most cost effective design and arrange for the construction of a point of interconnection to the GSWC Cypress Ridge system as promptly as practical. This interconnection will be included as a component of the NSWP.

The two other water purveyors, Woodlands and Golden State Water Company, who are sharing in the project costs, will together receive one-third of the mandated minimum water delivery (a total of 833 AFY of 2,500 AFY). The additional 500 AFY capacity has been reserved for use by the Nipomo CSD for new customers within its own service boundary. The additional capacity cannot be used to support annexations by NCSD. Because of the requirement to import 500 AFY of water for all new development occurring after January 1, 2005, the NSWP may have to transmit significantly more than 2,500 AFY. The two water supply requirements of 2,500 and 500 AFY in the Stipulation are cumulative, meaning that Nipomo CSD itself is planning on 3,000 AFY to account for the added development within NCSD since January 1, 2005.

The NMMA water purveyors, the County, and local landowners actively and cooperatively manage groundwater with the goal of preserving the long-term integrity of water supplies in the NMMA. Although the SMGB has been adjudicated, the potential for shortfalls remains a threat to purveyors and overlying users that continue to rely solely on groundwater. In addition, while seawater intrusion has not been observed in the NMMA (sentry) monitoring wells, the recent landward gradient along the coastline (NMMA, 2018) could lead to seawater intrusion, as has been observed in the NCMA. Consequently, further collaboration among NMMA, NCMA, and the South County Sanitation District should be pursued in considering recycled water as an option to improve water resource reliability. Indeed, NMMA representatives are actively engaged in the development, by Pismo Beach and the South San Luis Obispo County Sanitation District, of a groundwater model encompassing the NCMA, NMMA, and the portion of the SMVMA in San Luis Obispo County. The model, which is currently in a stage of advanced calibration, will be used to evaluate seawater intrusion and, in particular, scenarios involving recharge of recycled water that would otherwise be discharged to the Pacific Ocean, into aquifers in the NCMA, just west of the NMMA. Nevertheless, uncertainties remain about the reliability of water resources serving the NMMA.

Table II-20 – South County Area – Nipomo Mesa Management Area
Existing and Forecasted Water Supply and Demand
Based on the 2014 Inland RMS Criteria

Demand	Nipomo CSD	Woodlands Mutual Water Co.	Golden State Water Co.[11]	Industrial	Golf Course	Agriculture	Rural[10]
FY 2017/2018 Demand (AFY)[1]	1,940[5]	1,175[6]	1,224	1,100[4]	910[2]	6,313[1]	653[3]
Forecast Demand in 15 Years (AFY)	3,967	1,386	1,250[4]	1,100	910[2]	7,575	522
Forecast Demand in 20 Years (AFY)	4,103	1,520	1,250	1,100	910[2]	8,291	566
Buildout Demand (30 Or More Years) (AFY)	4,244[7]	1,520	1,847	1,100	910[2]	8,291	566
Supply							
Nipomo Supplemental Water Project (AFY)[5]	2,166[8]	417[8]	417	0	0	0	0
Santa Maria Groundwater Basin -- Nipomo Mesa Sub-Area (AFY)	2,078	903	852	1,100	818	8,291	566
Recycled Water (AFY)	0	200[7]	0	0	92[9]	0	0
Total Supply:	4,244	1,520	1,269	1,100	910[2]	8,291	566
Water Supply Versus Forecasted Demand	Water demand projected over 15 years is projected to equal or exceed the estimated dependable supply. [4]						

Source: Water System Usage forms: July 2016 – June 2017; July 2017 – June 2018, San Luis Obispo County Master Water Report, 2012, Table 4.60; San Luis Obispo Integrated Regional Water Management Plan, Tables D-25 and D-26; Nipomo CSD 2015 Urban Water Management Plan, Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017

Notes:

1. Table 3-5: Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017.
2. Table 3-4: Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017 (Excludes Monarch Dunes)
3. Table 3-6: Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017.
4. Water demand projected at 15 years is 16,710 AF of which 14,608 AF is met by groundwater produced from the Santa Maria Groundwater Basin. However, no contemporary scientific study exists that develops a peer reviewed reliable yield estimate of the Santa Maria Groundwater Basin.Table 3-3 and Section 3.1.10: Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017.
5. Tables 3-3, 3-4, 3-5: Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017.
6. 2015 Urban Water Management Plan.
7. Nipomo Supplemental Water Project, completion planned for no later than 2026.
8. See Table 3-8: Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017.

9. Page ES-2 of the 2017 NMMA Annual Report states that, "There are a number of direct measurements that indicate that demand exceeds the ability of the supply to replace the water pumped from the aquifers (see Section 7.1.2 Hydrologic Inventory)."
10. Includes groundwater pumping from Woodland Park Mutual Water Company.
11. Forecasted demand values for 15 years, 30 years, and at buildout includes a small amount of demand that occurs outside of the NMMA and a small portion of this demand may occur within the City of Arroyo Grande in the future.

Table II-21 – South County Area – Nipomo Mesa Management Area
Existing and Forecasted Water Supply and Demand
Based on the 1996 Coastal RMS Criteria

Demand	Nipomo CSD	Woodlands Mutual Water Co.	Golden State Water Co.[11]	Industrial	Golf Course	Agriculture	Rural[10]
FY 2017/2018 Demand (AFY)[1]	1,940[5]	1,175[6]	1,224[4]	1,100[4]	910[2]	6,313[1]	653[3]
Forecast Demand in 7 Years (AFY)	2,926	1,156	1,250	1,100	910[2]	7,575	522
Forecast Demand in 9 Years (AFY)	3,255	1,277	1,250	1,100	910[2]	8,291	566
Buildout Demand (30 Or More Years) (AFY)	4,244[7]	1,520	1,847	1,100	910[2]	8,291	566
Supply							
Nipomo Supplemental Water Project (AFY)[5]	2,166[8]	417[8]	417	0	0	0	0
Santa Maria Groundwater Basin -- Nipomo Mesa Sub-Area (AFY)	2,078	903	852	1,100	818	8,291	566
Recycled Water (AFY)	0	200[7]	0	0	92[9]	0	0
Total Supply:	4,244	1,520	1,269	1,100	910[2]	8,291	566
Water Supply Versus Forecast Demand	Water demand projected over 15 years is projected to equal or exceed the estimated dependable supply. [4]						

Source: Water System Usage forms: July 2016 – June 2017; July 2017 – June 2018, San Luis Obispo County Master Water Report, 2012, Table 4.60; San Luis Obispo Integrated Regional Water Management Plan, Tables D-25 and D-26; Nipomo CSD 2015 Urban Water Management Plan, Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017

Notes:

1. Table 3-5: Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017.
2. Table 3-4: Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017 (Excludes Monarch Dunes)
3. Table 3-6: Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017.

4. Water demand projected at 15 years is 16,710 AF of which 14,608 AF is met by groundwater produced from the Santa Maria Groundwater Basin. However, no contemporary scientific study exists that develops a peer reviewed reliable yield estimate of the Santa Maria Groundwater Basin.Table 3-3 and Section 3.1.10: Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017.
5. Tables 3-3, 3-4, 3-5: Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017.
6. 2015 Urban Water Management Plan.
7. Nipomo Supplemental Water Project, completion planned for no later than 2026.
8. See Table 3-8: Nipomo Mesa Management Area 10th Annual Report Calendar Year 2017.
9. Page ES-2 of the 2017 NMMA Annual Report states that, "There are a number of direct measurements that indicate that demand exceeds the ability of the supply to replace the water pumped from the aquifers (see Section 7.1.2 Hydrologic Inventory)."
10. Includes groundwater pumping from Woodland Park Mutual Water Company.
11. For Forecasted demand values for 7 years, 9 years, and at buildout includes a small amount of demand that occurs outside of the NMMA and a small portion of this demand may occur within the City of Arroyo Grande in the future.

Key observations for the area include:

- Water demand is projected to equal or exceed the estimated dependable supply within 15 years based on the 2014 LOS Criteria for Inland Areas. When the 1996 LOS Criteria for Coastal Areas are applied, the reliable supply is equaled or exceeded in 7 years for the Golden State Water Company.
- While seawater intrusion has not been observed in the NMMA (sentry) monitoring wells, the recent landward gradient along the coastline (NMMA, 2018) could lead to seawater intrusion, as has been observed in the NCMA.
- A Level of Severity III designation based on the 2014 LOS Inland RMS Criteria
- A Level of Severity II designation based on the 1996 LOS Criteria for Coastal Areas.

Because the Inland RMS Criteria offers more protection for the resource, and because the majority of the water supply comes from the Inland portion of the County, the RSR recommends a **Level of Severity III.**

Water Systems

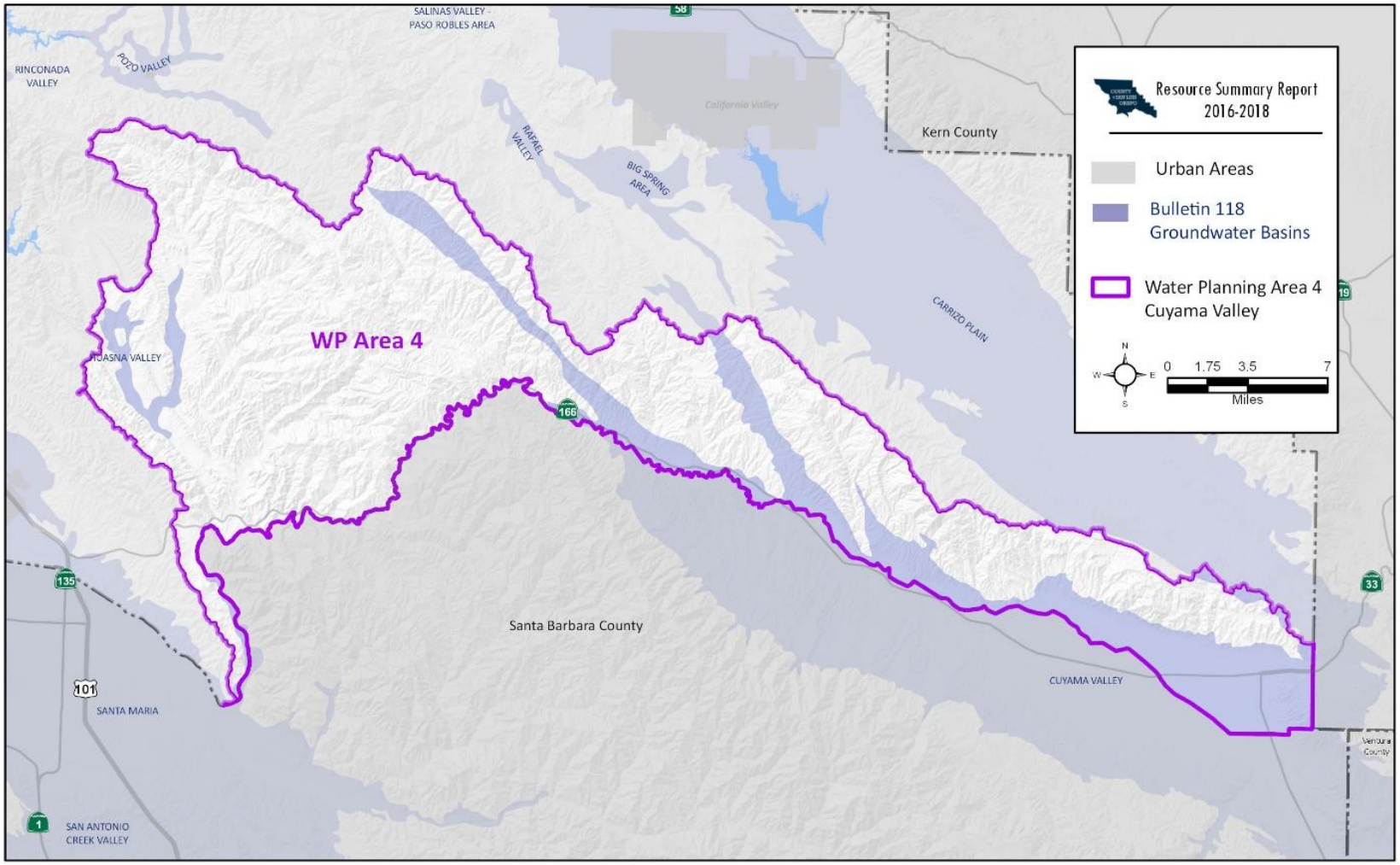
Nipomo CSD

Nipomo CSD is currently constructing the Supplemental Water Project, described above. No other significant water system improvements or limitations were reported. **No recommended Levels of Severity.**

WPA 4 Cuyama River Area

Water Supply

Figure II-16 – Water Planning Area 4 – Cuyama River Area



DWR designated the Cuyama Valley Groundwater Basin (referred to as Cuyama Basin) as a medium priority basin subject to critical conditions of overdraft; therefore, this area is required to comply with SGMA. On June 6, 2017, the Santa Barbara County Water Agency, County of San Luis Obispo, County of Kern, County of Ventura, Cuyama Community Services District and Cuyama Basin Water District executed a Joint Exercise of Powers Agreement to form a single GSA over the Cuyama Basin. This Agreement created the Cuyama Basin GSA as a Joint Powers Agency (JPA), which is a public entity that is legally separate from the parties to the Agreement. The JPA's purpose is comply with SGMA regulations by serving as the GSA, developing, adopting and implementing a GSP, and sustainably managing the Cuyama Basin.

In December 2017, the GSA hired a consultant to prepare a GSP for the Cuyama Basin. The consultant is developing the GSP under the direction of the GSA Board of Directors, and in collaboration with the Stakeholder Advisory Committee and community. The GSP will study the groundwater conditions, estimate the current and future water budget, define what sustainability looks like for each basin, and set measurable objectives and thresholds for ongoing monitoring of progress towards achieving sustainability within 20 years of GSP adoption. SGMA requires that the GSA Board finalize and adopt the GSP no later than January 31, 2020.

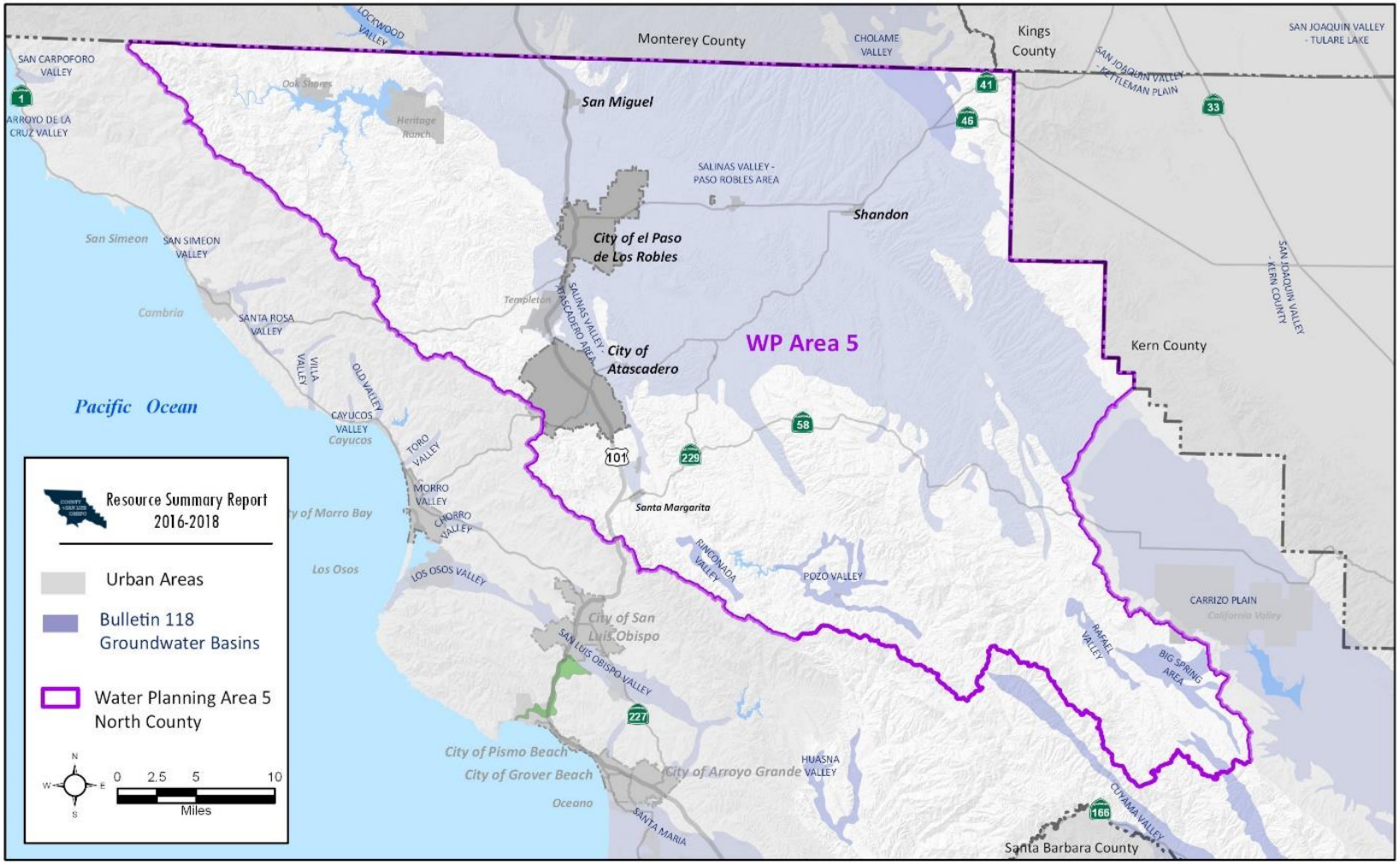
No Level of Severity evaluation has been conducted for WPA 4.

Water Systems

No evaluation was conducted, as this area does not have significant community water systems.

WPA 5 North County

Figure II-17 – Water Purveyors in the North County Area



The water supply in the North County area is provided by several sources: groundwater basins, including the Salinas Valley - Paso Robles Area Subbasin (DWR Bulletin 118 No. 3.004.06; referred to as the Paso Basin) and the Salinas Valley - Atascadero Area Subbasin (DWR Bulletin 118 No. 3.004.11; referred to as the Atascadero Basin); surface water including the Nacimiento Water Project, Salinas Reservoir (Santa Margarita Lake), and State Water Project; recycled water and other sources.

The communities in the North County area include Santa Margarita, Atascadero, Templeton, Paso Robles, San Miguel, Shandon, and others. The major water purveyors within the unincorporated County are CSA 23 (serving Santa Margarita), Atascadero MWC (serving County areas outside of the City of Atascadero as well as within), San Miguel CSD, and CSA 16 (serving Shandon).

DWR designated the Paso Basin as a high priority basin subject to critical conditions of overdraft; therefore, this area is required to comply with SGMA. On May 16, 2017, the County Board of Supervisors formed the Paso Basin – County of San Luis Obispo GSA— (County GSA) joining four other local public agencies that formed GSAs, collectively covering the entire Paso Basin. On August 22, 2017, the County GSA executed a Memorandum of Agreement regarding preparation of a GSP for the Paso Robles Groundwater Basin and forming the Paso Basin Cooperative Committee. The Memorandum of Agreement was entered into by the five local agencies in San Luis Obispo County that formed GSAs (i.e., City of Paso Robles, San Miguel Community Services District, Heritage Ranch Community Services District, County of San Luis Obispo and Shandon-San Juan Water District) for the purpose of developing a single GSP over the portion of the Paso Basin within the San Luis Obispo County. The Salinas Valley Basin GSA (SVBGSA) overlies the portion of the Paso Basin in Monterey County and is pursuing a jurisdictional basin boundary modification at the County line. Coordination with the SVBGSA is anticipated, though the form of this coordination has yet to be determined.

In early 2018 and per the terms of the Memorandum of Agreement, the City hired a consultant to prepare a GSP for the Paso Basin. The consultant is developing the GSP under the direction of the GSAs and the Cooperative Committee, and in collaboration with the community. The GSP will study the groundwater conditions, estimate the current and future water budget, define what sustainability looks like for the basin, and set measurable objectives and thresholds for ongoing monitoring of progress towards achieving sustainability within 20 years of GSP adoption. SGMA requires that each GSA finalize and adopt the GSP no later than January 31, 2020. Given the anticipated content of the GSP based on statutory and regulatory requirements, the Resource Summary Report does not attempt to evaluate this water supply.

In 2016, DWR approved a basin boundary modification request to create the Atascadero Basin; however, that subbasin has not been reprioritized yet, but may still be subject to SGMA requirements. On May 2, 2017, the County Board of Supervisors executed a Memorandum of Agreement forming the Atascadero Basin Groundwater Sustainability Agency (GSA) with

the City of Atascadero, City of Paso Robles, Templeton Community Services District and other participating parties. The Memorandum of Agreement formed the Atascadero Basin GSA, covering the entire Atascadero Basin, and created the Executive Committee as the GSA's governing body. The Executive Committee is comprised of representatives from the County, City of Atascadero, City of Paso Robles, Templeton Community Services District, Atascadero Mutual Water Company and representatives of both small water systems and at-large groups representing beneficial uses and users. The GSA was formed in order to comply with SGMA. The GSA intends to develop a GSP by January 31, 2022, although the Atascadero Basin may no longer be subject to SGMA requirements pending DWR finalizing its 2018 basin re-prioritization[9]. DWR's final re-prioritization is anticipated in November 2018.

The GSA has not yet determined its path towards selecting a GSP Consultant. However, once initiated, the GSP will study the groundwater conditions, estimate the current and future water budget, define what sustainability looks like for the basin, and set measurable objectives and thresholds for ongoing monitoring of progress towards achieving sustainability within 20 years of GSP adoption. SGMA requires that each GSA finalize and adopt the GSP no later than January 31, 2020. Given the anticipated contents of the GSP based on statutory and regulatory requirements, the 2016-2018 Resource Summary Report recommends maintaining the following recommendations of the 2014-2016 Resource Summary Report:

Salinas Valley - Atascadero Area Subbasin – **No Recommended Level of Severity**

Salinas Valley - Paso Robles Area Subbasin – **Recommended Level of Severity III**

Water Supply and Demand tables found in the previous, 2014-2016 Resource Summary Report for both Subbasins are included here for reference.

[9] In October 2016, DWR approved a modified basin boundary to create a new subbasin of the Salinas Valley Groundwater Basin, referred as Bulletin 118 Basin No. 3-004.11 Atascadero Area Subbasin. Consistent with Water Code Section 10722.4(c), DWR will reassess statewide basin prioritization in 2018. The draft re-prioritization published in May 2018 indicates that the Atascadero Basin may be prioritized as "very low," no longer requiring SGMA compliance but making it voluntary.

Table II-22 -- Paso Robles Groundwater Basin
Existing and Forecasted Water Supply and Demand (2014-2016 Resource Summary Report)

Demand	San Miguel CSD	CSA 16 - Shandon	City of Paso Robles[2]	Agriculture	Rural
FY 2015/2016 Demand (AFY)	236.3[1]	90.2[1]	2,045	76,639	3,590
Forecast Demand in 15 Years (AFY)	466	578	2,602	74,353	5,438
Forecast Demand in 20 Years (AFY)	524	686	2,124	73,782	5,900
Buildout Demand (30 Or More Years) (AFY)	466-582[3]	271-1,100[4]	2,200	60,740-86,820	5,570-6,230
Supply					
Paso Robles Groundwater Basin[5] (AFY) Paso Robles Formation (AFY) Salinas River Underflow (AFY)	524 0	147 0	4,100[6] [7]	51,647 14,756[8]	4,130 1,180
Other Groundwater Sources (AFY)	0	0	0	3,689	295
State Water Project (AFY)	0	66[9]	0	0	0
Nacimiento Project	0	0	6,488	0	0
SWRCB WPA 14[10]	0	0	0	3,689	295
Total Supply:	524	213	10,588	73,782	5,900
Water Supply Versus Forecast Demand	Water demand projected over 15 years will equal or exceed the estimated dependable supply.[11]				

Sources: Water System Usage forms: July 2014 – June 2015; July 2015 – June 2016, San Luis Obispo County Master Water Report, 2012, Table 4.67; City of Paso Robles 2015 Urban Water Management Plan

Notes:

1. See Table II-1. Current year data for agriculture and rural are from 2012.
2. Demands for the City of Paso Robles are from the 2015 Urban Water Management Plan. Amounts listed are water demands planned to be served from the Paso Robles Groundwater Basin and account for balancing and management of the City's available supplies. Pumping could increase if shortage is experienced in other supplies.
3. Twenty (20) percent additional water conservation (beyond what has already been accomplished) assumed for the low end of the forecast buildout demand for San Miguel and 10% for Paso Robles.
4. Upper end of the range reflects demand projected in accordance with the draft Shandon Community Plan should it be approved by the Board in the future.
5. The safe yield of the Paso Robles Groundwater Basin is estimated to be approximately 89,648 AFY.
6. Supply amount shown City from the Paso Robles formation is estimated based on historical pumping which is not the maximum supply available but the historical maximum amount used by the City from the basin.
7. The City is permitted to extract up to 8cfs (3,590 gpm) with a maximum extraction of 4,600 AFY. This amount is accounted for in Table II-21 for the Atascadero Basin.
8. It is assumed that the majority of water supply for agriculture and rural users comes from the Paso Robles Groundwater Basin. SWRCB records indicate that 738 AFY could be diverted from the Salinas River (direct diversion or underflow). It is assumed that the entire amount is used for agriculture.

9. CSA 16 has an allocation of 100 AFY of State Water Project (but no drought buffer), but has not developed this supply due to high cost. State Water Project average allocation assumed 66 percent of contract water service amount, which equates to 66 AFY.
10. State Water Resources Control Board Water Planning Area 14.
11. Including demand in the Monterey County portion of the basin, and depending on the estimated use for the Agricultural and Rural sectors and future hydrology, basin studies are indicating that the perennial yield may be exceeded in the future. The agencies, County, District, and local land owners intend to actively and cooperatively manage the groundwater basin via the development of a Groundwater Management Plan. It is possible that a future supply deficit will exist for agriculture and rural users because the forecast agricultural and rural demands, excluding demands in the Monterey County portion of the basin, exceed the basin yield. It is uncertain how much of the rural and agricultural demand is supplied by sources outside the basin.

Table II-23 -- Atascadero Basin Existing and Forecasted Water Supply and Demand (2014-2016 Resouce Summary Report)

Demand	**Templeton CSD**	**Garden Farms**	**Atascadero MWC**	**City of Paso Robles**	**Agriculture**[1]	**Rural**[1]
FY 2015/2016 Demand (AFY)	997.8[1]	36.4	4,001	3,021[2]	8,715	1,558
Forecast Demand in 15 Years (AFY)	2,054	84	8,867	3,800	11,307	1,792
Forecast Demand in 20 Years (AFY)	2,147	93	9,551	4,558	12,170	1,870
Buildout Demand (30 Or More Years) (AFY)	2,034-2,260[3]	93	9,551[1]	4,558	12,170	1,870
Supply						
Atascadero Groundwater Basin (AFY)[4]	1,050	93	3,193	(6)	(7)	(7)
Paso Robles Formation (AFY)[5]	500	0	4,883	4,600[8]	745[9]	0
Salinas River Underflow (AFY)[5]						
Treated Wastewater Retrieval/Basin Augmentation (AFY)	475[10]	0	1,500[10]	0	0	0
Nacimiento Water Project (AFY)[11]	406	0	3,244	(12)	0	0
Other Water Supply Sources (AFY)	0	0	0	0	Uncertain	Uncertain
Total Supply:	2,431	93	12,820	3,728	Uncertain	Uncertain
Water Supply Versus Forecast Demand	Water demand projected over 20 years will not exceed the estimated dependable supply.					

Source: Water System Usage forms: July 2014 – June 2015; July 2015 – June 2016, San Luis Obispo County Master Water Report, 2012, Table 4.66, City of Paso Robles Urban Water Management Plan, 2011; 2014 San Luis Obispo Integrated Regional Water Management Plan, Tables D-39 and D-40; City of Paso Robles 2015 Urban Water Management Plan.

Notes:

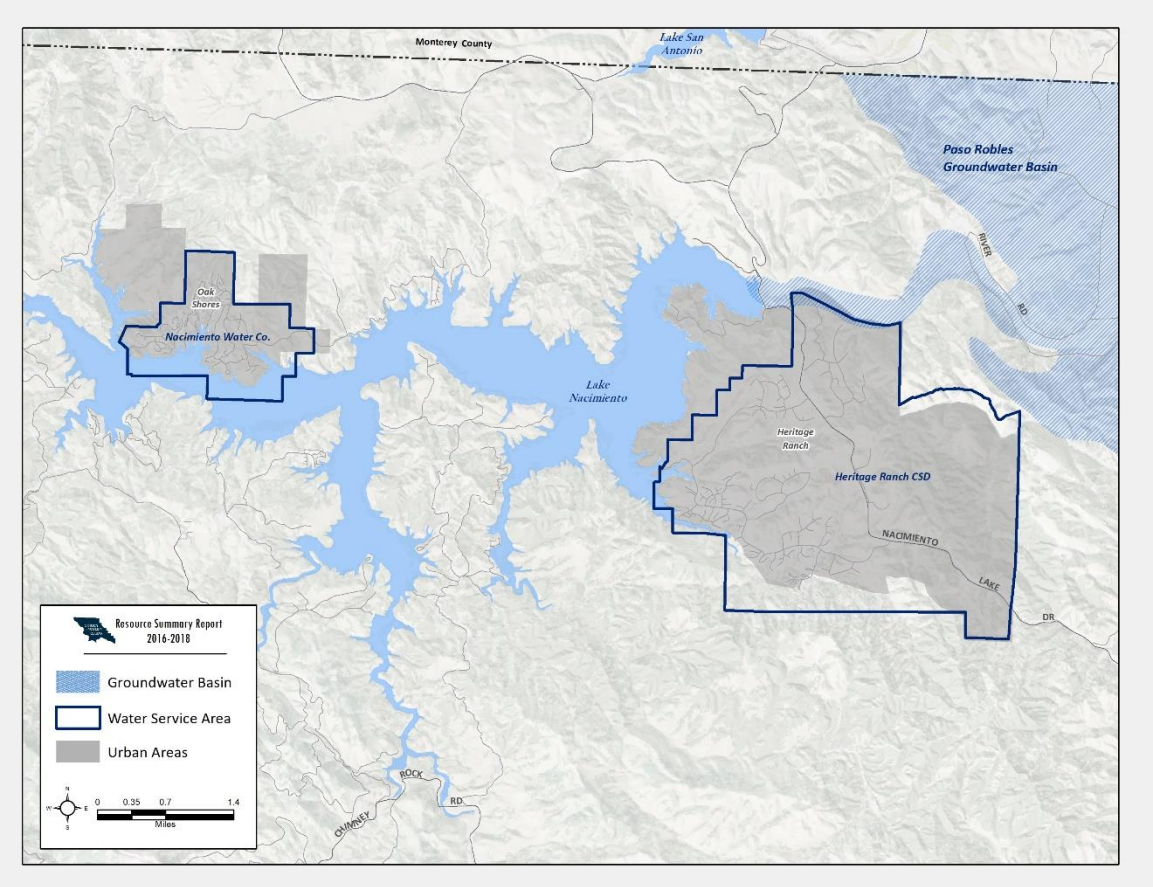
1. See Table II-1. Current year data for agriculture and rural are from 2012.
2. Demands for the City of Paso Robles are from the 2015 Urban Water Management Plan. Amounts listed are water demand planned to be served from the City's surface water wells and account for balancing and management of City's available supplies. Pumping could increase to maximum amounts if shortage is experienced in other supplies.
3. Ten (10) percent additional water conservation (beyond what has already been accomplished) assumed for the low end of the forecast buildout demand.
4. The agencies, County, District, and local land owners intend to actively and cooperatively participate in the development of a sustainable Groundwater Management Plan.
5. The perennial yield was estimated to be 16,400 AFY. Extractions from the Basin occur solely from the Salinas River Underflow and deeper formations. Atascadero MWC currently has rights to 3,372 AFY from Salinas River underflow. Increased supplies from the underflow are shown due to UWMP showing 4,613 AFY in 2030.
6. Supply amount for the City of Paso Robles from the Paso Robles Formation is accounted for in Table II-18.
7. It is assumed that the majority of water supply for rural users and about 13 percent of the supply for agricultural users comes from the Basin.
8. The City is permitted to extract up to 8cfs (3,590 gpm) of underflow with a maximum of 4,600 AFY.
9. SWRCB records indicate that 745 AFY could be diverted from the Salinas River (direct diversion or underflow). It is assumed that the entire amount is used for agriculture.
10. Percolation of treated wastewater effluent into the Salinas River underflow and extraction of the same amount 28 months later. Currently about 132 AFY is percolated and extracted. This could increase to 475 AFY in the future. The wastewater treatment plant that returns treated wastewater to the Sub-basin is operated by the City of Atascadero, not the Atascadero MWC.
11. In March, 2016, the Templeton CSD and the Atascadero MWC acquired 1,406 AFY of surplus Lake Nacimiento Water.
12. The Nacimiento entitlement for the City is 6,488 AFT and is accounted for in Table II-18.

Water Systems

No significant water system limitations were reported. **No recommended Levels of Severity**.

Lake Nacimiento Area

Figure II-18 – Lake Nacimiento Area and Water Service Areas



There are two water purveyors serving the Lake Nacimiento area: the Heritage Ranch CSD and the Nacimiento Water Company which serves the community of Oak Shores. The Heritage Ranch CSD has only one water supply source, surface water from Lake Nacimiento, which is normally fed through three horizontal wells (the Gallery Wells) located in the Nacimiento River bed just downstream of the Nacimiento Dam. Heritage Ranch CSD serves a residential community along the southern shores of Lake Nacimiento. Typically, the Nacimiento River is fed year-round by the release of water through the upper and/or lower outlet works in the dam at Lake Nacimiento. If no water is released from the lake, or there is no water to release, the Heritage Ranch CSD may not have a water supply. The 1,100 AFY of allocation of Nacimiento Reservoir water designated for use in Heritage Ranch's service area is part of the 1,750 AFY reserved for County residents in the Lake Nacimiento area.

The 1,100 AFY Nacimiento Reservoir allocation for Heritage Ranch CSD is sufficient to provide water for anticipated buildout demand, but the configuration of the delivery system leaves the Heritage Ranch CSD vulnerable to a termination in water supply in an extreme drought. If the lake's water level drops below the dam outlet (has never occurred but came to within

two feet of the lower outlet works in October 1989), then Heritage Ranch CSD could temporarily lose its water supply. As an emergency alternative means of receiving water, a pipeline intertie project connecting Heritage Ranch CSD treatment plant to the Nacimiento Water Project pipeline was completed in 2016.

Heritage Ranch CSD is studying the feasibility of augmenting the District's water resources portfolio by adding recycled water usage for potential customers (MKN & Associates, January 2017). The 2017 study considers several alternatives for recycled water use and concludes that there is sufficient demand for 70 AFY of recycled water serving one potential customer. However, no commitments have been obtained by the potential recycled water customer as of August 2018. However, this represents a potential 70 AFY saving in the future demand for potable water.

The Nacimiento Water Company (NWC) serves the community of Oak Shores, which is on the banks of Nacimiento Lake. The NWC currently serves a population of 275 residents with water drawn from the lake, which is then treated prior to distribution. Plans to develop an additional 345 lots as part of Oak Shores Estates are currently on hold. The water supply allocation for Oak Shores is part of the 1,750 AFY reserved for County residents in the Lake Nacimiento area. The 600 AFY Nacimiento Reservoir allocation for the Nacimiento Water Company is sufficient to provide water for anticipated buildout demand for the Oak Shores Area.

Key observations:

- The 1,100 AFY Nacimiento Reservoir allocation for Heritage Ranch CSD is sufficient to provide water for anticipated buildout demand, but the configuration of the delivery system leaves the Heritage Ranch CSD vulnerable to a termination in water supply in an extreme drought.
- Heritage Ranch CSD is studying the feasibility of augmenting the District's water resources portfolio by adding recycled water usage for potential customers
- Water demand projected over 20 years is not expected to equal or exceed the dependable supply.

Based on the 2014 Inland RMS Criteria. **No recommended Level of Severity**.

Table II-24 -- Lake Nacimiento Area
Existing and Forecasted Water Supply and Demand
Based on the 2014 Inland RMS Criteria

Demand	Heritage Ranch CSD[1]	Nacimiento Water Company	Agriculture	Rural
FY 2017/2018 Demand (AFY)	399.6	+++	2,602	385
Forecast Demand in 15 Years (AFY)	987	600	5,097	700
Forecast Demand in 20 Years (AFY)	987	600	5,928	805
Buildout Demand (30 Or More Years) (AFY)	935 – 1,039[2]	600	4,740-7,120	730-880
Supply				
Lake Nacimiento (AFY)	1,100[2]	600[5]	0	0
Other Groundwater Sources (AFY)	0	0	5,928[5]	805[5]
SWRCB Water Diversions (AFY)	0	0	(6)	(6)
Total Supply:	1,100	600	5,928	805
Water Supply Versus Forecasted Demand	Water demand projected over 20 years is not expected to equal or exceed the dependable supply.[3,6]			

Sources: Water System Usage forms: July 2016 – June 2017; July 2017 – June 2018, San Luis Obispo County Master Water Report, 2012, Table 4.69; 2014 San Luis Obispo Integrated Regional Water Management Plan, Tables D-45 and D-46

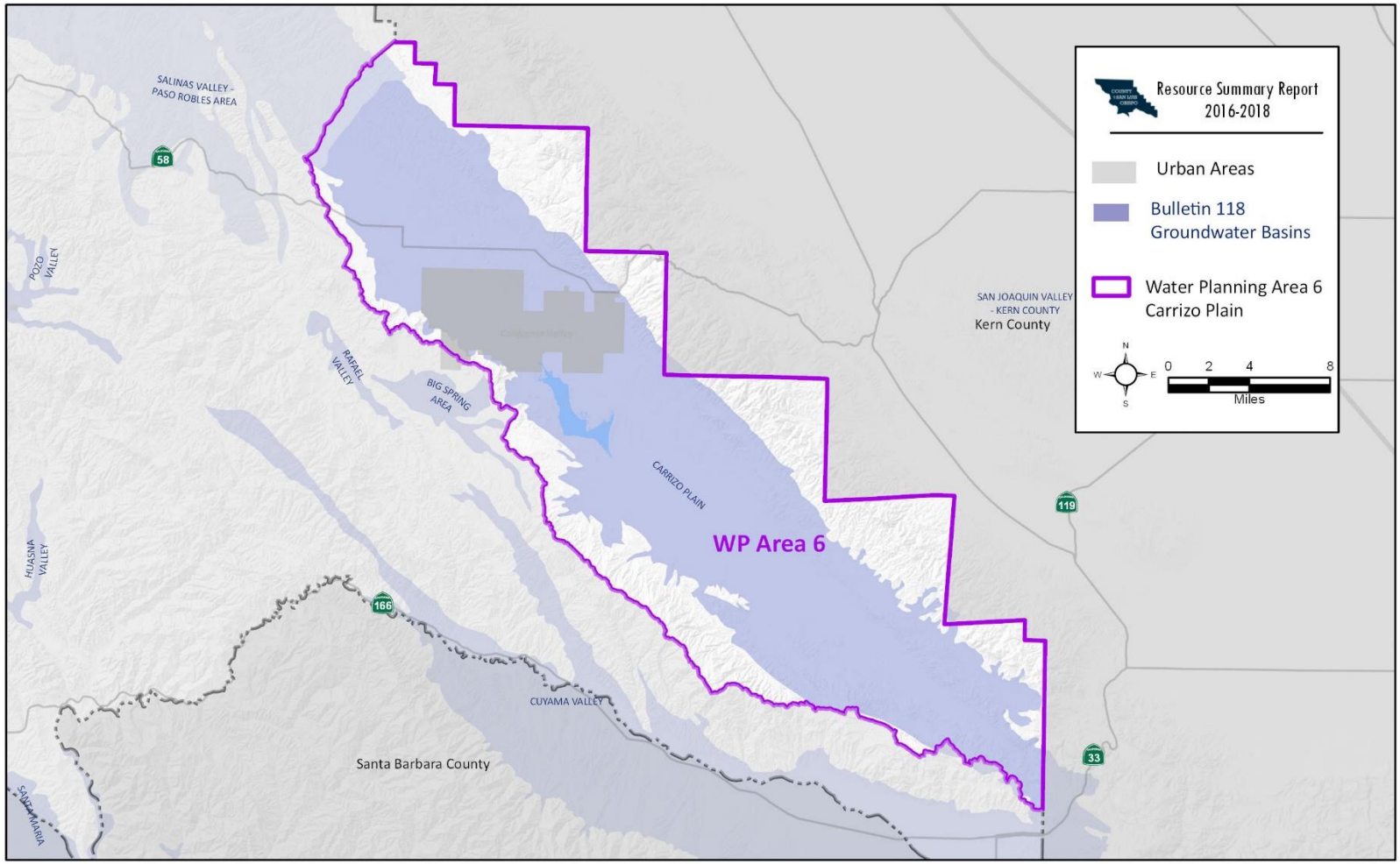
Notes:
1. See Table II-1. Current year data for agriculture and rural are from 2012.
2. Heritage Ranch CSD's allocation of Lake Nacimiento is 1,100 AFY.
3. The Lake Nacimiento supply allocation is sufficient to meet forecast demands. However, if the lake's water level drops below the dam outlet (has never occurred but came to within two feet of the lower outlet works in October 1989), then Heritage Ranch CSD could lose its water supply.
4. No estimate of existing or forecast demand is available.
5. Groundwater supply sources around Lake Nacimiento are the typical sources of supply for wells that serve agricultural and rural users. There is no information describing the safe yield for these groundwater supplies.
6. Diversions do not distinguish type of use. Potentially 1,048 AFY could be diverted for use to either agriculture or rural residential.
7. It is uncertain whether an agricultural or rural supply deficit exists. Future studies should invest the resources to determine the basin safe yield for these groundwater supplies and the uses for the creek/river diversions. It is possible that the combined supplies from groundwater and creek diversions are sufficient to meet the agricultural and rural demands.
8. +++ Indicates no data were provided

Water Systems

No significant water system limitations were reported. **No recommended Levels of Severity.**

WPA 6 Carrizo Plain

Figure II-19 – Water Planning Area 6 – Carrizo Plain Area



Water supply for the Carrizo area comes primarily from the Carrizo Plain Groundwater Basin (DWR Bulletin 118 No. 3-19). The basin is 173,000 acres (270 square miles) in size and is situated between the Temblor Range to the east and the Caliente Range and San Juan Hills to the west. The basin has internal drainage to Soda Lake. Groundwater in the basin is found in alluvium, the Paso Robles Formation, and the Morales Formation (DWR, 2003). The upper alluvium and Paso Robles Formation deposits are more than 3,000 feet thick in the eastern portion of the basin and decrease in thickness to the west. Recharge to the basin is predominantly from percolation of stream flow and infiltration of precipitation.

