

2009-2010
Annual Resource Summary Report
San Luis Obispo County General Plan



Board of Supervisors

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INTRODUCTION

I. INTRODUCTION

Scope and Purpose

This is the 2009-2010 edition of the Resource Management System's (RMS) Annual Summary Report (ASR) covering the fiscal year July 2009 through June 2010. This 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 the incorporated cities, community services districts, school districts, other special districts and private water companies.

The ASR's primary purpose is to provide a comprehensive yearly summary of the state of the county's natural and man-made resources. The ASR is meant to inform the public, staff and decision makers regarding resource and infrastructure issues.

About the Resource Management System

The Resource Management System (RMS) provides information to guide decisions about balancing land development with the resources necessary to sustain such development. It focuses on:

- Collecting data
- Identifying resource problems; and
- Recommending 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.

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In this way, the RMS addresses development in terms of appropriate distribution, location, and timing rather than growth versus no-growth. Recommended actions in the ASR may also address resource use by existing development and improvements in resource efficiencies.

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 equals or exceeds its supply and is the most critical level of concern. The County should take a series of actions to address resource deficiencies before Level III is reached.

The RMS also lists a variety of steps which can be taken by the Board of Supervisors when it is determined that a resource has reached a particular level of severity. These are referred to as "action requirements," and they are found in the body and appendix of this report.

It is important to distinguish between "recommended" levels of severity and levels of severity that have been certified by the Board of Supervisors. All levels of severity are initially recommendations proposed by staff based on information provided by the various service providers. These recommended levels of severity should be taken as general indicators of declining resource availability.

The "action requirements" are not invoked in response to recommended levels of severity. 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.

The certification process 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" level of severity. The RCS is the subject of public hearings by the Planning Commission and the Board of Supervisors. If the Board of Supervisors certifies a level of severity, the appropriate "action requirements" are implemented.

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The ASR considers the following services and measures of the adequacy of those services:

Service	Measure
Water Supply	Safe Yield/Extractions
Water Systems	Percent of Capacity
Sewer Systems	Percent of Capacity
Roads	Vehicle/Capacity
Schools	Enrollment/Capacity
Air Quality	State Standards

How is Information Gathered for this Report?

The information and data gathered for this ASR is received from the service providers. **This is a completely voluntary program.** Each July, the Public Works Department asks water suppliers throughout the county to report on water demand and supply for their jurisdiction. Staff will contact service providers who have not submitted the requested information within the requested timeframes. Other service providers such as wastewater system operators are contacted and sent standard forms to complete and return. Schools usually cannot report on the current year enrollment figures until October.

Detailed information, such as responses to the state-mandated 20% per capita water demand reductions, is usually provided directly by the service providers (see Cambria and Paso Robles for examples). As this reporting system is a voluntary program, service providers are not obligated to respond to requests for information, however most do. As a result, data gaps in the ASR may occur each year if information requested is not provided. The cooperation and participation of the service providers who do respond each year is greatly appreciated.

How are Population Forecasts Made?

Population forecasts in the ASR are derived from a 2009 population update of the 2000 census prepared by the San Luis Obispo Council of Governments (SLOCOG). The unincorporated community populations were estimated by allocating the total unincorporated population among all the communities and

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rural area based on past growth rates, issued building permits and estimated household size. Because many assumptions must be made in order to estimate population, the number is not exact. The 2010 Census results are being used to estimate the populations within the urban reserve lines of the unincorporated communities in collaboration with SLOCOG. Those population estimates will be used in next year's ASR.

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Summary of Levels of Severity

Planning Area	Community	Water Supply	Water System	Sewer	Roads	Schools	Air Quality
South County	Avila Beach					III	
	Arroyo Grande				III	III	
	San Luis Obispo				III	III	
	Nipomo Mesa (NMWCA)	<u>III</u>				III	II
	Pismo Beach					III	
	Oceano					III	
	Grover Beach					III	
North County	Atascadero					III	II
	Paso Robles					III	II
	San Miguel	<u>III</u>					
	Santa Margarita		III				
	Shandon	<u>III</u>				III	
	Templeton	<u>I</u>				III	
	Heritage Ranch						
North Coast	Cambria	III				III	
	Cayucos						
	CSA10A		III				
	M.R. Mutual		II				
	P.R. Beach		II				
	Los Osos	<u>III</u>			III		
Morro Bay							
San Simeon	III		III			III	
Groundwater Basins	Cuyama Valley	III					
	Los Osos	<u>III</u>			III		
	Morro-Chorro	III					
	North Coast	III					
	Paso Robles Atascadero Sub-basin	<u>III</u>					
	San Luis Creek	<u>I</u>					
	Nipomo Mesa Water Cons. Area	<u>III</u>					

Entries shown in indicate levels of severity that have been certified by the Board of Supervisors.

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The RMS defines levels of severity for each resource. The criteria used to determine levels of severity for each resource are as follows:

Resource	Level of Severity I	Level of Severity II	Level of Severity III
Water Supply	When projected water demand over the next nine years equals or exceeds the estimated dependable supply.	When projected water demand over the next seven years equals or exceeds the estimated dependable supply.	When projected water demand equals or exceeds the estimated dependable supply.
Water System	When the water delivery system is projected to be operating at design capacity within seven years.	When the water delivery system is projected to be operating at design capacity within the next five years.	When the water delivery system reaches its design capacity.
Sewage	When projected peak flow equals the treatment plant design capacity within six years.	When projected peak flow equals the treatment plant design capacity within five years.	When projected peak flow equals or exceeds the treatment plant design capacity.
Sewage Collection System	When the projected flow in two years of any portion of the delivery system is 75% of its capacity.	When any portion of a sewage delivery system is operating at 75% of its capacity.	When peak flows reach 100% of capacity.
Roads	When traffic projections indicate that roadway level of service "D" will occur within five years.	When traffic projections indicate that roadway level of service "D" will occur within two years.	When calculation of exiting traffic flows indicate as roadway level of service "D".
Schools	When enrollment projections reach school capacity within seven years.	When enrollment projections reach school capacity within five years.	When enrollment equals or exceeds school capacity.
Air Quality	See page I-7		

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Roads

The ability of streets and roads to carry vehicular traffic depends upon several factors. The number of traffic lanes, surrounding terrain, existence of roadway shoulders, and 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). Levels of service ranging from level "A" to "F" 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.

U.S. Highway 101

In 2009, the Board of Supervisors directed staff to include in the ASR the condition of interchanges in the unincorporated communities along the U.S. Highway 101 corridor. The information is developed by the Public Works Department. This year, three of those interchanges were analyzed for needed future improvements: Tefft Street (Nipomo), San Luis Bay Drive (Avila Beach) and Main Street (Templeton). The results of these analyses may be found in the applicable community sections of this report. Additional interchanges will be evaluated in subsequent years.

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Air Quality Criteria

Level of Severity I	Level of Severity II	Level of Severity III
Air monitoring shows periodic but infrequent violations of the state ozone standard, with no area of the county designated by the state as a non-attainment area.	Air monitoring shows one or more violations per year of the state ozone standard and the county, or a portion of it, has been designated by the state as a non-attainment for ozone.	Air monitoring at any county monitoring station shows a violation of the federal ozone standard on one or more days per year for three consecutive years.
Emissions in the planning area approach 75% of the designated threshold level and are projected to reach 100% within the next five years even with implementation of all emissions reduction strategies identified in the Clean Air Plan.	Emissions in the planning area reach 90% of the designated threshold and are projected to reach 100% within the next three years.	Emissions in the planning area equal or exceed a pollutant threshold level determined by the regional ozone modeling.
At least 50% of the available emissions reductions in the planning area have been utilized through the implementation of the emissions control measures approved through the CAP.	At least 75% of the available emissions reductions in the planning area have been utilized through implementation of emission control measures approved through the CAP.	All ozone control measures approved through the CAP have already been implemented in the planning area.

Resource and Infrastructure Needs

Our county's cities, unincorporated communities and rural areas face serious resource and costly infrastructure challenges. These challenges include protecting groundwater levels, securing new water supplies, constructing water distribution facilities, and funding improvements to major circulation facilities such as freeway interchanges. As people continue to be drawn to this area due to the appeal of rural character, quality of life and coastal areas, a more focused effort will be needed to address these resource and infrastructure issues.

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The community profiles in the following sections of this report describe the state of our communities and track their important infrastructure and resource needs. The primary resource and infrastructure needs relate to water supply (ground and surface water) and transportation. They include improvements such as pipelines, roads and freeway interchanges.

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.

Per Capita Water Demand

This year's ASR includes new information on water demand forecasts for each community to the years 2020, 2030 And 2035. Demand forecasts are based on "medium" growth projections for each community as published by SLOCOG.

Recently enacted legislation known as SBx7-7, requires urban water suppliers (water systems with 3,000 or more customers) to calculate and plan for a 20% reduction in per capita water use by the year 2020. We report the information supplied by each water provider when that information is available. In other cases, the department has used a simple method to calculate the 20% per capita reduction. A table is provided for each community where enough data exists to calculate the per capita reductions.

Recommendations

This ASR makes recommendations for actions in unincorporated communities. The ASR does not include recommended actions in the cities, as the County lacks jurisdiction in those areas.

New Recommendations

1. Provide maps of each service provider's area.

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Ongoing Recommendations

Cayucos Water System

1. Establish LOS III for the CSA 10A water system with the following recommended actions:
 - a. Design system improvements to address fire flow issues.
 - b. Develop an infrastructure funding plan to implement system improvements.
 - c. Perform a fire flow analysis.

Changes to RMS and Title 8 (Adopted 2008-2009 ASR)

1. The process to issue well permits should be modified. Well permits are issued by the Division of Environmental Health. Permits for new nonagricultural wells located in groundwater basins at LOS I, II or III (or basins whose safe yield is not known or wells in fractured formations) should be subject to the following requirements as amendments to Title 8 of the County Code:
 - a. Semi-annual measurements by the Department of Public Works.
 - b. Installation of flowmeters on all new wells (excluding replacement wells).
 - c. Enroll in the Flood Control and Water Conservation District's (District) well-measurement program.
 - d. Record water use and other information monthly and report semi-annually on a District-provided form.
2. Water use reporting of water by purveyors in support of the RMS is spotty at times. A lack of this type of basic information makes it difficult to analyze water use and to determine proper levels of severity for groundwater. The County should, either through its police powers or through the authority of the District, require all water purveyors (including mutual water companies) with over 10 connections to record water use and other information monthly and report semi-annually on a County-provided form.
3. Conditions should be established requiring wells associated with discretionary land use permits in groundwater basins in LOS I, II or III (or basins whose safe yield is not known or wells in fractured formations) to be a part of the District's water well level monitoring program.

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4. The WRAC continues to be especially concerned with seawater intrusion in the coastal groundwater basins. The County should review the placement, effectiveness and possible expansion of the coastal sentry well program, especially in South County and Los Osos where seawater intrusion has already been documented. Investigation of seawater intrusion needs to be a high priority for the County, to the extent of their authority to address the specific situation.
5. Water planning and policy development requires close coordination between County departments. The WRAC recognizes that this coordination is akin to a three-legged stool: Public Works, Planning & Building, and Public Health (as the issuer of well permits). These three departments of the County need to increase their efforts to coordinate the County's approach to water issues. To begin coordination, the Health Dept-issued well permits should be subject to review for consistency with ASR action recommendations, Resource Capacity Studies, and County General Plan policies of the COSE.
6. The WRAC recognizes the efforts of vineyards to manage their water usage; however, recent efforts in North County have shown that we possess poor information on water use. In order to gather more data, voluntary well metering, monitoring and reporting should be encouraged.
7. The County should institute a three-phased approach to stream gauges:
 - a. Continue gathering data from the stream gauges in place, refurbishing those in need of repair.
 - b. Make a list of strategic places where stream gauge data would be effective and no gauges are in place.
 - c. Make a phased-in schedule for funding and installing the needed gauges over a 3-5 year period.
8. The District shall continue to implement its Data Enhancement Plan with respect to well monitoring, and consider establishing an independent automated observation well program for groundwater basins with levels of severity (LOS) I, II, or III.
9. The report should include a map of the entire county showing the areas covered, and not covered, for water supply findings.

Nipomo Mesa Area

1. Continue the limitation on the number of dwelling units for the Nipomo Mesa area for the year 2009-10 through the County's Growth

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- Management Ordinance to 1.8% of the number of units existing in the area as of June 30, 2009.
2. At this time, a building moratorium is not considered an appropriate action for the Nipomo Mesa area. The Board adopted water conservation measures in the NMWCA in calendar year 2008 and will review the status of the programs in calendar year 2011. The Board may direct changes to the program once that review is completed in 2011.
 3. Continue to implement water conservation measures adopted by the Board in 2008. Report back on the status of the programs in calendar year 2011.
 4. New non-agricultural development in the NMWCA shall not result in a net increase in water use unless a supplemental water fee is in place.
 5. Expand discussions with water purveyors in the NMWCA and include water rate structure, supplemental water supplies and expansion of small community water systems.

Santa Margarita

1. Maintain the LOS III for the water system.
2. Conduct a Resource Capacity Study (RCS) to help identify future water supply needs and water source options.
3. Monitor the progress of the development of the Santa Margarita Ranch. Phase-in water and road improvements that are needed for the proposed level of development on the ranch.

Cambria

1. Encourage continued implementation of water conservation measures in Cambria and San Simeon Acres.
2. Review new proposed landscaping plans for inclusion of water-efficient design elements.
3. Encourage voluntary lot mergers and other actions to support the CCSD buildout reduction program.
4. Encourage continued efforts to acquire alternative water supplies.

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5. Facilitate and expedite, whenever possible, future permitting of CCSD water projects.

Los Osos

1. The LOCSD and other purveyors should consider adopting an aggressive water conservation program that would have the potential for achieving water savings significantly greater than the 8% conservation factor contained in the Water Management Plan. As water demand decreases, pumping from the lower aquifer should be commensurately reduced. Reducing pumping from the lower basin and ongoing water conservation and efficiency actions should be the focus of all purveyors and the Interlocutory Stipulated Judgment.
2. Water purveyors should pursue water recycling programs.
3. Water purveyors should implement all feasible conservation measures.
4. Water purveyors should periodically update estimates of agricultural and private domestic demand, as well as urban demand, to confirm water use estimates.
5. Water purveyors should implement changes in pumping patterns and monitor coastal wells to confirm that seawater intrusion is being slowed and, ultimately, halted.
6. Continue to implement water conservation programs adopted in 2008 and report the program status to the Board of Supervisors in calendar year 2011.
7. Continue to implement the recommendations of the report by Cleath Associates, upon which the LOCSD Water Management Plan is based.

San Simeon

1. Retain LOS III for water supply.
2. Continue the development moratorium.
3. Continue conservation activities.

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Abbreviations

AFY: Acre Feet per Year

gpcd: gallons per capita per day

MGD: millions of gallons per day.

Countywide Map

The following county map includes the areas covered by the ASR such as cities and unincorporated communities and groundwater basins.

COUNTYWIDE

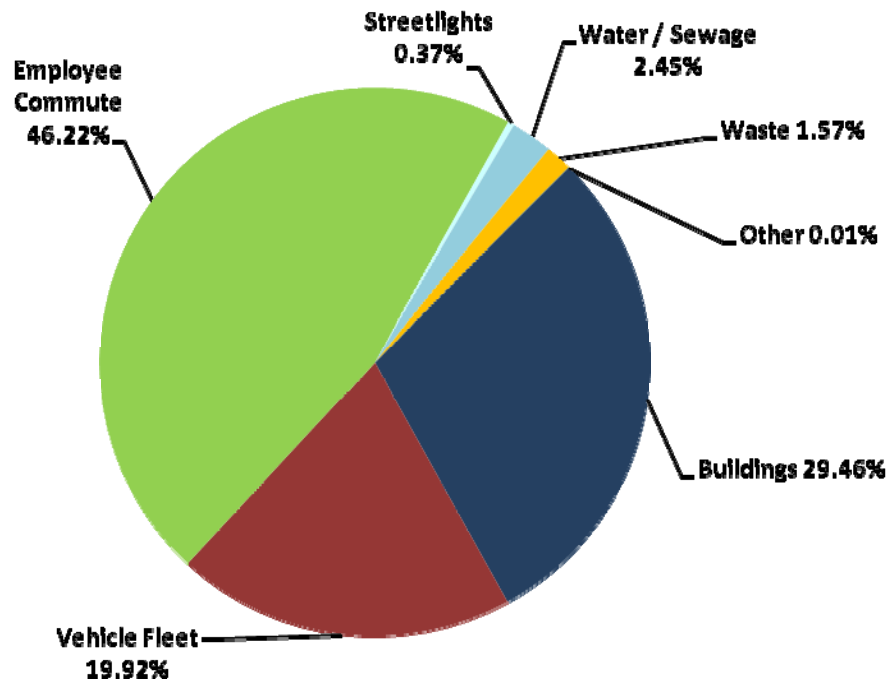
II. COUNTYWIDE

Greenhouse Gas Emissions

The topic of climate change is gaining a high priority among policy makers and residents alike. In July 2008, the County Board of Supervisors made a commitment to calculate the county's contribution to global climate change through the development of a Community-Wide and County Government Operations Baseline Greenhouse Gas Emissions (GHG) Inventory (Inventory). This Inventory identifies the major sources of greenhouse gas emissions within the county and provides a baseline against which future progress can be measured.

