
2012 -2014
Resource Summary Report
San Luis Obispo County General Plan

DRAFT



Board of Supervisors

Frank R. Mecham, District 1
Bruce S. Gibson, District 2
Adam Hill, District 3
Lynn Compton, District 4
Debbie Arnold, District 5

Staff

James A. Bergman, Planning and Building Director
Kami Griffin, Assistant Planning and Building Director
Mike Wulkan, Supervising Planner
Brian Pedrotti, Planner III – Project Manager

January 7, 2015

Contents

I. Introduction	1
Scope and Purpose	1
Levels of Severity	6
Summary of Recommended Levels of Severity and Recommended Actions for 2012-2014....	13
II. Water Supply and Water Systems	21
Level of Severity Criteria.....	21
Water Purveyors Serving the Unincorporated County	22
Water Resources	24
Recommended Levels of Severity	34
Summary of Recommended Levels of Severity.....	71
Recommended Actions	72
III. Wastewater	75
Level of Severity Criteria.....	75
Wastewater Collection and Treatment Systems.....	76
Recommended Levels of Severity for Wastewater Treatment.....	78
Summary of Recommended Levels of Severity.....	93
Septic Systems.....	96
Recommended Actions	97
IV. Roads and Interchanges	99
Level of Severity Criteria.....	99
Recommended Levels of Severity for County Maintained Roads.....	100
Levels of Severity for HWY 101 Interchanges	113
Summary of Recommended Levels of Severity Summary and Recommended Actions	121
V. Schools.....	123
Level of Severity Criteria.....	123
Funding for School Construction in California.....	123
School Districts Serving San Luis Obispo County.....	124
Recommended Levels of Severity	127
Summary of Recommended Levels of Severity and Recommended Actions.....	142

Contents (cont'd)

VI. Parks	144
Level of Severity Criteria.....	144
County Parks.....	144
Recommended Levels of Severity	149
Summary of Recommended Levels of Severity and Recommended Actions.....	152
VII. Air Quality	153
Level of Severity Criteria.....	153
Relationship to the County General Plan and RMS System	153
Air Quality Standards and Attainment Status For Criteria Pollutants	153
Recommended Levels of Severity	155
Summary of Recommended Levels of Severity and Recommended Actions.....	165
VIII. Appendices	166
References	169
Terms and Acronyms	169
Water Rates and Rate Structure	169

Tables

Table I-1 -- Estimate of Present (2014) and Future County Population	4
Table I-2 -- Building Permits “Finaled” For Single Family Residences 2000 - 2013	5
Table I-3 -- Summary of Changes To Criteria for Levels of Severity	12
Table I-4 -- Recommended Levels of Severity – Water Supply.....	13
Table I-5 -- Recommended Levels of Severity – Wastewater.....	16
Table I-6 -- Recommended Levels of Severity – Roads and Interchanges.....	17
Table I-7 -- Recommended Levels of Severity -- Schools.....	18
Table II-1 – Water Purveyors Serving the Unincorporated County	22
Table II-2 – State Water Project Water Service Amounts	29
Table II-3 – Allocation of Nacimiento Water Project.....	30
Table II-4 – Whale Rock Reservoir Allocations	30
Table II-5 – Whale Rock Downstream Entitlements.....	31
Table II-6 – Lopez Lake Water Allocations.....	32
Table II-7 – Pico Creek Valley Groundwater Basin_Existing and Forecasted Water Supply and Demand	36
Table II-8 -- San Simeon Valley and Santa Rosa Valley Groundwater Basins_Existing and Forecasted Water Supply and Demand	38
Table II-9 -- Cayucos Valley and Old Valley Groundwater Basins_Existing and Forecasted Water Supply and Demand	41
Table II-10 -- Los Osos Groundwater Basin Existing and Forecasted_ Water Supply and Demand	45
Table II-11 – San Luis Obispo Valley Groundwater Basin –_Avila Valley and Edna Valley Sub-basins_Existing and Forecasted Water Supply and Demand.....	49
Table II-12 -- Allocation of Water Among Parties to The 2002 Northern Cities Management Agreement...52	
Table II-13 – Santa Maria Groundwater Basin -- Northern Cities Management Area_Existing and Forecasted Water Supply and Demand	54
Table II-13 -- Santa Maria Valley Groundwater Basin – Nipomo Mesa Management Area_Existing and Forecasted Water Supply and Demand.....	56
Table II-14 -- Santa Margarita Groundwater Basin Existing and Forecasted_ Water Supply and Demand.....	59
Table II-16 -- Paso Robles Groundwater Basin_Existing and Forecasted Water Supply and Demand	64
Table II-15 -- Atascadero Sub-basin Existing and Forecasted_ Water Supply and Demand.....	66
Table II-17 -- Lake Nacimiento Area Existing and Forecasted Water Supply and Demand	69
Table II-18 -- Summary of Recommended Levels of Severity Water Supply	71
Table III-1 – Wastewater Agencies Serving Unincorporated San Luis Obispo County	76
Table III-2 -- Avila Beach CSD -- Recommended Levels of Severity for Wastewater Treatment	79
Table III-3 -- Cambria CSD -- Recommended Levels of Severity for Wastewater Treatment	80
Table III-4 -- Cayucos Sanitary District -- Recommended Levels of Severity for Wastewater Treatment	81
Table III-5 -- CSA 18 Country Club Estates -- Recommended Levels of Severity for Wastewater Treatment.....	82

Tables (cont'd)

Table III-6 -- Heritage Ranch CSD -- Recommended Levels of Severity for Wastewater Treatment	84
Table III-7 -- Oak Shores CSA -- Recommended Levels of Severity for Wastewater Treatment.....	84
Table III-8 -- Nipomo CSD Black Lake -- Recommended Levels of Severity for Wastewater Treatment	85
Table III-9 -- Nipomo CSD Southland Treatment Plant -- Recommended Levels of Severity for Wastewater Treatment	86
Table III-10 -- San Miguel CSD -- Recommended Levels of Severity for Wastewater Treatment.....	88
Table III-11 -- San Miguelito Mutual Water Company -- Recommended Levels of Severity for Wastewater Treatment.....	89
Table III-12 -- San Simeon CSD -- Recommended Levels of Severity for Wastewater Treatment.....	90
Table III-13 -- South San Luis Obispo County Sanitation District -- Recommended Levels of Severity for Wastewater Treatment	91
Table III-14 -- Templeton CSD Meadowbrook Treatment Plant --Recommended Levels of Severity for Wastewater Treatment	92
Table III-15 -- Recommended Levels of Severity for Wastewater Treatment.....	94
Table IV-1 -- Existing (2014) and Future Peak Hour Volumes For RMS Roadway Segments.....	101
Table IV-2 -- Summary of Recommended Levels of Severity -- Roads.....	102
Table IV-3 -- RMS Interchanges Levels of Service.....	113
Table IV-5 -- Summary of Recommended Levels of Severity -- Highway 101 Interchanges	114
Table IV-6 -- Recommended Levels of Severity For Roads and Interchanges	121
Table IV-7 -- Comparison of Recommended Levels of Severity For Roadways 2010-2012 RSR and 2012- 2014 RSR.....	122
Table V-1 -- Comparison of School Capacity and Enrollment For School Years 2012-2013 and 2013-2014	126
Table V-2 -- Recommended Levels of Severity	128
Table V-3 -- Summary of Recommended Levels of Severity and Recommended Actions -- Schools	143
Table VI-1 -- Developed Regional and Community Park Land Acreage	146
Table VI-2 -- Other County Park Land	147
Table VI-3 -- Recommended Levels of Severity for Regional Parks	149
Table VII-1 -- Criteria Pollutants and Attainment Status.....	154
Table VII-2 -- Recommended Levels of Severity for Air Quality.....	155
Table VII-3 -- Summary of Recommended Levels of Severity and Recommended Actions For Air Quality	165

Figures

Figure I-1 – Distribution of Building Permits for Single Family Residences..... 6

Figure II-1 –Water Purveyors Discussed In This RSR 23

Figure II-2 – Groundwater Basins 27

Figure II-3 – Surface Water Supply Sources 33

Figure II-4 – Groundwater Basins and Water Purveyors Serving the San Simeon/Cambria Area 35

Figure II-5 – Groundwater Basins, Surface Water and Water Purveyors in the Cayucos Area 40

Figure II-6 – Los Osos Groundwater Basin and Water Purveyors Serving the Los Osos Area 43

Figure II-7 -- Avila Valley Groundwater Sub-Basin and Water Purveyors 47

Figure II-8 -- Santa Maria Valley Groundwater Basin, Management Areas and Water Purveyors 51

Figure II-9 -- Santa Margarita Valley Groundwater Basin and CSA 23 58

Figure II-10 -- Paso Robles Groundwater Basin, Atascadero Sub-basin and Water Purveyors..... 61

Figure II-11 – Lake Nacimiento Area and Water Service Areas 68

Figure III-1 – Wastewater Service Providers Serving Unincorporated San Luis Obispo County ... 77

Figure III-2 – Avila Beach CSD Wastewater Service Area 79

Figure III-3 – Cambria CSD Wastewater Service Area 80

Figure III-4 – Cayucos Sanitary District 82

Figure III-5 – County Service Area 18 - Country Club Estates 83

Figure III-6 – Heritage Ranch CSD and Oak Shores CSA Wastewater Service Areas 85

Figure III-7 – Nipomo CSD Wastewater Service Areas 87

Figure III-8 – San Miguel CSD Wastewater Service Area 88

Figure III-9 – San Simeon CSD Wastewater Service Area 90

Figure III-10 – South County Sanitation District 91

Figure III-11 – Templeton CSD Wastewater Service Area 93

Figure IV-1 – RMS Roads Recommended Levels of Severity – North County 103

Figure IV-2 – RMS Roads Recommended Levels of Severity – Los Osos/San Luis Obispo Area.. 104

Figure IV-3 – RMS Roads Recommended Levels of Severity – South County 105

Figure V-1 – School Districts Serving San Luis Obispo County 125

Figure VI-1 – County Parks 148

Figure VI-2 – Five-Mile Service Areas Around Community Parks..... 150

I. INTRODUCTION

Scope and Purpose

This 2012-2014 biennial edition of the Resource Summary Report (RSR) covers the fiscal years July 2012 through June 2014. The report is based on information gathered from service providers, County agencies, reports from state or regional agencies, environmental impact reports for major projects, research for the 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. The RSR addresses the following resources: water (system and supply), wastewater treatment, roads and U.S. Highway 101 interchanges, parks, schools and air quality. 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 RSR's assessment of resources is divided into the following topics:

- Water Supply (including surface water and groundwater resources)
- Water Systems
- Wastewater Collection and Treatment (including septic systems)
- Roads and US Hwy 101 Interchanges
- Schools
- Parks
- Air Quality

The chapters following this introductory chapter provide an overview of the above resources, 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, followed by recommended 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 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 faces 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 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 (e.g. unallocated State and Lake Nacimiento project water). Providing for resource and infrastructure needs will require both well-considered policy choices and funding of important infrastructure.

What's New In this Resource Summary Report?

In addition to providing an updated analysis of the various resources and recommended Levels of Severity, the 2012-2014 RSR differs from the 2010-2012 RSR in a number of important aspects:

- 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.
- 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.
- 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).

- The Board of Supervisors recently revised the criteria used for assessing the Levels of Severity. The revised criteria are discussed below under *Criteria for Determining Levels of Severity*.

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. Information in this report 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 Council of Governments (SLOCOG) in July 2014.

Building Permit Data

Information regarding the number, type and distribution of building permits for residential development issued for the past two years are provided by the Department of Planning and Building.

Water System, Supply, Usage & Rates

Each July, the Public Works Department asks water suppliers and water system operators throughout the County to report on water demand and supply for their jurisdiction¹. 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 and participation of the service providers who do respond each year is greatly appreciated.²

Wastewater Collection and Treatment (Including Septic Systems)

The San Luis Obispo County Planning and Building Department requests information from wastewater system operators via a standard form and from the Regional Water Quality Control Board.

Roads and U.S. 101 Interchanges

The San Luis Obispo County Public Works Department provides updated information on roads and U.S. Highway 101 interchanges. In 2009, the Board of Supervisors directed staff to include the condition of interchanges in the unincorporated communities along the U.S. Highway 101

¹ In 2014 33 water providers participated in the reporting program, 33 providers participated in 2012, 28 providers participated in 2011, 26 providers participated in 2010, and 31 providers participated in 2009.

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

corridor in the RSR. The results of these analyses may be found in the applicable section of this report. Additional interchanges may be evaluated in subsequent years.

Schools

County staff requests each school district to provide enrollment and capacity information for the past two school years: 2011-2012 and 2012-2013.

Parks

Planning 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 and Building Permit Data

The demand for resources is proportional to the current and future populations to be served. An 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. Population and building permit data provide an important context for the consideration of resources and resource constraints.

County Population

Table I-1 provides an estimate of the County's current (2014) and projected future population estimated by the San Luis Obispo Council of Governments for regional planning purposes. Future population is provided in five-year increments beginning in 2015 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 the urban areas of Avila Beach, Cambria, Cayucos, Los Osos, Nipomo, Oceano, Santa Margarita, San Miguel, Shandon and Templeton.

Table I-1 -- Estimate of Present (2014) and Future County Population								
	2010 US Census	2014	2015	2020	2025	2030	2035	2040
Cities	148,307	150,401	150,924	155,455	159,548	164,680	169,859	175,179

Unincorporated Areas	104,324	105,452	105,734	108,061	112,565	118,212	123,914	129,768
Population In Group Quarters	17,006	17,006	17,006	17,006	17,006	17,006	17,006	17,006
Total County	269,637	272,859	273,664	280,522	289,119	299,898	310,779	321,953

Source: SLOCOG, 2014

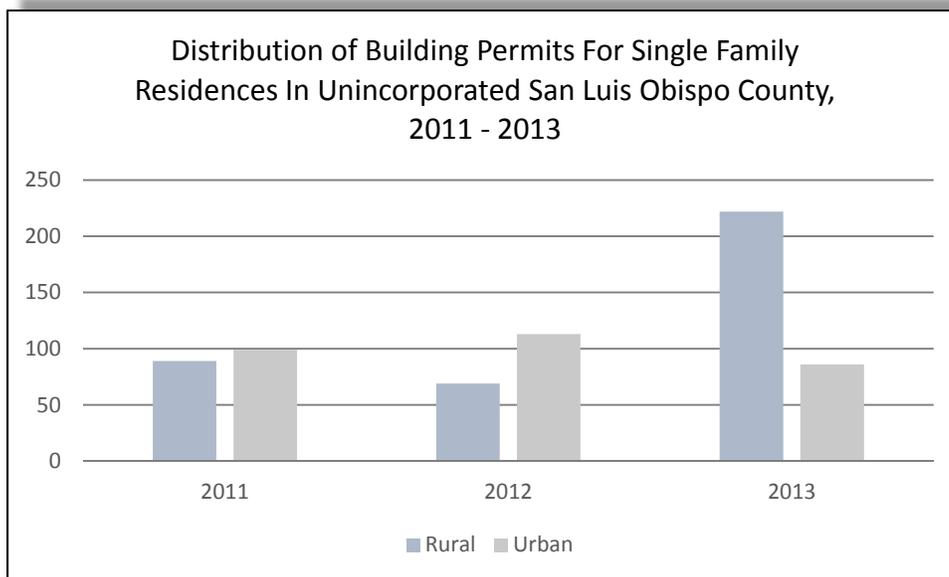
Building Permits for Residential Development

Table I-2 shows the number of building permits ‘finalized’ for new (or replaced) single family residences in the unincorporated County between 2000 and 2013, divided between those issued in urban versus rural areas. As shown in Table I-2 and Figure I-1, urban areas of the unincorporated County have received the largest proportion of new residences, an average of 59% urban versus 41% rural over the past 13 years. The year 2013 appears to be an anomaly with only 28% of new residences constructed in the urban areas.

Table I-2 -- Building Permits “Finalized” For Single Family Residences In the Unincorporated County, 2000 - 2013				
Year	Rural	Urban	Total	% of Urban Dwelling Units
2000	277	493	770	64%
2001	230	651	881	74%
2002	366	521	887	59%
2003	327	541	868	62%
2004	437	683	1120	61%
2005	372	661	1033	64%
2006	385	521	906	58%
2007	283	512	795	64%
2008	304	422	726	58%
2009	54	72	126	57%
2010	93	144	237	61%
2011	89	99	188	53%
2012	69	113	182	62%
2013	222	86	308	28%
TOTAL	3,508	5,519	9,027	59%

Source: San Luis Obispo County Department of Planning and Building

Figure I-1 – Distribution of Building Permits for Single Family Residences



Source: San Luis Obispo County Department of Planning and Building

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 SLOCOG’s 2014 Regional Transportation Plan – Sustainable Communities Strategy (RTP-SCS) is to encourage development in existing urbanized areas with access to existing businesses and services.

Levels of Severity

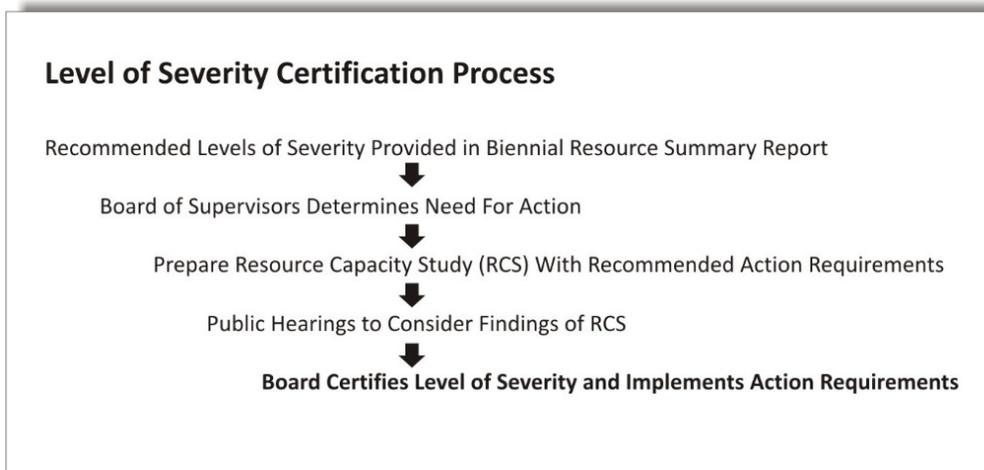
The RMS uses three alert levels called *levels of severity* (LOS) to identify differing levels of resource deficiencies.

- **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. In the case of water supply, 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 County should take a series of actions to address resource deficiencies before Level III is reached.

The RMS identifies a variety of steps which can be taken by the Board of Supervisors when it is determined that a resource has reached a particular LOS.

It is important to distinguish between "recommended" LOS and LOS that have been certified by the Board of Supervisors. 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)³. These recommended LOS should be taken as general indicators of declining resource availability.

Potential solutions to declining resource availability, or "action requirements," are not automatically invoked in response to recommended LOS. If the Board of Supervisors 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 Planning Commission and the Board of Supervisors. If the Board of Supervisors certifies a LOS, the appropriate "action requirements" are implemented.



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

³ The WRAC is composed of representatives of the various water resources stakeholders in the County and charged with the responsibility of advising the Board of Supervisors on water-related policy. The WRAC is composed of 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.

- Schools
- Parks
- Air Quality

The LOS for each resource are summarized below.

WATER SUPPLY

Level of Severity	Water Supply Criteria
I	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	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	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.

WATER SYSTEMS

Level of Severity	Water System Criteria
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
I	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	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	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
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
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."

1. 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	<p>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).</p> <p>Community Parks. An unincorporated community has between 2.0 and 3.0 acres of community parkland per 1,000 persons.</p>
II	<p>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).</p> <p>Community Parks. An unincorporated community has between 1.0 to 2.0 acres of community parkland per 1,000 persons.</p>
III	<p>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).</p> <p>Community Parks. An unincorporated community has 1.0 acre or less of community parkland per 1,000 persons.</p>

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.

Changes To The Criteria for Levels of Severity

As discussed above, the LOS criteria used in the 2012-2014 RSR differ from those used in prior years. On December 16, 2014, the Board of Supervisors revised the LOS criteria, including the time frames, for certain resources. These revisions better reflect the County's experience with project development, funding and construction time lines. Table I-3 provides a summary of how the LOS used in this RSR differ from those used in prior years. In most cases, the revisions reflect changes to the time frames that trigger an LOS. Other changes were added to clarify the relationship between a LOS and the time needed to implement corrective actions. Lastly, new LOS criteria have been added for septic systems, parks and highway interchanges.

Table I-3 -- Summary of Changes To Criteria for Levels of Severity			
Resource	Summary of Changes		
Water Supply	The timeframes for the projected remaining dependable water supply have been extended for each LOS as follows:		
	<u>Level of Severity</u>	<u>Previous LOS</u>	<u>Revised LOS</u>
	LOS I	9 years	20 years
	LOS II	7 Years	15 to 20 Years
	LOS III	When supply equal or exceeds estimated dependable supply	Supply will equal or exceed estimated dependable supply within 15 years, OR the timeframe to correct the problem is longer than the timeframe for the remaining supply.
Water Systems	The LOS timeframes are unchanged. However, the criteria have been refined to clarify the relationship between the time required to design and implement system improvements to avoid a worsening LOS.		
Wastewater Treatment	Criteria have been revised to refer to "monthly average daily flow" rather than "peak flow." The timeframe for reaching the LOS I threshold has been reduced from 6 years to 4 years, and for LOS II from 5 years to 2 years. Criteria for LOS III remain unchanged.		
Wastewater Collection	The criteria for LOS I remain unchanged. The criteria for LOS II have been expanded to include two additional criteria: 1) the projected 5-year flow equals system capacity, or 2) buildout of remaining developable land would exceed system capacity. LOS III is unchanged.		
Septic Systems	Prior RSRs did not have a separate LOS for septic systems.		
Roads	LOS are unchanged.		
Highway Interchanges	Prior RSRs did not have a separate LOS for highway interchanges.		
Schools	No changes.		
Parks	Levels of severity for parks were considered for the first time in the 2010-2012 RSR. However, the RSR did not establish specific LOS criteria but instead relied on the standards of the General Plan Parks and Recreation Element. The LOS for parks used in this RSR were prepared by the County Parks Department.		
Air Quality	The LOS criteria were established by the San Luis Obispo Air Pollution Control District and have been revised based on the incidence of violations of state air quality standards only. Thresholds, and timeframes for reaching the thresholds, have been eliminated.		

Summary of Recommended Levels of Severity and Recommended Actions for 2012-2014

The LOS recommended for each resource are summarized below along with the recommended actions. There are no LOS established for cities.

Water Supply and Systems

Table I-4 -- Recommended Levels of Severity – Water Supply		
Groundwater Basins and Affected Water Purveyors	Recommended LOS	Recommended Actions
Pico Creek Valley Groundwater Basin <u>Water Purveyors</u> San Simeon CSD	III	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.
San Simeon Valley Groundwater Basin Santa Rosa Valley Groundwater Basin <u>Water Purveyors</u> Cambria CSD	III III	LOS III to remain in place. Collaborate with the Cambria Community Services District to address issuance of a limited number of intent-to-serve letters and building permits based on the aggressive water conservation program developed by Maddaus. Collaborate with the Cambria Community Services District to revise the County Growth Management Ordinance to reflect the issuance of a small number of building permits for new development as part of a temporary pilot program. Collaborate with the Cambria Community Services District to prepare a CEQA determination, with the County acting as a Responsible Agency, that identifies the potentially significant impacts of a temporary, small scale pilot program to issue intent-to-serve letters and

Table I-4 -- Recommended Levels of Severity – Water Supply		
Groundwater Basins and Affected Water Purveyors	Recommended LOS	Recommended Actions
		building permits for new development.
Cayucos Valley Groundwater Basin Old Valley Groundwater Basin <u>Water Purveyors</u> CSA 10A Morro Rock Mutual Water Co. Paso Robles Water Assoc.	None 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.
Los Osos Valley Groundwater Basin <u>Water Purveyors</u> Los Osos CSD S&T Mutual Water Co. Golden State Water Co.	III	LOS III to remain in place. Continue to support efforts to complete and implement a Basin Management Plan. Support efforts to complete the wastewater project.
San Luis Obispo Valley Groundwater Basin – San Luis Sub-basin San Luis Obispo Valley Groundwater Basin – Avila Valley Sub-basin <u>Water Purveyors</u> 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
Santa Maria Valley Groundwater Basin – Northern Cities Management Area Santa Maria Valley Groundwater Basin – Nipomo Mesa Management Area <u>Water Purveyors</u> Nipomo CSD Woodlands Mutual Water Co. Oceano CSD	None III	Consider ending the Title 8 retrofit-upon-sale ordinance in the NMWCA. The program has run for four years and approximately 5% of homes have needed retrofitting. Follow the progress of the Supplemental Water Alternatives Evaluation Committee. Coordinate any needed County actions such as an AB 1600 study to quantify the

Table I-4 -- Recommended Levels of Severity – Water Supply		
Groundwater Basins and Affected Water Purveyors	Recommended LOS	Recommended Actions
		<p>costs and benefits of the identified supplemental water project for groundwater users outside the Nipomo CSD.</p> <p>Collaborate with the Nipomo CSD and other stakeholders to assist in their efforts to address area wide water issues.</p> <p>Continue to help fund area wide water conservation through the fee on new construction.</p>
<p>Santa Margarita Groundwater Basin</p> <p><u>Water Purveyors</u> CSA 23</p>	III	<p>Support efforts to determine the safe yield of the Santa Margarita Groundwater Basin.</p> <p>Support efforts to develop additional sustainable water supplies for CSA 23.</p>
<p>Paso Robles Groundwater Basin</p> <p><u>Water Purveyors</u> San Miguel CSD CSA 16 – Shandon</p>	III	<p>LOS III for the Basin as a whole and for the Atascadero Sub-basin.</p> <p>Continue to support efforts to complete and implement a Basin Management Plan.</p>
<p>Paso Robles Groundwater Basin – Atascadero Sub-basin</p> <p><u>Water Purveyors</u> Templeton CSD</p>	III	<p>LOS III for the Basin as a whole and for the Atascadero Sub-basin.</p> <p>Continue to support efforts to complete and implement a Basin Management Plan.</p>
<p>Lake Nacimiento Area</p> <p><u>Water Purveyors</u> Heritage Ranch CSD Nacimiento Water Co.</p>	None	<p>Continue to support efforts to improve water conservation, the efficient use of water, and water re-use.</p> <p>Continue to collect development impact fees for the construction of water supply infrastructure.</p> <p>Support efforts to develop sustainable supplemental sources of water.</p>

Water Systems

No Levels of Severity are recommended.

Wastewater

Table I-5 -- Recommended Levels of Severity – 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 in the community of Santa Margarita.
Shandon	None	Maintain Level of Severity III for Los Osos until the wastewater system is completed and on-site septic systems have been decommissioned.
Los Osos	III	Recommend Level of Severity III for the “prohibition zone” in the Nipomo Area.
Nipomo	III for the “prohibition zone”.	Consult with County Health and RWQCB on actions and monitor. 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.

Roads

Table I-6 -- Recommended Levels of Severity – Roads and Interchanges		
Roadway Segment	Recommended Levels of Severity	Recommended Actions
Avila Beach Drive west of San Luis Bay Drive Price Canyon Road south of Highway 227	I	Monitor Levels of Service on RMS roadways and interchanges;
Halcyon Road south of Arroyo Grande Creek Las Tablas Road west of Duncan Road Los Osos Valley Road west of Foothill Boulevard	II	Continue to use area circulation studies to identify roadway improvements necessary to achieve and maintain level of service “C” or better on RMS roadways and interchanges;
South Bay Boulevard south of State Park Road Tank Farm Road west of Highway 227	III	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; Pursue other funding options including (but not limited to) State and federal grants;
Interchanges	Recommended Levels of Severity	Recommended Actions
State HWY 46 West, SB ramps, Templeton area North Main Street SB and NB ramps, Templeton Vineyard Drive SB and NB ramps, Templeton Los Berros Road/Thompson Road NB ramps, South County Tefft Street SB ramps, Nipomo US HWY 166 SB ramps, South County	III	Monitor Levels of Service on RMS roadways and interchanges; Continue to use area circulation studies to identify roadway improvements necessary to achieve and maintain level of service “C” or better on RMS roadways and 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; Pursue other funding options including (but not limited to) State and federal grants;

Schools

Table I-7 -- Recommended Levels of Severity -- 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 regularly with County Counsel to consider whether new legislation and court rulings regarding school impact 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	II	
Lucia Mar School District	Elem.	II	
	Middle	II	
	High	None	
Paso Robles Joint Unified School District	Elem.	None	
	Middle	None	
	High	None	
	Alt.	None	
Pleasant Valley Joint Union School District	Elem.	None	
San Luis Coastal Unified School District	Elem.	None	
	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	

Parks

Table I-8 -- Recommended Levels of Severity -- 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) fees.
Community Parks		
Avila	III	Collaborate with County Parks to review the Parks and Recreation Project List in the Parks and Recreation Element and make recommendations to the Board of Supervisors regarding which park projects to implement.
Cambria	II	
Cayucos	III	
Los Osos	III	
Oceano	III	
San Miguel	III	
Santa Margarita	III	
		Collaborate with other potential parks operators such as CSDs and school districts to provide park and recreation opportunities.
Templeton	III	
		When preparing Resource Capacity Studies for parks, address the following issues:
		<ul style="list-style-type: none"> a. Provide an updated inventory of existing parkland in the affected unincorporated community. b. Document existing shortfalls in park acreage.

Air Quality

Table I-9 -- Recommended Levels of Severity -- 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 Enforcement of Particulate Matter Reduction Plan.
	All Other Areas	II	
Particulate Matter – PM ₁₀	Nipomo Mesa	III	Support APCD's Enforcement of Particulate Matter Reduction Plan.
	All Other Areas	II	
Sulfur Dioxide	Nipomo Mesa	I	Support APCD's Enforcement of the Federal Consent Decree.
Nitrogen Dioxide, Carbon Monoxide, Lead	All Areas	None	None
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.	None

II. WATER SUPPLY AND WATER SYSTEMS

Level of Severity Criteria

WATER SUPPLY

Level of Severity	Water Supply Criteria
I	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	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	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.

WATER SYSTEMS

Level of Severity	Water System Criteria
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 Serving the Unincorporated County

Water purveyors serving the unincorporated county are summarized on Table II-1 and shown on Figure II-1.

Table II-1 – Water Purveyors Serving the Unincorporated County				
Community	Water Purveyors	Approx. Population Served (2014)	2012-13 Water Deliveries (AFY) ⁴	2013-14 Water Deliveries (AFY)
Avila Beach Avila Valley	Avila CSD	450	(1)	86.6
	Avila Valley Mutual Water Co.	112	35.9	48.1
	San Miguelito Mutual Water Co.	1,200	(1)	179.5
Cambria	Cambria CSD	6,031	(1)	555.1
Cayucos	CSA 10A	2,185	110.1	112.0
	Morro Rock Mutual Water Co.		115.6	115.4
	Paso Robles Beach Water Assoc.		151.2	149.9
Edna Valley	Golden State Water Co.	1,960	297.9	286.8
Heritage Ranch	Heritage Ranch CSD	3,500	533.6	461.3
Los Osos	Los Osos CSD	7,086	670.8	645.1
	Golden State Water Co.	8,824	675.5	649.8
	S&T Mutual Water Co.	(1)	(1)	(1)
Nipomo	Nipomo CSD	12,484	2,376.4	2,517.0
	Woodland Mutual Water Co.	1,200	864.5	849.3
Oceano	Oceano CSD	7,294	829.1	832.8
Santa Margarita	CSA 23	1,265	156.1	157.2
San Miguel	San Miguel CSD	2,413	309.8	312.1
San Simeon	San Simeon CSD	462	(1)	72.1
Shandon	CSA 16	1,260	109.7	142.3
Templeton	Templeton CSD	6,885	(1)	1,344.3

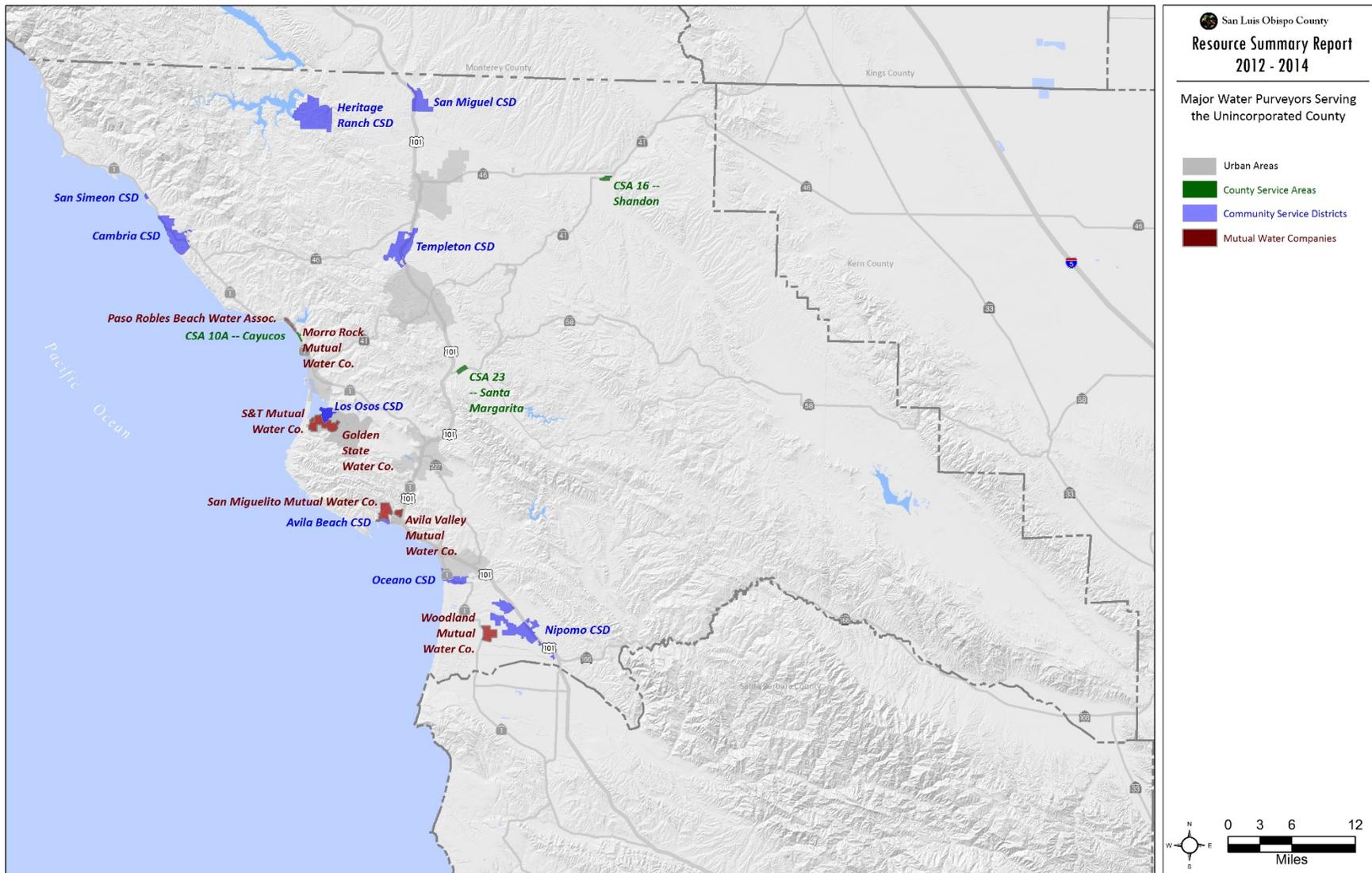
Source: San Luis Obispo County Flood Control and Water Conservation District, 2014

Notes:

- I. No data reported.

⁴ Acre feet per year. An acre-foot is 325,851.4 gallons.

Figure II-1 –Water Purveyors Discussed In This RSR



Water Resources

The following information regarding water resources serving the unincorporated county was summarized from the 2012 San Luis Obispo County Master Water Report which is available in its entirety at the County's⁵ website:

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

Groundwater Resources

Groundwater basins are summarized on Table II-2 and shown on Figure II-2.

Table II-2 – Groundwater Basins			
Location	Groundwater Basins/ Sub-basins	Safe Basin Yield (AFY)	Notes
San Simeon	San Carpaforo Valley	(1)	Rural and agricultural users only.
	Arroyo De La Cruz Valley	1,244	Rural and agricultural users only.
	Pico Creek Valley	120	Users include San Simeon CSD, Hearst Ranch and overlying users.
Cambria	San Simeon Valley	1,040	Users include Cambria CSD and overlying users.
	Santa Rosa Valley	2,260	Users include Cambria CSD and overlying users.
	Villa Valley	1,000	Rural and agricultural users only. Department of Water Resources estimate of safe yield from 1958. There has been no subsequent basin study to confirm or update this estimate.
Cayucos	Cayucos Valley	600	Morro Rock Mutual Water Company and Paso Robles Beach Water Association service areas overlie a portion of the basin; however, these purveyors do not pump from the Cayucos Valley basin. Department of Water Resources estimate of safe yield in 1958. There has been no subsequent basin study to confirm or update this estimate.
	Old Valley	(1)	Within the watershed of Whale Rock Reservoir. Users downstream of Whale Rock reservoir include members of the Cayucos Area Water Organization (CAWO), which include Morro Rock Mutual Water Company (Morro Rock MWC), Paso Robles Beach Water Association (PRBWA), County Service Area 10A (CSA 10A), the Cayucos Cemetery District (CCD), and two landowners.
	Toro Valley	532	Basin water users include Chevron (with agricultural tenants), and overlying residential and agricultural users.
Morro Bay	Morro Valley	1,500	Basin groundwater users include the City of Morro Bay, a cement plant, a small public water system (mobile home park), and residential and agricultural overlying users.
	Chorro Valley	2,210	Users include the City of Morro Bay, San Luis Obispo County, California State Parks, California State Polytechnic University, California National Guard, California Men's Colony, and residential and agricultural overlying users.
Los Osos	Los Osos Valley	3,200	Users include Golden State Water Company, S&T Mutual, the Los Osos Community Services District, and overlying private well users.

⁵ "County" as used in this RSR includes the San Luis Obispo County Flood Control and Water Conservation District.