There is one small public water system serving the local school (part of the Atascadero Unified School District). All other pumping in the basin is by overlying users for agricultural and residential purposes and for use related to the solar facilities operations. According to existing zoning, it is possible that the Carrizo area could have extensive residential development. However, it is unlikely that the number of residential units that are zoned as potential residential will be developed due to limited water availability and other factors. Several proposed cannabis cultivation sites have been proposed and may increase water demand in the future.

Constraints on water availability in the basin include physical limitations and water quality issues. The low safe yield estimate of this basin relative to its large size, and the high TDS concentrations in areas (e.g., Soda Lake) suggest that water availability in the region is limited. Other than water quality issues associated with the internal drainage structure of the basin, other constraints are not well defined.

Published hydrogeologic information for this basin is compiled from older reports and may not be representative of current conditions. Additionally, the Carrizo area has limited unincorporated population; therefore, no evaluation of water supply is included in this RSR. If the County requires more current or detailed information for this basin, new studies would be necessary.

Summary of Recommended Levels of Severity

Water Supply

Table II-25 -- Summary of Recommended Levels of Severity – Water Supply		
Community Areas and Major Water Purveyors	**Recommended LOS[1]**	
	Based On 1996 RMS Criteria	**Based On 2014 RMS Criteria**
WPA 1 San Simeon / Cambria		
San Simeon Area *Water Purveyors* San Simeon CSD *Bulletin 118 Groundwater Basins* San Simeon Valley Arroyo De La Cruz Valley	**II**	N/A
Cambria Area *Water Purveyors* Cambria CSD *Bulletin 118 Groundwater Basins* San Simeon Valley Groundwater Basin Santa Rosa Valley Groundwater Basin Villa Valley	**III**	N/A
WPA 2 Cayucos / Morro Bay / Los Osos		
Cayucos Area *Water Purveyors* CSA 10A - Cayucos Morro Rock MWC Cayucos Beach MWC *Bulletin 118 Groundwater Basins* Cayucos Valley Groundwater Basin Old Valley	None	None

Table II-25 -- Summary of Recommended Levels of Severity – Water Supply		
Community Areas and Major Water Purveyors	**Recommended LOS[1]**	
	Based On 1996 RMS Criteria	**Based On 2014 RMS Criteria**
Morro Bay Area No evaluation was conducted for the Morro Bay area as this is a largely incorporated area of the County and does not include a significant unincorporated population.		
Los Osos Area *Water Purveyors* Los Osos CSD Golden State Water Co. S&T Mutual Water Co. *Bulletin 118 Groundwater Basins* Los Osos Valley Groundwater Basin	**III**	**III**
WPA 3 San Luis Obispo / South County		
San Luis Obispo/Edna Valley Area *Water Purveyors* City of San Luis Obispo Golden State Water Company Edna Ranch Mutual Water Company Edna Valley Growers Mutual Water Company Varian Ranch Mutual Water Company *Bulletin 118 Groundwater Basins* San Luis Obispo Valley Groundwater Basin	N/A	None
Avila Area *Water Purveyors* Avila Beach CSD Avila Valley MWC San Miguelito MWC CSA 12 – Avila *Bulletin 118 Groundwater Basins* None defined in DWR Bulletin 118	None	None

Table II-25 -- Summary of Recommended Levels of Severity – Water Supply		
Community Areas and Major Water Purveyors	**Recommended LOS[1]**	
	Based On 1996 RMS Criteria	**Based On 2014 RMS Criteria**
South County Area: Northern Cities Management Area *Water Purveyors* Oceano CSD *Bulletin Groundwater Basins* Santa Maria Valley Groundwater Basin	None	None
South County Area: Nipomo Mesa Management Area *Water Purveyors* Nipomo CSD Woodlands MWC Woodland Park MWC Golden State Water Co. Cypress Ridge Water Co. *Bulletin 118 Groundwater Basins* Santa Maria Valley Groundwater Basin	**II**	**III**
WPA 4 Cuyama River		
Water Purveyors None *Bulletin 118 Groundwater Basins* Cuyama River Valley Groundwater Basin	Not included in RSR analysis	Not included in RSR analysis
WPA 5 North County		
Paso Robles/San Miguel/Shandon Area *Water Purveyors* San Miguel CSD CSA 16 – Shandon *Bulletin 118 Groundwater Basins* Salinas Valley – Paso Robles Area Subbasin	N/A	**III**

Table II-25 -- Summary of Recommended Levels of Severity – Water Supply		
Community Areas and Major Water Purveyors	**Recommended LOS[1]**	
	Based On 1996 RMS Criteria	**Based On 2014 RMS Criteria**
Atascadero/Santa Margarita Area *Water Purveyors* Templeton CSD Atascadero MWC *Bulletin 118 Groundwater Basins* Salinas Valley – Atascadero Basin	N/A	None
Lake Nacimiento Area *Water Purveyors* Heritage Ranch CSD Nacimiento Water Co. *Bulletin 118 Groundwater Basins* None defined in DWR Bulletin 118	N/A	None
WPA 6 Carrizo Plain		
Water Purveyors None *Bulletin 118 Groundwater Basins* Carrizo Plain	Not included in RSR analysis	Not included in RSR analysis

Notes:

1. Evaluations and recommended LOS for WPA 4 Cuyama River or WPA 6 Carrizo were not conducted.

Water Systems

Based on the analysis conducted for the 2016-2018 RSR, no Levels of Severity are recommended for any water systems within the County.

Recommended Actions

General Recommendations

- Continue to support efforts to improve water conservation, the efficient use of water, and water re-use.
- Continue to collect development impact fees for the construction of water supply infrastructure.
- Coordinate the County's land use authority with the planning and actions necessary to achieve the sustainability goals identified in local Groundwater Sustainability Plans.
- Support efforts to develop sustainable supplemental sources of water.

Water Planning Area 1 -- San Simeon/Cambria

San Simeon Area

1. Recommended Level of Severity II based on the 1996 RMS criteria.
2. Support efforts of the San Simeon CSD to develop feasible water supply alternatives.

Cambria Area

1. No recommended Level of Severity based on the 1996 RMS criteria.
2. Collaborate with the Cambria Community Services District for the issuance of a limited number of intent-to-serve letters and building permits based on the continued use of a demand offset conservation program that offsets new demand from new water connections.
3. Revise the County Growth Management Ordinance in collaboration with the Cambria Community Services District to accommodate the issuance of an allowable number of building permits for new development.
4. Collaborate with the Cambria Community Services District to prepare and obtain a Regular Coastal Development Permit for the Sustainable Water Facility along the lower San Simeon Creek aquifer.

Water Planning Area 2 – Cayucos/Morro Bay/Los Osos

Cayucos Area

1. Support efforts to develop a reliable water supply reserve as an alternative to groundwater. Recycled water should be considered as an alternative supply.

Los Osos Basin Plan Area

1. LOS III to remain in place based on the 1996 RMS criteria.
2. Continue to support efforts to implement the Basin Management Plan.
3. Implement the water management strategies of the Los Osos Community Plan following adoption.

Water Planning Area 3 – San Luis Obispo/South County

San Luis Obispo and Avila Valley Areas

1. Support efforts to determine the safe yield of the San Luis Obispo Valley Basin.

South County Area: Northern Cities Management Area

1. No recommended LOS for the NCMA based on either the 1996 or 2014 RMS criteria.
2. Support implementation of the NCMA 2014 *Strategic Plan* and the 2015 *Water Supply, Production and Delivery Plan*.
3. Continue to help fund area wide water conservation through the fee on new construction.
4. Collaborate with NCMA to develop a groundwater model that supports efforts towards achieving groundwater sustainability and supports SGMA compliance in the basin "fringe areas" subject to SGMA.
5. Continue to support efforts of the GSAs to actively and cooperatively develop a Groundwater Sustainability Plan that meets SGMA requirements.

South County Area: Nipomo Mesa Management Area

1. LOS II for the NMMA based on the 1996 RMS criteria. LOS III for the NMMA based on the 2014 RMS criteria.

2. Consider ending the Title 8 retrofit-upon-sale ordinance in the Nipomo Mesa Water Conservation Area.

3. Support implementation of NCSD *Supplemental Water Project*. Coordinate any needed County actions such as an AB 1600 study to quantify the costs and benefits of the identified supplemental water project for groundwater users outside the Nipomo CSD.

4. Collaborate with the Nipomo CSD, South County Sanitation District and other stakeholders to assist in their efforts to improve water supply reliability, including the use of recycled water.

5. Continue to help fund area wide water conservation through the fee on new construction.

6. Collaborate with the NMMA to develop a groundwater model that supports efforts towards achieving groundwater sustainability and supports SGMA compliance in the basin "fringe areas" subject to SGMA.

7. Continue to support efforts of the GSAs to actively and cooperatively develop a Groundwater Sustainability Plan that meets SGMA requirements.

Water Planning Area 4 – Cuyama Valley

No recommended actions.

Water Planning Area 5 -- North County

Atascadero/Santa Margarita Area

1. No recommended LOS.

2. Support efforts to develop additional sustainable water supplies for CSA 23.

3. Continue to support efforts of the GSA to actively and cooperatively develop a Groundwater Sustainability Plan that meets SGMA requirements.

4. Prepare a Resource Capacity Study for the Santa Margarita Sub-Basin to determine the safe yield.

Paso Robles/San Miguel/Shandon Area

1. Maintain LOS III for the Basin based on LOS Designation of previous (2014-2016) RSR.

2. Continue to support efforts of the GSAs to actively and cooperatively develop a Groundwater Sustainability Plan that meets SGMA requirements.

Lake Nacimiento Area

1. No recommended LOS.

2. Continue to support efforts to improve water conservation, the efficient use of water, and water re-use.

3. Continue to collect development impact fees for the construction of water supply infrastructure.

4. Support efforts to develop sustainable supplemental sources of water.

Water Planning Area 6 – Carrizo Plain

No recommended actions.

III. WASTEWATER

Level of Severity Criteria

WASTEWATER TREATMENT

Level of Severity	Wastewater Treatment Criteria	
	Coastal Zone	Inland Areas
I	Projected average daily flow = plant capacity within 6 years	The service provider or RWQCB determines that monthly average daily flow will or may reach design capacity of waste treatment and/or disposal facilities within 4 years. This mirrors the time frame used by the RWQCB to track necessary plant upgrades.
II	5 year projected average daily flow = plant capacity	RWQCB determines that the monthly average daily flow will or may reach design capacity of waste treatment and/or disposal facilities within 2 years.
III	Average daily flow = plant capacity or the plant will be at capacity before improvements can be made	Peak daily flow equals or exceeds the capacity of a wastewater system for treatment and/or disposal facilities.

WASTEWATER COLLECTION SYSTEMS

Level of Severity	Wastewater Collection Criteria (Coastal Zone and Inland Areas)
I	2-year projected flows equal 75% of the system capacity. A 2-year period is Recommended for the preparation of resource capacity study.
II	System is operating at 75% capacity OR The five-year projected peak flow (or other flow/time period) equals system capacity OR The inventory of developable land in a community would, if developed, generate enough wastewater to exceed system capacity.
III	Peak flows fill any component of a collection system to 100% capacity.

1. A wastewater collection system includes facilities that collect and deliver wastewater to a treatment plant for treatment and disposal (sewer pipelines, lift stations, etc.)

SEPTIC SYSTEMS

Level of Severity	Septic Systems Criteria (Coastal Zone and Inland Areas)
I	Failures occur in 5% of systems in an area or other number sufficient for the County Health Department to identify a potential public health problem.
II	Failures reach 15% and monitoring indicates that conditions will reach or exceed acceptable levels for public health within the time frame needed to design, fund and build a project that will correct the problem, based upon projected growth rates.
III	Failures reach 25% of the area's septic systems and the County Health Department and RWQCB find that public health is endangered.

1. Includes septic tank systems or small aerobic systems with subsurface disposal. Typical disposal systems include leach fields, seepage pits, or evapotranspiration mounds.

Wastewater Collection and Treatment Systems

The service areas of wastewater collection and treatment system operators serving the unincorporated county are listed in Table III-1 and shown on Figure III-1.

Table III-1 – Wastewater Agencies Serving Unincorporated San Luis Obispo County

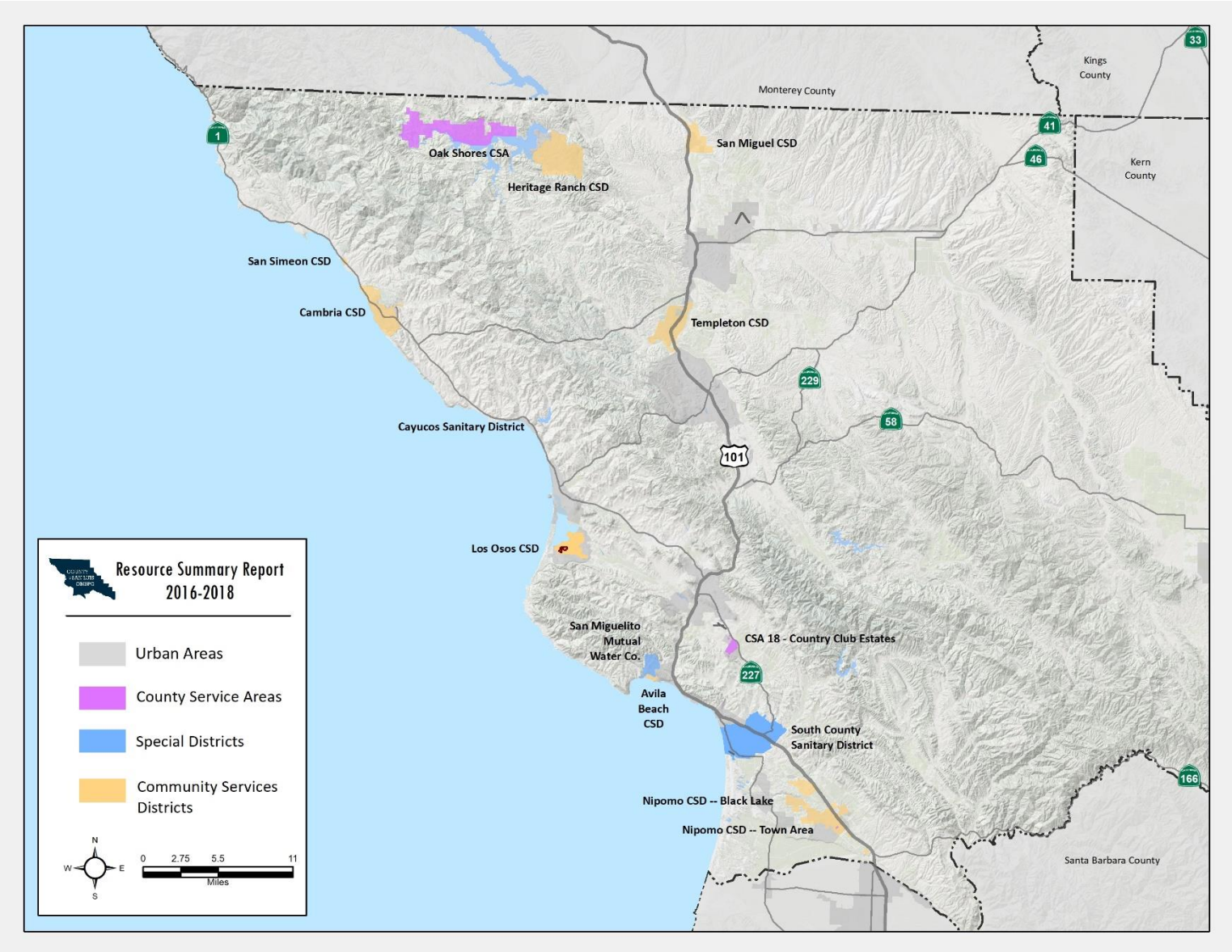
Agency	Date of Discharge Permit	Design Flow[1] (MGD)[2]	Current Average Daily Flow[3] (MGD)	Current % of Design Flow[4]
Avila Beach [5]	12-12-2009	0.2	0.055	28%
Cambria CSD	12-7-2001	1.0	0.602	60%
Cayucos Sanitary [6]	12-4-2008	2.36	1.02	44%
Country Club Estates – CSA 18	10-23-2003	0.12	0.050	49%
Heritage Ranch CSD	12-01-2017	0.4	0.139	35%
Los Osos	5-5-2011	1.2	0.41	35%
Nipomo CSD – Black Lake	3-11-1994	0.10	0.046	46%
Nipomo CSD – Southland Treatment Plant	2-2-2012	0.9	0.559	62%
San Miguel CSD	7-9-1999	0.41	0.109	33%
San Miguelito Mutual Water Co.	7-14-1995	0.15	0.069	46%
San Simeon [7]	12-5-2013	0.2	0.082	41%
South San Luis Obispo County Sanitation District[8]	10-23-2009	3.3	2.488	75%
Oak Shores CSA[9]	12-7-2001	0.1	0.038	38%
Templeton CSD				
Meadowbrook WWTP	5-11-2007	0.600	0.166	28%
Paso Robles WWTP[10]	6-25-2011	0.443	0.301	68%

Source: Regional Water Quality Control Board, 2018

Notes:

1. Design Flow = average daily dry weather flow in million gallons per day.
2. MGD = Million gallons per day
3. Average daily flow reported in 2018.
4. Based on average daily flow reported in 2018.
5. CSD = Community Services District
6. The Morro Bay wastewater treatment plant serves the Cayucos Sanitary District and the City of Morro Bay. By agreement, Cayucos SD is allotted 0.721 MGD of Morro Bay treatment plant capacity. The average daily flow and the resulting percentage reflect the combined flows from Cayucos and Morro Bay.
7. By agreement, Hearst Castle is allotted 0.05 MGD of the San Simeon treatment plant capacity.
8. South County Sanitary District serves the cities of Arroyo Grande and Grover Beach and the unincorporated community of Oceano.
9. CSA = County Service Area
10. By agreement, the Templeton CSD is allotted 0.443 MGD of the Paso Robles treatment plant capacity. The average daily flow is reflected as a percentage of the allotted capacity.

Figure III-1 – Wastewater Service Providers Serving Unincorporated San Luis Obispo County



Recommended Levels of Severity for Wastewater Collection and Treatment Service Providers

Methodology

The 2018 per capita wastewater generation for each service provider was determined by dividing the 2018 average daily flow by the 2018 population within each service area. The resulting quotient was then multiplied by the estimated population for each community in four years for inland areas (2022) and six years (2024) for coastal areas (see Table I-1 of Chapter I) to estimate the future average daily flow which was then divided by the design flow to determine the whether the Level Of Severity criteria are exceeded. The results are presented in Table III-2. Each wastewater service provider is discussed below.

Coastal Zone Areas

To determine the LOS for a wastewater service provider that lies entirely within the Coastal Zone, the 1996 Coastal RMS Criteria were applied.

Inland Areas

To determine the LOS for a wastewater service provider that lies entirely within the Inland Area, the 2014 Inland RMS Criteria were applied.

Wastewater Service Areas That Include Portions of the Coastal and Inland Areas

To determine the LOS for a wastewater service provider whose service area extends inland from the Coastal Zone, the location the treatment plant determined which RMS were applied. If the treatment plant is located within the Coastal Zone, the 1996 Coastal RMS Criteria were applied. If the treatment plant is located inland of the Coastal Zone, the 2014 Inland RMS Criteria were applied.

Avila Beach CSD

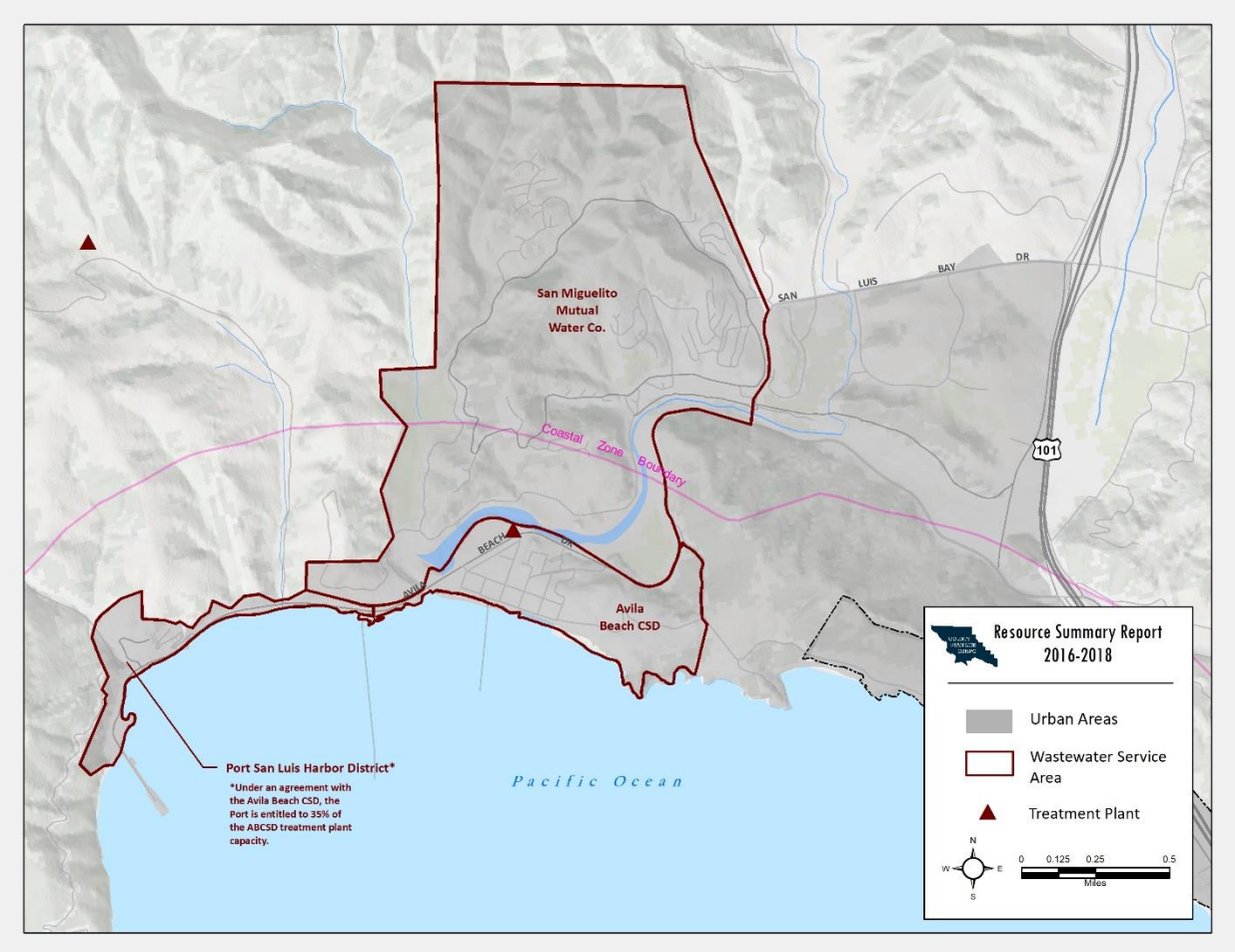


Figure III-2 – Avila Beach CSD Wastewater Service Area

The Avila Beach CSD operates a wastewater collection, treatment and disposal system that serves the community of Avila Beach and Port San Luis. The treatment plant has a design flow of 0.2 MGD; current (2018) average daily flows are 0.055 MGD, or 28% of design capacity.

In 2010, the ACSD adopted a Sewer System Management Plan as required by State law for public wastewater collection system agencies in California with greater than one mile of sewers. The Management Plan recommends strategies for managing emergencies, design and construction standards and methods for evaluating system performance.

Based on the projected growth in population within the CSD service area, the plant is expected to operate well below capacity for the next six or more years. **No levels of severity are recommended for either collection or treatment.**

Table III-2 -- Avila Beach CSD -- Recommended Levels of Severity for Wastewater Treatment
Based on the 1996 RMS Coastal Criteria

2018 Service Area Population	Current Average Daily Flow (MGD)	2024 Service Area Population	2024 Estimated Average Daily Flow (MGD)	Design Flow[2] (MGD)[3]	Percent of Design Flow In 2024	Recommended Levels of Severity
1,495	0.055	1,536	0.089	0.2	45%	None

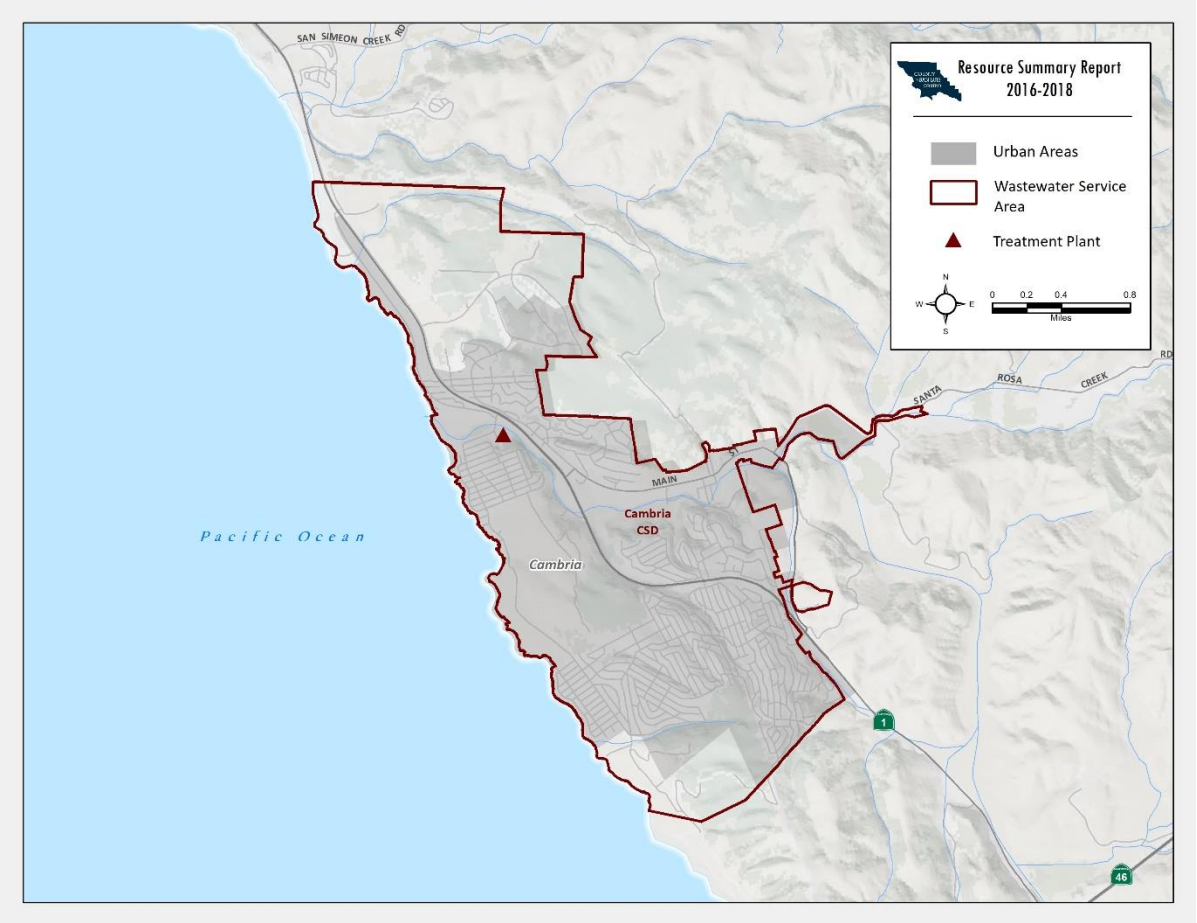
Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 2018;

Notes:

1. Average daily flow reported for 2018
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day

Cambria CSD

Figure III-3 – Cambria CSD Wastewater Service Area



The Cambria CSD operates a wastewater collection, treatment and disposal system that serves 6,000 residents. The treatment plant has a design capacity of 1.0 MGD; current (2018) average daily flows are 0.602 MGD, or 60% of design capacity.

The CCSD is pursuing options for the disposal of brine generated by the SWF. Wastes generated by the SWF (brine) have been stored in an impoundment regulated in accordance with Waste Discharge Requirements (WDR) Order No. R3-2014-0047 issued by the Regional Water Quality Control Board (RWQCB). However, because of violations of the discharge order, the RWQCB issued a Cease and Desist Order in 2017 which prohibits the CCSD from discharging wastewater to the surface impoundment until corrective actions are taken to protect the groundwater. Under the cease-and-desist order, the CCSD was given 30 days to submit a plan to remove all brine wastes from its pond. The district submitted a plan, but, according to the RWQCB, the plan did not assure the water board that the brine in the impoundment would be removed quickly enough.

The CCSD is proposing to decommission the impoundment as part of the permanent Coastal Development Permit for the ongoing operation of the SWF. Under this plan, The RO concentrate would be pumped out of the evaporation pond and the residual slurry would be hauled away for disposal at an appropriate Class II waste disposal facility. The evaporation pond liner would be cleaned using high pressure hoses to sluice the RO concentrate to the pond's lowest spot. The rinse water would similarly be hauled away for offsite disposal.

Based on the projected growth in population within the CSD service area, the plant is expected to operate well below capacity for the next six years or more. The CSD is implementing an ongoing program to improve the efficiency and operation of the collection and treatment systems. **No levels of severity are recommended for either collection or treatment**.

Table III-3 -- Cambria CSD -- Recommended Levels of Severity for Wastewater Treatment
Based on the 1996 RMS Coastal Criteria

2018 Service Area Population	Current Average Daily Flow[1] (MGD)	2024 Service Area Population	2024 Estimated Average Daily Flow (MGD)	Design Flow[2] (MGD)[3]	Percent of Design Flow In 2024	Recommended Levels of Severity
6,038	0.602	6,055	0.604	1.0	60%	None

Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 2018;

Notes:
1. Average daily flow reported for 2018.
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day

Cayucos Sanitary District

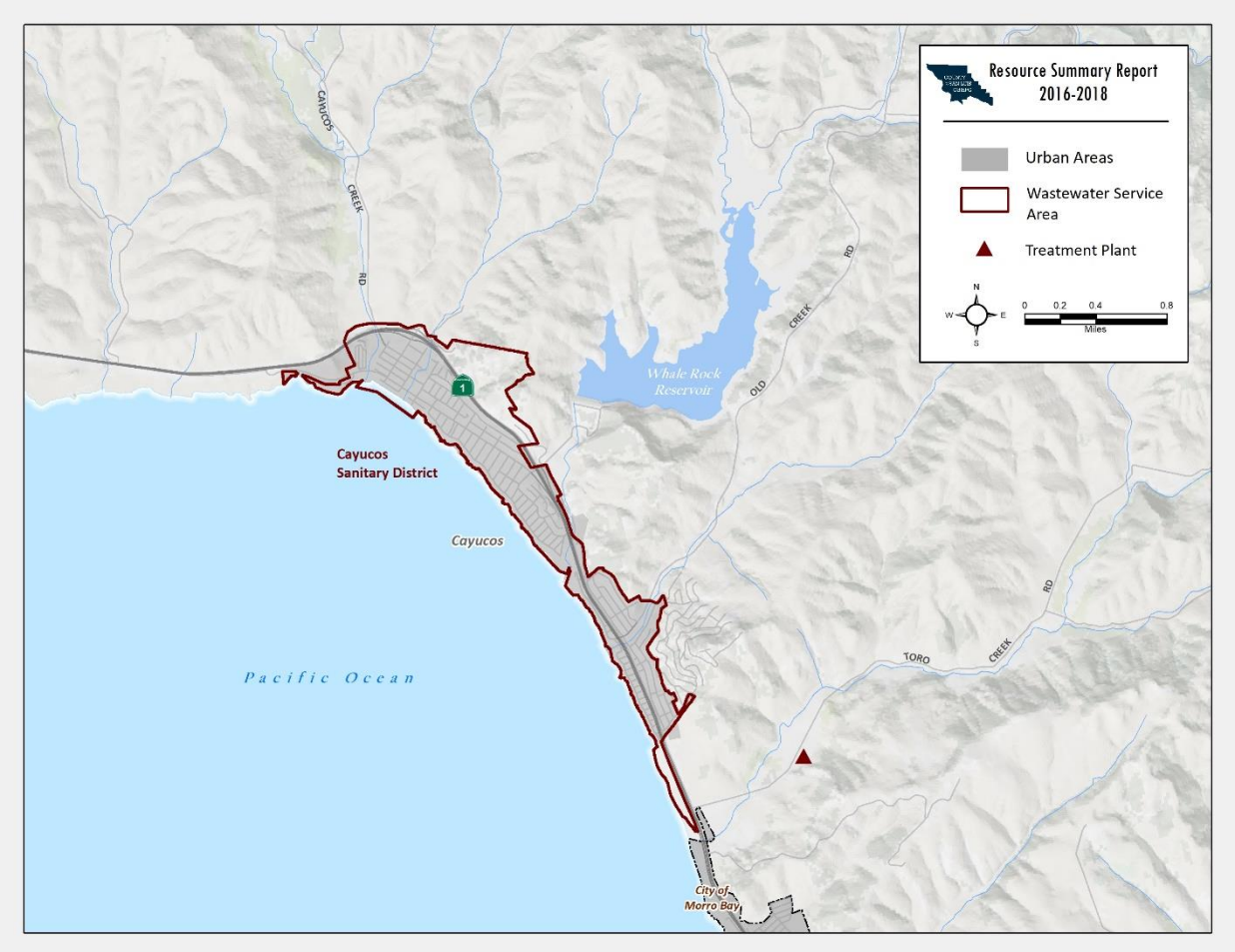


Figure III-4 – Cayucos Sanitary District

The Cayucos Sanitary District (CSD) operates a wastewater collection system that serves the community of Cayucos. By agreement, the CSD is allotted 0.721 MGD of the Morro Bay treatment plant capacity which has a design capacity of 2.36 MGD. Current (2018) average daily flows from the CSD and the City of Morro Bay (combined population 12,714) is 1.02 MGD, or 44% of design capacity.

The CSD is pursuing construction of a water recycling plant separately from the City of Morro Bay. The preferred project site is located on the south side of Toro Creek Road about 1 mile north of the City of Morro Bay (Figure III-4). The new plant will be designed to treat to tertiary standards and will provide recycled water for beneficial reuse. An environmental impact report is currently being prepared to evaluate the potential environmental impacts associated with construction and operation of the treatment plant on the project site and an alternative site located on Willow Creek Road (Figure III-4). It is anticipated that the plant will be operational in 2019. In the meantime, based on the projected growth in population

within the CSD service area, the existing plant is expected to operate well below capacity for the next six years or more. **No levels of severity are recommended for either collection or treatment**.