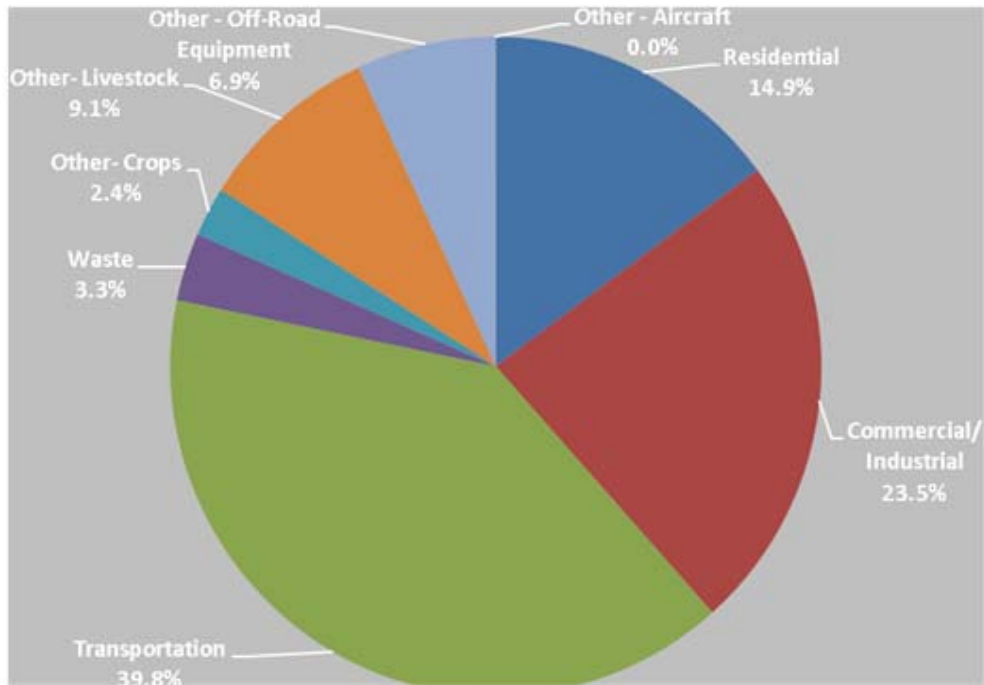
The GHG Inventory includes two components: a community-wide analysis and a County government operations analysis. It is important to note that the County government operations inventory is a subset of the community inventory, meaning that all County government operations emissions are included in the commercial/industrial, transportation, waste, or 'other' categories of the community-wide inventory. The County government operations inventory should not be added to the community analysis; rather it should be looked at as a slice of the complete picture.

County Operations Emissions



COUNTYWIDE

Community-wide Emissions



The County has prepared a draft Climate Action Plan (CAP) that will identify strategies to reduce the county's GHG emissions by 15% below the baseline year of 2006 by the year 2020. This goal is consistent with AB 32. The CAP is expected to be completed in 2011. It will include measures to reduce GHG emissions and will address the Inventory's emissions sectors. Once the CAP is completed and implementation commences, the County will conduct another GHG inventory for both Community and County Operations to gauge program success.

Rural/Urban Distribution of Building Permits

The split in distribution of building permits has averaged close to 60% urban and 40% rural over the last 10 years as shown in the following table. A shift to a lower proportion of rural development will become one of the measures of the success of the County's Strategic Growth principles and policies. The County should aim to meet the urban/rural distribution targets to be included in the San Luis Obispo Council of Government's Sustainable Communities Strategy (SCS) effort.

COUNTYWIDE

Distribution of Unincorporated Area Finaled Building Permits

Final 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
Total 2000-2010	3128	5221	8349	62%

The Department will continue to work with San Luis Obispo Council of Governments (SLOCOG) in the coming year to coordinate possible policies for directing more future growth into existing communities with adequate resources through the County's Land Use and Circulation Element update and the Sustainable Communities Strategy (SCS) effort that is being completed by the SLOCOG staff.

COUNTYWIDE

Population

	2005	2008	2010	2015	2020	2025	2030	2035
Cities	144,546	148,303	151,064	155,230	160,250	165,040	171,040	177,100
Unincorporated	99,457	104,969	107,752	113,552	119,080	124,382	130,980	137,660
Countywide	259,574	269,336	273,446	284,846	295,394	305,486	318,084	330,824

Source: Dept. of Finance/SLOCOG

Vehicle Miles Traveled (VMT) and Vehicle Fuels Consumed (1990-2030)

Year	State Highway	Non-State Highway	Total VMT	Gasoline Gallons	Diesel Gallons	Total Gallons	VMT Gallons
1990	1482.00	698.93	2180.93				
1995	1557.01	767.08	2324.08				
2000	1734.24	896.26	2630.49	121.548	25.156	146.704	17.93
2005	1906.20	988.76	2894.96	134.711	27.932	162.643	17.80
2006	1955.34	983.73	2939.07	135.040	27.762	162.802	18.05
2007	1985.13	983.73	2968.86	134.938	23.957	158.896	18.68
2008	2000.54	991.36	2991.90	137.708	23.545	161.162	18.56
2010	2076.04	1028.78	3104.82	141.329	25.304	166.633	18.63
2015	2364.72	1171.83	3536.55	158.572	28.179	186.751	18.94
2020	2621.78	1299.22	3921.00	174.422	31.086	205.508	19.08
2025	2854.45	1414.52	4268.97	189.256	33.853	223.109	19.13
2030	3199.31	1585.41	4784.72	212.142	37.187	249.329	19.19

Source: Caltrans

Grayscale is forecasted VMT

Miles are in millions

Gallons are in millions

SOUTH COUNTY

III. SOUTH COUNTY

The South County consists of four cities: Arroyo Grande, Grover Beach, Pismo Beach, and San Luis Obispo, and three unincorporated areas: Avila Beach, the Nipomo Area, and Oceano. Each resource is discussed by community, with the exception of regional resources that cross community boundaries and are shared among communities. Examples are schools, roads and wastewater treatment.



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SOUTH COUNTY

Avila Beach

Avila Beach is one of the 10 unincorporated urban areas in the County. It includes four geographic areas: the town, the adjacent Avila Valley, the San Luis Bay Estates development and Port San Luis. There appears to be adequate water and infrastructure for the small amount of future development planned for the area. With the recent completion of the San Luis Bay Drive Bridge, no major road improvements are needed in the future.



Population

The population within the urban reserve line has fluctuated in the past due to development moratoria and the soil and groundwater remediation project in the town of Avila Beach.

In addition, the San Luis Bay Estates development has been largely built out under the current general plan designations. Relatively small population increases are expected through 2035.

Avila Beach/Valley Population Estimate/Projections*							
2000	2005	2010	2015	2020	2025	2030	2035
833	933	1,058	1,139	1,185	1,230	1,285	1,335

*see population forecast note on page I-3

Water Supply

Water service in the Avila Valley area is a mix of the State Water Project, Lopez Water and groundwater. Water is provided by a community services district, several mutual water companies and private, individual wells. The Avila Beach Community Services District is the only water supplier that regularly participates in the County's voluntary water reporting program. The other suppliers have not participated in the program until this year.

SOUTH COUNTY

The Avila area's water suppliers and their sources of water are as follows:

Avila Beach Community Services District (CSD) serves the town area.

State Water: 100 acre-feet/year (AFY)

Lopez Water: 68.3 AFY

The District also has two wells that are currently inactive. These two wells have provided as much as 20 AFY in the past.

San Miguelito Mutual Water Co. primarily serves San Luis Bay Estates and some development along San Luis Creek.

State Water: 550 AFY

Bassi Ranch Mutual Water Co. serves the Bassi Ranch cluster development on the north side of San Luis Bay Drive.

No report was received from Bassi Ranch.

Avila Valley Mutual Water Co. serves Avila Valley Estates on the south side of San Luis Bay Drive.

State Water: 21 AFY

Lopez water: 12 AFY

33 AFY

Port San Luis is located at the north end of Avila and receives water from County Service Area 12 (CSA 12). The CSA (which supplies water from Lopez Lake to south county communities) transfers up to 100 AFY of Lopez Reservoir water through its piping system to Port San Luis.

Other development in the Avila Valley relies on individual groundwater wells. Larger users include Avila Hot Springs, Sycamore Mineral Springs and agriculture.

The only water supplier in the area that regularly participates in the voluntary program to report water use is the Avila Beach CSD. The other water suppliers have not been part of the program until this year.

Water Use

Water use in Avila Beach has ranged from a low of 46 AFY in 2000-01 to 77 AFY in 2008-09, as shown in the following table.

Avila Beach CSD Total Water Use AFY (fiscal year)									
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2007-2008	2008-2009	2009-2010
54	46	47	52	49	48	51	76	77	73

SOUTH COUNTY

Per capita water use in the Avila Valley ranges from a low of 144 gpcd in Avila Beach to 260 gpcd in Avila Valley. Due to Avila's small population, the water systems are not subject to the required 20% reduction in water use per capita by the year 2020. The following table uses a method developed by the California Department of Water Resources (DWR) to estimate 20% per capita reductions in water use.

Avila Beach Per Capita Water Use				
Year	Supplier	Population	Gallons Per Capita Per Day (GPCD)	Total AFY
July 2009- June 2010	Avila Beach CSD	450	144	72
	San Miguelito Mutual Water Company	1,200	153	206
	Avila Valley Mutual Water Company	112	260	33
2020	Avila Beach CSD	484	144	78
	San Miguelito Mutual Water Company	1,292	123	178
	Avila Valley Mutual Water Company	121	208	28
2025	Avila Beach CSD	503	144	81
	San Miguelito Mutual Water Company	1,341	123	184
	Avila Valley Mutual Water Company	125	208	29
2035	Avila Beach CSD	546	144	88
	San Miguelito Mutual Water Company	1,455	123	200
	Avila Valley Mutual Water Company	136	208	32

20% reduction in water use calculated using DWR Method 1

Level of Severity:

There is no level of severity for water supply.

Water Rates

Avila Beach CSD

Avila Beach CSD has tiered water rates.
 Avg. Single Family Water Use: 3,740 gallons/Mo.
 Avg. Single Family Water Bill: \$39.50/Mo.

SOUTH COUNTY

Avila Valley Mutual Water Co.

Avila Valley Mutual Water Co. has a flat rate.

Ave. Single Family Water Use: 1.29 AFY (420,411 gallons)

Ave. Single Family Water Bill: \$270.00/Mo.

Roads

Avila Beach Drive. The Level of Service on Avila Beach Drive is measured on off-peak days due to spikes in traffic volumes during limited summer weekends. Traffic volumes measured in May and September show that Avila Beach Drive operates at Level of Service (LOS) A and does not need widening. The recent construction of the new bridge at the intersection of Avila Beach Drive and San Luis Bay Drive should be the final road improvement in the Avila Valley area for some time.

Roadway	Location	LOS D Volume	PM Peak Hour Volume		
			2009	2011	2014
Avila Beach Drive	West of San Luis Bay Drive	1280	692	720	764

There is no level of severity.

Highway 101 Interchange	2010		2020	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
San Luis Bay Drive	5.4	A	7.1	A

Sewage

Facilities:

There are two wastewater providers in the Avila Beach area. The Avila Beach Community Services District (Avila Beach CSD) serves the town and the Port, and the San Miguelito Water Company serves the San Luis Bay Estates area. The eastern portion of the Avila Valley contains rural, hotel and recreational developments that are served by either the wastewater treatment providers or on-site septic systems. Existing development such as Avila Valley Estates (Tract 699) and the Avila Hot Springs should be served by one of the wastewater treatment providers due to on-site limitations.

Avila Beach CSD's Sphere of Influence includes all of Avila Valley east to the freeway and all of Avila Valley Estates that is currently served by San Miguelito Water Co. A single wastewater provider for the entire area including the town, San Luis Bay Estates, and the unsewered Avila Valley areas such as Avila Valley Estates may be preferable to the separate wastewater treatment providers and individual septic systems.

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Operational Issues:

None reported.

Capacity:

According to the Avila Beach CSD, the wastewater treatment plant currently operates at 27% of capacity. Peak summer flows are at 56% of capacity. The District has recently seen an increase in waste strength that may affect design capacity. The District is studying whether or not the existing plant can handle the higher waste strength at the design flow capacity of 0.2 million gallons per day.

Level of Severity:

There is no level of severity.

Schools

Bellevue-Santa Fe Charter

Students attend Bellevue Santa Fe, a charter school located in the Avila Valley. In 2008-2009, 147 students attend this charter school, which has a maximum enrollment of 150 students. The Avila Valley area is part of the San Luis Coastal Unified School District. This enrollment is a level of severity III.

Parks

Avila Beach/Avila Valley Neighborhood and Community Parkland			
Park	Acres	2010 Acres Needed	2020 Acres Needed
Avila Park/Plaza	2.5 ac	3 acres	4 acres
See Canyon Park (Undeveloped)	8.7 ac		
Total:	11.2 ac		

Recommendations

The area has adequate water resources to reach buildout. The use of a single wastewater provider for the entire area should be studied and seriously considered.

LOS Summary Table (Avila Beach)

Avila Beach	Water Supply	Water System	Sewer	Roads	Schools	Air
Levels Of Severity					III	

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Arroyo Grande

Arroyo Grande is one of the seven incorporated cities in the county and covers 5.45 square miles. It is located between prime agricultural lands and the Pacific Ocean. Arroyo Grande is a full-service city providing both water and sewer service..



The City's major infrastructure issues are building an interchange at El Campo Road and Highway 101, and bringing in additional water supplies to supplement water from Lopez Lake and groundwater.

Population

The City's estimated 2010 population is 17,140. Future population growth in the City will be constrained by infrastructure, water and land availability.

Arroyo Grande Population Estimates/Projections							
2000	2005	2010	2015	2020	2025	2030	2035
15,641	16,339	17,140	17,640	18,200	18,730	19,400	20,080

Water Supply

The City has agreements in place to draw up to 3,804 AFY from four water sources: two groundwater basins, Lopez Reservoir and through Oceano CSD. These sources are described below:

- 1,314 AFY is the City's share of groundwater extracted from the Arroyo Grande Plain, which is part of the Santa Maria Groundwater Basin. Extraction rights are shared by agreement with the City of Pismo Beach, the City of Grover Beach, and the Oceano Community Services District. This includes a 112 AFY allocation from an Agricultural Land Conversion Credit. As party to the Santa Maria Groundwater Basin litigation, Arroyo Grande may have its extraction rights decreased at a future date.
- 100 AFY groundwater is extracted from the Pismo Formation.
- 2,290 AFY from the Zone 3 Lopez Project is provided as a contractual supply to the City of Arroyo Grande. Environmental protection issues may call for

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increased releases to Lopez Creek, thereby reducing the allotment available for Arroyo Grande and other cities.

- 100 AFY from Oceano Community Services District (Oceano CSD). The City of Arroyo Grande and Oceano CSD have entered into an interim water supply agreement, for delivery of up to 100 AFY of Oceano CSD water to the City. The City is currently using between 90% and 95% of its current supply allocation, and therefore is in need of temporary provisions to meet water supply needs. Oceano CSD will deliver up to 100 AFY of groundwater and/or State Water, at Oceano CSD's discretion. This temporary agreement ends in 2014.

In response to both long-term and short-term water supply concerns, the City has instituted mandatory water conservation measures. Numerous water conservation programs have been instituted (e.g., citywide toilet retrofit program, "cash for grass") is also underway to reduce water use.

Water Use

Water use in the City of Arroyo Grande has ranged from a low of 3,075 AFY in 2005-06 to 3,650 AFY in 2003-04.

Arroyo Grande Total Water Use AFY (fiscal year)										
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
3,334	3,365	3,407	3,467	3,650	3,381	3,075	3,245	3,475	3,333	3,097

Per capita water use is currently 162 gpcd. In compliance with State legislation, the City plans to reduce per capita water use by the amount below. The City expects buildout to occur in 2025 with yearly water use of 2,933 AFY.

Arroyo Grande Per Capita Water Use			
Year	Population	Per Capita Water Use (Gallons/Day)	Total AFY
July 2009-June 2010	17,080	162	3,097
2020	19,261	149	2,794
2025	20,224	149	2,933
2035	20,224	149	2,933

Information received from City of Arroyo Grande
 City of Arroyo Grande expects buildout to occur in the year 2025

Water Rates

Avg. Single Family Water Use: 11,968 gallons/Mo.

Avg. Single Family Water Bill: \$64.72/Mo.

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Roads

Halcyon Road (South of Arroyo Grande Creek). The County Public Works Department is working on a project to install roundabouts at the Halcyon Road and Highway 1 intersections near the Arroyo Grande Creek. A plan to widen Halcyon Road to include a southbound climbing lane has not been approved. A LOS D will continue in the future without additional widening or the climbing lane.

Roadway	Location	LOS D Volume	PM Peak Hour Volume		
			2009	2011	2014
Halcyon Road	South of Arroyo Grande Creek	904	956	995	1056

*Shaded area indicates traffic volume levels exceed LOS D (PM Peak Volume Traffic).

This peak hour volume is a level of severity III.

Sewage

Facilities:

Wastewater treatment service is provided to the City by the South San Luis Obispo County Sanitation District. The City maintains the sewer lines and sends sewage to the wastewater treatment plant in Oceano. The community of Oceano and the City of Grover Beach also use this wastewater treatment plant. The treatment plant currently discharges treated effluent to the ocean through an ocean outfall line shared with the City of Pismo Beach.

Operational Issues:

None reported.

Capacity:

The South San Luis Obispo County Sanitary District treatment plant operates at 60% capacity.

Level of Severity:

There is no level of severity.

Schools

Arroyo Grande is part of the Lucia Mar School District. There are eight schools within the City: three elementary, two middle, and two high schools. Further information on the Lucia Mar School District is found near the end of the South County section of this report.