Table II-2 – Groundwater Basins			
Location	Groundwater Basins/ Sub-basins	Safe Basin Yield (AFY)	Notes
San Luis Obispo/ Edna Valley	San Luis Obispo Valley – San Luis Valley Sub- basin	2,000	A 1991 study reported a sustained yield of the entire San Luis Valley Groundwater Basin under existing conditions at 5,900 AFY. Sub-basin groundwater users include the City of San Luis Obispo; California State Polytechnic University; San Luis Coastal Unified School District; Chevron; close to two dozen small public water systems serving various commercial, industrial, and residential properties; agricultural growers; and private residences.
	San Luis Obispo Valley – Edna Valley Sub-basin	4,000	Users include Golden State Water Company, San Luis Country Club (golf course), a few small public water systems, agricultural growers, and private residences.
Avila Valley	San Luis Obispo Valley – Avila Valley Sub-basin	(1)	Users include Avila Valley Mutual Water Company and San Miguelito Mutual Water Company.
South County/ Nipomo	Santa Maria Valley -- Pismo Creek Valley Sub- basin	(1)	Users include residential and agricultural overlying users.
	Santa Maria Valley -- Arroyo Grande Valley Sub-basin	(1)	Sub-basin groundwater users include small public water systems (residential, commercial, and County park), and agricultural and residential overlying users.
	Santa Maria Valley -- Nipomo Valley Sub- basin	(1)	Sub-basin groundwater users include residential and agricultural overlying users. The Nipomo CSD operates wells within the boundaries of the sub-basin, but these wells tap the deeper fractured rock reservoirs. There is no existing estimate for the perennial yield of this sub-basin.
	Northern Cities Management Area	5,600 – 6,800	Basin groundwater users in the NCMA include City of Pismo Beach, City of Arroyo Grande, City of Grover Beach, Oceano Community Services District (Oceano CSD), small public water systems (including Halcyon Water System), Lucia Mar Unified School District, and residential and agricultural overlying users.
	Nipomo Mesa Management Area	4,800 – 6,000	Basin groundwater users in the Nipomo Mesa Management Area include Golden State Water Company, Rural Water Company, Woodlands Mutual Water Company (WMWC), ConocoPhillips, Nipomo Community Services District (Nipomo CSD), Lucia Mar Unified School District, small public water systems (serving residential, industrial and nursery/greenhouse operations), and commercial, agricultural and residential overlying users. DWR (2002) estimated the dependable yield (DWR 2002. Page ES21) at 4,800 AFY to 6,000 AFY, which was prior to the formal establishment of the NMMA.
Santa Maria Valley Management Area	124,000	Users include agricultural and residential overlying users and a small public water system. Safe Yield in the San Luis Obispo County portion of the Santa Maria Valley was estimated between 11,100 AFY and 13,000 AFY prior to the formal establishment of the SMVMA (DWR 2002).	
Huasna Valley	Huasna Valley	(1)	Basin water users are residential and agricultural overlying users.
Cuyama Valley	Cuyama Valley	10,000	Basin groundwater users in the San Luis Obispo County portion of the basin include oil field operators and residential/agricultural overlying users. There is no separate yield estimate for the San Luis Obispo County portion of the basin.
Carrizo Plain	Carrizo Plain	8,000 – 10,000	Users include agricultural and residential overlying users.
	Rafael Valley	(1)	Users include agricultural and residential overlying users
	Big Spring Area	(1)	Users include agricultural and residential overlying users

Table II-2 – Groundwater Basins			
Location	Groundwater Basins/ Sub-basins	Safe Basin Yield (AFY)	Notes
Santa Margarita	Santa Margarita Valley	(1)	Serves Santa Margarita by way of CSA 23. The average annual yield of the basin in the vicinity of the proposed Santa Margarita Ranch development may be in the range of 400 to 600 AFY.
	Rinconada Valley	(1)	All pumping in the basin is for agricultural purposes and by overlying users.
	Pozo Valley	1,000	There are some small public water systems in the basin. All other pumping is for residential and agricultural purposes by overlying users. Department of Water Resources estimate in 1958. There has been no subsequent basin study to confirm or update this estimate.
Atascadero/ Templeton	Paso Robles – Atascadero Sub-basin	16,400	Users include the City of Atascadero, Templeton CSD and Garden Farms.
Paso Robles	Paso Robles	97,700(2)	Water users in the basin include municipalities, communities, rural domestic residences, and agricultural users. The major municipal water purveyors include the Atascadero Mutual Water Company, City of Paso Robles, Templeton CSD, CSA 16-1 (Shandon), and San Miguel Community Services District (San Miguel CSD). Includes 16,400 AFY perennial yield from the Atascadero Groundwater Sub-basin.
Cholame	Cholame Valley	(1)	There are some small public water systems in the San Luis Obispo County portion of the basin. All other pumping is for residential and agricultural purposes by overlying users.

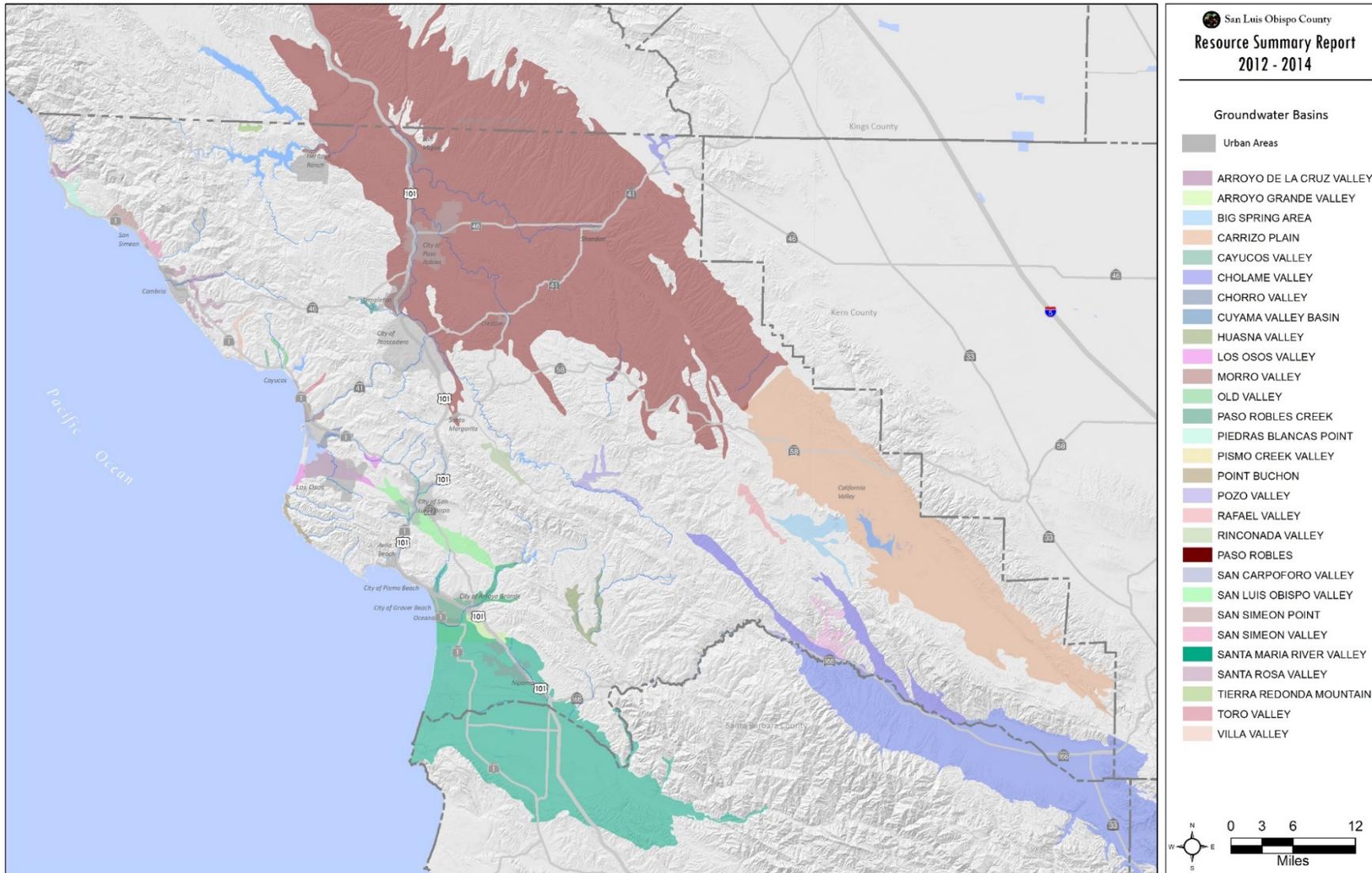
Source: San Luis Obispo County Master Water Report, 2012

Notes:

(1) No estimate available.

(2). The safe yield for the Paso Robles Groundwater Basin is currently being updated.

Figure II-2 – Groundwater Basins (Larger scale maps are provided with the discussion of each basin.)



Surface Water Resources Serving the Unincorporated County

State Water Project (SWP)

The California Department of Water Resources (DWR) owns and operates the State Water Project (SWP). In 1963 the San Luis Obispo County Flood Control and Water Conservation District (District) contracted DWR for 25,000 AFY of State Water. The SWP began delivering water to the Central Coast in 1997 upon completion of the Coastal Branch conveyance and treatment facilities, serving Santa Barbara and San Luis Obispo Counties. The SWP is considered a supplementary source of water supply since hydrologic variability, maintenance schedules, and repair requirements can cause reduced deliveries or complete shutdown of the delivery system. Since delivery to the Central Coast began, the SWP has provided between 50 and 100 percent of the contracted allocations, but recently, drought coupled with pumping restrictions in consideration of endangered species habitat lowered that amount to 35 percent in 2008 and 40 percent in 2009. To receive a greater portion of State Water during these shortages up to their full allocation (Water Service Amount), most agencies have entered into "Drought Buffer Water Agreements" with the District for use of an additional portion of the District's SWP allocation

Table II-2 provides a summary of SWP allocations to water purveyors serving the unincorporated county. Table II-2 lists the water service amount (WSA), drought buffer, and total reserve allocations for the County, but it also provides the average, maximum and minimum allocations based on the range of deliveries presented in Table 6.13 from the State Water Project Delivery Reliability Report 2007. The minimum, average, and maximum deliveries were 6, 66, and 100 percent of the maximum SWP Table A allocations, respectively. For long-term planning, it is assumed that SWP contractors will receive 66 percent of the maximum allocation in a given year. The District has 15,273 AFY of unsubscribed SWP allocation (District allocation (25,000 AFY) minus Total Reserved (9,727 AFY) equals 15,273 AFY), commonly referred to as the "excess allocation." Hydraulics, treatment plant capacity, and contractual terms and conditions limit how the excess allocation can be used. The County is currently evaluating the available hydraulic capacity in the treated water portion of the Coastal Branch. The following is a list of options for use of this excess allocation:

- Direct delivery after contract-revision negotiation for use of any additional capacity available in the Coastal Branch treatment and conveyance facilities;
- As additional drought buffer water;
- Permanent, multi-year or single year transfer or exchange; and/or
- As a source of either groundwater recharge or surface storage.

Table II-2 – State Water Project Water Service Amounts (AFY) To Water Purveyors Serving The Unincorporated County						
Contractor	Water Service Amount	Drought Buffer	Total	6 % Allocation Year	66-69% Allocation Year	100% Allocation Year
Oceano CSD	750	0	750	45	495	750
San Miguelito Mutual Water Co.	275	275	550	33	275	275
Avila Beach CSD	100	0	100	6	66	100
Avila Valley Mutual Water Co.	20	60	80	5	20	20
Shandon	100	0	100	6	66	100
Total:	1,245	335	1,580	95	922	1,245

Source: San Luis Obispo County Master Water Report, 2012, Table 4.5

Notes:

1. Minimum, average, and maximum allocations established in the State Water Project Delivery Reliability Report 2007 (August 2008), page 51, Table 6.13. This study used 66 percent for the average allocation year.

Many factors will affect future SWP deliveries to the County and SWP subcontractors within the County, including pumping restrictions for the Sacramento Delta and climate change. Estimating the 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, drought buffer purchases, and water transfers. The DWR State Water Project Delivery Reliability Report 2007 (August 2008) estimates future (2027) SWP delivery reliability and incorporates the 2007 federal court ruling for Delta pumping and potential impacts of future climate change. When compared to previous reliability reports, total annual deliveries for 2027 show decreases in deliveries in most years if no actions are taken to address the factors causing the decrease in availability. It is important to recognize that actions to re-establish reliability are being evaluated by DWR State Water Contractors and other State and Federal agencies. Future actions may include new environmental efforts as well as infrastructure improvements envisioned when the SWP was originally scoped in the 1960s.

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. The lake has a capacity of 377,900 acre-feet (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.

In 1959, the County secured the rights to 17,500 AFY from Lake Nacimiento, with 1,750 AFY reserved for lakeside users and the Heritage Ranch Community Services District (Heritage Ranch CSD). After a long series of studies and negotiations, the Nacimiento Water Project (NWP) was initiated. The project delivers raw lake water from Lake Nacimiento to communities within San Luis Obispo County. Water purveyors serving the unincorporated county who are participating

in the Nacimiento Water Project, along with their contracted water amounts, are listed in Table II-3.

Table II-3 – Allocation of Nacimiento Water Project To Participants Serving the Unincorporated County	
Participants	Allocations (AFY)
Templeton CSD	250
CSA 10A (via exchange) ¹	25

Source: San Luis Obispo County Master Water Report, 2012, Table 4.6

Notes:

1. Discussed below under Whale Rock Reservoir.

Whale Rock Reservoir

Whale Rock Reservoir is located on Old Creek Road approximately one-half mile east of the community of Cayucos. The State Department of Water Resources supervised the project's planning, design, and construction. Construction 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 the Department of Water Resources, 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.

Whale Rock 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. The calculation of the yield available is coordinated with Salinas Reservoir using a safe annual yield computer model. The model also evaluates the effect of siltation. The Whale Rock Commission has budgeted for a siltation study to be undertaken in the near future.

Table II-4 summarizes the current capacity rights for the joint right-holders (downstream water rights are accounted for separately). Each rights-holder manages reservoir withdrawals individually from their available water storage allocation. The Whale Rock Commission tracks withdrawals and reports available volume on a monthly basis.

Table II-4 – Whale Rock Reservoir Allocations		
Water Users	Percent	Allocations (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

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) define water entitlements for adjacent and downstream water users, including water purveyors serving the unincorporated County. The Cayucos Area Water Organization, one of the 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 land owners. An exchange agreement between CSA 10A and the City of San Luis Obispo (2005) allows the delivery of up to 90 AFY of the City's Whale Rock water allocation to CSA 10A in exchange for CSA 10A's purchase of an equivalent amount of Nacimiento Water for delivery to the City. The anticipated need for CSA 10A is 25 AFY at buildout.

Total Whale Rock Reservoir entitlements are summarized on Table II-5.

Table II-5 – Whale Rock Downstream Entitlements	
Water Users	Downstream Water Entitlements (AFY)
Cayucos Area Water Organization ¹	
Paso Robles Beach Water Association	222
Morro Rock Mutual Water Co.	170
County Service Area 10A	190 ³
Cayucos-Morro Bay Cemetery District	18
Mainini Ranch ²	50
Ogle ²	14
Total:	664

Source: San Luis Obispo County Master Water Report, 2012, Table 4.8

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. CSA 10A has procured 25 - 90 AFY of Nacimiento Water Project via exchange with City of San Luis Obispo for Whale Rock Reservoir water. Agreement provisions allow for up to 90 AFY of NWP if necessary. Nacimiento water could be delivered to Morro Rock MWC or Paso Robles Beach Water Association, as part of this arrangement.

Lopez Lake/Reservoir

The County 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 for Lopez Lake water are based on a percentage of the safe yield of the reservoir, which is 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 Flood Control Zone 3 (Zone 3). Water agencies serving the unincorporated County that contract for Lopez water in Zone 3 include the community of Oceano and CSA 12

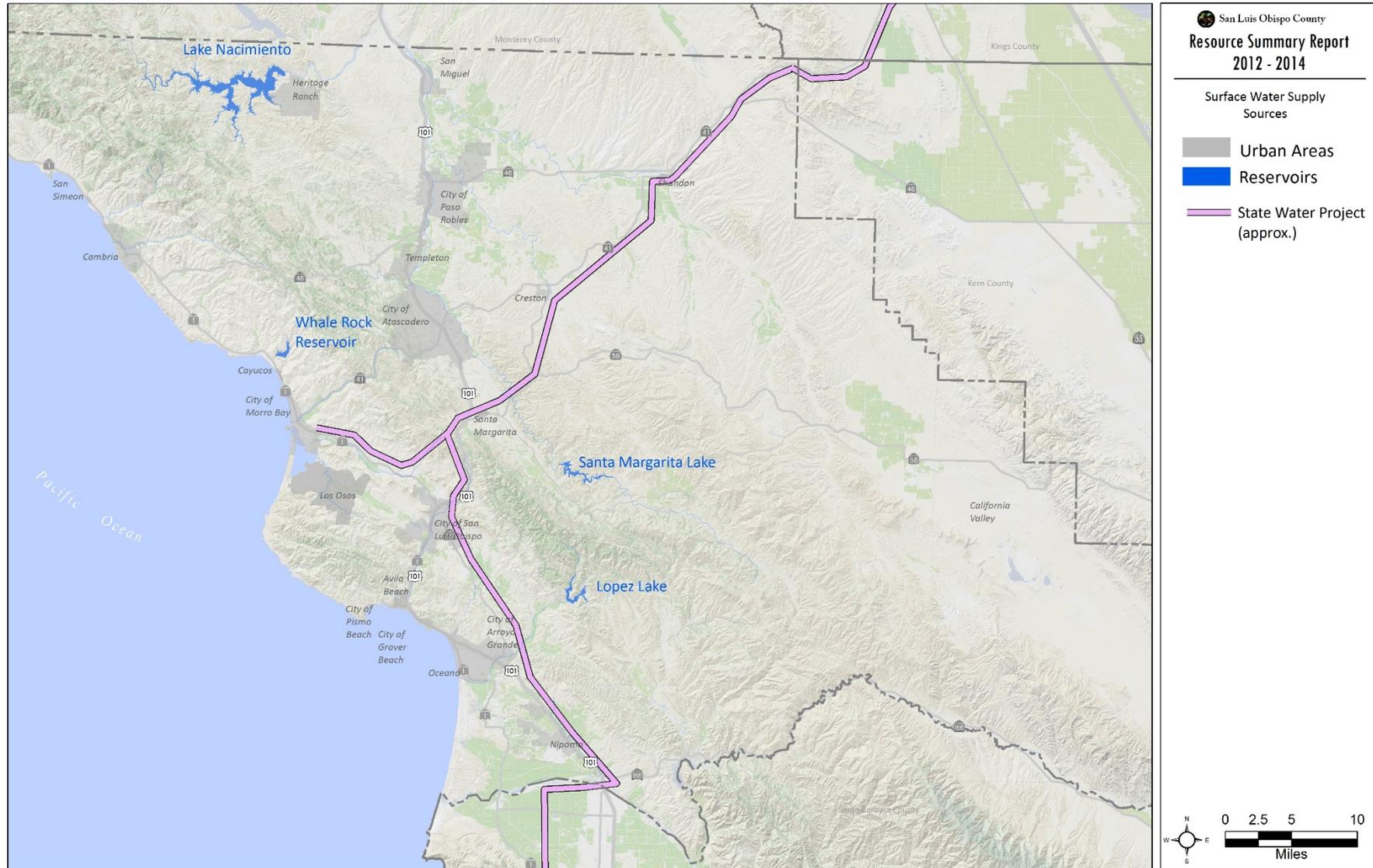
(including the Avila Beach area). Lopez Lake allocations to these purveyors are shown in Table II-6.

Two issues could change the amount of water available to contractors and the safe yield. The Arroyo Grande Habitat Conservation Plan, which is currently being developed, will likely require additional downstream releases. An interim downstream release schedule has reduced 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.

Table II-6 – Lopez Lake Water Allocations to Water Purveyors Serving the Unincorporated County	
Water Users	Allocations (AFY)
Oceano CSD	303
County Service Area 12 (Avila Beach area)	241
Total:	544

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

Figure II-3 – Surface Water Supply Sources



Recommended Levels of Severity

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:

- The San Luis Obispo County Master Water Report, 2012
- The Draft Basin Plan for the Los Osos Groundwater Basin, August 2013
- The Paso Robles Groundwater Basin Management Plan, 2011
- The Paso Robles Groundwater Basin Computer Model, 2014
- The 2014 San Luis Obispo County Integrated Regional Water Management Plan

To determine recommended LOS for water supply, forecast demand from urban, rural, and agricultural users was projected over 15 years, 15-20 years, and 20 years and compared with the safe yield of the groundwater basins serving these users (where known). Levels of Severity were assigned based on whether the projected demand would exceed the dependable supply over these time periods.

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 then were compared with the LOS timeframes to assign a recommended LOS.

San Simeon/Cambria Area Water Supply and Systems

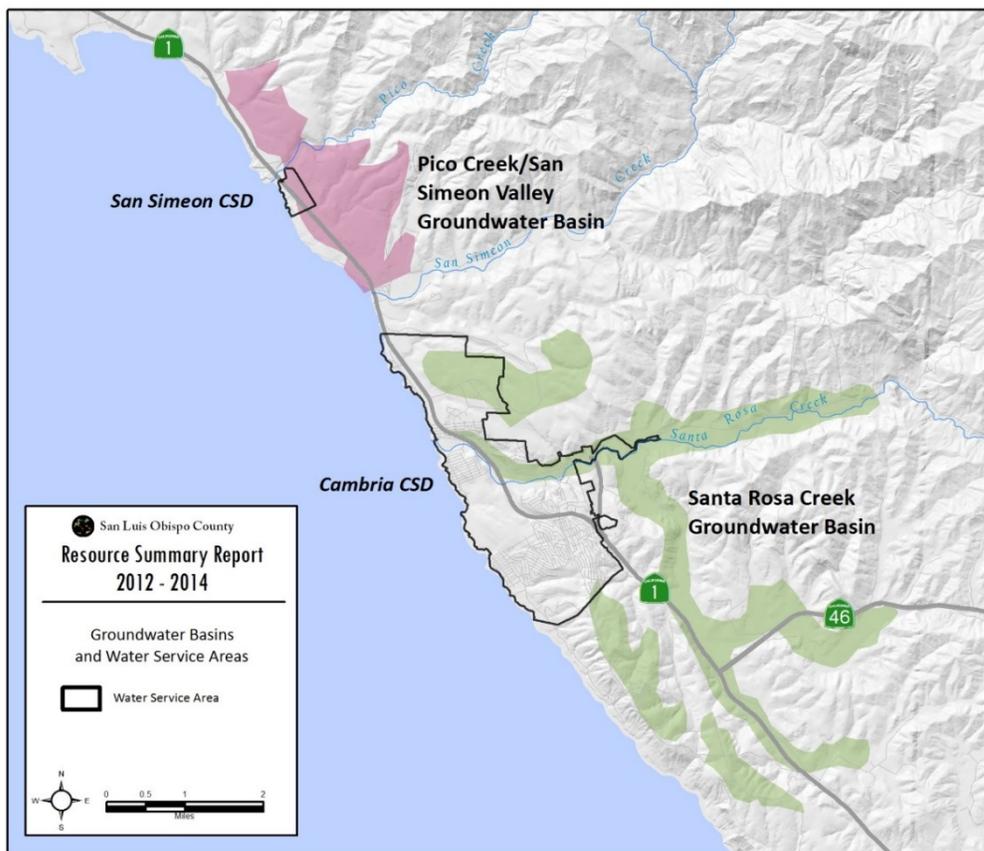


Figure II-4 – Groundwater Basins and Water Purveyors Serving the San Simeon/Cambria Area

Pico Creek Valley Groundwater Basin

According to the 2012 Master Water Report, the basin yield is estimated to be 120 AFY (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). Although seawater intrusion has increased salinity levels in groundwater pumped from local water supply wells, it has not degraded water quality to the point that the water is non-potable. The primary constraints on water availability in the basin include physical limitations and potential water quality issues.

Users of the basin include the San Simeon CSD, rural and agricultural operations. 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, an alternative supply is necessary to meet future demands. Water conservation measures have been fully implemented and there is minimal or no opportunity to further reduce water demands. Three water management

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

- Recycled water
- 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.

San Simeon CSD could also implement a desalination project (similar to one being constructed by Cambria CSD). The implementation challenges would be similar to those experienced by Cambria CSD.

Table II-7 – Pico Creek Valley Groundwater Basin Existing and Forecasted Water Supply and Demand			
Demand	San Simeon CSD	Agriculture	Rural
Current Demand (AFY)	72.1 ¹	70 ³	20 ³
Forecast Demand In 15 Years (AFY)	71.1	65	35
Forecast Demand in 20 Years (AFY)	71.9	63.3	40
Buildout Demand (30 Or More Years) (AFY)	250 ²	10-60 ³	50 ³
Supply			
Pico Creek Valley Basin (AFY)	120	Uncertain ⁴	Uncertain ⁴
Water Supply Versus Forecast Demand	Water demand projected over 15 years will equal or exceed the estimated dependable supply.		

Sources: Water System Usage forms: July 2012 – June 2013; July 2013 – June 2014, San Luis Obispo County Master Water Report, 2012, Table 4.54

Notes:

1. See Table II-1. Demand fluctuates due to changes in tourism. Data for agriculture and rural are from 2012.
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 calculations do not account for livestock operations, and likely underestimates actual water demands.
4. Seventy (70) AFY of Pico Creek livestock and domestic usage was reported by Hearst Holdings Inc. to the SWRCB in June 2010.
5. Population within the San Simeon area is expected to decline slightly over the next 30 years.

The groundwater basin is considered an unreliable source within the timeframes prescribed by the LOS criteria because:

- Current estimated demand from urban, rural and agricultural users (162.1 AFY) exceeds the safe yield of the basin (120 AFY).

- Forecast 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).
- The combination of seawater intrusion along with lowering groundwater levels during the dry season or times of drought.

Water demand projected over 15 years will equal or exceed the estimated dependable supply.

Recommended Level of Severity III.

San Simeon Valley and Santa Rosa Valley Groundwater Basins

San Simeon Valley Groundwater Basin

Water users in the basin include the Cambria CSD (discussed below under the Santa Rosa Valley Groundwater Basin) and overlying rural and agricultural users. The primary constraints on water availability in the basin include physical limitations and potential water quality issues. The State Water Resources Control Board (State Board) allows a maximum extraction of 1,230 AFY in the San Simeon Valley 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. The primary constraints on water availability in the basin include physical limitations and potential water quality issues.

Santa Rosa Valley Groundwater Basin

Water users in the basin include the Cambria CSD and overlying rural and agricultural users. According to the 2012 Master Water Report, the primary constraints on water availability in the basin include physical limitations and potential water quality issues. The State Board allows a maximum extraction of 518 AFY in the Santa Rosa Valley Groundwater Basin and a maximum dry season extraction of 260 AF (Cambria CSD WMP, 2008). The California Coastal Commission defines the Santa Rosa Creek dry period as July 1 to November 20. 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. Because of these limitations, the groundwater basin is considered an unreliable source to meet existing demands during the dry season.

Due to the supply limitations of the San Simeon and Santa Rosa Valley Groundwater Basins, an alternative supply is necessary to meet existing seasonal deficits and future demands. Water conservation measures have been implemented and there is minimal opportunity to further reduce water demands. Further mandatory or emergency conservation would be used to off-set an emergency or reliability supply, not to support growth. Two water management strategies are likely the most feasible options to consider for Cambria CSD's future water supply:

- Desalination
- Recycled water

To meet the additional water supply needs and to increase water supply reliability, the Cambria CSD has constructed a seawater desalination plant to produce up to 602 AFY. The plant will

operate during the dry season to augment supply during that period of high demand. A decentralized recycled water program is also planned, with an estimated 180 AFY made available for unrestricted irrigation use. Other water management strategies include further conservation and land use management (includes low impact development and rainwater harvesting).

Table II-8 -- San Simeon Valley and Santa Rosa Valley Groundwater Basins Existing and Forecasted Water Supply and Demand			
Demand	Cambria CSD	Agriculture	Rural
Current Demand (AFY) ¹	555.1	640	100
Forecast Demand in 15 Years (AFY)	570.7	1,065	160
Forecast Demand in 20 Years (AFY)	583.2	1,206.7	180
Buildout Demand (30 Or More Years) (AFY)	1,009 – 1,514 ²	740-1,490	190-220
Supply			
San Simeon Valley Basin (AFY)	1,230	Uncertain	Uncertain
Santa Rosa Valley Basin (AFY)	518	Uncertain	Uncertain
Total Supply:	1,748	Uncertain	Uncertain
Water Supply Versus Forecast Demand	Water demand for the basins projected over 15 years will equal or exceed the estimated dependable supply. ^{3,4}		

Sources: Water System Usage forms: July 2012 – June 2013; July 2013 – June 2014, San Luis Obispo County Master Water Report, 2012, Table 4.55

Notes:

1. See Table II-1. Current demand data for agriculture and rural are from 2012.
2. The low end of the demand range for Cambria CSD represents maintaining current conservation practices and is the lowest demand scenario from the district's water master plan.
3. Although the existing annual supply and demand indicates a surplus, the dry season extraction limit creates a seasonal supply deficit.
4. It is uncertain whether an agricultural or rural supply deficit exists. Future studies should determine which groundwater basins are used by the agricultural and rural water users.

Because of the limitations on dry weather extractions, the San Simeon Valley and Santa Rosa Valley Groundwater Basins are considered an unreliable source within the timeframes prescribed by the LOS criteria. Therefore, water demand projected over 15 years will equal or exceed the estimated dependable supply. **Recommended Level of Severity III**

San Simeon/Cambria Area Water Systems

San Simeon CSD

San Simeon CSD has considered upgrading its wastewater treatment facility to use the treated effluent as recycled water for landscape irrigation and possibly commercial uses (not for

seawater intrusion barrier). By July 2012, the facility was producing Title 22 recycled water, but it will only be 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

In an effort to enhance Cambria's major water and wastewater infrastructure and other key projects that protect the safety and quality of life for Cambrians, the CCSD has prioritized a number of Capital Improvement Projects (CIP) as well as the non-CIP Buildout Reduction Program (BRP).

The CSD continues to pursue construction of an emergency water supply by treating brackish groundwater. The water will go through several stages of treatment to remove solids, salt, organic chemicals and other contaminants so that it is safe to drink. It will then be re-injected into the aquifer's freshwater supply. The brackish water to be 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 will be at least one-half mile inland from the ocean.

The San Simeon Creek Road facility will 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. This is about one-third of the community's normal water consumption for a full year.

No significant water system limitations were reported. No recommended Level Of Severity.

Cayucos Area Water Supply and Systems

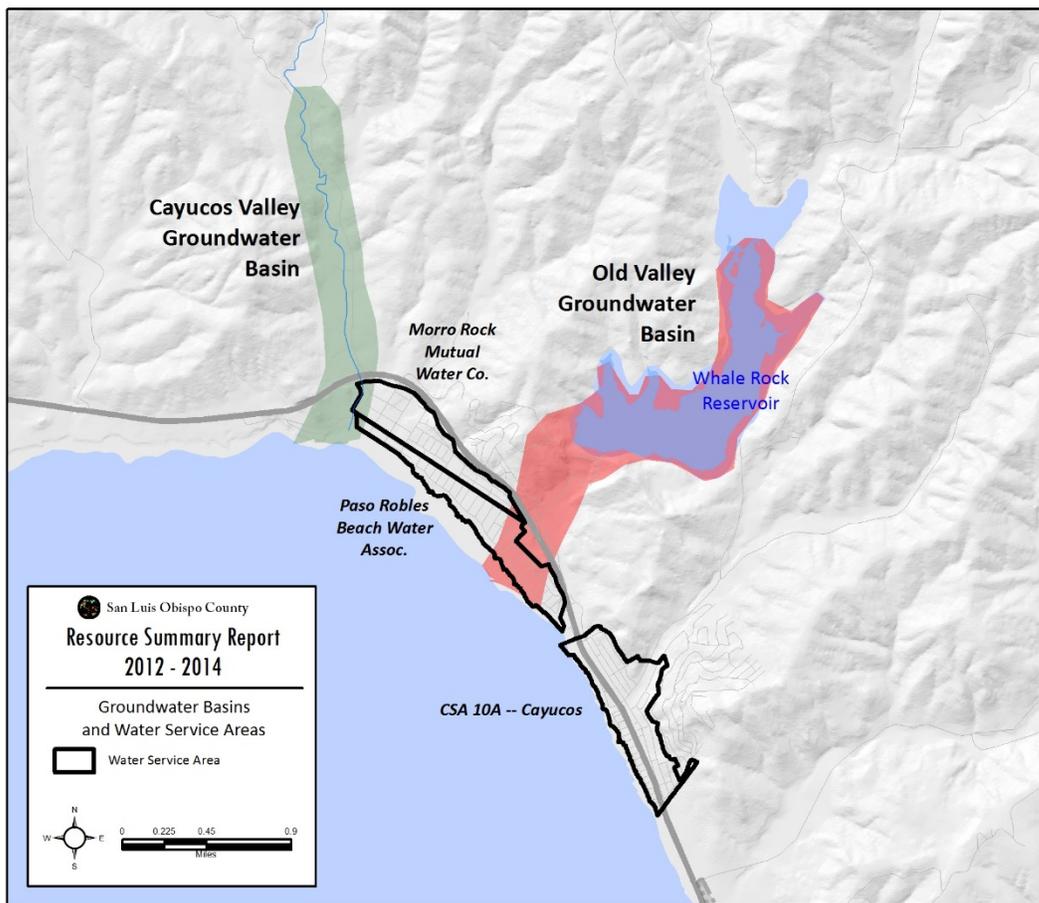


Figure II-5 – Groundwater Basins, Surface Water and Water Purveyors in the Cayucos Area

Cayucos Valley Groundwater Basin

Constraints on water availability in this basin include 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 Paso Robles Beach Water Association service areas overlie a portion of the basin; however, these purveyors do not pump from the Cayucos Valley basin. No recommended Level Of Severity.

Old Valley Groundwater Basin

Basin groundwater users downstream of Whale Rock reservoir include members of the Cayucos Area Water Organization, which include Morro Rock Mutual Water Company, Paso Robles Beach Water Association, CSA 10A, the Cayucos Cemetery District, and two landowners. The combined groundwater and Whale Rock Reservoir surface water allocation for CAWO in Old Valley is 600 AFY, distributed as follows:

- Morro Rock MWC: 170 AFY
- PRBWA: 222 AFY
- CSA 10A: 190 AFY (plus 25 AFY of San Luis Obispo’s entitlement via exchange for Lake Nacimiento water)
- CCD: 18 AFY
- Downstream land owners: 64 AFY

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 agreements limit the amount of groundwater available to the members of CAWO and downstream landowners in Old Valley to the available sources. No recommended Level of Severity.

Whale Rock Reservoir allocations to CAWO members are sufficient to provide existing demands and meet forecast build-out demands. CSA 10A has procured an additional entitlement of 25 AFY through the Nacimiento Water Project. This water will be taken from the Whale Rock Reservoir in an exchange agreement with the City of San Luis Obispo. The agreement allows up to 90 AFY to be exchanged, which may be a way to address any future needs of the CAWO. Nacimiento Water Project water could be delivered to Morro Rock MWC or Paso Robles Beach Water Association as part of this arrangement.

Table II-9 -- Cayucos Valley and Old Valley Groundwater Basins Existing and Forecasted Water Supply and Demand						
Demand	Morro Rock MWC	Paso Robles Beach Water Assoc.	CSA 10A	Cayucos Cemetery District	Agriculture	Rural
Current Demand (AFY) ¹	115.4 ¹	149.9 ¹	110.1 ¹	Not provided	520	80
Forecast Demand in 15 Years (AFY)	118.6	154.1	115.1	16	660	110
Forecast Demand in 20 Years (AFY)	125.9	163.5	122.2	16	706.7	120
Buildout Demand (30 Or More Years) (AFY)	164-173	207-218	220-232	17-18	430-800	130-140
Supply						
Whale Rock Reservoir (Old Valley Basin)	170	222	190	18	64	0
Nacimiento Water Project	0	0	25-90	0	0	0
SWRCB Water Diversions	3 ³	0	0	0	0	0
Cayucos Valley Basin	0	0	0	0	(4)	(4)
Total Supply:	173	222	215-280	18	Uncertain	Uncertain
Water Supply Versus Forecast Demand	Water demand for the basin 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 forecast demand.
--	--

Sources: Water System Usage forms: July 2012 – June 2013; July 2013 – June 2014, San Luis Obispo County Master Water Report, 2012, Table 4.56

Notes:

1. See Table II-1. Current demand data for agriculture and rural are from 2012. All data are as reported separately by purveyors in 2014. Not apportioned.
2. CSA 10A has procured 25 - 90 AFY of Nacimiento Water Project via exchange with City of San Luis Obispo for Whale Rock Reservoir water. Agreement provisions allow for up to 90 AFY of NWP if necessary. Nacimiento water could be delivered to Morro Rock MWC or Paso Robles Beach Water Association, as part of this arrangement.
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 basin 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 basin 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.

Staff of the Department of Planning and Building estimate that General Plan buildout for Cayucos is likely to be reached by the year 2044 (in 29 years) which is beyond the timeframe of the LOS criteria. Since the forecast build-out 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 existing agreement with CSA 10A allows up to 90 AFY to be exchanged.

The combination of full 90 AFY NWP exchange and emergency conservation measures would provide the CAWO members with a reliable supply for the next twenty or more years. Therefore, water demand projected over a period exceeding 20 years will not equal or exceed the estimated dependable supply. No recommended Level of Severity.

Cayucos Area Water Systems

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 Water Supply and Systems

Los Osos Groundwater Basin

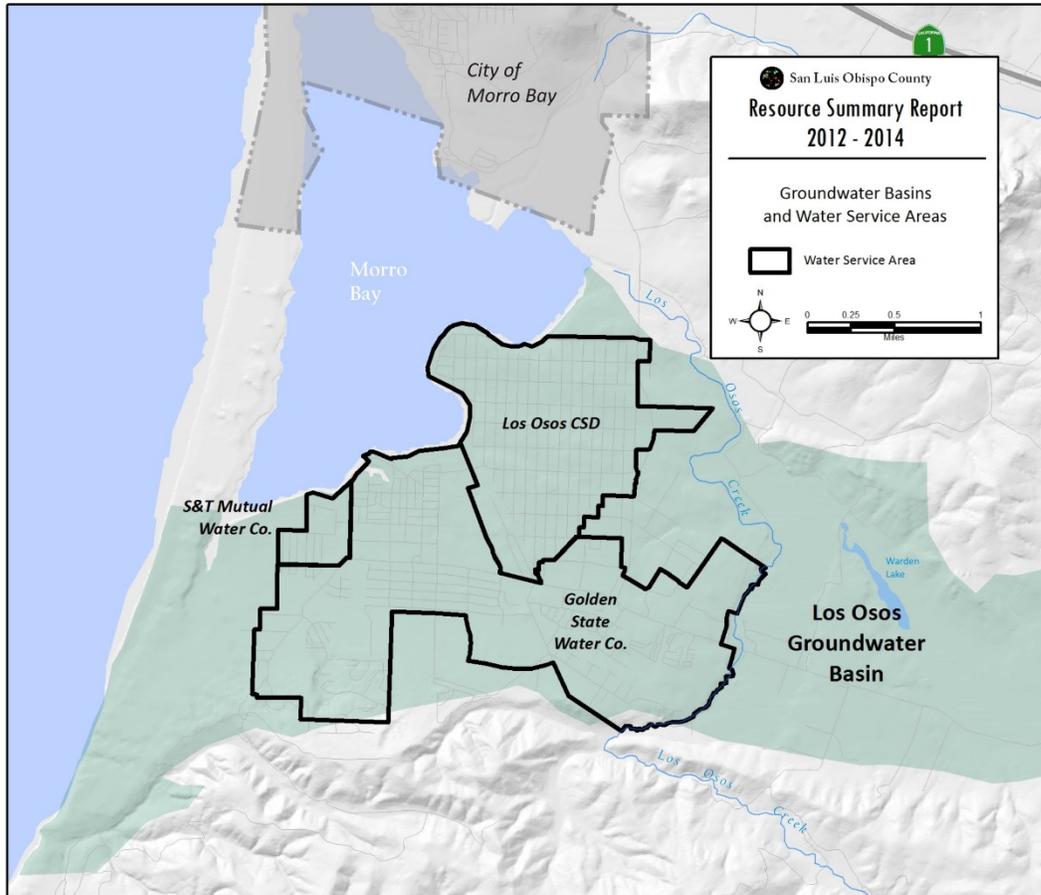


Figure II-6 – Los Osos Groundwater Basin and Water Purveyors Serving the Los Osos Area

Basin groundwater users in the Los Osos Valley basin include Golden State Water Company, S&T Mutual, the Los Osos Community Services District, and overlying private well users. Estimates of the safe yield of the groundwater basin have been developed for the current condition, with existing septic systems in place, and assuming no new water development. The safe yield estimate of the basin under current conditions is 3,200 AFY (ISJ Working Group, 2010).