Table III-4 -- Cayucos Sanitary District -- Recommended Levels of Severity for Wastewater Treatment
Based on the 1996 RMS Coastal Criteria

2018 Service Area Population	Current Average Daily Flow (MGD)	2024 Service Area Population	2024 Estimated Average Daily Flow (MGD)	Design Flow[1] (MGD)[2]	Percent of Design Flow In 2024	Recommended Levels of Severity
12,714	1.02	13,992	1.132	2.36	48%	None

Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 2018;
Notes:

1. Average daily flow reported for 2018.
2. Design Flow = average daily dry weather flow in million gallons per day. Represents to combined flow of the CSD and City of Morro Bay.
3. MGD = Million gallons per day

County Service Area 18 -- Country Club Estates

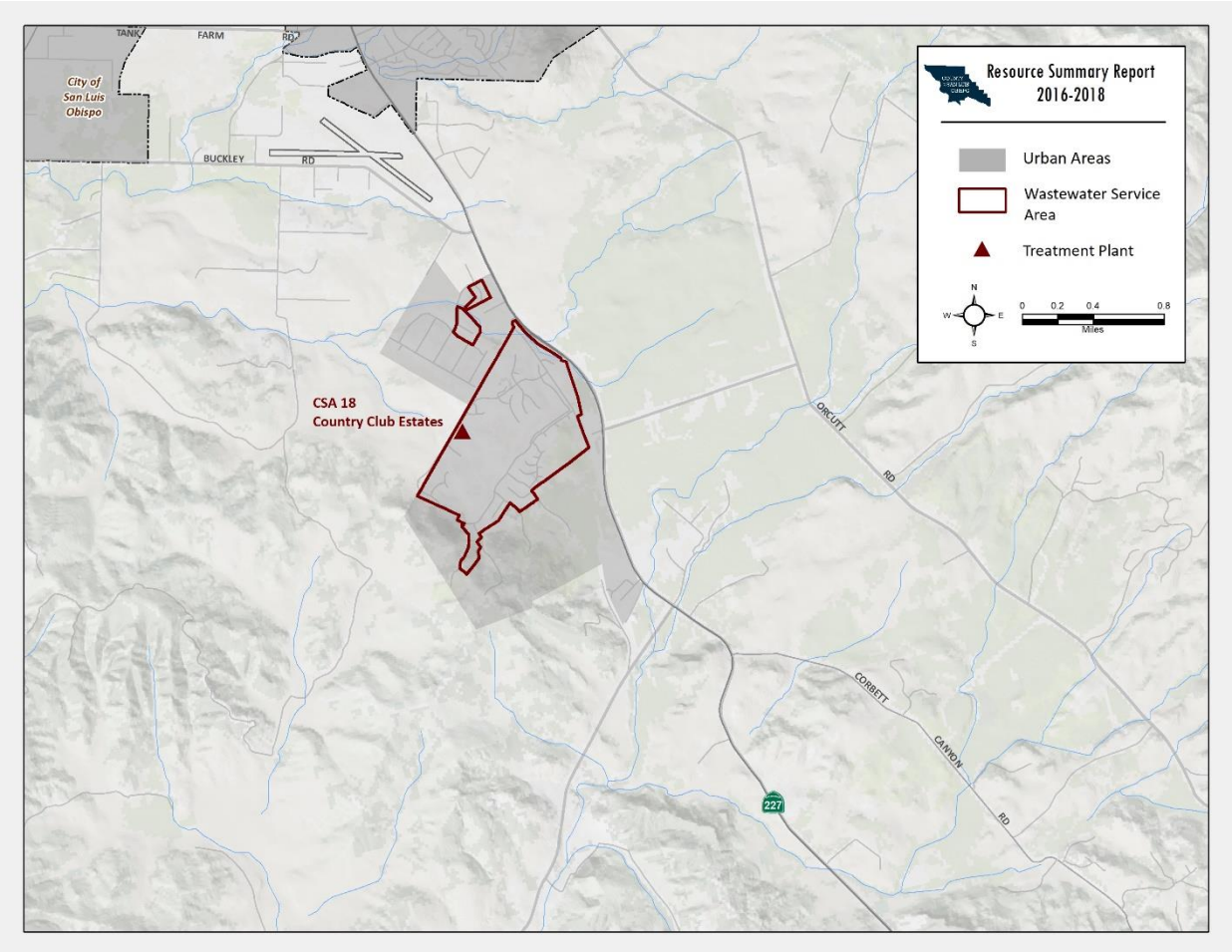


Figure III-5 – County Service Area 18 - Country Club Estates

County Service Area 18 operates a wastewater collection, treatment and disposal system that serves the Country Club Estates area south of the City of San Luis Obispo. The treatment plant has a design flow of 0.12 MGD; current (2018) average daily flows are 0.059 MGD, or 49% of design capacity. Based on the projected growth in population within the service area, the plant is expected to operate well below capacity for the next four years or more. The County has no plans to expand or upgrade the collection system, treatment plant or disposal system. **No levels of severity are recommended for either collection or treatment**

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Table III-5 -- CSA 18 Country Club Estates -- Recommended Levels of Severity for Wastewater Treatment
Based on the 2014 Inland RMS Criteria

2018 Service Area Population	Current Average Daily Flow[1] (MGD)	2018 Service Area Population	2022 Estimated Average Daily Flow (MGD)	Design Flow[2] (MGD)[3]	Percent of Design Flow In 2022	Recommended Levels of Severity
881	0.059	908	0.054	0.12	51%	None

Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 2018;
Notes:

1. Average daily flow reported for 2018.
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day

Heritage Ranch CSD and Oak Shores CSA

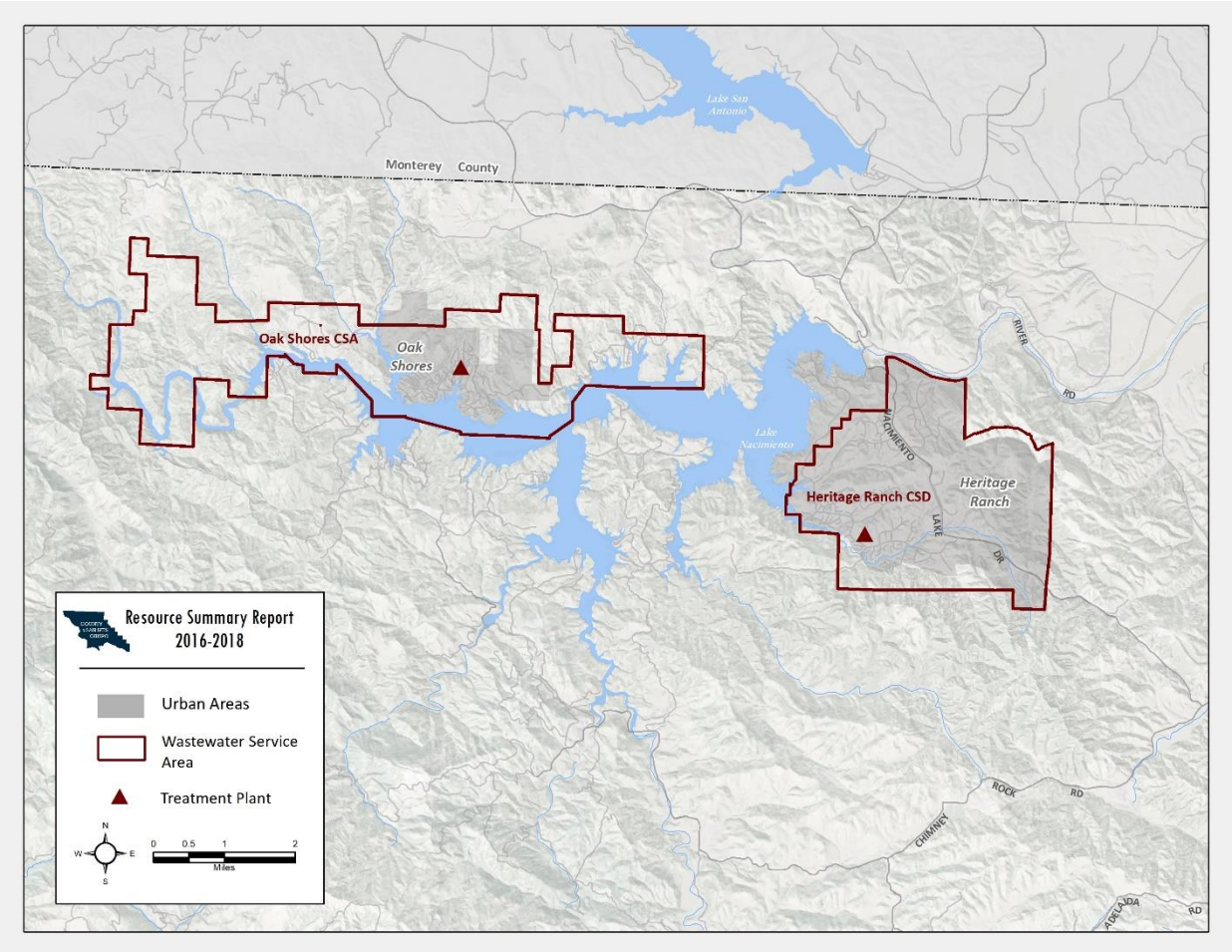


Figure III-6 – Heritage Ranch CSD and Oak Shores CSA Wastewater Service Areas

The Heritage Ranch CSD operates a wastewater collection, treatment and disposal system that serves the community of Heritage Ranch at the east end of Lake Nacimiento. The treatment plant has a design flow of 0.4 MGD; current (2018) average daily flows are 0.139 MGD, or 35% of design capacity. Because of more stringent effluent regulations and future population growth, the CSD is investigating the need for improvements to the wastewater treatment system. The first step will involve an analysis of the current treatment plant and recommendations on what upgrades should be made to comply with future discharge regulations and to insure adequate capacity.

Based on the projected growth in population within the CSD service area, the plant is expected to operate below capacity for the next four years or more. **No levels of severity are recommended for either collection or treatment**.

Table III-6 -- Heritage Ranch CSD -- Recommended Levels of Severity for Wastewater Treatment
Based on the 2014 Inland RMS Criteria

2018 Service Area Population	Current Average Daily Flow[1] (MGD)	2022 Service Area Population	2022 Estimated Average Daily Flow (MGD)	Design Flow[1] (MGD)[2]	Percent of Design Flow In 2022	Recommended Levels of Severity
2,436	0.139	2,507	0.143	0.4	36%	None

Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 2018;

Notes:
1. Average daily flow reported in 2018.
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day

The Oak Shores County Service Area operates a wastewater collection, treatment and disposal system that serves the community of Oak Shores on the northern shore of Lake Nacimiento. The treatment plant has a design flow of 0.10 MGD; current (2018) average daily flows are 0.038 MGD, or 35% of design capacity. Based on the projected growth in population within the service area, the plant is expected to operate well below capacity for the next four years or more. The CSA has no plans to expand or upgrade the collection system, treatment plant or disposal system. **No levels of severity are recommended for either collection or treatment**. See Figure III-5.

Table III-7 -- Oak Shores CSA -- Recommended Levels of Severity for Wastewater Treatment
Based on the 2014 Inland RMS Criteria

2018 Service Area Population	Current Average Daily Flow[1] (MGD)	2022 Service Area Population	2022 Estimated Average Daily Flow (MGD)	Design Flow[2] (MGD)[3]	Percent of Design Flow In 2022	Recommended Levels of Severity
344	0.038	354	0.039	0.10	39%	None

Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 2018;

Notes:
1. Average daily flow reported in 2018.
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day

Los Osos Water Recycling Facility

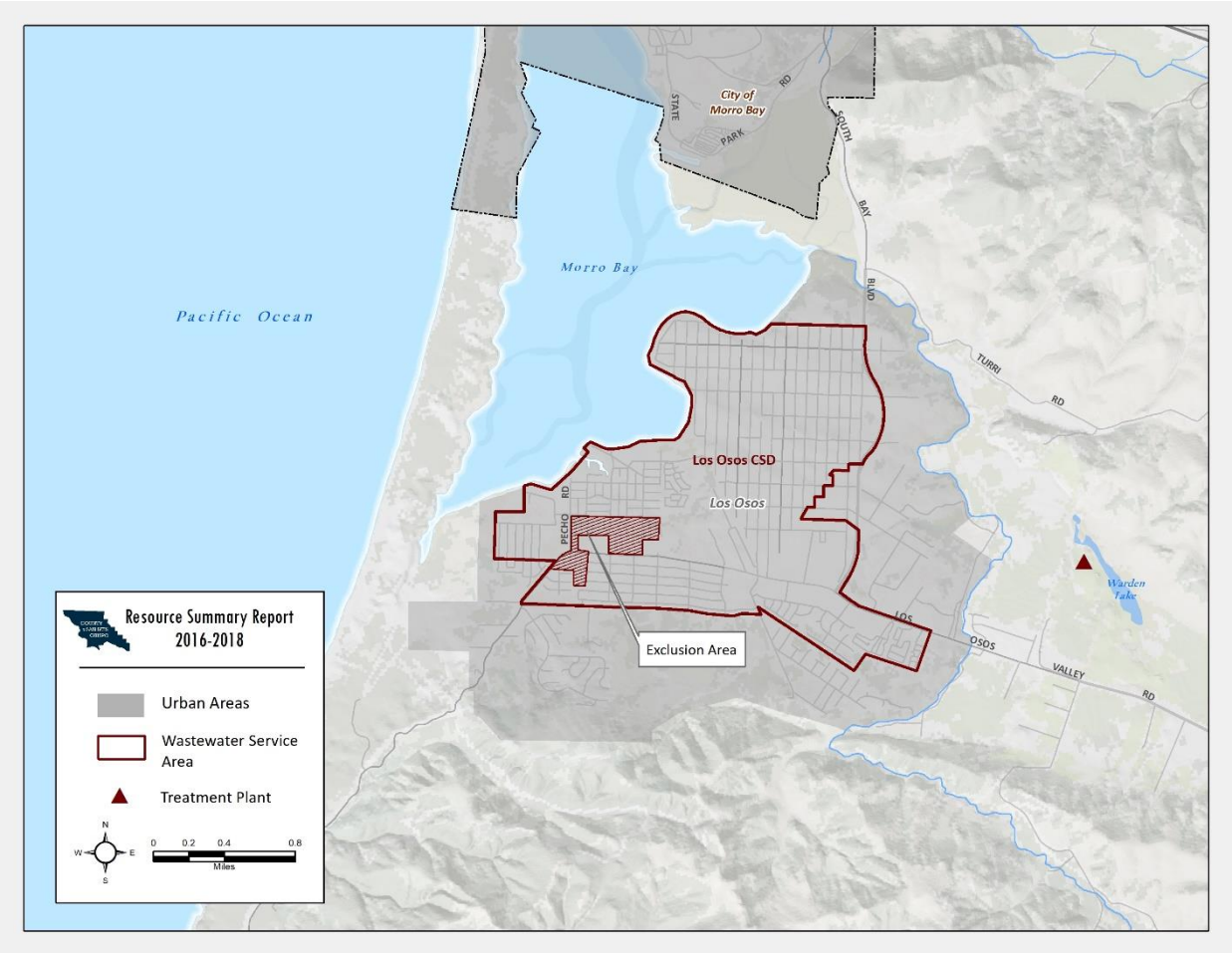


Figure III-7 Los Osos Water Recycling System Service Area

The Los Osos Water Recycling Facility (LOWRF) is currently operated by the County and serves the community of Los Osos/Baywood Park. The treatment plant has a design capacity of 1.2 MGD; current (2018) average daily flows are 0.41 MGD, or 35% of design capacity. Based on the projected growth in population within the LOWRF service area, the plant is expected to operate well below capacity for the next six years or more. **No levels of severity are recommended for either collection or treatment**.

Table III-8 -- Los Osos Water Recycling Facility -- Recommended Levels of Severity for Wastewater Treatment
Based on the 1996 RMS Coastal Criteria

2018 Service Area Population	Current Average Daily Flow [1] (MGD)	2024 Service Area Population	2024 Estimated Average Daily Flow (MGD)	Design Flow [2] (MGD) [3]	Percent of Design Flow In 2024	Recommended Levels of Severity
14,047	0.416	15,827	0.455	1.20	48%	None

Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 2018;

Notes:
1. Average daily flow reported for 2018.
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day

Nipomo CSD – Black Lake

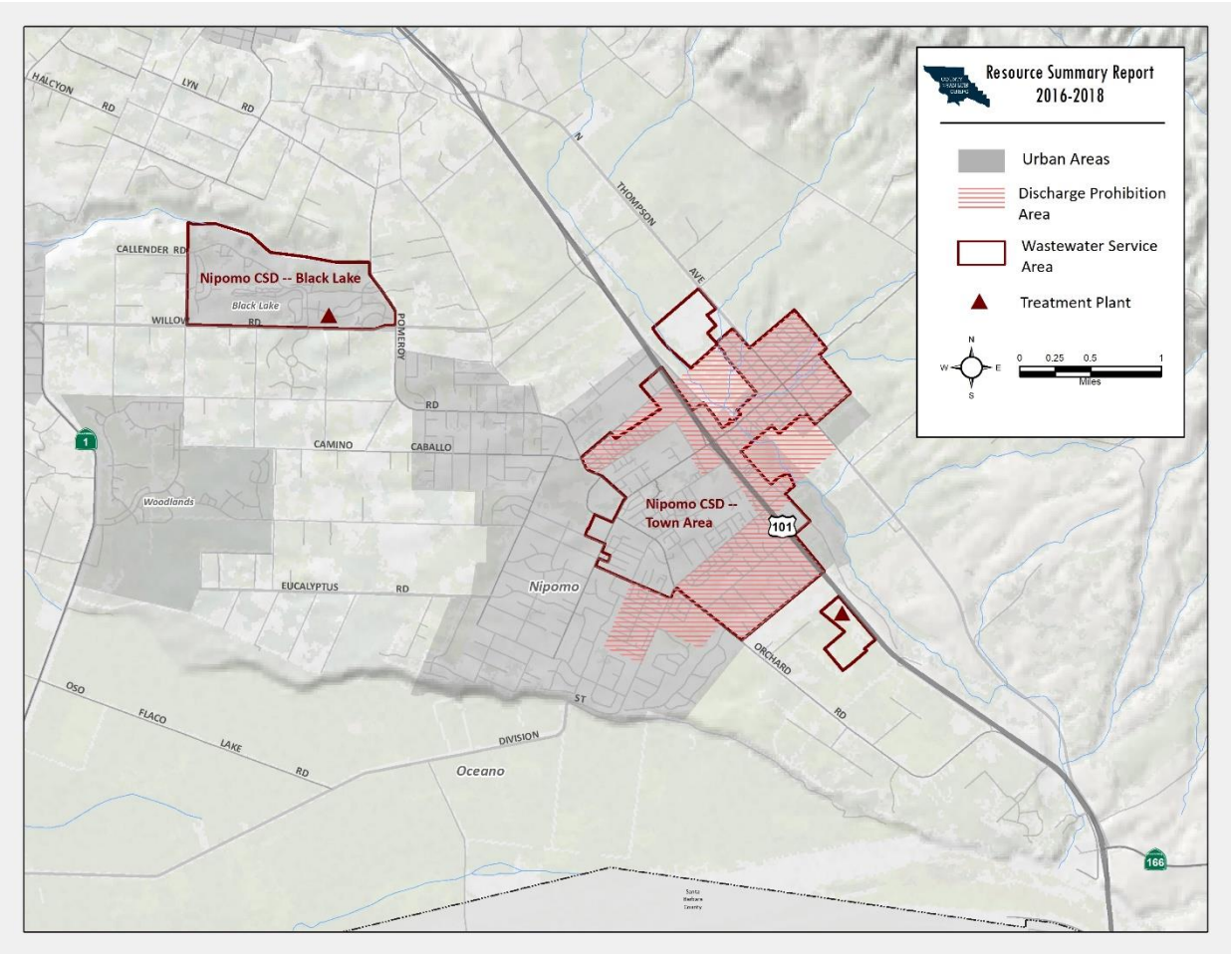


Figure III-8 – Nipomo CSD Wastewater Service Areas

The Nipomo CSD operates two wastewater collection and treatment systems: one serving the Black Lake area and one serving the Town Area of the community of Nipomo (discussed below). The Black Lake system has a design flow of 0.10 MGD; current (2018) average daily flows are 0.046 MGD, or 46% of design capacity. Based on the projected growth in population within the Black Lake service area, the plant is expected to operate well below capacity for the next four years or more. The CSD has no plans to expand or upgrade the collection system, treatment plant or disposal system.

No levels of severity are recommended for either collection or treatment.

Table III-9 -- Nipomo CSD Black Lake -- Recommended Levels of Severity for Wastewater Treatment
Based on the 2014 Inland RMS Criteria

2018 Service Area Population	Current Average Daily Flow[1] (MGD)	2022 Service Area Population	2022 Estimated Average Daily Flow (MGD)	Design Flow[2] (MGD)[3]	Percent of Design Flow In 2022	Recommended Levels of Severity
868	0.046	869	0.046	0.10	46%	None

Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 2018;

Notes:
1. Average daily flow reported in 2018.
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day

Nipomo CSD – Southland Treatment Plant

The Nipomo CSD operates a wastewater collection, treatment and disposal system that serves the Town Area of the community of Nipomo. The treatment plant has a design flow of 0.9 MGD; current (2018) average daily flows are 0.559 MGD, or 62% of design capacity. In September, 2014, the CSD completed the first phase of a three-phase upgrade to the Southland wastewater treatment plant. Phase I will improve the treatment capability of the plant but will not increase treatment capacity. Completion of all three phases of improvements (to be completed as needed, depending on the rate of population growth) will expand treatment capacity to a 1.8 MGD from its current capacity of 0.9 million gallons per day.

Based on the projected growth in population within the Town Area portion of the CSD service area, along with the planned improvements to the treatment plant, the wastewater system is expected to operate below capacity for the next four years or more. **No recommended levels of severity for either collection or treatment**.

Table III-10 -- Nipomo CSD Southland Treatment Plant -- Recommended Levels of Severity for Wastewater Treatment
Based on the 2014 Inland RMS Criteria

2018 Service Area Population	Current Average Daily Flow[1] (MGD)	2022 Service Area Population	2022 Estimated Average Daily Flow (MGD)	Design Flow[2] (MGD)[3]	Percent of Design Flow In 2022	Recommended Levels of Severity
16,911	0.559	15,859	0.567	0.9	63%	None

Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 2018;

Notes:

1. Average daily flow reported in 2018.
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day

San Miguel CSD

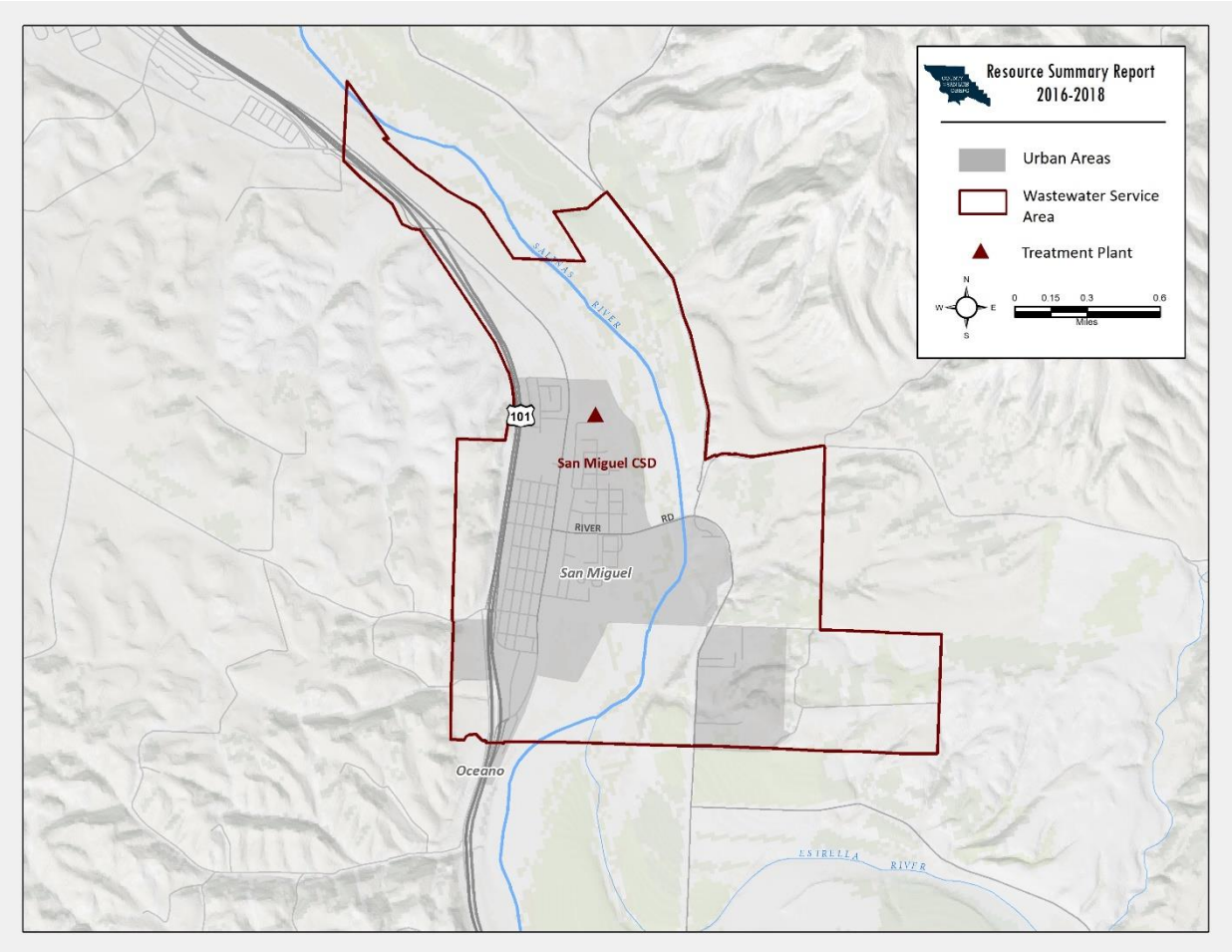


Figure III-9 – San Miguel CSD Wastewater Service Area

The San Miguel CSD operates a wastewater collection, treatment and disposal system that serves the community of San Miguel in northern San Luis Obispo County. The treatment plant has a design flow of 0.45 MGD; current (2018) average daily flows are 0.147 MGD, or 33% of design capacity. Based on the projected growth in population within the CSD service area, the plant is expected to operate well below capacity for the next four years or more.

The CSD has no plans to expand or upgrade the collection system, treatment plant or disposal system. **No levels of severity are recommended for either collection or treatment**.

Table III-11 -- San Miguel CSD -- Recommended Levels of Severity for Wastewater Treatment
Based on the 2014 Inland RMS Criteria

2018 Service Area Population	Current Average Daily Flow[1] (MGD)	2022 Service Area Population	2022 Estimated Average Daily Flow (MGD)	Design Flow[2] (MGD)[3]	Percent of Design Flow In 2022	Recommended Levels of Severity
2,443	0.147	2,570	0.155	0.45	34%	None

Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 2018;

Notes:
1. Average daily flow reported in 2018.
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day

San Miguelito Mutual Water Company

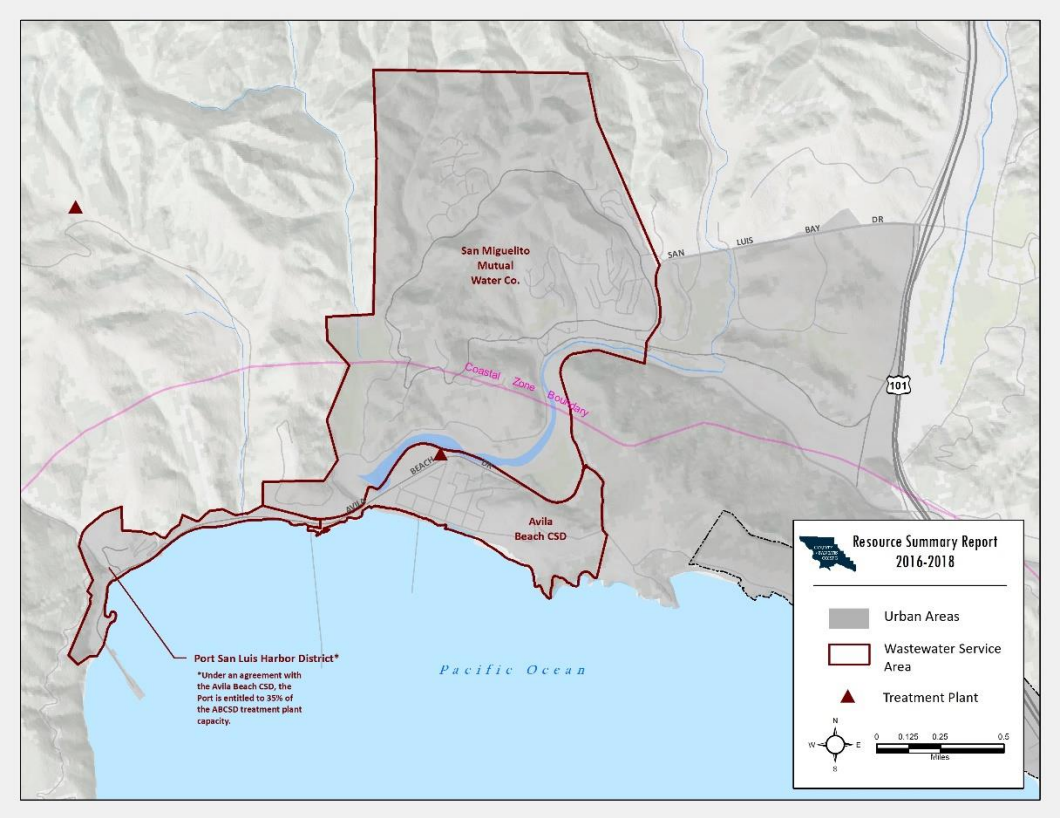


Figure III-10 – San Miguelito Mutual Water Company Wastewater Service Area

The San Miguelito Mutual Water Company (SMMWC) operates a wastewater collection, treatment and disposal system that serves a portion of the Avila Valley north of the community of Avila Beach. The treatment plant has a design flow of 0.15 MGD; current (2018) average daily flows are 0.069 MGD, or 46% of design capacity. Based on the projected growth in population within the service area, the treatment plant is expected to operate well below capacity for the next six years or more.

No levels of severity are recommended for either collection or treatment.

Table III-12 -- San Miguelito Mutual Water Company -- Recommended Levels of Severity for Wastewater Treatment
Based on the 1996 RMS Coastal Criteria

2018 Service Area Population	Current Average Daily Flow[1] (MGD)	2024 Service Area Population	2024 Estimated Average Daily Flow (MGD)	Design Flow[2] (MGD)[3]	Percent of Design Flow In 2024	Recommended Levels of Severity
612	0.069	631	0.090	0.15	47%	None

Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 2018;

Notes:

1. Average daily flow reported in 2018.
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day

San Simeon CSD

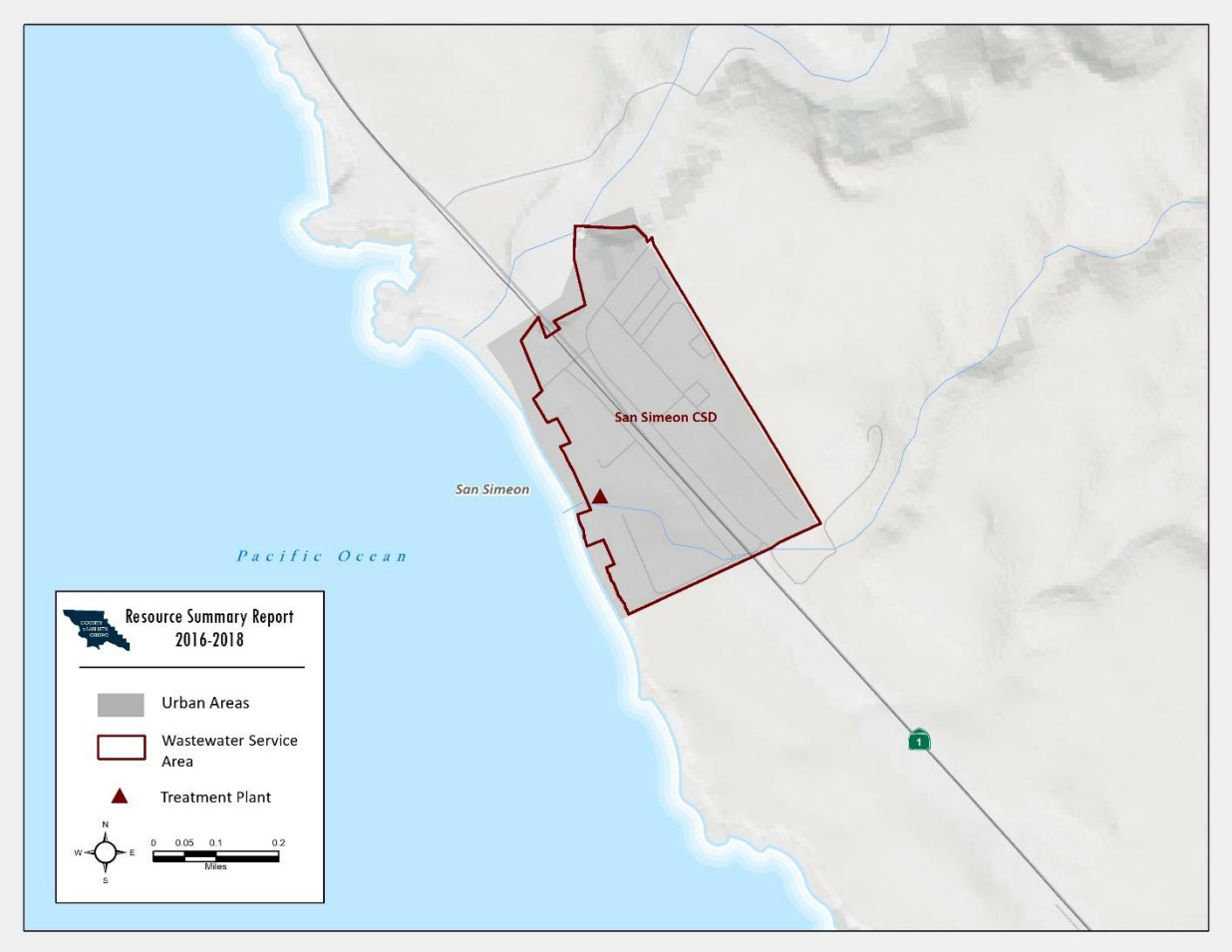


Figure III-11 – San Simeon CSD Wastewater Service Area

The San Simeon CSD operates a wastewater collection, treatment and disposal system that serves the community of San Simeon as well as Hearst Castle. By agreement, Hearst Castle is allotted 0.05 MGD of the San Simeon treatment plant capacity. The treatment plant has a design flow of 0.2 MGD; current (2018) average daily flows are 0.082 MGD, or 41% of design capacity. Based on the projected growth in population within the CSD service area, the plant is expected to operate well below capacity for the next six years or more.

The CSD has no plans to expand or upgrade the collection system, treatment plant or disposal system. **No levels of severity are recommended for either collection or treatment**.

Table III-13 -- San Simeon CSD -- Recommended Levels of Severity for Wastewater Treatment
Based on the 1996 RMS Coastal Criteria

2018 Service Area Population	Current Average Daily Flow[1] (MGD)	2024 Service Area Population	2024 Estimated Average Daily Flow (MGD)	Design Flow[2] (MGD)[3]	Percent of Design Flow In 2024	Recommended Levels of Severity
451	0.082	452	0.082	0.2	41%	None

Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 2018;

Notes:
1. Average daily flow reported for 2018.
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day

South San Luis Obispo County Sanitation District

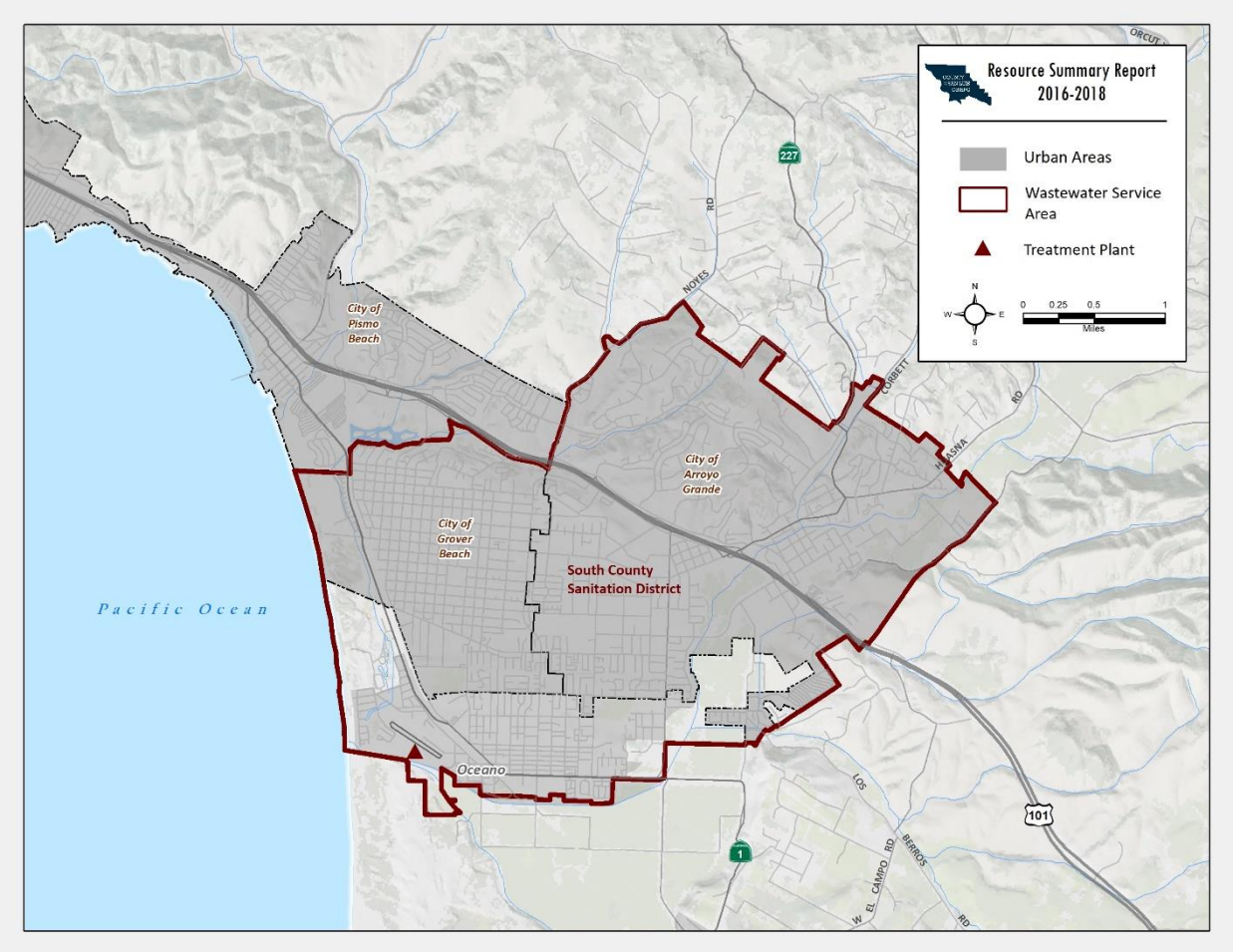


Figure III-12 – South San Luis Obispo County Sanitation District

The South San Luis Obispo County Sanitation District (SSLOCSD) operates a wastewater collection, treatment and disposal system serving a population of about 39,000 within the cities of Arroyo Grande and Grover Beach, as well as the unincorporated community of Oceano. The treatment plant has a design flow of 3.3 MGD; current (2018) average daily flows are 2.48 MGD, or 75% of design capacity.

The District owns and operates nearly 9 miles of collection sewer referred to as the District Trunk Line. The purpose of this line is to allow for the collective transport of wastewater from the smaller municipal lines of the three member agencies to the final destination of the District's Wastewater Treatment Plant. The Trunk Line was initially constructed as part of the original District design of 1963. It is comprised of sewer pipe ranging in size from 15-30 inches in diameter.

Based on the projected growth in population within the SSLOCSD service area, the plant is expected to operate well below capacity for the next six years or more. The SSLOCSD has no plans to expand or upgrade the collection system, treatment plant or disposal system. The SSLOCSD has implemented an ongoing program to monitor inflow and infiltration to determine the sources of such flows and to implement corrective measures. **No levels of severity are recommended for either collection or treatment**.