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San Luis Obispo

San Luis Obispo is the County seat and the most populous of the seven cities in the county. The City's economy, as in most of the county, is bolstered by tourism and agricultural-based industries. The service industry is also a prominent part of its economy.



San Luis Obispo is a full-service city providing water, sewer and all other public services. The City lies within the San Luis Coastal Unified School District. The City has a diversified water supply that includes three surface water sources and reclaimed water from the City's wastewater treatment plant. Major interchange improvements on Highway 101 are needed at Los Osos Valley Road (LOVR) and Prado Road.

Population

As of January 2010, the City's population was approximately 42,540. The total population growth rate from the year 2000 to 2010 was approximately 1.3%. The year 2020 population estimate is 43,370. Buildout population is approximately 57,000.

City of SLO Population Projections							
2000	2005	2010	2015	2020	2025	2030	2035
42,317	42,763	42,540	42,590	43,370	44,120	45,060	46,000

Population figures based on SLOCOG 2009 and do not include "group quarters"

Water Supply

The City of San Luis Obispo has a diverse water supply. The City currently receives water from five sources: Salinas Reservoir (Santa Margarita Lake), Whale Rock Reservoir, Nacimiento Reservoir, local groundwater, and recycled water from the Water Reclamation Facility. The City has depended on imported supplies from Salinas Reservoir, located near the community of Santa Margarita, since 1944 and Whale Rock Reservoir, located near the community of Cayucos, since 1964. With the onset of the drought in 1986, resulting in decreasing surface water supplies, the City activated its groundwater sources in 1989. The City currently uses a small amount of groundwater (~2% of total) for potable

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purposes. Water deliveries to the City of San Luis Obispo from Nacimiento Reservoir began in January of 2011.

The Whale Rock Reservoir provides water to the City of San Luis Obispo, California Polytechnic State University, and the California Men's Colony as well as the town of Cayucos. The City staff work closely with staff from the other agencies relative to water planning issues.

The safe yield from the Salinas and Whale Rock reservoirs was adopted as 6,940 AFY in 2010, which takes into account losses due date in the yield from the two reservoirs due to siltation. The 2010 update to the City's Water Management Element of the General Plan also identified an additional 500 AFY of loss due to siltation for the next fifty years. The City will continue to utilize the limited amount of local groundwater, but due to limitations on its use (contamination, drought conditions, etc.), the City will not consider this supply in estimating available water resources to meet long-term community needs.

Water Use

Water use in the City of San Luis Obispo has ranged from a low of 6,217 AFY in 2001-02 to 6,988 in 2006-07 (which includes potable water delivered to Cal Poly from their Whale Rock Reservoir entitlement).

City of SLO Total Water Use AFY (fiscal year)										
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
6,835	6,610	6,217	6,429	6,851	6,448	6,984	6,988	6,420	6,322	6,459

The expected changes in per capita demand in the following table were developed by the City of San Luis Obispo.

San Luis Obispo Per Capita Water Use			
Year	Population	Gallons Per Capita Per Day (GPCD)	Total AFY
July 2009-June 2010	44,948	114	5,730
2020	49,650	117	6,507
2025	52,180	117	6,839
2035	54,850	117	7,188

Information received from City of San Luis Obispo.

Water Rates

Avg. Single Family Water Use: 6,732 gallons/Mo.
 Avg. Single Family Water Bill: \$52.13/Mo.

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Roads

Los Osos Valley Road (West of Foothill). County Public Works recently completed the five year update of the Los Osos Circulation Study. Widening of Los Osos Valley Road to four lanes is included in the study; however, no funding is currently available for the project. Los Osos Valley Road is approaching LOS D volumes, 1437 in 2009. Level of Service D is reached at 1475 ADT. Volumes are projected to reach 1495 in 2011 and 1587 in 2014.

Tank Farm Road (West of State Route 227). This portion of Tank Farm Road will be widened to four lanes as described in the Airport Area Specific Plan. The project will increase the capacity of the roadway and the corridor is expected to operate at LOS C or better assuming existing volumes. The San Luis Obispo Fringe Road Improvement Fees would fund a portion of the widening. Proposed area development would implement portions of the widening project. Tank Farm Road surpasses LOS D PM Peak Hour Volumes, 1668 trips in 2009. The point at which a Level of Service D is reached is 1152. Volumes are projected to reach 1735 in 2011 and 1842 in 2014.

Roadway	Location	LOS D Volume	PM Peak Hour Volume		
			2009	2011	2014
Los Osos Valley Road	West of Foothill Boulevard	1475	1437	1495	1587
Tank Farm Road	West of State Route 227	1152	1668	1735	1842

*Shaded area indicates traffic volume levels that exceed LOS D (PM Peak Volume Traffic).

The peak hour volume for both roads is a level of severity III.

Sewage

Facilities:

The City's wastewater treatment plant produces tertiary-treated effluent. A water re-use project delivers this high quality water throughout the southern part of the City for landscaping purposes. As a result, a total of 1,000 acre-feet of reusable water will be available every year. The treatment plant also discharges clean water to San Luis Obispo Creek for habitat maintenance purposes.

Operational Issues:

None reported.

Capacity:

The City's Master Plan is almost complete. The Master Plan includes increasing the treatment's capacity to 5.5 MGD (million gallons per day).

The City's current plant capacity is 5.2 MGD. The plant is operating at 92.3% of its capacity.

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San Luis Obispo Wastewater				
Current Daily Plant Capacity (mgd)	Peak Daily Flow (mgd)	Current Operational Percentage of Capacity	Expansion Plans	New Capacity After Expansion (mgd)
5.200	4.8	92.3%	Yes	5.600

Schools

San Luis Obispo is part of the San Luis Coastal Unified School District. For more details on this school district, see the discussion near the end of this South County section of the report.

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Nipomo Area

The Nipomo Area consists of the unincorporated community of Nipomo, which is located both on the Nipomo Mesa and east of Highway 101, and the portion of the unincorporated Nipomo Mesa called “rural Arroyo Grande.” This area has seen the highest growth of any unincorporated area of the county for the past decade.



The Nipomo Mesa Water Conservation Area (NMWCA-- please refer to the map at the end of this section on the Nipomo Area) is part of the Santa Maria Groundwater Basin and has been a key area considered in the Santa Maria Groundwater Basin adjudication lawsuit (please refer to the map at the end of this section on the Nipomo Mesa Water Conservation Area). The adjudication case has not yet been fully settled. The area will need additional supplies (referred to as “supplemental water”) to bring the groundwater basin back into balance. The NMWCA is at a level of severity III for water supply.

The large number of water suppliers in the Nipomo Area creates difficulties for conserving water and obtaining supplemental water. Water suppliers include the public Nipomo Community Services District and private, for-profit companies such as Golden State Water Company and Rural Water Company. In addition there are many mutual water companies. Each operates under its own set of rules, is regulated by different entities, and has different purposes. Cooperative efforts among the larger suppliers occur through a technical group established as a result of the groundwater adjudication lawsuit.

Roads are a second infrastructure need in the area. A major Highway 101 interchange is being planned at the extension of Willow Road. In addition to the interchange, Willow Road will be extended from Pomeroy Road to Thompson Avenue. The construction of the first phase has begun. A future interchange may be considered at Southland Drive.

Wastewater service is provided by the Nipomo Community Services District within the Nipomo Urban Reserve Line. Other wastewater treatment providers include Nipomo CSD's plant in Blacklake Village, Rural Water Company's Cypress Ridge wastewater plant, and the Woodlands.

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Population

The population of the Nipomo area has increased approximately 21% from the year 2000 to 2010. Population is expected to grow approximately 15% through the year 2020. Buildout is not expected to be reached by 2035.

Nipomo Population Projections*							
2000	2005	2010	2015	2020	2025	2030	2035
12,612	13,789	15,256	16,417	17,423	18,444	19,648	20,822

* See population forecast note on Page I-3

Water Supply

The Nipomo Community Services District (NCSD) provides water and wastewater service to approximately 25% of the Mesa area's population. The remainder of the area is served by other water providers, individual wells and individual septic systems.

The entire Nipomo area is dependent on groundwater. No surface water is brought to the Mesa from any of the five surface water projects that supply the county with potable water. This dependency on groundwater is problematic for this growing area.

Groundwater is used by all of the water purveyors in the NMWCA. These purveyors include the NCSD, the private, for-profit Golden State Water Company (GSW) and many private not-for-profit mutual water companies. The number of water purveyors and the lack of a clear regulatory structure is one of the water resource concerns within the NMWCA.

Total water use represents purveyor production from Golden State, Rural Water Co., and NCSD. Actual total water use was estimated by the NCSD to have exceeded 10,500 AF in 2007.

The NMWCA is at a certified level of severity III (LOS III) for water supply. The LOS III was first established in 2005 after preparation of a Resource Capacity Study (RCS). The RCS states: "Since current and projected pumping beneath the Nipomo Mesa exceeds inflow (natural recharge plus subsurface inflow), the Nipomo Mesa portion of the Santa Maria Groundwater Basin is currently in overdraft and projections of future demand indicate increasing overdraft." The Board of Supervisors certified the LOS III in 2007 and subsequently approved water conservation ordinances for the NMWCA.

The NCSD has taken the lead to bring new water resources to the NMWCA. The NCSD will construct a pipeline from Santa Maria to Nipomo. The pipeline will deliver approximately 2500 AFY to be shared by:

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- | | | | |
|--------------------------|---------|-------------------|-----------|
| • Woodlands | 415 AFY | • Rural Water Co. | 208 AFY |
| • Golden State Water Co. | 208 AFY | • Nipomo CSD | 1,664 AFY |

Water Use

The NCSD has taken a lead role in water efficiency and conservation measures. In approving the 2004 Sphere of Influence Update, LAFCO placed conditions on the NCSD's water service. One of the conditions was the institution of a water conservation program that would reduce per connection water use by 15%. The "core" activities that would be relied on heavily to reach this conservation goal are:

- A multi-tiered conservation rate structure.
- Public education and outreach measures
- Technical assistance (e.g. leak detection, water audits).

According to LAFCO, water conservation efforts since 2004 have reduced water use as follows:

Year	AF Pumped	Connections	AFY/Connection	AF/Connection Reduction (2004)	% Reduction since 2004
2004	2,908	3,751	0.78		
2005	2,794	3,879	0.72	-7%	-7%
2006	2,706	3,995	0.68	-6%	-12%
2007	2,856	4,077	0.70	+3%	-10%
2008	2,755	4,092	0.67	-4%	-13%
2009	2,698	4,138	0.65	-3%	-16%
2010	2,551	4,136	0.61	-6%	-22%

Water use in Golden State Water Company's service area has ranged from a low of 1,191 AFY in 2009-10 to 1,488 in 2003-04.

Golden State Water Co Total Water Use AFY (fiscal year)										
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
1338	1380	1415	1414	1488	1387	1289	1288	1365	1323	1191

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The Nipomo CSD prepared the 20% per capita water use reduction for its service area. Golden State's 20% reduction uses DWR's Method 1.

Nipomo Per Capita Water Use				
Year	Supplier	Population	Gallons Per Capita Per Day (GPCD)	Total AFY
July 2009- June 2010	Nipomo CSD	10,815	211	2,550
	GSW	4,157	256	1,191
2020	Nipomo CSD	12,350	195	2,697
	GSW	4,747	205	1,088
2025	Nipomo CSD	13,227	168	2,495
	GSW	5,084	205	1,165
2035	Nipomo CSD	15,105	168	2,849
	GSW	5,806	205	1,331

Per capita water reduction was supplied by the NCSD
Golden State Water 20% per capita reduction uses DWR Method 1.

Level of Severity:

The NMWCA is at a level of severity III for water supply.

Water Suppliers

The following smaller water suppliers do not report water use. See the recommendations in the Introduction to expand reporting requirements.

Larger Suppliers	
Nipomo Community Services District	Rural Water Company
Golden State Water Company	Woodlands Water Company
Smaller Suppliers	
Arroyo Grande Mushroom Farm	Blacklake Canyon Water Supply
Callender Water Association	County Hills Estates
Greenheart Farms	Heritage Lane Mutual Water Co.
Hetrick Water Company	Ken Mar Gardens
La Mesa Water Company	Rancho Nipomo Water Company
Guadalupe Cooling	Clearwater Nursery
Cuyama Lane Water Company	Dana Elementary School
La Colonia Water Association	Laguna Negra Mutual Water Co.
Mesa Mutual Water Company	Rim Rock Water Company
Santa Maria Speedway	Speedling, Inc
True Water Supply	

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Water Rates

Golden State:

Golden State has a 2-tier rate structure.
 Avg. Single Family Water Use: 21,879 gallons/Mo.
 Avg. Single Family Water Bill: \$41.54/Mo.

Nipomo CSD:

Nipomo CSD has a 4-tier rate structure.
 Avg. Single Family Water Use: 16,260 gallons/Mo.
 Avg. Single Family Water Bill: \$55.22/Mo.

Roads

Tefft Street. This is the only road in the Nipomo Area that is part of the RMS reporting system. The County Department of Public Works tracks the current service levels of roads and forecasts their future service levels. The current Tefft Street traffic volume (peak hour) is 1,728 average daily trips (ADT). The point at which a Level of Service D is reached is 2,815 ADT. Expected traffic level in 2014 is 1,908 ADT.

Roadway	Location	LOS D Volume	PM Peak Hour Volume		
			2009	2011	2014
Tefft Street	West of Mary Avenue	2815	1728	1798	1908

There is no level of severity.

Highway 101 Interchange	2010		2020	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Tefft Street	74.9	E	89.7	F

Sewage

Facilities:

The primary sewage treatment provider in the Nipomo Area is the Nipomo Community Services District. There are three other wastewater treatment plants operating in the Nipomo Area. The Woodlands development has a tertiary level plant that produces water used for golf course and median landscape irrigation. Another tertiary level plant is located at Cypress Ridge. Blacklake Village, which is within the NCSD, has a wastewater treatment plant, the treated effluent of which is used to irrigate the three fairways on the golf course. The rest of the Nipomo Area relies on septic systems for domestic waste disposal.

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Operational Issues:

Operational issues at the NCSD treatment plant include occasional BOD (Biochemical Oxygen Demand) limit violations during settling pond maintenance. BOD is a basic measure of how well a plant is operating. A plant upgrade Master Plan is in preparation, with upgrade construction expected to begin in 2011.

Capacity:

According to the NCSD, the Southland wastewater treatment plant operates at approximately 63% of capacity.

Level of Severity:

There is no level of severity.

Schools

The Nipomo Area is served by the Lucia Mar School District. For more details about this school district, please see discussion near the end of this South County section of the report.

There are four schools located within the Nipomo Area: Dana Elementary, Dorothea Lang Elementary, Nipomo Elementary, and Nipomo High School.

Parks

Nipomo Neighborhood and Community Parks			
Park	Acres	2010 Acres Needed	2020 Acres Needed
Jack Ready Park (Undeveloped)	30 ac	46 acres	52 acres
Total:	30 ac		

Recommendations

1. Continue the limitation on the number of dwelling units for the Nipomo Mesa area for the year 2008-09 through the County's Growth Management Ordinance to 1.8% of the number of units existing in the area as of June 30, 2008.
2. At this time, a building moratorium is not considered an appropriate action for the Nipomo Mesa area. The Board adopted water conservation measures in the NMWCA in calendar year 2008 and will review the status of the programs in calendar year 2010. The Board may direct changes to the program once that review is completed in 2010.

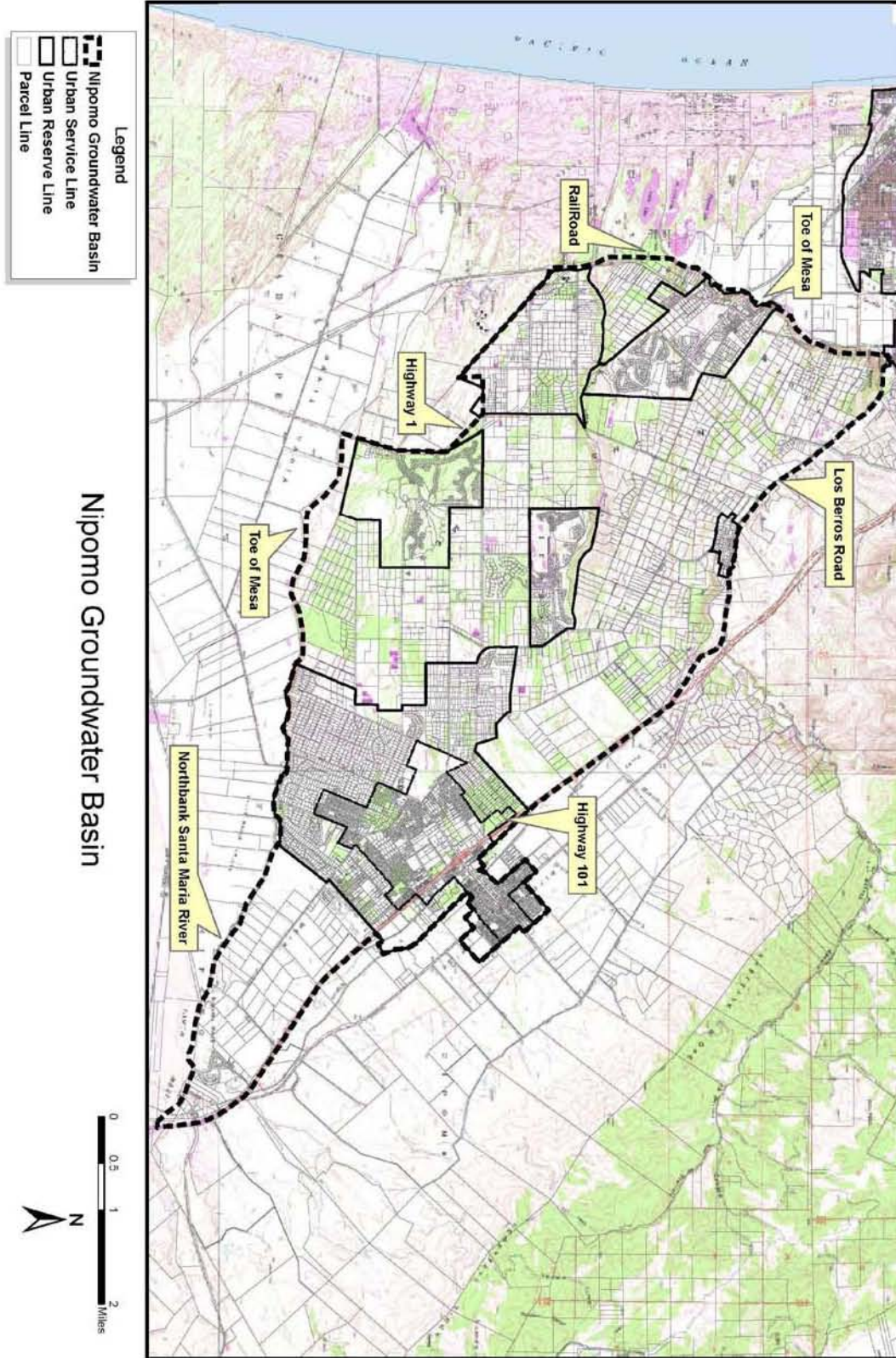
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3. Continue to implement water conservation measures adopted by the Board in 2008. Report back on the status of the programs in calendar year 2010.
4. New non-agricultural development in the NMWCA shall not result in a net increase in water use unless a supplemental water fee is in place.
5. Expand discussions with water purveyors in the NMWCA and include water rate structure, supplemental water supplies and expansion of small community water systems.