According to the 2012 Master Water Report, the primary constraint on water availability in the Los Osos Valley Groundwater Basin is deteriorating water quality due to sea water intrusion and nitrate contamination. A wastewater collection, treatment and disposal system is currently under construction to address nitrate contamination of the basin.

The three local water purveyors (Golden State Water Company, S&T Mutual, the Los Osos Community Services District), along with the County of San Luis Obispo, are currently preparing a Basin Management Plan (BMP) under a court-approved Interlocutory Stipulated Judgment (ISJ Working Group). A draft of the BMP was published in August, 2013 and is being circulated for

public review and comment until December, 2014, and considers different scenarios for future water demand. The *No Further Development Scenario* assumes there is no future urban development beyond that which existed in 2010, the year of the most recent federal census. Policies of the County General Plan, the California Coastal Commission and the Regional Water Quality Control Board (RWQCB) will not allow additional development in Los Osos until the Basin is being managed on a sustainable basis. Thus the occurrence of any additional development is conditioned on the successful implementation of the BMP.

The *Buildout Development Scenario* assumes that future development in Los Osos follows the projections of the Draft Estero Area Plan (EAP). Those projections anticipate the population within the Urban Reserve Line (URL) for Los Osos to increase by roughly 35 percent through 2035, starting in 2016. Although the draft EAP for the Los Osos URL was not approved by the Coastal Commission because of water supply and other concerns, the projected level of development and population in the adopted EAP is widely considered to be unrealistic and likely to be revised downward as part of the Los Osos Community Plan update currently underway.

The No Further Development and Buildout Development Scenarios represent low and high marks for future urban water demand and the actual future demand will likely fall somewhere between these two scenarios and within the safe yield of the Basin as it changes with the implementation of the programs recommended by the Draft BMP. Programs being considered by the Draft BMP include the following:

Groundwater Monitoring Program. According to the Draft BMP, a comprehensive groundwater monitoring program is recommended to complete and consolidate data collection on groundwater resources in the Basin. The collected data will be used to inform Basin management decisions.

Urban Water Use Efficiency Program. According to the Draft BMP, improving urban water use efficiency is the highest priority program for balancing the Basin and preventing further seawater intrusion. More efficient urban water use will allow purveyors and well users to decrease the amount of groundwater extracted from the basin, thus ensuring that a sufficient amount of water remains to stabilize the freshwater-seawater interface.

Urban Water Reinvestment Program. In order to maximize the use of Basin resources, it is imperative that water used by urban consumers be reinvested in the hydrologic cycle in an appropriate manner. Accordingly, the Draft BMP promotes the increased use of recycled water for urban and agricultural water users. One of the key components of this program is implementation of the Los Osos Wastewater Project (LOWWP) expected to be completed and operating by 2016. To prevent the LOWWP from harming the Basin through additional seawater intrusion, conditions on the project require the LOWWP to reinvest all treated wastewater back into the Basin.

Basin Infrastructure Improvements. The Draft BMP recommends various infrastructure improvements to better manage the extraction, distribution, treatment and recycling of groundwater resources.

Supplemental water Program. The Draft BMP explores different options for developing sources of water other than water derived from the Basin. These sources include rainwater harvesting, stormwater capture, greywater reuse, and groundwater desalination.

Table II-10 -- Los Osos Groundwater Basin Existing and Forecasted Water Supply and Demand					
Demand	Los Osos CSD	S&T Mutual Water Co.	Golden State Water Co.	Agriculture	Rural
Current Demand (AFY)	645.1 ¹	Not Provided	649.8 ¹	3,290	20
Forecast Demand in 15 Years (AFY)	844.6	48	1,189.9	3,530	20
Forecast Demand in 20 Years (SFY)	911	64	1,369.9	3,610	20
Buildout Demand (30 Or More Years) (AFY)	835-1,044 ²	77-96 ²	1,384-1,730 ²	2,750-3,770	20
Supply					
Los Osos Groundwater Basin	(3)	(3)	(3)	(3)	(3)
Total Supply:	(3)	(3)	(3)	(3)	(3)
Water Supply Versus Forecast Demand	Due to seawater intrusion and nitrate contamination, the groundwater basin remains an unreliable source to meet existing demand and water demand projected over 15 years will equal or exceed the estimated dependable supply. ⁴				

Sources: Water System Usage forms: July 2012 – June 2013; July 2013 – June 2014, San Luis Obispo County Master Water Report, 2012, Table 4.58

Notes:

1. See Table II-1. Current year data for agriculture and rural are from 2012.
2. The low end of the forecast demand range assumes 20 percent additional conservation (beyond what has already been accomplished) at build-out of current general plan.
3. Estimated safe basin yield is 3,200 AFY and all pumping is for urban, agricultural or rural users. Purveyors have 2,100 AFY available for their use. The remaining 1,100 AFY is used for agricultural irrigation, private domestic use, and golf course irrigation (Los Osos Groundwater Basin Update, ISJ Working Group, May 4, 2010).
4. Development of the Basin Management Plan will evaluate and identify strategies to improve basin conditions.

Through the development of the BMP, the ISJ Working Group will be evaluating and identifying the management strategies to implement, in coordination with the County's wastewater project, in order to improve conditions in the basin. However, because of seawater intrusion and nitrate contamination, the groundwater basin remains an unreliable source to meet existing demand and water demand projected over 15 years will equal or exceed the estimated dependable supply. **Recommended Level of Severity III.**

Los Osos Area Water Systems

Los Osos CSD 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. No recommended Level of Severity.

Golden State Mutual Water Co. plans to invest more than \$2 million dollars 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 recommended Level of Severity.

Avila Beach and Avila Valley Water Supply and Systems

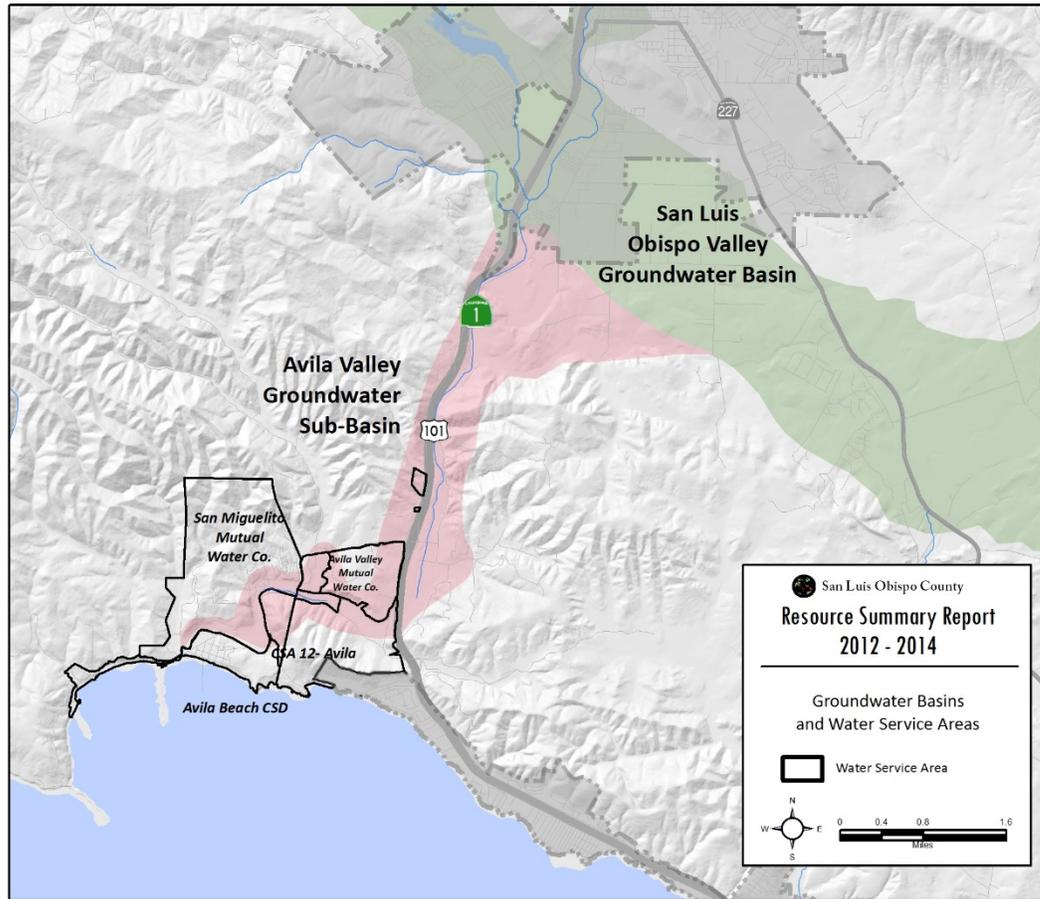


Figure II-7 -- Avila Valley Groundwater Sub-Basin and Water Purveyors

San Luis Obispo Valley Groundwater Basin – Avila Valley Sub-basin

The Avila Valley Sub-basin serves urban development in the Avila Valley as well as overlying private well users. No basin yield numbers have been published for this sub-basin. The primary constraints on water availability in the Avila Valley Sub-basin are physical limitations and environmental demand. Shallow alluvial deposits are typically more susceptible to drought impacts. Releases from the City of San Luis Obispo Water Reclamation Facility into San Luis Obispo Creek significantly offset storage losses during drought, but are also intended to support steelhead habitat. Below the Marre Weir⁶, sea water intrusion is the primary constraint to water availability.

Water purveyors serving the area include the Avila Beach CSD, Avila Valley Mutual Water Co., San Miguelito Mutual Water Co., CSA 12 and Port San Luis. The San Luis Valley and Avila Valley Sub-basins do not provide a significant supply to the urban users when compared to surface

⁶ The Marre Weir, located at the San Luis Obispo Creek Estuary is a metal sheet pile structure that spans the width of San Luis Obispo Creek. The purpose of the weir is to prevent saltwater incursion into the groundwater upstream. This groundwater is a principle water source for the adjacent housing development.

water supplies. The primary constraints on water availability include physical limitations, water quality issues, and environmental demand.

The State Water Project provides water to the Avila Beach CSD, Avila Valley MWC, San Miguelito MWC, and CSA 12. The SWP is considered a supplementary source of water since hydrologic variability, maintenance schedules, and repair requirements can cause reduced deliveries or complete shutdown of the delivery system. Since delivery to the Central Coast began, the SWP has provided between 50 and 100 percent of the contracted allocations, but recently, 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. Lopez Lake Reservoir supplies water to Avila Beach CSD, Avila Valley MWC, and CSA 12.

According to the 2010 Master Water Report, the Avila Valley Sub-basin does not provide a significant supply to the urban users in the area when compared to surface water supplies (the State Water Project). The shallow alluvial deposits are typically more susceptible to drought impacts. Elevated nitrates are a constraint for drinking water availability in the Avila Valley Sub-basin. The reliability of the sub-basin to supplement surface supplies is uncertain because:

- The safe yield of the basin is unknown;
- Considerable variability in water deliveries from the State Water Project;

San Luis Obispo Valley Groundwater Basin – Edna Valley Sub-basin

The Edna Valley Sub-basin serves limited urban development as well as overlying private well users. Water purveyors in the Edna Valley include Golden State Water Company. The primary constraints on water availability in the Edna Valley portion of the basin are physical limitations and environmental demand. Lowering groundwater levels due to production in the basin may impact base flows to Pismo Creek, which support steelhead habitat.

According to the 2010 Master Water Report, the estimated safe yield of the sub-basin is 4,000 AFY (DWR 1997). The primary constraints on water availability in the Edna Valley portion of the basin are physical limitations and environmental demand. Lowering groundwater levels due to production in the basin may impact base flows to Pismo Creek, which support steelhead habitat. The reliability of the sub-basin is uncertain in part because future demand associated with rural and agricultural users in the sub-basin is unknown. However, the relatively small population served when compared with the safe yield of the aquifer suggests that the sub-basin will remain a reliable source. No recommended Level of Severity.

**Table II-11 – San Luis Obispo Valley Groundwater Basin –
Avila Valley and Edna Valley Sub-basins
Existing and Forecasted Water Supply and Demand**

Demand	Avila Beach CSD	Avila Valley MWC	San Miguelito MWC	CSA 12	Port San Luis	Golden State Water Co. (Edna Valley)	Agriculture	Rural
Current Demand (AFY)	86.6 ¹	48.1 ¹	179.5 ¹	68 ²	35 ²	286.8 ¹	3,610	450
Forecast Demand in 15 Years (AFY)	107.5	44.1	232.9	68	35	335.6.4	3,865	555
Forecast Demand in 20 Years (AFY)	128.3	40.1	286.3	68	35	372.2	3,950	590
Buildout Demand (30 Or More Years) (AFY)	162-170 ³	30-32 ³	373-393 ³	65-68 ³	33-35 ³	434-482	2,810-4,120	610-660
Supply								
State Water Project ⁴	66 ⁵	20	275	7 ⁶	0	0	0	0
Lopez Lake Reservoir	68	12	0	61	100	0	0	0
Avila Valley Sub-Basin ⁷	0	Uncertain	118	Uncertain ⁸	0	0	Uncertain ⁹	Uncertain ⁹
Edna Valley Sub-Basin	0	0	0	0	0	410	Uncertain ¹⁰	Uncertain ¹⁰
Total Supply:	134	32	393	68	100	410	Uncertain	Uncertain
Water Supply Versus Forecast Demand	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 2012 – June 2013; July 2013 – June 2014, San Luis Obispo County Master Water Report, 2012, Table 4.59

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 build-out for all urban users.
4. State Water Project average allocation assumed 66 percent of contract water service amount.
5. Avila Beach CSD has a 100 AFY allocation, 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. No basin yield numbers have been published for the Avila Valley Sub-basin.
8. 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.
9. No basin yield numbers have been published for the Avila Valley Sub-basin.

10. Estimated safe basin yield is 2,000 AFY and all pumping is for urban, agricultural or rural users. The City of San Luis Obispo's use is approximately 100 AFY, but the City does not consider their 500 AFY share of the safe yield as part of its water resource availability. The remaining 1,500 AFY is available for other urban users, agricultural irrigation, and private domestic use.

Recommended Levels of Severity:

San Luis Obispo Valley Groundwater Basin – Avila Valley Sub-basin. There is uncertainty regarding the safe yield of the Avila Valley Sub-basin. A conservative forecast of future demand for urban users suggests that the available supply will be equaled or exceeded at General Plan buildout. Staff of the Department of Planning and Building estimate that General Plan buildout is likely to be reached by the year 2047 (in 32 years) which is beyond the 20 year timeframe of the LOS criteria. Therefore, water demand projected over 20 years will not equal or exceed the estimated dependable supply. No recommended Level of Severity. However, this is due primarily to a lack of information regarding the safe yield of the sub-basin.

San Luis Obispo Valley Groundwater Basin – Edna Valley Sub-basin. Water demand projected over 20 years will not equal or exceed the estimated dependable supply. No recommended Level of Severity.

Avila Beach and Avila Valley Water Systems

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

Oceano/Nipomo Area Water Supply and Water Systems

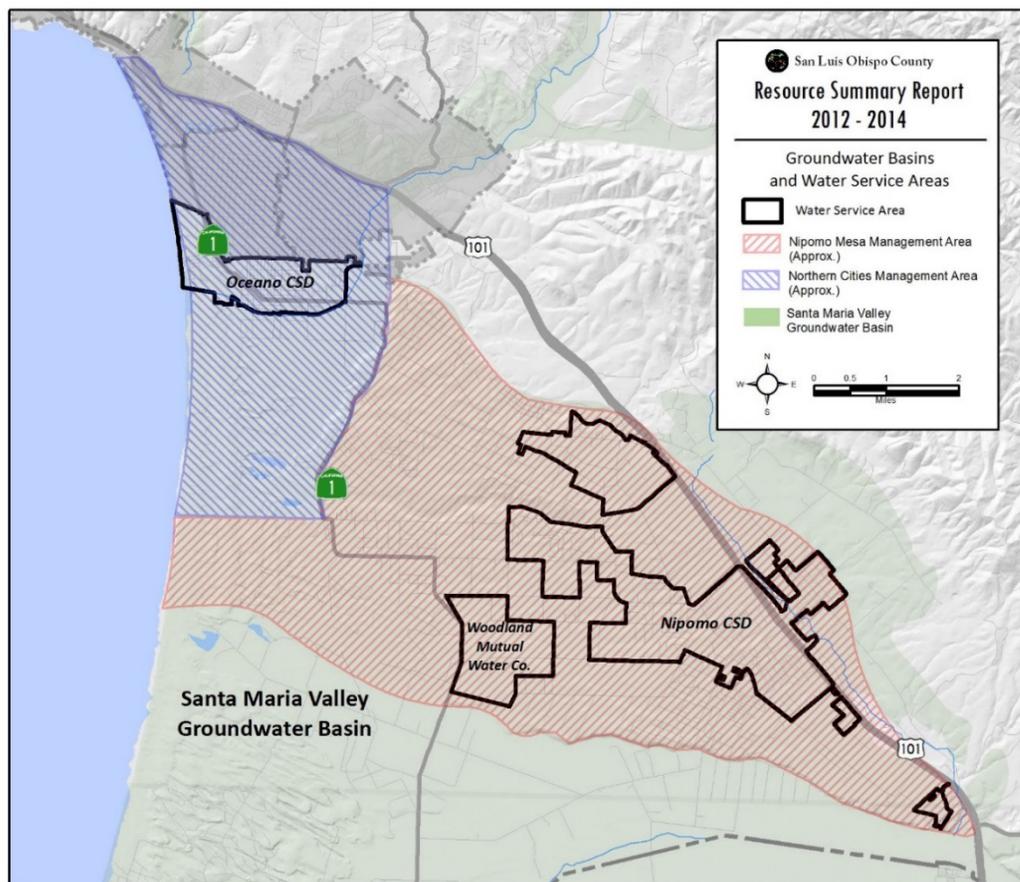


Figure II-8 -- Santa Maria Valley Groundwater Basin, Management Areas and Water Purveyors

Santa Maria Valley Groundwater Basin

The Santa Maria Valley groundwater basin underlies the Santa Maria Valley in the coastal portion of northern Santa Barbara and southern San Luis Obispo Counties and serves urban users as well as overlying well users. The basin also underlies Nipomo and Tri-Cities Mesas, Arroyo Grande Plain, with sub-basins in the Nipomo, Arroyo Grande and Pismo Creek Valleys.

There are two boundaries currently in use for this basin, one defined by the California Department of Water Resources (DWR) and one defined by the Superior Court of California. The court-defined boundary was developed by a technical committee for use in basin adjudication. Three sub-basins have also been identified in San Luis Obispo County that are separated from the main basin by the Wilmar Avenue fault and are outside the area of adjudication. These are the Pismo Creek Valley (1,220 acres), Arroyo Grande Valley (3,860 acres), and Nipomo Valley (6,230 acres) Sub-basins.

The Santa Maria Valley Groundwater Basin has been adjudicated. In 2005, the Superior Court of California entered a Judgment for a basin-wide groundwater litigation case that defined three

basin management areas. These management areas are the Northern Cities Management Area (NCMA), the Nipomo Mesa Management Area (NMMA), and the Santa Maria Valley Management Area (SMVMA).

Northern Cities Management Area

The Northern Cities Management Area (NCMA) is part of the Santa Maria Valley Groundwater Basin adjudicated area. The Oceano CSD is the only water purveyor serving the unincorporated County. The 2002 Groundwater Management Agreement (the “gentlemen’s agreement”) among the Northern Cities which 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 included subdivisions for agricultural irrigation (5,300 AFY), subsurface flow to the ocean (200 AFY) and urban uses (4,000 AFY). It also provided 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.” The 2010 Annual Report for the Northern Cities Management Area (NCMA) summarizes the groundwater allocations for the Northern Cities as follows:

Table II-12 -- Allocation of Water Among Parties to The 2002 Northern Cities Management Agreement			
Urban Area	Allotment (AFY)	Ag Credit (AFY)	Total (AFY)
Arroyo Grande	1,202	112	1,314
Grover Beach	1,198	209	1,407
Pismo Beach	700	0	700
Oceano CSD	900	0	900
Total:	4,000	321	4,321

Source: San Luis Obispo County Master Water Report, 2012, page 4-30

The Arroyo Grande Plain Hydrologic Sub-area (part of the Santa Maria Valley Groundwater Basin) provides from 30 to 100 percent of the water supply for the urban users. The only water purveyor serving the unincorporated areas of the Northern Cities Management Area is the Oceano CSD. However, the groundwater extraction rights are shared by agreement with Pismo Beach, the City of Arroyo Grande, the City of Grover Beach, and the Oceano CSD. As party to the Santa Maria Valley Groundwater Basin litigation, extraction rights 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.

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 sea water intrusion is the greatest potential threat to the supply. Low coastal groundwater levels indicated a potential for seawater intrusion that was locally manifested in

senry wells 32S/13E N02 and N03 in 2009 after 3 dry years, with levels and water quality improving after an average rainfall year in 2010. 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. Following the detection of evidence of seawater intrusion in 2009, the NCMA water purveyors worked cooperatively with each other and the District 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 State Water Project supplies, if needed
- Hydraulic evaluation and maintenance of the Lopez pipeline
- Increased groundwater monitoring
- Expanded regional cooperation

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

- Development of a groundwater model for the Santa Maria Valley Groundwater Basin
- Pursuit of additional permanent and emergency allocations of State Water Project supplies
- Enhanced conjunctive use of the groundwater basin
- Regional recycled water projects

Oceano CSD maintains adequate supply to meet existing and forecast build-out demands. With sufficient conservation, Oceano CSD should have adequate supply to not only meet its customer's needs, but also maintain a reliability supply. Oceano CSD's participation in the County's drought buffer program for State Water would improve water supply reliability in the event of drastic cut backs in State Water Project supplies.

Water demand projected over 20 years will not equal or exceed the estimated dependable supply for the Northern Cities Management Area. No recommended Level of Severity.

Table II-13 – Santa Maria Groundwater Basin -- Northern Cities Management Area Existing and Forecasted Water Supply and Demand			
Demand	Oceano CSD	Agriculture	Rural
Current Demand (AFY)	832.8 ¹	2,056	38
Forecast Demand in 15 Years (AFY)	909.5	2,399	38
Forecast Demand in 20 Years (AFY)	973.9	2,513	38
Buildout Demand (30 Or More Years) (AFY)	1,277 -1,419 ²	2,742	38
Supply			
State Water Project (AFY) ³	495 ⁴	0	0
Lopez Lake Reservoir (AFY)	303	0	0
Santa Maria Valley Groundwater Basin -- Arroyo Grande Plain Sub-Area (AFY) ⁵	900	5,300 ⁷	36
Transfers ⁶	-100	0	0
Total Supply:	1,598	Uncertain	Uncertain
Water Supply Versus Forecast Demand	Water demand projected over 20 years will not equal or exceed the estimated dependable supply. ⁸		

Sources: Water System Usage forms: July 2012 – June 2013; July 2013 – June 2014, San Luis Obispo County Master Water Report, 2012, Table 4.60

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 build-out 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. Oceano CSD has a 750 AFY allocation, but no drought buffer. Therefore, the 66 percent assumption for State Water Project delivery is 495 AFY.
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 has an active agreement to purchase 100 AFY of Oceano CSD supplies from groundwater or Lopez Lake water. This temporary agreement ends in 2014.
7. 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 numbers shown.
8. NCMA cities, NMMA cities, 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.

Nipomo Mesa Management Area

Groundwater is pumped from the Nipomo Mesa Hydrologic Sub-area that is part of the Santa Maria Valley Groundwater Basin. Litigation involving use of this groundwater basin, which began in 1997, has resulted in stipulations and judgments in 2005 and 2008. As party to the Santa Maria Groundwater Basin litigation, extraction rights for Golden State Water Company, Rural Water Company, Woodlands Mutual Water Co., ConocoPhillips and Nipomo CSD may be affected at a future date. In addition, the stipulated judgment required these users (except for ConocoPhillips) to develop alternative sources to import a minimum of 2,500 AFY. The primary

constraints on water availability in the NMMA are physical limitations to the east, water quality on the west, and water rights.

Even with additional conservation measures in place, Golden State Water Company, Rural Water Company, Woodlands MWC, and Nipomo CSD could experience supply deficits if groundwater is insufficient to meet increases in demands. To address this need, recycled water, investigating other groundwater supply sources, and increasing delivery from the Nipomo Supplemental Water Project (discussed below) are considered the most feasible water management strategy options to consider implementing.

Nipomo Supplemental Water Project. The Nipomo CSD has investigated multiple sources of supplemental water and, as a result, signed an agreement with the City of Santa Maria to pursue an intertie project. The January 5, 2010 Wholesale Water Supply Agreement established the basis for purchase and delivery of water from the City to the Nipomo CSD. The project is currently under construction. When completed, it will be capable of delivering up to 3,000 AFY and could be completed in two and a half years. Once the supplemental water system is in place, Nipomo CSD will be required to purchase 2,167 AFY of that supply. Three other water purveyors, Woodlands MWC, Golden State Water Company, and Rural Water Company will share in the project costs and will together receive one-third of the mandated minimum water delivery (833 of 2,500 AFY). The additional 500 AFY capacity has been reserved for use by the Nipomo CSD for infill but no annexations or General Plan Amendments may use this water. Additional water via the City of Santa Maria (if possible), desalination and recycled water are also being considered as a long-term alternative source for the Nipomo CSD and others in the region.

Although the Santa Maria Groundwater Basin has been adjudicated, the potential for shortfalls to purveyors and overlying users that continue to rely primarily on groundwater remains. The NMMA, the County, 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 NMMA. However, uncertainties remain about the reliability of water resources serving the Nipomo Mesa Management Area.

Water demand projected over 15 years is projected to equal or exceed the estimated dependable supply. **Recommended Level of Severity III.**

Table II-13 -- Santa Maria Valley Groundwater Basin – Nipomo Mesa Management Area Existing and Forecasted Water Supply and Demand				
Demand	Nipomo CSD	Woodlands Mutual Water Co.	Agriculture	Rural
Current Demand (AFY) ¹	2,517.0	849.3	3,800	1,700
Forecast Demand in 15 Years (AFY)	2,790.5	895.6	4,050	1,700
Forecast Demand in 20 Years (AFY)	2,906.3	932.8	4,133.3	1,700
Buildout Demand (30 Or More Years) (AFY)	2,984 ²	1,440-1,600 ²	3,800-4,300	1,700
Supply				
State Water Project (AFY) ³	0	0	0	0
Lopez Lake Reservoir (AFY)	0	0	0	0
Santa Maria Valley Groundwater Basin -- Arroyo Grande Plain Sub- Area (AFY) ⁴	0	0	0	0
Transfers ⁵	0	0	0	0
Nipomo Supplemental Water Project (AFY) ⁶	2,157	417	0	0
Santa Maria Valley Groundwater Basin -- Nipomo Mesa Sub-Area (AFY)	457	365	4,300	1,700
Recycled Water (AFY)	60-74	24-28	0	0
Total Supply:	2,698	810	Uncertain	Uncertain
Water Supply Versus Forecast Demand	Water demand projected over 15 years is projected to equal or exceed the estimated dependable supply. ⁷			

Sources: Water System Usage forms: July 2012 – June 2013; July 2013 – June 2014, San Luis Obispo County Master Water Report, 2012, Table 4.60

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 build-out 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. 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.
5. Arroyo Grande has an active agreement to purchase 100 AFY of Oceano CSD supplies from groundwater or Lopez Lake water. This temporary agreement ends in 2014.
6. Nipomo supplemental water project includes Nipomo CSD, Woodlands MWC, Golden State Water Company, and Rural Water Company. Nipomo CSD will receive approximately 1,667 AFY and has reserved an additional 500 AFY. The other three will receive 833 AFY.
7. The NCMA cities, NMMA cities, 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.

Oceano/Nipomo Area Water Systems

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.

Santa Margarita Area Water Supply and Systems

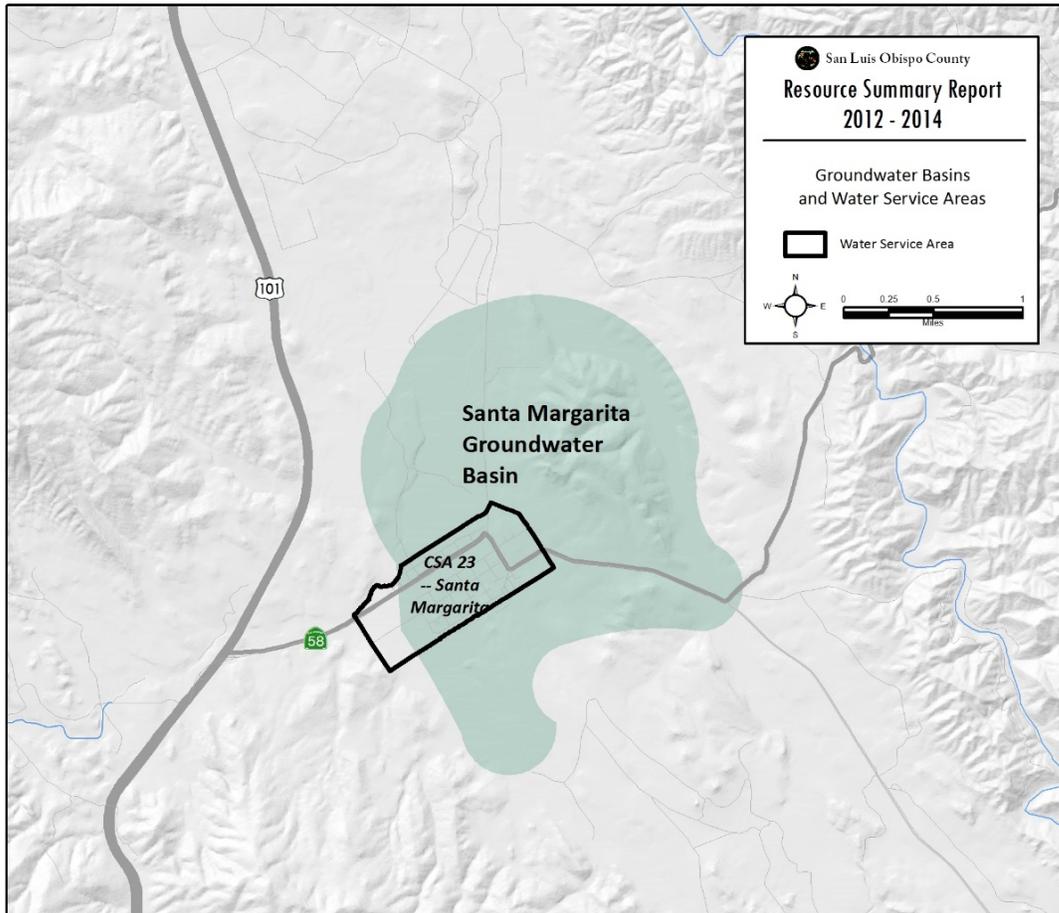


Figure II-9 -- Santa Margarita Valley Groundwater Basin and CSA 23

Santa Margarita Valley Groundwater Basin

The Santa Margarita Valley Groundwater Basin includes the unincorporated town of Santa Margarita and surrounding rural residences and agricultural fields. The total drainage area associated with the basin consists of four watersheds that collectively drain in the northerly direction into the Salinas River. Water users in the Santa Margarita area include the unincorporated town of Santa Margarita and overlying users. Santa Margarita Ranch is primarily an agricultural operation, but residential subdivisions are approved on the Ranch.

The primary constraint on water availability in the Santa Margarita Valley Groundwater Basin are physical limitations. No comprehensive studies to determine the perennial yield are known to exist. Based on an evaluation of available data used for the Santa Margarita Ranch Environmental Impact Report, however, Hopkins (2006) indicated that the average annual yield of the basin in the vicinity of the proposed Santa Margarita Ranch development may be in the range of 400 to 600 AFY.

Although the Santa Margarita Creek alluvial aquifer serves as the primary source of water for the town of Santa Margarita, there is no safe yield estimate. Although the alluvial aquifer is considered to be highly productive, it is shallow in vertical extent (i.e., 50 feet thick) and therefore highly susceptible to seasonal fluctuations in groundwater levels of about 15 to 20 feet. During dry water years or extended droughts, well yields may be significantly reduced due to low groundwater levels (Todd, 2004). Recharge in the shallow alluvial deposits for a particular year is dependent on rainfall, creek stream flows, and precipitation runoff generated in the four watersheds. Wells developed in the deeper Santa Margarita Formation generally do not have sufficient yields to reliably replace the wells in the alluvial aquifer. Hydrographs of deep wells in the area indicate that groundwater levels have been trending downward for at least the last decade (Hopkins, 2006). Therefore, a conservative estimate of the reliable yield from the Santa Margarita Creek alluvial aquifer (164 AFY) has been used as the available groundwater supplies serving CSA 23 and the Santa Margarita Ranch.

Population projections prepared by staff of the Department of Planning and Building suggest that the current population of the community of Santa Margarita is about 1,273 (Table I-I). Assuming the 2014 per capita demand continues into the future, the safe yield of the Santa Margarita Creek alluvial aquifer will be reached by the year 2025 when the population is projected to reach 1,328. It should be noted that future per capita demand will likely be greater than in 2014 because of water conservation efforts imposed as a result of drought conditions which have persisted over the past three years. Water demand projected over 15 years is expected to equal or exceed the estimated dependable supply. **Recommended Level of Severity III.**

Table II-14 -- Santa Margarita Groundwater Basin Existing and Forecasted Water Supply and Demand				
Demand	CSA 23	Santa Margarita Ranch	Agriculture	Rural
Current Demand (AFY) ¹	157.2	1,621	1,770	240
Forecast Demand in 15 Years (AFY)	167.7	3,755.5	2,225	380
Forecast Demand in 20 Years (AFY)	170.5	4,467	2,376.7	426.7
Buildout Demand (30 Or More Years) (AFY)	173-192 ²	5,301-5,890	1,720-2,680	450-520
Supply				
San Margarita Valley Groundwater Basin (AFY) ³	164	1,621	Uncertain	Uncertain
SWRCB Water Diversions	0	22	(4)	(4)
Total Supply:	164	1,643	Uncertain ⁵	Uncertain ⁵
Water Supply Versus Forecast Demand	Water demand projected over 15 years is expected to equal or exceed the estimated dependable supply. ⁶			

Sources: Water System Usage forms: July 2012 – June 2013; July 2013 – June 2014, San Luis Obispo County Master Water Report, 2012, Table 4.65

Notes:

1. See Table II-1. Current year data for agriculture and rural are from 2012.

2. Ten percent water conservation assumed for the low end of the forecast build-out demand. Although the existing annual supply and demand indicates a surplus, the dry season extraction limit creates a seasonal supply deficit.
3. Although some reports indicate an average annual yield may range between 400 to 600 AFY, no comprehensive studies to determine the perennial yield are known to exist. Therefore, a conservative estimate of the reliable yield from the Santa Margarita Creek alluvial aquifer has been used as the available groundwater supplies serving CSA 23 and the Santa Margarita Ranch.
4. Diversions do not distinguish type of use. Potentially 417 AFY could be diverted for use to either agriculture or rural residential.
5. It is uncertain which basins are used and the quantity of water pumped from each basin. Future studies should invest the resources to quantify the location of and use within each basin.
6. It is likely that a deficit exists because the combined existing urban, agricultural, and rural demands exceed the Santa Margarita Valley basin yield/storage.

Santa Margarita Area Water Systems

In 2012, the County considered the construction of a physical connection between an existing water transmission pipeline (the State water pipeline) which is a component of the State Water Project and the existing local water distribution system of CSA 23. The purpose of the project (the Santa Margarita Emergency Intertie Project) was to provide properties within an assessment district access to a reliable supply of water in the event of a drought of sufficient duration and severity which would render the existing groundwater supply insufficient. Environmental review was completed in 2013 and funding options are being investigated. No recommended Levels of Severity.

Templeton/San Miguel/Shandon Water Supply and Systems

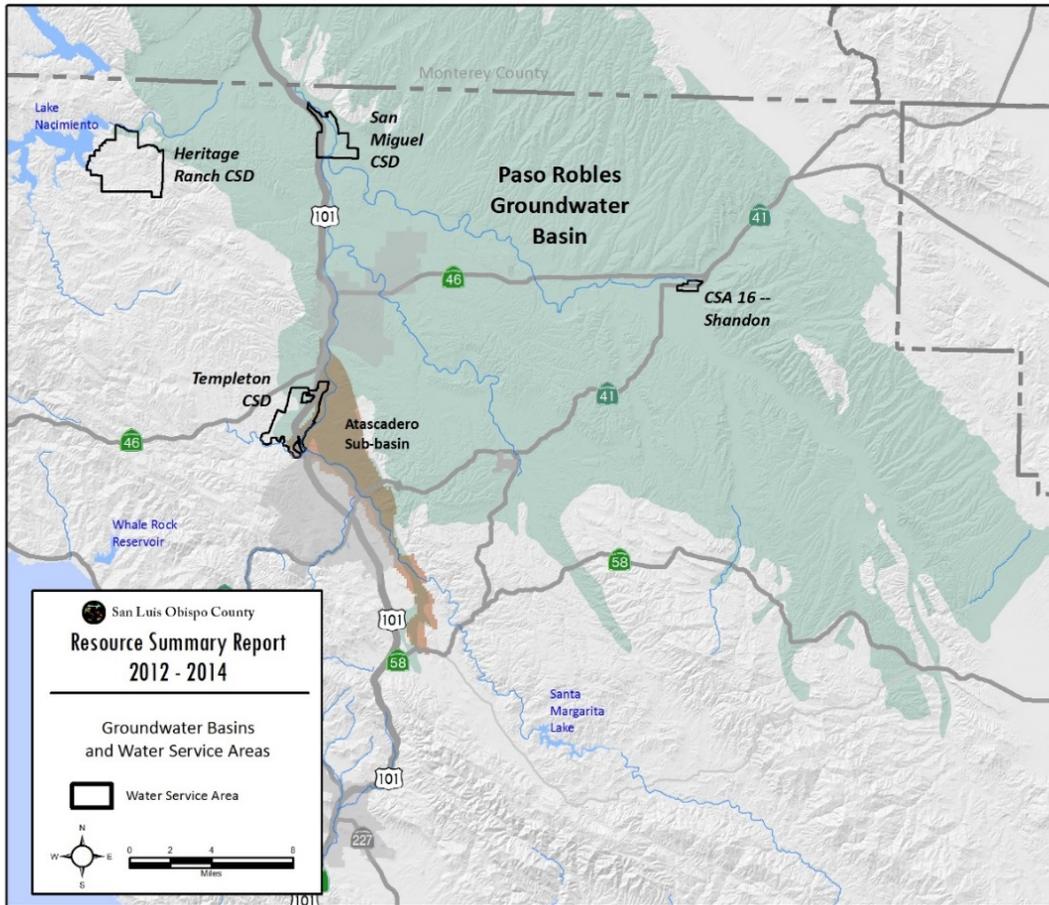


Figure II-10 -- Paso Robles Groundwater Basin, Atascadero Sub-basin and Water Purveyors

Paso Robles Groundwater Basin

The Paso Robles Groundwater Basin is located in both Monterey and San Luis Obispo counties and is 505,000 acres (790 square miles) in size. The basin ranges from the Garden Farms area south of Atascadero to San Ardo in Monterey County, and from the Highway 101 corridor east to Shandon.

Water purveyors serving the unincorporated County include the San Miguel CSD and CSA 16 which serves the Shandon area. Groundwater from the Paso Robles Groundwater Basin is the primary source of water; CSA 16 has an allocation of 100 AFY of State Water Project water (but no drought buffer), but has not developed this supply due to high cost.