Table III-14 -- South San Luis Obispo County Sanitation District -- Recommended Levels of Severity for Wastewater Treatment
Based on the 1996 RMS Coastal Criteria

2018 Service Area Population	Current Average Daily Flow[1] (MGD)	2024 Service Area Population	2024 Estimated Average Daily Flow (MGD)	Design Flow[2] (MGD)[3]	Percent of Design Flow In 2024	Recommended Levels of Severity
39,060	2.48	40,715	2.59	3.3	79%	None

Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 2018;

Notes:

1. Average daily flow reported for 2018.
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day

Templeton CSD

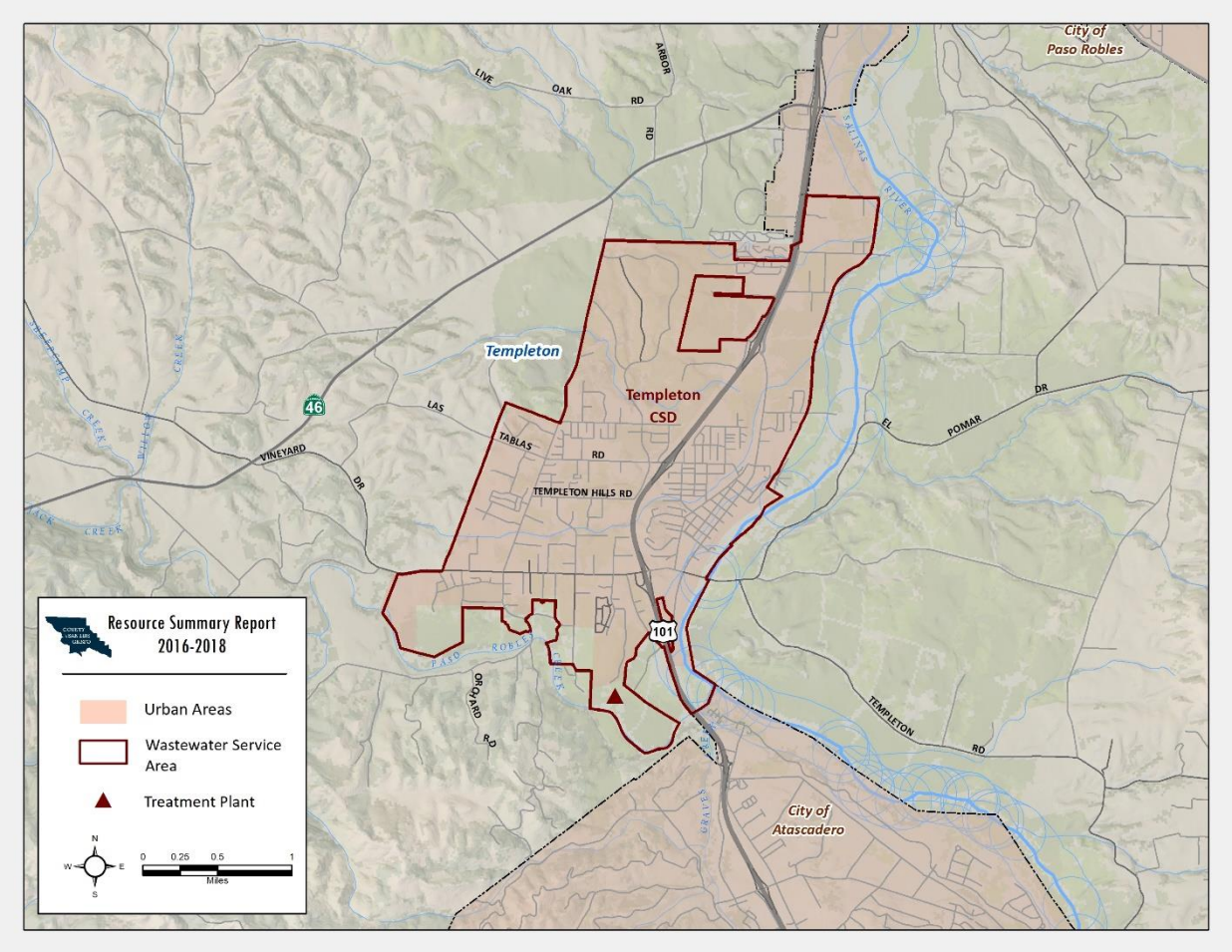


Figure III-13 – Templeton CSD Wastewater Service Area

The Templeton CSD operates a wastewater collection system that serves the community of Templeton. There are two wastewater tributary areas. The area on the west side of Highway 101 flows to the CSD-owned Meadowbrook Wastewater Treatment Plant. The majority of flows generated by the east side of Highway 101 are sent to the Paso Robles treatment plant. By agreement, the Templeton CSD is allotted 0.443 MGD of the Paso Robles treatment plant capacity.

The Templeton CSD Meadowbrook system has a design flow capacity of 0.60 MGD; current (2018) average daily flows are 0.166 MGD, or 28% of design capacity. Based on the projected growth in population within the CSD service area, the capacity of the treatment plant is not expected to be reached for the next twenty-five years or more. For the portion of the community served by the City of Paso Robles wastewater treatment plant (about 60%) the 2018 estimated average daily flow is about 0.301 MGD or about 68% of the community's allotted capacity. Based on the projected growth in population within the service area, the

community's allotted capacity of the treatment plant is not expected to be reached for the next twenty-five years or more.

In 2018, the TCSD began construction of the Upper Salinas River Basin Conjunctive Use Project (US CUP). The US CUP will redirect all of the wastewater generated in the east side of the community to the Meadowbrook WWTP, thereby increasing the community's potential water supply by an additional 242 acre-feet per year (AFY).

The Paso Robles WWTP was originally constructed in 1954 and though it has been upgraded several times, it is not capable of meeting its Waste Discharge Requirements to the extent that it has incurred significant fines for violations and a replacement of the WWTP is necessary. In 2015 the City completed a major upgrade of the Plant to a Biological Nutrient Removal process. The upgrade project included new headworks, rehabilitation of primary clarifiers, a new pump station, replacement of trickling filters with the Biological Nutrient Removal process, new secondary clarifiers, a chloramination disinfection process, a new effluent polishing channel, and a system that generates power and heat from biogas generated by digestion of sludge. This new treatment process effectively removes all harmful pollutants from the wastewater and is highly energy efficient. The upgraded treatment process enables the City to produce high quality recycled water in the future.

The City is presently constructing additional treatment facilities (filtration plus ultraviolet light disinfection) needed to produce tertiary quality recycled water. These facilities will be substantially complete in late 2018. The City is also presently designing a major distribution system to deliver recycled water to east Paso Robles. The distribution system project should be ready to start construction in late 2018.

No levels of severity are recommended for either collection or treatment.

Table III-15 -- Templeton CSD Wastewater Treatment – Recommended Levels of Severity for Wastewater Treatment
Based on the 2014 Inland RMS Criteria

Treatment Plant	2018 Service Area Population	Current Average Daily Flow[1] (MGD)	2022 Service Area Population	2022 Estimated Average Daily Flow (MGD)	Design Flow[2] (MGD)[3]	Percent of Design Flow In 2022	Recommended Levels of Severity
Meadowbrook WWTP	3,128	0.166	3,220	0.0171	0.600	28%	None
City of Paso Robles WWTP – Capacity Allocated to Templeton CSD	4,693	0.301	4,830	0.310	0.443[4]	70%[4]	None
City of Paso Robles WWTP -- Total	36,885	2.37	39,286	2.57	4.9	50%	None

Sources: San Luis Obispo County Department of Public Works, 2018; Central Coast RWQCB, 201;

Notes:

1. Average daily flow reported for 2018.
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day
4. The portion of the City's wastewater treatment plant allotted to the Templeton CSD (0.443 MGD).

Summary of Recommended Levels of Severity for Wastewater Treatment

Tables III-12 and III-13 provide a summary of the recommended Levels of Severity for wastewater treatment based on the 2014 Inland and 1996 Coastal RMS criterial.

Table III-16 – Recommended Levels of Severity for Wastewater Treatment – 1996 Coastal RMS Criteria

Agency	2018 Service Area Population	Current Average Daily Flow[1] (MGD)	2018 Per Capita Average Daily Flow (MGD)	2024 Service Area Population	2024 Estimated Average Daily Flow (MGD)	Design Flow[2] (MGD)[3]	Percent of Design Flow In 2024	Recommended Levels of Severity
Avila Beach CSD[4]	1,495	0.055	0.0000588	1,536	0.089	0.2	45%	None
Cambria CSD[5]	6,038	0.602	0.0000997	6,055	0.604	1.0	60%	None
Cayucos Sanitary District/Morro Bay Wastewater Treatment Plant[6]	12,714	1.02	0.0000809	13,992	1.132	2.36	48%	None
Los Osos Water Recycling Facility	14,047	0.416	0.0000287	15,827	0.455	1.20	48%	None
San Miguelito Mutual Water Co.	612	0.069	0.000112	631	0.090	0.15	47%	None
San Simeon CSD	451	0.082	0.0001818	452	0.082	0.2	41%	None
South San Luis Obispo County Sanitation District[6]	39,060	2.488	0.0000636	40,715	2.593	3.3	79%	None

Sources: San Luis Obispo County Department of Public Works, 2016; Central Coast RWQCB, 2018; Department of Building and Planning, 2018

Table III-17 – Recommended Levels of Severity for Wastewater Treatment – 2014 Inland RMS Criteria								
Agency	**2018 Service Area Population**	**Current Average Daily Flow[1] (MGD)**	**2018 Per Capita Average Daily Flow (MGD)**	**2022 Service Area Population**	**2022 Estimated Average Daily Flow (MGD)**	**Design Flow[2] (MGD)[3]**	**Percent of Design Flow In 2022**	**Recommended Levels of Severity**
Country Club Estates – CSA 18	881	0.059	0.0006969	908	0.061	0.12	51%	None
Heritage Ranch CSD	2,436	0.139	0.0000570	2,507	0.143	0.4	36%	None
Nipomo CSD – Black Lake	868	0.046	0.00005299	869	0.046	0.10	46%	None
Nipomo CSD – Southland Treatment Plant	16,911	0.559	0.0000330	15,859	0.567	0.9	63%	None
San Miguel CSD	2,443	0.147	0.0000601	2,570	0.155	0.45	34%	None
Oak Shores CSA[7]	344	0.0380	0.0000110	354	0.039	0.1	39%	None
Templeton CSD – Meadowbrook WWTP	3,128	0.1660	0.0000530	3,220	0.171	0.600	28%	None
Templeton CSD – Paso Robles WWTP[8]	4,693	0.301	0.0000642	4,830	0.310	0.443	70%	None
City of Paso Robles -- Total	36,885	2.37	0.0000642	39,286	2.57	4.9	50%	None

Sources: San Luis Obispo County Department of Public Works, 2016; Central Coast RWQCB, 2018; Department of Building and Planning, 2018

Notes for Tables III-16 and 17:

1. Average daily flow reported for 2015.
2. Design Flow = average daily dry weather flow in million gallons per day.
3. MGD = Million gallons per day
4. CSD = Community Services District
5. By agreement, Hearst Castle is allotted 0,05 MGD of the San Simeon treatment plant capacity.
6. The Morro Bay wastewater treatment plant serves the Cayucos Sanitary District and the City of Morro Bay. By agreement, Cayucos SD is allotted 0.721 MGD of Morro Bay treatment plant capacity.
7. South County Sanitary District serves the cities of Arroyo Grande and Grover Beach and the unincorporated community of Oceano.
8. CSA = County Service Area
9. By agreement, Templeton CSD is allotted 0.443 MGD of the Paso Robles treatment plant capacity.

Septic Systems Recommended Levels of Severity

Santa Margarita

The community of Santa Margarita relies entirely on individual septic systems for wastewater disposal. Septic systems have failed in some parts of the community subject to shallow groundwater levels. According to the 2013 Santa Margarita Community Plan, the location of urban densities on clay soils, combined with poor storm drainage, have created problems for successful septic system operation. In the 1970's, septic systems in Santa Margarita had a 19 percent failure rate during periods of seasonal flooding. Since then, engineered septic systems have been required by the County, and they have shown better performance. However, the County Health Department does not administer an annual septic maintenance inspection program, and the current failure rate is not precisely known.

Drainage problems still exist in Santa Margarita. However, with suitable drainage control, the long term use of septic systems could be feasible if the systems are properly maintained by owners. Development of existing lots should provide adequate areas for leach fields and drainage control. Formation of a flood control zone of benefit would enable the community to pay the necessary costs to resolve flooding problems which in turn may help maintain septic systems in the community.

Continued development of the Santa Margarita Ranch will necessitate the construction of a centralized wastewater system. The development plan for the project includes the dedication of land for a potential future sewage treatment facility of up to ten (10) acres. The capacity, features, location and timing of this potential future sewage treatment facility have not yet been determined.

Although no public data are available regarding the failure rate of existing septic systems, previous system failures suggest this is a persistent problem which could worsen over time. **Recommended Level of Severity I.**

Shandon

According to the 2012 Shandon Community Plan, the community is served by individual septic tank and leach field systems with a majority located on small lots. The Community Plan requires a community wastewater system to be constructed with new development. The wastewater system improvements will consist of a backbone network of gravity sewer pipelines, lift stations, force mains, a waste water treatment facility, and percolation basins. Until a community wastewater system is constructed, existing development may remain on their individual septic systems, as regulated by the RWQCB, where the land uses are not intensified. However, existing development may be required to be connected to the community system in the future as determined by the RWQCB. **No levels of severity are recommended**.

Los Osos

The community of Los Osos previously utilized individual septic systems for wastewater disposal which has resulted in the degradation of water quality in the groundwater basin underlying the community. To address the water pollution problem and help provide a sustainable source of potable water for the community, the County constructed the Los Osos Water Recycling Facility. The project became operational in 2016 and provides wastewater collection, conveyance, treatment and recycled water reuse for Los Osos. As of October 2018, the collection system and Water Recycling Facility are operational. All properties were expected to be connected to the system by March 2017.

As properties have connected to the wastewater system, individual septic systems have been decommissioned and no longer remain in use. **No Recommended Level of Severity.**

Nipomo

Portions of the community of Nipomo are served by on-site septic systems for wastewater disposal. A survey conducted in 1975 found evidence of system failures in 55% of the on-site septic systems within portions of the community. Subsequently the Regional Water Quality Control Board adopted Resolution 78-02 which prohibits waste discharge from individual sewage disposal systems within certain portions of the Nipomo area after July 1982. Subsequently, all properties within this "prohibition zone" and within 50 feet of the Nipomo CSD sewer main are required to connect to the sewer prior to a change of ownership. In the meantime, these properties may continue the use of on-site septic systems. The discharge prohibition zone lies within the existing wastewater service area. **Recommended Level of Severity III for the "prohibition zone" in the Nipomo area**.

Recommended Actions

- Monitor septic system failures in the community of Santa Margarita. The carryover of solids from the septic tank to the leach field is the most common cause of absorption system clogging and failure. Encourage property owners to properly maintain their septic systems.

- Recommend that the Level of Severity III for Los Osos for on-site septic systems be removed.

- Maintain Level of Severity III for the "prohibition zone" in the Nipomo Area.

- Consult with County Environmental Health and RWQCB on actions and monitor water quality for communities in which septic systems continue to be used.

- Evaluate alternatives to septic systems such as a public sewer system, a community septic system maintenance program, or a collection and disposal system to existing onsite treatment tanks in communities in where septic systems continue to be used.

- Identify funding for communities that have a community wastewater treatment facility identified in an approved Public Facility Financing Plan.

IV. ROADS AND INTERCHANGES

Level of Severity Criteria

Methodology

The ability of roads to carry vehicular traffic depends on several factors. The number of travel lanes, the nature of topographic features, the presence and width of roadway shoulders, and the number of other vehicles all affect the capacity of roads. The Highway Capacity Manual, published by the Transportation Research Board, sets standards for these and other factors which determine traffic "Levels of Service" (LOS) ranging from level "A" to "F." They are defined as follows:

LOS "A" Free flow: Unlimited freedom to maneuver and select desired speed.

LOS "B" Stable flow: Slight decline in freedom to maneuver.

LOS "C" Stable flow: Speed and maneuverability somewhat restricted.

LOS "D" Stable flow: Speed and maneuverability restricted. Small increases in volume cause operational problems.

LOS "E" Unstable flow: Speeds are low; freedom to maneuver is extremely difficult. Driver frustration is high during peak traffic periods.

LOS "F" Forced flow: Stoppages for long periods. Driver frustration is high at peak traffic periods.

Level of Service is a useful measure of the relationship between the volume of traffic on a given roadway and the capacity of the roadway to operate safely and efficiently. San Luis Obispo County has established LOS “C” as the threshold for the acceptable operation of roadways and interchanges in rural areas and LOS “D” in urban areas. When a roadway or interchange is projected to operate below these Levels of Service, the County initiates a process to identify, design, fund and construct the necessary improvements to ensure an acceptable LOS is achieved and maintained.

Level of Service is used by the RMS to determine the criteria for the recommended Levels of Severity, as follows:

ROADS

Level of Severity	Roads, Circulation Criteria
I	Traffic volume projections indicate that Level of Service "D" would be reached within five years.
II	Traffic volume projections indicate that Level of Service "D" would be reached within two years.
III	Traffic volume projections indicate that the road or facility is operating at Level of Service "D."

INTERCHANGES

Level of Severity	Highway Interchange Criteria
I	Traffic volume projections indicate that Level of Service "D" would be reached within 10 years**.**
II	Traffic volume projections indicate that Level of Service "D" would be reached within five years.
III	Traffic volume projections indicate that the interchange is operating at Level of Service "D."

Recommended Levels of Severity for County Maintained Roads

The RMS considers only those roads under County jurisdiction. State highways, roadways under the exclusive jurisdiction of cities, and private roads are not evaluated in this report.

For County maintained roads, Public Works maintains an ongoing traffic count program to monitor traffic levels of service. The following table summarizes the levels of service for roadways in the RMS. Volumes that exceed the Level of Service standard (LOS “C” rural; LOS “D” urban) are shown in gray and bold.

Table IV-1 -- Existing (2018) and Future Peak Hour Volumes For RMS Roadway Segments					
Roadway	**Location**	**LOS Volume Threshold**	**Peak Hour Volumes[1]**		
			2018	**2020**	**2023**
Avila Beach Drive	West of San Luis Bay Drive	1280[2]	757	788	836
Corbett Canyon Road	North of Arroyo Grande City Limits	909	427	444	471
Halcyon Road	North of Camino del Rey	898	416	433	459
Halcyon Road	South of Arroyo Grande Creek	904	**928**	**965**	**1,025**
Las Tablas Road	West of Duncan Road	1600	1,076	1119	1,188
Lopez Drive	South of Orcutt Road	886	514	535	567
Los Berros Road	South of El Campo Road	978	**1,224**	**1,273**	**1,351**
Los Osos Valley Road	West of Foothill Boulevard	1,475	1,380	**1,436**	1,524
Los Ranchos Road	West of Highway 227	968	555	577	613
Mission Street	North of Highway 101	1200	542	564	598
Nacimiento Lake Drive	East of Chimney Rock Road	902	458	477	506
O'Connor Way	North of Foothill Road	1084	308	320	340
Paso Robles Street	East of Highway 1	900	131	136	145
Price Canyon Road	South of Highway 227	995	979	**1,019**	**1,081**
Ramada Drive	South of Highway 46	900	490	510	541
South Bay Boulevard	South State Park Road	967	**1,329**	**1,383**	**1,467**
South Ocean Avenue	North of 13th Street	1200	413	430	456
Tank Farm Road	West of Santa Fe Rd	1200	**1,564**	**1,627**	**1,727**
Tefft Street	West of Mary Avenue	2000	1,199	1,247	1,324
Vineyard Drive	West of Highway 46	905	297	309	328
Vineyard Drive	West of Highway 101	1200	898	934	991

Source: San Luis Obispo County Department of Public Works, 2018

1. Volumes that exceed the Level of Service standard (LOS "C" rural; LOS "D" urban) are shown in bold.
2. Avila Beach Drive calculation is based on formula in area plan. All other values are derived from the Highway Capacity Manual (HCM).

Six (6) of the twenty-two RMS roadways operate at LOS D or below under the 2018, 2020, or 2023 conditions; these include:

- Halcyon Road (North of Camino Del Rey/South of Arroyo Grande Creek): Public Works is pursuing funding for shoulder widening on the grade.

- Los Berros: The peak hour volume on Los Berros has nearly doubled over previous years and will need to be monitored. Improvements are included in the South County Circulation Study to widen the roadway and install a two-way left turn lane and bike lanes.

- Los Osos Valley Road (West of Foothill): Los Osos Valley Road operates at LOS E when analyzed as a two-lane roadway. However, Los Osos Valley Road has two (2), one (1) mile long passing relief lanes which provide a LOS benefit. There is currently no funding to construct the widening.

- Price Canyon: Public Works completed shoulder widening between State Highway 227 and Ormonde Road and completed the Class II bike lanes between State Route 227 and the Pismo Beach City Limits. As congestion on US 101 continues additional traffic will use Price Canyon Road.

- South Bay Boulevard (South of State Park Road): The Los Osos Circulation Study includes widening of South Bay Boulevard from Los Osos Valley Road to the Urban Reserve Line. Funds from Los Osos Road Improvement Fees are necessary for the widening; however, the improvement fees are stagnant pending community growth.

- Tank Farm Road (West of State Route 227): The City of San Luis Obispo is planning to widen this portion to four lanes under the Airport Area Specific Plan.

Table IV-2 -- Summary of Recommended Levels of Severity -- Roads		
Roadway Segment	**Community/ Planning Area**	**Recommended Level of Severity**
Avila Beach Drive	Avila	None
Price Canyon Road South of SR 227	South County Planning Area	**II**
Halcyon Road south of Arroyo Grande Creek	Oceano	**III**
Los Berros Road south of El Campo Road	South County	
Tank Farm Road west of Santa Fe Road	San Luis Obispo	

Each of these road segments is shown in Figure IV-1 and discussed below.

Figure IV-1 – RMS Roads Recommended Levels of Severity – Los Osos/San Luis Obispo Area

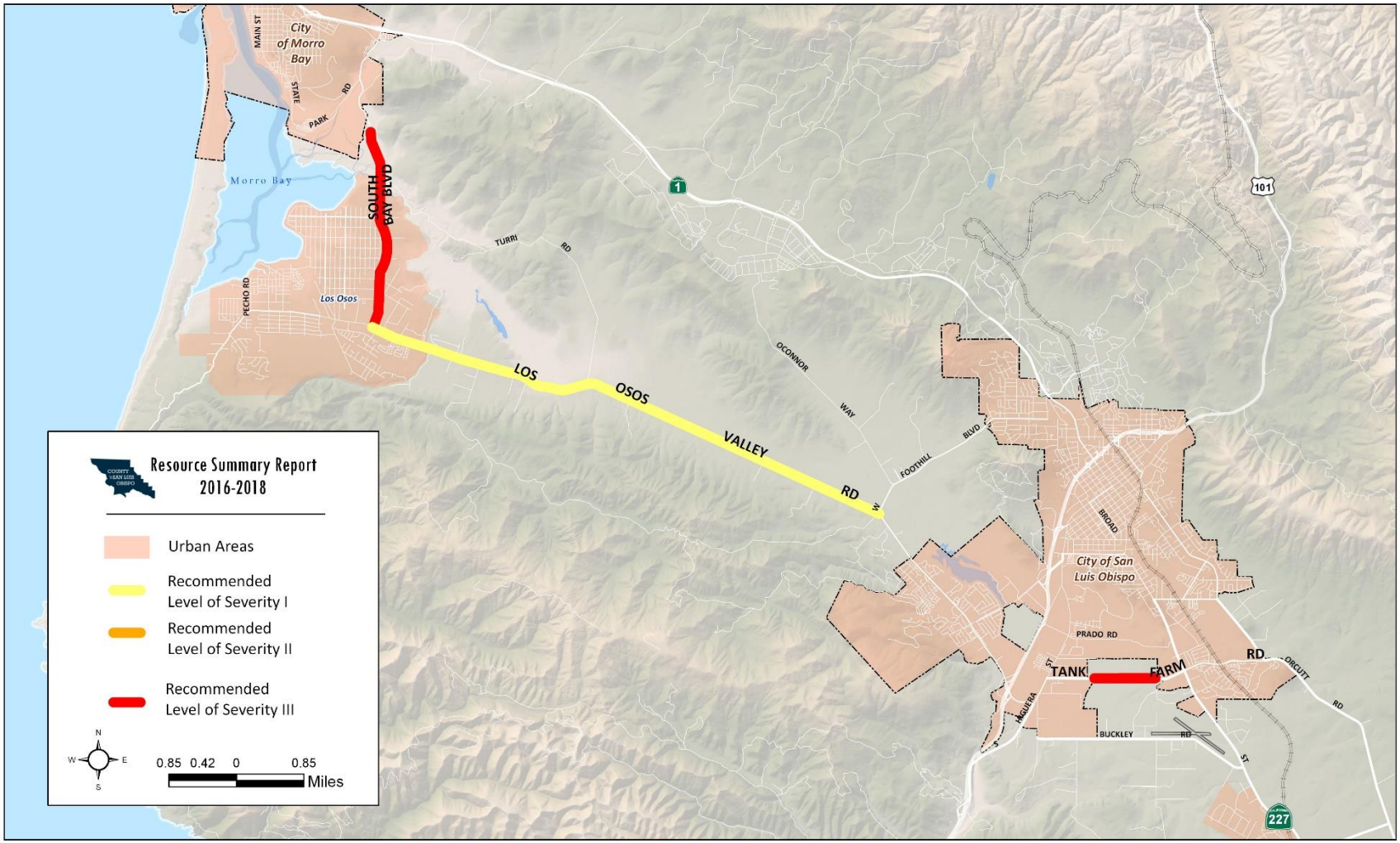
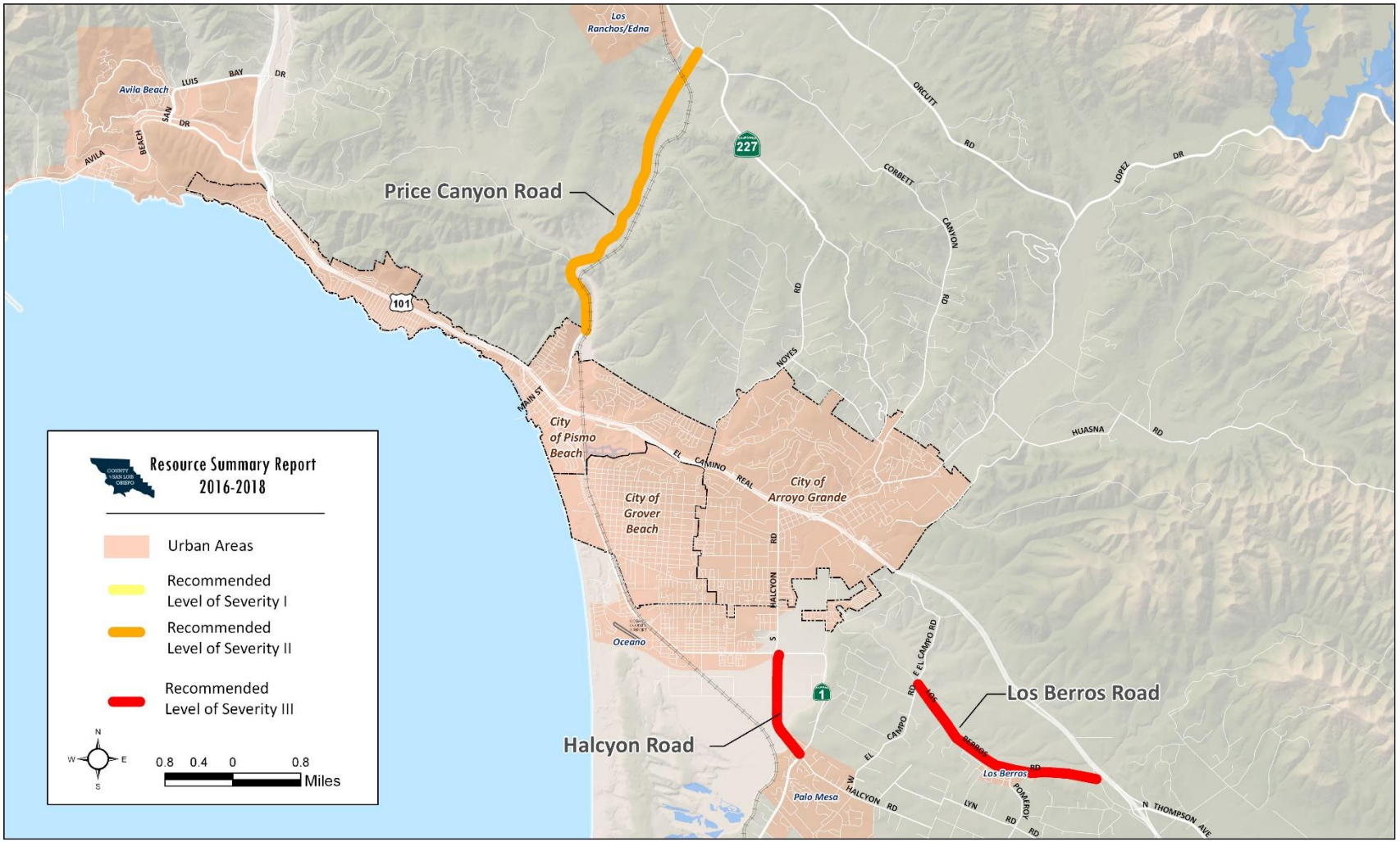
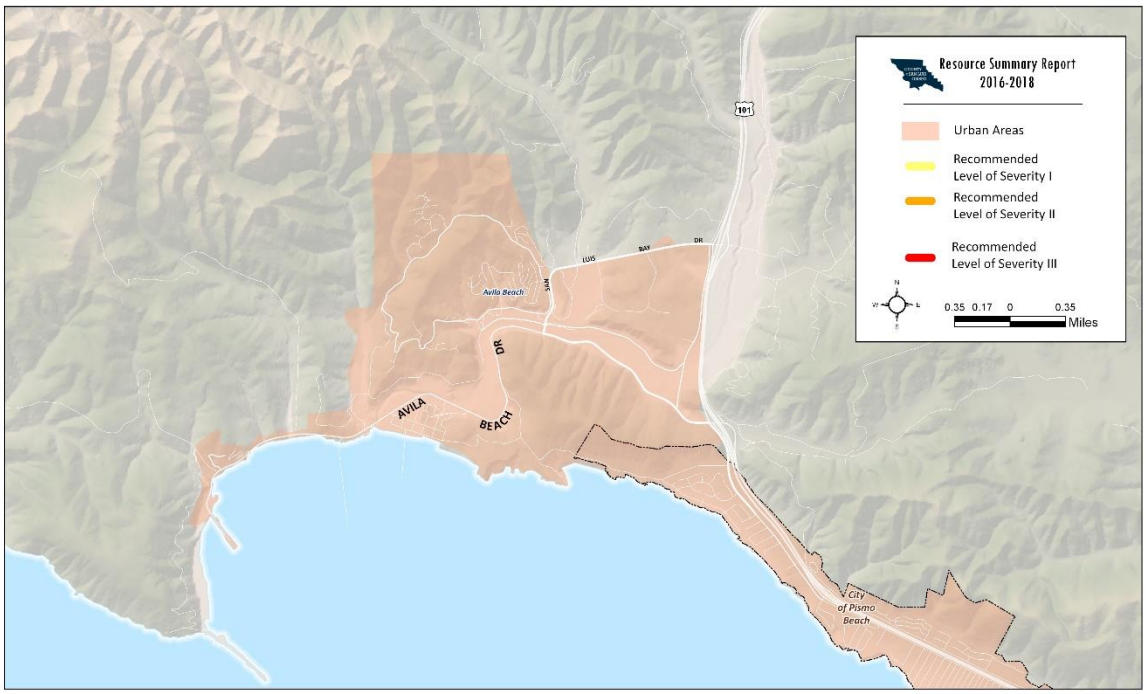


Figure IV-2 – RMS Roads Recommended Levels of Severity – South County



Avila Beach Drive West of San Luis Bay Drive



Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2018	2020	2023
Avila Beach Drive	West of San Luis Bay Drive	1,280	757	788	836

Source: San Luis Obispo County Department of Public Works, 2018

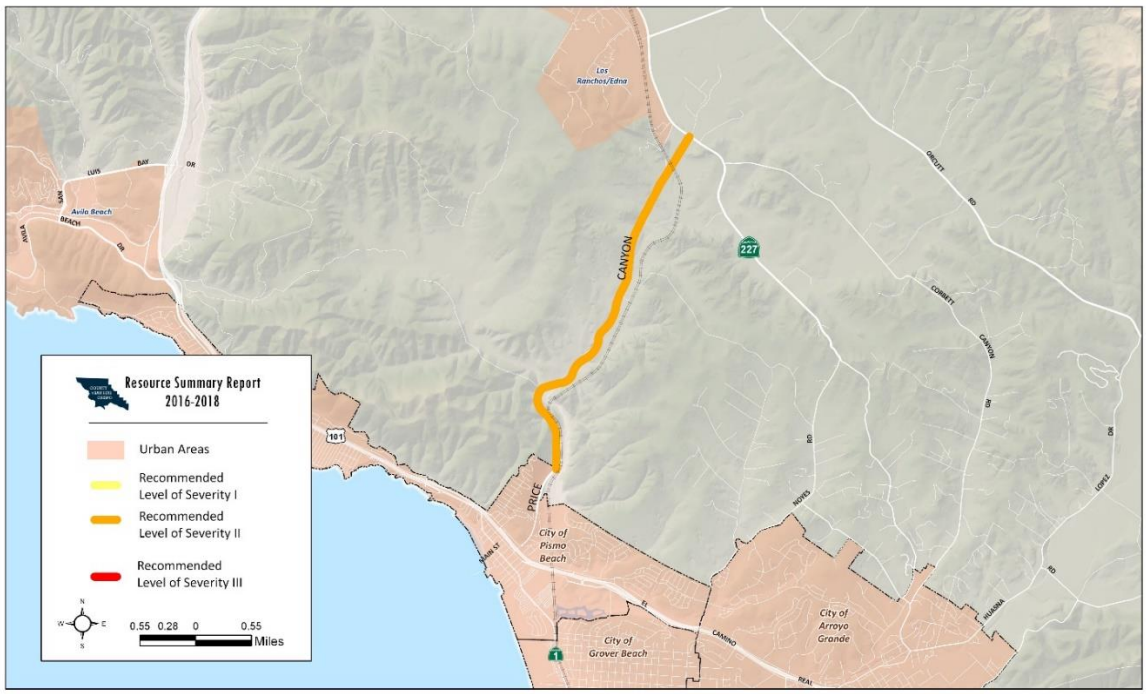
1. Volumes that exceed Level of Service "D" are shown in bold.

Avila Beach Drive traffic volumes rose significantly over previous years, likely due to traffic associated with repair work at PGE Diablo Canyon. Public Works will continue to monitor volumes on the roadway to see if they return to historic levels. The Avila Valley Circulation Study recommends shoulder widening for Avila Beach Drive; however, no funding is currently available for the project. Data collected as part of the most recent Avila Circulation Study and Traffic Impact Fee Update indicate that traffic volumes on Avila Beach Drive are not expected to reach Level of Service "D" within the next five years. **Therefore, no Level of Severity is recommended.**

Although no Level of Severity is recommended for Avila Beach Drive due to the methodology used in the Local Coastal Plan, the County acknowledges that as a tourist destination spot, there are significant public events and weekends in Avila Beach that heavily impact the roadway during certain times of the year. In 2016,

County staff conducted an analysis of traffic management strategies and options for Avila Beach Drive to address (among other things) the methodology for measuring the level of service, emergency access to the Avila Valley, and the significant constraints to increasing the capacity of the roadway. The Board directed that these issues be addressed as part of the update of the Avila Beach Community Plan which is expected to begin in 2017.

