










# PHYSICAL ENVIRONMENT



Physical Environment Summary.....	150
Physical Environment Concerns.....	151
Growth Patterns .....	153
School Capacities .....	154
Agriculture and Open Space .....	155
Parks.....	158
Transportation to School .....	160
Roadway Congestion .....	161
Air Quality .....	163
Water Supply .....	165
Water Quality .....	170
Energy Use .....	171

## Physical Environment Summary

Indicator	Measurement	California	San Luis Obispo County	County Trend
Physical Environment Concerns	Percentage of telephone survey respondents who reported being “very concerned” and “somewhat concerned” about water quality	NA	68.8%	
Growth Patterns	Percentage of total building permits in county that are within unincorporated areas	NA	2.4%	
School Capacities	Number of schools with the highest levels (III) of severity for exceeding recommended school capacity	NA	7	<b>NA</b>
Agricultural and Open Space	Total number of agricultural acres converted to urban use	NA	1,207	
Parks	Percentage of respondents visiting any outdoor recreation locations in San Luis Obispo County at least once a week over the past 3 months	NA	91.9%	
Transportation to School	Percentage of elementary school children who walked to school	NA	14.4%	
Roadway Congestion	Percent change in daily vehicle miles traveled by residents since 2005	NA	-2.6%	
Air Quality	Number of days San Luis Obispo County exceeded state standard of particulate matter less than 2.5 microns	NA	3.1	
Water Supply	Number of communities in which water demand exceeds supply	NA	6	<b>NA</b>
Water Quality	Number of violations for state small water systems and small public water systems	NA	95	
Energy Use	Average residential consumption per account (MWh)	NA	5.8	

 Increasing (Upward) trend; 
  Declining (Downward) trend; 
  Inconclusive; variable; no clear trend; 
 **NA** Not applicable or data unavailable.

Green colored arrow indicates positive trend; Red colored arrow indicates negative trend.

Note: Data presented in table are the most recent data available.

## Physical Environment Concerns

Community concerns can empower advocacy and grassroots organizations to create change around public health and safety issues. Therefore, it is important to identify which issues are most relevant to residents so that progressive planning for change can be implemented.<sup>17</sup> In 2013 community members in San Luis Obispo County were most concerned about the following environmental issues: water quality (69%), air pollution (59%), traffic congestion (58%), building in open space (57%) and pesticide use near homes (56%). These have remained the top rated community concerns among residents since 2006.

### How concerned are you about the following issues in your community? (Respondents Answering “Very concerned” or “Somewhat Concerned”)

Response	Percentages			Total respondents		
	2006	2010	2013	2006	2010	2013
Water Quality	75.5%	79.5%	68.8%	500	1,093	1,097
Air Pollution	70.0%	61.4%	59.1%	501	1,097	1,099
Traffic Congestion	82.6%	62.5%	58.3%	501	1,100	1,096
Building in Open Space	74.6%	68.8%	57.4%	492	1,065	1,077
Pesticide Use Near Homes	69.4%	60.4%	55.6%	494	1,089	1,090

Source: ACTION for Healthy Communities, Telephone Survey, 2006, 2010 and 2013.

### How concerned are you about the following issues in your community? (Respondents answering “Very concerned” or “Somewhat concerned”) By Region

Response	North Coast		North County		San Luis Obispo		South County	
	2010	2013	2010	2013	2010	2013	2010	2013
Water Quality	87.7%	74.1%	76.0%	68.4%	68.5%	61.4%	80.2%	72.3%
Building in Open space	73.4%	63.0%	62.3%	55.1%	69.5%	58.6%	64.9%	56.1%
Pesticide use Near Homes	66.6%	55.8%	53.3%	50.5%	54.9%	52.0%	59.9%	64.1%
Air Pollution	56.0%	53.9%	65.1%	60.4%	62.5%	53.0%	64.1%	64.1%
Traffic Congestion	50.7%	39.3%	63.5%	59.3%	70.4%	58.8%	68.2%	65.8%
<b>Total respondents</b>	<b>250-259</b>	<b>244-250</b>	<b>307-311</b>	<b>287-294</b>	<b>237-244</b>	<b>288-294</b>	<b>276-286</b>	<b>258-262</b>

Source: ACTION for Healthy Communities, Telephone Survey, 2010 and 2013.