Portions of the Paso Robles Groundwater Basin have experienced significant water level declines over the past 15 to 20 years (Todd 2007, Todd 2009). The area of particular concern is the Estrella subarea, primarily from the eastern part of the City of Paso Robles, eastward along the Highway 46 corridor to Whitley Gardens.

The following is a chronology of key events in the ongoing management of the Paso Robles Groundwater Basin:

- In 2005, the County, City of Paso Robles, CSA 16 – Shandon, San Miguel CSD, and approximately 20 landowners organized as the Paso Robles Imperiled Overlying Rights (PRIOR) group to participate in the Paso Robles Groundwater Basin Agreement (Agreement). Key elements of the Agreement are a clear acknowledgement that the Paso Robles Groundwater Basin was not in overdraft at the time of the agreement, and that the parties will not take court action to establish any priority of groundwater rights over another party as long as the Agreement is in effect. In addition, the parties agree to participate in a meaningful way in groundwater management activities, and to develop a plan for monitoring groundwater conditions in the groundwater basin.
- A Resource Capacity Study was completed in 2011 for the “area of concern” where groundwater levels have experienced significant declines. The RCS concluded that the groundwater basin is approaching or has reached its perennial yield. The RCS recommended groundwater monitoring, water conservation, and land use measures to address groundwater demand.
- On August 28, 2012 the Board of Supervisors awarded a contract to Geoscience, Inc. to update the computer model for the Basin. The scope of work for the project includes:
 - Updating the model to extend the period covered from 1981-1997 to 1981-2011
 - Refining the perennial (safe) yield for the Basin
 - Assessing the model input parameters that have the greatest effects on the model's simulation results to determine the certainty of model predictions
 - Evaluating the Basin's response to "growth" and "no-growth" scenarios projected over the period 2011 to 2041 (i.e. simulating how water levels would change)
- The Paso Robles Groundwater Basin Urgency Ordinance (Ordinance) was adopted on August 27, 2013. The emergency ordinance established a moratorium on new or expanded irrigated crop production, conversion of dry farm or grazing land to new or expanded irrigated crop production, as well as new development dependent upon a well in the Paso Robles Groundwater Basin unless such uses offset their total projected water use by a ratio of 1:1.
- In September, 2014 Assembly Bill 2453 (Achadjian) was signed into law amending Section 37900 of the California Water Code. The bill provides for the formation of the *Paso Robles Basin Water District* to provide a governmental framework for the management of groundwater resources within the basin. The district would be formed in accordance with the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 and the boundaries would be established by the San Luis Obispo County Local Agency Formation Commission (LAFCo). The bill authorizes the district to develop, adopt, and implement a groundwater management plan to control extractions from the Paso Robles Groundwater Basin.

- A Draft Final Report for the Paso Robles Groundwater Basin Computer Model Update was distributed for public review and comment on November 13, 2014. Key outcomes of the model update and calibrations include the following:
 - Updated Perennial Yield Estimate for the Basin. The period of 1982 to 2010 is representative of the historical average rainfall in the Basin area. The updated estimate for the perennial yield based on that period is 89,648 acre-feet per year (AFY). For the period of 1981 to 2011, outflows exceeded inflows to the Basin by 2,473 AF on an average annual basis (i.e. more water left the Basin than was replenished). This is updated from the preliminary results presented in December 2013, which were 89,200 AFY and 2,900 AF, respectively.
 - Future Year Simulations. The model was run to evaluate the Basin's response to "no-growth" and "growth" scenarios projected over a future thirty year period. The no-growth scenario projects that outflows would exceed inflows on an average annual basis over the thirty year period by 5,592 AFY. The growth scenario projects that outflows would exceed inflows on an average annual basis over the thirty year period by 20,900 AFY.

Preliminary results of the groundwater computer model suggest that outflows from the basin currently exceed inflows. County staff are currently (December, 2014) developing recommendations for consideration by the Board of Supervisors at its January 6, 2014 meeting. The formation of a groundwater management district is currently being considered by the various affected parties and LAFCo. In the meantime the emergency ordinance remains in effect. Water demand projected over 15 years will equal or exceed the estimated dependable supply.

Recommended Level of Severity III.

**Table II-16 -- Paso Robles Groundwater Basin
Existing and Forecasted Water Supply and Demand**

Demand	San Miguel CSD	CSA 16 - Shandon	City of Paso Robles	Agriculture	Rural
Current Demand (AFY)	312.1 ¹	142.3 ¹	3,569	67,610	3,590
Forecast Demand in 15 Years (AFY)	447.1	621.2	6,670	77,215	4,910
Forecast Demand in 20 Years (AFY)	492	780.8	7,704	80,416.7	5,350
Buildout Demand (30 Or More Years) (AFY)	466-582 ²	271-1,100 ³	8,422-9,772	60,740-86,820	5,570-6,230
Supply					
Paso Robles Groundwater Basin ⁸ (AFY)					
Paso Robles Formation (AFY)	235	147	2,856	(6)	(6)
Salinas River Underflow (AFY)	0	0	537/872 ¹⁰	738 ⁷	0
Other Groundwater Sources (AFY)	0	0	0	Uncertain	Uncertain
State Water Project (AFY)	0	66 ⁴	0	0	0
Nacimiento Project	0	0	4,000	0	0
Total Supply:	235	213	7,728	Uncertain	Uncertain
Water Supply Versus Forecast Demand	Water demand projected over 15 years will equal or exceed the estimated dependable supply. ⁵				

Sources: Water System Usage forms: July 2012 – June 2013; July 2013 – June 2014, San Luis Obispo County Master Water Report, 2012, Table 4.67

Notes:

1. See Table II-1. Current year data for agriculture and rural are from 2012.
2. Twenty (20) percent additional water conservation (beyond what has already been accomplished) assumed for the low end of the forecast build-out demand for San Miguel and 10% for Paso Robles.
3. Upper end of the range reflects demand projected in accordance with the draft Shandon Community Plan should it be approved by the Board of Supervisors in the future.
4. 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.
5. 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.
6. It is assumed that the majority of water supply for agriculture and rural users comes from the Paso Robles Groundwater Basin.
7. 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.
8. The safe yield of the Paso Robles Groundwater Basin is currently being updated
9. It was assumed that Paso Robles currently extracts one-half of its current groundwater demand and one-half of its total future groundwater demand from the Atascadero Sub-basin.

10. The City of Paso Robles is permitted to extract up to 8 cfs (3,590 gpm) with a maximum extraction of 4,600 AFY (January 1 to December 31). For the purposes of this analysis, it was assumed that half (4,063 AFY) of the existing demand of 8,126 AFY was extracted from the Salinas River Underflow via the Thunderbird Wellfield

The Atascadero Sub-basin of the Paso Robles Groundwater Basin

The Atascadero Sub-basin is a sub-basin of the Paso Robles Groundwater Basin. The eastern boundary is the Rinconada fault. Because the fault displaces the Paso Robles Formation, the hydraulic connection between the aquifer across the Rinconada fault has been considered sufficient to warrant the classification of this area as a distinct sub-basin. Therefore, the Atascadero Groundwater Sub-basin is defined as that portion of the basin west of the Rinconada fault.

Primary constraints on water availability in the sub-basin include water rights and physical limitations. The rights to surface water flows in the Salinas River and associated pumping from the alluvium (Salinas River Underflow) have been fully appropriated by the State Water Resources Control Board (State Board) and no plans exist to increase these rights beyond the current allocations. Full appropriation implies that no additional rights to the Salinas River flows are being issued by the State Board at this time nor is any additional pumping for existing rights being granted. Therefore, the Salinas River does not represent a future source of water supply that can be developed beyond its present appropriation.

The Templeton CSD is the sole water purveyor serving the unincorporated County within the Sub-basin. Groundwater from the Atascadero Groundwater Sub-basin is the primary water supply source for the CSD; recycled water and water from the Nacimiento Water Project (NWP) are also sources. An additional source of water for Templeton CSD comes from their re-use program with disposal of treated wastewater effluent from the Meadowbrook WWTP percolation ponds. This program allows the Templeton CSD to percolate treated effluent into the groundwater basin/Salinas River Underflow and subsequently extract the same amount of water 28 months later. The Templeton CSD is also under contract to receive 250 AFY from the NWP. The Atascadero MWC is a major partner of the Nacimiento Water Project, having contracted for a 2,000 AFY allotment of this future supply.

The perennial yield of the Sub-basin was estimated in 2002 to be 16,400 AFY (Fugro, 2002). The estimated gross groundwater pumping in the Sub-basin during 2006 was determined to be 15,545 AF (Todd 2009), which is 95 percent of the Sub-basin perennial yield of 16,400 AFY. A more recent estimate based on data from the 2012 Master Water Report and data collected from the purveyors within the Sub-basin (Table II-15) suggests that water demand from urban, rural and agricultural users is currently about 22,212 AFY which exceeds the perennial yield of the Sub-basin.

Recent modeling summarized in the Paso Robles Groundwater Basin Model Update Draft Final Report (Todd, 2014) assumes the Sub-basin is hydraulically separate from the main Basin, but does not calculate a separate perennial yield or water budget (i.e., average annual inflow and outflow). An evaluation of the conceptualized aquifer system used in the Basin Model Update was inconclusive as to whether the Rinconada Fault serves as a hydraulic barrier that separates the Sub-basin from the main Basin. Accordingly, the Basin Model Update calculates the water budget for the Paso Robles Groundwater Basin as a whole inclusive of the Atascadero Sub-basin

and concludes that the perennial yield is currently being exceeded and will continue to be exceeded under a No Growth scenario.

The Atascadero Sub-basin will be included in the Basin Management Plan and groundwater management district currently being considered by the County and affected stakeholders. One of the goals of the Basin Plan is to identify a sustainable management strategy for the Paso Robles Groundwater Basin as a whole, including the Sub-basin. Further study is needed to determine the connectivity between the Sub-basin and main basin and the effect that deliveries from the Nacimiento Project will have on the perennial yield. However, because demand for water from the Paso Robles Groundwater Basin currently exceeds the perennial yield, and the hydraulic separation of the Sub-basin has not been determined conclusively, water demand projected over 15 years will equal or exceed the estimated dependable supply. **Recommended Level of Severity III.**

Table II-15 -- Atascadero Sub-basin Existing and Forecasted Water Supply and Demand						
Demand	Templeton CSD	Garden Farms	Atascadero MWC	City of Paso Robles	Agriculture	Rural
Current Demand (AFY)	1,344.3 ¹	(5)	5,525	3,243 ⁹	10,620	1,480
Forecast Demand in 15 Years (AFY)	1,892.2	46.5	6,562	3,485.5	12,610	1,705
Forecast Demand in 20 Years (AFY)	1,954.8	62	6,908.3	3,566.3	13,272.3	1,780
Buildout Demand (30 Or More Years) (AFY)	2,034-2,260 ²	48-93	6,840 – 7,600 ²	3,728	9,740-14,600	1,810-1,930
Supply						
Atascadero Groundwater Sub-basin (AFY) ³						
Paso Robles Formation (AFY) ⁴	1,050	48-93	3,193	3,728 ⁹	(6)	(6)
Salinas River Underflow (AFY) ⁴	500	0	3,372	4,063	745 ⁷	0
Recycled Water (AFY)	132/475	0	0	0	0	0
Nacimiento Water Project (AFY)	250	0	2,000	0	0	0
Other Groundwater Sources (AFY)	0	0	0	0	Uncertain	Uncertain
Total Supply:	1,932	48-93	8,565	4,063	Uncertain	Uncertain
Water Supply Versus Forecast Demand	Because water demand from basin currently exceeds the perennial yield, and the hydraulic separation of the Sub-basin has not been determined conclusively, water demand projected over 15 years will equal or exceed the estimated dependable supply. ⁸					

Sources: Water System Usage forms: July 2012 – June 2013; July 2013 – June 2014, San Luis Obispo County Master Water Report, 2012, Table 4.66

Notes:

1. See Table II-1. Current year data for agriculture and rural are from 2012.
2. Ten (10) percent additional water conservation (beyond what has already been accomplished) assumed for the low end of the forecast build-out demand.
3. The agencies, County, District, and local land owners intend to actively and cooperatively manage the Paso Robles Groundwater Basin (which includes the Sub-basin) via the development of a Groundwater Management Plan.
4. The perennial yield was estimated to be 16,400 AFY. Extractions from the Sub-basin occur primarily from the Salinas River Underflow and deeper formations. Depending on the estimated use for the Agricultural and Rural sectors, future hydrology and whether additional Nacimiento supplies are utilized, Sub-basin studies are indicating that the perennial yield may be exceeded in the future. However, the safe yield of the Paso Robles Groundwater Basin is currently being updated.
5. No data were provided.
6. 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 Sub-basin.
7. 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.
8. It is uncertain whether the sources of supply outside the Sub-basin in addition to the Sub-basin itself are sufficient to sustain the level of demand.
9. It was assumed that Paso Robles currently extracts one-half of its current groundwater demand and one-half of its total future groundwater demand from the Atascadero Sub-basin.

Templeton/San Miguel/Shandon Water Systems

Future water supply for the Templeton CSD will likely come from the Nacimiento Water Project (NWP). Templeton CSD could increase its NWP allotment. Templeton CSD would percolate raw water from the NWP into the Salinas River Underflow, in a similar manner that they percolate effluent from the Meadowbrook WWTP percolation ponds (Selby Pond site). In addition, the Templeton CSD might divert additional wastewater flows to the Meadowbrook WWTP (which currently flow to the City of Paso Robles WWTP), which will allow them to increase percolation into and extraction from the Salinas River Underflow by as much as 343 AFY. However, no plans are in place to develop these sources.

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

Lake Nacimiento Area Water Supply and Systems

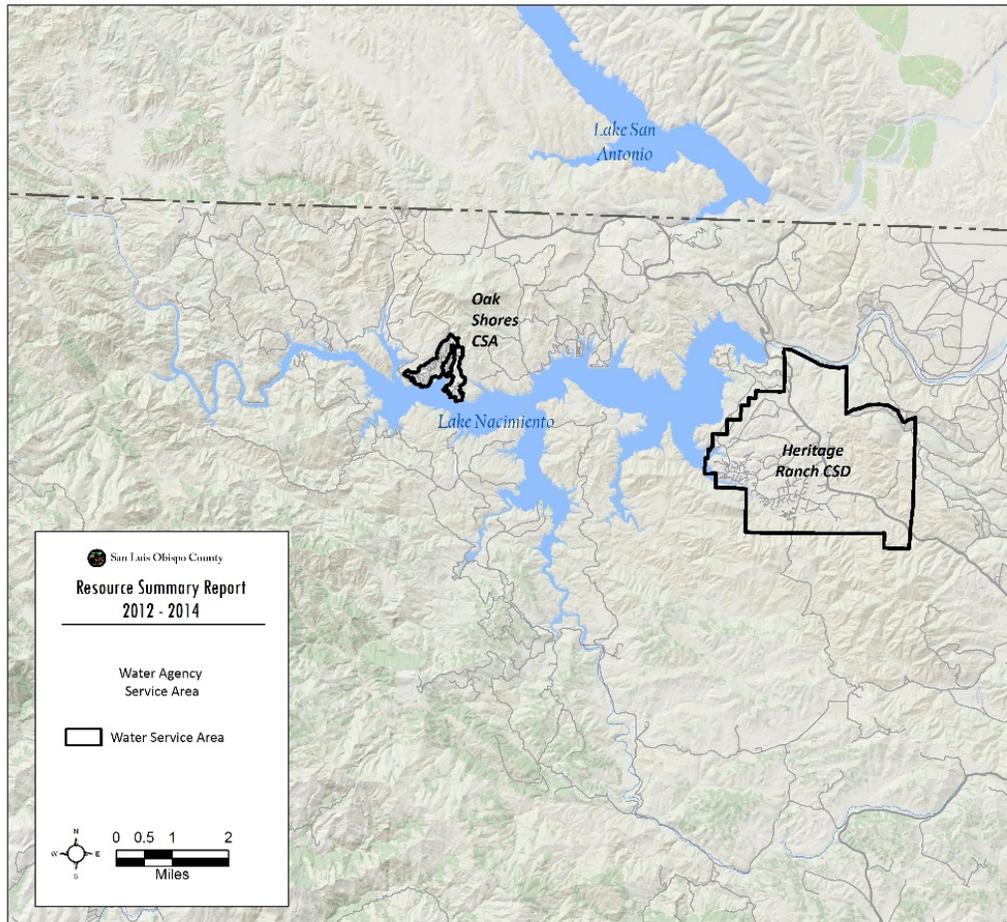


Figure II-11 – Lake Nacimiento Area and Water Service Areas

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, the Gallery Well, which is fed via three horizontal 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, the Heritage Ranch CSD will 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 build-out 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. Alternative sources are under consideration, including taking water directly from the lake and connecting to the Nacimiento Water Project pipeline.

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 build-out demand for the Oak Shores Area.

Water demand projected over 20 years is not expected to equal or exceed the dependable supply. No recommended Level of Severity.

Table II-17 -- Lake Nacimiento Area Existing and Forecasted Water Supply and Demand				
Demand	Heritage Ranch CSD ¹	Nacimiento Water Company	Agriculture	Rural
Current Demand (AFY)	461.3	(4)	3,860	280
Forecast Demand in 15 Years (AFY)	508.8	(4)	5,490	580
Forecast Demand in 20 Years (AFY)	526.4	(4)	6,033.3	680
Buildout Demand (30 Or More Years) (AFY)	935 – 1,039 ²	(4)	4,740-7,120	730-880
Supply				
Lake Nacimiento (AFY)	1,100 ²	600 ⁵	0	0
Other Groundwater Sources (AFY)	0	0	(5)	(5)
SWRCB Water Diversions (AFY)	0	0	(6)	(6)
Total Supply:	1,100	600	Uncertain	Uncertain
Water Supply Versus Forecast 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 2012 – June 2013; July 2013 – June 2014, San Luis Obispo County Master Water Report, 2012, Table 4.69

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 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 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.

Lake Nacimiento Area Water Systems

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

Summary of Recommended Levels of Severity

Water Supply

Table II-18 -- Summary of Recommended Levels of Severity	
Groundwater Basins and Affected Water Purveyors	Recommended LOS
Pico Creek Valley Groundwater Basin <u>Water Purveyors</u> San Simeon CSD	III
San Simeon Valley Groundwater Basin Santa Rosa Valley Groundwater Basin <u>Water Purveyors</u> Cambria CSD	III III
Cayucos Valley Groundwater Basin Old Valley Groundwater Basin <u>Water Purveyors</u> CSA 10A Morro Rock Mutual Water Co. Paso Robles Water Assoc.	None None
Los Osos Valley Groundwater Basin <u>Water Purveyors</u> Los Osos CSD S&T Mutual Water Co. Golden State Water Co.	III
San Luis Obispo Valley Groundwater Basin – San Luis Sub-basin San Luis Obispo Valley Groundwater Basin – Avila Valley Sub-basin <u>Water Purveyors</u> Avila Beach CSD Avila Valley Mutual Water Co. San Miguelito Mutual Water Co. CSA 12	None None
Santa Maria Valley Groundwater Basin – Northern Cities Management Area Santa Maria Valley Groundwater Basin – Nipomo Mesa Management Area	None III

Table II-18 -- Summary of Recommended Levels of Severity	
Groundwater Basins and Affected Water Purveyors	Recommended LOS
<u>Water Purveyors</u> Nipomo CSD Woodlands Mutual Water Co. Oceano CSD	
Santa Margarita Groundwater Basin <u>Water Purveyors</u> CSA 23	III
Paso Robles Groundwater Basin <u>Water Purveyors</u> San Miguel CSD CSA 16 – Shandon	III
Paso Robles Groundwater Basin – Atascadero Sub-basin <u>Water Purveyors</u> Templeton CSD	III
Lake Nacimiento Area <u>Water Purveyors</u> Heritage Ranch CSD Nacimiento Water Co.	None

Water Systems

No Levels of Severity are recommended.

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.
- Support efforts to complete a Basin Management Plan for the Los Osos Groundwater Basin and the Paso Robles groundwater Basin.
- Support efforts to develop sustainable supplemental sources of water.

San Simeon Valley and Santa Rosa Valley Groundwater Basins (Cambria)

1. LOS III to remain in place.
2. Collaborate with the Cambria Community Services District to address issuance of a limited number of intent-to-serve letters and building permits based on the aggressive water conservation program developed by Maddaus.
3. Collaborate with the Cambria Community Services District to revise the County Growth Management Ordinance to reflect the issuance of a small number of building permits for new development as part of a temporary pilot program.
4. Collaborate with the Cambria Community Services District to prepare a CEQA determination, with the County acting as a Responsible Agency, that identifies the potentially significant impacts of a temporary, small scale pilot program to issue intent-to-serve letters and building permits for new development.

Cayucos Valley and Old Valley Groundwater Basins (Cayucos)

1. Support efforts to secure an alternative supply as a reliability reserve, perhaps through the acquisition of an additional allocation from the Nacimiento Water Project.

Los Osos Groundwater Basin

1. LOS III to remain in place.
2. Continue to support efforts to complete and implement a Basin Management Plan.
3. Support efforts to complete the wastewater project.

San Luis Obispo Valley Groundwater Basin

1. Support efforts to determine the safe yield of the Avila Valley Sub-basin.

Santa Maria Valley groundwater Basin (Nipomo Mesa Area)

1. Consider ending the Title 8 retrofit-upon-sale ordinance in the NMWCA. The program has run for four years and approximately 5% of homes have needed retrofitting.
2. Follow the progress of the *Supplemental Water Alternatives Evaluation Committee*. 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.
3. Collaborate with the Nipomo CSD and other stakeholders to assist in their efforts to address area wide water issues.
4. Continue to help fund area wide water conservation through the fee on new construction.

Paso Robles Groundwater Basin

1. LOS III for the Basin as a whole and for the Atascadero Sub-basin.
2. Continue to support efforts to complete and implement a Basin Management Plan.

Santa Margarita Groundwater Basin

1. Recommended LOS II.
2. Support efforts to determine the safe yield of the Santa Margarita Groundwater Basin.
3. Support efforts to develop additional sustainable water supplies for CSA 23.

III. WASTEWATER

Level of Severity Criteria

WASTEWATER TREATMENT

Level of Severity	Wastewater Treatment Criteria
I	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	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	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
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
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.

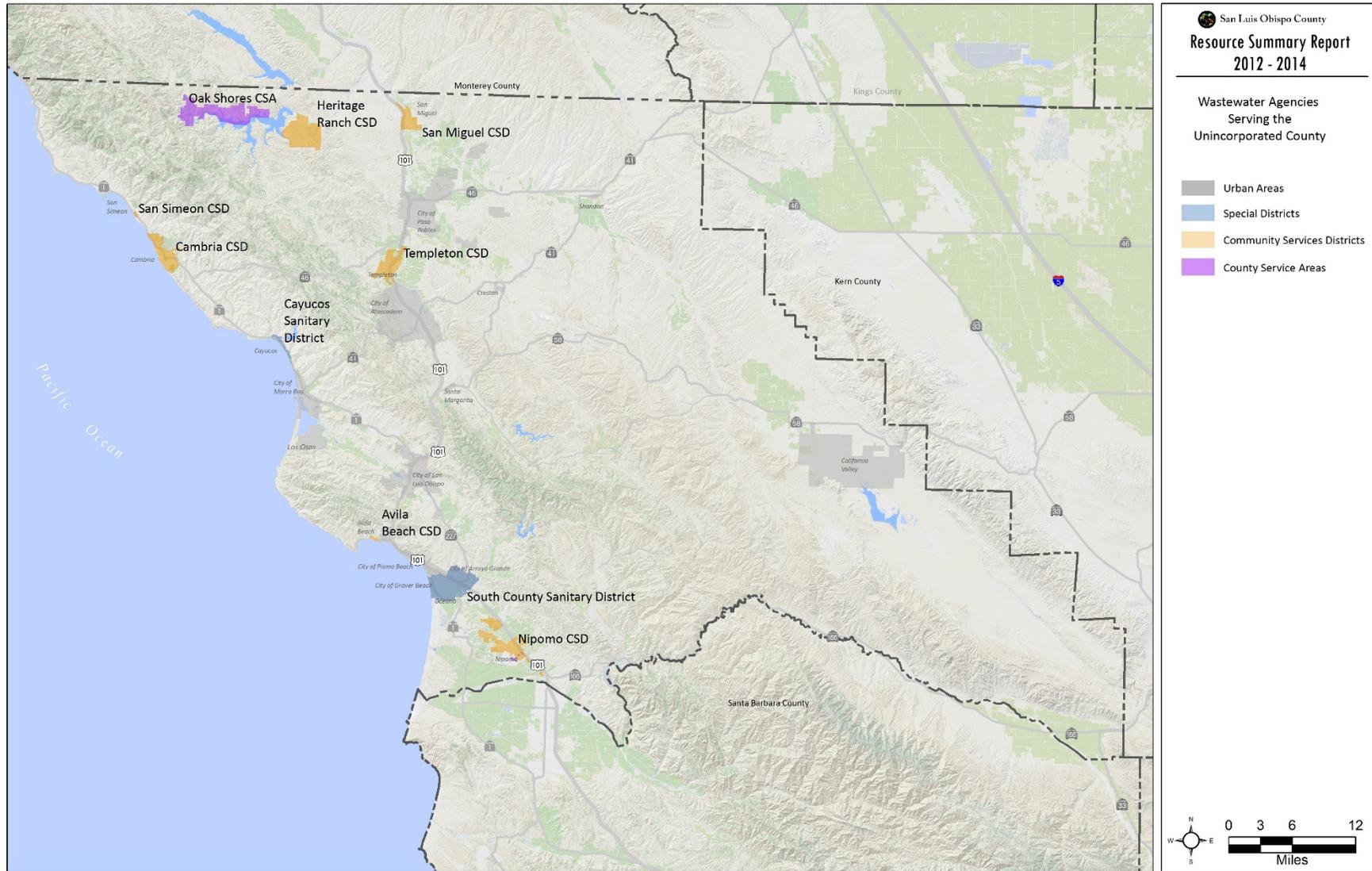
Table III-1 – Wastewater Agencies Serving Unincorporated San Luis Obispo County				
Agency	Date of Discharge Permit	Design Flow ¹ (MGD) ²	2014 Average Daily Flow (MGD)	Percent of Design Flow
Avila Beach CSD ³	12-12-2009	0.2	0.057	29%
Cambria CSD	12-7-2001	1.0	0.67	67%
Cayucos Sanitary District ⁴	12-4-2008	2.36	0.964	41%
Country Club Estates – CSA 18	10-23-2003	0.12	0.068	56%
Heritage Ranch CSD	5-5-2011	0.4	0.14	35%
Nipomo CSD – Black Lake	3-11-1994	0.10	0.052	52%
Nipomo CSD – Southland Treatment Plant	2-2-2012	0.9	0.64	71%
San Miguel CSD	7-9-1999	0.45	0.096	21%
San Miguelito Mutual Water Co.	7-14-1995	0.15	0.08	53%
San Simeon CSD ⁵	12-5-2013	0.2	0.085	43%
South San Luis Obispo County Sanitation District ⁶	10-23-2009	3.3	2.52	76%
Oak Shores CSA ⁷	12-7-2001	0.1	0.032	32%
Templeton CSD ⁸	5-11-2007	0.043	0.016	37%

Source: Regional Water Quality Control Board, 2014

Notes:

1. Design Flow = average daily dry weather flow in million gallons per day.
2. MGD = Million gallons per day
3. CSD = Community Services District
4. 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.
5. By agreement, Hearst Castle is allotted 0,05 MGD of the San Simeon treatment plant capacity.
6. South County Sanitary District serves the cities of Arroyo Grande and Grover Beach and the unincorporated community of Oceano.
7. CSA = County Service Area
8. By agreement, the Templeton CSD is allotted 0.40 MGD of the Paso Robles treatment plant 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 2014 per capita wastewater generation for each service provider was determined by dividing the 2014 average daily flow by the 2014 population within each service area. The resulting quotient was then multiplied by the estimated 2020 population for each community (see Table I-1 of Chapter I) to estimate the 2020 average daily flow which was then divided by the design flow to determine the percentage. The results are presented in Table III-2. Each wastewater service provider is discussed below.

Avila Beach CSD

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 (2014) average daily flows are 0.20 MGD, or 0.057% 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 five years or more. There were no discharge violations reported for the period of 2012-2014. No levels of severity are recommended for either collection or treatment.

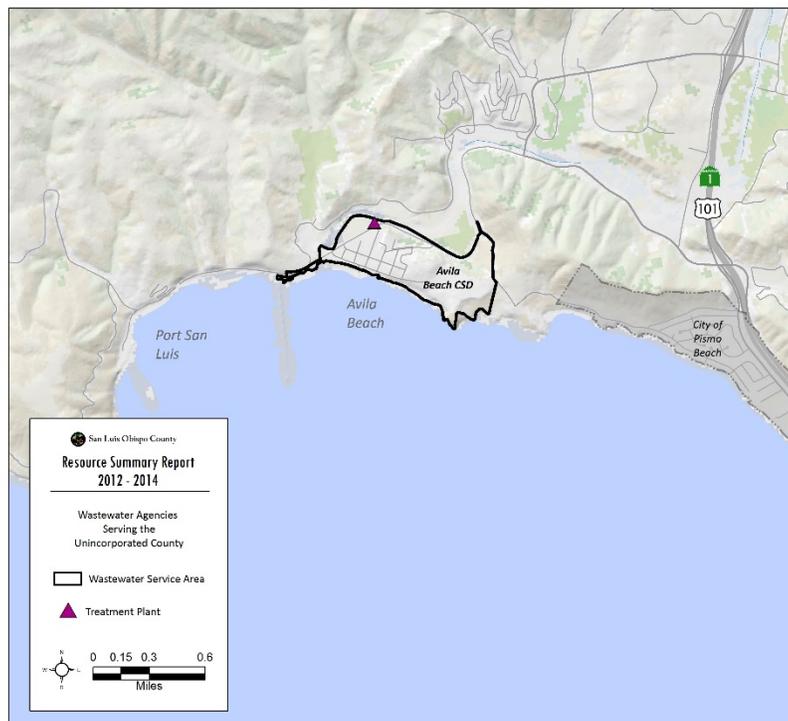
Table III-2 -- Avila Beach CSD -- Recommended Levels of Severity for Wastewater Treatment						
2014 Service Area Population	2014 Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
1,484	0.057	1,542	0.059	0.2	30%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes:

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

Figure III-2 – Avila Beach CSD Wastewater Service Area



Cambria CSD

The Cambria CSD operates a wastewater collection, treatment and disposal system that serves 6,000 residents of the community of Cambria. The treatment plant has a design capacity of 1.0 MGD; current (2014) average daily flows are 0.67 MGD, or 67% 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 five years or more. The CSD is implementing an ongoing program to improve the efficiency and operation of the collection and treatment systems. There were two discharge violations reported for the period of 2012-2014. Both involved temporary obstructions to wastewater collection lines which were removed. No levels of severity are recommended for either collection or treatment.

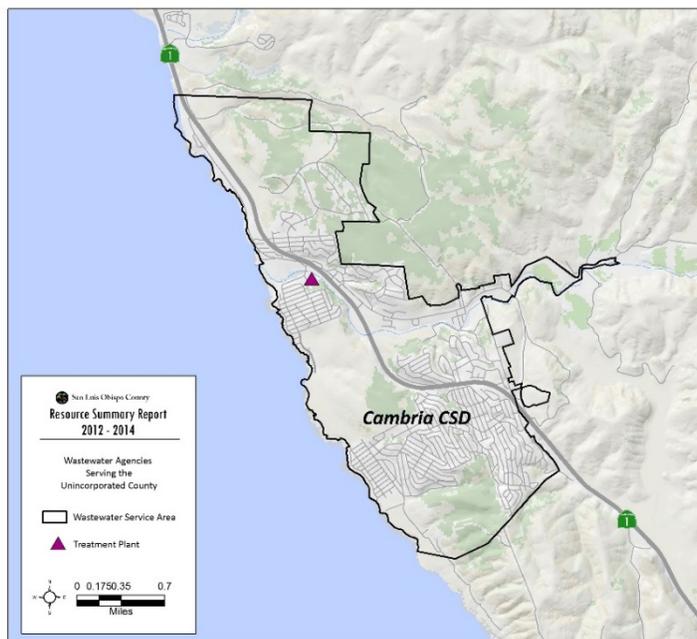
Table III-3 -- Cambria CSD -- Recommended Levels of Severity for Wastewater Treatment						
2014 Service Area Population	2014 Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
6,032	0.67	6,054	0.672	1.0	67%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes:

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

Figure III-3 – Cambria CSD Wastewater Service Area



Cayucos Sanitary District

The Cayucos Sanitary District (CSD) operates a wastewater collection system that serves the community of Cayucos. By agreement, Cayucos SD is allotted 0.721 MGD of the Morro Bay treatment plant capacity which has a design capacity of 2.36 MGD. Current (2014) average daily flows from the Cayucos SD and the City of Morro Bay (population 10,136) are 0.964 MGD, or 41% of design capacity.

One discharge violation was reported for the period of 2012-2014. Root intrusion caused a spill of approximately 70 gallons; no surface water bodies were affected.

The City of Morro Bay and the CSD are in the process of upgrading the wastewater treatment plant to full secondary treatment and to provide tertiary filtration capacity of 1.5 million gallons per day. The tertiary filtered effluent would meet standards for disinfected secondary recycled water and as such could be used for limited beneficial uses.

At its meeting of January 10, 2013, the California Coastal Commission voted to deny the Coastal Development Permit (CDP) for construction of an upgraded wastewater treatment plant at its existing location. In summary, the basis for denial included: Local Coastal Plan - Zoning inconsistency, failure to avoid coastal hazards, failure to include a sizable reclaimed water component and the project is located within an LCP-designated sensitive view area. At present (November, 2014) the City and CSD are considering different locations for the wastewater treatment plant (water reclamation facility). Once a preferred site is chosen a facilities master plan will be prepared which will serve as the basis for environmental review and permitting. The tentative completion date for the new facility is the fall of 2017. In the meantime, based on the projected growth in population within the CSD service area, the plant is expected to operate well below capacity for the next five years or more. No levels of severity are recommended for either collection or treatment.

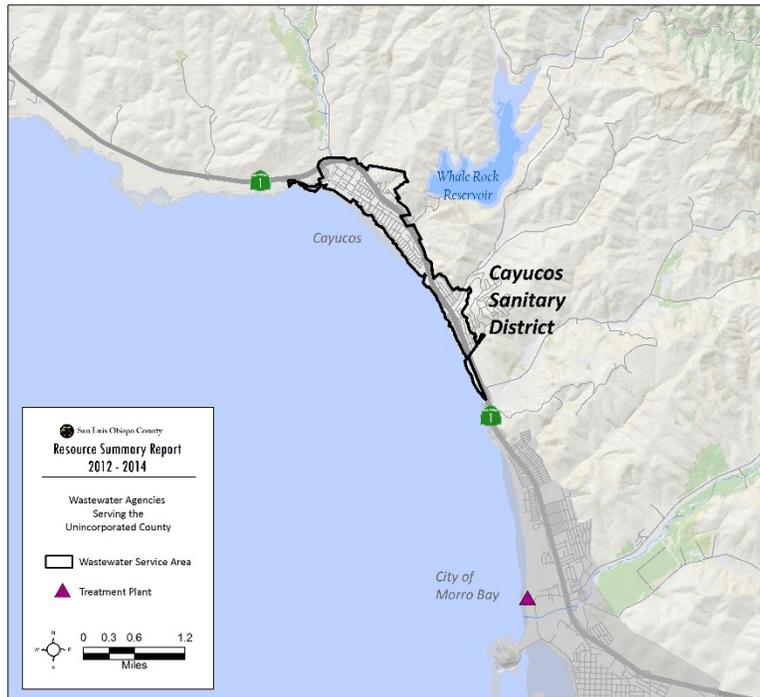
Table III-4 -- Cayucos Sanitary District -- Recommended Levels of Severity for Wastewater Treatment						
2014 Service Area Population	2014 Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
12,710	0.964	12,825	0.973	2.36	41%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes:

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

Figure III-4 – Cayucos Sanitary District



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 (2014) average daily flows are 0.068 MGD, or 56% 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 five 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.

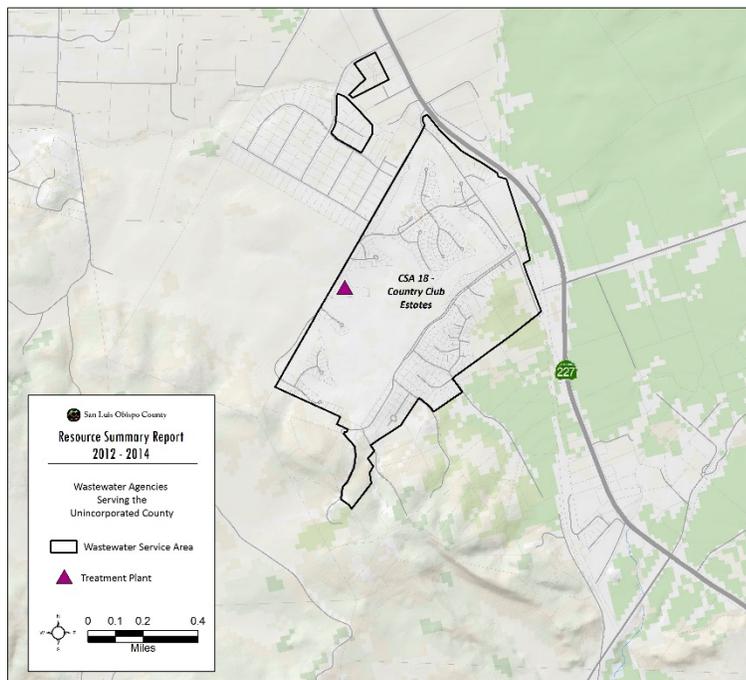
Table III-5 -- CSA 18 Country Club Estates -- Recommended Levels of Severity for Wastewater Treatment						
2014 Service Area Population	2014 Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
881	0.068	916	0.070	0.12	58%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes:

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

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



Heritage Ranch CSD and Oak Shores CSA

The Heritage 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 (2014) average daily flows are 0.14 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.

One discharge violation was reported for the period 2012-2014. Root intrusion caused an 1,800 gallon spill to an unpaved vacant lot next to a single family residence.

Based on the projected growth in population within the CSD service area, the plant is expected to operate below capacity for the next five 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						
2014 Service Area Population	2014 Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
2,450	0.14	2,496	0.143	0.4	36%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes:

1. Design Flow = average daily dry weather flow in million gallons per day.
2. 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 (2014) average daily flows are 0.032 MGD, or 32% 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 five years or more. The CSA has no plans to expand or upgrade the collection system, treatment plant or disposal system.

Two discharge violations occurred during the period 2012-2014. In April, 2013, debris caused a 420-gallon spill onto an unpaved surface. In November, 2013, a leak in a force main caused a 500-gallon spill. No surface water bodies were affected in either case.

No levels of severity are recommended for either collection or treatment. See Figure III-6.