Price Canyon Road South of Highway 227



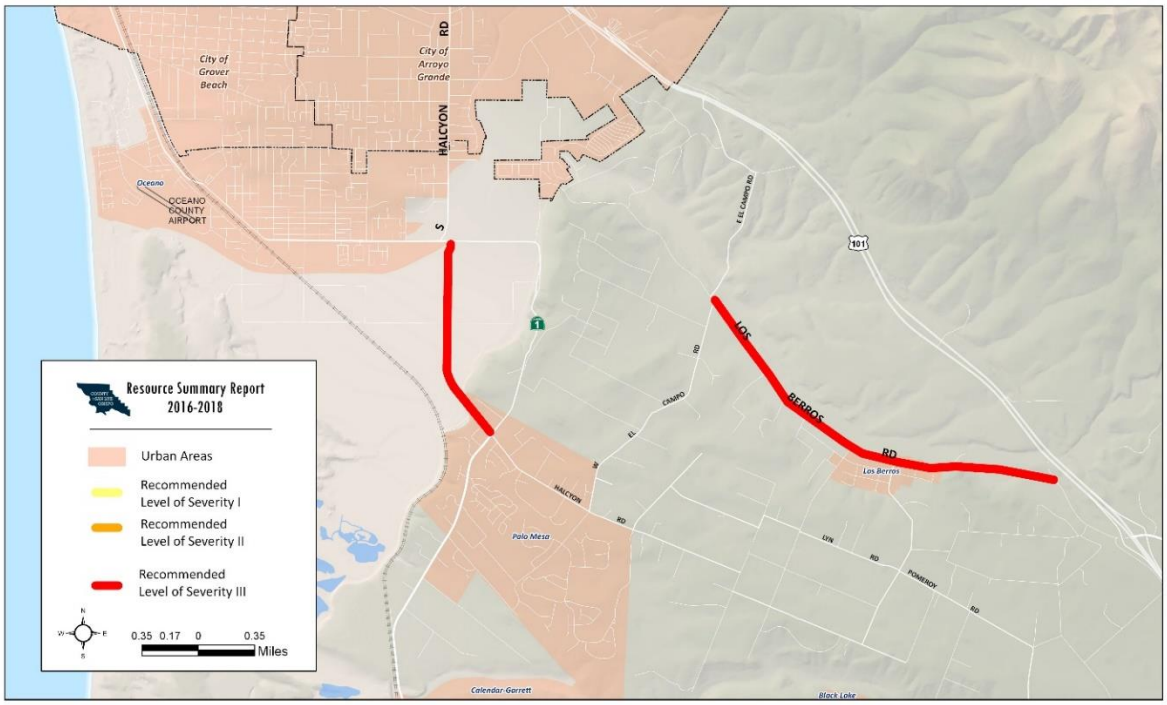
Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2018	2020	2023
Price Canyon Road	South of Highway 227	995	979	**1,019**	**1,081**

Source: San Luis Obispo County Department of Public Works, 2018

1. Volumes that exceed Level of Service "D" are shown in bold.

Public Works is currently working on a project to complete shoulder widening of Price Canyon Road between State Highway 227 and the Pismo Beach city limits (Ormonde Road). Construction is expected to be completed in 2017. Traffic volumes for Price Canyon Road measured in 2018 indicate Level of Service "D" has been reached. **Recommended Level of Severity II.**

Halcyon Road South of Arroyo Grande Creek/Los Berros Road South of El Campo Road



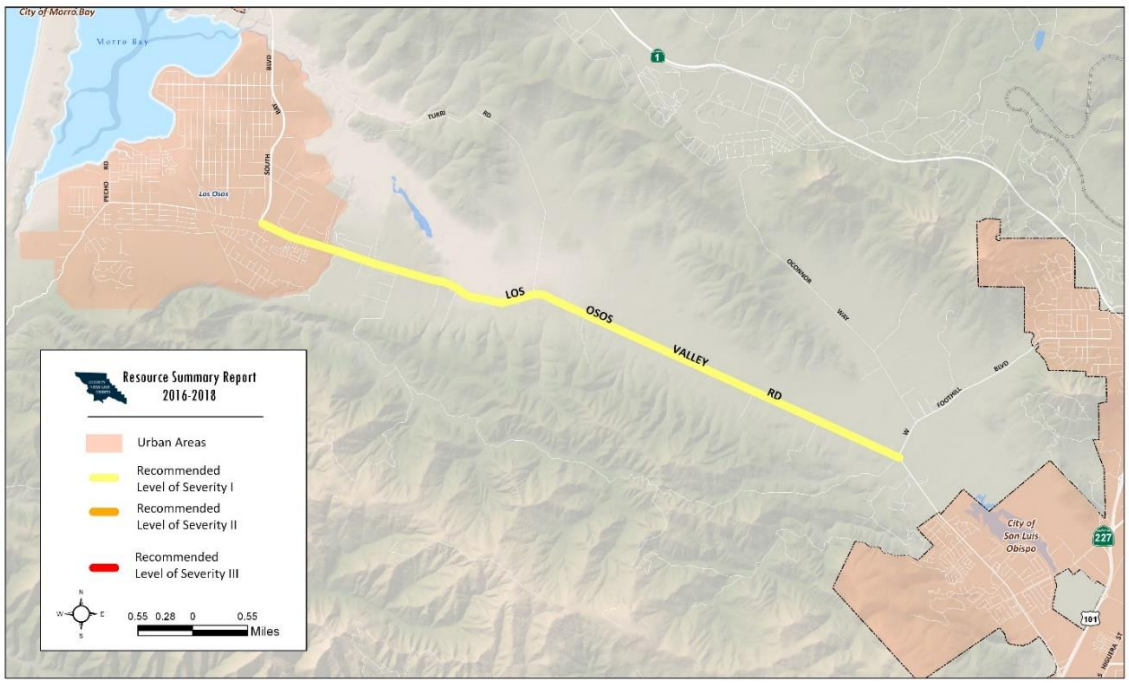
Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2018	2020	2023
Halcyon Road	South of Arroyo Grande Creek	904	**928**	**965**	**1,025**
Los Berros Road	South of El Campo Road	978	**1,224**	**1,273**	**1,351**

Source: San Luis Obispo County Department of Public Works, 2018

1. Volumes that exceed Level of Service "D" are shown in bold.

Public Works is pursuing funding for shoulder widening on the grade leading up to the Nipomo Mesa from the Arroyo Grande Valley. Traffic volumes for Halcyon Road have reached Level of Service "D". The peak hour volume on Los Berros has nearly doubled over previous years and will need to be monitored. Improvements are included in the South County Circulation Study to widen the roadway and install a two-way left turn lane and bike lanes. **Recommended Level of Severity III.**

Los Osos Valley Road West of Foothill Boulevard



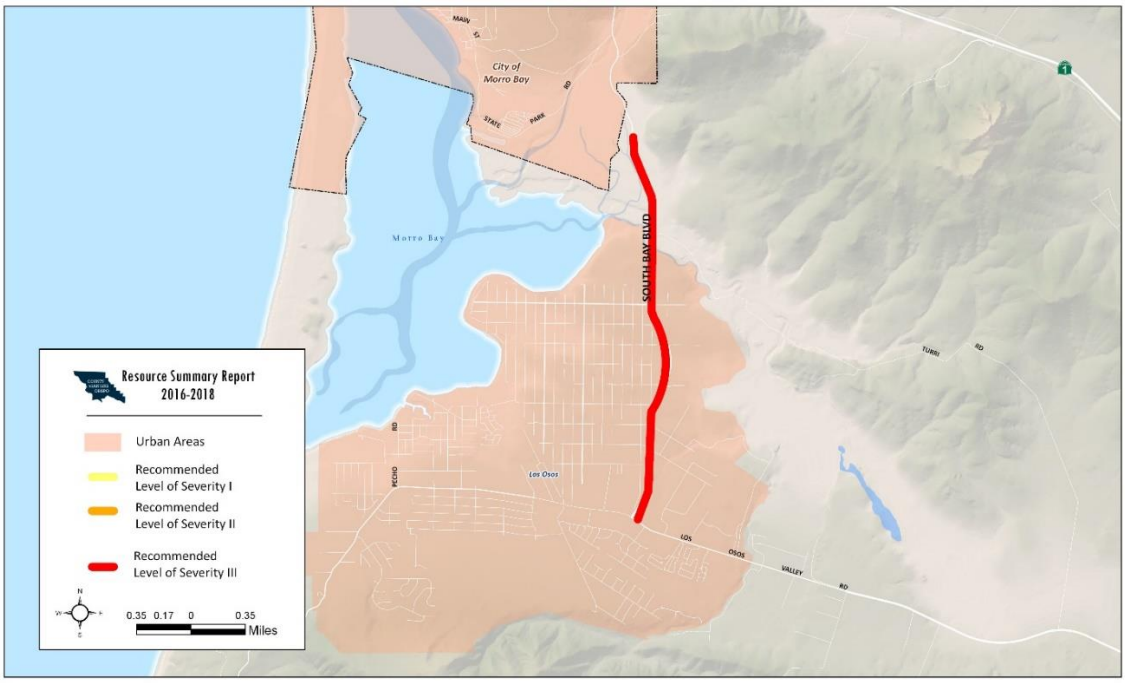
Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2018	2020	2023
Los Osos Valley Road	West of Foothill Boulevard	1,475	1,380	1,436	**1,524**

Source: San Luis Obispo County Department of Public Works, 2018

1. Volumes that exceed Level of Service "D" are shown in bold.

Los Osos Valley Road (West of Foothill): Los Osos Valley Road operates at LOS E when analyzed as a two-lane roadway. However, Los Osos Valley Road has two (2), one (1) mile long passing relief lanes which provide a LOS benefit. There is currently no funding to construct the widening. **Recommended Level of Severity I.**

South Bay Boulevard South of State Park Road



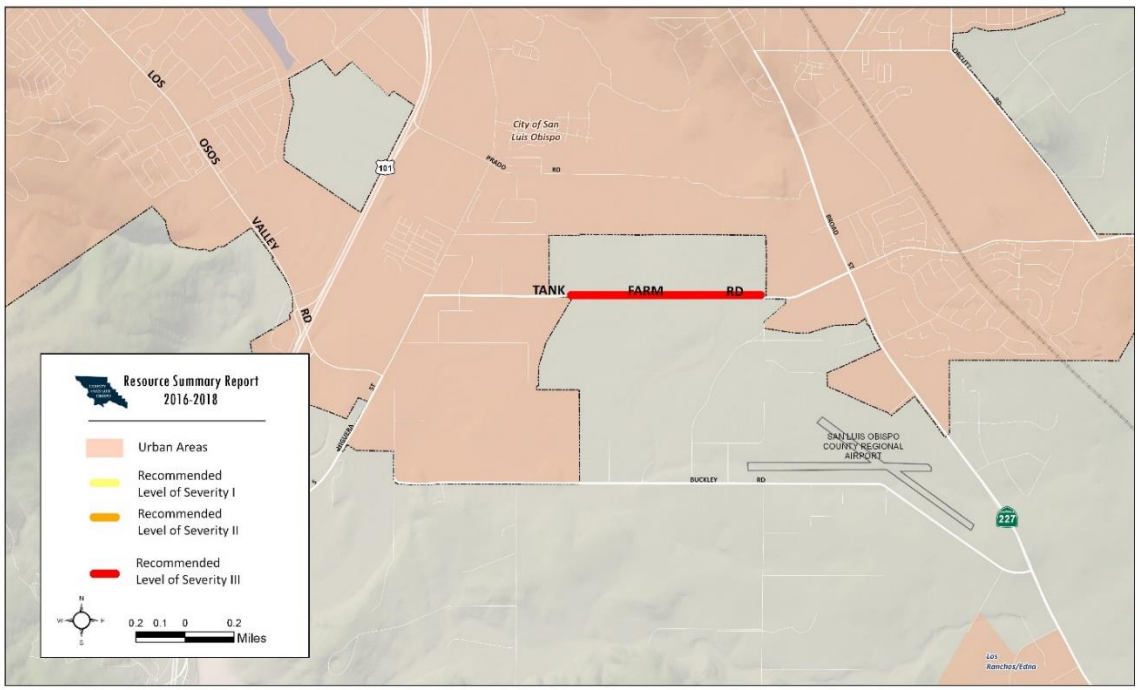
Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2018	2020	2023
South Bay Boulevard	South State Park Road	967	**1,329**	**1,383**	**1,467**

Source: San Luis Obispo County Department of Public Works, 2018

1. Volumes that exceed Level of Service "D" are shown in bold.

The Los Osos Circulation Study includes widening of South Bay Boulevard from Los Osos Valley Road to the Urban Reserve Line. Funds from Los Osos Road Improvement Fees are necessary for the widening; however, the improvement fees are stagnant pending community growth. **Recommended Level of Severity III**.

Tank Farm Road West of Santa Fe Road



Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2018	2020	2023
Tank Farm Road	West of Highway 227	1,200	**1,564**	**1,627**	**1,727**

Source: San Luis Obispo County Department of Public Works, 2018

1. Volumes that exceed Level of Service "D" are shown in bold.

The City of San Luis Obispo is planning to widen the portion of Tank Farm Road outside the City to four lanes as part of the Airport Area Specific Plan. In the meantime, current traffic volumes indicate Tank Farm Road is currently operating at Level of Service "D". **Recommended Level of Severity III**.

Other Roadways

All other roadway segments monitored for the RMS are expected to operate at acceptable Levels of Service for the foreseeable future.

Levels of Severity for HWY 101 Interchanges

The following table contains Levels of Service for existing conditions (2018) and buildout conditions for Highway 101 interchange operations in the Avila Beach, South County and Templeton areas.

The interchange analysis considers existing and buildout conditions. Improving the operation or efficiency of an interchange can take between 10 and 20 years. This is due to the long lead times needed to coordinate with Caltrans, acquire right-of-way, complete construction documents, secure funding and seek stakeholder buy-in. Therefore, it has been prudent for Public Works to plan for these kinds of improvements through General Plan buildout.

Table IV-3 -- RMS 2018 Interchanges Levels of Service

US 101 Interchange	Existing Levels of Service[1]		Buildout Levels of Service1		Source
	Southbound (SB) Ramps	Northbound (NB) Ramps	SB Ramps	NB Ramps	
State Highway 46 West	B[1]	C[1]	C[1]	C[1]	2017 Templeton Circulation Study
North Main Street	**F**	**D**	**F**	**F**	
Las Tablas Road	B	B	C[1]	C[1]	
Vineyard Drive	C	C	C	C	
San Luis Bay Drive	B	**E**	B	F	2016 Draft Avila Valley Circulation Study
Avila Beach Drive	**D**	A	**F**	B	
Los Berros/ Thompson	C	C	C	**E**	2015 South County Circulation Study
Willow Road	B	C	C	**D**	
Tefft Street	**D**	C	**F**	**F**	
US Highway 166	C	B	**F**	**E**	

Source: San Luis Obispo County Department of Public Works, 2018

Notes for Table IV-3:

1. Although LOS delay for single node is acceptable, there are queuing deficiencies due to corridor.
2. Interchanges that exceed LOS C are shown in bold.

Recommended Levels of severity are provided in Table IV-4.

Table IV-4 -- Summary of Recommended Levels of Severity – Highway 101 Interchanges

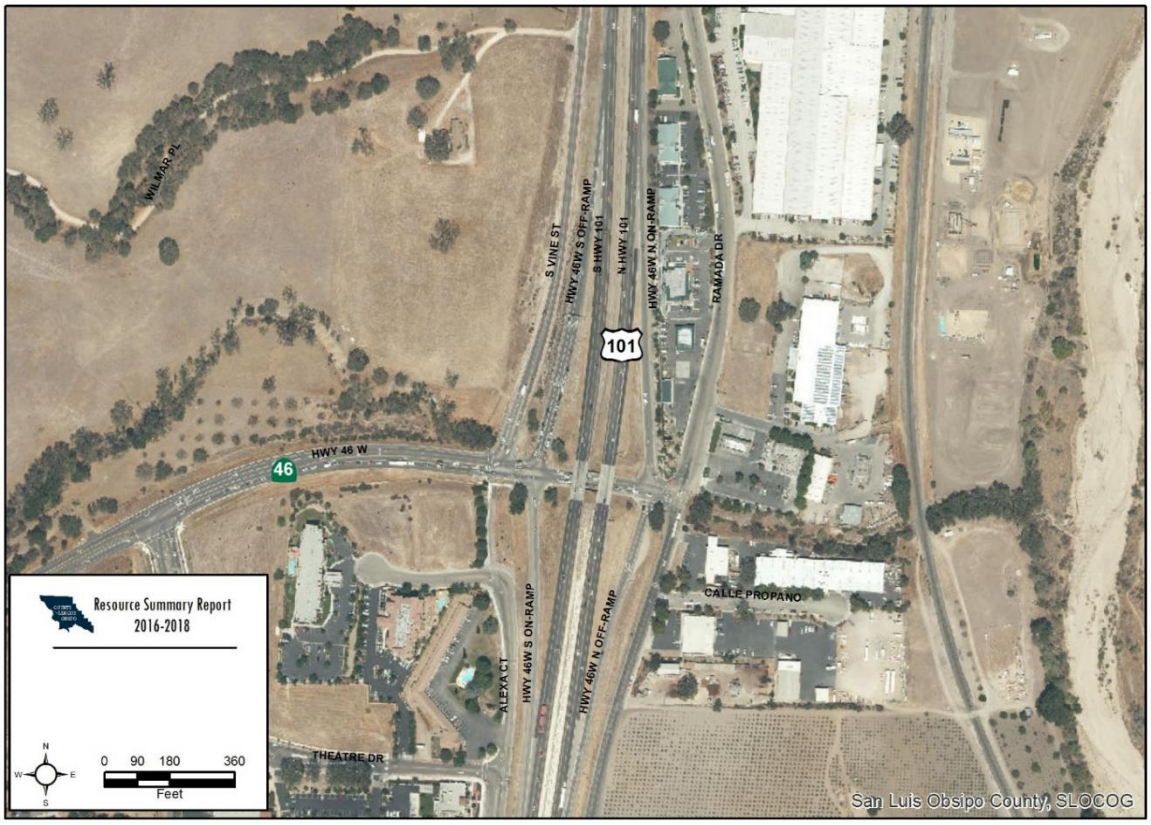
Highway 101 Interchange	Community/ Planning Area	Recommended Level of Severity
Las Tablas Road	Templeton	I
Los Berros Road/Thompson Road NB Ramps	South County	
Willow Road	Nipomo	
State HWY 46 West, SB ramps	Templeton área	II
US Highway 166 SB Ramps	South County	
North Main Street SB and NB ramps	Templeton	III
Avila Beach Drive	Avila Valley	
San Luis Bay Drive	Avila Valley	
Tefft Street SB ramps	Nipomo	

The following interchange is projected to operate at LOS C or better for the foreseeable future; therefore, no Level of Severity is recommended:

Vineyard Drive

The existing LOS E/D was mitigated with the completion of the Vineyard Drive Interchange Project in 2009.

US Highway 101/State Highway 46 West

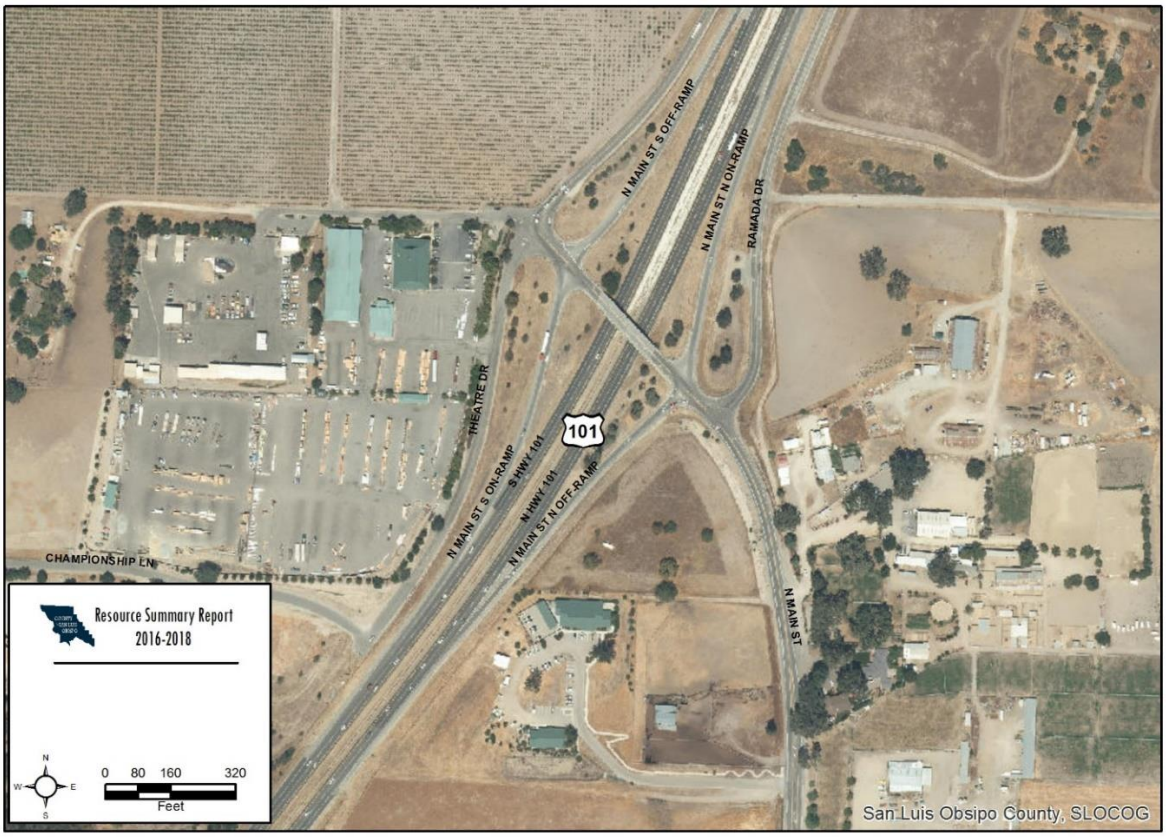


US 101 Interchange	Existing Levels of Service		Buildout Levels of Service	
	SB Ramps	NB Ramps	SB Ramps	NB Ramps
State Highway 46 West	B	C	C	C

Source: San Luis Obispo County Department of Public Works, 2018

The City of Paso Robles relocated Theater Drive, one of the western frontage roads, which has relieved some congestion. However, Ramada Drive east of the freeway remains in close proximity to the northbound ramps and queuing exceeds storage. The Templeton Circulation Study has identified a CIP to modify the Highway 46 interchange and the program is currently collecting the areas fair share. Roundabouts are anticipated at this location. **No Recommended Level of Severity**.

US Highway 101/North Main Street (Templeton)



US 101 Interchange	Existing Levels of Service		Buildout Levels of Service	
	SB Ramps	NB Ramps	SB Ramps	NB Ramps
North Main Street	F	D	F	F

Source: San Luis Obispo County Department of Public Works, 2018

Main Street operates an unacceptable LOS in existing and buildout conditions. The Public Works Department is currently completing a Project Study Report and Project Development Study (PSR-PDS) with Caltrans to determine the preferred project alternative. Interchange improvements at this location are included in the Templeton Circulation Study. **Recommended Level of Severity III**.

US Highway 101/Avila Beach Drive

US 101 Interchange	Existing Levels of Service		Buildout Levels of Service	
	SB Ramps	NB Ramps	SB Ramps	NB Ramps
Avila Beach Drive	**D**	A	**F**	B

Source: San Luis Obispo County Department of Public Works, 2018

The Avila Beach Drive/US 101 Southbound Ramps are configured such that the on-ramp forms a T-intersection just east of the US 101 Southbound Off-Ramp/Shell Beach Road intersection. During peak hour periods, the intersection is severely constrained and extensive queuing occurs on the ramps, causing significant delays and safety concerns. The Public Works Department completed a PSR/PDS with Caltrans and has entered into a contract with the Wallace Group to perform the Project Approval and Environmental Document (PA&ED) phase of this project. PA&ED is anticipated in Spring 2020. **Recommended Level of Severity III**.

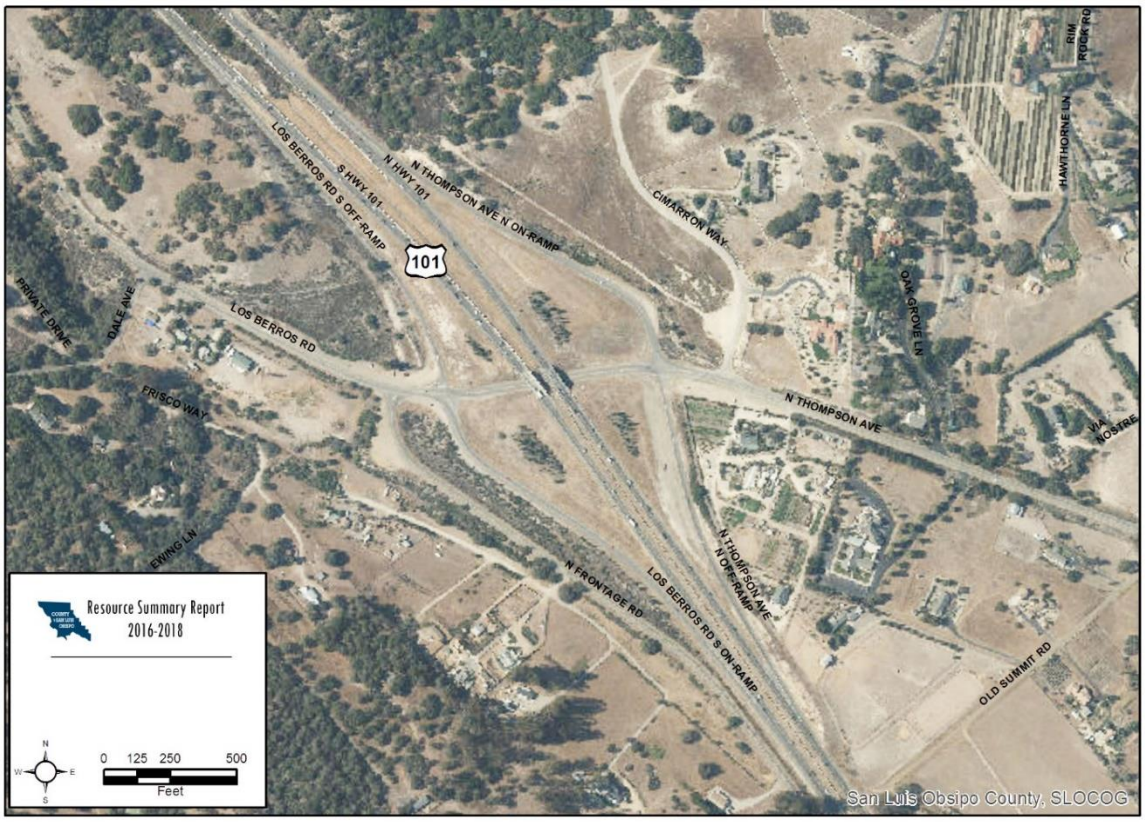
US Highway 101/San Luis Bay Drive

US 101 Interchange	Existing Levels of Service		Buildout Levels of Service	
	SB Ramps	NB Ramps	SB Ramps	NB Ramps
San Luis Bay Drive	B	**E**	B	**F**

Source: San Luis Obispo County Department of Public Works, 2018

The San Luis Bay Drive/US 101 Southbound Ramps are configured such that the intersection is in close proximity to the Ontario Road intersection. During peak hour periods, the interchange severely constrained and extensive queuing occurs on the side-street and ramp approaches. There is also a high number of collisions at the adjacent intersection of San Luis Bay Drive and Ontario Road. Public Works has initiated an Intersection Control Evaluation (ICE) at this location to identify short and long-term improvements. **Recommended Level of Severity III**.

US Highway 101/Los Berros Road



US 101 Interchange	Existing Levels of Service		Buildout Levels of Service	
	SB Ramps	NB Ramps	SB Ramps	NB Ramps
Los Berros/ Thompson	C	C	C	**E**

Source: San Luis Obispo County Department of Public Works, 2018

Traffic signals or other intersection improvements are included in the South County Circulation Study at the northbound and southbound ramps. **Recommended Level of Severity I.**

US Highway 101/Willow Road

US 101 Interchange	Existing Levels of Service		Buildout Levels of Service	
	SB Ramps	NB Ramps	SB Ramps	NB Ramps
Willow Road	B	C	C	**D**

Source: San Luis Obispo County Department of Public Works, 2018

Traffic signals are included in the South County Circulation Study at the northbound and southbound ramps. **Recommended Level of Severity I.**

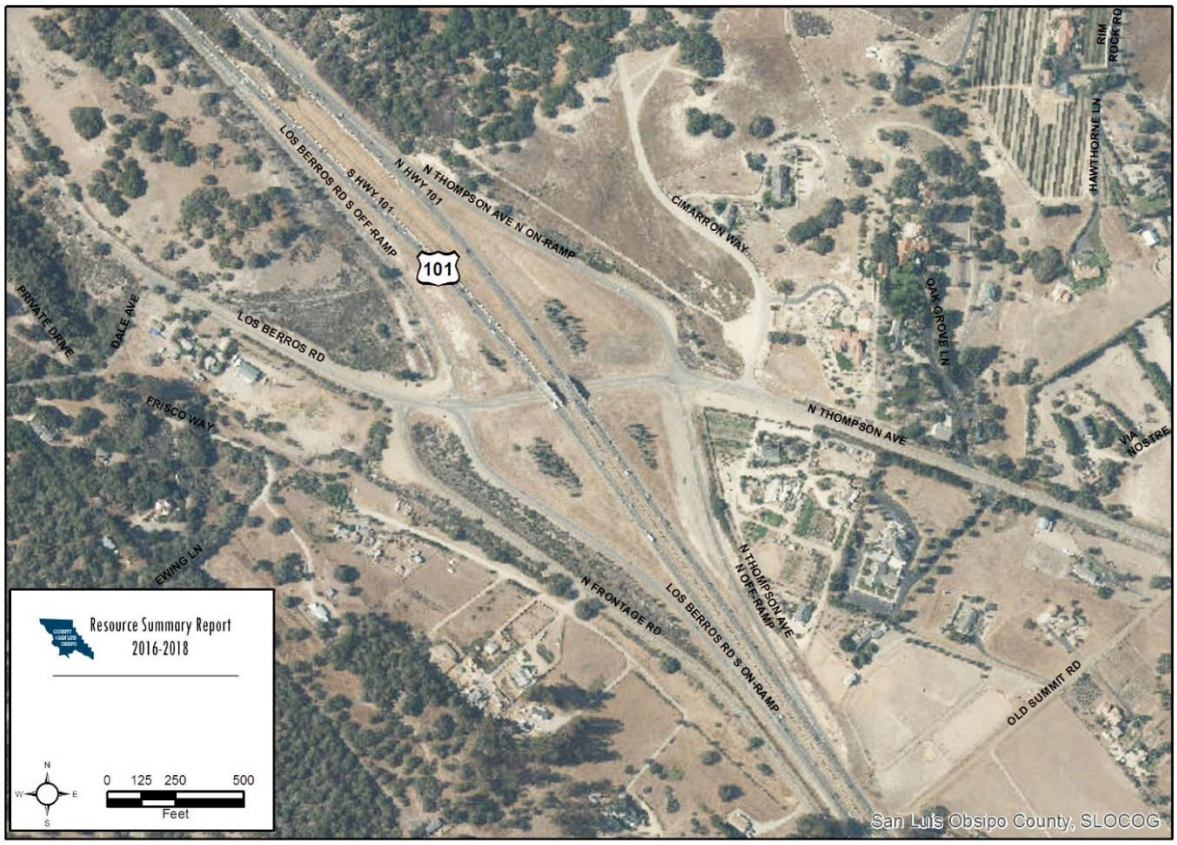
US Highway 101/Tefft Street

US 101 Interchange	Existing Levels of Service		Buildout Levels of Service	
	SB Ramps	NB Ramps	SB Ramps	NB Ramps
Tefft Street	**D**	C	**F**	**F**

Source: San Luis Obispo County Department of Public Works, 2018

Public Works will be overlaying Tefft Street in 2017 and is working toward operational improvements. The South County Circulation Study contains additional interchange improvements including possible bridge widening, realigning ramp terminals, modifying Frontage Road access and additional turn lanes. **Recommended Level of Severity III.**

US Highway 101/State Highway 166



US 101 Interchange	Existing Levels of Service		Buildout Levels of Service	
	SB Ramps	NB Ramps	SB Ramps	NB Ramps
US Highway 166	C	B	**F**	**E**

Source: San Luis Obispo County Department of Public Works, 2018

Roundabouts at the northbound and southbound ramps are included in the South County Circulation Study. **Recommended Level of Severity II.**

Summary of Recommended Levels of Severity and Recommended Actions for Roads and Interchanges

The following table provides a summary of the recommended Levels of Severity for roadways and interchanges based on the criteria described above and in Chapter I.

Table IV-5 -- Recommended Levels of Severity For Roads and Interchanges

Roadway Segment	Community/ Planning Area	Recommended Level of Severity	Recommended Actions
Avila Beach Drive	Avila	None	Public Works to monitor Levels of Service on RMS roadways; Continue to use area circulation studies to identify roadway improvements necessary to achieve and maintain Level of Service "C" or better on RMS roadways; Use the area circulation studies to inform the assessment of levels of severity and to recommend action requirements; Continue to establish and collect road impact fees (AB 1600 fees); and Pursue other funding options including (but not limited to) State and federal grants.
Los Osos Valley Road west of Foothill Boulevard	Los Osos/ San Luis Obispo	**I**	
Price Canyon Road south of Highway 227	South County	**II**	
Halcyon Road south of Arroyo Grande Creek	Oceano	**III**	
Los Berros Road south of El Campo Road	South County		
South Bay Boulevard south of State Park Road	Morro Bay/Los Osos		
Tank Farm Road west of Highway 227	San Luis Obispo		

Interchanges	Community/ Planning Area	Recommended Level of Severity	Recommended Actions
Las Tablas Road Los Berros Road/Thompson Road NB ramps Willow Road	Templeton Nipomo area Nipomo	**I**	Public Works in conjunction with SLOCOG and Caltrans to monitor Levels of Service on RMS interchanges; Continue to use area circulation studies to identify interchange improvements necessary to achieve and maintain Level of Service "C" or better on RMS interchanges; Use the area circulation studies to inform the assessment of levels of severity and to recommend action requirements; Continue to establish and collect road impact fees (AB 1600 fees); and Pursue other funding options including (but not limited to) State and federal grants.
State HWY 46 West, SB ramps US HWY 166 SB ramps	Templeton area Nipomo area	**II**	
North Main Street SB ramps, NB ramps San Luis Bay Drive Avila Beach Drive Tefft Street SB ramps	Templeton Avila Avila Nipomo	**III**	

The table below compares the recommended Levels of Severity for roads from the 2014-2016 RSR with those recommended for 2016-2018. Roadways shown in bold italics represent changes recommended in 2016-2018. By applying the criteria for Levels of Severity described in Chapter I, Price Canyon Road has improved from LOS III to LOS II, Los Osos Valley Road has improved from LOS II to LOS I. Recommended Levels of Severity for Avila Beach Drive, Halcyon Road, Las Tablas Road, South Bay Boulevard, and Tank Farm Road have not changed. Data collected in associated with the Draft Avila Circulation Study conclude that Avila Beach Drive is not expected to reach LOS D until after 2021. **Therefore, no Level of Severity is recommended for these roadways**.

Table IV-6 -- Comparison of Recommended Levels of Severity For Roadways 2014-2016 RSR and 2016-2018 RSR

Roadway	LOS Recommended In 2014-2016	LOS Recommended in 2016-2018
Avila Beach Drive*	None	None
Price Canyon Road	III	***II***
Halcyon Road	III	III
Las Tablas Road*	None	None
Los Osos Valley Road	II	***I***
South Bay Boulevard	III	III
Tank Farm Road	III	III

Changes shown in bold italics.
* No Level of Severity is recommended.

Interchanges were considered for the first time in the 2010-2012 RSR. The assessment was based on the measured *Levels of Service* for selected interchanges because *Level of Severity* criteria had not been adopted prior to publication of the 2010-2012 RSR. Since that time, Level of Severity criteria have been developed and adopted for interchanges and included in the 2016-2018 RSR (described above and in Chapter I).

V. SCHOOLS

Level of Severity Criteria

Level of Severity	Schools Criteria
I	When enrollment projections reach school capacity within seven years.
II	When enrollment projections reach school capacity within five years.
III	When enrollment equals or exceeds school capacity.

Funding for School Construction in California

California's system of financing school facilities is best described as a partnership between the State and local school districts. The State provides local school districts with financial support for new school construction and modernization projects through the School Facility Program (SFP), which was established in 1998 under the Leroy F. Green School Facilities Act of 1998. Under the SFP, new school construction projects are funded on a 50/50 state and local matching basis. Since 1998, voters have approved $35 billion in statewide bond issues to fund the SFP which is administered by the California Office of Public School Construction (OPSC) on behalf of the California Department of General Services and the State Allocation Board.

At the local level, Government Code section 65995 et seq. authorizes school districts to collect development impact fees to help offset the cost of new school facilities needed to serve new development. The fees are levied on a per-square-foot basis of new construction and must be supported by a Fee Justification Study that establishes the connection (or "nexus") between the development coming into the district and the assessment of fees to pay for the cost of the facilities needed to house future students. Three levels of impact fees may be levied:

- Level I is assessed if a Fee Justification Study documents the need for new school facilities and associated costs.
- The Level II fee is assessed if a district makes a timely application to the State Allocation Board for new construction funding, conducts a School Facility Needs Analysis pursuant to Government Code Section 65995.6, and satisfies at least two of the four requirements listed in Government Code Section 65995.5(b)(3) which relate to the characteristics of current enrollment and district efforts to fund school facility construction.

- The Level III fee is assessed when the State bond funds (described above) are exhausted; in this case the district may impose a developer's fee up to 100 percent of the School Facility Program new construction project cost.

School Districts Serving San Luis Obispo County

There are 12 school districts serving San Luis Obispo County[10] (Figure V-1). Current enrollment and school capacity information was provided by the participating school districts on a voluntary basis. California Education Code (EC) sections 41376 and 41378 prescribe the maximum class sizes and penalties for districts with any classes that exceed the limits established in 1964:

- Kindergarten—average class size not to exceed 31 students; no class larger than 33 students
- Grades one through three—average class size not to exceed 30 students; no class larger than 32 students
- Grades four through eight—in the current fiscal year, average number of students per teacher not to exceed the greater of 29.9 (the statewide average number of students per teacher in 1964) or the district's average number of students per teacher in 1964

However, for the purposes of determining levels of severity, this RSR considers the *Maximum Practical Capacity* of school facilities defined as follows:

> **Maximum Practical Capacity --** The maximum number of students each school could theoretically accommodate by adding relocatable classrooms, but without increasing the capacity of core facilities.

Thus, *capacity* is not based on the ratio of students to teachers, which may be based on other factors such as the contractual arrangements among the various districts, nor does it consider the occupancy load (or design capacity) of the facilities.

Table IV-1 compares 2016-17 and 2017-18 enrollment with the maximum practical capacities of school facilities for districts who provided information to the county. The data are aggregated for elementary, middle and high schools; the relationship between enrollment and capacity for each district is discussed in the assessment of Levels of Severity.

[10] Portions of the San Miguel Joint Union Elementary, Pleasant Valley Joint Union Elementary, Paso Robles Joint Union, Shandon Unified extend into Monterey County. Portions of the Cuyama Joint Unified School District extend into Santa Barbara County.

Countywide, several school districts have been experiencing significant enrollment declines over the past several years, particularly in elementary schools. The decline may be attributed to high housing costs in some parts of the county which deter families with young children from locating there.

Figure V-1 – School Districts Serving San Luis Obispo County

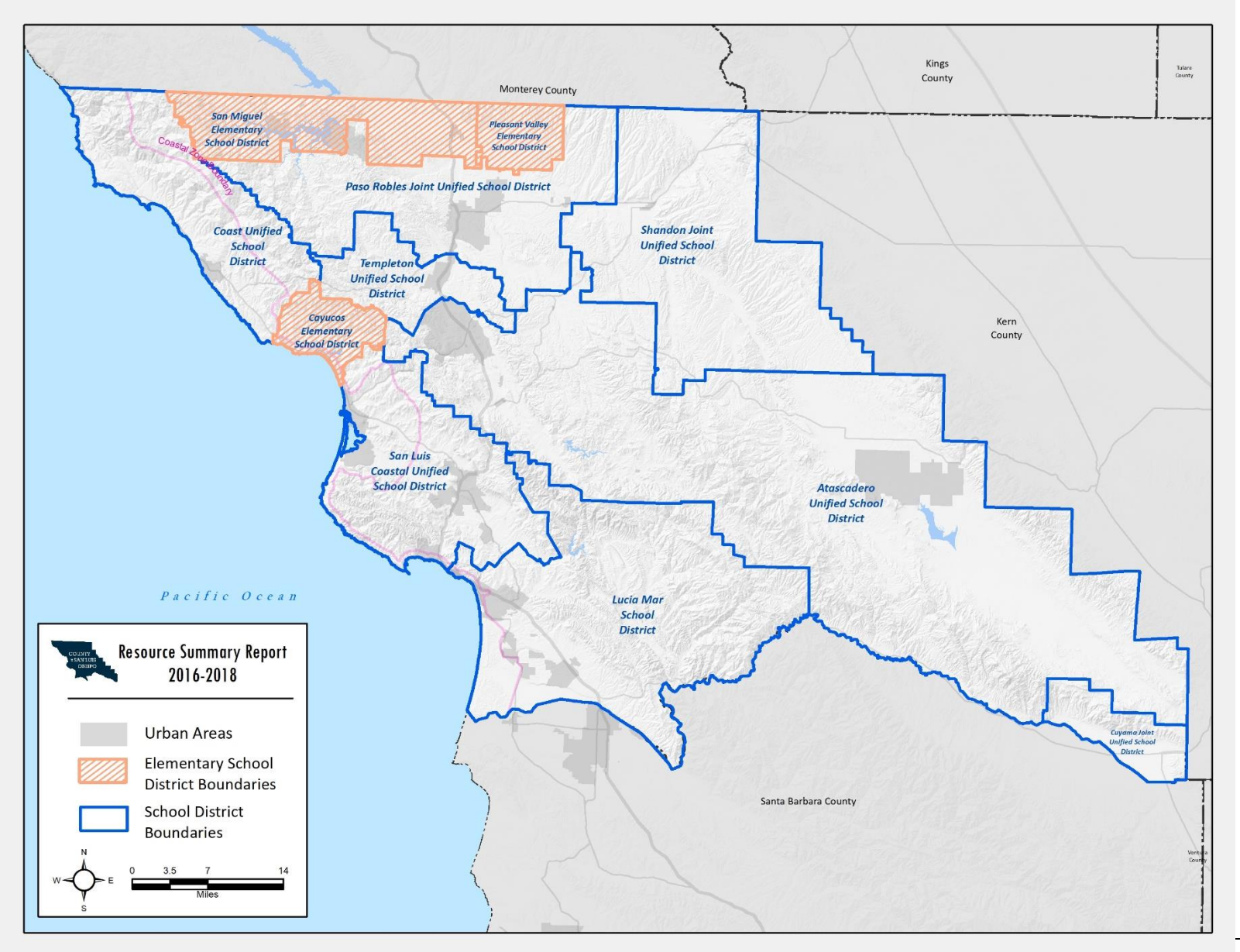


Table V-1 – Comparison of School Capacity and Enrollment For School Years 2016-2017 and 2017-2018

District	School Level	School Year 2016 - 2017			School Year 2017 - 2018		
		Enrollment	Capacity[1]	Percent of Capacity	Enrollment	Capacity[1]	Percent of Capacity
Atascadero Unified School District	Elem.	2,115	3,133	68%	2,004	3,133	64%
	Middle	1031	1,516	68%	1173	1,516	77%
	High	1,387	2,112	66%	1,402	2,112	66%
Cayucos Elementary School District	Elem.	211	240	88%	191	240	80%
Coast Unified School District	Elem.	264	360	73%	269	360	75%
	Middle	159	203	78%	141	203	69%
	High	226	796	28%	206	796	26%
Grizzly Youth Academy Challenge Program	High	++++	++++		++++	++++	
Lucia Mar School District	Elem.	5,515	6,143	90%	5,475	5,473	100%
	Middle	1,607	2,156	75%	1,651	2,156	77%
	High	3,497	4,736	74%	3,401	4,736	72%
Paso Robles Joint Unified School District[2]	Elem.						
	Middle	++++	++++		++++	++++	
	High						
	Alt.[3]						
Pleasant Valley Joint Union School District	Elem.	99	140	71%	83	140	59%
San Luis Coastal Unified School District[5]	Elem.	4,101	5,625	73%	3,936	5,625	70%
	Middle	1,345	2,091	64%	1,416	2,091	68%
	High	2,271	3,890	58%	2,400	3,890	62%
San Miguel Joint Union School District	K - 8	908	1,330	68%	923	1,260	73%
Shandon Joint Unified School District	K-8	908	1,330	68%	923	1,260	73%
Templeton Unified School District	Elem.						
	Middle	++++	++++		++++	++++	
	High						

Sources: School Districts
++++ No data were provided.