<sup>17</sup> Minkler, M. (2005). *Community Organizing and Community Building for Health*, (2<sup>nd</sup> Ed). Rutgers, The State University of New Jersey.

**How concerned are you about the following issues in your community? (Respondents answering “Very concerned” or “Somewhat concerned”)**

Response	Homeless			Spanish-Speaking Parents		
	2006	2010	2013	2006	2010	2013
Water Quality	85.7%	83.4%	79.8%	79.0%	77.0%	68.0%
Pesticide Use Near Homes	NA	NA	74.8%	NA	NA	64.7%
Air Pollution	84.8%	81.7%	73.5%	79.1%	73.6%	66.7%
Traffic Congestion	70.2%	64.4%	63.3%	67.1%	76.2%	56.2%
Building in Open Space	66.4%	68.3%	62.7%	65.8%	65.1%	54.3%
<b>Total Respondents</b>	<b>211-216</b>	<b>120-121</b>	<b>117-120</b>	<b>157-158</b>	<b>84-87</b>	<b>114-119</b>

Source: ACTION for Healthy Communities, Telephone Survey, 2006, 2010 and 2013.

## Growth Patterns

There were a total of 207 new dwelling unit permits for incorporated cities and five for unincorporated communities in 2012.

### New Dwelling Unit Permits by Community

Community	2006	2007	2008	2009	2010	2011	2012	Total	'06-12 Yearly Average
Arroyo Grande	107	53	8	12	15	14	6	215	31
Atascadero	248	140	21	15	10	23	79	536	77
Grover Beach	63	20	17	11	6	1	1	119	17
Morro Bay	44	48	12	5	10	5	1	125	18
Paso Robles	238	46	24	34	95	42	40	519	74
Pismo Beach	32	60	17	20	12	21	14	176	25
San Luis Obispo	126	73	96	38	65	26	66	490	70
<b>Incorporated City Total</b>	<b>858</b>	<b>440</b>	<b>195</b>	<b>135</b>	<b>213</b>	<b>132</b>	<b>207</b>	<b>2,180</b>	<b>311</b>
Avila Beach	22	39	38	7	7	11	0	124	18
Cambria	11	15	17	12	3	3	0	61	9
Cayucos	16	16	18	3	4	4	1	62	9
Heritage Ranch	41	49	19	24	1	1	0	135	19
Los Osos	4	7	10	4	2	4	1	32	5
Nipomo	108	132	128	99	12	5	1	485	69
Oak Shores	15	9	8	16	3	0	1	52	7
Oceano	23	27	17	18	1	12	0	98	14
San Miguel	34	14	18	8	0	0	0	74	11
Santa Margarita	5	1	2	NA	1	0	0	9	2
Shandon Urban	4	6	NA	1	0	0	0	11	2
Templeton	42	44	76	15	2	1	1	181	26
<b>Unincorporated Community Total</b>	<b>325</b>	<b>359</b>	<b>351</b>	<b>207</b>	<b>36</b>	<b>41</b>	<b>5</b>	<b>1,324</b>	<b>189</b>
<b>Other Areas<sup>1</sup></b>	<b>67</b>	<b>35</b>	<b>35</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>154</b>	<b>22</b>
<b>Total Permits</b>	<b>1,250</b>	<b>834</b>	<b>581</b>	<b>359</b>	<b>249</b>	<b>173</b>	<b>212</b>	<b>3,658</b>	<b>522</b>

Source: Construction Industry Research Board (incorporated cities and unincorporated total, 2006-2012); San Luis Obispo County Department of Planning and Building, 2013.