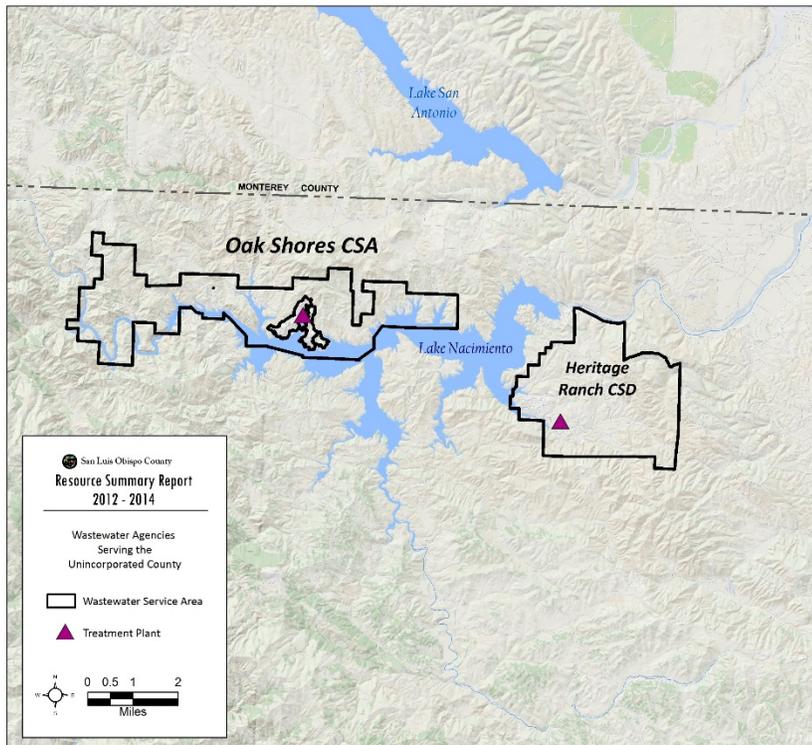
Table III-7 -- Oak Shores CSA -- Recommended Levels of Severity for Wastewater Treatment						
2014 Service Area Population	2014 Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
348	0.032	362	0.033	0.10	33%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes:

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

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



Nipomo CSD – Black Lake

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 (2014) average daily flows are 0.052 MGD, or 52% 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 five years or more. The CSD has no plans to expand or upgrade the collection system, treatment plant or disposal system. No discharge violations were reported for the period of 2012 – 2014. No levels of severity are recommended for either collection or treatment.

Table III-8 -- Nipomo CSD Black Lake -- Recommended Levels of Severity for Wastewater Treatment

2014 Service Area Population	2014 Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
854	0.052	840	0.051	0.10	51%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes:

1. Design Flow = average daily dry weather flow in million gallons per day.
2. 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 (2014) average daily flows are 0.64 MGD, or 71% of design capacity. In September, 2014, the CSD broke ground on Phase I 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 (tentatively in 2-3 years, 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.

No discharge violations were reported for the period of 2012 – 2014.

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 five years or more. No recommended levels of severity for either collection or treatment.

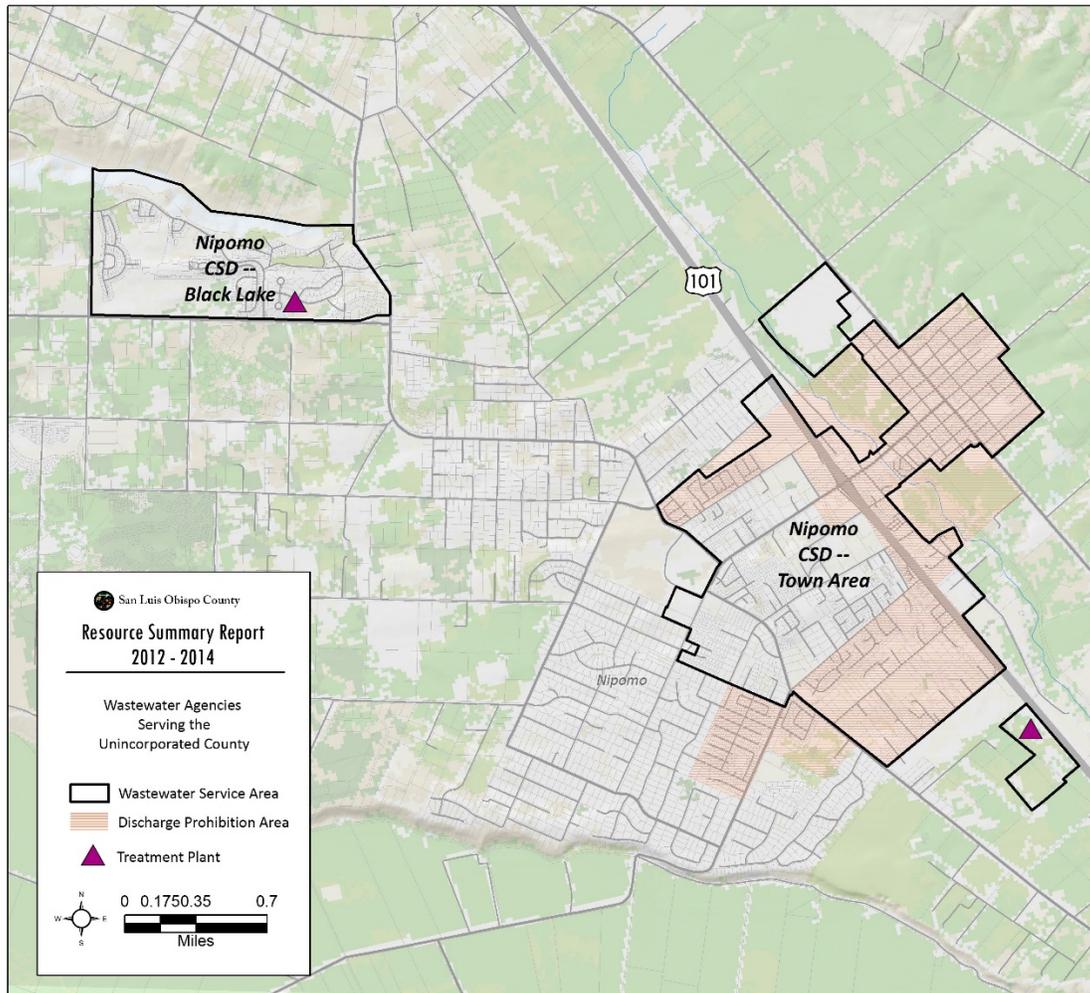
Table III-9 -- Nipomo CSD Southland Treatment Plant -- Recommended Levels of Severity for Wastewater Treatment						
2014 Service Area Population	2014 Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
15,503	0.64	15,850	0.655	0.9	73%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes:

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

Figure III-7 – Nipomo CSD Wastewater Service Areas



San Miguel CSD

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 (2014) average daily flows are 0.096 MGD, or 21% 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 five years or more.

No discharge violations were reported for the period of 2012 – 2014.

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.

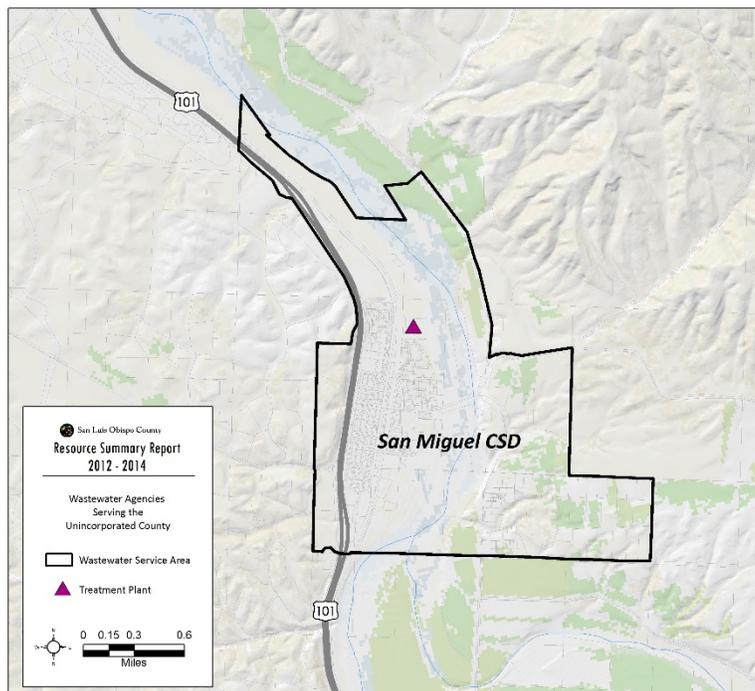
Table III-10 -- San Miguel CSD -- Recommended Levels of Severity for Wastewater Treatment						
2014 Service Area Population	2014 Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
2,432	0.096	2,650	0.105	0.45	23%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes:

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

Figure III-8 – San Miguel CSD Wastewater Service Area



San Miguelito Mutual Water Company

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 (2014) average daily flows are 0.08 MGD, or 53% 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 five years or more.

There were a total of six discharge violations reported for the period 2012-2014. No surface water bodies were affected; all spills were associated with root intrusion and pipe structural problems which have since been addressed.

The SMMWC has no plans to expand or upgrade the collection system, treatment plant or disposal system. No recommended levels of severity for either collection or treatment. See Figure III-2.

Table III-11 -- San Miguelito Mutual Water Company -- Recommended Levels of Severity for Wastewater Treatment						
2014 Service Area Population	2014 Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
612	0.08	630	0.082	0.15	55%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes:

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

San Simeon CSD

The San Simeon CSD operates a wastewater collection, treatment and disposal system that serves the community of San Simeon as well as Hearst Ranch. 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 (2014) average daily flows are 0.085 MGD, or 43% 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 five years or more.

No discharge violations were reported for the period of 2012 – 2014.

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.

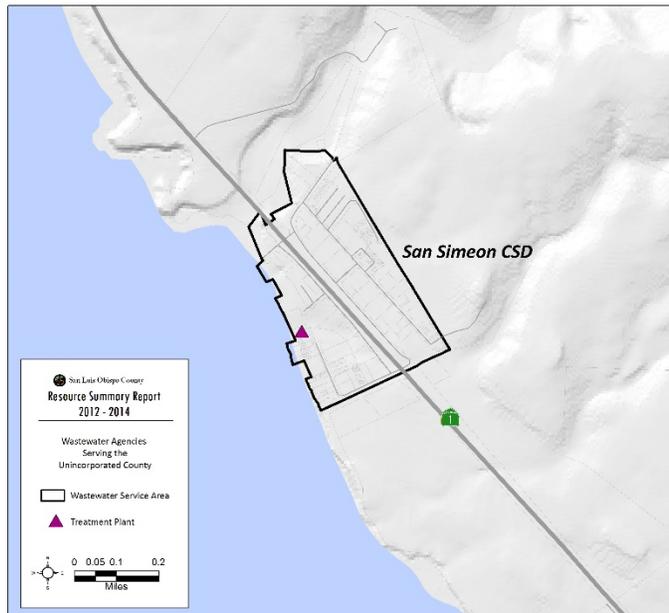
Table III-12 -- San Simeon CSD -- Recommended Levels of Severity for Wastewater Treatment						
2014 Service Area Population	2014 Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
445	0.085	435	0.083	0.2	42%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes:

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

Figure III-9 – San Simeon CSD Wastewater Service Area



South San Luis Obispo County Sanitation District

The South San Luis Obispo County Sanitation District (SSLOCSDD) operates a wastewater collection, treatment and disposal system serving a population of about 40,000 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 (2014) average daily flows are 2.52 MGD, or 76% 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.

No discharge violations were reported for the period of 2012 – 2014.

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

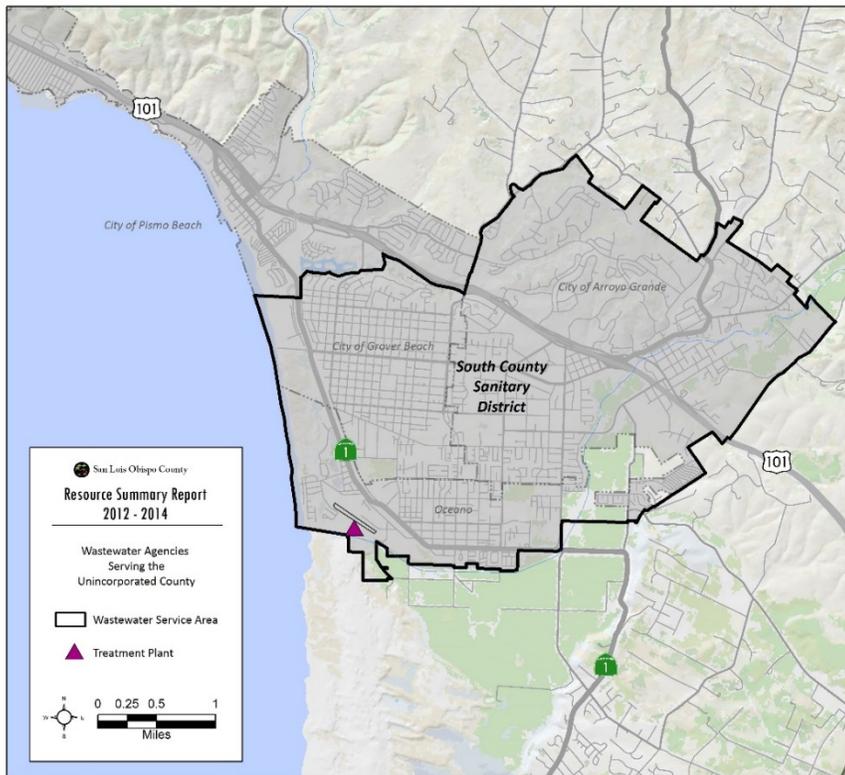
Table III-13 -- South San Luis Obispo County Sanitation District -- Recommended Levels of Severity for Wastewater Treatment						
2014 Service Area Population	2014 Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
37,784	2.52	38,815	2.59	3.3	78%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes:

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

Figure III-10 – South County Sanitation District



Templeton CSD – Meadowbrook Treatment Plant

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 is 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 system has a design flow of 0.043 MGD; current (2014) average daily flows are 0.016 MGD, or 37% of design capacity. Based on the projected growth in population within the CSD service area, the CSD portion of treatment plant is not expected to be reached for the next five years or more.

There was one reported discharge violation associated with the Meadowbrook system for the period 2012-2014. In November 2012, root intrusion caused a spill of approximately 25 gallons. No surface water bodies were affected.

In 2012, the Templeton CSD authorized staff to proceed with the design of the East Side Force Main and Lift Station Project. A number of tasks were identified and staff proceeded with the work with the assistance of consultants as required. Several of the tasks are proceeding concurrently. 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. Paso Robles awarded the construction contract to W.M. Lyles and issued a Notice to Proceed on April 1, 2013 to build the Paso Robles WWTP replacement project. Substantial completion of the project is scheduled for October 2015.

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

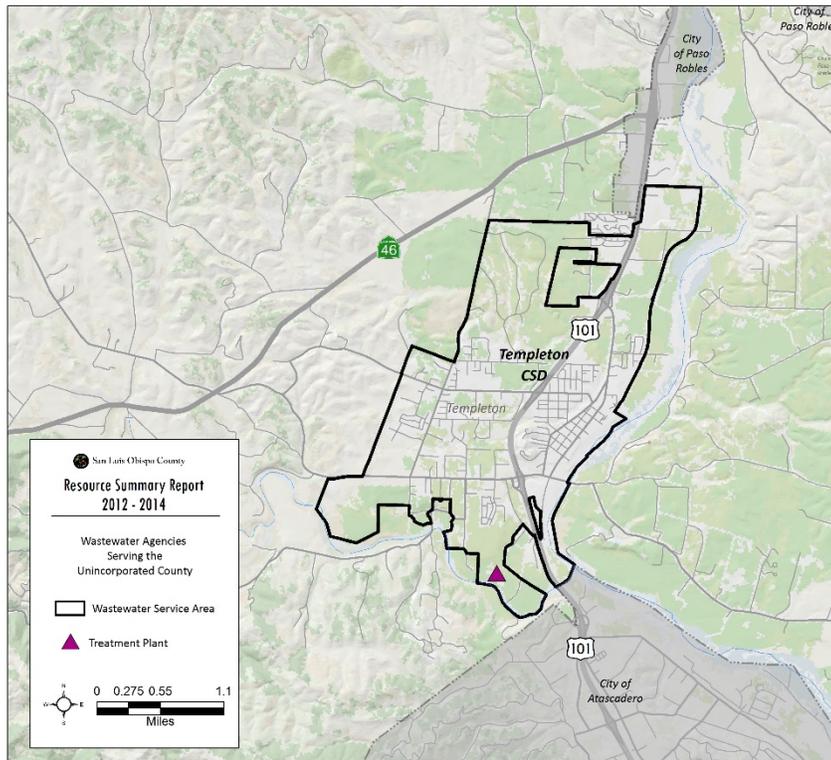
Table III-14 -- Templeton CSD Meadowbrook Treatment Plant – Recommended Levels of Severity for Wastewater Treatment						
2014 Service Area Population	2014 Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
7,099	0.016	7,261	0.016	0.043	38%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes:

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

Figure III-11 – Templeton CSD Wastewater Service Area



Summary of Recommended Levels of Severity for Wastewater Treatment

Table III-15 provides a summary of the recommended Levels of Severity for wastewater treatment.

Table III-15 – Recommended Levels of Severity for Wastewater Treatment

Agency	2014 Service Area Population	2014 Average Daily Flow (MGD)	2014 Per Capita Average Daily Flow (MGD)	2020 Service Area Population	2020 Estimated Average Daily Flow (MGD)	Design Flow ¹ (MGD) ²	Percent of Design Flow In 2020	Recommended Levels of Severity
Avila Beach CSD ³	1,484	0.057	0.0000384	1,542	0.059	0.2	30%	None
Cambria CSD ⁴	6,032	0.67	0.0001110	6,054	0.672	1.0	67%	None
Cayucos Sanitary District/Morro Bay Wastewater Treatment Plant ⁵	12,710	0.964	0.0000758	12,825	0.973	2.36	41%	None
Country Club Estates – CSA 18	881	0.068	0.0000758	916	0.070	0.12	58%	None
Heritage Ranch CSD	2,450	0.14	0.0000571	2,496	0.143	0.4	36%	None
Nipomo CSD – Black Lake	854	0.052	0.0000608	840	0.051	0.10	51%	None
Nipomo CSD – Southland Treatment Plant	15,503	0.64	0.0000412	15,850	0.655	0.9	73%	None
San Miguel CSD	2,432	0.096	0.0000394	2,650	0.105	0.45	23%	None
San Miguelito Mutual Water Co.	612	0.08	0.0001285	636	0.082	0.15	55%	None
San Simeon CSD	445	0.085	0.0001910	435	0.083	0.2	42%	None
South San Luis Obispo County Sanitation District ⁶	37,784	2.52	0.0000666	38,815	2.59	3.3	78%	None
Oak Shores CSA ⁷	348	0.032	0.0000919	362	0.033	0.1	33%	None
Templeton CSD ⁸	7,099	0.016	0.0000022	7,261	0.016	0.043	38%	None

Sources: San Luis Obispo County Department of Public Works, 2014; Central Coast RWQCB, 2014; SLOCOG, 2014

Notes for Table III-2:

3. Design Flow = average daily dry weather flow in million gallons per day.
4. MGD = Million gallons per day
5. CSD = Community Services District
6. By agreement, Hearst Castle is allotted 0.05 MGD of the San Simeon treatment plant capacity.
7. 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.
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, Templeton CSD is allotted 0.40 MGD of the Paso Robles treatment plant capacity.

Septic Systems

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 where the land uses are not intensified. However, existing development may be required to be connected to the community system in the future only if certain criteria are met. No levels of severity are recommended.

Los Osos

The community of Los Osos utilizes 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 began construction of the Los Osos Wastewater Project in 2012. The project will provide wastewater collection, conveyance, treatment and recycled water reuse for Los Osos. As of November, 2014, the collection system has been completed and the Water Recycling Facility is under construction with an estimated completion date of October, 2016.

The project includes nine primary pump stations, 12 pocket pump stations, pump station wet wells, 220,000 feet of gravity sewer and force main, 588 manholes, fiber optic conduit, 35,000 feet of recycled water distribution mains and 4,710 lateral connections. Individual lateral connections to the sewer main will be required after completion of the wastewater project facilities. Until the wastewater system is complete, individual septic systems will remain in use throughout the community and will continue to contribute to the degradation of groundwater quality. **Recommended Level Of Severity III.**

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.
- Maintain Level of Severity III for Los Osos until the wastewater system is completed and on-site septic systems have been decommissioned.
- Recommend Level of Severity III for the “prohibition zone” in the Nipomo Area.
- Consult with County Health and RWQCB on actions and monitor.

- 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.

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 2000 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, the Public Works Department 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.

Table IV-1 -- Existing (2014) and Future Peak Hour Volumes For RMS Roadway Segments					
Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2014	2016	2019
Avila Beach Drive	West of San Luis Bay Drive	1280	1160	1207	1281
Corbett Canyon Road	North of Arroyo Grande City Limits	909	291	303	321
Halcyon Road	North of Camino del Rey	898	481 ²	520	552
Halcyon Road	South of Arroyo Grande Creek	904	884	920	976
Las Tablas Road	West of Duncan Road	1446	1426	1484	1574
Lopez Drive	South of Orcutt Road	886	320 ²	347	368
Los Berros Road	South of El Campo Road	978	527	548	582
Los Osos Valley Road	West of Foothill Boulevard	1475	1427	1485	1576
Los Ranchos Road	West of Highway 227	968	355 ²	384	408
Main Street (Cambria)	East of Pine Knolls Drive	1440	703	731	776
Mission Street	North of Highway 101	974	442	460	488
Nacimiento Lake Drive	East of Chimney Rock Road	902	400	416	442
O'Connor Way	North of Foothill Road	1084	355	369	392
Paso Robles Street	East of Highway 1	970	107 ²	116	123
Price Canyon Road	South of Highway 227	995	908 ²	983	1043
Ramada Drive	South of Highway 46	978	547	569	604
South Bay Boulevard	South State Park Road	967	1135	1181	1253
South Ocean Avenue	North of 13th Street	965	439	457	485
Tank Farm Road	West of Highway 227	1152	1896	1973	2093
Tefft Street	West of Mary Avenue	2815	1057	1100	1167
Vineyard Drive	West of Highway 46	905	214	223	236
Vineyard Drive	West of Highway 101	1160	804	836	888

Source: San Luis Obispo County Department of Public Works, 2014

1. Volumes that exceed Level of Service "D" are shown in bold.
2. 2012 count data used.

Based on the traffic volumes summarized in the table above, the following roads are expected to experience levels of service that meet the RMS criteria for Levels of Severity:

Table IV-2 -- Summary of Recommended Levels of Severity -- Roads		
Roadway Segment	Community/ Planning Area	Recommended Level of Severity
Avila Beach Drive west of San Luis Bay Drive	Avila Beach	I
Price Canyon Road south of Highway 227	South County Planning Area	
Halcyon Road south of Arroyo Grande Creek	Oceano	
Las Tablas Road west of Duncan Road	Templeton	II
Los Osos Valley Road west of Foothill Boulevard	San Luis Obispo/Los Osos	
South Bay Boulevard south of State Park Road	Los Osos	III
Tank Farm Road west of Highway 227	San Luis Obispo	

Each of these road segments is discussed below and shown in their regional context on Figures IV-1, IV-2 and IV-3.

Figure IV-1 – RMS Roads Recommended Levels of Severity – North County

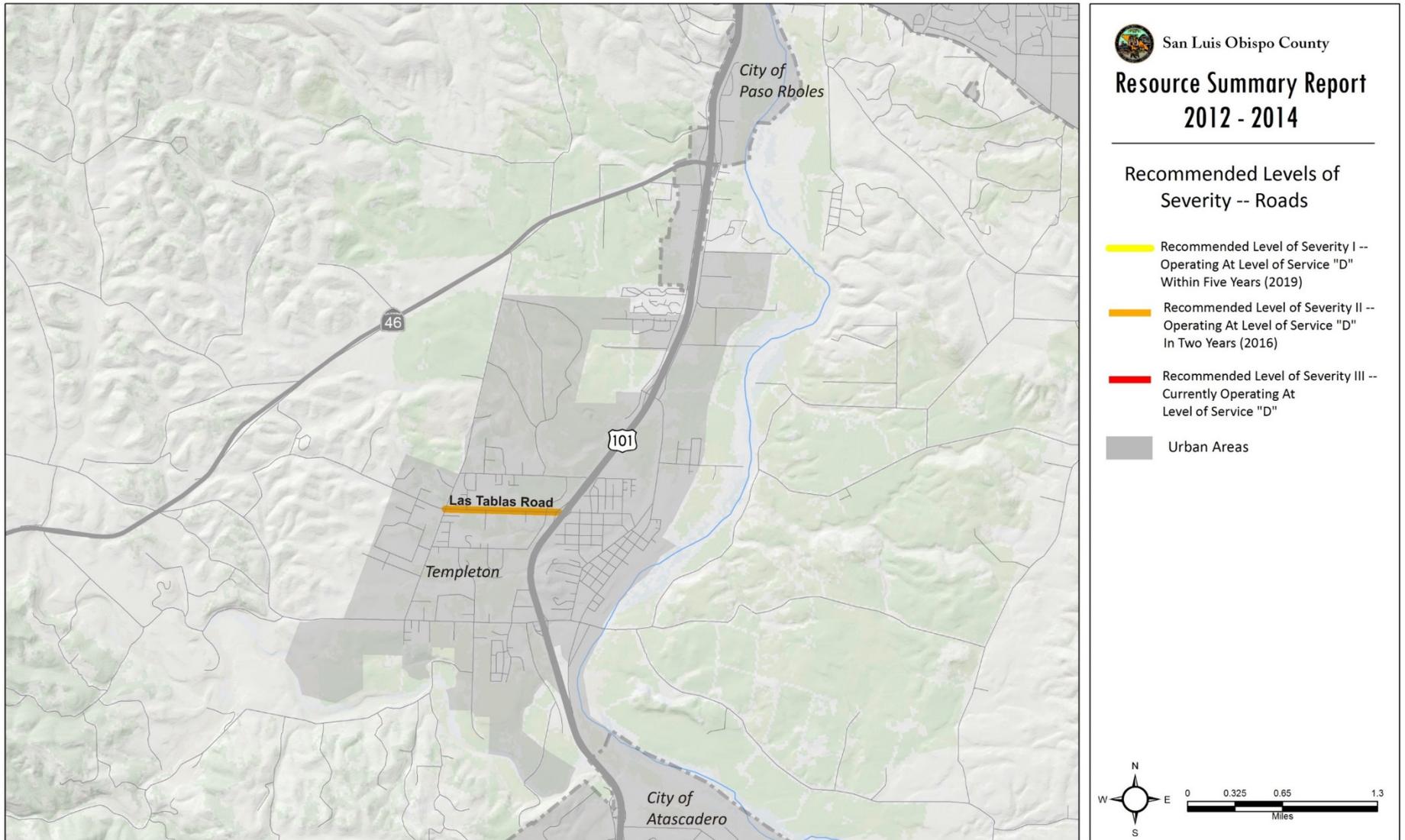


Figure IV-2 – RMS Roads Recommended Levels of Severity – Los Osos/San Luis Obispo Area

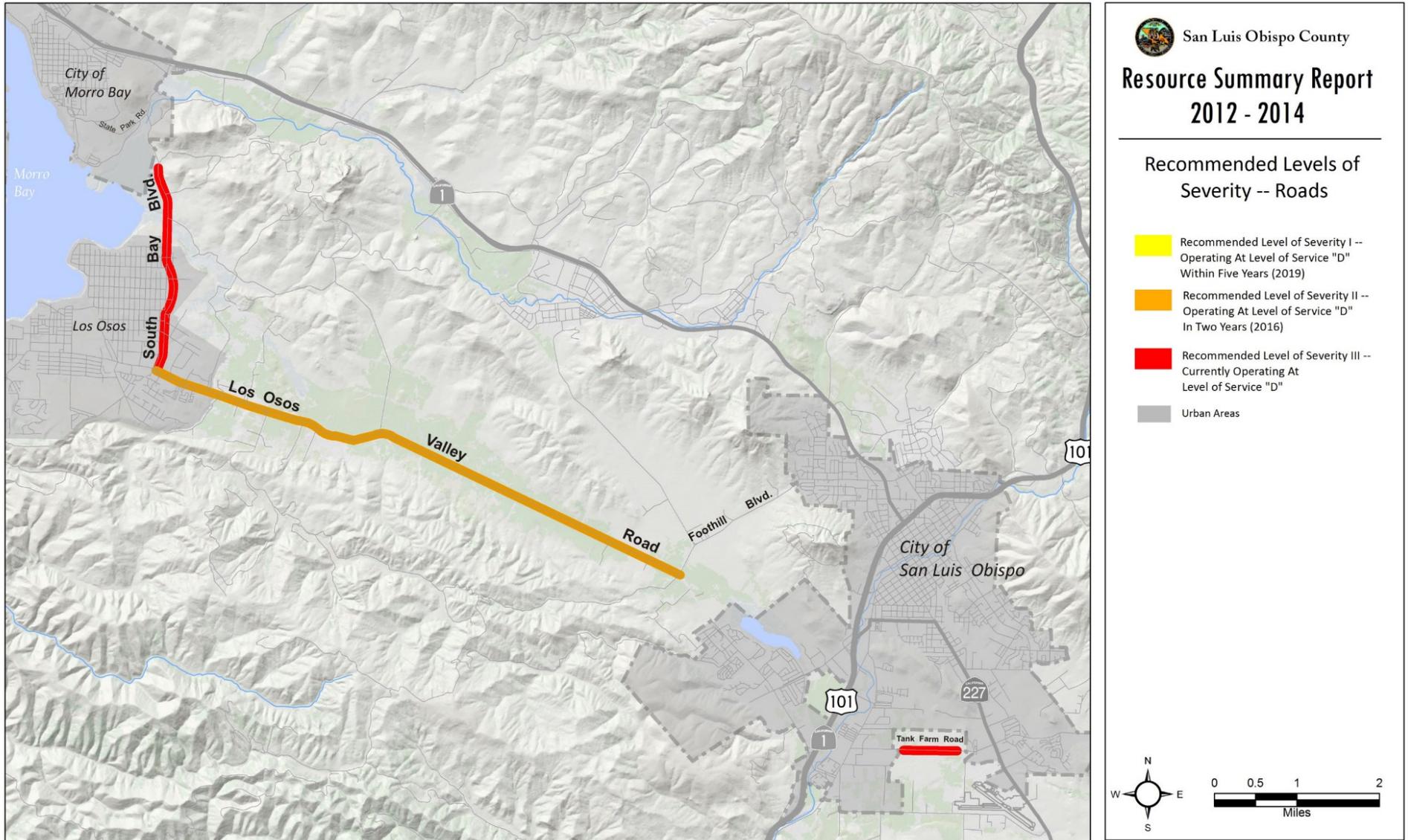
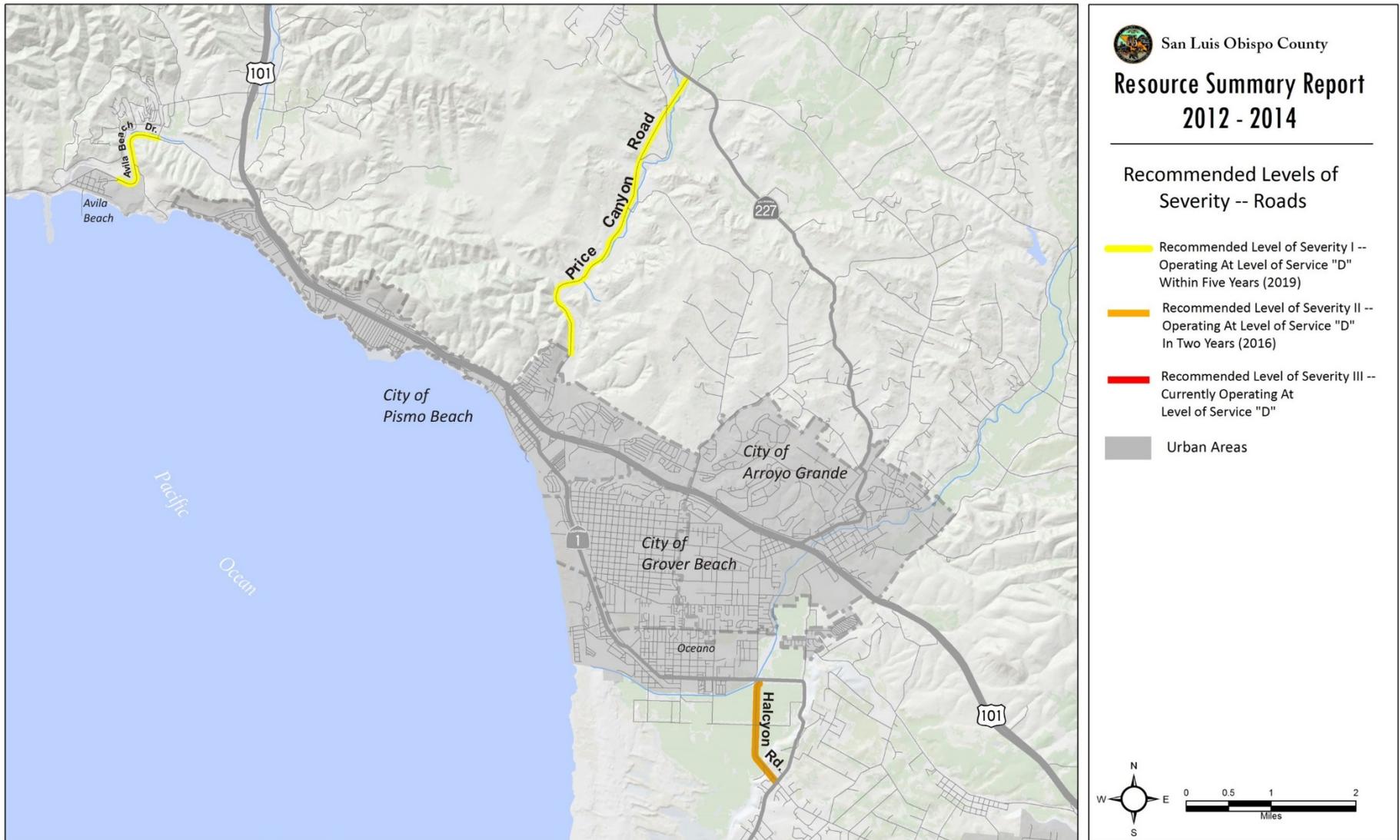
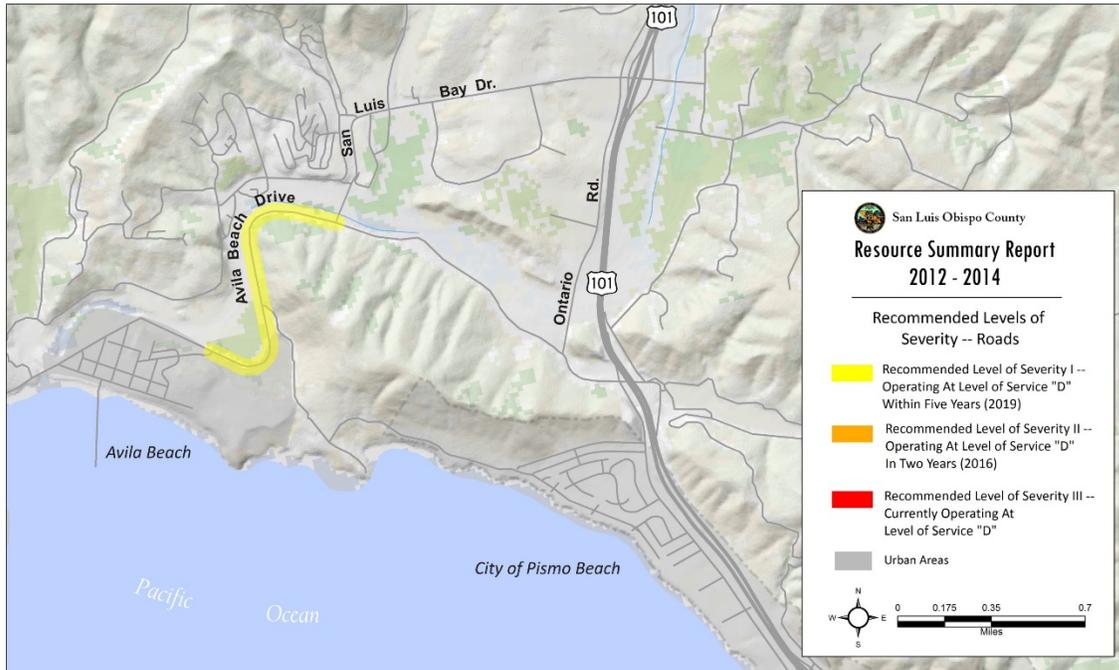


Figure IV-3 – RMS Roads Recommended Levels of Severity – South County



Avila Beach Drive West of San Luis Bay Drive



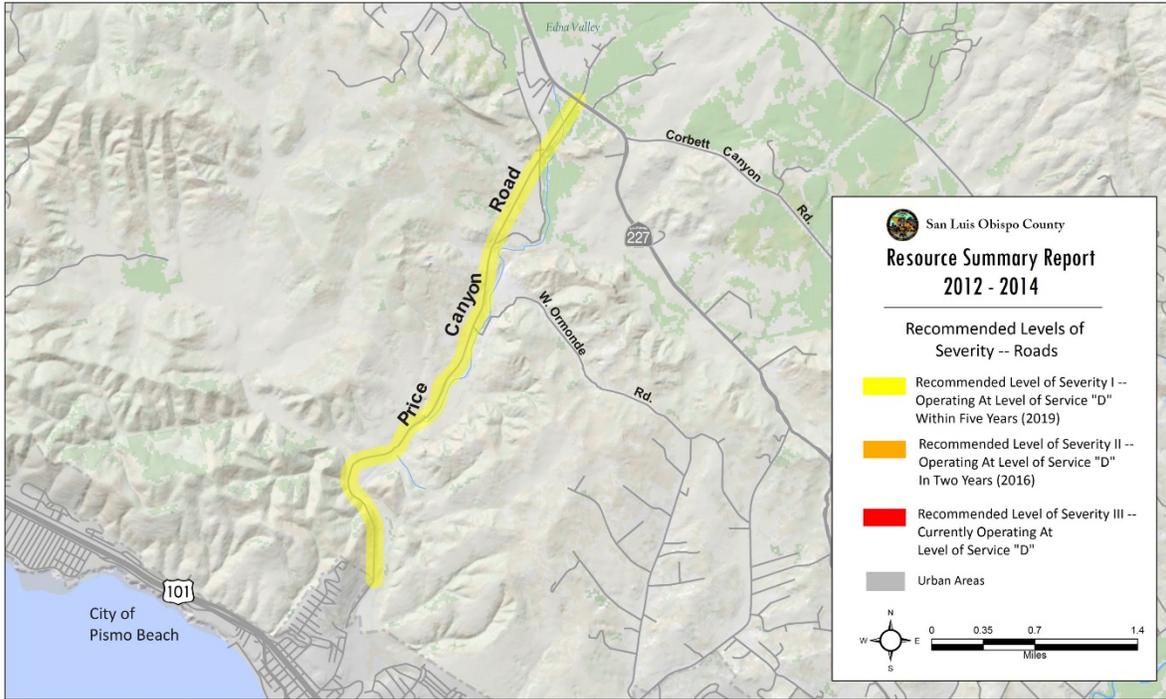
Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2014	2016	2019
Avila Beach Drive	West of San Luis Bay Drive	1280	1160	1207	1281

Source: San Luis Obispo County Department of Public Works, 2014

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 PGE Diablo Canyon outage operations. 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. The projection of traffic volumes for Avila Beach Drive indicates Level of Service "D" will be reached in five years. **Recommended Level of Severity I.**