Notes for Table V-1:

1. Maximum Practical Capacity **--** The maximum number of students each school could theoretically accommodate by adding relocatable classrooms, but without increasing the capacity of core facilities.

2. For purposes of this RSR, the Paso Robles Joint Unified School District assumes that the "maximum theoretical" capacity of a classroom is a design specification of 20 sq. ft. per student, which is equal to 48 students in a standard 960 sq.ft. classroom. However, this is not a "practical" limit in that there would be conflicts with paths of travel for ADA and contractual violations with the District's unions. Additionally, school classes cannot be evenly balanced at capacity across the site. With these factors in mind, the PRJUSD used a 38 student capacity for each 960 square feet of classroom as a "theoretical" maximum.

3. Independence High School has a greater enrollment than theoretical capacity. This is because the IHS program does not house all of the enrolled students at the same time. This is also true for the programs listed as "Alternative Schools." These are actually not school facilities, but are programs housed within classrooms - Culinary Arts, Endeavour, Independent Studies, Little PEPers, and PRYDE. These programs have multiple enrollees, but all enrollees are not being instructed simultaneously.

4. Projection based on 5-year cohort enrollment projection for 2019/20. From San Luis Coastal Unified School District Enrollment Projections Capacity Analysis 2014/15 Update. Table 5.

5. Include Belleview Santa Fe Charter School.

Recommended Levels of Severity

Methodology

The Level of Severity criteria for schools are “triggered” when enrollment is projected to exceed school facility capacity in five years (LOS II), or exceed capacity in seven years (LOS I). To determine these relationships, enrollment data for the past 10 or more years were compiled for each district and graphed. A trend line was then plotted from these data and projected seven years into the future. The trend line provides a reasonable estimate of when (or if) enrollment is likely to exceed capacity. The data were aggregated by elementary, middle and high school enrollment. School districts in which the projected enrollment could exceed capacity within five years were assigned a recommended LOS II. Those projected to exceed capacity within seven years were assigned a LOS I, and those currently exceeding capacity were given an LOS III. Levels of Severity were assigned when one or more school within a given enrollment category (elementary, middle or high school) was projected to exceed the LOS criteria. Information provided by the districts regarding their plans to provide additional capacity were considered in assigning a recommended LOS.

Notes for the graphs:

1. Sources: California Department of Education Data Reporting Office, 2018; all other data were derived from the school districts.

2. The projections are for the purpose of recommending a Level of Severity only. The responsibility for determining the need for school facilities is the sole responsibility of each school district.

3. The projections are based on the *maximum practical capacity* of school facilities as defined above.

4. Trend lines were derived by applying simple linear regression to the historic enrollment data for each district.

Recommended Levels of Severity are summarized in Table V-2.

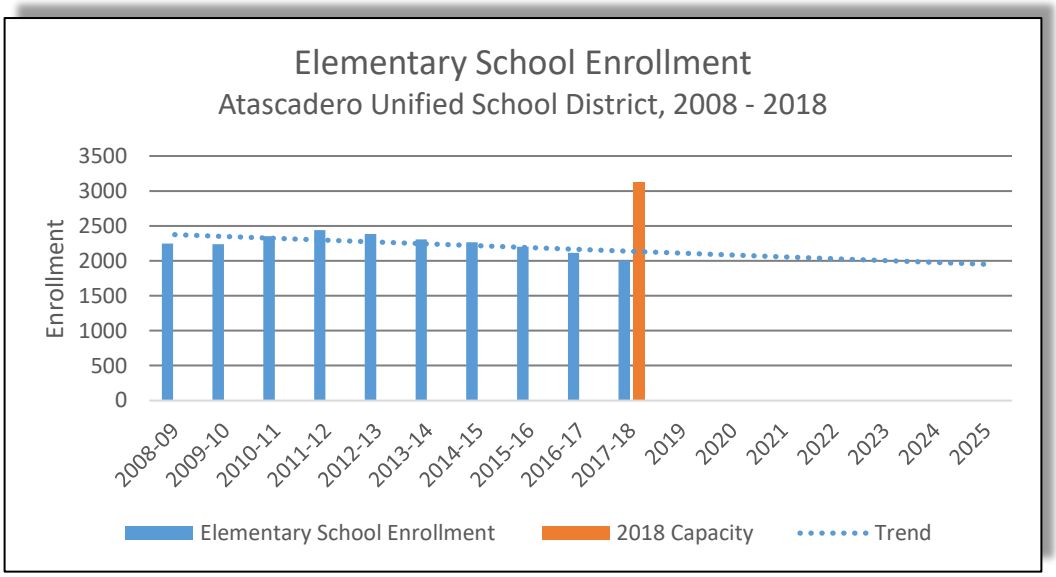
Table V-2 – Recommended Levels of Severity for Schools		
District	**School Level**	**Recommended Level of Severity**
Atascadero Unified School District	Elem.	None
	Middle	None
	High	None
Belleview-Santa Fe Charter School	K-6	None
Cayucos Elementary School District	Elem.	**I**
Coast Unified School District	Elem.	None
	Middle	None
	High	None
Grizzly Youth Academy Challenge Program	High	+++
Lucia Mar School District	Elem.	**III**
	Middle	None
	High	None
Paso Robles Joint Unified School District	Elem.	+++
	Middle	+++
	High	+++
	Alt.	+++
Pleasant Valley Joint Union School District	Elem.	None
San Luis Coastal Unified School District	Elem.	**II**
	Middle	None
	High	None
San Miguel Joint Union School District	K - 8	None
Shandon Joint Unified School District	Elem.	None
	Middle	None
	High	None
Templeton Unified School District	Elem.	None
	Middle	None
	High	None

+++ No data were provided

Atascadero Unified School District

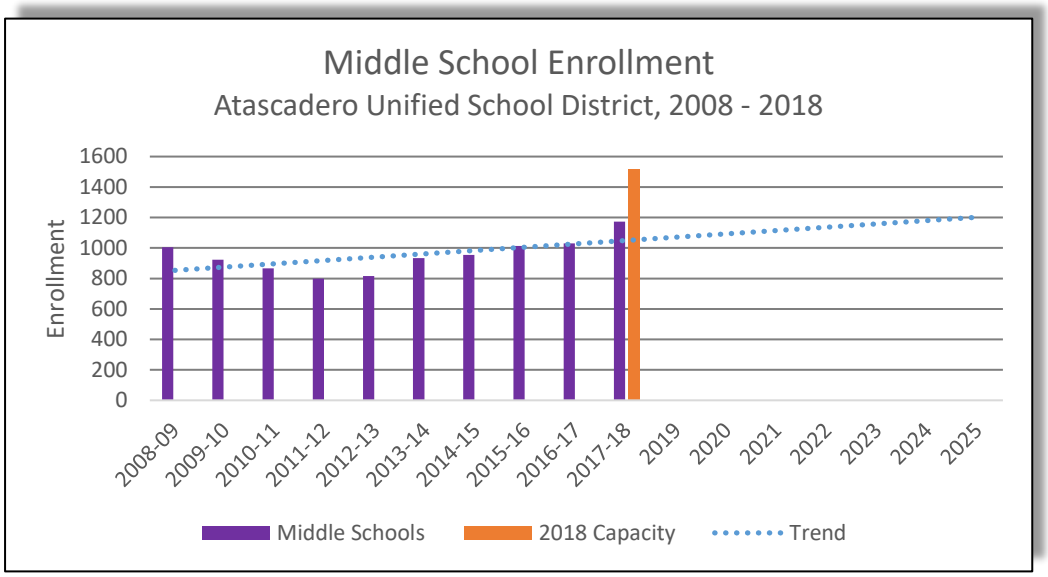
Elementary school enrollment has declined in recent years, with almost all schools operating below the practical capacity. Although two schools (San Benito Road and San Gabriel Road Elementary Schools) are operating at 88% and 73% of capacity, respectively, the overall trend is for enrollment to stay below capacity over the next seven years. **No recommended Level of Severity.**

School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
Elementary School Enrollment	2,245	2,238	2,352	2,438	2,385	2,308	2,264	2,203	2,115	2,004



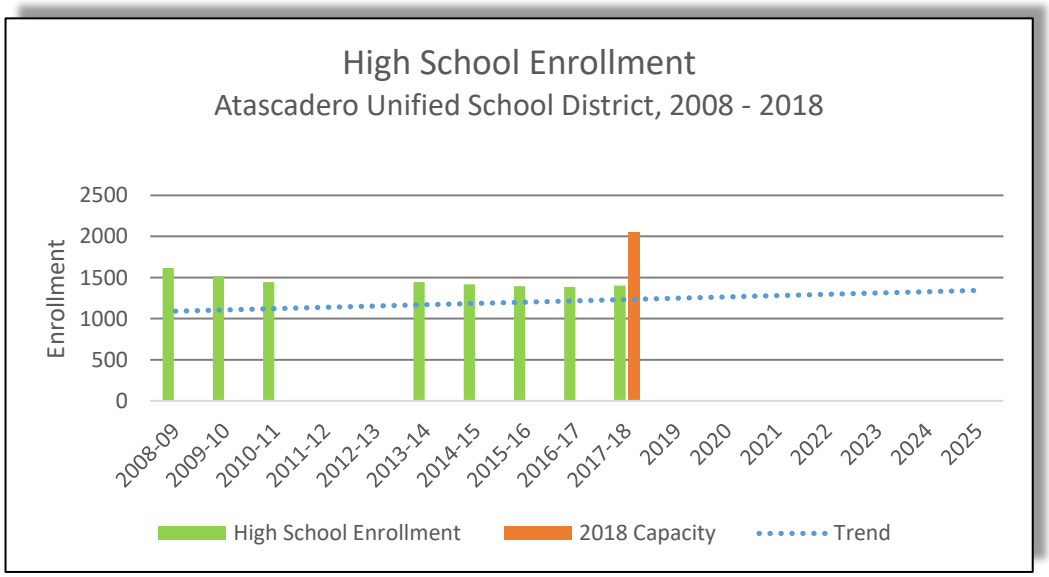
Overall, middle school enrollment has increased over the past seven remained. However, the trend is for middle schools to operate below the practical capacity for the next seven years or more. **No recommended Level of Severity**.

School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
Middle School Enrollment	1004	922	866	800	816	933	954	1,013	1031	1173



Over the past 10 years, high school enrollment has remained relatively level. Accordingly, both high schools serving the district continue to operate well below the practical capacity and the trend is expected to continue for at least the next seven years. **No recommended Level of Severity.**

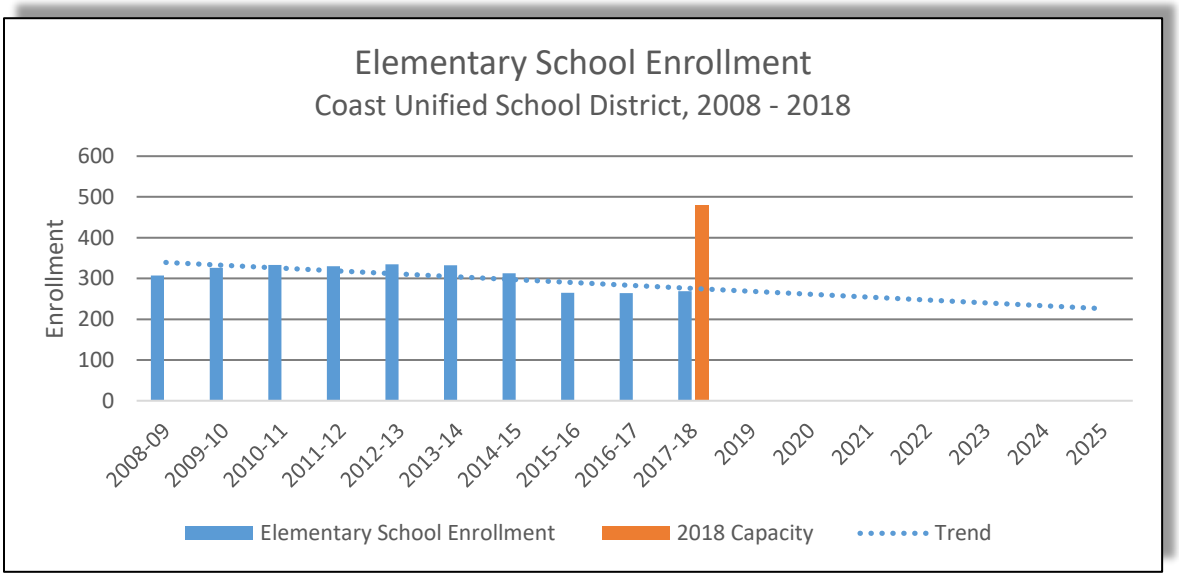
School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
High School Enrollment	1,582	1,586	1,587	1,617	1,516	1,444	1,418	1,394	1387	1402



Coast Unified School District

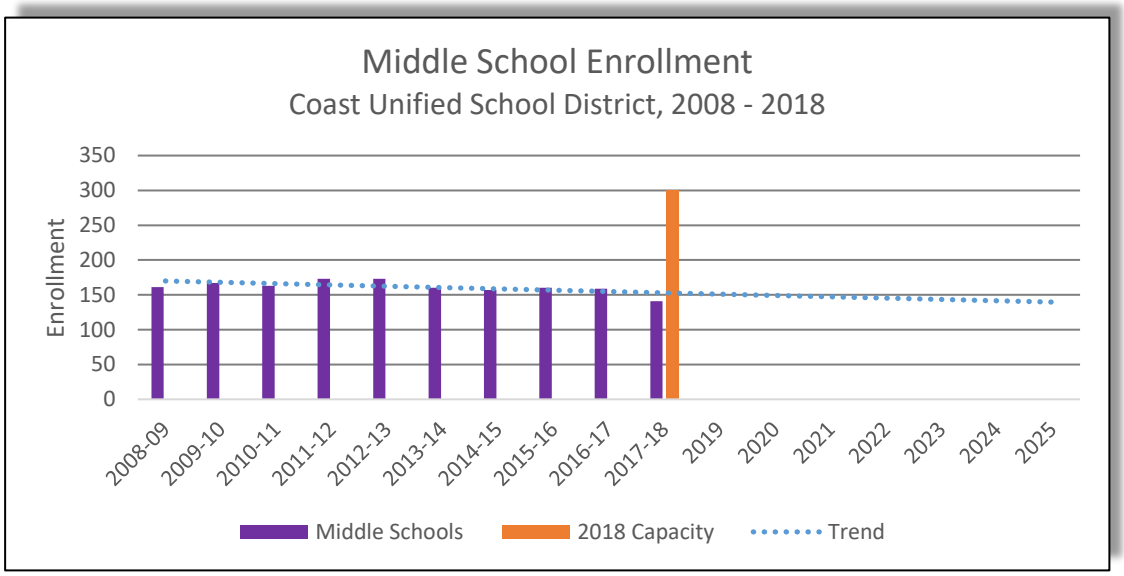
Elementary school enrollment has shown a slight downward trend since the 2008-09 school year but has increased slightly over the past two years; The overall trend for the past ten years is projected to continue for the next seven or more years. **No recommended Level of Severity**.

School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
Elementary School Enrollment	307	326	333	330	335	332	313	265	264	269



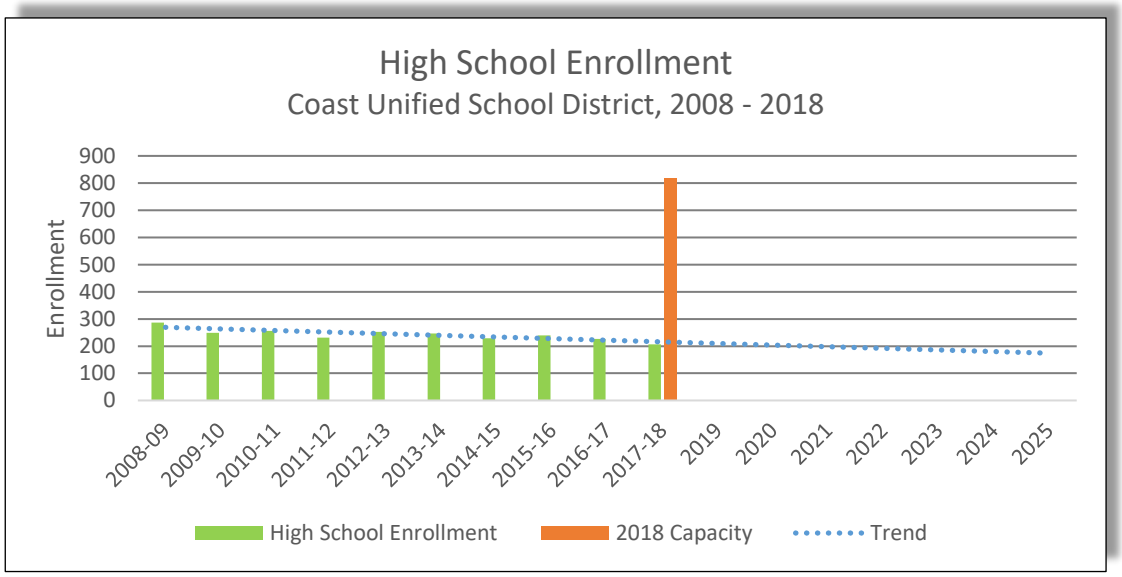
Enrollment at the Santa Lucia Middle school has trended generally downward over the past 10 years and is not expected to reach capacity for the next seven years or more. **No recommended Level of Severity.**

School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
Middle School Enrollment	161	167	163	173	173	160	157	160	159	141



Enrollment at the two high schools serving the district has trended general downward over the past 10 years and is not expected to reach the practical capacity for the next seven years or more. **No recommended Level of Severity**.

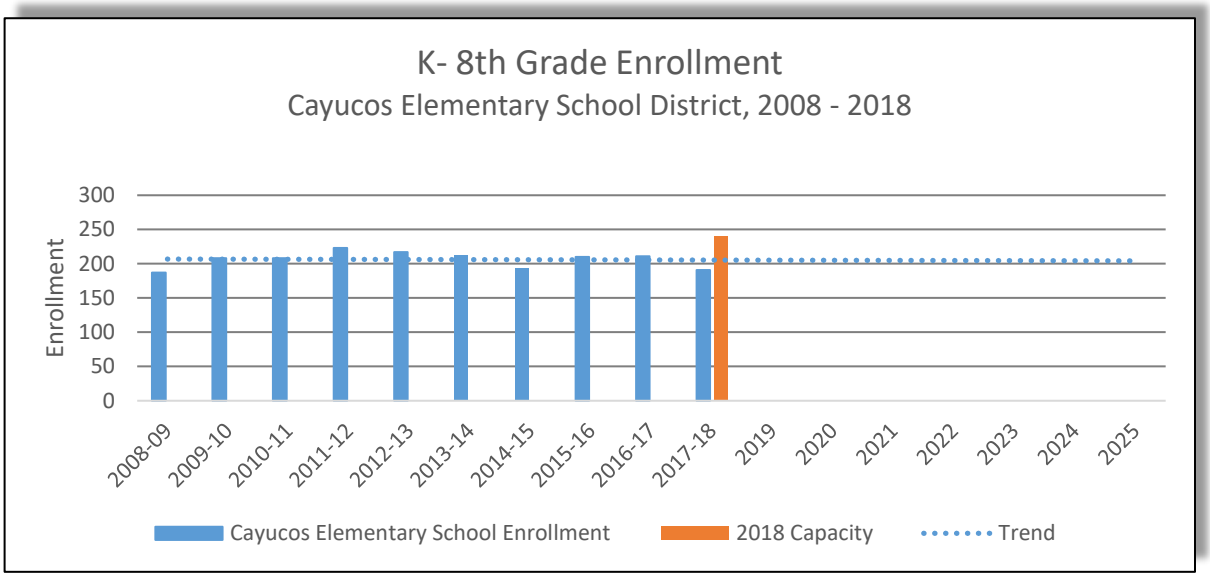
School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
High School Enrollment	287	249	256	231	253	247	229	240	226	206



Cayucos Elementary School District

Enrollment at the Cayucos Elementary School has been relative stable since the 2008-09 school year. The practical capacity is not projected to be reached within seven years. **No Recommended Level of Severity.**

School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Elementary School Enrollment	187	208	208	223	217	213	193	210	211	191



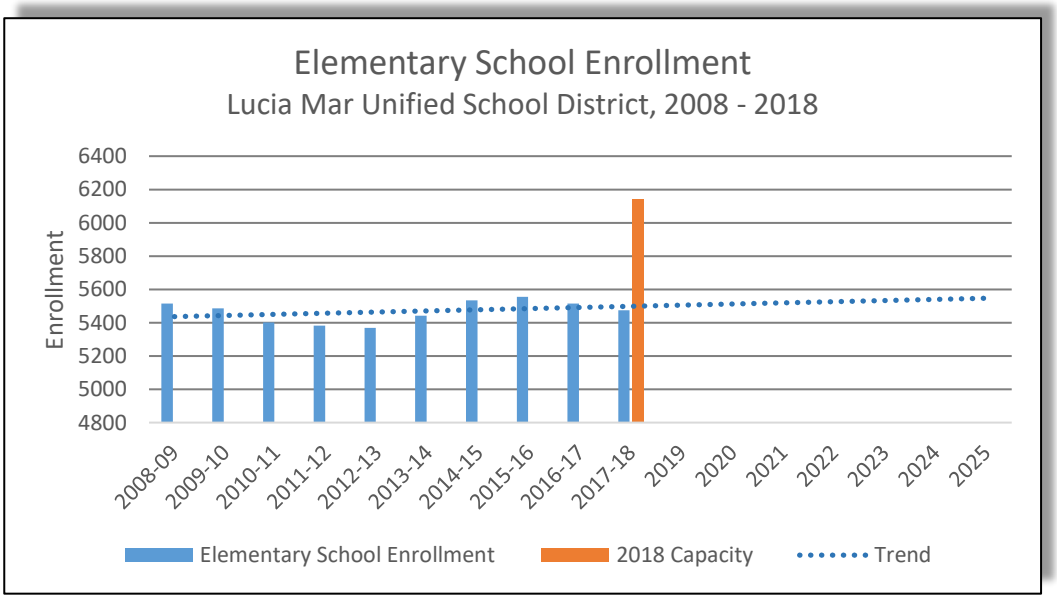
Grizzly Youth Academy Challenge Program

No data were provided.

Lucia Mar School District

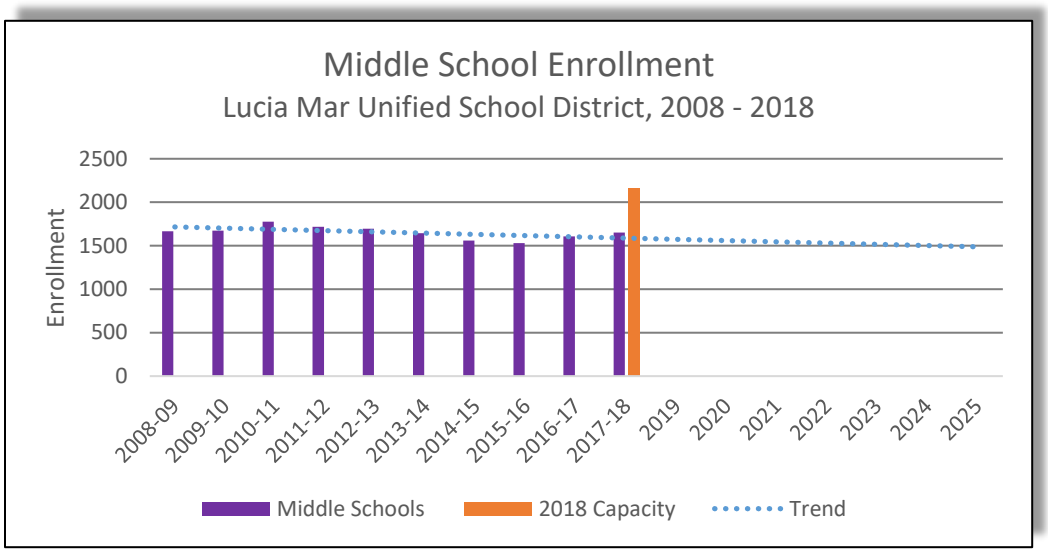
Elementary school enrollment has fluctuated over the past 10 years, but the general trend has been upward. Overall, elementary schools are eperating well below [ractical capacity. However, several have reached, or are nearing, capacity in 2018: Dana, (93%), Fairgrove (94%) Grover Heights (98%) Harloe (99%), Ocean View (104%) and Shell Beach (97%). Ocean View and Shell Beach added relocatable classrooms for the 2014-15 school year. However, Harloe and Ocean View Elementary have reached the practical capacity and Shell Beach Elementary could reach capacity within the next five years. **Recommended Level of Severity III.**

School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
Elementary School Enrollment	5,515	5,487	5,401	5,383	5,368	5,441	5,534	5,556	5,515	5,475



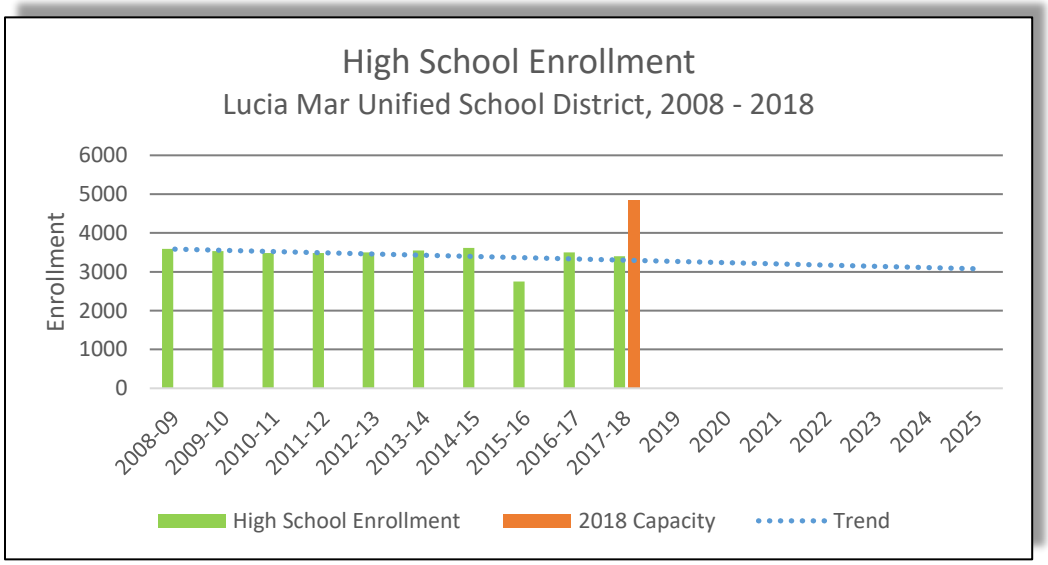
Enrollment in the district's three middle schools has generally trended downward over the past 10 years. The exception is Paulding Middle school which operated at about 90% capacity for the 2016-17 and 2017-18 school years and could reach capacity within the next five year. Overall, there appears to be ample capacity for the next seven years. **No Recommended Level of Severity**.

School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
Middle School Enrollment	1,665	1,675	1,776	1,718	1,694	1,643	1,559	1,530	1,607	1,651



High school enrollment has generally trended downward over the past 10 years. School capacity is not expected to be exceeded in the next seven years**. No recommended Level of Severity**.

School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
High School Enrollment	3,592	3,537	3,484	3,485	3,503	3,549	3,616	2,750	3,497	3,401



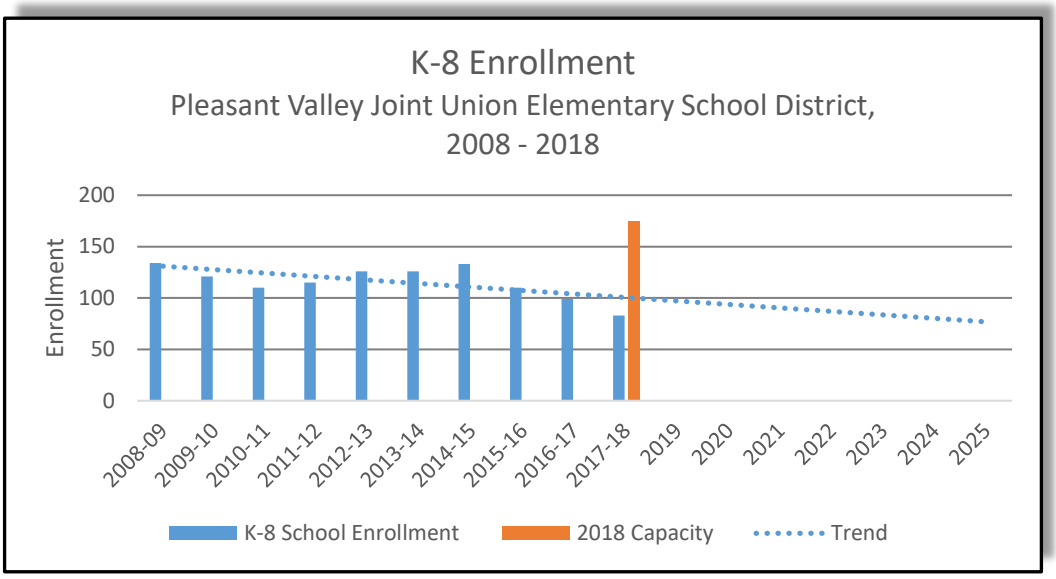
Paso Robles Joint Unified School District

No data were provided.

Pleasant Valley Joint Union School District

Enrollment at Pleasant Valley School has fluctuated considerably over the past 10 years, but has generally decreased since the 2014-15 school year. Because of these fluctuations, the projection of future trends in enrollment should be considered with caution. However, enrollment is not expected to reach capacity for the next seven years. **No recommended Level of Severity.**

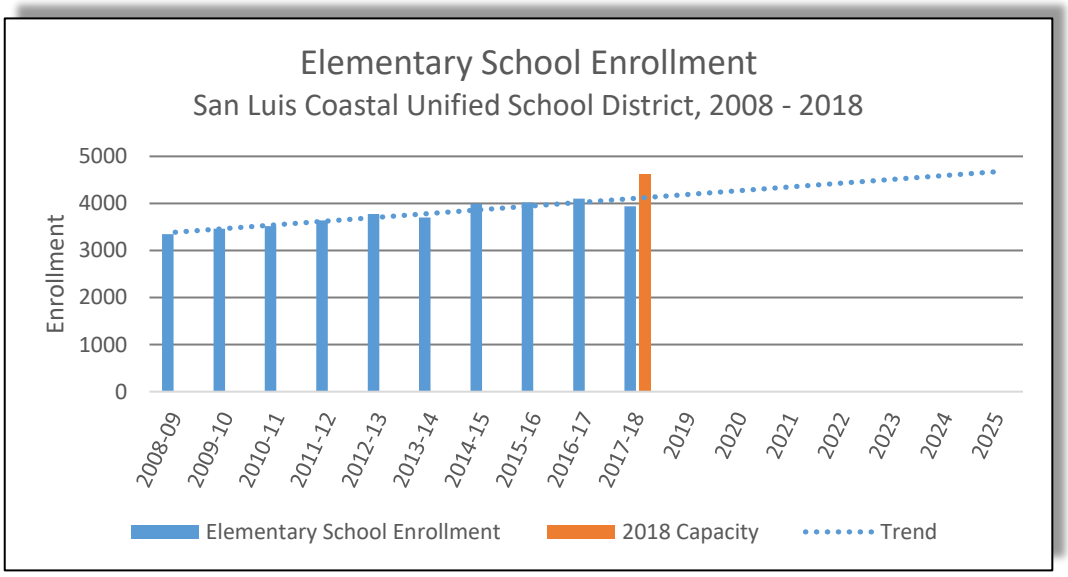
School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
K-8 Enrollment	134	121	110	115	126	126	133	110	99	83



San Luis Coastal Unified School District

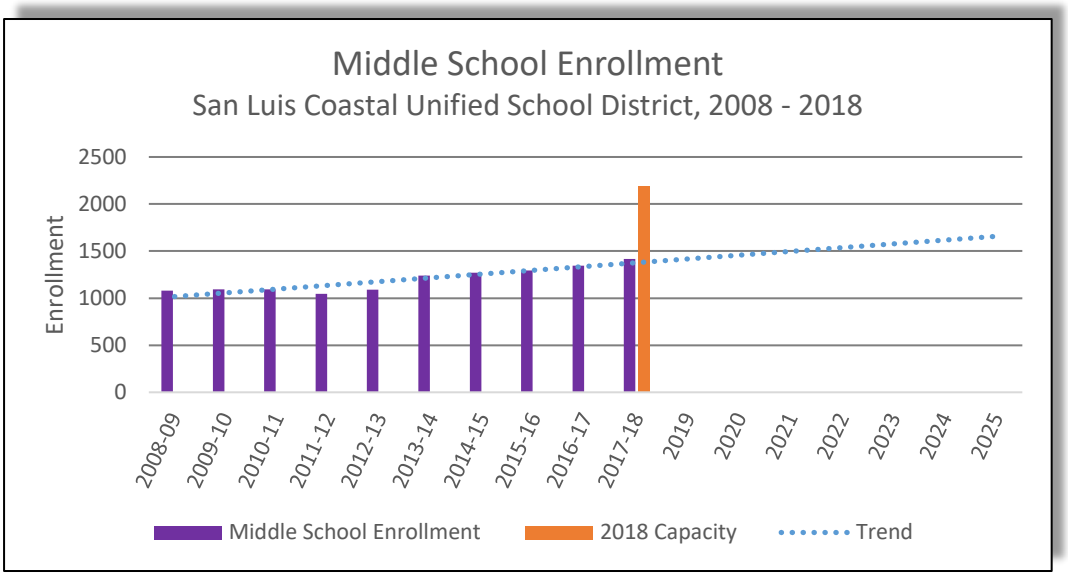
Elementary school enrollment has generally trended upward over the past 10 years but has remained below capacity, except for Bishop Peak School, which has operated near capacity for the 2016-17 and 2017-18 school years and could exceed capacity within five years. In calculating the maximum practical capacity, San Luis Coastal includes all rooms that could be used for classrooms but excludes rooms used for weight training, special education and day care. Morro Elementary and Sunnyside Elementary remain unused as schools. **Recommended Level of Severity II**.

School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
Elementary School Enrollment	3,346	3,463	3,519	3,642	3,773	3,703	3,996	4,021	4,101	3,936



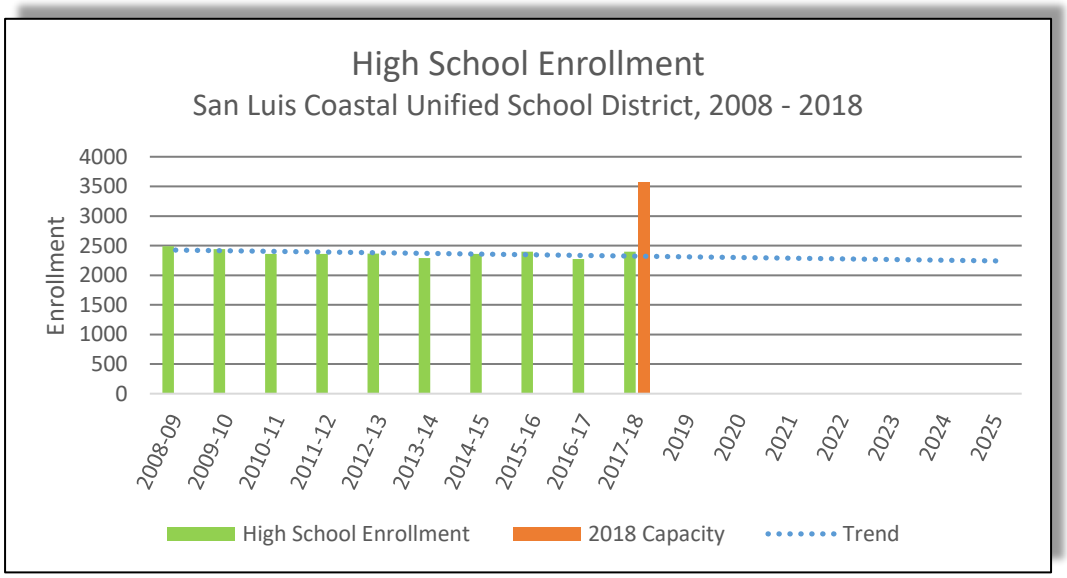
Middle school enrollment has trended slightly upward over the past 10 years and is expected to remain below capacity for the next seven or more years. **No recommended Level of Severity.**

School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
Middle School Enrollment	1,081	1,093	1,093	1,047	1,090	1,239	1,271	1.295	1,345	1,416



High school enrollment in the district has trended slightly downward over the past 10 years and is expected to remain below capacity for the next seven or more years. **No recommended Level of Severity.**

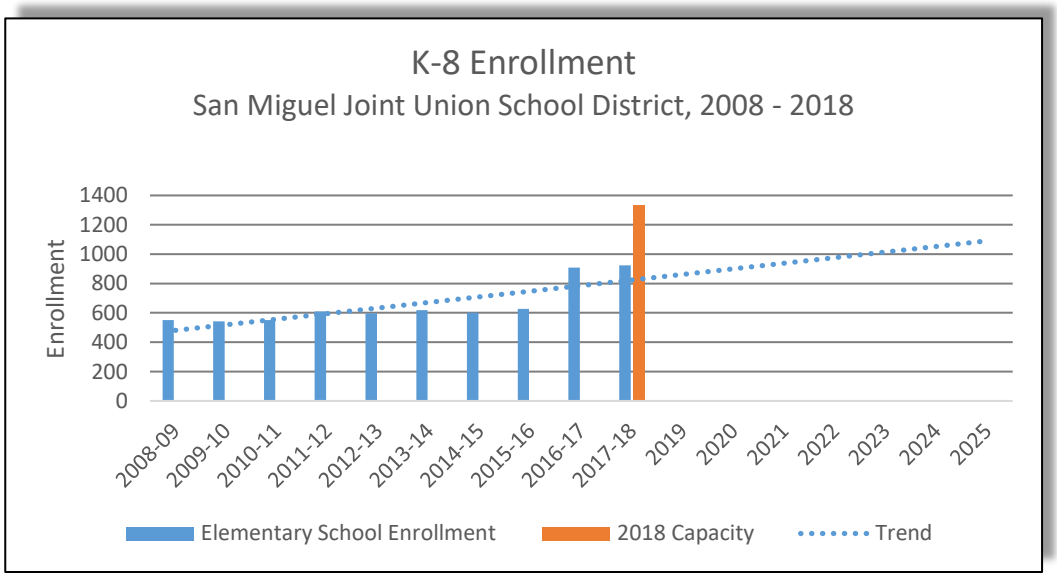
School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
High School Enrollment	2,492	2,441	2,358	2,359	2,364	2,288	2,362	2,398	2,271	2,400



San Miguel Joint Union School District

Enrollment in the district has grown steadily over the past two years but is expected to remain well below capacity for the next several years. The district plans to add relocatable classrooms as needed to meet future enrollment. **No recommended Level of Severity.**

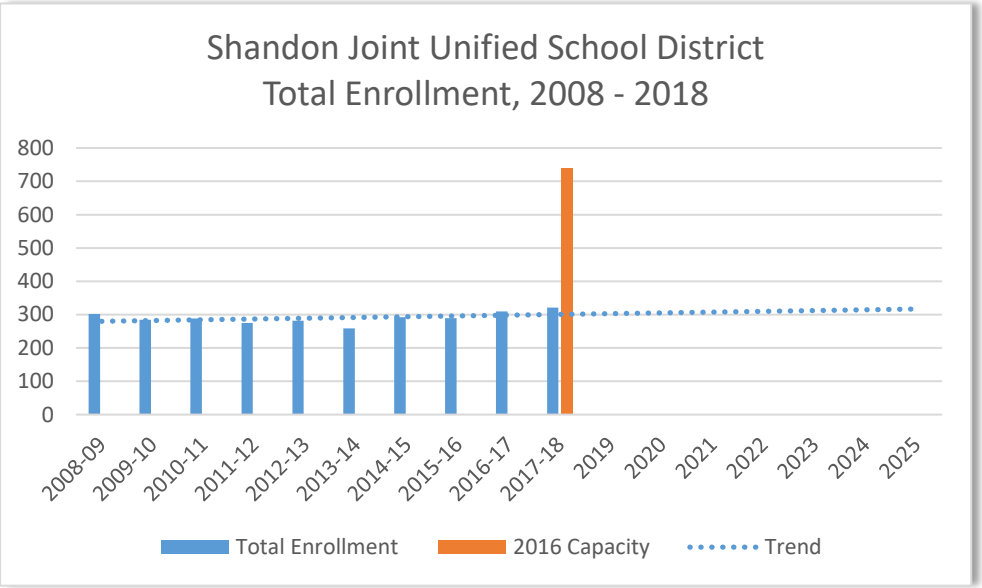
School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
K-8 Enrollment	550	543	550	610	596	618	600	627	908	923



Shandon Joint Unified School District

The California Department of Education aggregates historic enrollment data for the District for all grades K through 12. These data suggest a generally level trend in enrollment over the past 10 years and well below the capacities of school facilities provided for each grade level. **No recommended Level of Severity.**

School Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-2017	2017-2018
K-12 Enrollment	322	304	310	304	308	282	292	289	310	321



Templeton Unified School District

No data were provided.