LOS Summary Table (Nipomo Area)

Nipomo Area	Water Supply	Water System	Sewer	Roads	Schools	Air
Levels Of Severity	III				III	II

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Pismo Beach

Pismo Beach is one of the seven incorporated cities in the county, covering 3.6 square miles of land area. It is a full-service city providing water and sewer service. Public schools are provided by the Lucia Mar School District. The City seeks to annex lands adjacent to its southeastern border. Additional water resources are necessary for the annexations to proceed.



Population

The City's population grew at less than 1% per year from 2000 to 2010. Population growth in the future may be affected by proposed annexations on the southeast portion of the City. In addition to this permanent population, the City has a high number of visitor serving uses such as hotels and restaurants that are drawn by the City's coastal location. The visitors that are accommodated by these uses are not reflected in the City's population figures, but they affect water use, wastewater flows and traffic.

Pismo Beach Population Projections							
2000	2005	2010	2015	2020	2025	2030	2035
8,524	8,636	8,570	8,620	8,900	9,170	9,500	9,840

Water Supply

The City has a diverse water supply from Lopez Lake, State Water and groundwater. Additional water supplies will be needed for the proposed annexations in the southeast portion of the City.

Water Use

Water use in Pismo Beach has ranged from 2,247 AFY in 2003-04 to a low of 1,963 AFY in 2009-2010.

Pismo Beach Total Water Use AFY (fiscal year)									
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2007-2008	2008-2009	2009-2010
2,148	2,121	2,150	2,153	2,247	2,135	2,112	2,018	2,125	1,963

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Per capita water use is currently 204 gpcd. Due to the City's small population, the water system is not subject to the required 20% reduction in water use per capita by the year 2020. The following table uses a method developed by DWR to estimate 20% per capita reductions in water use.

Pismo Per Capita Water Use			
Year	Population	Gallons Per Capita Per Day (GPCD)	Total AFY
July 2009-June 2010	8,603	204	1,963
2020	8,900	173	1,728
2025	9,170	173	1,781
2035	9,840	173	1,911

20% reduction in water use calculated using DWR Method 1

Water Rates

Avg. Single Family Water Use: 11,220 gallons/Mo.
Avg. Single Family Water Bill: \$52.50/Mo.

Roads

Levels of Service for roads in the Pismo Beach area are found at the end of the South County section of this report.

Sewage

Facilities:

The City operates its own wastewater collection and treatment system. A five-mile long pipeline brings treated wastewater to the South San Luis Obispo County Sanitary District treatment plant in Oceano. Effluent from both plants is then sent through an ocean outfall pipeline.

Operational Issues:

None reported.

Capacity:

The City of Pismo Beach Wastewater Treatment System operates at 23% of capacity.

Schools

The City is located within the Lucia Mar School District. Please see South County Schools at the end of the South County section of this report.

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Oceano

This unincorporated community serves as the main entrance to the Nipomo-Oceano Dunes complex and the Oceano Dunes Off-Highway Vehicle Park, which draw a tremendous amount of visitors annually. Key services are provided by the Oceano Community Services District.



Population

New development in Oceano will continue to be chiefly infill of vacant or under-utilized parcels. The community is surrounded by incorporated cities, the Nipomo Dunes complex and agricultural lands.

Oceano Population Projection*							
2000	2005	2010	2015	2020	2025	2030	2035
7,244	7,614	8,098	8,377	8,462	8,470	8,504	8,918

*see population forecast note on page I-3

Water Supply

The community's water supply includes State Water, Lopez Lake and groundwater. The groundwater is part of the "Northern Cities" area of the Santa Maria Groundwater Basin. Neighboring cities are starting to plan for additional water supplies.

The community sources of water include a 303 AFY allotment from Lopez Lake and a 750 AFY allocation from the State Water Project. The community also uses groundwater.

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Water Use

Water use in Oceano has ranged from 891 AFY in 2001-2002 to 968 AFY in 2009-2010.

Oceano Total Water Use AFY (fiscal year)										
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
911	926	891	895	951	Not provided	Not provided	Not provided	940	907	968

Water use totaled 968 AFY in 2009-2010 from:

- Lopez Lake
- State Water Project and
- Groundwater

There is not enough information available on water demand in Oceano to calculate a 20% reduction in per capita water demand by the year 2020.

Level of Severity:

There is no level of severity for water supply.

Water Rates

Current Rates: Oceano has a tiered rate based on consumption.

Avg. Single Family Water Use: 8,864 gallons/Mo.

Avg. Single Family Water Bill: \$54.34/Mo.

Roads

Roads are discussed under South County Roads near the end of the South County section of this report.

Sewage

Facilities:

Wastewater treatment is provided by the South San Luis Obispo County Sanitary District. The service is shared with the cities of Grover Beach and Arroyo Grande.

Operational Issues:

None reported.

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Capacity:

The South San Luis Obispo County Sanitary District operates at 60% capacity.

Level of Severity:

There is no level of severity.

Schools

The community lies within the Lucia Mar Unified School District, which is discussed under South County Schools near the end of the South County section of this report.

Parks

Oceano Neighborhood and Community Parks			
Park	Acres	2010 Acres Needed	2020 Acres Needed
Oceano Memorial Park	11.8 ac	24 acres	25 acres
Total:	11.8 ac		

Recommendations

None.

LOS Summary Table (Oceano)

Oceano	Water Supply	Water System	Sewer	Roads	Schools	Air
Levels Of Severity					III	

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Grover Beach

Grover Beach is one of the seven incorporated cities in the county and covers 2.25 square miles. The City provides water service to its residents and is served by the South San Luis Obispo County Sanitary District's wastewater treatment plant. The community's schools are in the Lucia Mar School District.



Population

The Department of Finance population data for Grover Beach shows a year 2000 population of 12,941, a year 2010 population of 13,070, and a year 2020 population of 13,390. The buildout population is estimated at 16,000 persons, which could be reached beyond the year 2035.

Grover Beach Population Estimates/Projections							
2000	2005	2010	2015	2020	2025	2030	2035
12,941	13,136	13,070	13,120	13,390	13,650	13,970	14,290

Water Supply

Grover Beach's water sources are similar to those of the City of Arroyo Grande. Approximately 1,200 AFY of the City's water is groundwater from the Arroyo Grande sub-basin of the Santa Maria groundwater basin. The other 800 AFY is the City's allotment of Lopez Lake water.

According to the City's Urban Water Management Plan (2005), an additional 800 AFY of water is needed for the City to reach its ultimate population.

The City uses its entire 800 acre-foot allocation from Lopez Lake. The City also has an "agreement" with other water users in the sub-basin allowing it to use a maximum of 1,428 AFY of groundwater.

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The 2005 Urban Water Management Plan looks to a future desalination facility for its long-term supplemental water source. In the short-term, water transfers from other local water suppliers are planned.

Water Use

Water use in Grover Beach has ranged between 2,199 AFY in 2003-2004 to 1,851 AFY in 2009-2010.

Grover Beach Total Water Use AFY (fiscal year)										
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
2,051	2,077	Not provided	2,027	2,199	Not provided	Not provided	Not provided	2,057	1,971	1,851

Due to the City's small population, the water system is not subject to the required 20% reduction in water use per capita by the year 2020. The following table uses a method developed by DWR to estimate 20% per capita reductions in water use:

Grover Beach Per Capita Water Use			
Year	Population	Gallons Per Capita Per Day (GPCD)	Total AFY
July 2009-June 2010	13,067	126	1,851
2020	13,390	101	1,517
2025	13,650	101	1,547
2035	14,290	101	1,619

20% reduction in water use calculated using DWR Method 1

Water Rates

Current Rates: Grover Beach reports a flat and tiered rate.

Avg. Single Family Water Use: 9,350 gallons/Mo.

Avg. Single Family Water Bill: \$66.00/Mo.

Roads

Grover Beach does not include any of the roads in the County RMS system. Please refer to South County Roads near the end of the South County section of this report.

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Sewage

Facilities:

Wastewater treatment service is provided to the City by the South San Luis Obispo County Sanitary District. The City maintains the sewer lines and sends sewage to the wastewater treatment plant in Oceano. The community of Oceano and the City of Arroyo Grande also use this wastewater treatment plant.

Operational Issues:

None reported.

Capacity:

The South San Luis Obispo County Sanitary District operates at 60% capacity.

Level of Severity:

There is no level of severity.

Schools

Grover Beach is part of the Lucia Mar School District. Two schools are located within the City:

- Grover Beach Elementary
- Grover Heights Elementary

Please refer to South County Schools near the end of the South County section of this report.

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South County Water

Lopez Lake

The San Luis Obispo County Flood Control and Water Conservation District completed the Lopez Dam in 1968 to provide a reliable water supply for agricultural and municipal needs as well as flood protection for coastal communities. Lopez reservoir has a capacity of 49,388 AF. The lake covers 950 acres and has 22 miles of oak covered shoreline. Allocations for Lopez water are based on a percentage of the reservoir's safe yield of 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.

The agencies that contract for Lopez water in Zone 3 are the communities of Oceano, Grover Beach, Pismo Beach, Arroyo Grande, and County Service Area (CSA) 12 (including the Avila Beach area). Their allocations are shown in the table below.

Participant	Allocation (AFY)
City of Pismo Beach	896
Ocean CSD	303
City of Grover Beach	800
City of Arroyo Grande	2,290
CSA 12	241
TOTAL	4,530

According to the County Master Water Plan (MWP), there are two developments that could change both 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.

Whale Rock Reservoir

Whale Rock Reservoir is located on Old Creek Road approximately one half mile east of the community of Cayucos. The project was planned, designed, and constructed under the supervision of the State Department of Water Resources. 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

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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. Water from the reservoir is allocated among three agencies as shown in the following table.

Participant	Allocation (AFY)
City of San Luis Obispo	22,383
Cal Poly	13,707
CMC	4,570
TOTAL	40,660

South County Schools

South County Schools					
Capacity, Enrollment, Recommended Levels of Severity (RLOS)					
District	School	Capacity	Enrollment	Enrollment Capacity	LOS
Lucia Mar Unified	Elementary	5,191	5,401	104.05%	III
	Middle School	1,810	1,676	92.60%	II
	High School	2,775	3,484	125.55%	III
San Luis Coastal Unified*	Elementary	4,133	3,409	82.48%	
	Middle School	1,550	1,071	69.10%	
	High School	2,670	2,493	93.37%	II

* Data was not received for 2010-2011. Last available data is from 2008-2009.

South County Air Quality

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 State hourly average ozone standard is 0.09 ppm. The State

SOUTH COUNTY

adopted an 8-hour average ozone standard of 0.07 ppm in 2006. Exceedances of the hourly ozone standard since 2000 are summarized in the following table:

Location	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Grover Beach	None	None	None	None	None	None	None	None	None	None
Nipomo	None	None	None	1	None	None	None	None	None	None
San Luis Obispo	None	None	None	None	None	None	None	None	1	None

PM10

Particulate matter less than ten microns (PM10) can be emitted directly from a source, and can also be formed in the atmosphere through chemical transformation of gaseous pollutants. Nitrogen oxides and reactive organic gases can both participate in these reactions to form secondary PM10 products. Re-entrained dust from vehicles driving on paved roads is the single largest source of PM10 in the county. Dust from unpaved roads is the county's second largest source of PM10. PM10 measurements throughout the South County have exceeded the State 24-hour average PM10 standard of 50 ug/m³ on numerous occasions in the past several years and the annual standard of 20 ug/m³. Exceedances of the 24-hour standard since 2000 are summarized in the following table.

Location	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Nipomo	None	3	2	4	2	None	1	2	1	2
San Luis Obispo	None	None	None	1	None	None	1	None	None	None
Mesa to Hwy 1	7	8	5	4	9	1	4	7	5	9
Ralcoa¹	15	2	22	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hillview²	N/A	N/A	N/A	N/A	N/A	N/A	10	13	17	2

¹Ralcoa PM10 monitoring terminated in 2002

²Hillview monitoring station was closed at the end of March, so the data for Hillview does not represent an entire year's worth of exceedances.

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Particulate Matter Study

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. These historical measurements show that the California health standard for PM₁₀ (airborne particles with a mean aerodynamic diameter of 10 microns or less) is regularly exceeded in many locations on the Nipomo Mesa.

To better understand the extent and sources of these unusually high concentrations of particulate pollution on the Nipomo Mesa, the San Luis Obispo County Air Pollution Control District (SLO APCD) has conducted comprehensive air monitoring studies in that region. The Phase 1 South County Particulate Matter (PM) Study began in 2004 and utilized filter-based manual particulate samplers measuring both PM₁₀ and PM_{2.5} concentrations at 6 monitoring sites located throughout the Mesa. Samples were collected over a one year period and analyzed for mass and elemental composition; meteorological measurements of wind speed and direction were also performed at numerous locations in the study area. Data from the Phase 1 study showed air quality on the Nipomo Mesa exceeds the state 24-hour PM₁₀ health standard at one or more monitoring locations on over one quarter of the sample days.

Elemental analysis of PM_{2.5} filter samples demonstrated that on these high particulate days, the largest fraction of particles are composed of the wind blown crustal material containing silicon, iron, aluminum, and calcium. Meteorological data showed that high wind events entraining crustal particulate from the dune fields at the Oceano Dunes State Recreational Vehicle Area (SRVA) upwind of the Nipomo Mesa area and transporting them inland as the likely cause; data from a directional PM₁₀ sampler on the Mesa that only operated on high wind days strongly supported this conclusion. Further analysis of Phase 1 study data was unable to provide a conclusive determination on whether off-road vehicle (OHV) activity in the SRVA played a role, either direct or indirect, in the particulate pollution observed on the Nipomo Mesa.

The Phase 1 Study Report was presented to the SLO APCD Board of Directors in March of 2007. The SLO APCD Board directed that a follow-up study (Phase 2) be conducted with the primary goal of determining if OHV activity on the SRVA played a role in the high particulate levels measured on the Nipomo Mesa; a secondary goal of the study was to determine what, if any, particulate impacts on the Mesa are due to fugitive dust from the petroleum coke piles at the ConocoPhillips Refinery complex.

The Phase 2 Study design involved three independent investigations using a broad array of technologies and measurement techniques to better understand the source(s) and activities responsible for the observed particulate pollution

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problem on the Nipomo Mesa. Determining the role of OHV activity on the SRVA was a key focus of the study, so it was important to conduct measurements and analyses both within and downwind of the dunes at the SRVA, as well within and downwind of “control site” dunes north and south of the SRVA where off road vehicles are not allowed, to evaluate the differences between them. PM and meteorological measurements downwind of the refinery coke piles and agricultural fields on the Mesa were also a necessary design element to determine potential contributions from those areas. Further, since the Phase 1 study showed that high PM concentrations on the Mesa occur primarily on high wind days, it was critical to ensure that study measurements captured the high wind events that typically occur during the early spring and late fall months. The field measurement phase of the study was conducted from January 2008 through March 2009.

The information in Phase 2, combined with the results of Phase I, lead to the following major findings:

- The airborne particulate matter predominantly impacting the region on high episode days does not originate from an offshore source.
- Neither the petroleum coke piles at the ConocoPhillips facility nor agricultural fields or activities in and around the area are a significant source of ambient PM on the Nipomo Mesa.
- The airborne particulate matter impacting the Nipomo Mesa on high episode days predominantly consists of fine sand material transported to the Mesa from upwind areas under high wind conditions.
- The primary source of high PM levels measured on the Nipomo Mesa is the open sand sheets in the dune areas of the coast.
- The open sand sheets subject to OHV activity on the SRVA emit significantly greater amounts of particulates than the undisturbed sand sheets at the study control sites under the same wind conditions.
- Vegetated dune areas do not emit wind blown particles; the control site dunes have significantly higher vegetation coverage than is present at the SRVA.