Price Canyon Road South of Highway 227



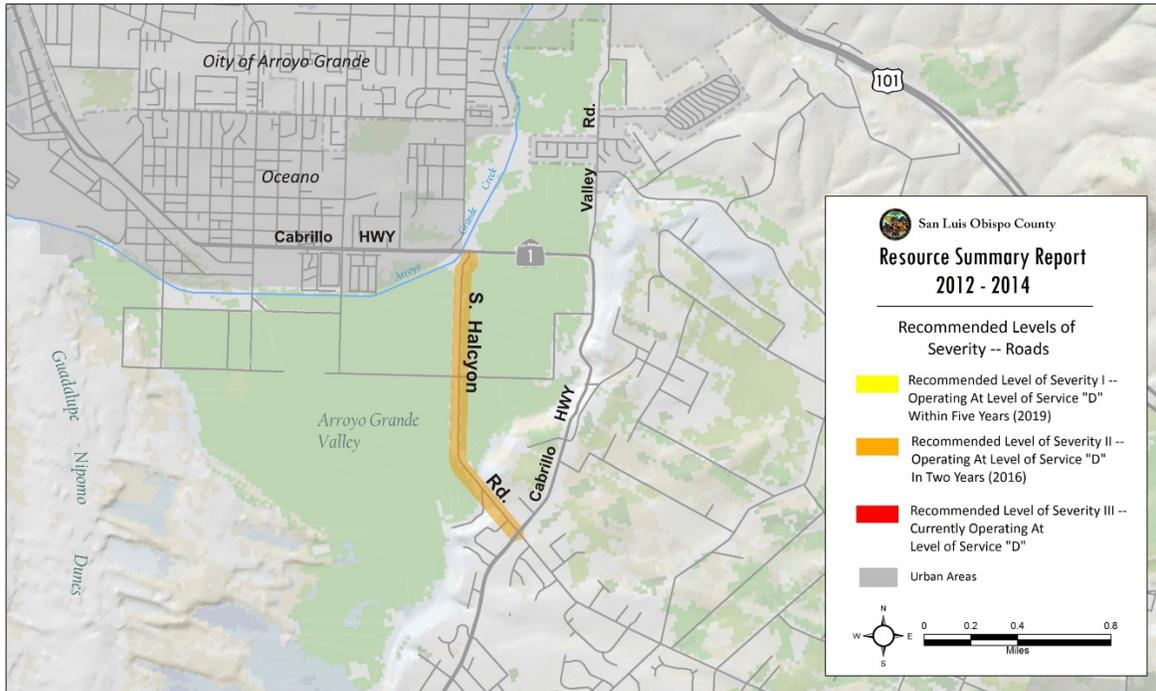
Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2014	2016	2019
Price Canyon Road	South of Highway 227	995	908 ²	983	1043

Source: San Luis Obispo County Department of Public Works, 2014

1. Volumes that exceed Level of Service "D" are shown in bold.
2. 2012 count data used.

The Public Works Department is currently working on a project to complete shoulder widening between State Highway 227 and Ormonde Road. Construction is anticipated to begin in 2015. The projection of traffic volumes for Price Canyon Road indicates Level of Service "D" will be reached in five years. **Recommended Level of Severity I.**

Halcyon Road South of Arroyo Grande Creek



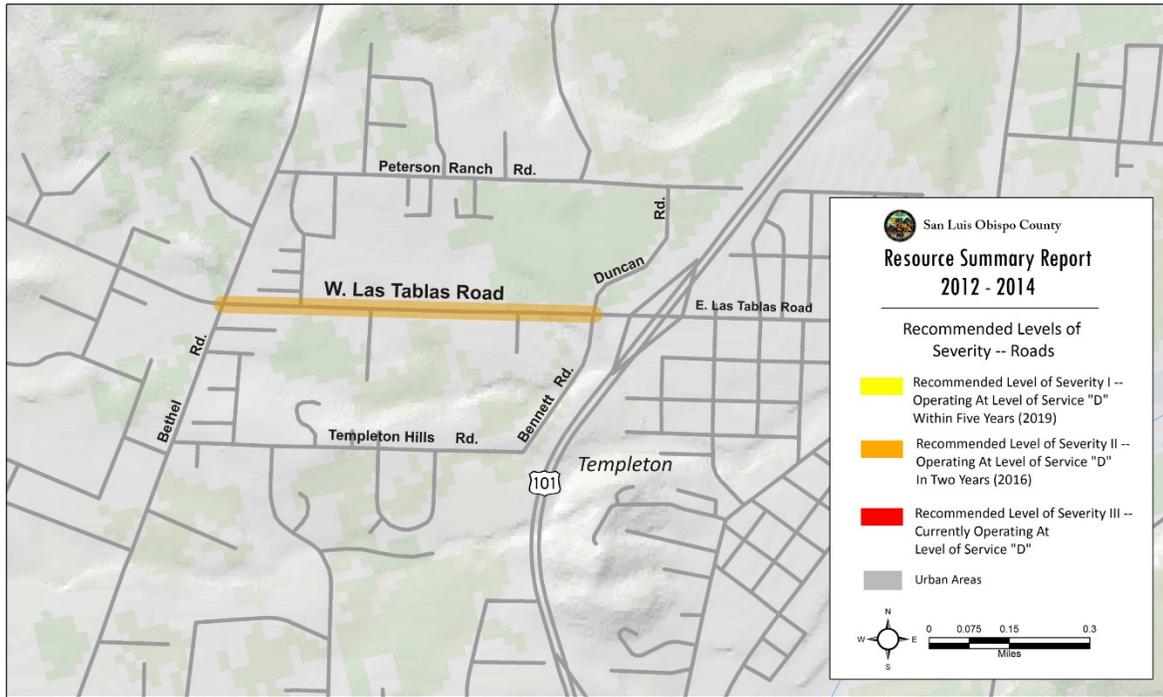
Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2014	2016	2019
Halcyon Road	South of Arroyo Grande Creek	904	884	920	976

Source: San Luis Obispo County Department of Public Works, 2014

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

Public Works is pursuing funding for shoulder widening on the grade. The projection of traffic volumes for Halcyon Road indicates Level of Service "D" will be reached in two years. **Recommended Level of Severity II.**

Las Tablas Road West of Duncan Road



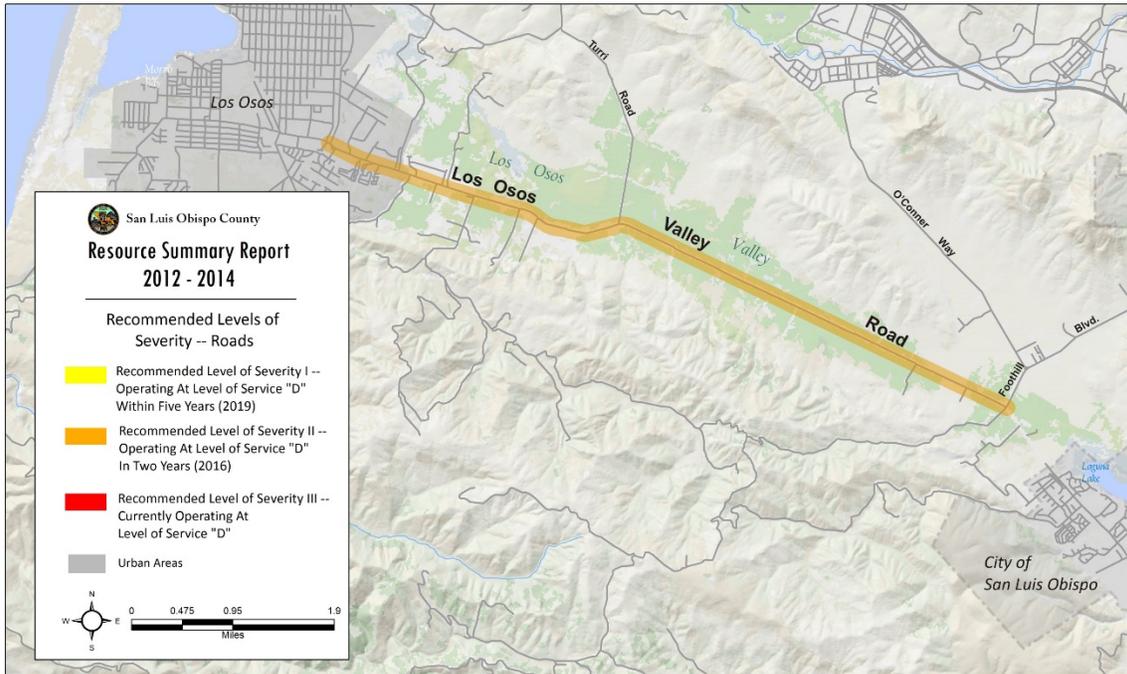
Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2014	2016	2019
Las Tablas Road	West of Duncan Road	1446	1426	1484	1574

Source: San Luis Obispo County Department of Public Works, 2014

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

The Templeton Circulation Study recommends widening Las Tablas Road to five lanes for one quarter mile west of US Highway 101. The project would be funded by regional transportation funds. The signalized intersections at Bennett Way and the Highway 101 ramps are expected to operate at LOS C or better under buildout conditions. However, the projection of traffic volumes for Las Tablas Road indicates Level of Service "D" will be reached in two years. **Recommended Level of Severity II.**

Los Osos Valley Road West of Foothill Boulevard



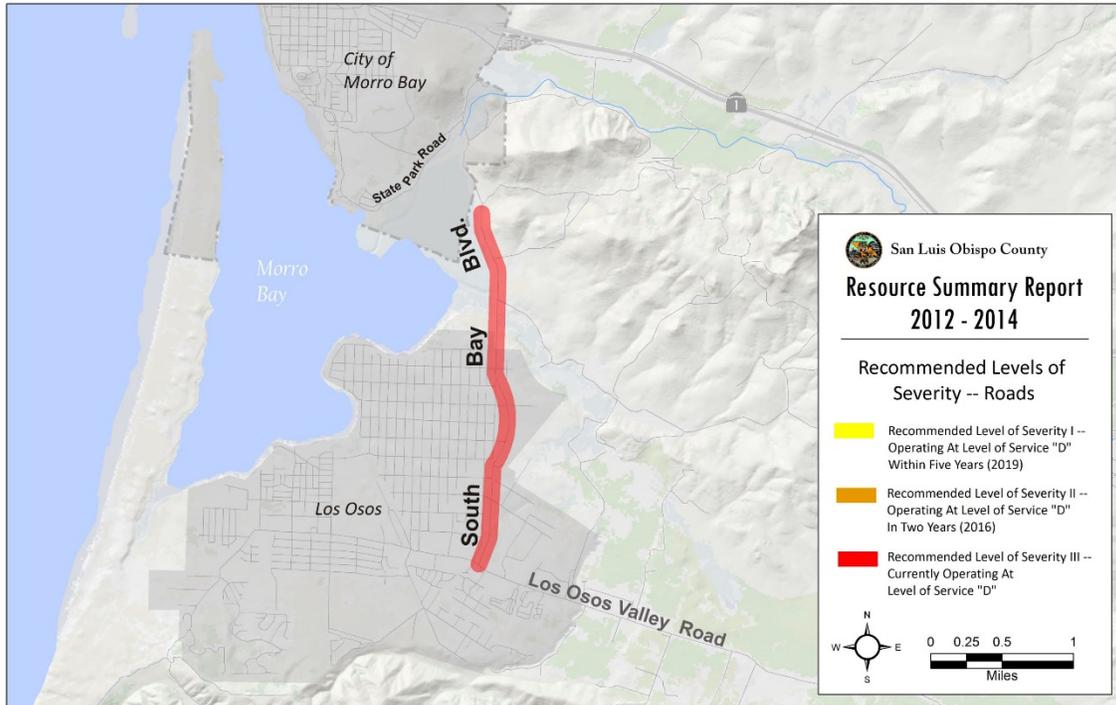
Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2014	2016	2019
Los Osos Valley Road	West of Foothill Boulevard	1475	1427	1485	1576

Source: San Luis Obispo County Department of Public Works, 2014

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

The Los Osos Circulation Study recommends widening Los Osos Valley Road to four lanes; however, traffic impact fees which would fund the project are not being generated due to the prohibition on new development in much of Los Osos. As a result, there is no funding currently available for the project. The projection of traffic volumes for Los Osos Valley Road indicates Level of Service "D" will be reached in two years. **Recommended Level of Severity II.**

South Bay Boulevard South of State Park Road



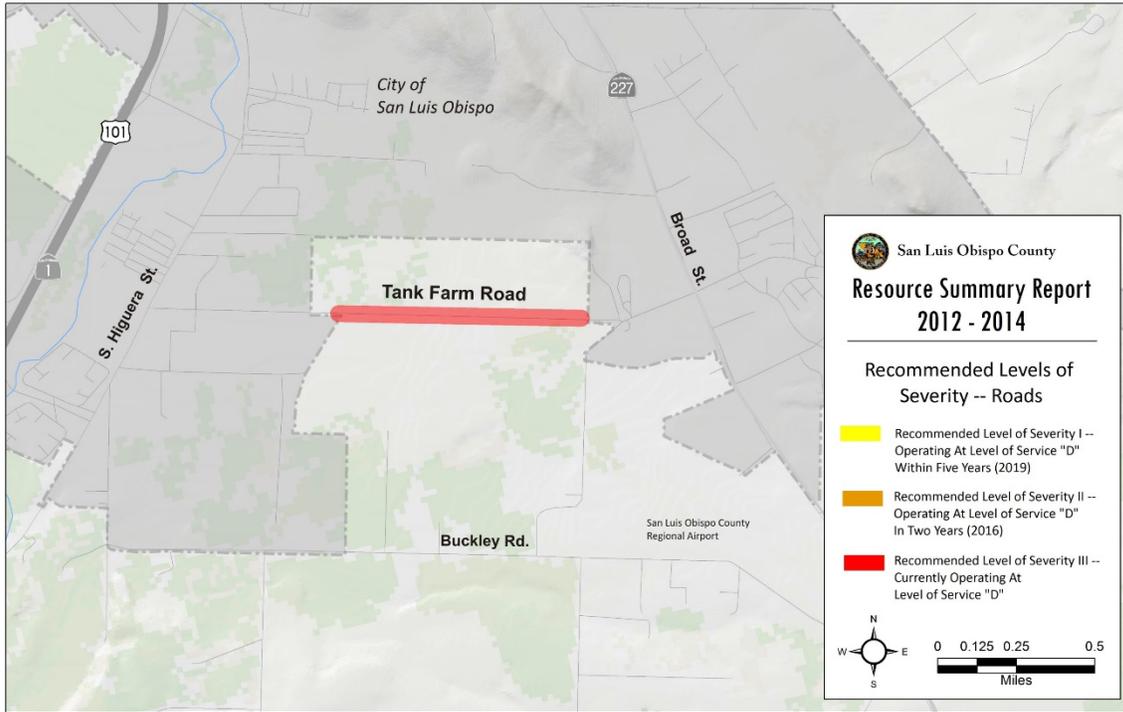
Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2014	2016	2019
South Bay Boulevard	South State Park Road	967	1135	1181	1253

Source: San Luis Obispo County Department of Public Works, 2014

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

The Los Osos Circulation Study recommends widening South Bay Boulevard from Los Osos Valley Road to the Urban Reserve Line. Funds from Los Osos Road Improvement Fees are necessary to fund the widening; however, traffic impact fees which would fund the project are not being generated due to the prohibition on new development in much of Los Osos. As a result, there is no funding currently available for the project and the current traffic volumes indicate South Bay Boulevard is currently operating at Level of Service "D". **Recommended Level of Severity III.**

Tank Farm Road West of Highway 227



Roadway	Location	LOS "D" Volume	Peak Hour Volumes		
			2014	2016	2019
Tank Farm Road	West of Highway 227	1152	1896	1973	2093

Source: San Luis Obispo County Department of Public Works, 2014

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

The City of San Luis Obispo is planning to widen this portion of Tank Farm Road 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 Level of Service "C" for the foreseeable future.

Levels of Severity for HWY 101 Interchanges

The following table contains Levels of Service for existing conditions (2014) and buildout conditions for Highway 101 interchange operations in the Avila Beach, South County and Templeton areas. The analysis was derived from area Circulation Studies which are typically updated every five (5) years. The objective of the Circulation Studies is to forecast future capacity demands on the transportation system and to identify the roadway improvements necessary to correct deficiencies. A key element of the studies is defining the necessary Capital Improvement Program (CIP) project and development of Road Improvement Fees (RIF) to support the program. The studies are located at:

<http://www.slocounty.ca.gov/PW/Traffic/TrafficStudies.htm>.

The interchange analysis assesses conditions over a 10-year period because improvements to the operation or efficiency of an interchange can take between 10 and 20 years 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 under conditions estimated to occur at buildout of the General Plan. County Public Works is currently working on the Avila Valley and South County Travel Demand Model and Circulation Study updates which will be completed in Fiscal Year 2014-15. The Templeton Travel Demand Model and Circulation Study may be updated in 2015.

Table IV-3 -- RMS Interchanges Levels of Service					
US 101 Interchange	Existing Levels of Service		Buildout Levels of Service		Source
	SB Ramps	NB Ramps	SB Ramps	NB Ramps	
State Highway 46 West	D	B	F	F	2009 Templeton Circulation Study
North Main Street	F	E	F	F	
Las Tablas Road	B	B	B	B	
Vineyard Drive	E ¹	D ¹	B	B	
San Luis Bay Drive	TBD	TBD	B	B	2007 Avila Valley Circulation Study
Avila Beach Drive	TBD	TBD	B	B	
Los Berros/Thompson	C	D	F	F	2006 South County Circulation Study
Willow Road	TBD				
Tefft Street	E	C	F	F	
US Highway 166	D	C	F	F	

Source: San Luis Obispo County Department of Public Works, 2014

Notes for Table IV-2:

1. The existing Level of Service at the interchanges improved to LOS "C" or better following completion of the Vineyard Interchange Project in 2009.

Based on the traffic volumes summarized above, the following interchanges are expected to experience Levels of Service that meet the RMS criteria for Levels of Severity:

Table IV-5 -- Summary of Recommended Levels of Severity – Highway 101 Interchanges		
Interchange	Community/ Planning Area	Recommended Level of Severity
State HWY 46 West, SB ramps	Templeton area	III
North Main Street SB and NB ramps	Templeton	
Los Berros Road/Thompson Road NB ramps	South County	
Tefft Street SB ramps	Nipomo	
US HWY 166 SB ramps	South County	

Each of these interchanges is discussed below.

The following interchanges are projected to operate at LOS C or better for the foreseeable future:

Las Tablas Road

A widening and signalization project was completed at the interchange in 2006.

Vineyard Drive

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

San Luis Bay Drive

The existing conditions analysis was not completed in the 2007 Circulation Study due to bridge constriction over San Luis Creek which affected vehicle patterns.

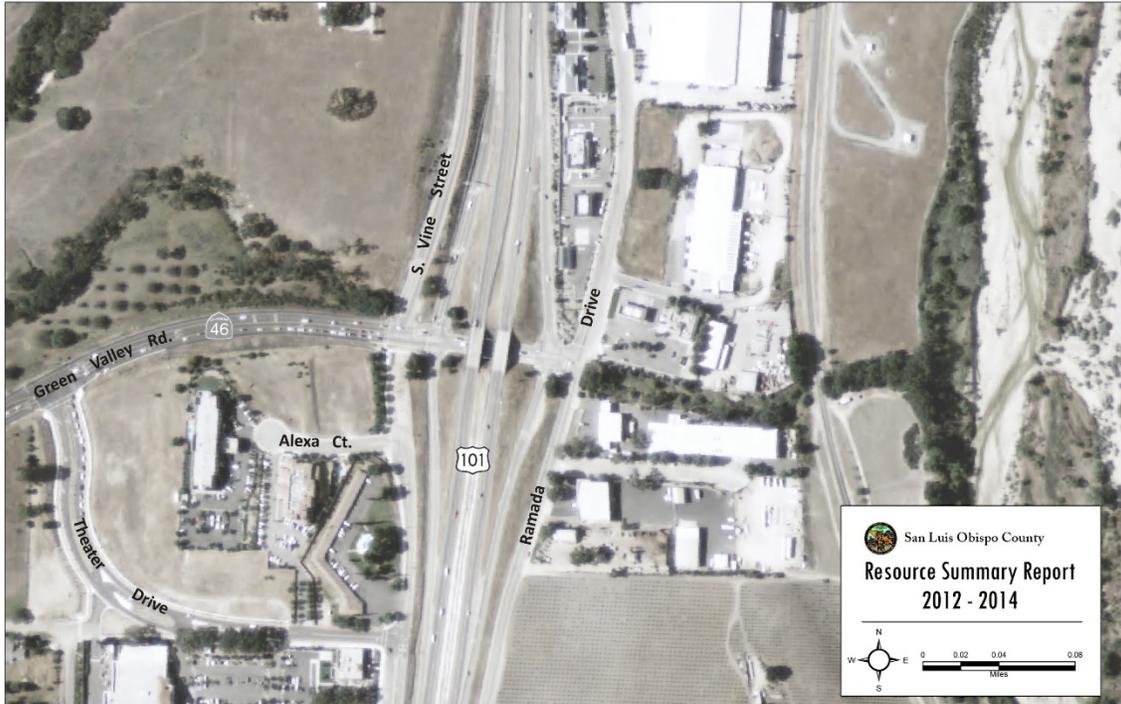
Avila Beach Drive

The existing conditions analysis was not completed in the 2007 Circulation Study due to bridge constriction over San Luis Creek which affected vehicle patterns.

Willow Road

Construction of the Willow Road Interchange was completed in late 2012. The South County Circulation Study update currently under preparation will analyze the existing and buildout Levels of Service. It is anticipated that the interchange will operate at LOS C or better based on studies completed prior to project construction.

US Highway 101/State Highway 46 West

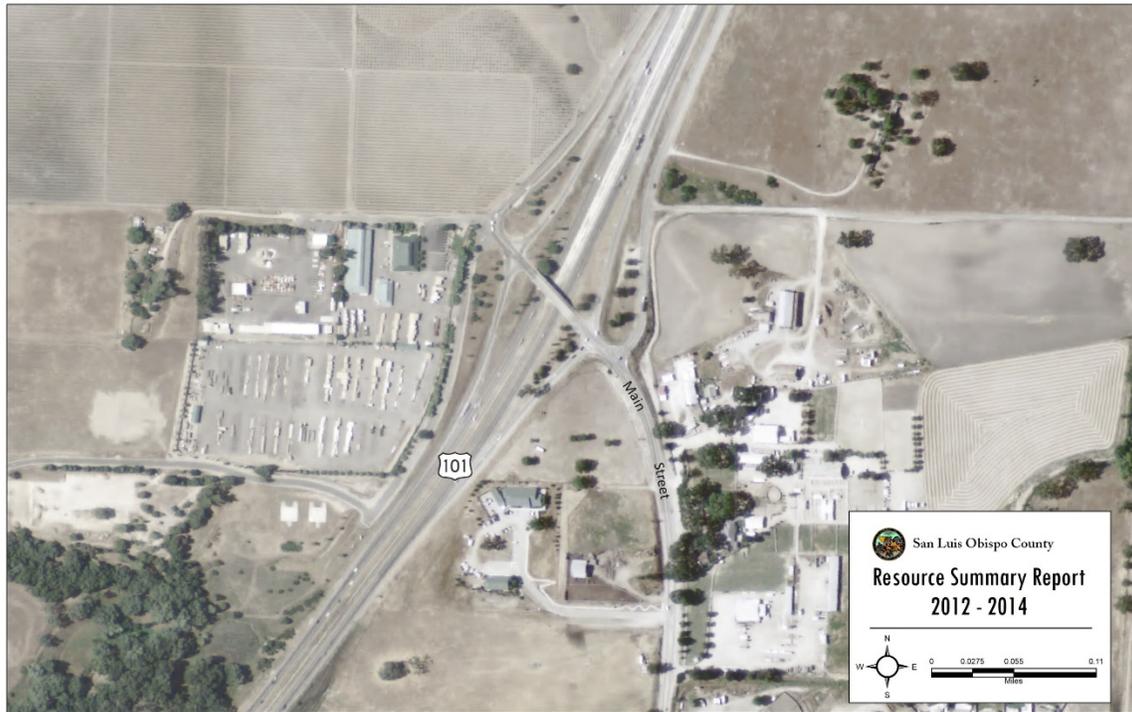


US 101 Interchange	Existing Levels of Service		Buildout Levels of Service	
	SB Ramps	NB Ramps	SB Ramps	NB Ramps
State Highway 46 West	D	B	F	F

Source: San Luis Obispo County Department of Public Works, 2014

The City of Paso Robles relocated Theater Drive, one of the western frontage roads, which has relieved some congestion. The Templeton Circulation Study has identified a CIP to modify the Highway 46 interchange and the program is collecting road impact fees. The City of Paso Robles is the lead agency for any future interchange projects at this location. In the meantime, the SB ramps continue to operate at Level of Service “D”. **Recommended Level of Severity III.**

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
Main Street	F	E	F	F

Source: San Luis Obispo County Department of Public Works, 2014

Interchange improvements at this location are included in the Templeton Circulation Study. The Public Works Department is currently completing a study to determine the preferred alternative; however, no funding is currently available for project construction. Public Works is also working toward small operational improvements including the addition of a westbound stop sign on Main Street at Ramada Drive. **Recommended Level of Severity III.**

US Highway 101/Los Berros Road

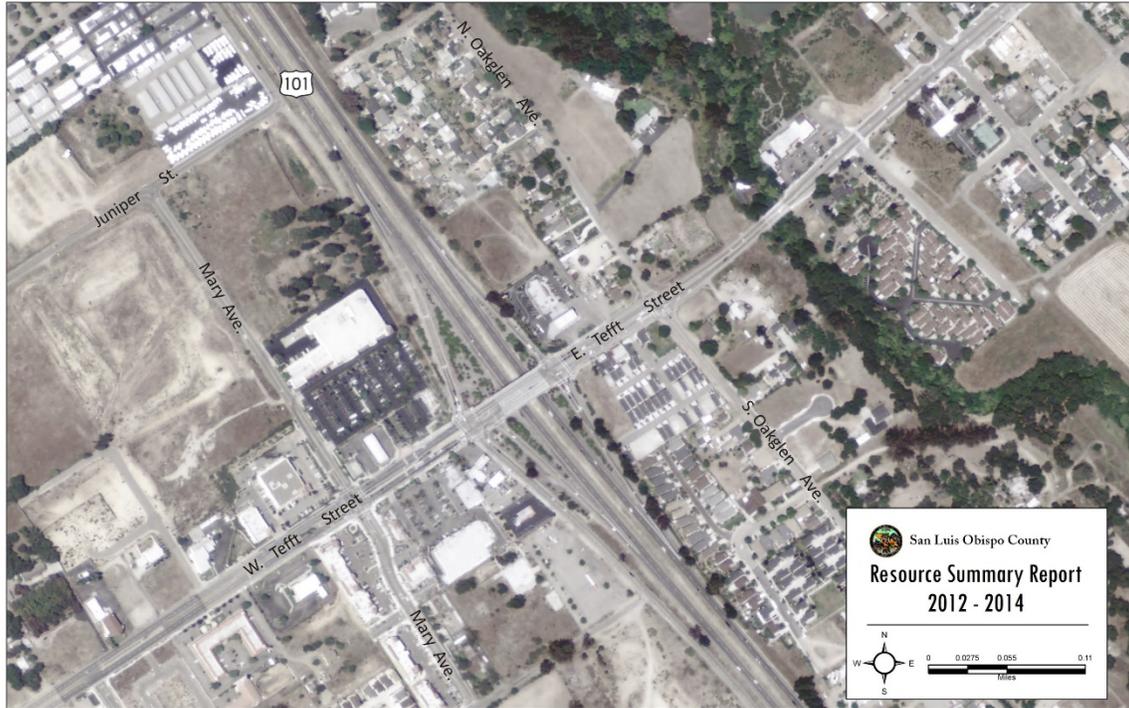


US 101 Interchange	Existing Levels of Service		Buildout Levels of Service	
	SB Ramps	NB Ramps	SB Ramps	NB Ramps
Los Berros/ Thompson	C	D	F	F

Source: San Luis Obispo County Department of Public Works, 2014

Signals at the northbound and southbound ramps are included in the South County Circulation Study. The study is currently being updated and will analyze the existing and buildout Levels of Service at the interchange following completion of the Willow Road Interchange. **Recommended Level of Severity III.**

US Highway 101/Tefft Street

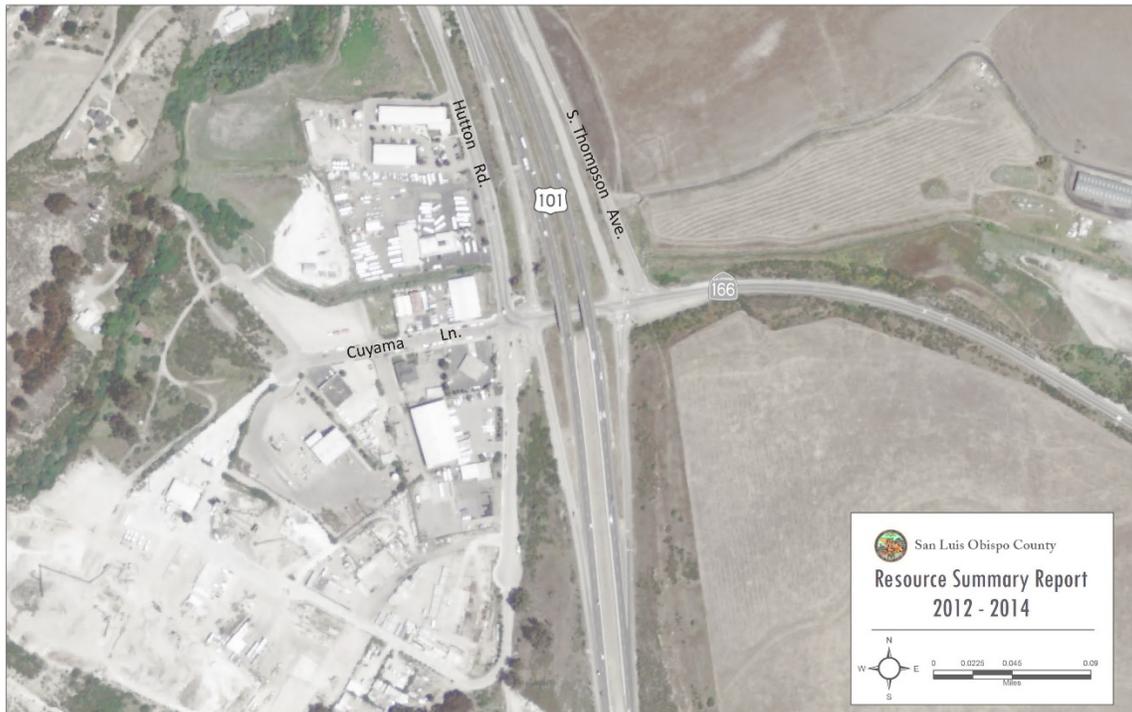


US 101 Interchange	Existing Levels of Service		Buildout Levels of Service	
	SB Ramps	NB Ramps	SB Ramps	NB Ramps
Tefft Street	E	C	F	F

Source: San Luis Obispo County Department of Public Works, 2014

The South County Circulation Study contains projects to widen the bridge and relocate the southbound ramps. The study is currently being updated and will analyze the existing and buildout Levels of Service at the interchange following completion of the Willow Road Interchange. **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	D	C	F	F

Source: San Luis Obispo County Department of Public Works, 2014

Roundabouts at the northbound and southbound ramps are included in the South County Circulation Study; however, no funding is currently available for the project. **Recommended Level of Severity III.**

Summary of Recommended Levels of Severity Summary 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-6 -- Recommended Levels of Severity For Roads and Interchanges			
Roadway Segment	Community/ Planning Area	Recommended Level of Severity	Recommended Actions
Avila Beach Drive west of San Luis Bay Drive	Avila Beach	I	Monitor Levels of Service on RMS roadways;
Price Canyon Road south of Highway 227	South County		Continue to use area circulation studies to identify roadway improvements necessary to achieve and maintain Level of Service "C" or better on RMS roadways and interchanges;
Halcyon Road south of Arroyo Grande Creek	Oceano	II	Use the area circulation studies to inform the assessment of levels of severity and to recommend action requirements;
Las Tablas Road west of Duncan Road	Templeton		Continue to establish and collect road impact fees (AB 1600 fees);
Los Osos Valley Road west of Foothill Boulevard	Los Osos/San Luis Obispo		Pursue other funding options including (but not limited to) State and federal grants;
South Bay Boulevard south of State Park Road	Los Osos	III	
Tank Farm Road west of Highway 227	San Luis Obispo		
Interchanges	Community/ Planning Area	Recommended Level of Severity	Recommended Actions
State HWY 46 West, SB ramps	Templeton area	III	Monitor Levels of Service on RMS interchanges;
North Main Street SB ramps, NB ramps	Templeton		Continue to use area circulation studies to identify roadway and interchange improvements necessary to achieve and maintain Level of Service "C" or better on RMS interchanges;
Los Berros Road/Thompson Road NB ramps	Nipomo area		Use the area circulation studies to inform the assessment of levels of severity and to recommend action requirements;
Tefft Street SB ramps	Nipomo		Continue to establish and collect road impact fees (AB 1600 fees);
US HWY 166 SB ramps	Nipomo area		Pursue other funding options including (but not limited to) State and federal grants;

The table below compares the recommended Levels of Severity for roads from the 2010-2012 RSR with those recommended for 2012-2014. Roadways shown in bold italics represent changes recommended in 2014. By applying the revised criteria for Levels of Severity described in Chapter I, three new roadways have been added: Avila Beach Drive, Price Canyon Road and Las Tablas Road. Halcyon Road has been revised upward from LOS I to LOS II and Los Osos Valley Road has been revised downward from LOS III to LOS II. Levels of Severity for South Bay Boulevard and Tank Farm Road are unchanged.

Table IV-7 -- Comparison of Recommended Levels of Severity For Roadways 2010-2012 RSR and 2012-2014 RSR		
Recommended Level of Severity	Recommended Roadways 2010-2012	Recommended Roadways 2012-2014
I	Halcyon Road	<i>Avila Beach Drive</i> <i>Price Canyon Road</i>
II	None	<i>Halcyon Road</i> <i>Las Tablas Road</i> <i>Los Osos Valley Road</i>
III	South Bay Boulevard Los Osos Valley Road Tank Farm Road	South Bay Boulevard Tank Farm Road

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. Since that time, Level of Severity criteria were developed and adopted for interchanges and included in this 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 school facility finance 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 Office of Public School Construction (OPSC) on behalf of the 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 County⁷ (Figure V-1). Current enrollment and school capacity information was provided by the participating school districts on a voluntary basis. 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.

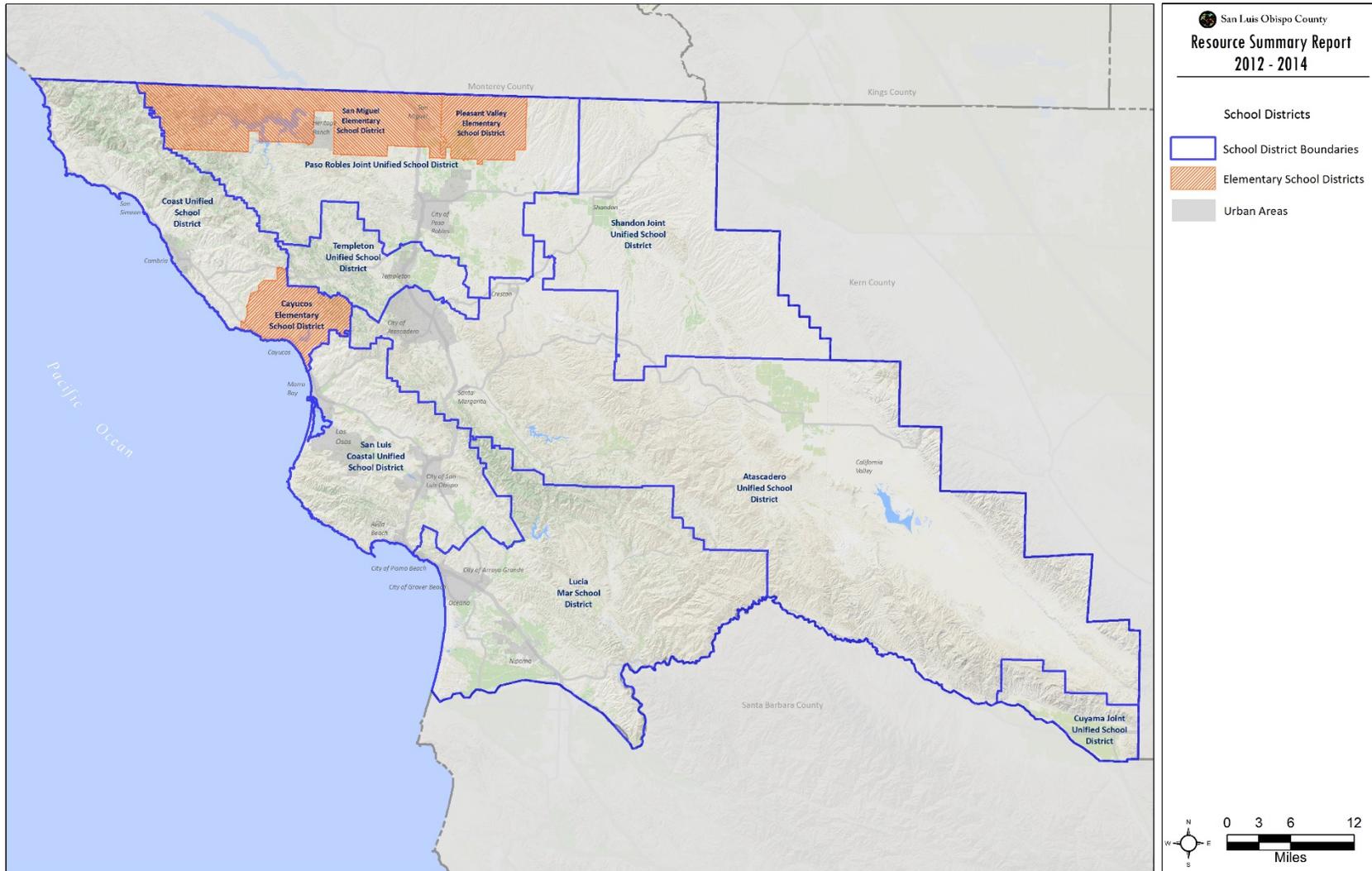
Thus, *capacity* is not based on the ratio of students to teachers, which may be set by contractual arrangements among the various districts, nor does it consider the occupancy load (or design capacity) of the facilities.

Table IV-1 compares 2012-13 and 2013-14 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.

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.

⁷ 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.

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



**Table V-1 – Comparison of School Capacity and Enrollment
For School Years 2012-2013 and 2013-2014**

District	School Level	School Year 2012 - 2013			School Year 2013 - 2014		
		Enrollment	Capacity ¹	Percent of Capacity	Enrollment	Capacity ¹	Percent of Capacity
Atascadero Unified School District	Elem.	2,385	3,133	76%	2,308	3,133	74%
	Middle	816	1,516	54%	933	1,516	62%
	High	1,516	2,112	72%	1,445	2,112	68%
Bellevue-Santa Fe Charter School	K-6	146	210	70%	146	210	70%
Coast Unified School District	Elem.	335	360	93%	332	360	92%
	Middle	173	203	85%	160	203	79%
	High	254	796	32%	247	796	31%
Cayucos Elementary School District	Elem.	217	240	90%	213	240	89%
Grizzly Youth Academy Challenge Program	High	212	250	85%	231	250	92%
Lucia Mar School District	Elem.	5,368	6,143	87%	5,441	5,473	99%
	Middle	1,694	2,156	79%	1,643	2,156	76%
	High	3,503	4,736	74%	3,549	4,836	73%
Paso Robles Joint Unified School District ²	Elem.	2,863	5,700	54%	2,899	5,700	61%
	Middle	1,435	2,584	56%	1,422	2,584	55%
	High	2,117	4,218	54%	2,057	4,218	61%
	Alt. ³	386	370	104%	320	362	88%
Pleasant Valley Joint Union School District	Elem.	126	140	90%	133	175	76%
San Luis Coastal Unified School District	Elem.	3,880	5,625	69%	3,832	5,625	68%
	Middle	1,116	2,091	53%	1,140	2,091	55%
	High	2,406	3,890	62%	1,713	3,890	44%
San Miguel Joint Union School District	K - 8	596	1,330	45%	618	1,260	49%
Shandon Joint Unified School District	Elem.	24	100	24%	19	100	18%
	K-8	213	360	59%	204	360	57%
	High	71	550	13%	55	550	10%
Templeton Unified School District	Elem.	946	1,664	57%	1,036	1,664	62%
	Middle	497	640	78%	532	640	83%
	High	732	1,056	69%	726	1,056	69%

Sources: School Districts

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.