Summary of Recommended Levels of Severity and Recommended Actions for Schools

The County's General Plan requires coordination between school districts and the County Planning and Building Department regarding the location and provision of new school facilities. Proposed school sites and capital projects are reviewed for conformity with the General Plan and school capacity and enrollment are monitored through the Resource Management System. Development impact fees (described above) are collected by the County on behalf of school districts in partial mitigation of potential impacts on school facilities.

The County can also help to facilitate the dedication of school sites through the adoption of specific plans for major new development and it can cooperate with the school districts and private development interests toward the formation of community facilities districts. Such districts permit the financing of school construction from revenues included in the sale price of improved property within the district boundaries.

Table V-3 – Recommended Levels of Severity and Recommended Actions -- Schools			
District	**School Level**	**Recommended Level of Severity**	**Recommended Actions**
Atascadero Unified School District	Elem.	None	Continue to cooperate with the school districts to investigate ways of using existing regulations to enhance revenues available for school construction, including the formation of community facilities districts. Consult from time-to-time with County Counsel to consider whether new legislation and court rulings regarding school mitigation present the county with additional policy options for helping to address the need for school facilities.
	Middle	None	
	High	None	
Lucia Mar School District	Elem.	**III**	
	Middle	None	
	High	None	
Paso Robles Joint Unified School District	Elem.	+++[2]	
	Middle	+++	
	High	+++	
Pleasant Valley Joint Union School District	Elem.	None	
San Luis Coastal Unified School District[1]	Elem.	**II**	
	Middle	None	
	High	None	
San Miguel Joint Union School District	K-8	None	
Shandon Joint Unified School District	K-12	None	
Templeton Unified School District	Elem.	+++	
	Middle	+++	
	High	+++	

+++ No data were provided.

VI. PARKS

Level of Severity Criteria

Level of Severity	Parks Criteria
I	**Regional Parks**. The county provides between 10 and 15 acres of regional parkland per 1,000 persons in the entire county (i.e., incorporated and unincorporated population). **Community Parks**. An unincorporated community has between 2.0 and 3.0 acres of community parkland per 1,000 persons.
II	**Regional Parks**. The county provides between 5 and 10 acres of regional parkland per 1,000 persons in the entire county (i.e., incorporated and unincorporated population). **Community Parks**. An unincorporated community has between 1.0 to 2.0 acres of community parkland per 1,000 persons.
III	**Regional Parks**. The county provides less than 5 acres of regional parkland per 1,000 persons in the entire county (i.e., incorporated and unincorporated population). **Community Parks**. An unincorporated community has 1.0 acre or less of community parkland per 1,000 persons.

County Parks

Parks are an important part of our communities. The Parks and Recreation Element (PRE) of the County General Plan, adopted in 2006, states:

> *"Recreation and exercise are fundamental to a healthy life. The benefits include greater productivity, less disease, and a brighter future. As the population grows, competition for recreational resources increases. Wide open spaces, once the haven of the equestrian, hiker and poet, are more often fenced and the right of exclusivity enforced. As the development and formality of our area increases, so must the provision of recreation spaces that are available to all people."*

With the acknowledgement of the importance of parks in our lives, the RSR is a useful way to assess our success in providing this important community resource.

Residents of San Luis Obispo County enjoy a diverse array of outdoor recreation opportunities provided by public agencies and non-profit organizations. These resources include:

- County parks (described below)
- State parks and beaches
- City parks
- Parks provided by Community Services Districts
- School district properties
- Federal lands such as the Los Padres National Forest and the Carrizo Plain National Monument
- Natural preserves managed by non-profit organizations

Although County residents use all of these resources regardless of ownership or jurisdiction, this RSR addresses only those parks operated by the San Luis Obispo County Department of Parks and Recreation.

The County provides different types of parks, recognizing the different roles that parks play in the recreational needs of county residents. As discussed in the Parks and Recreation Element, part of this role is related to the size of the park. A community park which tends to be 5 to 25 acres in size cannot provide the same recreational opportunities as a regional park which may consist of hundreds or even thousands of acres.

The types of parks assessed by this RSR are described below and summarized by park type and acreage on Table VI-1. The location of these parks throughout the county is shown on Figure VI-1. Other county park land is summarized in Table VI-2.

Community Parks

By definition, community parks are meant to meet the recreation needs of a community, providing recreation facilities that serve the community and in some cases visitors from outside the local community. For example, a community park with numerous sports fields will draw people from a wide area for tournament play. Community parks also tend to be active in nature and/or provide a mix of active recreation. Typical facilities might include a skate park, sports fields (football, baseball, soccer, and softball), a swimming pool, a sufficient number of tennis courts for tournament play, group picnic areas, and/or a community center as well as facilities for some passive uses such as a trails, scenic overlooks, benches, and interpretive displays.

Although the Parks and Recreation Element distinguishes among mini-, neighborhood, and community parks for planning purposes, they are treated as one category (“community parks”) for the purpose of assessing Levels of Severity.

Regional Parks

Regional Parks are the largest parks provided by the County. According to the National Recreation and Parks Association, there can be two types of regional parks,

urban and rural. However, for purposes of assessing Levels of Severity, urban and rural regional parks are treated as one category ('regional parks"). Regional parks may vary in size from 200 acres to over 1,000 acres. Facilities provided at regional parks may include play areas, picnicking, boating, fishing, swimming, camping and trail use. The larger regional parks may include nature oriented outdoor activities, such as viewing and studying nature, wildlife habitat, conservation, swimming, picnicking, hiking, fishing, boating, camping, and trail use. Because of the types of recreation provided, regional parks not only draw from the County's population, but also from the economically important tourist population.

Table VI-1 – Developed Regional and Community Park Land Acreage

Park Type	Location	Total Park Acres[1]
Regional Parks		
Biddle Park	Arroyo Grande	44.1
El Chorro Park	San Luis Obispo	447.0
Heilmann Park	Atascadero	102.0
Lopez Lake Recreation Area	Arroyo Grande	4,276.0
Santa Margarita Lake Park	Santa Margarita	7,122.0
Total Regional Parks:		11,991.0
Community Parks		
Avila Park/Plaza	Avila	2.04
C. W. Clarke Park	Shandon	11.3
Hardie Park	San	2.2*
Lampton Cliffs Park	Cambria	2.3*
Los Osos Community Park	Los Osos	6.8*
Nipomo Community Park[6]	Nipomo	136
Norma Rose Park	Cayucos	1.5
Oceano Memorial Park	Oceano	6.8
Paul Andrew Park	Cayucos	0.5*
San Miguel Park	San Miguel	3.2
Santa Margarita Community Park	Santa Margarita	1.5
Shamel Park	Cambria	2.6*
Templeton Park	Templeton	2.9
Vineyard Dog Park	Templeton	2.9
Total Community Parks:		182.5
Total Park Acreage:		**12,173.5**

*County parks located within District 2.
Source: San Luis Obispo County General Plan Parks and Recreation Element

Notes:

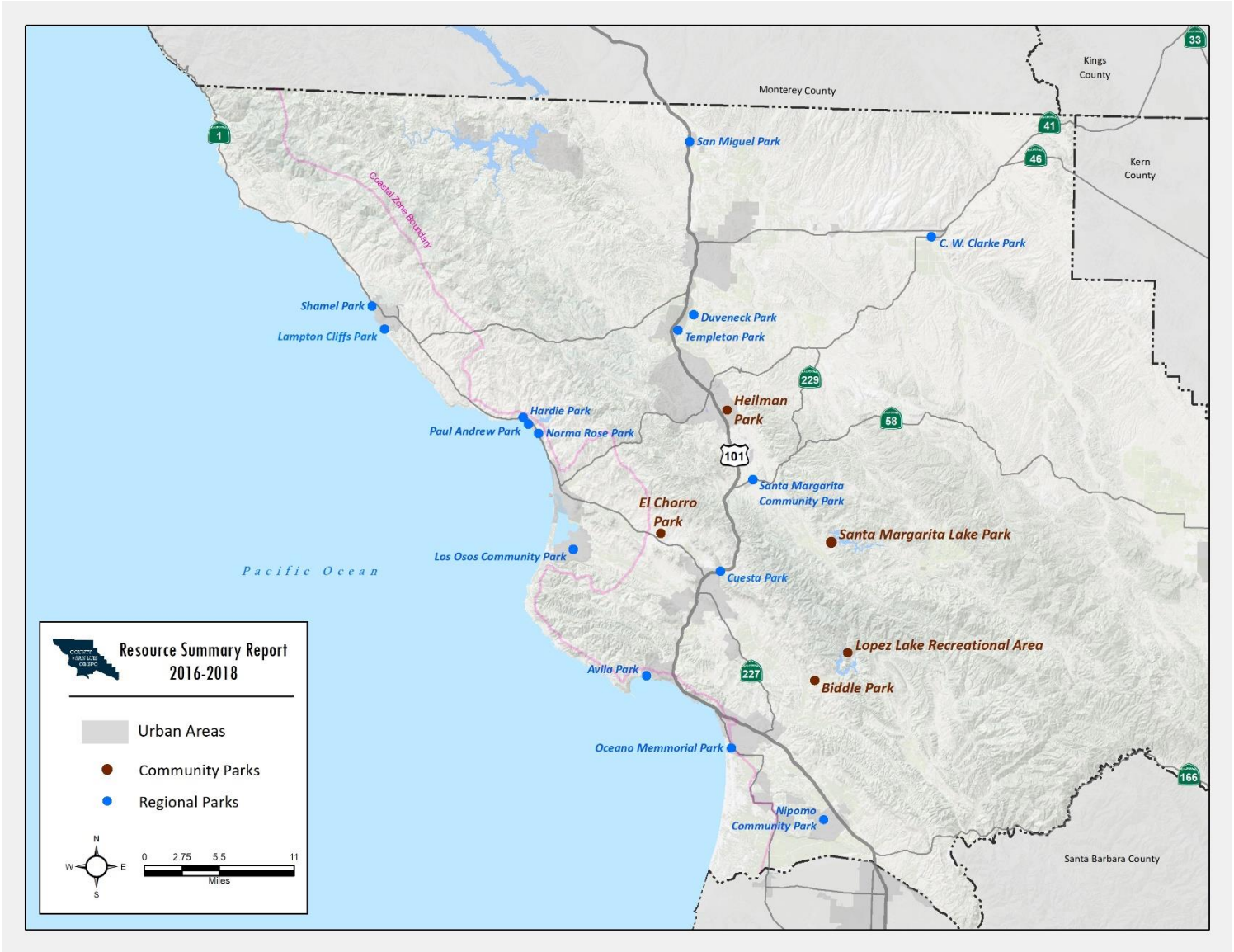
1. The list of parks and park acreage is for the purpose of recommending Levels of Severity, only.
2. The table includes "developed" parks only. Land acquired by the County for the purpose of developing parks is not included. However, undeveloped land and natural features within developed parks are included as part of the total acreage.
3. Golf courses, natural areas, linear parks, RV parks and other recreation lands managed by the County are not included.
4. Cuesta Park is not included because it does not serve an unincorporated community.
5. Park acreage data was revised after the 2014-2016 Resource Summary Report.
6. Acreage does not include Mesa Meadows.

Table VI-2 – Other County Park Land

Park Type	Location	Total Park Acres[1]
Regional Parks		
Duveneck Park (undeveloped)	Templeton	80.0
Community Parks		
Cuesta Park	City of San Luis Obispo	4.8
Jack Ready Park (undeveloped)	Nipomo	30.0
See Canyon Park (undeveloped)	Avila Valley	8.7
Total Additional Park Acreage:		**123.5**

Source: San Luis Obispo County General Plan Parks and Recreation Element

Figure VI-1 – County Parks



Recommended Levels of Severity

Regional Parks

For regional parks, the total acreage was divided by the estimated 2016 total county population (including cities and unincorporated areas). Applying these criteria, the County currently provides well more than 10-15 acres of regional parkland per 1,000 residents. **No recommended Level of Severity.**

Table VI-3 – Recommended Levels of Severity for Regional Parks

Total Acres of Regional Parks[1]	2018 Total County Population	Ratio of Regional Park Acreage Per 1,000 Population	Recommended Level of Severity
11,991.0	282,544	42.4	None

Source: San Luis Obispo County General Department of Parks and Recreation, 2018

Notes:

1. See Table VI-1. Total acreage for the purpose of assessing Levels of Severity, only. Does not include undeveloped park land, golf courses, natural areas, linear parks, or other recreational lands managed by the County.

Community Parks

To assess the level of severity for community parks, the population within a five-mile radius of the urban reserve line for the ten unincorporated communities was determined using 2010 census block data. The resulting population was adjusted by applying the population growth rate for 2010 to 2018 to reflect the 2018 population. The total park acreage within the particular unincorporated community was then divided by this population, which in some cases includes residents of incorporated cities, to derive the ratio of parks per 1,000 residents within the five-mile radius and the results are summarized in the following table. Overall, the unincorporated communities provide a ratio of about 1.3 acres of developed parkland per 1,000 residents. Nipomo and Shandon provide more than three acres per 1,000 residents.

Figure VI – 2 – Five-Mile Service Areas Around Community Parks

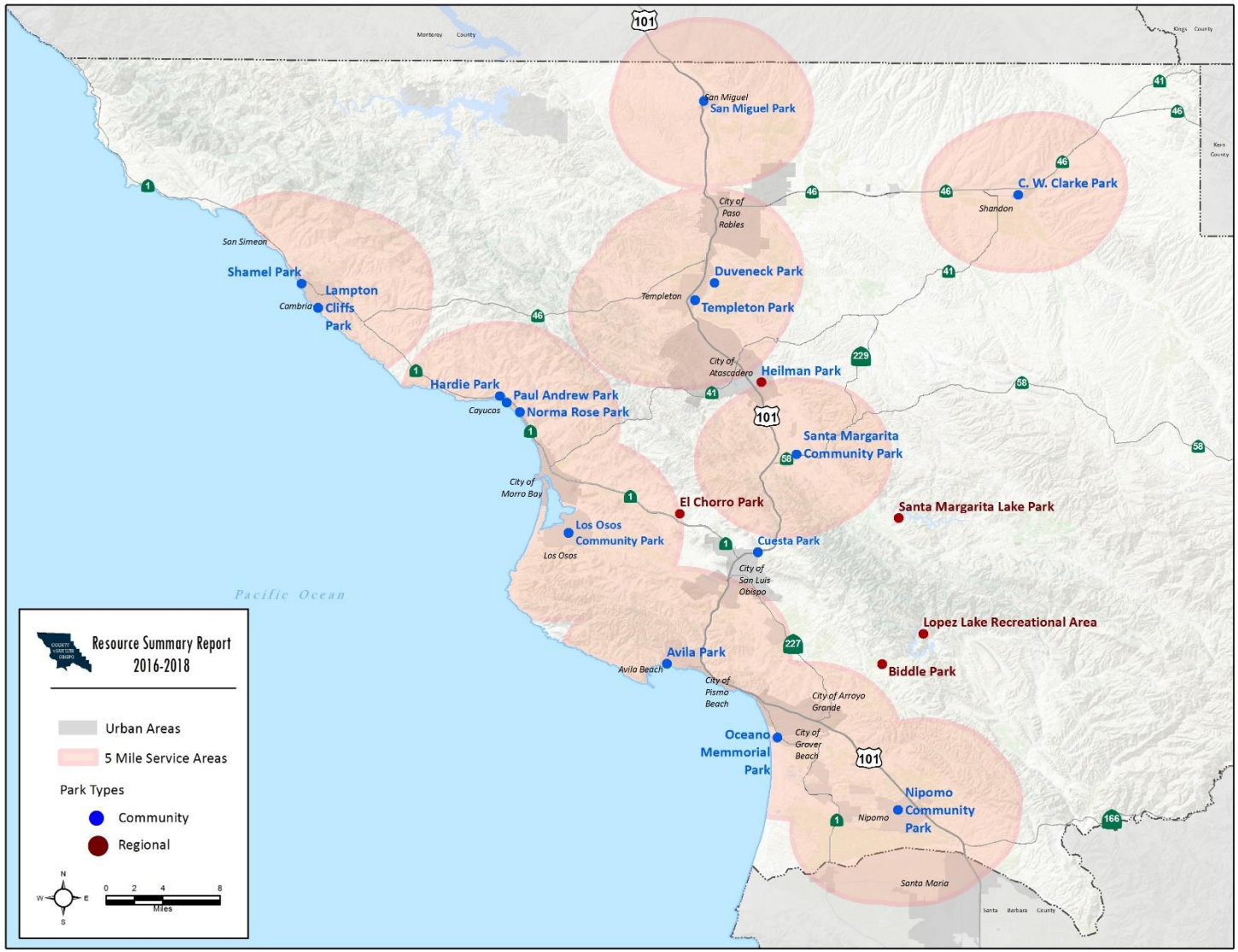


Table VI-4 -- Recommended Levels of Severity for Community Parks				
Community	**Total Community Parkland[1]**	**Total Population Within 5 Miles of Community URLs[2]**	**Acres of Community Parkland Per 1,000 Population**	**Recommended Level of Severity**
Avila	2.04	22,640	0.08	**III**
Cambria	4.9	6,840	0.71	**III**
Cayucos	4.2	3,547	1.04	**II**
Los Osos	6.8	25,457	0.21	**III**
Nipomo	136.0	29,040	4.23	None
Oceano	6.8	42,842	0.14	**III**
San Miguel	3.2	4,475	0.56	**III**
Santa Margarita	1.5	9,884	0.13	**III**
Shandon	11.3	1,558	6.40	None
Templeton	5.8	62,399	0.08	**III**

Sources: San Luis Obispo County General Plan Parks and Recreation Element, 2010 US Census of Population and Housing, Department of Planning and Building 2018

Notes:

1. Total acreage for the purpose of assessing Levels of Severity, only. Does not include undeveloped park land, golf courses, natural areas, linear parks, or other recreational lands managed by the County.
2. Total population within five miles of urban reserve lines for unincorporated communities, including populations within cities. Does not include village areas.

Summary of Recommended Levels of Severity and Recommended Actions

Table VI-5 -- Summary Recommended Levels of Severity and Recommended Actions		
Area/Community	**Recommended Level of Severity**	**Recommended Actions**
Community Parks		
Avila	**III**	Continue to pursue strategies for the acquisition and development of parks, including the dedication of parkland and the collection of development impact (Quimby) and public facility fees. Collaborate with County Parks to review the Parks and Recreation Project List in the Parks and Recreation Element and make recommendations to the Board regarding which park projects to implement. Collaborate with other potential parks operators such as CSDs and school districts to provide park and recreation opportunities. When preparing Resource Capacity Studies for parks, address the following issues: a. Provide an updated inventory of existing parkland in the affected unincorporated community. b. Document existing shortfalls in park acreage.
Cambria	**III**	
Cayucos	**II**	
Los Osos	**III**	
Oceano	**III**	
San Miguel	**III**	
Santa Margarita	**III**	
Templeton	**III**	

VII. AIR QUALITY

Level of Severity Criteria

Level of Severity	Air Quality Criteria
I	Air monitoring shows periodic but infrequent violations of a State air quality standard, with no area of the county designated by the State as a non-attainment area.
II	Air monitoring shows one or more violations per year of a State air quality standard and the county, or a portion of it, has been designated by the State as a non-attainment area.
III	Air monitoring at any county monitoring station shows a violation of a Federal air quality standard on one or more days per year, and the county or a portion of the county qualifies for designation as a Federal non-attainment area.

The Level of Severity Criteria are based on air quality standards, which are discussed in detail below.

Relationship to the County General Plan and RMS System

The County of San Luis Obispo has the authority to protect the health, safety, and welfare of citizens from environmental hazards such as air pollution. The General Plan acknowledges the relationship between the San Luis Obispo County Air Pollution Control District (APCD) air quality goals and policies and County General Plan policies. For example, the Conservation and Open Space Element states that the county should amend the General Plan to avoid land use designation changes that are not consistent with the APCD's approved plans (i.e., Clean Air Plan, California Environmental Quality Act (CEQA) Handbook, and Particulate Matter Reduction Plan). The General Plan and regulatory ordinances could be amended where necessary to respond to air quality concerns that may be raised by the RMS procedures. For example, General Plan Amendments should encourage land use patterns that enable efficient development focused in urban areas that reduces vehicle miles traveled and air pollution.

Air Quality Standards and Attainment Status for Criteria Pollutants

The State of California and the U.S. Environmental Protection Agency (USEPA) have adopted ambient air quality standards for air pollutants of primary public health concern: ozone, particulate matter (PM_{10} and $PM_{2.5}$), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), carbon monoxide (CO), and lead. These are called "criteria pollutants"

because the standards establish permissible airborne pollutant levels based on criteria developed after careful review of all medical and scientific studies of the effects of each pollutant on public health and welfare. Air Quality Standards are used to designate a region as either "attainment" or "non-attainment" for each criteria pollutant. A non-attainment designation can trigger additional regulations for that region aimed at curbing pollution levels and bringing the region into attainment of the standards.

The National Ambient Air Quality Standards (NAAQS or federal standards) are generally less restrictive than California Ambient Air Quality Standards (CAAQS or California Standards). However, the federal standards come with regulatory penalties that the California Standards do not have. For example, federal transportation funds can be withheld as a punitive measure for jurisdictions that do not meet federal standards. For most pollutants, the NAAQS and CAAQS allow a standard to be exceeded a certain number of times each calendar year without resulting in a non-attainment designation. The current SLO County attainment status is provided in the following table.

Table VII-1 – Criteria Pollutants and Attainment Status

Criteria Pollutant	Standards Exceeded 2014-16?	Attainment Status California CAAQS	Attainment Status Federal/US NAAQS
Ozone	Yes	Non-Attainment	Non-Attainment East County Attainment West County
PM2.5	Yes	Attainment	Unclassified/Attainment
PM10	Yes	Non-Attainment	Unclassified
SO_2	No	Attainment	Unclassified
NO_2	No	Attainment	Unclassified
CO	No	Attainment	Unclassified
Lead	No	Attainment	No Attainment Information

Source: SLO APCD

Notes:
1. Unclassified is the category given to an area with insufficient data.

Factors That Affected Air Quality and Air Quality Measurements in 2014-2016

Smoke from wildfires can have a temporary adverse effect on air quality. Smoke from several large wildfires in 2016, have had a significant impact on air quality. In addition, there were several notable air quality monitoring network changes in 2015:

- In February, the Atascadero station was relocated from 6005 Lewis Avenue to behind the Colony Park Community Center at 5599 Traffic Way.
- In July, a new PM_{10} monitoring station was established within the Oso Flaco area of the Oceano Dunes State Vehicular Recreation Area (ODSVRA). This monitor fulfills the "Control Site Monitor" requirement of San Luis Obispo County APCD District Rule 1001. While owned by the California Department of Parks of Recreation, the monitor is operated by the APCD.
- Due to a safety issue, the PM_{10} and $PM_{2.5}$ monitors at the San Luis Obispo station were temporarily shut down from September 2015 through mid-June 2016. This site is run by the California Air Resources Board.

Recommended Levels of Severity

Each criteria pollutant and recommended level of severity is summarized on the following table and discussed in detail below.

Table VII-2 -- Recommended Levels of Severity for Air Quality

Criteria Pollutant	Area of County	Recommended Levels of Severity
Ozone	East SLO County	**III**
	West SLO County	**II**
Particulate Matter – $PM_{2.5}$	Nipomo Mesa	**III**
	Remainder of SLO County	**II**
Particulate Matter – PM_{10}	Nipomo Mesa	**III**
	Remainder of SLO County	**II**
Sulfur Dioxide	Nipomo Mesa	**I**
Nitrogen Dioxide, Carbon Monoxide, Lead	All Areas in SLO County	None
Toxic Air Contaminants	All Areas in SLO County	None. LOS for Toxics not evaluated because toxics are not criteria pollutants and strategies are in place to mitigate impacts.

This report is based on official air quality data through 2016 (the most recent available). Detailed annual air quality annual data reports through 2016 are available at the APCD website:

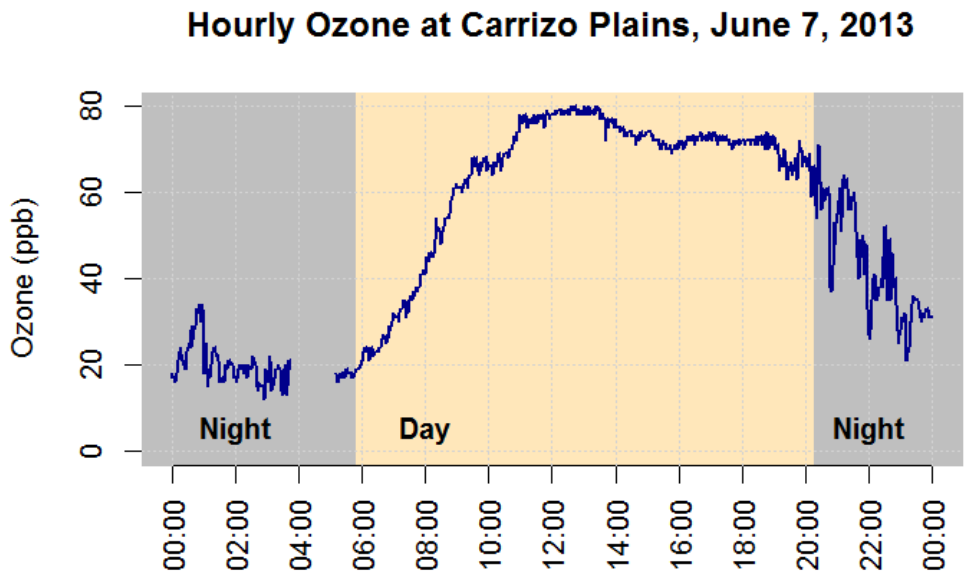
http://www.slocleanair.org/library/air-quality-reports.php

Ozone

Ozone is formed in the atmosphere as a byproduct of photochemical reactions between various reactive organic compounds (ROG), oxides of nitrogen (NO_x), and sunlight. The exhaust systems of cars and trucks produce about 50 percent of the county's ROG and NO_x emissions. Other sources include solvent use, petroleum processing, utility and industrial fuel combustion, pesticides, and waste burning.

The chemical processes that impact the concentrations of atmospheric ozone have a distinct diurnal pattern. Ozone concentrations typically increase as sunlight intensity increases, peaking midday or in the afternoon, and approaching the lowest daily concentration in the early morning hours and just before sunrise, as shown in the plot below. In the absence of sunlight, ozone can be destroyed or 'scavenged' by reaction with NO_x molecules. The degree of scavenging depends on the amount of available NO_x. In a polluted environment, with lots of NO_x from vehicles operated during the morning commute, this scavenging can be significant and ozone concentrations can approach zero just before sunrise. After sunrise, ozone concentrations typically increase as sunlight intensity increases and the cycle repeats. Wildfires generate precursor gases that create ozone, so wildfire air quality impacts can result in an increase in ozone.

Figure VII-1 – Example of Diurnal Ozone Pattern

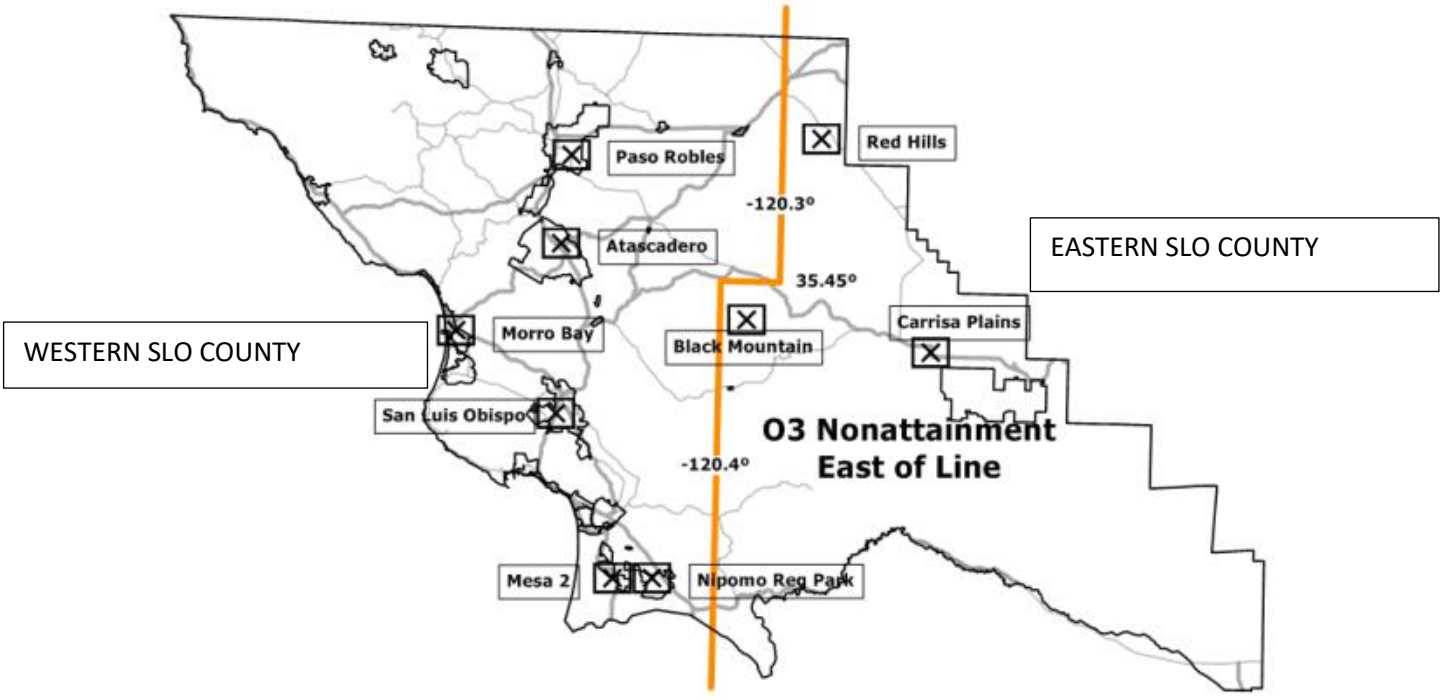


Ozone is a strong oxidant gas that attacks plant and animal tissues. It can cause impaired breathing and reduced lung capacity, especially among children, athletes, and persons with compromised respiratory systems. It can also cause significant crop and forest damage.

In May 2012, the USEPA designated the eastern portion of SLO County as non-attainment for the 75 parts per billion (ppb) 8-hour ozone standard. The western portion of the county retained its attainment status. The map that follows identifies the boundary between the attainment and non-attainment areas, which is defined by the latitude and longitude lines shown on the map (Long. -120.3 deg., north of Lat. 35.45 deg. and Long. -120.4 deg., south of Lat. 35.45 deg.).

On October 1, 2015, USEPA strengthened the National Ambient Air Quality Standards for ground-level ozone to 70 parts per billion (ppb), based on extensive scientific evidence about ozone's effects on public health and welfare. The updated standards will improve public health protection, particularly for at-risk groups including children, older adults, people of all ages who have lung diseases such as asthma, and people who are active outdoors, especially outdoor workers. They also will improve the health of trees, plants and ecosystems. Attainment designations for the 70 ppb standard were made by USEPA in 2018 and SLO County has been designated non-attainment of the 70 ppb standard.

Figure VII-2 – Ozone Nonattainment Area



Ozone Trends

Figure VII-3, below, depicts the total number of hours each year (2007-2016) during which the ozone concentration was at or above 65 parts per billion (ppb). This is a useful indicator for trends, even though there are no health standards for single-hour exposure to this level of ozone.

Ozone design values are used by the USEPA to determine whether an area attains a federal standard. For ozone, the design value is calculated by averaging the 4th highest annual 8-hour average over three consecutive years. For example, a 2016 design value is the average of the 4th highest 8-hour averages from each year for 2014, 2015, and 2016.

Figure VII-4 presents ozone design values for 2007-2016. Design values are used by USEPA to determine whether an area attains a federal standard. Only design values meeting data completeness requirements are included; the dashed red line indicates the federal 8-hour standard which changed from 75 ppb to 70 ppb in 2015.

Figure VII-3 – Hours at or Above 65 ppb Ozone, 2007-2016

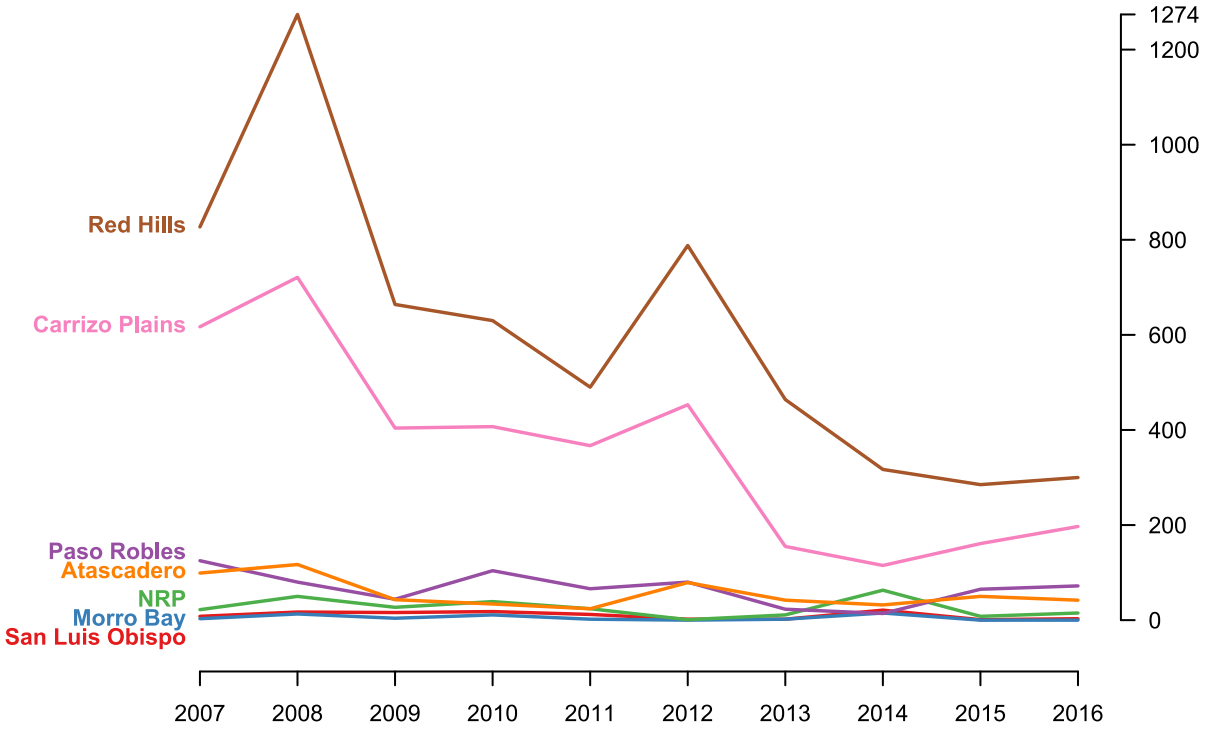
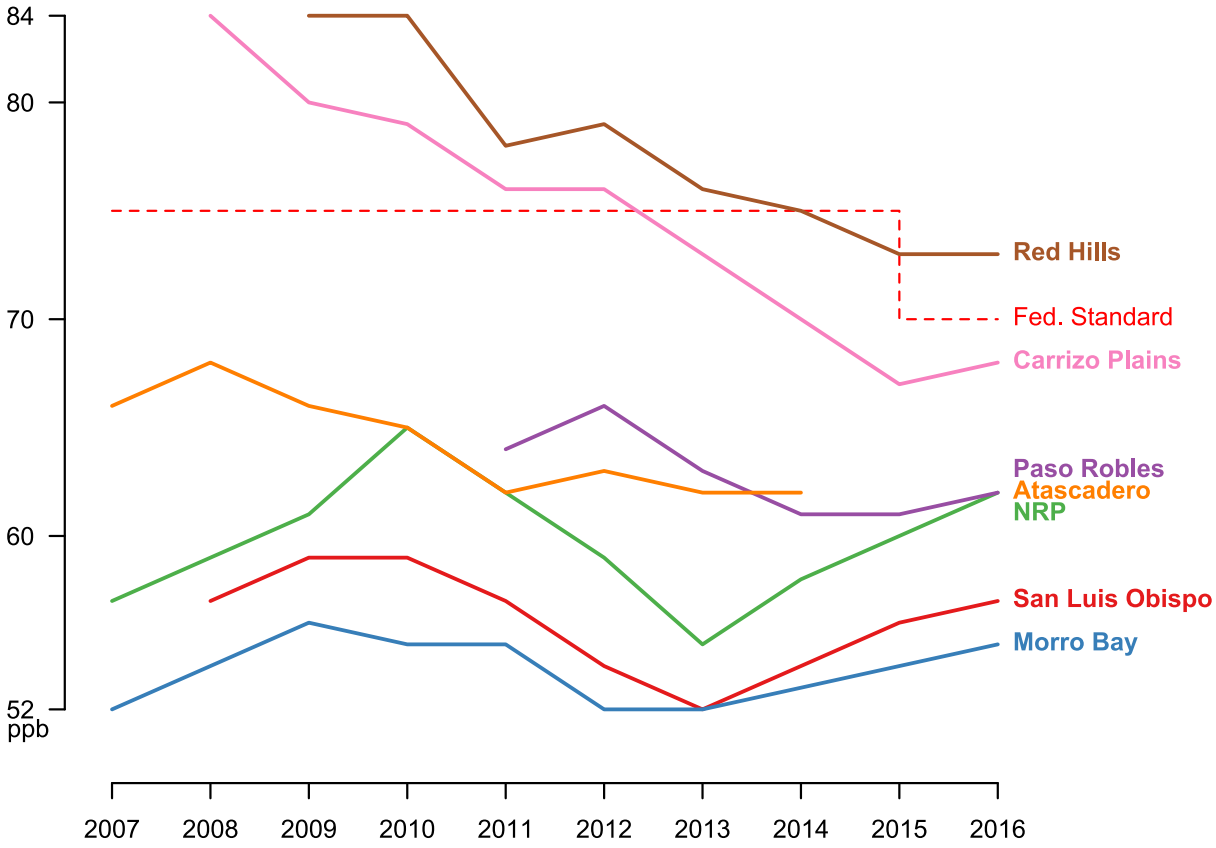


Figure VII-4 – Ozone Design Value Trends, 2007-2016



Notes:
1. The dashed red line indicates the federal 8-hour standard which changed from 75 ppb to 70 ppb in 2015.