The major findings resulting from detailed analysis of the diverse and comprehensive data sets generated during the Phase 1 and Phase 2 South County PM Studies clearly lead to a definitive conclusion: OHV activity in the SRVA is a major contributing factor to the high PM concentrations observed on the Nipomo Mesa.

There are two potential mechanisms of OHV impact. The first is direct emissions from the vehicles themselves, which includes fuel combustion exhaust and/or dust raised by vehicles moving over the sand. Elemental analysis of study data shows combustion exhaust particles are not a significant component in the samples during high concentration periods. However, analysis of SRVA vehicle activity data does show a weak relationship between high PM10 concentrations

SOUTH COUNTY

and high vehicle activity. This indicates a very small direct emissions impact from OHV activity caused by wind entrainment of dust plumes raised by vehicles moving across the open sand. While significant, the study data shows this is not the major factor responsible for the high PM levels downwind from the SRVA.

The second potential mechanism of impact from OHV activities involves indirect emission impacts. Offroad vehicle activity on the dunes is known to cause de-vegetation, destabilization of dune structure and destruction of the natural crust on the dune surface. All of these act to increase the ability of winds to entrain sand particles from the dunes and carry them to the Mesa, representing an indirect emissions impact from the vehicles. The data strongly suggests this is the primary cause of the high PM levels measured on the Nipomo Mesa during episode days.

On March 24, 2010, the SLO APCD Board accepted the South County Particulate Matter Study and its findings and directed the APCD staff to write a letter to inform State Parks of their action and to encourage State Parks' specific cooperation. In addition, direction was provided to the APCD staff to investigate the next action steps to be taken and to the APCD Counsel to investigate and report back on the APCD Board's regulatory authority on this matter.

At the May 19, 2010 APCD Board meeting, further action was taken to direct staff to enter into a Memorandum of Agreement between APCD, SLO County and State Parks to develop and implement a Particulate Matter Reduction Plan for the SRVA. Simultaneously APCD staff was also directed to proceed with the development of a Fugitive Dust Rule to address the South County PM issue. As this process is not completed yet, it is recommended that Planning and Building Department staff work with the APCD in the next year to determine the level of severity on the Nipomo Mesa.

Recommendation

The Resource Management System Air Quality criteria for determining levels of severity focus on emissions and violations of the state Ozone standard, but not on PM10 levels. The Department of Planning and Building will work with the SLO APCD to determine the appropriate level of severity for PM10.

South County Roads

The following roadways have been added to the level of severity list for the South County as they operate at LOS D volumes: Halcyon Rd, Los Osos Valley Rd, and Tank Farm Rd.

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2010 RMS Levels of Service South County Roads

Roadway	Location	LOS D Volume	PM Peak Hour Volume		
			2009	2011	2014
Corbett Canyon Road	North of Arroyo Grande City Limits	909	258	268	285
Halcyon Road	North of Camino del Rey	898	423	440	467
Halcyon Road	South of Arroyo Grande Creek	904	956	995	1056
Lopez Drive	South of Orcutt Road	886	290	302	320
Los Berros Road	South of El Campo Road	978	578	601	638
Los Ranchos Road	West of State Route 227	968	583	607	644
O'Connor Way	North of Foothill Road	1084	165	172	182
Paso Robles Street	East of State Route 1	970	152	158	168
Price Canyon Road	South of State Route 227	995	805	838	889

*Shaded area indicates traffic volume levels exceed LOS D (PM Peak Volume Traffic).

Halcyon Road (South of Arroyo Grande Creek) – The road segment exceeds the LOS D PM Peak Hour Volume with 956 trips in 2009. LOS D is reached at 904 trips. Volumes are projected to increase in 2011 to 995 trips and in 2014 to 1056 trips. This Peak Hour Volume is a level of severity III.

Other Roads

Price Canyon Road: The County currently has two projects planned to widen Price Canyon Road. Widening of the bridges over West Corral de Piedra Creek and the Union Pacific Railroad crossing is scheduled to begin in 2011. A funding delay has resulted in the delay of the remaining roadway widening until 2015.

The County Public Works Department continues to actively pursue construction of the Willow Road Interchange to provide relief at the Tefft Street Interchange.

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South County Parks

South County Regional Parks				
Park	Natural Areas Acres	Acreage	Location	Provides
Biddle Park	20	27	Arroyo Grande	47 acre park located on APN 047-080-038. Group and individual picnic areas, a gazebo, play equipment, two ball fields, restrooms, parking, and a trail.
El Chorro Park	450	40	San Luis Obispo	Two softball fields, group and individual picnicking, play equipment, camping, SLO Botanical Garden, parking, and restrooms.
Lopez Lake Recreation Area	4,076	200	Arroyo Grande	Camping, water slide, boating, water skiing, fishing, swimming, services (marina and gas), trails, and nature appreciation.

NORTH COUNTY

IV. NORTH COUNTY

The North County consists of the Cities of Atascadero and Paso Robles, and the unincorporated communities of San Miguel, Santa Margarita, Shandon, and Templeton. Each resource is discussed by community, with the exception of regional resources that cross community boundaries and are shared among communities. Examples are schools, roads and wastewater treatment.



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Atascadero

The City of Atascadero is 24.3 square miles in size. Traffic flow and interchange capacity on Highway 101 through Atascadero is an issue during peak hours, as many residents commute to work in Paso Robles or San Luis Obispo. Freeway interchange improvements and water from the Nacimiento Pipeline Project will address some of the City's infrastructure needs.



Population

The City's population grew by approximately 9.7% from 2000 to 2010 and is projected to continue growing at a similar rate between 2010 and 2020.

Atascadero Population Projections							
2000	2005	2010	2015	2020	2025	2030	2035
24,945	26,196	27,360	28,860	29,860	30,810	32,000	33,200

Water Supply

The City of Atascadero is served by the Atascadero Mutual Water Company (AMWC). The AMWC's water source is groundwater, including underflow of the Salinas River. The Company has contracted for 2,000 acre feet/year (AFY) of Lake Nacimiento project water. The AMWC serves water to the City and a portion of the unincorporated territory south of the City.

The AMWC gets its entire water supply from the Atascadero Sub-basin of the Paso Robles Groundwater Basin and the underflow of the Salinas River. The underflow is part of the Paso Robles Groundwater Basin, the status of which is described in the Paso Robles Groundwater Basin Resource Capacity Study (RCS) developed by the County.

The company has also contracted for a share of the Nacimiento Water Project. Full delivery of the 2,000 AFY is scheduled when the Company's groundwater wells are not sufficient to meet demand.

Water Use

Water use in Atascadero has ranged from 5511 AFY to 6978 AFY since the year 2000.

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Atascadero Total Water Use AFY (fiscal year)										
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
6,459	6,355	6,457	6,288	6,978	5,841	6,115	6,850	6,590	6,194	5,511

The AMWC did not include a 20% reduction in per capita water use. The Company states that current effective conservation programs may count toward the 20% goal.

Atascadero Mutual Water Company Per Capita Water Use			
Year	Population*	Gallons Per Capita Per Day (GPCD)	Total AFY
July 2009-June 2010	30,000	199	5,509
2020	29,860	199	6,656
2025	30,810	199	6,868
2035	33,200	199	7,401

Information received from Atascadero Mutual Water Company.

Water Rates

The City's water rates are relatively low when compared with the rest of the cities and communities in the county. Communities that rely on groundwater generally have lower water rates than communities that rely on imported water due to the costs of delivering imported water. The AMWC has tiered rates.

Avg. Single Family Water Use: 23,000 gallons/Mo.

Avg. Single Family Water Bill: \$31.74/Mo.

Roads

Please refer to North County Roads near the end of the North County section of this report.

Sewage

Facilities:

According to the City's Sewer System Management Plan, sanitary sewer services are provided to approximately one-half of the residents and to a majority of the businesses within the city limits. Privately owned and maintained on-site septic systems are utilized by the remainder of the city. The unincorporated south Atascadero area that is served by AMWC does not have sewer service. The City's Water Reclamation Facility is located east of the Chalk Mountain Golf Course. Groundwater reclaimed from below the facility's infiltration ponds is used for fairway irrigation.

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Operational Issues:

None reported.

Capacity:

The City of Atascadero's Wastewater Treatment Plant operates at 47% capacity.

Schools

The City is served by the Atascadero Unified School District. The following six of nine schools in the District are within the City:

- Atascadero Elementary (4)
- Atascadero Junior High
- Atascadero High

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Paso Robles

The incorporated City of Paso Robles covers 17.3 square miles. Paso Robles is known for its wine industry, which drives both the regional tourism and agriculture industries. Paso Robles is a full-service city providing water and sewer. Major circulation improvements are needed at the interchanges of Highway 101 with Highway 46 West and East. These are “big ticket” improvements that must be designed and funded in order for the City to achieve its general plan buildout. The City will



take 4,000 AFY of Lake Nacimiento water that will supplement the groundwater and Salinas River underflow currently used by the City.

Population

The City’s population is expected to grow to approximately 35,880 by the year 2020. That reflects a 17.1% increase over the estimated 2010 population.

Paso Robles Population Projections							
2000	2005	2010	2015	2020	2025	2030	2035
23,370	27,108	30,650	34,000	35,880	37,670	39,920	42,190

Water Supply

The City of Paso Robles has historically relied upon local water supplies from the Salinas River underflow and from the Paso Robles Formation of the Paso Robles Groundwater Basin for its municipal water supply.

Salinas River underflow refers to shallow subterranean flows in direct connection with the Salinas River. This underflow is subject to appropriative water rights and permitting by the State Water Resources Control Board (SWRCB). An approved SWRCB application allows the City to extract up to 3,590 gallons per minute, with a maximum extraction of 4,600 AFY (January 1 to December 31).

The deeper Paso Robles Formation (PRF) currently contributes approximately 2,856 AFY to the City’s supply. The City plans to maintain this extraction rate in the future.

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To assure its water supply into the future, the City will purchase water from the Nacimiento Water Project, which is projected to deliver 4,000 AFY of raw water. The City is progressing with its plans for a water treatment plant; the timetable for design and construction is dependent on the successful implementation of a new water rate needed to fund the project. The City has the option of increasing its allotment of Nacimiento water to 8,000 AFY as needed to meet demand increases.

Another water supply alternative being pursued by the City is the use of recycled wastewater. The City owns its own wastewater treatment plant which currently provides secondary treatment. Several alternatives have been studied to upgrade treatment to the tertiary level, and it is expected that one of these alternatives will eventually be pursued. 5,000 AFY of wastewater could ultimately be treated, but only about 150 AFY would be needed to meet buildout demand, assuming that water conservation efforts achieve a 20 percent reduction in per capita use and other supplies are developed and maintained as planned. This margin of safety ensures a back-up source of water in the event of limitations on any of the other water sources.

The City has implemented a number of permanent, mandatory water conservation measures that are in force throughout the water service area. They include mandatory recycling or recirculation of water for car washes, cooling systems and decorative fountains, and several other practices designed to curb water waste.

The City has targeted landscape irrigation as the water use practice with the highest potential for water conservation. Paso Robles currently enforces mandatory landscape watering restrictions that limit irrigation to three days per week. Educational resources are available on the City website, in City offices, and in periodic mailings and with water bills. The City also sponsors a school education program that includes water conservation as a key component. Paso Robles offers rebates for installation of High Efficiency Toilets, rebates for turf conversions to drought-tolerant landscape, and free home and business water surveys. The City is a member of Partners in Water Conservation and the California Urban Water Conservation Coalition.

Water Use

Water use in Paso Robles has ranged from 6,373 AFY in 2000 to 8,130 AFY in 2006-07 as shown in the following table. In 2010, water use was reduced by approximately 20 percent through the implementation of mandatory outdoor water use restrictions limiting use to three days per week.

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Paso Robles Total Water Use AFY (fiscal year)									
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2008-2009	2009-2010
6,373	6,598	7,074	7,145	7,929	6,959	7,444	8,130	7,353	6,391

The per capita use of 193 gpcd listed for 2020 and beyond reflects a 20 percent reduction from 241 gpcd, the City's 10-year average per capita water use from 1997-2008. Mandatory water use restrictions were implemented during 2009. Future per capita demand may be higher than shown below.

Paso Robles Per Capita Water Use			
Year	Population	Gallons Per Capita Per Day (GPCD)	Total AFY
July 2009-June 2010	29,950	190	6,389
2020	37,570	193	8,125
2025	44,000	193	9,515
2035	44,000	193	9,515

Information received from City of Paso Robles.

Water Rates

Paso Robles has tiered water rates.

Avg. Single Family Water Use in 2008: Not Available
 Avg. Single Family Water Bill: \$37.32/Mo.

Roads

Please refer to North County Roads near the end of the North County section of this report.

Sewage

Facilities:

The current treatment plant process consists of physical treatment, primary treatment, trickling filters, secondary clarifiers, chlorination for disinfection and polishing ponds. Treated effluent is discharged to the Salinas River.

Operational issues:

Waste discharge limitations have been exceeded for the treated effluent from the wastewater treatment plant, established under the Basin Plan developed for the Regional Water Quality Control Board.

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Capacity:

The treatment plant operates at 59% capacity.

Schools

The Paso Robles Unified School District consists of eleven schools, all of which are within the City:

- Six elementary
- Two middle schools
- Three high schools

Paso Robles Public Schools			
School Class	2010-2011 Enrollment	Maximum Capacity	Percentage Capacity
Elementary	3,002	3422	87.73%
Middle School	1,427	1486	96.03%
High School	2,402	2637	91.09%

NORTH COUNTY

San Miguel

San Miguel is the northernmost of the county's unincorporated communities along Highway 101. San Miguel is home to major tourist attractions: the historic Mission San Miguel Archangel and Rios Caledonia. Resource issues include the level of severity III for water supply.



Population

Preliminary work is underway to prepare a San Miguel Community Plan. Under current projections, the community's population is expected to grow to 2,204 by 2020, as shown in the following table.

San Miguel Population Projections*							
2000	2005	2010	2015	2020	2025	2030	2035
1,420	1,492	1,838	2,026	2,204	2,391	2,610	2,746

*see population forecast note on page I-3

Water Supply

San Miguel's water source is groundwater from the Paso Robles Groundwater Basin, supplied by the San Miguel Community Services District. Water levels in a majority of the Basin south of the town are in a state of decline. The San Miguel CSD did not participate in the Nacimiento water project. The Paso Robles Groundwater Basin (LOS III) supplies the community's water needs. The San Miguel CSD reports that approximately 314 AFY of water was used in fiscal year 09-10. The CSD expects all of its future supply to be from the Groundwater Basin, as the community is remote from any water project such as the Nacimiento Water Project.

Water Use

The San Miguel CSD has reported the following water use for the past years:

San Miguel Total Water Use AFY (fiscal year)			
2006- 2007	2007- 2008	2008- 2009	2009- 2010
345	317	345	314

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A 20% per capita reduction in water use was not calculated for San Miguel due to the lack of information provided to the County.

Level of Severity:

San Miguel is at a level of severity III for water supply.

Water Rates

San Miguel CSD has tiered water rates.

Avg. Single Family Water Use: 3,303 gallons/Mo.

Avg. Single Family Water Bill: \$55.39/Mo.

Roads

For further information, please refer to the discussion of North County Roads near the end of the North County section of this report.

Roadway	Location	LOS D Volume	PM Peak Hour Volume		
			2009	2011	2014
Mission Street	North of US Highway 101	974	382	397	422

There is no level of severity.

Sewage

Facilities:

The San Miguel CSD provides wastewater service to the community of San Miguel. San Lawrence Terrace, located on the east side of the Salinas River, is served by individual septic systems.

Operational Issues:

None reported.

Capacity increases:

San Miguel Wastewater				
Current Daily Plant Capacity (mgd)	Peak Daily Flow (mgd)	Current Operational Percentage of Capacity	Expansion Plans	New Capacity After Expansion (mgd)
0.200	0.135	67.50%	Yes	0.500

Level of Severity:

There is no level of severity.

NORTH COUNTY

Schools

The Community is within the San Miguel Joint Union School District. The District consists of two schools:

- Lillian Larsen K-8
- Cappy Culver Elementary

Please refer to the North County Schools discussion near the end of the North County section of this report.

Parks

San Miguel Neighborhood and Community Parks			
Park	Acres	2010 Acres Needed	2020 Acres Needed
San Miguel Park	4.3 ac	6 acres	7 acres
Total:	4.3 ac		

Recommendations:

None

LOS Summary Table (San Miguel)

San Miguel	Water Supply	Water System	Sewer	Roads	Schools	Air
Levels Of Severity	III					

NORTH COUNTY

Santa Margarita

Santa Margarita is a small community divided by the Union Pacific Railroad and surrounded by the Santa Margarita Ranch.

There have been historical water supply concerns in the town, as the shallower of its two wells is subject to seasonal fluctuations in groundwater levels. Septic systems have failed in a portion of the town due mainly to high groundwater conditions during wet seasons.



Population

With its present infrastructure issues, little growth will be seen in town; however, development on the surrounding Santa Margarita Ranch may occur in the future.

Santa Margarita Population Projections*							
2000	2005	2010	2015	2020	2025	2030	2035
1,279	1,335	1,394	1,432	1,450	1,458	1,475	1,552

*see population forecast note on page I-3

Water Supply

San Miguel's water supply is provided by two wells. The primary source is a high-producing well in a shallow formation subject to seasonal fluctuations. The secondary well is in a low-producing formation and is used in combination with the primary well in order to meet demand during hot weather periods and for operational flexibility. The two wells are capable of meeting the community's current needs (CSA 23); however, an additional source of water is needed since the back-up well in the low-producing formation is incapable of meeting the needs of the town by itself should the main well fail for some reason (a CA Title 22 requirement).