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) and seven years (LOS I). To determine these relationships, enrollment data for the past 10 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. 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, 2014; 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 analysis to the historic enrollment data for each district.

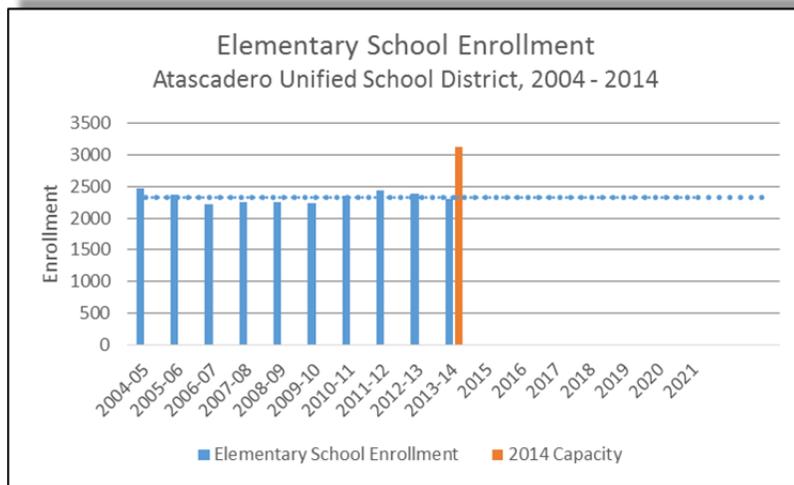
Recommended Levels of Severity are summarized in Table V-2.

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
Coast Unified School District	Elem.	None
	Middle	None
	High	None
Cayucos Elementary School District	Elem.	I
Grizzly Youth Academy Challenge Program	High	II
Lucia Mar School District	Elem.	II
	Middle	II
	High	None
Paso Robles Joint Unified School District	Elem.	None
	Middle	None
	High	None
	Alt.	None
Pleasant Valley Joint Union School District	Elem.	None
San Luis Coastal Unified School District	Elem.	None
	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

Atascadero Unified School District

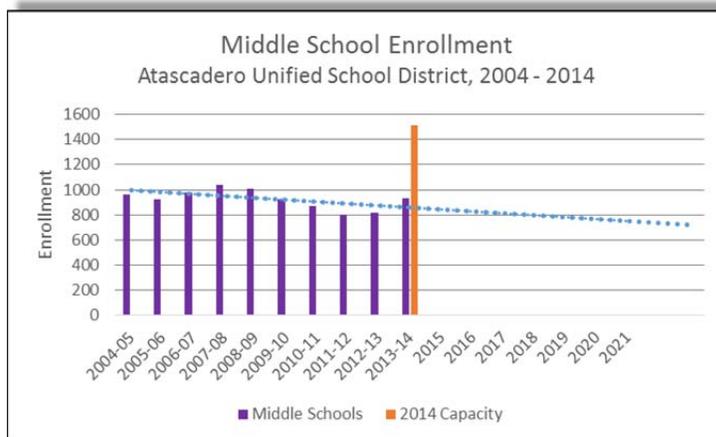
Elementary school enrollment has remained relatively level over the past 10 years, with almost all schools operating below the practical capacity. Although two schools (San Benito Road and San Gabriel Road) are nearing capacity, the overall trend is for enrollment to stay below capacity over the next seven years. No recommended Level of Severity.

School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Elementary School Enrollment	2,464	2,366	2,223	2,246	2,245	2,238	2,352	2,438	2,385	2,308



Overall, middle school enrollment has remained below the practical capacity and the trend should continue for the next seven years or more. No recommended Level of Severity.

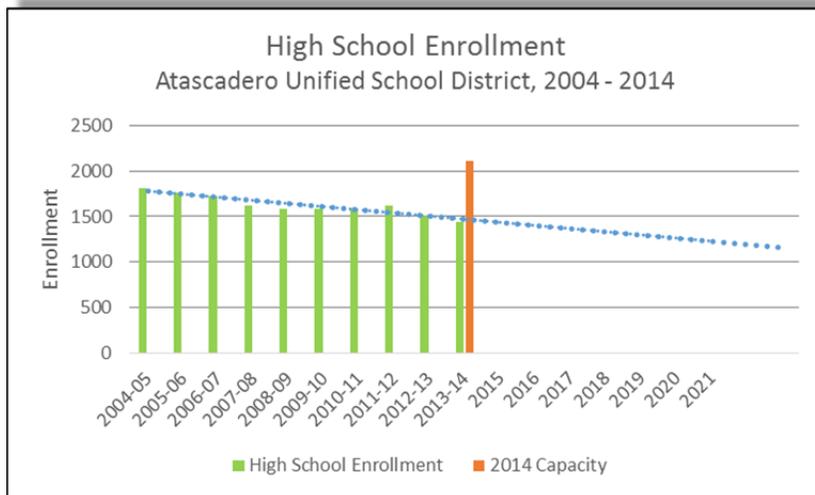
School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Middle School Enrollment	965	925	974	1039	1004	922	866	800	816	933



Over the past 10 years, high school enrollment has declined steadily. Accordingly, both high schools serving the district continue to operate well below the practical capacity and the

downward trend is expected to continue for at least the next seven years. No recommended Level of Severity.

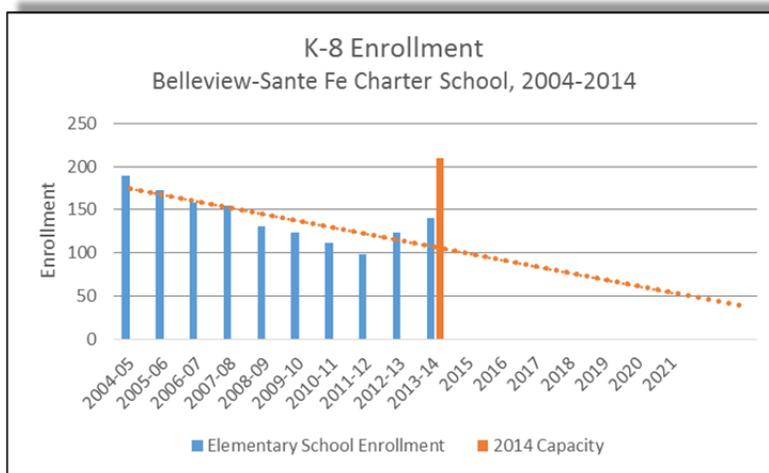
School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
High School Enrollment	1,808	1,769	1,731	1,614	1,582	1,586	1,587	1,617	1,516	1,444



Bellevue-Santa Fe Charter School

Enrollment at Bellevue-Sante Fe Charter School has fluctuated over the past 10 years and the general trend overall has been downward. Enrollment is expected to remain below capacity for the next seven or more years. No recommended Level of Severity.

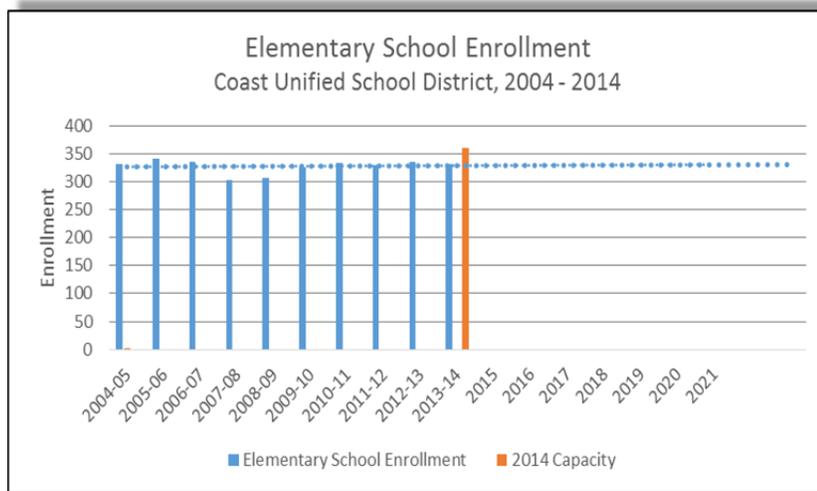
School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
K-8 Enrollment	190	173	158	155	131	123	111	98	123	140



Coast Unified School District

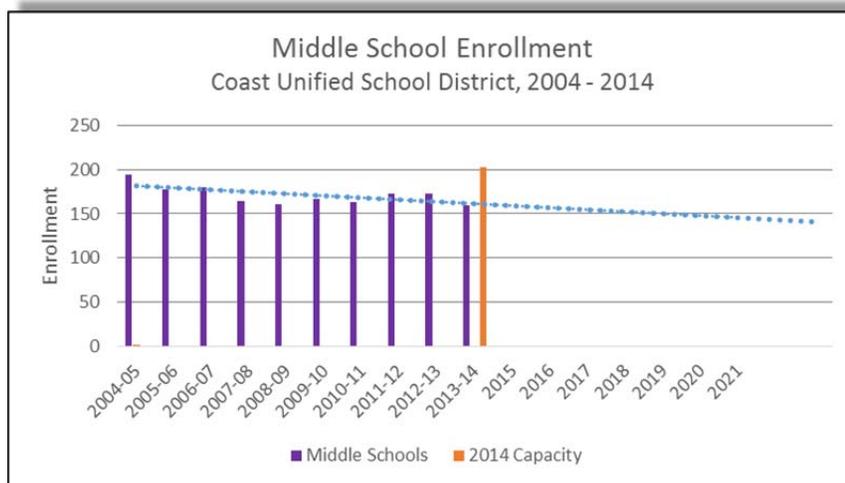
Elementary school enrollment has shown a slight upward trend since the 2007-09 school year; Cambria Grammar School has operated at about 92% over the past two school years. Although the trend is slightly upward, it is projected to continue to operate below the practical capacity for the next seven years. No recommended Level of Severity.

School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Elementary School Enrollment	331	342	336	304	307	326	333	330	335	332



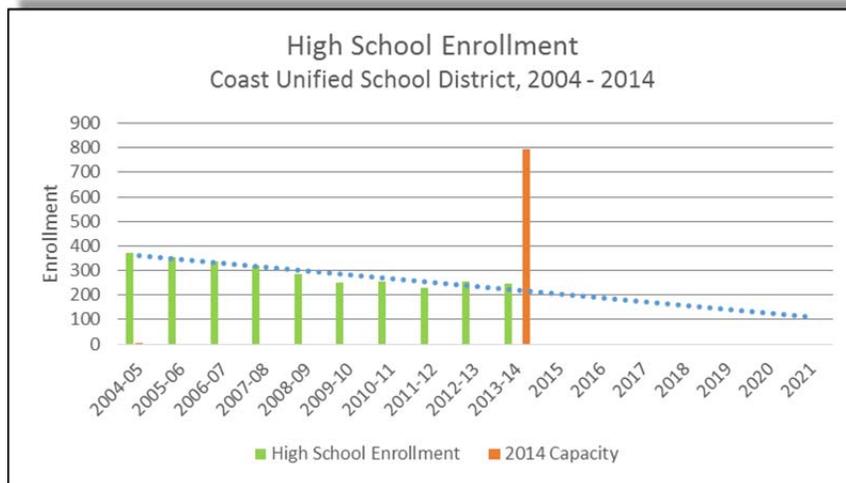
Enrollment at the Santa Lucia Middle school has trended generally downward over the past 10 years and is not expected to reach capacity for the next seven years or more. No recommended Level of Severity.

School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Middle School Enrollment	194	178	180	164	161	167	163	173	173	160



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	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
High School Enrollment	370	356	338	320	287	249	256	231	253	247

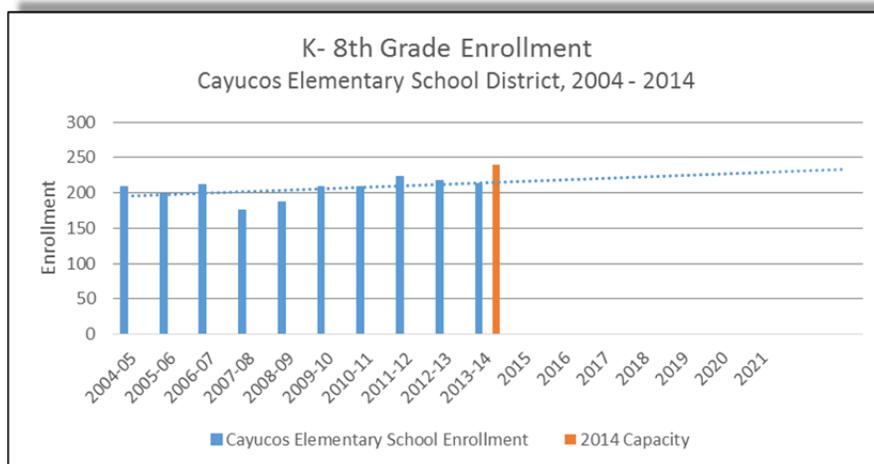


Cayucos Elementary School District

Enrollment at the Cayucos Elementary School has trended generally upward since the 2007-08 school year. If this trend continues, the practical capacity could be reached within seven years.

Recommended Level of Severity I.

School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Elementary School Enrollment	209	198	212	175	187	208	208	223	217	213



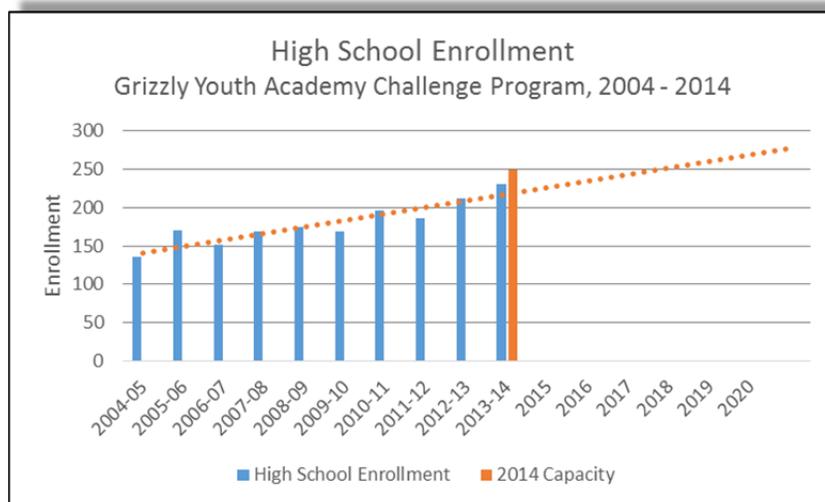
Grizzly Youth Academy Challenge Program

The Grizzly Youth Academy (GYA) provides a structures learning and living environment for students aged 16 to 18 years of age who have either dropped out of high school or are at risk of dropping out. Students must apply to attend the program and capacity is limited by funding provided by the federal and State governments. Accordingly, land use decisions by the County do not directly affect the enrollment or capacity of the program.

Since the 2004-05 school year, enrollment in the GYA has risen steadily. If this trend continues, the current (2014) capacity of the current facilities could be reached in 4 to 5 years.

Recommended Level of Severity II.

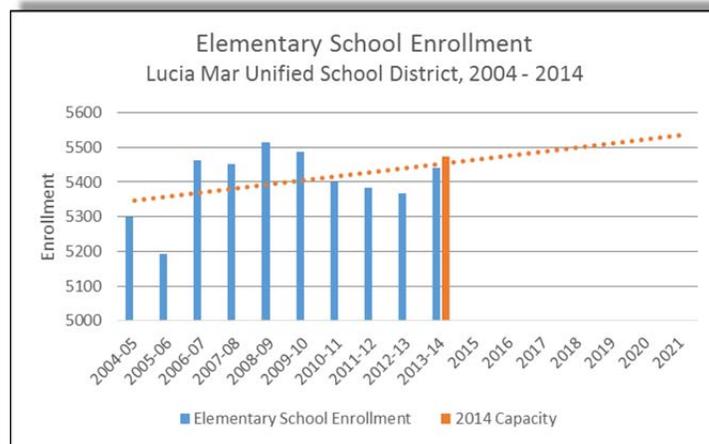
School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
High School Enrollment	135	170	152	169	174	169	196	186	212	231



Lucia Mar School District

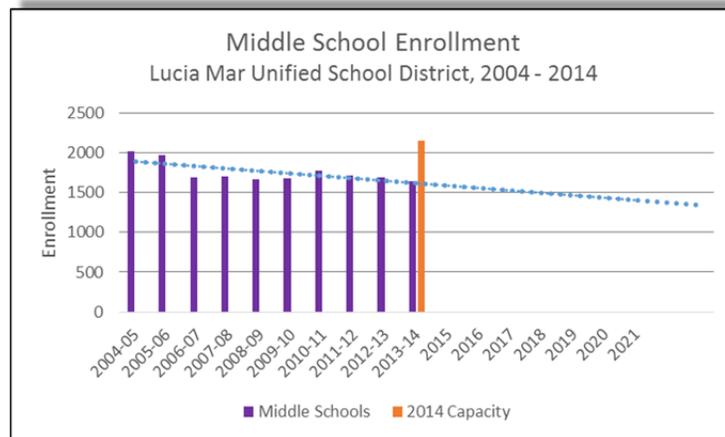
Elementary school enrollment has fluctuated over the past 10 years, but the general trend has been upward. Several elementary schools are nearing capacity in 2014: Dana, (97%), Fairgrove (97%) Grover Heights (92%) Harloe (96%), Ocean View (97%) and Shell Beach (98%). Ocean View and Shell Beach have both added relocatable classrooms for the 2014-15 school year. However, if the upward enrollment trend continues, one or more elementary schools will reach capacity within the next five years. **Recommended Level of Severity II.**

School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Elementary School Enrollment	5,298	5,194	5,464	5,452	5,515	5,487	5,401	5,383	5,368	5,441



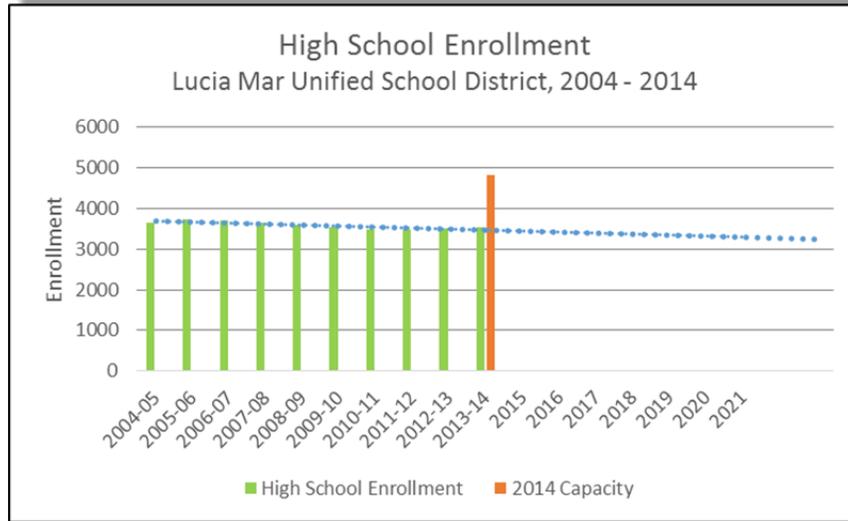
Enrollment in the district’s three middle schools has generally trended downward over the past 10 years. The exception is Paulding Middle school which has been operating at or near capacity for the 2012-13 and 2013-14 school years. **Recommended Level of Severity II.**

School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Middle School Enrollment	2,025	1,969	1,686	1,709	1,665	1,675	1,776	1,718	1,694	1,643



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.

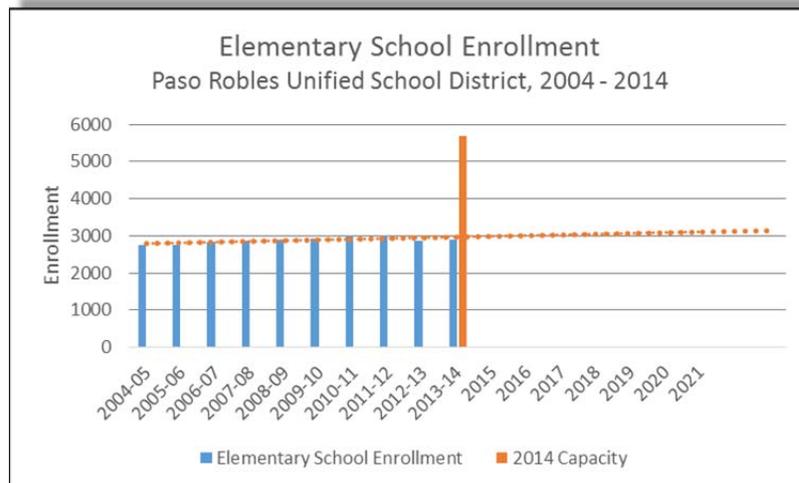
School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
High School Enrollment	3,648	3727	3716	3659	3592	3537	3484	3485	3503	3549



Paso Robles Joint Unified School District

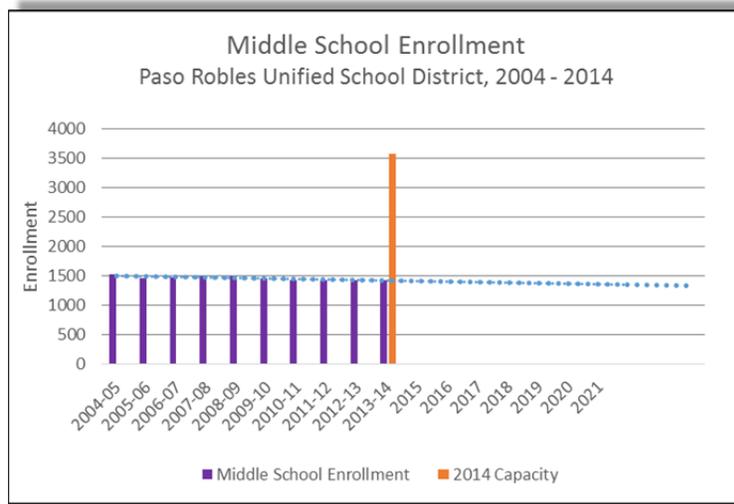
Enrollment in elementary schools has remained fairly stable over the past 10 years and the trend is expected to continue for the next seven or more years. No recommended Level of Severity.

School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Elementary School Enrollment	3,648	3,727	3,716	3,659	3,592	3,537	3,484	3,485	3,503	3,549



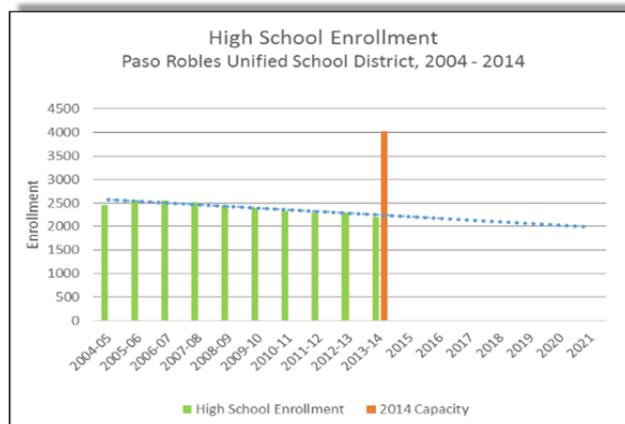
Middle school enrollment has shown a general downward trend in recent years. Enrollment is expected to remain below capacity for the next seven or more years. No recommended Level of Severity.

School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Middle School Enrollment	1,526	1,456	1,477	1,493	1,498	1,468	1,434	1,427	1,435	1,422



The trend for high school enrollment has been generally downward over the past 10 years and is expected to remain so for the next seven years. It should be noted that 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 in Table IV-1 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. No recommended Level of Severity.

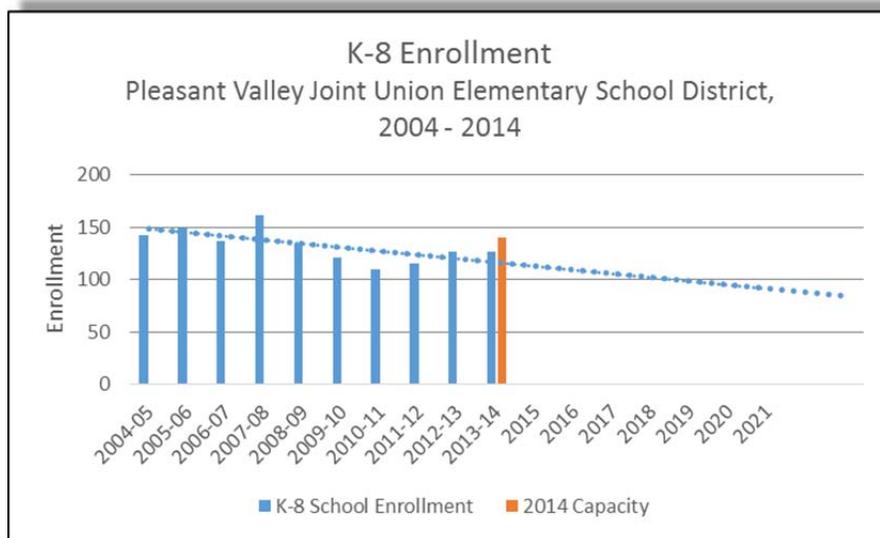
School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Middle School Enrollment	1,526	1,456	1,477	1,493	1,498	1,468	1,434	1,427	1,435	1,422



Pleasant Valley Joint Union School District

Enrollment at Pleasant Valley School has fluctuated considerably over the past 10 years, but has generally increased since the 2010-11 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.

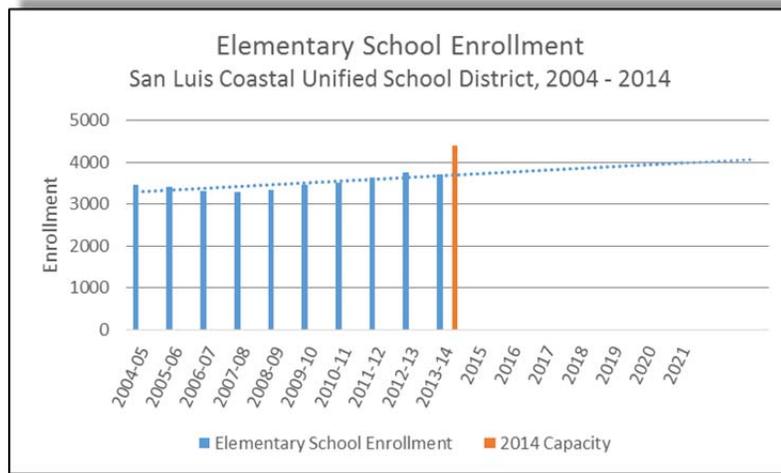
School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
K-8 Enrollment	142	149	137	161	134	121	110	115	126	126



San Luis Coastal Unified School District

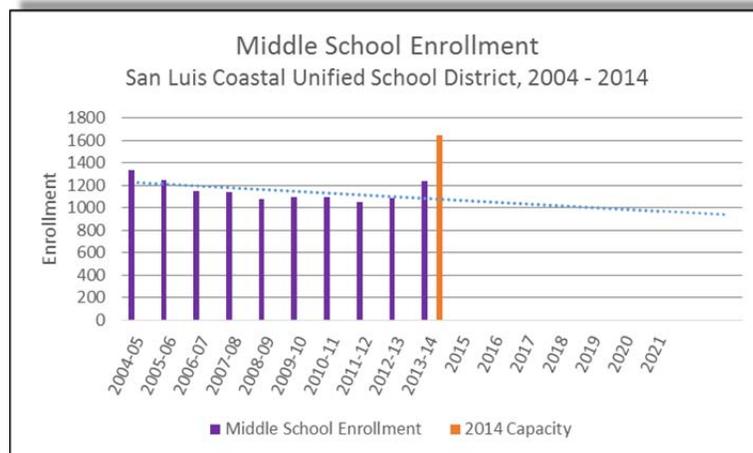
Elementary school enrollment has generally trended upward over the past 10 years but has remained below capacity, except for Bishop Peak School, which is has operated near capacity for the 2012-13 and 2013-14 school years. In calculating the maximum practical capacity, San Luis Coastal includes all rooms 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. No recommended Level of Severity.

School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Elementary School Enrollment	3,461	3,407	3,325	3,283	3,346	3,463	3,519	3,642	3,773	3,703



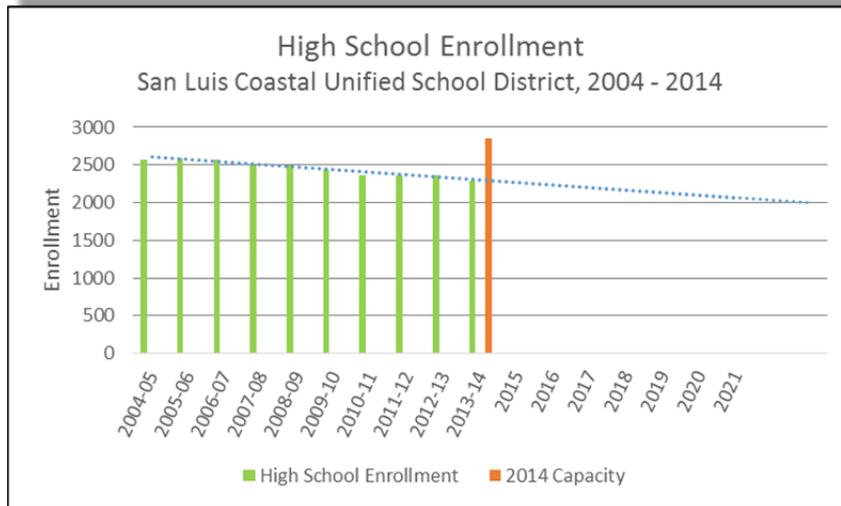
Middle school enrollment has generally trended downward over the past 10 years and is expected to remain below capacity for the next seven or more years. No recommended Level of Severity.

School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Middle School Enrollment	1,334	1,251	1,148	1,137	1,081	1,093	1,093	1,047	1,090	1,239



High school enrollment in the district has generally trended 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.

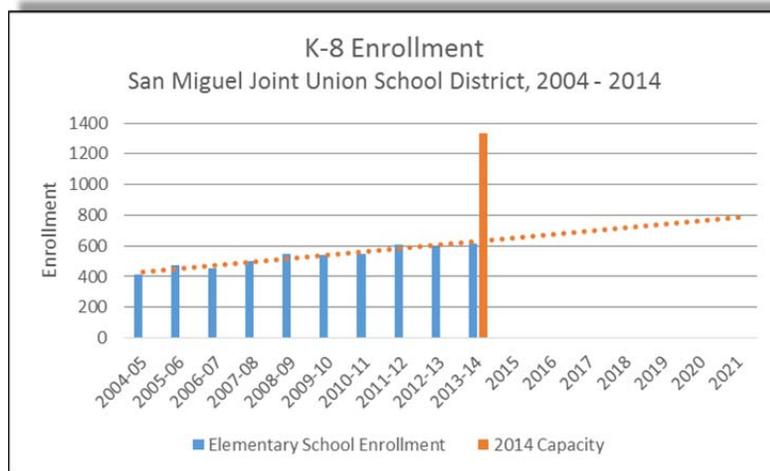
School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
High School Enrollment	2,574	2,580	2,565	2,496	2,492	2,441	2,358	2,359	2,364	2,288



San Miguel Joint Union School District

Enrollment in the district has grown steadily over the past 10 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.

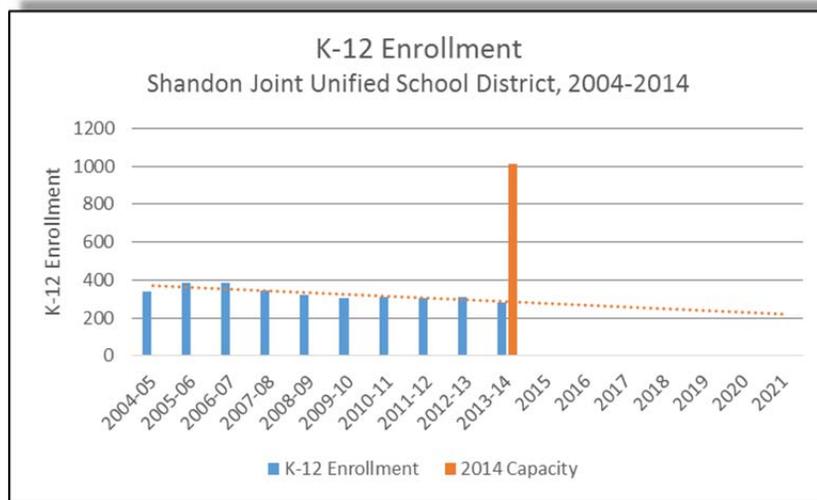
School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
K-8 Enrollment	412	477	454	500	550	543	550	610	596	618



Shandon Joint Unified School District

The California Department of Education aggregates enrollment data for the District for all grades K through 12. These data suggest a general downward 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.

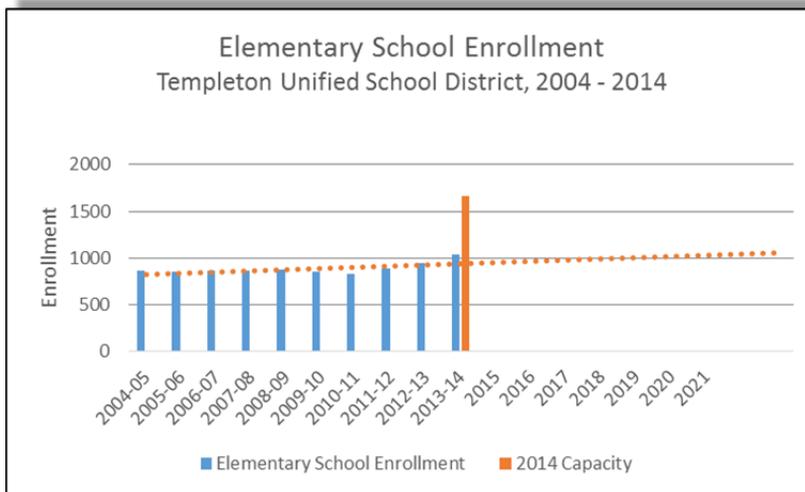
School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
K-12 Enrollment	339	382	384	347	322	304	310	304	308	282



Templeton Unified School District

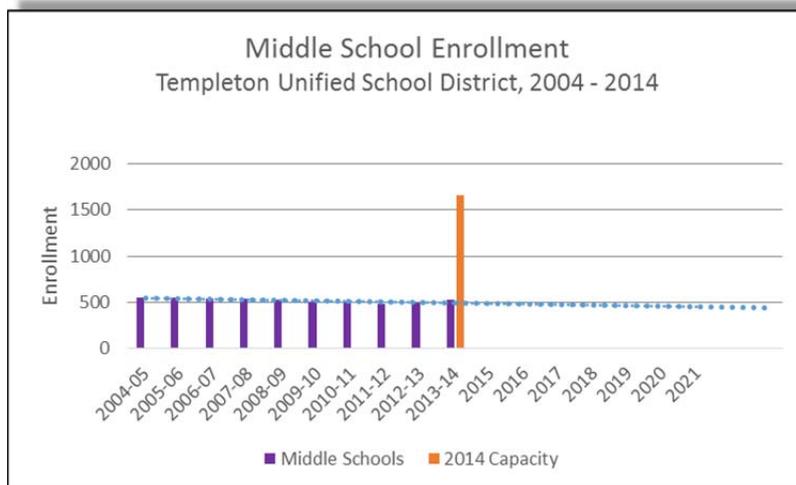
Elementary school enrollment has grown gradually over the past 10 years but remains below the practical capacity of facilities. This is expected to continue for the next seven years or longer. No recommended Level of Severity.

School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Elementary School Enrollment	867	857	865	860	873	856	831	884	944	1036



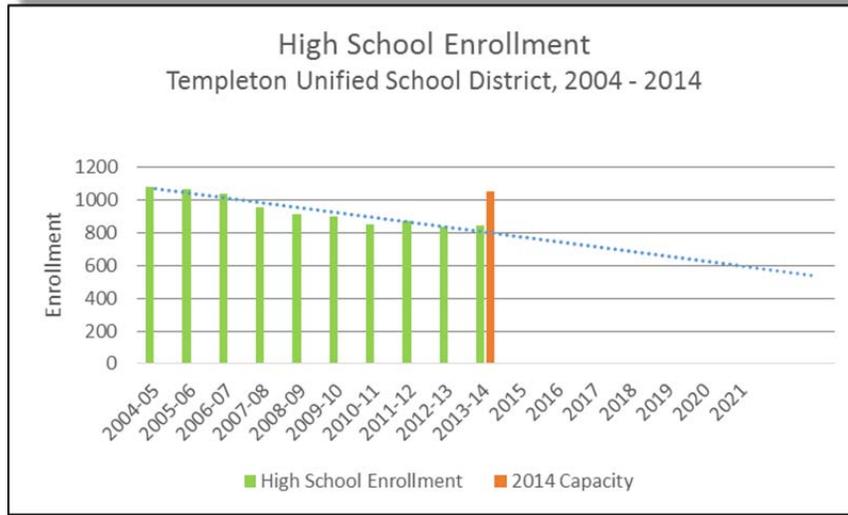
Enrollment at Templeton Middle School has generally declined over the past 10 years and is expected to remain below capacity for the next seven or more years. No recommended Level of Severity.

School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Middle School Enrollment	556	550	541	536	522	501	502	484	497	532



High school enrollment has generally declined in recent years and is expected to remain below capacity for the next seven years or longer. No recommended Level of Severity.

School Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
High School Enrollment	1081	1066	1037	959	915	899	852	875	840	844



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
Cayucos Elementary School District	Elem.	I	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 regularly 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.
Grizzly Youth Academy Challenge Program	High	II	
Lucia Mar School District	Elem.	II	
	Middle	II	
	High	None	

VI. PARKS

Level of Severity Criteria

Level of Severity	Parks Criteria
I	<p>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).</p> <p>Community Parks. An unincorporated community has between 2.0 and 3.0 acres of community parkland per 1,000 persons.</p>
II	<p>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).</p> <p>Community Parks. An unincorporated community has between 1.0 to 2.0 acres of community parkland per 1,000 persons.</p>
III	<p>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).</p> <p>Community Parks. An unincorporated community has 1.0 acre or less of community parkland per 1,000 persons.</p>

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 County Parks Department.