Recommended Level of Severity for Ozone, East County -- Level of Severity III

The recommended level of severity for ozone in East SLO County is LOS III because this area is currently designated as non-attainment of the federal 8-hour ozone standard. The APCD is currently working with the California Air Resources Board to develop the state Implementation Plan (SIP) that describes the proposed methods for attaining this standard. In addition, the current APCD Clean Air Plan addresses ozone control measures. The 10-year design value trend plot above shows a significant improvement in air quality in the non-attainment area (East SLO County, Red Hills and Carrizo Plains).

Recommended Level of Severity for Ozone, West County -- Level of Severity II

The recommended level of severity for ozone in West SLO County is considered LOS II because this area is currently designated non-attainment of the state 8-hour ozone standard and exceeds the federal and state standards at times. West SLO County is currently designated attainment of the federal 8-hour ozone standard.

Particulate Matter

Ambient air quality standards have been established for two classes of particulate matter: PM_{10} (respirable particulate matter less than 10 microns in aerodynamic diameter), and $PM_{2.5}$ (fine particulate matter 2.5 microns or less in aerodynamic diameter). Both consist of many different types of particles that vary in their chemical activity and toxicity. $PM_{2.5}$ tends to be a greater health risk because the particles are smaller and can travel deeper into the lungs. Sources of particulate pollution include diesel exhaust; mineral extraction and production; combustion products from industry and motor vehicles; smoke from wildfires and prescribed burning; paved and unpaved roads; condensation of gaseous pollutants into liquid or solid particles; and wind-blown dust from soils disturbed by demolition and construction, agricultural operations, off-road vehicle recreation, and other activities. Wildfire smoke and wind-blown dust can have a significant impact on air quality.

Figure VII-5, below, shows for each site the total number of hours each year when PM_{10} was at or above 50 ug/m^3 during the hours when people are most likely to be active (10 am to 4 pm). Collection of hourly data began in mid–2009 for some sites and later for others; years with less than 90% valid hourly data are omitted. This metric is intended to illustrate trends in population exposure, even though there are no health standards for single-hour exposure to this level of PM_{10}.

Figure VII-6 depicts annual average PM_{10} concentrations over the past 10 years; years with partial data are omitted. The red dashed line marks the state PM_{10} standard for the annual mean of 20 ug/m^3. While occasional exceedances of the standard occur at most sites, the monitors on the Nipomo Mesa at Nipomo Regional Park, Mesa2, and CDF are consistently higher than elsewhere in the county.

Figure VII-5 – Hours at or Above 50 ug/m^3 PM_{10}, 2010-2016

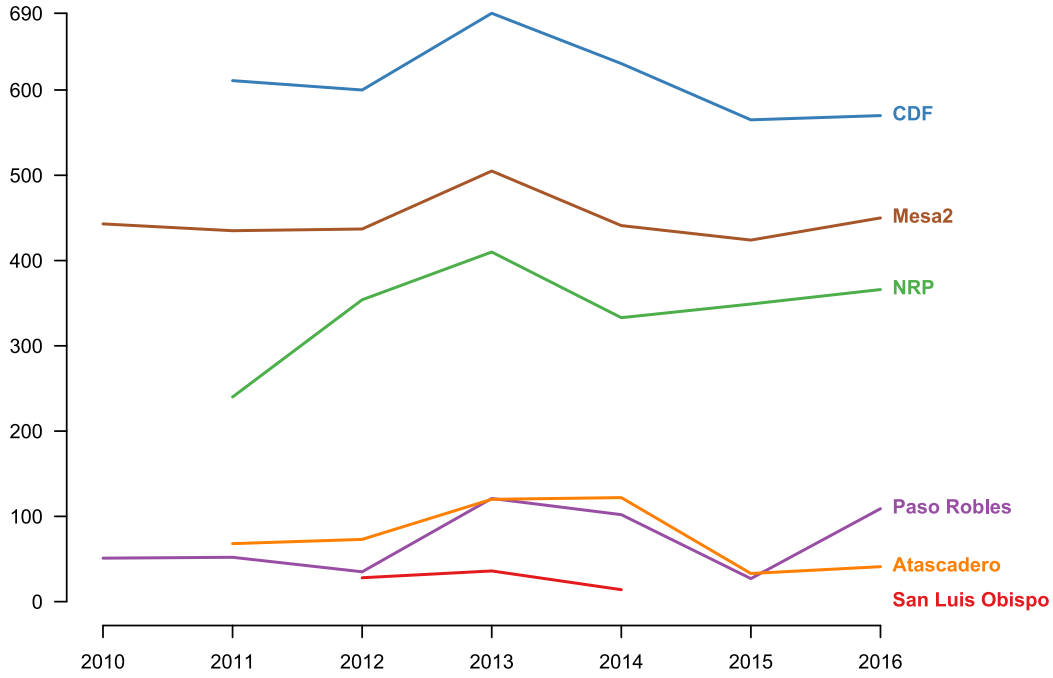
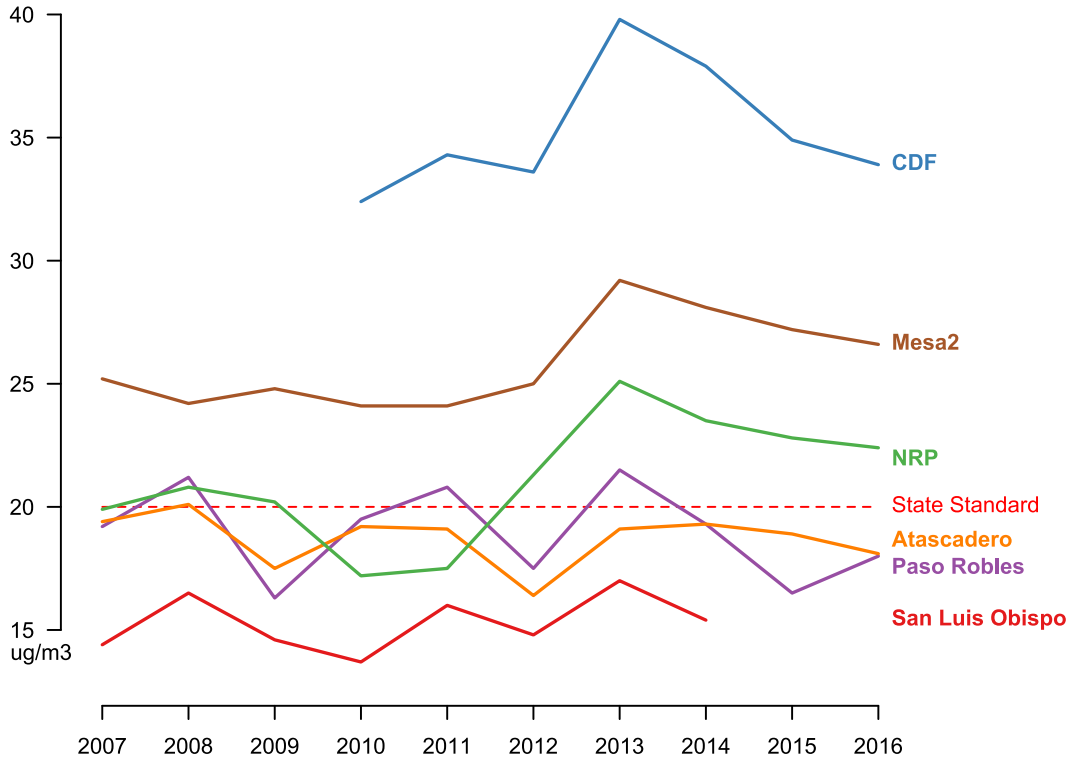
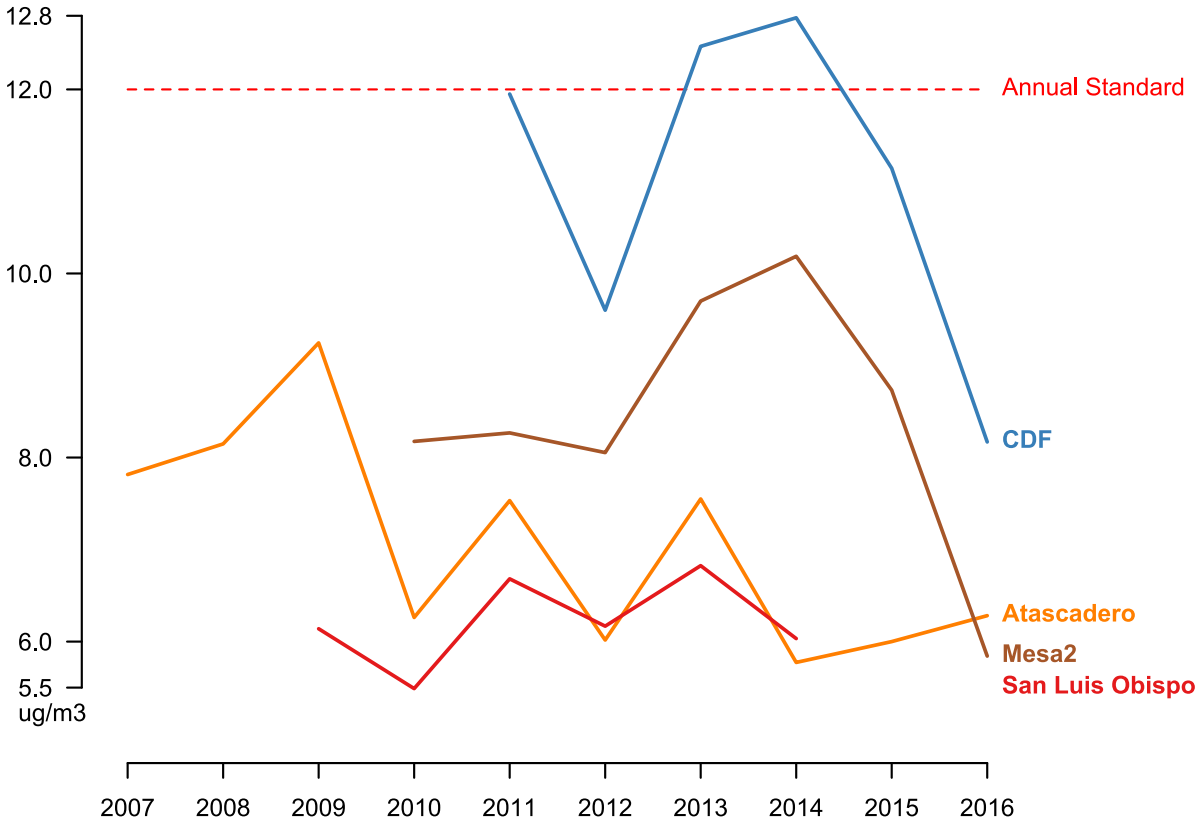


Figure VII-6 – PM_{10} Annual Average, 2007-2016



Trends in the annual average $PM_{2.5}$ levels are depicted in Figure VII-7 for the four sites in the county where it is measured. Data for the past 10 years are shown, and years with partial data are omitted. The red dashed line marks the 12 ug/m^3 state and federal $PM_{2.5}$ standard for the annual mean. As with PM_{10}, the stations on the Nipomo Mesa tend to record higher levels than those elsewhere in the county.

Figure VII-7 – $PM_{2.5}$ Annual Averages, 2007-2016



Particulate Matter Studies and APCD Hearing Board Actions

Historical ambient air monitoring on the Nipomo Mesa has documented atypical concentrations of airborne particulate matter compared to other areas of San Luis Obispo County and other coastal areas of California. To better understand the extent and sources of these unusually high concentrations of particulate pollution on the Nipomo Mesa, the APCD conducted several comprehensive air monitoring studies. The studies concluded that off-highway vehicle activity in the Oceano Dunes State Recreational Vehicle Area (SVRA) is a major contributing factor to the high PM concentrations observed on the Nipomo Mesa.

The APCD has been working to evaluate and develop potential solutions to the particulate matter emissions from the SVRA that are impacting downwind neighborhoods. In April 2018, the APCD Hearing Board approved a stipulated abatement order that specifies actions to abate the nuisance caused by the blowing dust and reduce particulate matter concentrations on the Nipomo Mesa. The documentation on this stipulated abatement order is provided at the following website:
http://www.slocleanair.org/who/board/hearing-board/actions.php

Recommended Level of Severity for PM_{10} and $PM_{2.5}$, Nipomo Mesa -- Level of Severity III

The level of severity for PM_{10} and $PM_{2.5}$ in the Nipomo Mesa is considered LOS III because:

- The annual $PM_{2.5}$ standard was exceeded in 2014;
- The federal 24 hour PM_{10} standard was exceeded in 2014;
- SLO County is currently designated as non-attainment of the state PM_{10} standard;
- At times, the particulate matter Air Quality Index has been reported as 'Hazardous' in Nipomo, as defined by EPA AIRNOW & the Air Quality Index;
- At times, the Air Quality Index for Nipomo reported the worst air quality in the United States, due to particulate matter concentrations; and,
- A stipulated abatement order is in place to abate the nuisance caused by blowing dust in Nipomo and reduce $PM_{2.5}$ and PM_{10} concentrations.

Recommended Level of Severity for PM_{10} and $PM_{2.5}$, All Areas of the County Outside the Nipomo Mesa -- Level of Severity II

The LOS for $PM_{2.5}$ recommended for areas outside of the Nipomo Mesa of SLO County is LOS II because federal $PM_{2.5}$ standards can be exceeded during winter stagnant periods and during periods of wildfire smoke impacts. The federal $PM_{2.5}$ standard was exceeded in 2014 in Atascadero during a stagnant period in the winter.

The LOS for PM_{10} in areas outside of the Nipomo Mesa of SLO County is considered LOS II because SLO County is currently designated as non-attainment of the state PM_{10} standard and the standard has been exceeded at all SLO county PM_{10} monitoring stations.

Sulfur Dioxide

Sulfur dioxide (SO_2) is a colorless gas generated by fossil fuel combustion from mobile sources such as vehicles, ships, and aircraft and at stationary sources such as industry, homes, and businesses. SO_2 may also be emitted by petroleum production and refining operations. The state standard for SO_2 was exceeded periodically on the Nipomo Mesa up until 1993. Equipment and processes at the facilities responsible for the emissions were upgraded as a result.

Exceedances of the federal SO_2 standard had never been measured in SLO County until the federal 1-Hour SO_2 standard was exceeded on May 19, 2013.

The exceedance was measured at the Mesa2 monitoring station, located immediately downwind of the Phillips 66 Santa Maria Refinery. The refinery was performing maintenance at the time, and process equipment that would normally control sulfur dioxide emissions was not operating. Releases of this type are unlikely to recur in the future as the refinery is no longer permitted to operate without these emission controls during scheduled maintenance procedures.

Recommended Level of Severity for Sulfur Dioxide, Nipomo Mesa -- Level of Severity I

The LOS for SO_2 in SLO County is considered LOS I for the Nipomo Mesa due to exceedance of the federal SO_2 standard in 2013.

No LOS is recommended for the remainder of SLO County because the state and national standards for SO_2 have never been exceeded.

Nitrogen Dioxide, Carbon Monoxide and Lead

Nitrogen dioxide (NO_2) is a brownish-colored air pollutant that irritates the eyes, nose and throat, and can damage lung tissues.

Carbon monoxide (CO) results from fuel combustion of all types and can cause headaches and fatigue. Motor vehicles are by far the chief contributor of CO in outdoor air.

Lead is extremely toxic. Exposure to high concentrations of lead, particularly in young children, can result in damage to the central nervous system, and may be associated with high blood pressure in adults. Human exposure to lead typically occurs via inhalation of air and ingestion of lead in food, soil, water or dust. Lead was last monitored in SLO County in 1987. Concentrations of lead in the ambient air dropped significantly after unleaded fuel use in vehicles became widespread.

No LOS is recommended for NO_2 in SLO County because the state and national standards for NO_2 have never been exceeded in this county.

No LOS is recommended for CO in SLO County because the state CO standards have not been exceeded in San Luis Obispo County since 1975.

No LOS is recommended for lead in SLO County because the county is in attainment of the state standard for lead.

Recommended Level of Severity for Nitrogen Dioxide, Carbon Monoxide, and Lead – No Level of Severity is recommended

Toxic Air Contaminants

A toxic air contaminant (TAC) is defined as "*an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health*." Exposure to toxic air contaminants can potentially increase the risk of contracting cancer or result in other adverse health effects (e.g., asthma, birth defects and respiratory disease). TACs can cause health effects through both short-term, high-level or "acute" exposure and long-term, low-level or "chronic" exposure.

TAC's are not considered "criteria pollutants" but are significant in maintaining public health. A characteristic of toxic air pollution, which distinguishes it from criteria pollutants, is that the impact of toxic air contaminants tends to be highest in close proximity to sources and drops off with distance to the affected receptor. The cancer-causing potential of TACs is a particular public health concern because many scientists believe that there is no "safe" level of exposure to carcinogens. Any exposure to a carcinogen can pose some risk of causing cancer. Furthermore, many compounds have a synergistic effect where different compounds interact and cause effects greater than that of each individual compound.

The APCD has been successful in reducing levels of criteria and toxic air pollutants from existing sources while limiting impacts from new and modified sources within San Luis Obispo County. Current rules and policies continue to control and reduce toxic impacts; however, continued efforts are needed to protect the health and welfare of the public. The USEPA reported recently that levels of benzene and lead, as well as mercury from man-made sources, are each down more than 50% from 1990 levels (nationally, a 66% drop in benzene, 60% drop in mercury and 84% drop in lead). By 2030, USEPA expects reductions to be 80% of the 1990 levels.

The APCD developed a Toxic Risk Management Plan (TRMP) to provide an overall guidance and planning document that integrates local, state and federal efforts to minimize toxic air pollution impacts. The primary goal of the TRMP is to reduce population exposure to toxic air contaminants to ensure healthful air for all. The TRMP identifies suggested air toxic control strategies and options for stationary and

mobile sources that may be implemented in the future to provide additional reductions in air toxics exposure and contaminant levels. In addition, toxics are reduced as part of the APCD CEQA review process as defined in the APCD CEQA Handbook.

There are no NAAQS or CAAQS for toxics so no federal or state standards were exceeded. The TRMP and CEQA Handbook address toxics adequately, so a LOS has not been quantified.

Recommended Level of Severity for Toxic Air Contaminants – No Level of Severity is recommended.

Summary of Recommended Levels of Severity and Recommended Actions for Air Quality

Table VII-3 – Summary of Recommended Levels of Severity and Recommended Actions			
Parameter	**Recommended Levels of Severity**	**Applicable Documents & Plans**	**Recommended Actions**
Ozone	III, East SLO County II, West SLO County	Clean Air Plan, CEQA Handbook, State Implementation Plan (SIP) documents (Emission Statement Rule, Conformity Documents, Emissions Inventory)	Support APCD's efforts to address East County Non-attainment.
PM2.5	III, Nipomo Mesa II, Elsewhere	Stipulated Abatement Order, Particulate Matter Reduction Plan, CEQA Handbook	Support APCD's implementation of the Stipulated Abatement Order and Particulate Matter Reduction Plan.
PM10	III, Nipomo Mesa II, Elsewhere	Stipulated Abatement Order, Particulate Matter Reduction Plan, CEQA Handbook	Support APCD's implementation of the Stipulated Abatement Order and Particulate Matter Reduction Plan.
SO_2	I, Nipomo Mesa	Federal Consent Decree	Support APCD's implementation of the Federal Consent Decree.
NO_2	None Recommended	National and State Ambient Air Quality Standards	No actions needed.
CO	None Recommended	National and State Ambient Air Quality Standards	No actions needed.
Lead	None Recommended	National and State Ambient Air Quality Standards	No actions needed.
Toxics	None Recommended	CEQA Handbook, Toxic Risk Management Plan	No additional actions needed at this time.

VIII. APPENDIX

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Terms and Acronyms

AFY	Acre Feet per Year; an acre-foot contains 325,851.429 gallons
BMP	Best Management Practices / Basin Management Plan
BRP	Buildout Reduction Program
CAWO	Cayucos Area Water Organization
CIP	Capital Improvement Program/Capital Improvement Project
CDP	Coastal Development Permit
CSA	County Service Area
CSD	Community Services District
District	San Luis Obispo County Flood Control and Water Conservation District
DWR	California Department of Water Resources
EAP	Estero Area Plan
GSA	Groundwater Sustainability Agency
I&I	Inflow and infiltration
IRWMP	Integrated Regional Water Management Plan
ISJ	Interlocutory Stipulated Judgment
LAFCo	Local Agency Formation Commission
LOCP	Los Osos Community Pla
LOS	Levels of Severity
LOWWP	Los Osos Wastewater Project
MCWRA	Monterey County Water Resources Agency
MGD	Million gallons per day
MWC	Mutual Water CompanyNCMA Northern Cities Management Area of the Santa Maria Groundwater Basin

NMMA	Nipomo Mesa Management Area of the Santa Maria Groundwater Basin
NWC	Nacimiento Water Company
NWP	Nacimiento Water Project
Quimby Fees	Fees collected for the acquisition of parkland.
PRIOR	Paso Robles Imperiled Overlying Rights
RCS	Resource Capacity Study
RMS	Resource Management System
RSR	Resource Summary Report
RTP-SCS	Regional Transportation Plan – Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
Safe Yield	The maximum dependable draft that can be made continuously upon a source of water supply over a given period of time during which the probable driest period, and therefore period of greatest deficiency in water supply, is likely to occur.
SGMA	Sustainable Groundwater Management Act
SLOCOG	San Luis Obispo Council of Governments
SMVMA	Santa Maria Valley Management Area of the Santa Maria Groundwater Basin
SMMWC	San Miguelito Mutual Water Company
SMVGB	Santa Maria Groundwater Basin
SSLOCSD	South San Luis Obispo County Sanitation District
SWP	State Water Project
SWRCB	State Water Resources Control Board
URL	Urban Reserve Line
WMP	Water Master Plan

WMWC	Woodlands Mutual Water Company
WPA	Water Planning Area
WRAC	Water Resource Advisory Committee
WWTP	Wastewater treatment plant

Water Rates and Rate Structure

Table A-1 2017-2018 Water Rates & Rate Structure						
Community	**Water Purveyors**	**Approximate Population Served**		**2017-2018 Single Family Residence (SFR)**		
		Total District Population Served	**Single Family Residences (SFR) Metered (hook-ups)**	**Average Annual Water Use (AF)**	**Water Rate Structure[1]**	**Average Residence Water Bill[2]**
Atascadero	Atascadero MWC	31,500	9,546	0.29	Tiered	$42/mo.
Avila Beach Avila Valley	Avila Beach CSD	1,000	254	0.10	Flat	$60/mo.
	Avila Valley MWC	104	+++[3]	+++	+++	+++
	San Miguelito MWC	1,400	626	0.13	Tiered	$76.57/mo.
	CSA 12	+++	+++	+++	+++	+++
Cambria	Cambria CSD	6,200	3,781	0.07	Tiered	$180.65/2 mo.
Cayucos	CSA 10A	1,350	769	0.12	Tiered	$133.04/2 mo.
	Morro Rock MWC	2,148	476	+++	Tiered	$48 flat/mo. + $7.17/1,000 gallons/mo.
	Cayucos Beach MWC[4]	2,583	676	+++	Tiered	$37.31 + $9.30/1,000 gallons/mo.
Edna Valley	Golden State Water Co.	1,299	552	0.28	Tiered	$270.67 / 2 mo.
Garden Farms	Garden Farms CWD	400	142	0.30	Tiered	$92.36/2 mo.
Heritage Ranch	Heritage Ranch CSD	3,100	1,879	0.19	Uniform	$38.09/mo.
Nipomo	Nipomo CSD	13,479	3,669	0.34	Uniform	$166.76/2 mo.
	Woodlands MWC	1,900	916	0.37	Tiered	$96/2 mo.
	Golden State Water Co.	4,406	1,420	0.41	Tiered	$71.33/mo.
	Cypress Ridge System (GSW)[5]	2,554	908	0.56	Tiered	$90.22/mo.
Oceano	Oceano CSD	7,600	2,035	0.28	Tiered	$180/2 mo.
Santa Margarita	CSA 23	1,400	477	0.22	Tiered	$126.85/2 mo.
San Miguel	San Miguel CSD	2,600	807	0.28	Tiered	$31.87/mo.
Shandon	CSA 16	1,260	477	0.22	Tiered	$126.96/2 mo.
Templeton	Templeton CSD	6,885	2,589	0.41	Tiered	$63/mo.

Source: Water System Usage forms: July 2017 – June 2018

1. Flat, tiered, etc.
2. Dollar amount per billing cycle.
3. +++ indicates data were not provided.
4. The Cayucos Beach MWC was formerly know as the Paso Robles Beach Water Association.
5. The Rural Water Company was acquired by the Golden State Water Company in October 2015 and is now known as the Cypress Ridge System.

Conservation Data for Water and Wastewater Agencies

Below is water conservation data from the 23 water purveyors located within the unincorporated County. Golden State provided one completed survey and was counted as one survey response; however, they serve the communities of Los Osos, Nipomo, and Edna Valley.

		Table A-2 2016-2018 Conservation Data		
1.	*How many active service connections did your agency provide in fiscal year 2017/2018 to: Indicate the number of connections under the column marked "#".*			
	Customer Type		***Range (#)***	***Percent***
	a	Residential customers?	<500 connections	21.1%
			501-3,000 connections	26.3%
			3,001-5,000 connections	10.5%
			5,001-15,000 connections	31.6%
			15,001-20,000 connections	0%
			20,001-30,000 connections	10.5%
	b	Commercial customers?	0-100 connections	31.6%
			101-500 connections	21.1%
			501-1,000 connections	10.5%
			1,001-3,000 connections	21.1%
	c	Industrial customers?	0-50 connections	5.3%
			51-100 connections	10.5%
	d	Municipal customers (e.g., government offices or similar facilities)?	0-50 connections	10.5%
			51-100 connections	5.3%
	e	Schools (e.g., K-12 and/or college)?	0-10 connections	26.3%
			11-30 connections	0%
			31-40 connections	5.3%
	f	Agricultural operations?	0-5 connections	5.3%
	g	State or federal facility (e.g., correctional facility, state hospital, reserve base, or state park)?	0-5 connections	0%
	h	County or city park, community center, or similar *public* facility (e.g., restroom, drinking fountain, and/or irrigation for a landscaped median or park)?	0-10 connections	26.3%
			11-30 connections	5.3%
	i	Other: *Including irrigation only, internal meters, private fire, HOA irrigation/park use.*	<100 connections	15.8%
			101-500 connections	15.8%
			501-1,042	10.5%
	j	Total Connections (all district connections)?	<100 connections	10.5%
			101-1,000 connections	21.1%
			1,001-3,000 connections	15.8%
			3,001-10,000 connections	21.1%
			10,001-20,000 connections	21.1%
			20,001-30,000 connections	10.5%
	Comments: All respondents provide residential water connections (100%) and many provide commercial connections (84%). Roughly a third (32%) provide water connections to schools and parks, and a majority (53%) of respondents have more than 3,000 water connections.			

2.	Between July 1, 2016 and June 30, 2018 how did your agency promote or advertise water conservation to your customers? Through… *A check (✓) indicates this is a method used by your agency.*				
Check all that apply.		**% Yes**	*Check all that apply.*		**% Yes**
a	The customer's water bill.	73.7%	c	Newspaper articles or ads	15.8%
b	Your Agency's: 1. Newsletter	63.2%	d	Radio spots or ads	26.3%
	2. Website	84.2%	e	Television spots or ads	5.3%
	3. Special Mailers	57.9%	f	Social Media (Facebook, Twitter, etc.)	57.9%
	4. Regular or Special Meetings	73.7%	g	Signs or Banners	73.7%
	5. Periodic Water Report	31.6%			
Comments: The majority of respondents promote or advertise water conservation through their agency's website (84.2%) as well as the customer's water bill, regular or special meetings, and signs and banners (73.7%). The agency's newsletter (63.2%), special mailers (56.9%), and social media (57.9%) were also popular methods.					

3.	Between *July 1, 2016 and June 30, 2018* did your agency's **water bill**: *A check (✓) indicates this is an item included in your agency's water bill.*				
Check all that apply.		**% Yes**	*Check all that apply.*		**% Yes**
a	Include water saving tips directly on the water bill?	42.1%	c	Target user goals (through an insert or on the actual bill)?	36.8%
b	Compare the customer's current use with: 1. The customer's previous year use?	73.7%	d	Contain an insert with water conservation messages?	36.8%
	2. The community-wide average?	10.5%	e	*Other: including: customer's previous month use, irrigation water days and times, etc.*	15.8%
	3. With a customer baseline year?	36.8%			
Comments: The majority of respondents compare the customer's current water use with the previous year (73.7%). Roughly 42% of water agencies provide water saving tips directly on the water bill, and roughly 37% provide the customer with baseline data, target user goals, and include water conservation messages with the agency's water bill.					

4.	Does your agency …				
A check (✓) in column (a) indicates this is a method used by your agency. ***If you checked column (a)*** *then rate the success of the program. A "**1**" in column (b) indicates the program is successful (i.e., the long-term water savings or benefits clearly exceed the program's cost). A "**2**" in column (b) indicates the program is average (i.e., the long-term water savings or benefits are roughly equivalent to the program's cost). A "**3**" in column (b) indicates the program is not sustainable (the program's costs are high or not sustainable considering the program's overall water benefits or savings).*		(a) Yes	(b) Successful? Indicate 1, 2, or 3		
			# 1	***#2***	***#3***
a	Provide the following service or training for customers… 1. Interior water use audits?	42.1%	*37.5%*	*12.5%*	*50%*

	2. Landscape water use audits?	52.6%	*40%*	*20%*	*40%*
	3. Leak detection assistance?	73.7%	*64.3%*	*28.6%*	*7.1%*
4.	Does your agency ...				
A check (✓) in column (a) indicates this is a method used by your agency. ***If you checked column (a)*** *then rate the success of the program. A "**1**" in column (b) indicates the program is successful (i.e., the long-term water savings or benefits clearly exceed the program's cost). A "**2**" in column (b) indicates the program is average (i.e., the long-term water savings or benefits are roughly equivalent to the program's cost). A "**3**" in column (b) indicates the program is not sustainable (the program's costs are high or not sustainable considering the program's overall water benefits or savings).*		(a) Yes	(b) Successful? Indicate 1, 2, or 3		
			#1	*#2*	*#3*
b	Perform the following regarding your agency's water distribution system or meters: 1. Conduct a leak detection program for your agency's water distribution system?	52.6%	*25%*	*25%*	*50%*
	2. Conduct a water audit of your agency's distribution system?	68.4%	*27.3%*	*27.3%*	*45.5%*
	3. Evaluate the effectiveness of your agency's metering and meter reading system?	68.4%	*36.4%*	*63.6%*	*0%*
c	Have a water recycling program (such as purple pipe system, etc.)? *If yes, please indicate the program and when it was implemented in the comment box below.*	15.8%	*100%*	*0%*	*0%*
d	Invest in new water management technology (such as programs that increased local water supplies, water recycling facilities, storm water capture, etc.)? *If yes, please indicate the new technology in the comment box below.*	26.3%	*66.7%*	*0%*	*33.3%*
e	Provide a rebate program for voluntary retrofit:	5.3%	*100%*	*0%*	*0%*
	1. To low flow plumbing fixtures (i.e., low-flow toilets, showerheads, and faucets)?	42.1%	*37.5%*	*50%*	*12.5%*
	2. Of lawns and other high-water use landscaping?	31.6%	*50%*	*0%*	*50%*
	3. Of appliances such as high-water use dishwashers, washing machines, etc.?	36.8%	*42.9%*	*57.1%*	*0%*
f	If your agency does not provide its own rebate program, does your agency: 1. Provide information and/or participate in other water conservation program(s) such as Save Our Water, Alliance for Water Efficiency, etc.?	78.9%	*28.6%*	*35.7%*	*35.7%*
	2. Provide other incentives for water conservation? *If yes, please specify below.*	42.1%	*42.9%*	*14.3%*	*42.9%*
g	Develop and/or distribute water conservation information to specific customers such as public schools, vacation rentals, hotels/motels, etc.?	47.4%	*37.5%*	*25%*	*37.5%*
h	Provide water conservation information to applicants for new water service?	52.6%	*33.3%*	*66.7%*	*0%*
i	Mandate water retrofits for new construction or upon transfer of ownership?	15.8%	*66.7%*	*0%*	*33.3%*

4.	Does your agency …				
A check (✓) in column (a) indicates this is a method used by your agency. ***If you checked column (a)*** *then rate the success of the program. A "**1**" in column (b) indicates the program is successful (i.e., the long-term water savings or benefits clearly exceed the program's cost). A "**2**" in column (b) indicates the program is average (i.e., the long-term water savings or benefits are roughly equivalent to the program's cost). A "**3**" in column (b) indicates the program is not sustainable (the program's costs are high or not sustainable considering the program's overall water benefits or savings).*		(a) Yes	(b) Successful? Indicate 1, 2, or 3		
			#1	*#2*	*#3*
j	Currently limit outdoor water use (such as limiting irrigation or watering to certain days of the week for residential, commercial, industrial, and/or municipal users)?	63.2%	*50%*	*50%*	*0%*
k	Have a tiered water rate system (i.e., customers pay a higher rate for more water use)?	78.9%	*57.1%*	*14.3%*	*28.6%*
Comments: The majority of respondents conduct leak detection for their customers (~74%) and the agencies feel this program is successful (~64%). Roughly 79% of agencies provide a tiered water rate system and provide information or participate in water conservation or rebate programs. The tiered water system is considered successful by most agencies (~57%) while the success of water conservation or rebate programs appears less clear cut. A majority of agencies (>50%) provide landscape audits; conduct leak detection, water audits, and evaluate the effectiveness of their agency's water system; provide water conservation information to new water users; and limit outdoor water use.					

Notes:

1 The agencies participating in this survey included: City of Arroyo Grande, Atascadero Mutual Water Company, Cambria Community Services District, Cypress Ridge (Golden State), Edna Valley (Golden State), Heritage Ranch, Los Osos Community Services District, Los Osos (Golden State), Mesa Dunes, Nipomo Community Services District, Nipomo (Golden State), City of Paso Robles, S&T Mutual, City of San Luis Obispo, San Miguel Community Services District, San Miguelito, Varian Ranch, Woodlands Mutual Water Company, and Spanish Lakes.

List of Agency Participation

Table A-3 -- Agency Participation		
Agency or Organization	**Provided Data**	**Provided Comments On Draft RSR**
State Agencies		
California Department of Resources, Central Coast Regional Water Quality Control Board	Yes	No
County Departments and Agencies		
San Luis Obispo Council of Governments	Yes	No
San Luis Obispo County Flood Control and Water Conservation District	No	No
San Luis Obispo County Department of Parks and Recreation	Yes	No
San Luis Obispo County Public Works Department	Yes	Yes
County Service Areas		
CSA 10A – Cayucos	Yes	No
CSA 12 – Avila Beach	Yes	No
CSA 23 – Santa Margarita	Yes	No
CSA 16 – Shandon	Yes	No
CSA 18 – Country Club Estates	Yes	No
Community Services Districts		
Avila Beach CSD	Yes	No
Cambria CSD	Yes	Yes
Heritage Ranch CSD	Yes	Yes
Los Osos CSD	Yes	Yes
Nipomo CSD	Yes	Yes
Oceano CSD	Yes	Yes
San Miguel CSD	Yes	Yes
San Simeon CSD	Yes	Yes
Templeton CSD	Yes	Yes
Special Districts		
Cayucos Sanitary District	No	No
San Luis Obispo Air Pollution Control District (APCD)	Yes	Yes
South San Luis Obispo County Sanitation District	No	No
Private Water Purveyors		
Atascadero Mutual Water Co.	Yes	No

Table A-3 -- Agency Participation		
Agency or Organization	**Provided Data**	**Provided Comments On Draft RSR**
Avila Valley Mutual Water Co.	No	No
Cayucos Beach Water Assoc.	Yes	Yes
Garden Farms	Yes	No
Golden State Water Co.	Yes	Yes
Morro Rock Mutual Water Co.	Yes	No
Nacimiento Water Co.	No	Yes
San Miguelito Mutual Water Co.	Yes	No
Santa Margarita Ranch	Yes	No
S&T Mutual Water Co.	Yes	No
Woodlands Mutual Water Co.	Yes	Yes
School Districts		
Atascadero Unified School District	Yes	No
Belleview-Santa Fe Charter School	Yes	No
Cayucos Elementary School District	Yes	No
Coast Unified School District	No	No
Grizzly Youth Academy Challenge Program	No	No
Lucia Mar School District	Yes	No
Paso Robles Joint Unified School District	No	No
Pleasant Valley Joint Union School District	Yes	No
San Luis Coastal Unified School District	Yes	No
San Miguel Joint Union School District	Yes	No
Shandon Joint Unified School District	Yes	No
Templeton Unified School District	No	No
Other Organizations		
Economic Vitality Commission	No	No
Los Osos Basin Management Committee	Yes	Yes
Nipomo Mesa Management Area	Yes	Yes
Northern Cities Management Area	Yes	Yes
SLO County Water Resources Advisory Committee (WRAC)	Yes	Yes
Cities		
City of Arroyo Grande	No	Yes
City of Grover Beach	No	Yes