A Resource Capacity Study (RCS) is planned to better understand the dynamics of the water supply for the community and the surrounding Santa Margarita Ranch.

NORTH COUNTY

At this time, the community is evaluating alternatives for a small additional supply for the purpose of drought reliability. Those options are a connection to State Water or Nacimiento Water for 5 AFY, with an exchange agreement with a water contractor that would allow the water to be banked and withdrawn only when it is needed. The water system is at level of severity II until this issue is addressed.

Water Use

Water use in Santa Margarita has ranged from 161 AFY to 216 AFY since the year 2000, as shown in the following table.

Santa Margarita Total Water Use AFY (fiscal year)										
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
214	197	206	205	216	189	194	Missing	170	161	172

Due to the community's small population, the water system is not subject to the required 20% reduction in water use per capita by the year 2020. The following table uses a method developed by DWR to estimate 20% per capita reductions in water use.

Santa Margarita Per Capita Water Use			
Year	Population	Gallons Per Capita Per Day (GPCD)	Total AFY
July 2009-June 2010	1,394	110	172
2020	1,450	97	158
2025	1,458	97	159
2035	1,552	97	169

DWR Method 1 was used to calculate the 20% reduction in demand.

Level of Severity:

There is no level of severity for water supply.

Water Rates

CSA 23 has tiered water rates.

Avg. Single Family Water Use: 13,838 gallons/Mo.

Avg. Single Family Water Bill: \$86.37/Mo.

Roads

No local roads are part of the RMS reporting program. Future development of the Santa Margarita Ranch may require improvements on Highways 58 and 101.

NORTH COUNTY

Sewage

Santa Margarita relies on individual septic systems for wastewater service. Septic failures have occurred in areas of the town subject to high groundwater levels. Future development of the Santa Margarita Ranch may ultimately require construction of a community wastewater system, which might be used by existing development.

Schools

The Community is served by the Atascadero Unified School District. There are two elementary schools within Santa Margarita: Carrisa Plains and Santa Margarita Elementary. For further information on schools in the North County, please refer to the North County Schools discussion near the end of the North County section of this report.

Parks

Santa Margarita Neighborhood and Community Parks			
Park	Acres	2010 Acres Needed	2020 Acres Needed
Santa Margarita Community Park	2 ac	4 acres	4 acres
Total:	2 ac		

Recommendations

1. Maintain the LOS III for the water system.
2. Conduct a Resource Capacity Study (RCS) to help identify future water supply needs and water source options.
3. Monitor the progress of the development of the Santa Margarita Ranch. Phase-in water and road improvements that are needed for the proposed level of development on the ranch.

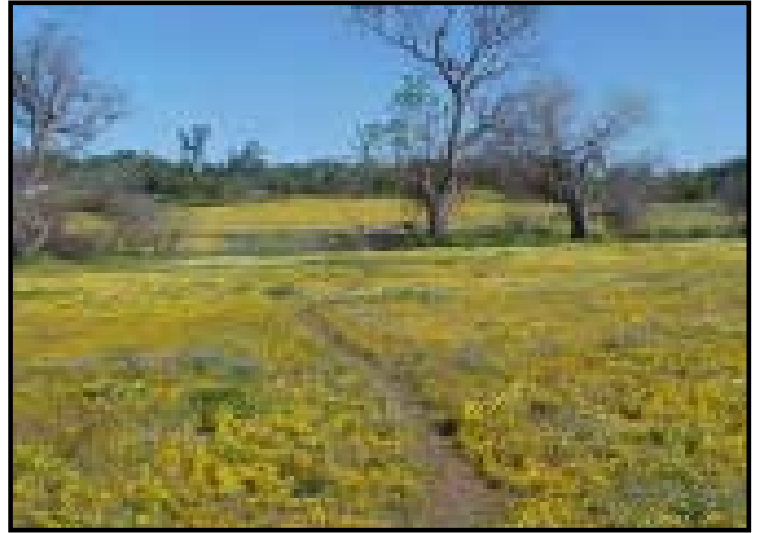
LOS Summary Table (Santa Margarita)

Santa Margarita	Water Supply	Water System	Sewer	Roads	Schools	Air
Levels Of Severity		III				

NORTH COUNTY

Shandon

An update to the Community Plan for the small community of Shandon is currently under review. A primary resource concern for future development is a long-term water supply. Infrastructure needs include a community sewer system, intersection improvements at Highway 46 and West Centre Street and drainage improvements.



Population

Future population growth in the community would be guided by the Community Plan. The Public Hearing Draft Community Plan provides for a build out population of about 5,300 residents.

Shandon Population Projections*							
2000	2005	2010	2015	2020	2025	2030	2035
979	1,029	1,258	1,818	2,589	3,679	5,260	5,534

*see population forecast note on page I-3

Water Supply

Present water supply is from the Paso Robles Groundwater Basin, which is at a level of severity III. The Basin has seen a decline in water levels along the Highway 46 East corridor from 1980 to 2009. A Groundwater Management Plan for the Paso Robles Groundwater Basin is currently under preparation and should address the declining water levels in the Basin.

The town is served by groundwater from the Paso Robles Groundwater Basin through County Service Area (CSA) 16. The water system has two wells. The town has a 100 AFY allocation of State Water that has not yet been used. In order to use that allocation, a turnout from the State water pipeline, as well as other infrastructure, would need to be constructed.

NORTH COUNTY

Water Use

Water use in Shandon has ranged from 156 AFY in 2005-2006 to 100 AFY in 1999-2000, as shown in the following table.

Shandon Total Water Use AFY (fiscal year)										
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
100	130	143	150	154	147	156	151	125	122	105

The 20% per capita reduction calculation was not performed for Shandon due to the potential changes in population reflected in the Shandon Community Plan.

Level of Severity:

Shandon is at a level of severity III for water supply.

Water Rates

CSA16 has tiered water rates.

Avg. Single Family Water Use: 16,456 gallons/Mo.

Avg. Single Family Water Bill: \$88.32/Mo.

Roads

No roads in the area are part of the RMS reporting system.

Sewage

There is no centralized sewer system in the town. All wastewater disposal is from septic systems. The proposed Community Plan includes a community wastewater treatment plant and sewer system.

Schools

The Community is served by the Shandon Unified School District. There are three schools within the District:

- Shandon Elementary
- Shandon High/ Middle School
- Parkfield Elementary (in the community of Parkfield)

NORTH COUNTY

Parks

Shandon Neighborhood and Community Parks			
Park	Acres	2010 Acres Needed	2020 Acres Needed
C.W. Clarke Park	11.5 ac	4 acres	8 acres
Total:	11.5 ac		

Recommendations:

None

LOS Summary Table (Shandon)

Shandon	Water Supply	Water System	Sewer	Roads	Schools	Air
Levels Of Severity	III				III	

NORTH COUNTY

Templeton

Templeton is located between the City of Paso Robles and the City of Atascadero. The community has a mix of residential, commercial, agricultural, and recreational uses. There are a number of homes on larger lots, which causes a relatively large per capita community water demand.



A major road improvement at North Main Street and Highway 101 is planned. Major freeway interchange projects have been completed at Las Tablas Road and at Vineyard Drive.

Population

The community saw a steady growth rate in the years 2000 to 2010, when population growth averaged slightly over 2% per year. A similar growth rate is expected through 2020, as shown in the following table.

Templeton Population Projections*							
2000	2005	2010	2015	2020	2025	2030	2035
4,607	5,087	5,683	6,176	6,459	6,737	6,899	7,259

*see population forecast note on page I-3

Water Supply

The Templeton Community Services District (TCSD) provides water to the community from groundwater, Salinas River underflow and reclaimed water. The TCSD depends on water from 13 wells that pump water from two groundwater sources: the Atascadero Sub-basin and the Salinas River underflow. The TCSD also has a 240 AFY allocation from the Lake Nacimiento Water Project. The needed facilities to receive and treat this water are under evaluation.

The TCSD currently is permitted to pump 500 AFY from the Salinas River underflow between October 1 and April 1. There are three wells that tap this aquifer, though only two, the Smith Well and the Creekside river wells, are in service. The Templeton CSD may request from the California Department of Public Health an extended permit to continue to pump from the river wells through May 15 if sufficient water is available and flowing during that time.

NORTH COUNTY

An additional source of water for the TCSD comes from its re-use program involving disposal of treated wastewater effluent from the Meadowbrook treatment plant percolation ponds. This program allows treated effluent to percolate into the groundwater basin/Salinas River underflow, enabling the TCSD to subsequently pump the same amount of water less two percent 28 months later.

Water Use

Total water use in Templeton ranged from 1,260 AFY in 1999-2000 to 1,689 AFY in 2003-04.

Templeton Total Water Use AFY (fiscal year)										
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
1,260	1,315	1,474	1,460	1,689	1,438	1,540	missing	1,558	1,641	1,425

Due to Templeton's small population, the water system is not subject to the required 20% reduction in water use per capita by the year 2020. The following table uses a method developed by DWR to estimate 20% per capita reductions in water use.

Templeton Per Capita Water Use			
Year	Population	Gallons Per Capita Per Day (GPCD)	Total AFY
July 2009-June 2010	6,500	196	1,425
2020	6,459	192	1,385
2025	6,737	192	1,445
2035	7,259	192	1,557

DWR's Method 1 was used to calculate the 20% reduction.

Level of Severity:

Templeton is at a level of severity I for water supply.

Water Rates

Templeton CSD has tiered water rates.

Avg. Single Family Water Use: 12,764 gallons/Mo.

Avg. Single Family Water Bill: \$39.01/Mo.

NORTH COUNTY

Roads

Roadway	Location	LOS D Volume	PM Peak Hour Volume		
			2009	2011	2014
Las Tablas Road	West of Duncan Road	1,446	1,378	1,434	1,521
Ramada Drive	South of State Route 46	978	514	535	567
Vineyard Drive	West of State Route 46	905	236	246	261
Vineyard Drive	West of U.S. Highway 101	1,160	1,020	1,061	1,126

*Shaded area indicates traffic volume levels exceed LOS D (PM Peak Volume Traffic).

Las Tablas Road (West of Duncan): The Templeton Circulation Study includes a project to widen Las Tablas Road to five lanes for one-quarter mile west of US Highway 101. The project would be funded by regional funds. The signalized intersections at Bennett Way and the Highway 101 ramps operate at LOS C or better under buildout conditions. The point at which a Level of Service D is reached is 1,446 average daily trips (ADT). It is projected that Las Tablas Road will exceed this volume in 2014, reaching a volume of 1,521 ADT. This corresponds to a level of severity I.

Vineyard Drive: Construction on the Vineyard Drive interchange was completed in 2009. The project widened the bridge and Vineyard Drive between Bennett Way and Main Street to three lanes (two travel lanes and one center turn lane) with bike lanes. There is no level of severity.

US Highway 101 Interchange

Interchange	2010		2020	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Main Street	16	B	27.6	C

Sewage

Facilities:

Wastewater from the town is treated at two locations, the TCSD Meadowbrook Wastewater Treatment Plant (WWTP) and the City of Paso Robles. An additional source of water for the TCSD comes from its re-use program involving disposal of treated wastewater effluent from the Meadowbrook treatment plant percolation ponds. This program allows treated effluent to percolate into the groundwater basin/Salinas River underflow, enabling the TCSD to subsequently pump the same amount of water less two percent 28 months later.

Operational issues:

None reported.

NORTH COUNTY

Capacity:

The Meadowbrook Wastewater Treatment Plant operates at 25% capacity. No planned increases or improvements at this time.

Level of Severity:

There is no level of severity.

Schools

The community is within the Templeton Unified School District. There are five schools in the District:

- Templeton Elementary
- Vineyard Elementary
- Templeton Middle
- Templeton High
- Eagle Canyon High

Parks

Templeton Neighborhood and Community Parks			
Park	Acres	2010 Acres Needed	2020 Acres Needed
Templeton Park	3.5 ac	17 acres	19 acres
Total:	3.5 ac		

Recommendations:

None

LOS Summary Table (Templeton)

Templeton	Water Supply	Water System	Sewer	Roads	Schools	Air
Levels Of Severity	I			I	III	

NORTH COUNTY

Heritage Ranch

Historically, Heritage Ranch was considered a “vacation” rental area with a large part-time population. The Heritage Ranch CSD finds that this is no longer the case and estimates that only approximately 30% of the water connections can be considered part-time. Most homes in the community are now occupied by full-time residents.



Population

Heritage Ranch is a “Village” as described in the County General Plan. Villages are not usually included in this ASR. However, due to its increasing permanent residential population, Heritage Ranch is included in this report.

Water Supply

Lake Nacimiento is Heritage Ranch’s only source of water. 1,100 AFY of water from the Lake is reserved for the community. Of that amount, 889 AFY is under contract with the County Public Works Department for the Heritage Ranch Community Services District. The additional 211 AFY is under contract with a private developer who owns land in Heritage Ranch.

Water Use

Water use in Heritage Ranch has ranged from a low of 479 AFY in 2001-02 to a high of 625 AFY in 2005-06, as shown in the following table.

Heritage Ranch Total Water Use AFY (fiscal year)									
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2009-2010
484	493	479	507	550	585	625	616	564	553

The following table shows per capita water use, which is currently estimated at 150 gpcd. A 20% reduction in per capita use was provided by the Heritage Ranch CSD.

NORTH COUNTY

Heritage Ranch Per Capita Water Use			
Year	Population	Gallons Per Capita Per Day (GPCD)	Total Acre Feet Per Year
July 2009-June 2010	3,300	150	553
2020	4,335	120	581
2025	4,786	120	642
2035	5,834	120	782

Information received from Heritage Ranch CSD.

Level of Severity:

There is no level of severity for water supply.

Water Rates

The Heritage Ranch CSD Board adopted a new five year water and sewer rate structure effective January 1, 2010. The new water rate structure is tiered based on the size of the water meter and includes both a fixed fee and a consumption fee. The new water rates promote conservation.

Avg. Single Family Water Use: 5,236 gallons/Mo.

Avg. Single Family Water Bill: \$32.64/Mo.

Roads

See the North County Roads section at the end of the North County portion of this report.

Sewage

Facilities:

The treatment system consists of an aerated lagoon, a polishing pond, sodium hypochlorite injection, an effluent holding pond, two sand filters, and dechlorination.

Operational Issues:

None reported.

Capacity:

The wastewater treatment plant has a design capacity of 0.4 million gallons/day. The plant operates at approximately 50% of capacity.

Level of Severity:

There is no level of severity.

NORTH COUNTY

Recommendations:

None

LOS Summary Table (Heritage Ranch)

Heritage Ranch	Water Supply	Water System	Sewer	Roads	Schools	Air
Levels Of Severity					II	

NORTH COUNTY

North County Schools

North County Schools					
Capacity, Enrollment, Recommended Levels of Severity (RLOS)					
District	School	Capacity	Enrollment	Enrollment Capacity	LOS
Templeton Unified*	Templeton Elem.	955	872	91.3%	II
	Templeton Middle	545	523	96.0%	III
	Templeton H.S.	720	794	110.3%	III
Shandon Unified*	Shandon Elementary	140	146	104.3%	III
	Parkfield Elementary	27	14	51.9%	
	Shandon Jr/Sr H.S.	124	149	120.2%	III
San Miguel Joint Union*	K-5 and K-8	690	566	82.0%	
Paso Robles	Paso Robles Elem.	3,422	3,002	87.7%	II
	Paso Robles Mdl	1,486	1,427	96.0%	III
	Paso Robles H.S.	2,637	2,402	91.1%	II
Atascadero Unified*	Atascadero Elem.	1,708	1,820	106.6%	III
	Atascadero Jr. High	1,086	714	65.7%	
	Atascadero H.S.	1,824	1,521	83.4%	
	Charrisa Plains K-8	53	25	47.2%	
	Creston Elementary	40	111	277.5%	III
	Santa Margarita Elem.	358	329	91.9%	II
Pleasant Valley Union*	Pleasant Valley School	104	137	132%	III

* Data was not received for 2010-2011. Last available data is from 2008-2009.

Improvements are planned at Paso Robles High School that include the current construction of a classroom building providing 20 classrooms to replace substandard relocatable rooms.

NORTH COUNTY

North County Roads

2010 RMS Levels of Service North County Roads

Roadway	Location	LOS D Volume	PM Peak Hour Volume		
			2009	2011	2014
Nacimiento Lake Drive	East of Chimney Rock Road	902	493	513	544

There is no level of severity.

North County Parks

North County Regional Parks				
Park	Natural Areas Acres	Acreage	Location	Provides
Heilmann Park	0	102	Atascadero	Cortez Staging Area, tennis courts, play equipment, group and individual picnicking, trails, restrooms, and parking.
Santa Margarita Lake Park	7,101	21	Santa Margarita	Boating, camping, play equipment, picnicking, fishing, and trails.

U.S. Highway 101

Interchange	2010		2020	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Main Street (Templeton)	16	B	27.6	C

There is no level of severity.

NORTH COUNTY

North County Air Quality

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 State ozone hourly average standard has been established as 0.09 ppm. Exceedances of the ozone standard since 2000 are summarized in the following table:

Location	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Atascadero	None	None	None	None	None	1	None	None	None	None
Paso Robles	None	None	None	1	None	1	None	None	None	None
Carrizo Plains	None	None	None	None	None	None	4	None	4	None
Red Hills	4	4	4	3	None	None	None	None	4	None

North County communities are at a level of severity II.