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 need 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
<i>Regional Parks</i>		
Biddle Park	Arroyo Grande	47
El Chorro Park	San Luis Obispo	490
Heilmann Park	Atascadero	102
Lopez Lake Recreation Area	Arroyo Grande	4,276
Santa Margarita Lake Park	Santa Margarita	7,122
Total Regional Parks:		12,037
<i>Community Parks</i>		
Avila Park/Plaza	Avila	2.5
C. W. Clarke Park	Shandon	11.5
Hardie Park	Cayucos	4.0
Lampton Cliffs Park	Cambria	2.2
Los Osos Community Park	Los Osos	6.2
Nipomo Community Park	Nipomo	154
Norma Rose Park	Cayucos	1.5
Oceano Memorial Park	Oceano	11.8
Paul Andrew Park	Cayucos	1.0
San Miguel Park	San Miguel	4.3
Santa Margarita Community Park	Santa Margarita	2.0
Shamel Park	Cambria	6.0
Templeton Park	Templeton	3.5
Total Community Parks:		210.5
Total Park Acreage:		12,247.5

Source: San Luis Obispo County General Plan Parks and Recreation Element

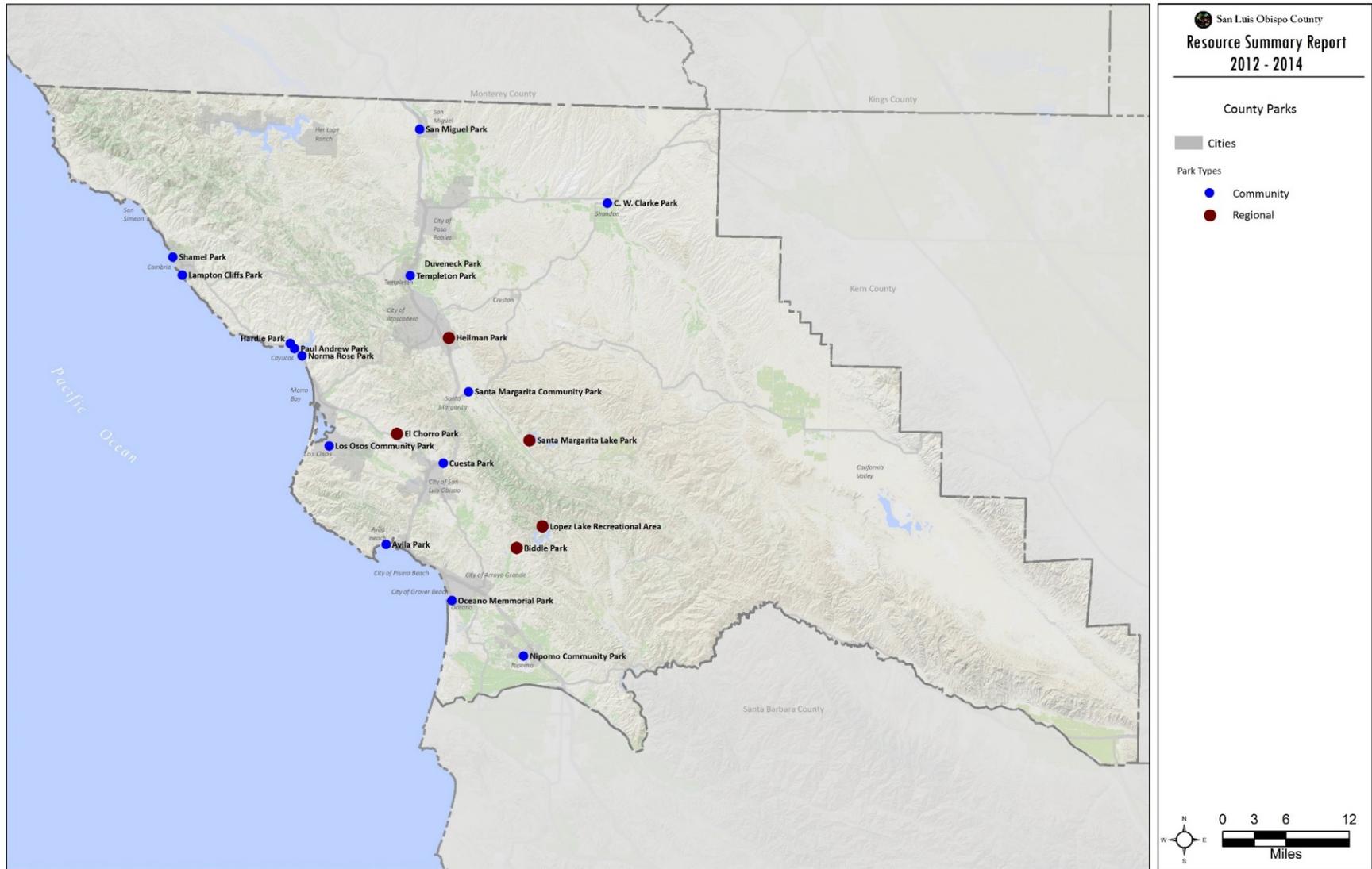
Notes:

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.

Table VI-2 – Other County Park Land		
Park Type	Location	Total Park Acres ¹
<i>Regional Parks</i>		
Duveneck Park (undeveloped)	Templeton	80.0
<i>Community Parks</i>		
Cuesta Park	San Luis Obispo	5.0
Jack Ready Park (undeveloped)	Nipomo	30.0
See Canyon Park (undeveloped)	Avila Valley	8.7
Total Additional Park Acreage:		123.7

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 2014 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	2014 Total County Population	Ratio of Regional Park Acreage Per 1,000 Population	Recommended Level of Severity
12,037	272,859	44.1	None

Source: San Luis Obispo County General Plan Parks and Recreation Element

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 2014 to reflect the 2014 population. The total park acreage within the particular unincorporated community was then divided by this population 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 one acre of developed parkland per 1,000 residents. Nipomo and Shandon provide more than three acres per 1,000.

Figure VI - 2 - Five-Mile Service Areas Around Community Parks

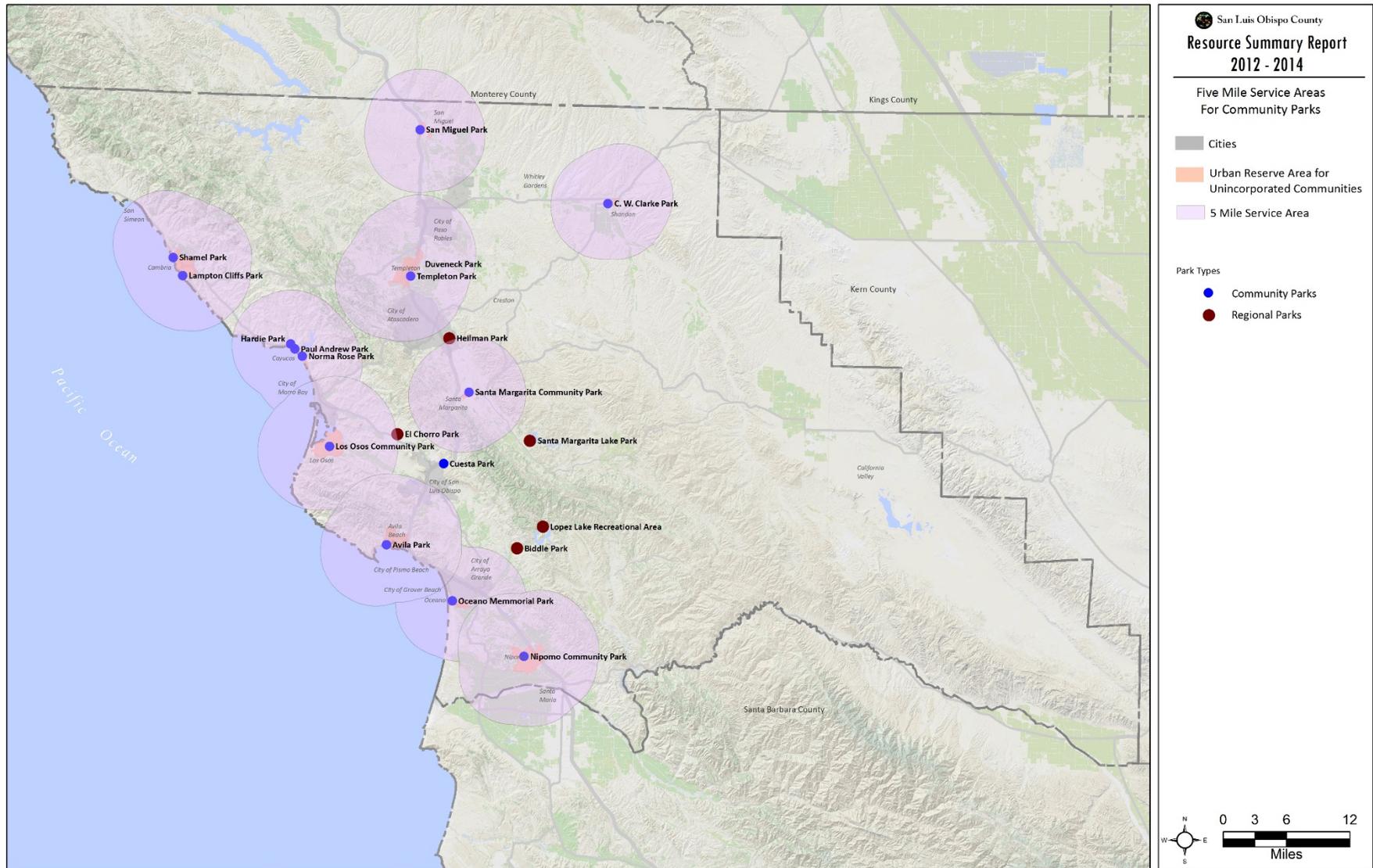


Table VI-4 -- Recommended Levels of Severity for Community Parks				
Community	Total Community Parkland ¹	Total Population Within 5 Miles of Community URLs ²	Acres of Community Parkland Per 1,000 Population	Recommended Level of Severity
Avila	2.5	22,462	0.11	III
Cambria	8.2	6,786	1.21	II
Cayucos	6.5	3,519	1.85	II
Los Osos	6.2	25,257	0.25	III
Nipomo	154.0	28,812	5.34	None
Oceano	11.8	42,506	0.28	III
San Miguel	4.3	4,440	0.97	III
Santa Margarita	2.0	9,806	0.20	III
Shandon	11.5	1,546	7.44	None
Templeton	3.5	61,909	0.06	III
Overall:	210.5	207,042	1.02	II

Sources: San Luis Obispo County General Plan Parks and Recreation Element, 2010 US Census of Population and Housing, SLOCOG

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) fees.
Cambria	II	
Cayucos	II	
Los Osos	III	
Oceano	III	Collaborate with County Parks to review the Parks and Recreation Project List in the Parks and Recreation Element and make recommendations to the Board of Supervisors 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: c. Provide an updated inventory of existing parkland in the affected unincorporated community. d. Document existing shortfalls in park acreage.
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 such environmental hazards as air pollution. The County 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 General Plan Amendments and 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

California and the US EPA have adopted ambient air quality standards for six common air pollutants of primary public health concern: ozone, particulate matter (PM₁₀ and PM_{2.5}), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), 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.

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 most pollutants, the NAAQS 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 2012-14?	Attainment Status California CAAQS	Attainment Status Federal/US NAAQS
Ozone	Yes	Non-Attainment	Non-Attainment East County Attainment West County
PM2.5	Yes	Pending Non-Attainment	Unclassified/Attainment
PM10	Yes	Non-Attainment	Unclassified/Attainment
SO ₂	Yes	Attainment	Unclassified
NO ₂	No	Attainment	Unclassified
CO	No	Attainment	Unclassified
Lead	No	Attainment	No Attainment Information

Source: SLO APCD

Recommended Levels of Severity

Each criteria pollutant and recommended level of severity is summarized on the following table and discussed in detail below.

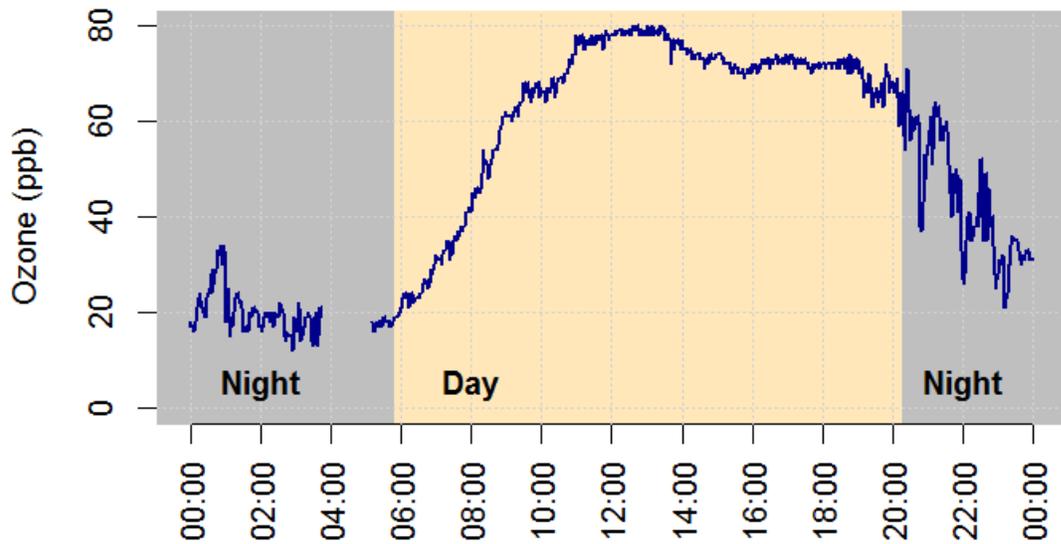
Table VII-2 -- Recommended Levels of Severity for Air Quality		
Criteria Pollutant	Area of County	Recommended Levels of Severity
Ozone	East County	III
	West County	II
Particulate Matter – PM _{2.5}	Nipomo Mesa	III
	All Other Areas	II
Particulate Matter – PM ₁₀	Nipomo Mesa	III
	All Other Areas	II
Sulfur Dioxide	Nipomo Mesa	I
Nitrogen Dioxide, Carbon Monoxide, Lead	All Areas	None
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.

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.

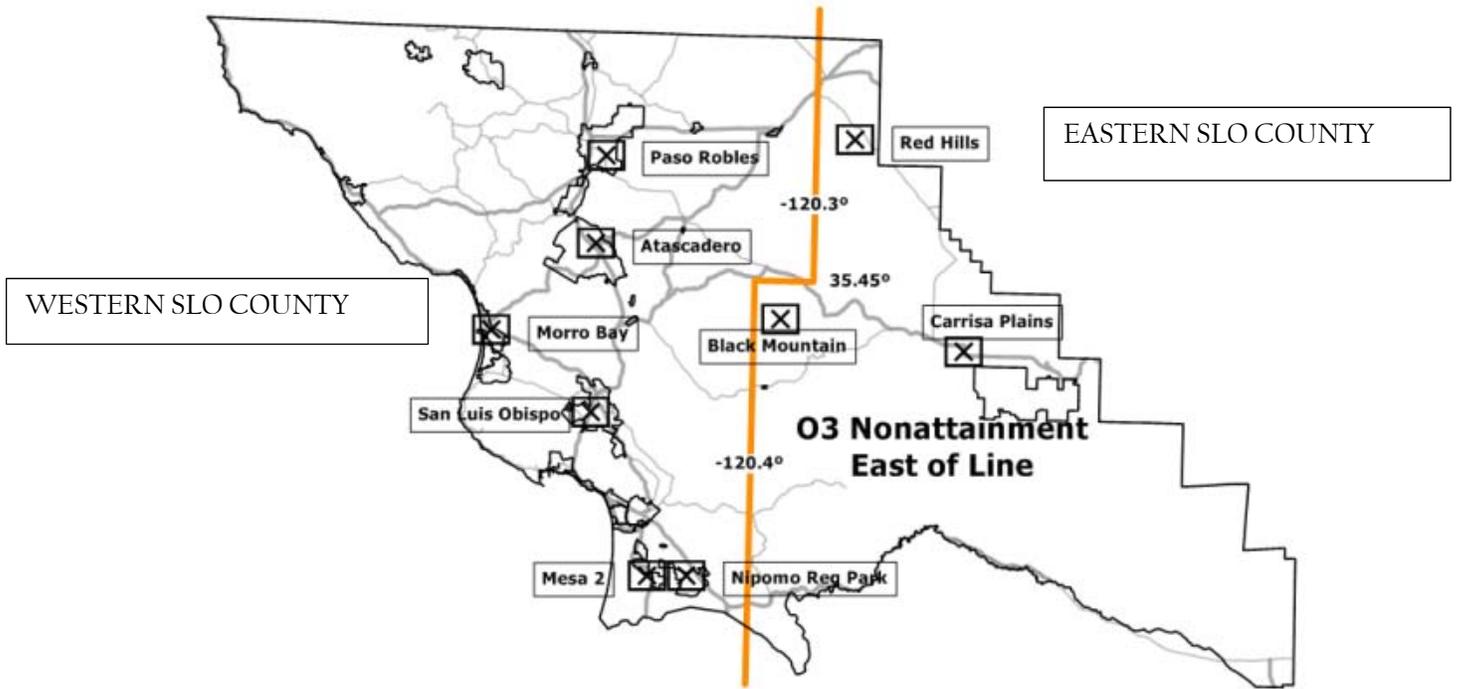
Hourly Ozone at Carrizo Plains, June 7, 2013



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 EPA designated the eastern portion of SLO County as non-attainment for the 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.).



Exceedances of the 8-hour ozone standard for the past ten years are summarized in the following tables:

East County Ozone Non-Attainment Area Ozone Standard Exceedances (above Federal 8-hour standard, 75 ppb)										
Location	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Carrizo Plains	NA	35	9	22	3	4	5	3	0	0 ⁽²⁾
Red Hills	27	44	16	39	7	16	3	10	3	0 ⁽²⁾

Source: San Luis Obispo APCD

Notes:

1. NA – Not operational
2. January – Sept preliminary data
3. Data are based on calendar year, not fiscal year.

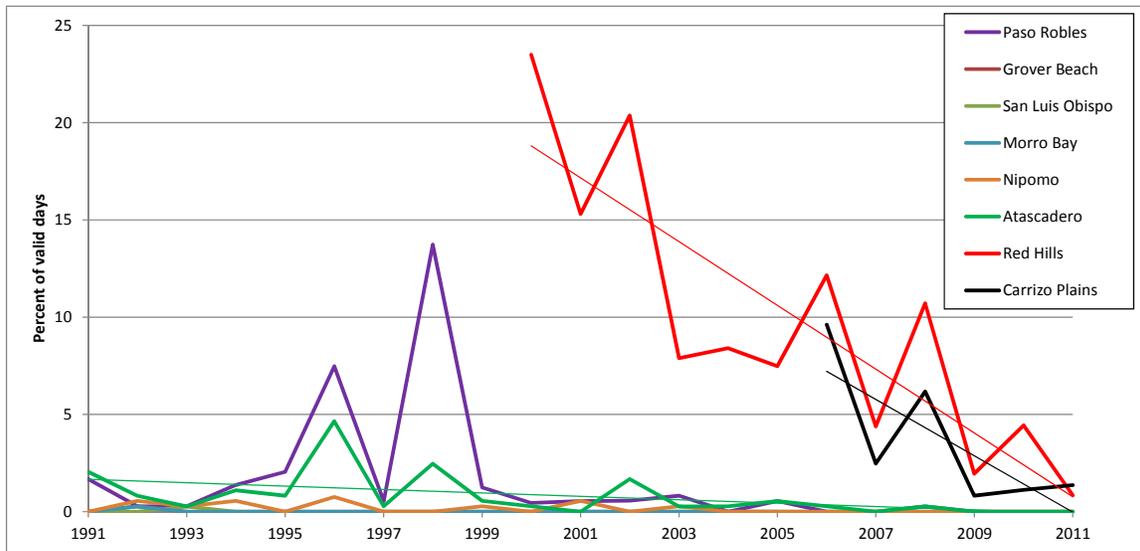
West County Ozone Attainment Area Ozone Standard Exceedances (above Federal 8-hour standard, 75 ppb)										
Location	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Paso Robles	2	0	0	0	0	0	0	0	0	0 ⁽²⁾
Atascadero	2	1	0	1	0	0	0	0	0	0 ⁽²⁾
Morro Bay	0	0	0	1	0	0	0	0	0	0 ⁽²⁾
San Luis Obispo	0	0	0	1	0	0	0	0	0	0 ⁽²⁾
Nipomo - NRP	0	0	0	0	0	0	0	0	0	1 ⁽²⁾

Source: San Luis Obispo APCD

Notes:

1. NA – Not operational
2. January – Sept preliminary data
3. Data are based on calendar year, not fiscal year.

20 Year Trend – Exceedances of Federal 8HR Ozone Standard



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 20 year trend plot above shows a significant improvement in air quality in the non-attainment area (East SLO County, Red Hills and Carrizo Plains). The improvement is demonstrated as a decrease in ozone standard exceedances.

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: PM₁₀ (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 open 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.

PM_{2.5}

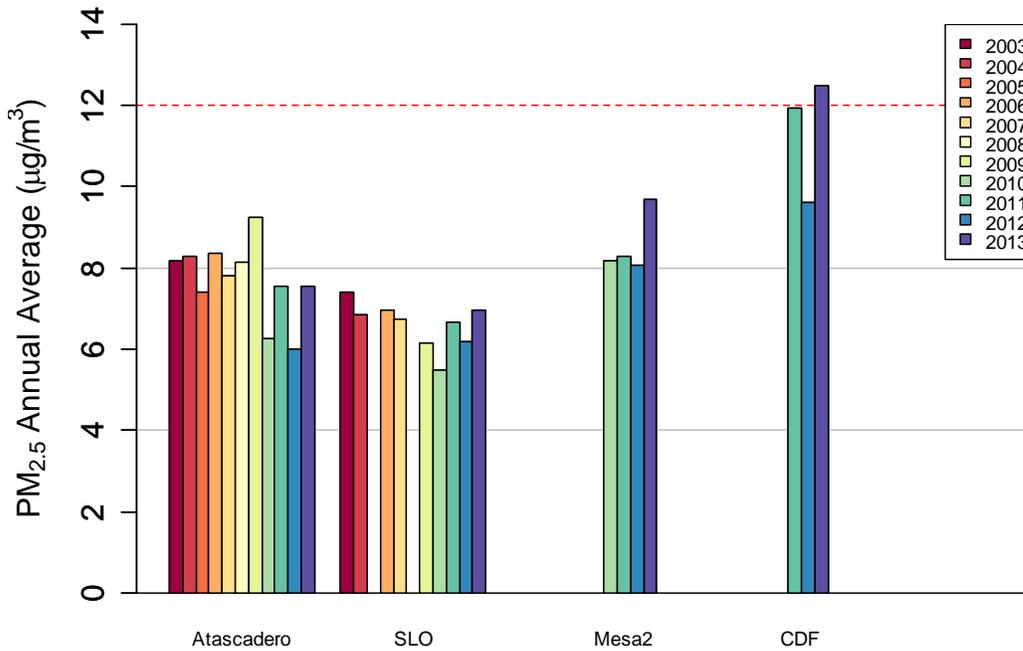
PM _{2.5} Exceedances (above Federal 24-hour standard)										
Location	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Atascadero	0 ⁽³⁾	0 ⁽³⁾	0 ⁽³⁾	0 ⁽³⁾	2 ⁽³⁾	0	0	0	0	0 ⁽²⁾
San Luis Obispo	0 ⁽³⁾	0	0	0 ⁽²⁾						
Nipomo/AG – CDF ⁽⁴⁾	NA	NA	NA	NA	NA	NA	0	3	2	2 ⁽²⁾
Nipomo Mesa 2	0 ⁽³⁾	0	0	1	0	0 ⁽²⁾				

Source: San Luis Obispo APCD

Notes:

1. NA – Not operational
2. January – Sept preliminary data
3. 1 in 6 day sampling for all or part of year, one 24-hour filter sample was obtained every 6 days. Sampling during 2012-2014 was made hourly on all days. Data are based on calendar year, not fiscal year.
4. 2391 Willow Road, Arroyo Grande NA – Not operational

Trends in PM_{2.5} Annual Average



Note: PM_{2.5} Federal and State Annual Standard is 12 µg/m³

PM₁₀

PM ₁₀ Exceedances (above Federal 24-hour standard, 150 µg/m ³)										
Location	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Atascadero	0 ⁽³⁾	0	0	0	0 ⁽²⁾					
Paso Robles	0 ⁽³⁾	0	0	0	0	0 ⁽²⁾				
San Luis Obispo	0 ⁽³⁾	0	0	0 ⁽²⁾						
Nipomo/AG - CDF	NA	NA	NA	NA	NA	1	0	3	2	2 ⁽²⁾
Nipomo - Mesa 2	0 ⁽³⁾	0	0	0	0	0 ⁽²⁾				
Nipomo - NRP	0 ⁽³⁾	0	0	0	0 ⁽²⁾					

Source: San Luis Obispo APCD

Notes:

1. NA – Not operational
2. January – Sept preliminary data
3. 1 in 6 day sampling for all or part of year, one 24-hour filter sample was obtained every 6 days. Sampling during 2012-2014 was made hourly on all days. Data are based on calendar year, not fiscal year.
4. 2391 Willow Road, Arroyo Grande NA – Not operational

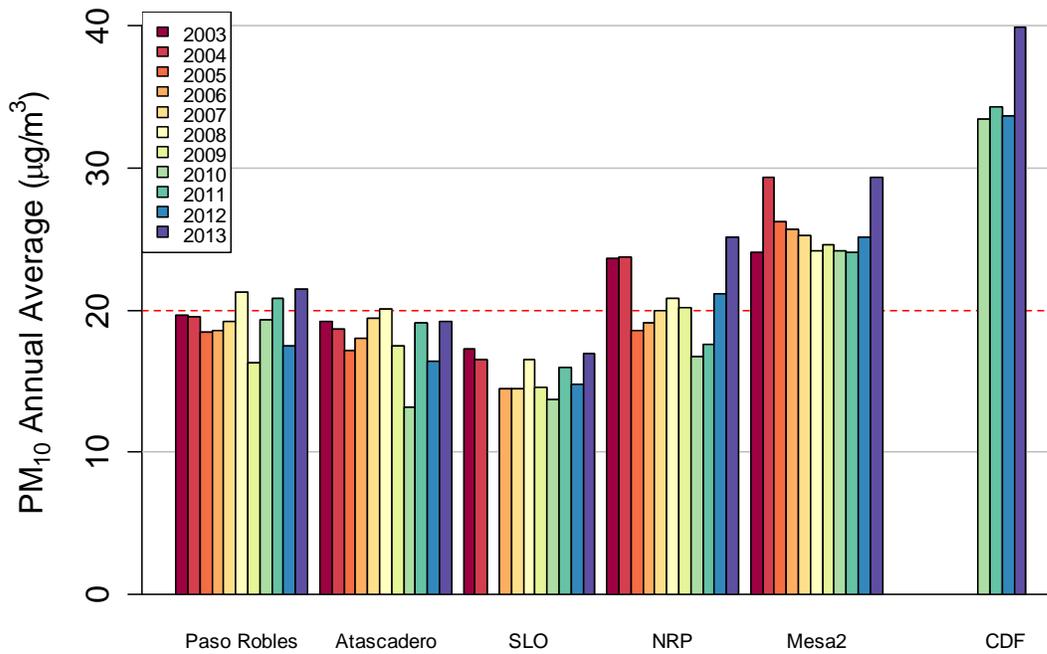
PM ₁₀ Exceedances (above CA 24-hour standard, 50 ug/m3)										
Location	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Atascadero	0 ⁽³⁾	1 ⁽³⁾	0 ⁽³⁾	0 ⁽³⁾	0 ⁽³⁾	0 ⁽³⁾	2	2	2	5 ⁽²⁾
Paso Robles	0 ⁽³⁾	2 ⁽³⁾	0 ⁽³⁾	1 ⁽³⁾	2 ⁽³⁾	0	2	2	2	12 ⁽²⁾
San Luis Obispo	0 ⁽³⁾	1 ⁽³⁾	0 ⁽³⁾	0 ⁽³⁾	0 ⁽³⁾	0 ⁽³⁾	2 ⁽³⁾	1	1	0 ⁽²⁾
Nipomo/AG - CDF*	NA	NA	NA	NA	NA	53	63	70	93	68 ⁽²⁾
Nipomo - Mesa 2	1 ⁽³⁾	5 ⁽³⁾	7 ⁽³⁾	5 ⁽³⁾	17 ⁽³⁾	40	32	36	55	35 ⁽²⁾
Nipomo - NRP	0 ⁽³⁾	1 ⁽³⁾	2 ⁽³⁾	1 ⁽³⁾	2 ⁽³⁾	0 ⁽³⁾	3	9	20	9 ⁽²⁾

Source: San Luis Obispo APCD

Notes:

1. NA – Not operational
2. January – Sept preliminary data
3. 1 in 6 day sampling for all or part of year, one 24 hour filter sample was obtained every 6 days Sampling during 2012-2014 is made hourly on all days Data are based on calendar year, not fiscal year.
4. 2391 Willow Road, Arroyo Grande NA – Not operational

Trends in PM₁₀ Annual Average



Note: PM₁₀ State Annual Standard is 20 ug/m3 (there is no Federal Annual Standard for PM₁₀)

Particulate Matter Studies

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. On November 16, 2011, the APCD Board approved the Coastal Dunes Dust Control Rule 1001 to require implementation of dust control measures on coastal dunes where vehicle activity occurs. As of October 2014, as shown in the plots and data tables, ambient PM concentrations on the Nipomo Mesa have not been reduced as a result of Rule 1001. Therefore, the Level of Severity will remain at Level III for both PM_{2.5} and PM₁₀ until mitigation measures are implemented that reduce ambient concentration to levels that meet health standards.

Recommended Level of Severity for PM₁₀ and PM_{2.5}, Nipomo Mesa -- Level of Severity III

The level of severity for PM₁₀ and PM_{2.5} in the Nipomo Mesa of SLO County is considered LOS III because SLO County:

- is currently designated as non-attainment of the State PM₁₀ standard;
- is designated attainment of the Federal PM standards, but exceed these standards on a number of days in the last three years; and,
- is scheduled to be designated as non-attainment of the State annual PM_{2.5} standard because the annual standard of 12 ug/m³ was exceeded in 2013. This designation to non-attainment should be finalized by mid-2015.

Mitigation measures to address PM issues on the Nipomo Mesa are outlined in APCD's Particulate Matter Reduction Plan.

Recommended Level of Severity for PM₁₀ 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 the Federal PM_{2.5} standard has been exceeded in Atascadero. Federal PM_{2.5} standards can be exceeded during winter stagnant periods and during periods of wildfire smoke impacts.

The LOS for PM₁₀ 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 PM₁₀ standard and the standard has been exceeded at all county PM₁₀ monitoring stations.

Sulfur Dioxide

Sulfur dioxide (SO₂) 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. SO₂ may also be emitted by petroleum production and refining operations. The State standard for SO₂ 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 SO₂ standard had never been measured in SLO County until the Federal 1-Hour SO₂ 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 SO₂ in SLO County is considered LOS I for the Nipomo Mesa due to exceedance of the federal SO₂ standard in 2013.

No LOS is recommended for the remainder of SLO County because the state and national standards for SO₂ have never been exceeded.

Nitrogen Dioxide, Carbon Monoxide and Lead

Nitrogen dioxide (NO₂) 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 NO₂ in SLO County because the State and national standards for NO₂ 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.

Toxics

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 Environmental Protection Agency 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, EPA 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.

Summary of Recommended Levels of Severity and Recommended Actions for Air Quality

Table VII-3 – Summary of Recommended Levels of Severity and Recommended Actions for Air Quality			
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	CEQA Handbook, Particulate Matter Reduction Plan	Support APCD's Enforcement of Particulate Matter Reduction Plan
PM10	III, Nipomo Mesa II, Elsewhere	CEQA Handbook, Particulate Matter Reduction Plan	Support APCD's Enforcement of Particulate Matter Reduction Plan
SO₂	I, Nipomo Mesa	Federal Consent Decree	Support APCD's Enforcement of the Federal Consent Decree.
NO₂	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. APPENDICES

References

Atascadero Unified School District. 2014

Bellevue-Santa Fe Charter School. 2014

California Department of Education. 2014; <http://www.cde.ca.gov/ds/sd/sd/>

California Department of Water Resources. 2014. Central Coast Regional Water Quality Control Board 2014

_____. 2002. *Bulletin 118*

_____. 1997. *Bulletin 118*

_____. 2007. *The State Water Project Delivery Reliability Report*

http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCAQFjAA&url=http%3A%2F%2Fbaydeltaoffice.water.ca.gov%2Fswpreliability%2FFinal_DRR_2007_011309.pdf&ei=9sumVluzJ86RyAS9mYKYAw&usg=AFQjCNFK8L-yFn8F6cyEP5zieKCwyqFcGg

Cambria CSD. 2008. *Water Master Plan EIR*

Cleath, T. S. 1986. *Ground water availability, Pico Creek ground water basin: Report to San Simeon Acres Community Services*

Coast Unified School District. 2014

Cayucos Elementary School District. 2014

Fugro West, and Cleath and Associates. August 2002. *Paso Robles Groundwater Basin Study (Phase I): prepared for the County of San Luis Obispo Public Works Department.*

Grizzly Youth Academy Challenge Program. 2014

Hopkins Groundwater Consultants. June 2006. *Preliminary Hydrogeological Study, Santa Margarita Ranch Agricultural Residential Cluster Subdivision (Tentative Tract 2586), Water Supply Study, San Luis Obispo, California: prepared for Rincon Consultants.*

Interlocutory Stipulated Judgment Working Group. 2010

_____. 2013. *Basin Plan for the Los Osos Groundwater Basin, Public Review Draft*

<http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCAQFjAA&url=http%3A%2F%2Fwww.slocountywater.org%2Fsite%2FWater%2520Resources%2F>

[2FReports%2Fpdf%2FBasin%2520Plan%2520Public%2520Review%2520Draft%25208.1.2013.pdf&ei=bs6mVJKRL4eQyASZpIHwDA&usg=AFQjCNGRMB9RhBMxcJ3c2j3iML8kHCpVdw](http://www.slocounty.ca.gov/Assets/FPLFRMS/2010-2012%20RMS.pdf)

Lucia Mar School District. 2014

Nipomo Community Services District. 2014

Paso Robles Joint Unified School District. 2014

Pleasant Valley Joint Union School District. 2014

San Luis Coastal Unified School District. 2014

San Luis Obispo Air Pollution Control District. 2014

San Luis Obispo County Planning and Building Department. March 2013. *2010-2012 Resource Summary Report*

http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CCYQFjAB&url=http%3A%2F%2Fwww.slocounty.ca.gov%2FAssets%2FPL%2FRMS%2F2010-2012_RMS.pdf&ei=pPFcVLuLE4aoyAS-94LADQ&usg=AFQjCNHTq159TjT_IGIHDJgF_9nCqi3OMg

_____. 2006. *General Plan Parks and Recreation Element*

http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCAQFjAA&url=http%3A%2F%2Fwww.slocounty.ca.gov%2FAssets%2FPL%2FElements%2FParks%2B&ei=EfdcVMiuJs2pyATJsoFI&usg=AFQjCNGIHjSId_SXALx0-n3yUZu71pz3Dg

_____. Building Permit Data, 2000 - 2013

_____. Parks Department, 2014

_____. Public Works Department, 2014

San Luis Obispo Council of Governments. 2014

_____. 2014. *2014 Regional Transportation Plan – Sustainable Communities Strategy*

San Miguel Joint Union School District. 2014

Shandon Joint Unified School District. 2014

Templeton Unified School District. 2014

Todd Engineers. October 2004. *Technical Memorandum, Groundwater Resources of CSA 23 – Santa Margarita: prepared for San Luis Obispo County Department of Public Works.*

_____ 2007. *Update for the Paso Robles Groundwater Basin*

_____ June 2009. *Evaluation of Paso Robles Groundwater Basin Pumping, Water Year 2006, prepared for the City of Paso Robles and San Luis Obispo County Department of Public Works.*

US Census of Population and Housing, 2010; <https://www.census.gov/geo/maps-data/data/tiger-data.html>

GIS Data

SLO DataFinder, 2014; <http://lib.calpoly.edu/gis/browse.jsp>

United States Geological Survey, National Map, 2014; <http://viewer.nationalmap.gov/viewer/>

Terms and Acronyms

AFY	Acre Feet per Year; an acre-foot contains 325,851.429 gallons
BRP	Buildout Reduction Program
BMP	Best Management Practices
CIP	Capital Improvement Program/Capital Improvement Project
CAWO	Cayucos Area Water Organization
CCD	Cayucos Cemetery District
CDP	Coastal Development Permit
CSD	Community Services District
CSA	County Service Area
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
ISJ	Interlocutory Stipulated Judgment
LAFCo	Local Agency Formation Commission
LOS	Levels of Severity
LOWWP	Los Osos Wastewater Project
MCWRA	Monterey County Water Resources Agency
MGD	Million gallons per day
MRMWC	Morro Rock Mutual Water Company
NWP	Nacimiento Water Project
NMMA	Nipomo Mesa Management Area of the Santa Maria Valley Groundwater Basin
NCMA	Northern Cities Management Area of the Santa Maria Valley Groundwater Basin

NWC	Nacimiento Water Company
PRBWA	Paso Robles Beach Water Association
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.
SSLOCSD	South San Luis Obispo County Sanitation District
SMVMA	Santa Maria Valley Management Area of the Santa Maria Valley Groundwater Basin
SMMWC	San Miguelito Mutual Water Company
SMVGB	Santa Maria Valley Groundwater Basin
SWRCB	State Water Resources Control Board
SLOCOG	San Luis Obispo Council of Governments
SWP	State Water Project
URL	Urban Reserve Line
WMP	Water Master Plan
WMWC	Woodlands Mutual Water Company
WRAC	Water Resource Advisory Committee
WWTP	Wastewater treatment plant

Water Rates and Rate Structure

Water Rates and Rate Structure				
Water Purveyors	Approx. Population Served (2014)	Average Annual Single-Family Residence Water Use (AFY)	2013-2014 Water Rate Structure ¹	2013-2014 Average Single Family Residence Water Bill ²
Avila CSD	450	1.14 AFY	Flat rate by volume	\$39.50 per month
Avila Valley Mutual Water Co	112	1.0 AFY	Three tiers	\$200 per 2 mo. billing cycle
San Miguelito Mutual Water Co.	1,200	1.46 AFY	Tiered	\$68.08
Cambria CSD	6,031	0.1 AFY	Tiered	\$66.88 for 2 mo. billing cycle
CSA 10A	2,185	0.02 AFY	Tiered	\$132.84 for 2 mo. billing cycle
Morro Rock Mutual Water Co.			\$48.00 per month, plus \$7.17 per 1,000 gallons used	
Paso Robles Beach Water Assoc.			\$33.00 per month plus \$7.40 per 1,000 gallons used	
Golden State Water Co. – Edna Valley	1,960	0.41 AFY	Tiered	\$269.94 for 2 mo. billing cycle
Heritage Ranch CSD	3,500	0.27 AFY	Tiered	\$42.81 per month
Los Osos CSD	7,086	0.03 AFY	Four tiers	\$95.41
Golden State Water Co. – Los Osos	8,824	0.19 AFY	Tiered	\$144.23 for 2 mo. billing cycle
Nipomo CSD	12,484	0.52 AFY	Tiered	\$115.31 per 2 mo. billing cycle
Woodland Mutual Water Co.	1,200	0.44 AFY	Flat + tiered	\$67.34 per 2 mo. billing cycle
Oceano CSD	7,294	0.05 AFY	Tiered	\$146.35
CSA 23 – Santa Margarita	1,265	0.045 AFY	Tiered	\$97.38
San Miguel CSD	2,413	0.069 AFY	Tiered	\$92.06
San Simeon CSD	462	0.045 AFY	Flat	\$61.63.
CSA 16 -- Shandon	1,260	0.05 AFY	Flat	\$87.45
Templeton CSD	6,885	0.49 AFY	Tiered	\$63.00 per mo.

Source: Water System Usage forms: July 2012 – June 2013; July 2013 – June 2014

1. Flat, tiered, etc.
2. Dollar amount per billing cycle.