PM10

Particulate matter less than ten microns (PM10) can be emitted directly from a source, and can also be formed in the atmosphere through chemical transformation of gaseous pollutants. Nitrogen oxides and reactive organic gases can both participate in these reactions to form secondary PM10 products. Re-entrained dust from vehicles driving on paved roads is the single largest source of PM10 in the county. Dust from unpaved roads is the county's second largest source of PM10. PM10 measurements throughout the county have exceeded State standards on numerous occasions in the past several years.

Location	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Atascadero	2	2	None	1	None	None	None	None	None	None
Paso Robles	2	1	None	1	None	None	1	None	1	None

NORTH COUNTY

Water Supplies

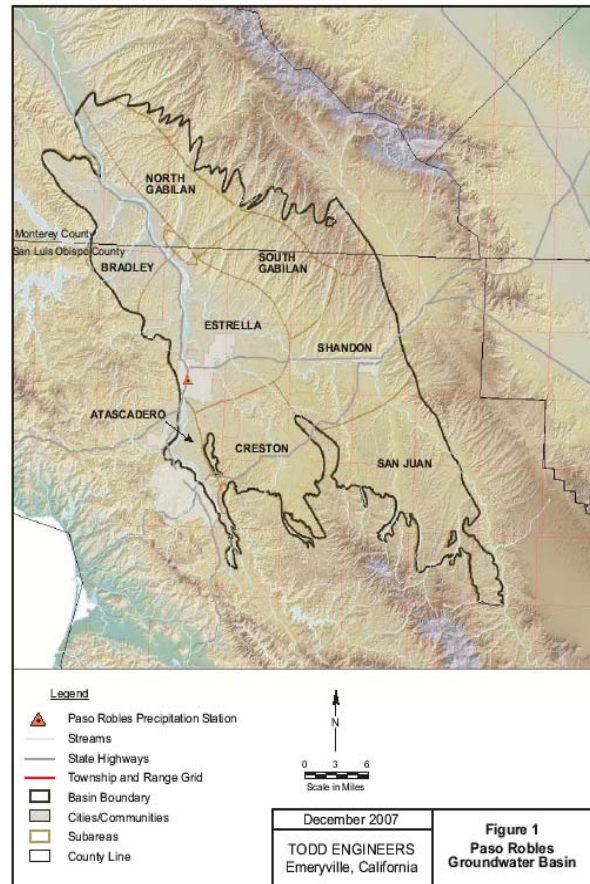
Paso Robles Groundwater Basin

In 2000, the County Flood Control (SLOCFC&WCD) contracted with a consultant to conduct a study of the Paso Robles Groundwater Basin. The study was completed in February 2005. The study includes creation of a model to simulate groundwater flow and water quality in the basin. The model provides a quantitative tool to refine the estimate of perennial yield and evaluate existing and future hydraulic and water quality trends across the basin, including changing groundwater level elevations, well yields and natural and artificial recharge.

The study also identifies options for comprehensive or localized management of the basin. Since 2002, several studies and reports have been prepared:

- Fugro 2002 Paso Robles Groundwater Basin Study
- Fugro 2005 Phase II Report
- Todd Engineers 2009 Evaluation of Paso Robles Groundwater Basin Pumping
- Fugro 2010 Paso Robles Groundwater Basin Water Balance Review and Update.

and Water Conservation District



A Resource Capacity Study (RCS) based on these studies and reports was certified by the Board of Supervisors in February 2011. The RCS concluded that the Basin's perennial yield has been, or is close to being reached. A level of severity III was established for the main Basin and an LOS I was established for the Atascadero Sub-basin.

Extent of the Basin. The Paso Robles Groundwater Basin covers 790 square miles from the Garden Farms area south of Atascadero to as far north as San Ardo in Monterey County, and from the Highway 101 corridor as far east as Shandon. About 80 percent of the Basin—640 square miles—is located in San Luis Obispo County. The Basin studies have found a pumping depression that is located to the east of the City of Paso Robles and north and south of State

NORTH COUNTY

Highway 46. This area has been identified as the Estrella/Creston Area of Concern in the 2011 RCS. Approximately 65% of the water pumped from the basin is used for agriculture.

The Paso Robles Groundwater Basin includes one hydrologically distinct sub-basin, the Atascadero Sub-basin. This sub-basin is located roughly along the Salinas River from the south end of Paso Robles south toward the community of Garden Farms.

There are five different classes of groundwater “users” included in the supply/demand analysis:

- Agriculture
- Municipal
- Rural
- Small Community Systems
- Small Commercial Systems (e.g. golf courses, wineries, institutional uses)

Water use by user group was estimated by Todd and was based on 2006 data:

Groundwater User	1997	2000	2006
Net Agriculture	49,683 AFY	56,551 AFY	58,680 AFY
Urban	13,513	14,629	15,665
Rural	9,400	9,993	10,891
Small Community	---	----	594
Small Commercial	1,465	1,465	2,323
Total	74,061	82,638	88,154

Fugro estimated water demand by sector in the 2010 Water Balance Review and Update.

Groundwater User	1997	2000	2006	2009
Net Agriculture	49,683 AFY	56,551 AFY	58,680 AFY	63,077 AFY
Urban	13,513	14,629	15,665	16,382
Rural	9,400	9,993	10,891	11,817
Small Community	---	----	594	----
Small Commercial	1,465	1,465	2,323	2,631
Total	74,061	82,638	88,153	93,907

The safe yield of the Basin (also referred to as the perennial yield or sustainable yield) was estimated by Fugro (2003) at 97,700 AFY. Fugro completed another focused study (Fugro 2010) of the Basin that extends the water balance table

NORTH COUNTY

from the 2002 report through the years 1998-2009. Fugro estimates that withdrawals from the Basin are at 99% of safe yield in 2009.

As noted above, the Paso Robles Groundwater Basin contains one hydrologically distinct sub-basin – the Atascadero Sub-basin. Unlike the greater Paso Robles Basin, the Sub-Basin’s primary users are municipal pumpers such as the City of Paso Robles and the Atascadero Mutual Water Co. The safe yield of the Sub-Basin was estimated by Fugro at 16,400 AFY. Todd 2008 estimated the pumping in the Sub-basin as follows:

Atascadero Sub-Basin Pumping, 2006 (Todd 2008)		
Groundwater User	Amount (AFY)	% of Total Sub-basin
Agriculture	1,348	9%
Municipal	11,735	75%
Small Community	213	1.3%
Small Commercial	430	2.7%
Rural	1,819	12%
Total	15,545	100%

The 2011 Resource Capacity Study determined that the Basin is at, or close to its perennial yield. The RCS certified a level of severity III for the main Basin and a level of severity I for the sub-basin. Land use, conservation and monitoring actions have been adopted by the County as part of the RCS.

The County, along with numerous stakeholders, has developed a Groundwater Management Plan. The goal of the Plan is to ensure the long-term reliability of groundwater supplies.

Nacimiento Water Project

In 1959, the Flood Control and Water Conservation District 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 (CSD). Now constructed, the Nacimiento Water Project will deliver water to five project participants as shown in the table below.

Participants	Allocation (AFY)
City of Paso Robles	4,000
Templeton CSD	250
Atascadero MWC	2,000
City of San Luis Obispo	3,380
CSA 10A (via exchange)	25
TOTAL	9,655

NORTH COUNTY

Though the participants have contracted for 9,655 AFY, the northern portions of the pipeline and appurtenances have been designed for the maximum allowable withdrawal amount of 15,750 AFY.

NORTH COAST

V. NORTH COAST

The North Coast area consists of the City of Morro Bay and four communities: Cambria, Cayucos, Los Osos, and San Simeon. Each resource is discussed by community, with the exception of regional resources that cross community boundaries and are shared among communities. Examples are schools, roads and wastewater.



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NORTH COAST

Cambria

Cambria is an unincorporated community located about 20 miles north of Morro Bay. It features two villages and an outstanding natural environment, including native pine forests, creekside areas, and a scenic coastline.

The key resource issue in Cambria is the community's water supply, which has been at a level of severity III, the most critical level, for more than 10 years.



Population

Several factors limit population growth in Cambria. Its isolated location results in potable water supplies that are limited to groundwater. In connection with its water master plan, the Cambria Community Services District (CCSD) developed a buildout reduction program that has a maximum buildout goal equivalent to 4,650 existing and future residential connections. As part of its buildout reduction efforts, the CCSD administers a lot retirement and lot merger program. The ongoing "lot retirement" program will reduce both buildout and future water use. Population projections are shown in the following table.

Cambria Population Projections*							
2000	2005	2010	2015	2020	2025	2030	2035
6,230	6,293	6,432	6,549	6,681	6,799	6,963	7,326

*see population forecast note on page I-3

Water Supply

Cambria is completely dependent on a limited groundwater supply from the San Simeon and Santa Rosa groundwater basins associated with its two well fields. Water is supplied by the CCSD.

Reliance on groundwater in small coastal basins leaves the community vulnerable to drought and saltwater intrusion into the area's aquifers. The CCSD's Master Water Plan calls for water conservation, use of recycled water for non-potable irrigation, seawater desalination, and water demand management to address these concerns and augment its potable water supply. The District is currently working with the U.S. Army Corps of Engineers to complete a

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geotechnical investigation to support development of a project-level Environmental Impact Report/Environmental Impact Statement for its proposed desalination project.

Water Use

Water use in Cambria has ranged from 674 AFY in 2009-2010 to 821 AFY in 2003-2004, as shown in the following table.

Cambria Total Water Use AFY (fiscal year)								
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2007-2008	2008-2009	2009-2010
793	811	817	779	821	755	678	706	674

The CCSD has stated that the service population went down from 6,232 in 2000 to 6,032 in 2010. The same data shows that vacancy rates in Cambria increased from past values of 25% in 1990 and 2000, to 32% in 2010. The increased vacancy may have been a reflection of the poor state of the economy, which resulted in more vacant homes. This increased vacancy rate may have also been a contributing factor towards some of the reduced water production in Cambria.

For calendar year 2010, the per capita water use for Cambria was 99.5 gpcd (derived by dividing a total production of 672 af by a 2010 census population of 6,032). This value is below the Department of Water Resources (DWR) Central Coast target of 117 gpcd, when applying the DWR's Target Method 1 (Target methods developed as part of DWR's Guidance in meeting SBx7-7 water conservation goals). The five-year base period for Cambria (calendar years 2003 through 2007) resulted in 110.7 gpcd. The DWR goal setting methodology for SBx7-7 compliance requires a community's target to be checked against a value that is 95% of its 5-year baseline. This final check results in a target goal for Cambria being set at 105.1 gpcd. Therefore, the table below shows future Cambria demands from 2020 and beyond at about 105 gpcd.

The seawater desalination facility that the CCSD is planning with the Army Corps of Engineers could take approximately four years to complete. Current buildout reduction plans for Cambria also call for providing approximately 666 residential waiting list customers with a new water service connection over a 22-year period. This results in approximately 30 new water connections per year once the desalination facility is completed. The 2000 US Census determined the average occupancy of Cambria at 2.21 persons per dwelling unit, which was based on the area's historic 25% vacancy rate. Therefore, for the 30 new connections per year, approximately 66 persons per year would be added until buildout. The table below estimates population for Cambria using the 66 additional persons per year beginning in 2014.

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Cambria Per Capita Water Use			
Year	Population	Gallons Per Capita Per Day (GPCD)	Total Acre Feet Per Year
2010	6,032	100	672
2020	6,428	105	757
2025	6,758	105	796
2035	7,088	105	834

Information received from CCSD

Level of Severity:

Cambria is at a level of severity III for water supply.

Water Rates

Current Rate: Cambria has a water rate structure with 10 tiers, which increase based on level of consumption.

Avg. Single Family Water Use: 4,488 gallons/Mo.

Avg. Single Family Water Bill: \$30.06/Mo.

Roads

Roadway	Location	LOS D Volume	PM Peak Hour Volume		
			2009	2011	2014
Main Street	East of Pine Knolls Drive	1,440	924	961	1,020

There is no level of severity.

Sewage

Facilities:

Wastewater service is provided by the Cambria Community Services District. The average dry weather flow, which is monitored from May through October, is 60% of permanent plant capacity as of 2009. Treated wastewater effluent is used for a seawater barrier between Cambria's percolation ponds along the lower reach of San Simeon Creek and a potable well field, which is located further upstream. The CCSD also provides non-potable groundwater, which is typically trucked by end users for irrigation and dust control purposes. Long-term planning calls for a recycled water distribution system to serve non-potable irrigation customers such as recreational areas.

Operational Issues:

None reported.

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Capacity:

Cambria's sewer facilities operate at 60% of capacity.

Level of Severity:

There is no level of severity.

Schools

Cambria is within the Cambria Union Elementary and Coast Union Joint High School Districts.

Cambria Elementary: 85.3% of enrollment capacity. Due to the development moratorium in Cambria, the school is not expected to be overcrowded from population growth in the next seven years.

Cost Union High School: 59% of capacity.

Santa Lucia Middle School: 156% of enrollment capacity. This is a level of severity III.

Parks

Cambria Neighborhood and Community Parks			
Park	Acres	2010 Acres Needed	2020 Acres Needed
Lampton Cliffs Park	2.2 ac	19 acres	20 acres
Shamel Park	6 ac		
Total:	8.2 ac		

Recommendations

1. Encourage continued implementation of water conservation measures in Cambria and San Simeon Acres.
2. Review new proposed landscaping plans for inclusion of water-efficient design elements.
3. Encourage voluntary lot mergers and other actions to support the CCSD buildout reduction program.
4. Encourage continued efforts to acquire alternative water supplies.
5. Facilitate and expedite, whenever possible, future permitting of CCSD water projects.

LOS Summary Table (Cambria)

Cambria	Water Supply	Water System	Sewer	Roads	Schools	Air
Levels Of Severity	III				III	

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Cayucos

Cayucos is a small coastal community located north of Morro Bay. The community is located in beautiful natural settings with mild, coastal climates and a high quality of life. Major tourist attractions such as the Cayucos area beaches draw many visitors each year.



Population

The community's population growth has averaged less than 1% per year and should continue to grow slowly in the future.

Cayucos Population Projections*							
2000	2005	2010	2015	2020	2025	2030	2035
2,926	3,030	3,183	3,269	3,310	3,329	3,368	3,544

*see population forecast note on page I-3

Water Supply

Cayucos obtains its water from Whale Rock Reservoir in the hills east of the community (see the discussions of Whale Rock Reservoir in the South County chapter of this report in the sections on San Luis Obispo and South County Water). Cayucos is served by three small water purveyors: the Morro Rock Mutual Water Company (MRMWC), the Paso Robles Beach Water Association (PRBWA) and County Service Area (CSA) #10A. The three water purveyors rely on an approximately 600 acre-foot entitlement from Whale Rock reservoir. CSA 10A receives an additional 25 acre-feet of water from the Nacimiento Water Project through an exchange of Whale Rock water for Nacimiento water delivered to the City of San Luis Obispo, but the other water companies do not plan to add to their water supply.

Water Use

Water use in Cayucos has ranged from 403 AFY to 431 AFY since the year 2000, as shown in the following table.

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Purveyor	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10
PRBWA	168	159	161	165	169	156	156	163	158	148
MRV	106	111	119	114	116	112	114	121	115	109
CSA 10A	124	122	127	128	128	125	124	132	134	134
Cemetery	14	15	15	16	15	13	15	15	13	12
Total	412	407	421	423	428	406	409	431	415	403

A 20% reduction in per capita water use was not calculated for Cayucos due to a lack of population figures for each water provider.

Level of Severity:

There is no level of severity for water supply.

Water System

Recently, issues regarding adequacy of fire flow have been discussed by the Cayucos Fire Protection District and the Cayucos Citizen's Advisory Council (CCAC). The Fire District has approved new development in areas where fire flow is at least 500 gallons per minute with installation of a residential fire sprinkler system. Older development in the area has neither adequate fire flow nor residential sprinklers, as these structures predate the fire flow and sprinkler requirements.

The CCAC has recommended that no new will-serve letters be issued unless 1,000 gpm of fire flow is available. Fire District staff notes that there are several inadequate 4" water lines, and additional fire flow storage is needed in the area. Water system levels of severity are based on the amount of time until a system reaches design capacity. A level of severity III has been established for the water system in the CSA 10A area, as the water system can no longer deliver adequate water for fire protection.

Water Rates

CSA 10A has a tiered water rate based on consumption. Water rate information for the two mutual water companies was not provided.

Avg. Single Family Water Use: 4,375.8 gallons/Mo.

Avg. Single Family Water Bill: \$43.96/Mo.

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Roads

Roadway	Location	LOS D Volume	PM Peak Hour Volume		
			2009	2011	2014
South Ocean Avenue	North of 13th Street	965	499	519	551

There is no level of severity.

Sewage

Facilities:

The Cayucos Sanitary District has an agreement with the City of Morro Bay to reserve a portion of the Morro Bay treatment plant capacity for sewage flow from Cayucos. The treatment plant's waiver to use secondary treatment is ending and the plant upgrade is in the design phase. The upgraded treatment plant will result in a higher level of treatment at the plant in the future and possible reuse of the highly treated effluent.

Schools

Cayucos is within the Cayucos Elementary School District.

Cayucos Elementary: Currently at 77.9% of capacity. Planned improvements and an increase in capacity were completed in September 2009. There is no level of severity.

Parks

Cayucos Neighborhood and Community Parks			
Park	Acres	2010 Acres Needed	2020 Acres Needed
Hardie Park	4 ac	10 acres	10 acres
Norma Rose Park (Undeveloped)	1.5 ac		
Paul Andrew Park	1 ac		
Total:	6.5 ac		

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Recommendations

1. The Planning and Building Department should continue to monitor water demand for the three systems, based on reports submitted by the water purveyors.
2. Continue conservation programs.
3. Continue to explore all possibilities for acquiring new water supplies.
4. Maintain a certified LOS II for the MRMWC and the PRBWA areas.
5. Establish LOS III for the CSA 10A water system with the following recommended actions:
 - a. Design system improvements to address fire flow issues.
 - b. Develop infrastructure funding plan to implement system improvements.
 - c. Perform fire flow analysis.

LOS Summary Table (Cayucos)

Cayucos	Water Supply	Water System	Sewer	Roads	Schools	Air
Levels Of Severity		CSA 10A III MRMWC II PRBMWC II				

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Los Osos

Los Osos is a small coastal community located near Morro Bay. Like other coastal communities, it is located in beautiful natural settings with mild, coastal climates and a high quality of life. Major tourist attractions such as the Montana D'Oro State Park draw many visitors to the area each year.



The community of Los Osos is experiencing a difficult water supply situation, as groundwater pumping of the lower portion of the Los Osos groundwater basin has led to seawater intrusion into the basin. This poses a threat to the community's potable water supply.

Los Osos is also in need of a community sewer system, and the County is moving ahead with the design and permitting of a new wastewater project for a portion of the urban area.

Population

The population of Los Osos has increased slowly over the past decade. Projected future growth from 2015 to 2020 assumes that the wastewater project is completed and the groundwater overdraft issue is resolved.

Los Osos Population Projections*							
2000	2005	2010	2015	2020	2025	2030	2035
14,277	14,492	14,877	14,889	15,571	16,241	17,048	17,919

*see population forecast note on page I-3

Water Supply

Los Osos Valley Groundwater Basin: In 2007, a level of severity III was certified by the Board for the groundwater basin. Subsequently, the County established water conservation ordinances for new development and upon sale of existing buildings. Water purveyors continue to study and implement changes in pumping patterns to address seawater intrusion. Ongoing groundwater adjudication discussions will result in updated pumping estimates and other basin data. Total basin demand, including private wells and estimated agricultural use,

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is currently estimated at approximately 2,900 AFY. Safe yield in the lower aquifer is currently being exceeded, causing seawater intrusion in the lower aquifer.

The three water providers (Los Osos Community Services District, Golden State Water Company, and S&T Mutual Water Company) and the County have entered into an Interlocutory Stipulated Judgment (ISJ) as a result of the groundwater adjudication lawsuit filed by the Los Osos CSD. The ISJ requires the four parties to cooperate in assessing the state of the groundwater basin and to develop a Basin Management Plan. A public draft of the Basin Management Plan (BMP) is currently expected in March 2011.

Two water conservation ordinances are in effect. One in Title 8 of the County Code requires retrofitting of structures with water saving plumbing fixtures upon sale. Title 19 of the County Code requires new development to retrofit water fixtures in existing buildings in order to save twice the water that the new development will use. Other water conservation measures will be sponsored by the County as part of the wastewater project or by the purveyors as part of the Basin Management Plan. With respect to the wastewater project, Special Condition 5b of the approved Coastal Development Permit requires the implementation of a comprehensive indoor retrofit program within the prohibition zone. The text of the condition is as follows:

The Water Conservation Program required by the County project, which limits indoor water use to no more than 50 gallons per person per day on average within the Basin, shall be incorporated into the Recycled Water Management Plan. The Program shall be designed to help Basin residents to reduce their potable water use as much as possible through measures including but not limited to retrofit and installation of low water use fixtures, and grey water systems. The Program shall include enforceable mechanisms designed to achieve its identified goals, including the 50 gallons per person per day target, and shall include provisions for use of the \$5 million committed by the Permittee to initiate water conservation measures pursuant to the Basin Plan as soon as possible following CDP approval. The Permittee shall coordinate with water purveyors to the maximum extent feasible to integrate this conservation program with purveyor implemented outdoor water use reduction measures.

The draft Basin Management Plan is expected to include a number of other conservation measures, including outdoor measures and programs targeting properties outside of the prohibition zone. The BMP is also expected to provide a detailed analysis of current indoor and total per capita use, as well as a quantification of commercial and institutional demand.

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On May 4, 2010, the agencies involved in the groundwater litigation released an update of the Los Osos Groundwater Basin analysis. The Groundwater Basin update provides a summary of recent basin management efforts, including:

- Basin modeling shows that current water demand is within the basin's safe yield. Water purveyors need to redistribute well pumping between the upper and lower aquifers and from west to east in order to balance basin pumping.
- Seawater intrusion has accelerated following three years of drought.
- A peer review has found that technical groundwater analysis and modeling provides usable results and can be used to implement a Basin Management Plan.
- The Los Osos Wastewater Project will include several actions that benefit the water supply and be complementary to other basin management actions.
- The ISJ is investigating many potential actions to incorporate into the Basin Management Plan.

The update and associated documents are available for review at the Los Osos CSD and County Public Works websites:
(www.slocounty.ca.gov/pw/LOWWP.htm) or (www.losososcscsd.org).

Water Use

Los Osos is served by three water purveyors: the Los Osos Community Services District (LOCSD), Golden State Water Company (GSWC) and S&T Mutual Water Company (S&T). The LOCSD is a public entity with an elected Board and a general manager. Golden State Water Company is a private, for-profit company. S&T is a mutual water company serving the Sunset Terrace neighborhood. S&T has a flat water rate and does not currently meter water use.

Water use in Los Osos has trended downward for all three purveyors since the year 2000. Total water use by customers in all three areas has dropped approximately 25% since 2000, as shown in the following table.

The information on water use and water supply was received from the agencies that are part of the ISJ.

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Los Osos Total Water Use AFY (fiscal year)											
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
LOCSD	1,149	1,099	1,158	1,331	1,045	960	939	943	870	899	837
GSWC	1,076	1,065	1,061	1,035	1,072	1,018	966	990	945	889	826
S&T	111	98	118	96	100	93	88	95	91	83	80
TOTAL	2,336	2,262	2,337	2,262	2,217	2,071	1,993	2,028	1,906	1,873	1,743

Level of Severity:

Los Osos is at a level of severity III for water supply.

Water Rates

Average Single Family Water Bill (LOCSD): \$46.50/Mo. (4-Tiered rate)

Average Single Family Water Bill (S&T Mutual Water): \$54/Qtr (Flat rate)

Average Single Family Water Bill (Golden State): \$48.88/Mo. (Tiered rate)

Roads

South Bay Boulevard (South of State Park Road): This road segment currently surpasses LOS D PM peak hour volumes at 1,310 trips in 2009. The point at which a Level of Service D is reached is 967 trips. Volumes are projected to reach 1,363 in 2011 and 1,446 in 2014. The Los Osos Circulation Study includes widening of South Bay Boulevard from Los Osos Valley Road to the Urban Reserve Line. The project would increase the capacity of the roadway and improve operation to Level of Service C or better based on existing volumes. Funds from Los Osos Road Improvement Fees are necessary for the widening; however, these funds are currently not sufficient due to a lack of community growth.

Roadway	Location	LOS D Volume	PM Peak Hour Volume		
			2009	2011	2014
South Bay Boulevard	South State Park Road	967	1,310	1,363	1,446

*Shaded area indicates that traffic volume levels exceed LOS D (PM Peak Volume Traffic).

This peak hour volume is a level of severity III.

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Sewage

The County is moving ahead with the design and permitting of a new wastewater project for a portion of the urban area.

Level of Severity:

Wastewater treatment in Los Osos is at a level of severity III.

Schools

Los Osos is within the San Luis Coastal Unified School District. Please see the discussion of schools at the end of the South County section of this report. There are three schools within the community:

- Baywood Elementary
- Monarch Gove Elementary
- Los Osos Middle School

Parks

Los Osos Neighborhood and Community Parks			
Park	Acres	2010 Acres Needed	2020 Acres Needed
Los Osos Community Park	6.2 ac	45 acres	47 acres
Total:	6.2 ac		

Recommendations

1. The LOCSD and other purveyors should consider adopting an aggressive water conservation program that would have the potential for achieving water savings significantly greater than the 8% conservation factor contained in the Water Management Plan. As water demand decreases, pumping from the lower aquifer should be commensurately reduced. Reducing pumping from the lower basin and ongoing water conservation and efficiency actions should be the focus of all purveyors and the Interlocutory Stipulated Judgment.
2. Water purveyors should pursue water recycling programs.
3. Water purveyors should implement all feasible conservation measures.
4. Water purveyors should periodically update estimates of agricultural and private domestic demand, as well as urban demand, to confirm water use estimates.
5. Water purveyors should implement changes in pumping patterns and monitor coastal wells to confirm that seawater intrusion is being slowed and, ultimately, halted.
6. Continue to implement water conservation programs adopted in 2008 and report the program status to the Board of Supervisors in calendar year 2011.

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7. Continue to implement the recommendations of the report by Cleath Associates, upon which the LOCSD Water Management Plan is based.

LOS Summary Table (Los Osos)

Los Osos	Water Supply	Water System	Sewer	Roads	Schools	Air
Levels Of Severity	III		III	III		

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Morro Bay

Morro Bay is one of seven cities and the only incorporated city in the North Coast area. The City covers six square miles. Tourism is the primary industry, and unlike other cities, the City includes a harbor.

A major wastewater treatment level upgrade is being pursued to bring the treatment plant up to the tertiary treatment level. This level of treatment will facilitate the use of effluent as part of the City's water sources.



Population

Morro Bay's population has grown slowly from 2000 to 2010, as shown in the following table.

Morro Bay Population Projections							
2000	2005	2010	2015	2020	2025	2030	2035
10,152	10,338	10,300	10,400	10,650	10,890	11,190	11,500

*see population forecast note on page I-3

Water Supply

The City receives water from a variety of sources: groundwater from the Morro Creek underflow, groundwater from the Chorro Creek underflow, converted saltwater through the City's desalination facility, and State water via the Chorro Valley pipeline. The desalination facility also treats brackish water from the Morro Creek underflow for nitrate removal. The City's desalination plant provides water during the times that the State Water Project pipeline is undergoing annual maintenance.

The City has an allocation from the State Water Project that includes a drought buffer, as shown below:

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City of Morro Bay State Water Allocation (acre feet/year)						
	Water Service Amount	Buffer	Total Reserved	Minimum Allocation	Average Allocation	Maximum Allocation
City of Morro Bay	1,313	2,290	3,603	216	1,313	1,313

Water Use

Water use in Morro Bay has remained relatively steady since the year 2000 ranging from 1,317 AFY in 2009-10 to 1,475 AFY in 2003-04, as shown in the following table.

Morro Bay Total Water Use AFY (fiscal year)									
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2007-2008	2008-2009	2009-2010
1,372	1,417	1,437	1,423	1,475	1,400	1,384	1,420	1,369	1,317

Based on information provided by the City, per capita water use in 2009-10 was approximately 111 gpcd. Based on Morro Bay's previous reductions and current low usage, the City will comply with the State's requirements of reduction by reducing its per capita water use from its current usage by 5% in 2020.

Morro Bay Per Capita Water Use			
Year	Population	Gallons Per Capita Per Day (GPCD)	Total Acre Feet Per Year
July 2009-June 2010	10,550	111	1,316
2020	10,650	106	1,262
2025	10,890	Not provided	1,291
2035	11,500	Not provided	1,363

Information received from City of Morro Bay

Water Rates

The City's tiered water rates are relatively high; the City has the second highest water rates in the county.

Avg. Single Family Water Use: 5,236 gallons/Mo.

Avg. Single Family Water Bill: \$27.58/Mo.

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Roads

A discussion of North Coast roads is found at the end of the North Coast Roads section of this report.

Sewage

Facilities:

The City shares a wastewater treatment plant with the Cayucos Sanitary District. The shared treatment plant is located in Morro Bay near the Morro Bay Power Plant. This wastewater treatment plant has one of the few secondary treatment waivers in the State. The waiver allows the wastewater plant to dispose of primary-treated sewage through an outfall to the ocean. The secondary treatment waiver is being phased out over the next four years, and the plant will be upgraded to provide tertiary treatment. At that level of treatment, the wastewater effluent could be recycled to augment the City's water supply.

Operational Issues:

None Reported.

Capacity:

Morro Bay's sewer facilities operate at 85% of capacity. The City and the Cayucos Sanitary District are continuing to make progress on an upgrade of the wastewater treatment plant, which is scheduled to be completed by January 2014. The City and District anticipate beginning construction in 2012. The proposed plant upgrade will reduce dry weather capacity to 1.5 MGD.

Morro Bay Wastewater				
Current Daily Plant Capacity (mgd)	Peak Daily Flow (mgd)	Current Operational Percentage of Capacity	Expansion Plans	New Capacity After Expansion (mgd)
2.060	1.75	85%	Yes	1.500

Level of Severity:

There is no level of severity.

Schools

The City is part of the San Luis Coastal Unified School District. Please see the discussion of North Coast Area Schools following the section on San Simeon for information on this school district.

There are two schools within the City:

- Del Mar Elementary
- Morro Bay High School

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San Simeon

San Simeon is a small community on scenic Highway 1 serving both local residents and visitors. Water supply is San Simeon's key resource issue, as the community has been at a level of severity III for water supply--the most critical level--for several years. No additional water supplies are readily available; no additional development is expected in the foreseeable future. A development moratorium has been in place since 1991.



Population

The estimated 2010 population of San Simeon is 540 persons, and the 2035 projected population is about 560 persons (Planning and Building staff estimates).

Water Supply

San Simeon's water supply is from groundwater and is provided by the San Simeon Community Services District (SSCSD). The community relies on two groundwater wells along Pico Creek. The dependable yield from this water source is estimated at between 120 and 130 acre-feet per year. Pumping from this source totaled 93 acre-feet in the year 2007-2008.

The SSCSD has studied the feasibility of supplemental water supplies including desalination, surface storage, wastewater reclamation and a cooperative agreement with the Cambria CSD. Securing additional water supplies for this isolated coastal community remains problematic.

Water Use

Water use in San Simeon has ranged from 86 AFY to 111 AFY since the year 2000, as shown in the following table.

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San Simeon Total Water Use AFY (fiscal year)								
1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2007-2008	2008-2009	2009-2010
111	103	107	104	Not provided	94	90	86	Not provided

There is not enough information provided to calculate a 20% reduction in per capita water demand for San Simeon.

Level of Severity:

San Simeon is at a level of severity III for water supply.

Water Rates

The community's water rates are 125% of the countywide average cost of water. Details regarding 2010 rates from the SSCSD were not available at the time this report was prepared.

Water System

The water system has been at a level of severity III since 2002 due to ongoing issues with the community's wells in Pico Creek.

Roads

There are no roads in the community that are identified with a level of severity.

Sewage

Facilities:

The SSCSD operates a treatment plant for the community.

Operational Issues:

None reported.

Capacity:

The sewer treatment plant operates at 69% capacity. There are no plans to make improvements to increase capacity.

Level of Severity:

There is no level of severity.

Schools

San Simeon is part of the Coast Unified School District. Please see following

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section, North Coast Area Schools, for a discussion of that school district.

Recommendations

1. Retain LOS III for water supply.
2. Continue the development moratorium.
3. Continue conservation activities.

LOS Summary Table (San Simeon)

San Simeon	Water Supply	Water System	Sewer	Roads	Schools	Air
Levels Of Severity	III	III				

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North Coast Schools

- Cambria Elementary School
- Santa Lucia Middle School
- Coast Union High School
- Cayucos Elementary School

Coast Unified School District:

Coast Unified serves two communities, San Simeon and Cambria. Schools within the District are:

- Cambria Elementary School
- Santa Lucia Middle School
- Coast Union High School

Cayucos Elementary:

Cayucos Elementary School is located in the community of Cayucos. Improvements and a capacity increase were completed in September 2009.

Coast Unified & Cayucos Elementary				
Capacity, Enrollment, Recommended Levels of Severity, 2008-09				
School	Capacity	Enrollment	Enrollment Capacity	LOS
Cambria Elementary	360	307	85.30%	
Santa Lucia Middle	103	161	156.30%	III
Coast Union H.S.	506	265	52.40%	
Cayucos Elementary	240	187	77.90%	

North Coast Air Quality

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

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burning. The State ozone hourly average standard has been established as 0.09 ppm. The State adopted an 8-hour average ozone standard of 0.07 ppm in 2006. Exceedances of the hourly ozone standard since 2000 are summarized in the following table:

Location	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Morro Bay	None	None	None	None	None	None	None	None	None	None

There is no level of severity for air quality.

PM10

Particulate matter less than ten microns (PM10) can be emitted directly from a source, and can also be formed in the atmosphere through chemical transformation of gaseous pollutants. Nitrogen oxides and reactive organic gases can both participate in these reactions to form secondary PM10 products. Re-entrained dust from vehicles driving on paved roads is the single largest source of PM10 in the county. Dust from unpaved roads is the county's second largest source of PM10. PM10 measurements throughout the county have exceeded State standards on numerous occasions in the past several years.

Location	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Morro Bay	None	None	1	1	None	None	1	None	2	1

North Coast Roads

The following roadways have been added to the level of severity list for the North Coast as they operate at LOS D Peak Traffic Volumes: South Bay Boulevard.

2010 RMS Levels of Service North Coast Roads

Roadway	Location	LOS D Volume	PM Peak Hour Volume		
			2009	2011	2014
South Bay Boulevard	South State Park Road	967	1,310	1,363	1,446

*Shaded area indicates that traffic volume levels exceed LOS D (PM Peak Volume Traffic).

This peak hour volume is a level of severity III.

South Bay Boulevard (South of State Park Road): This roadway segment exceeded the LOS D p.m. peak hour volume in 2009, reaching 1,310 trips. P.M. peak hour volumes are projected to reach 1,363 trips by 2011 and 1,446 trips by 2014. Level of Service D is reached is 967 trips.