<sup>1</sup>Other areas include: Arroyo Grande fringe, Atascadero fringe, Paso Robles fringe, San Luis Obispo fringe

## School Capacities

School overcrowding takes a toll on students' learning because inadequate facilities create more limited educational opportunities. Thus, it is important that schools do not exceed their enrollment capacity.<sup>18</sup> In San Luis Obispo County, there are nine school districts that include schools with the highest levels of severity for reaching or surpassing their physical capacity of students. Fortunately, several districts in San Luis Obispo County include schools that are not projected to reach or exceed student capacity in the near future.

### Enrollment vs. Capacity 2010-2011, by School

District	School	Enrollment	Capacity	Enrollment as percentage of capacity	LOS <sup>1</sup>
Lucia Mar Unified*	Elementary	5,191	5,401	104%	III
	Middle School	1,810	1,676	93%	II
	High School	2,775	3,484	126%	III
Coast Unified and Cayucos Elementary	Cayucos Elementary	240	187	77.9%	OK
	Cambria Elementary	360	307	85%	OK
	Santa Lucia Middle	103	161	156%	III
	Coast Union H.S.	506	265	52%	OK
Shandon Unified	Elementary	18	27	68%	III
	Middle School	196	140	140%	III
	High School	76	124	61%	III
Pleasant Valley Union	Pleasant Valley School	548	673	81%	OK
San Luis Coastal Unified*	Elementary	4,133	3,409	82%	OK
	Middle School	1,550	1,071	69%	OK
	High School	2,670	2,493	93%	II
Paso Robles Join Unified	Elementary	2,862	4,978	56%	OK
	Middle School	1,404	2,470	57%	OK
	High School	2,155	4,218	51%	OK
Templeton Unified	Templeton Elementary	831	1,664	50%	OK
	Templeton Middle	502	640	78%	OK
	Templeton H.S.	726	1,056	69%	OK

<sup>18</sup> Lee, V.E., Ready, D.D., Welner, K.G. (2004). Educational Equity and School Structure: School Size, Overcrowding, and Schools-Within-Schools. *Teachers College Record (106)10, 1989-2014*. Teachers College, Columbia University 0161-4681.

District	School	Enrollment	Capacity	Enrollment as percentage of capacity	LOS <sup>1</sup>
Atascadero Unified	Elementary	2,025	1,708	119%	III
	Middle School	866	1,396	62%	OK
	High School	1,587	1,888	84%	OK

Source: San Luis Obispo County Department of Planning and Building, Resource Management System Annual Summary Report, 2012

<sup>1</sup>LOS stands for "Level of Severity." Levels include:

**Level I:** When enrollment projections reach school capacity within 7 years

**Level II:** When enrollment projections reach school capacity within 5 years

**Level III:** When enrollment equals or exceeds school capacity

**OK:** when a school is not at its capacity, nor do enrollment projections reach school capacity within 7 years

\*: Refers to the 2009 school year.

## Agriculture and Open Space

Citizens, agriculturalists, and local policy makers have long recognized the importance of agriculture in San Luis Obispo County, as land use choices and decisions impact not only the owners of the land but also the lives of neighbors and the community at large.<sup>19</sup> Interest in managing development and growth and preserving the physical and social amenities of open spaces and rural areas is of high priority to policy makers, public officials, and citizens in San Luis Obispo County. From 2002 to 2010, 3,995 acres or 6.2 square miles of agricultural land were converted to urban use.

### Agricultural Land Converted to Urban Use

Type of Land	Acreage				02-10 Total Converted Land
	2002-2004	2004-2006	2006-2008	2008-2010	
Prime Farmland <sup>1</sup>	31	26	-	35	92
Statewide Importance	13	36	3	25	77
Unique <sup>2</sup>	53	24	10	9	96
Local Importance <sup>2,4</sup>	383	708	691	392	2,174
Grazing Land <sup>3,4</sup>	187	593	9	181	970
<b>Total Agricultural Acres Converted</b>	<b>667</b>	<b>1,387</b>	<b>734</b>	<b>1,207</b>	<b>3,995</b> <i>(6.2 square miles)</i>

Source: California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, Farmland Conversion Reports 2002-2010, Retrieved 2013.

Note: In 2008-2010 Other Land accounted for 565 acres that was converted to Urban Use

Note: Data presented are the most recent available.

<sup>1</sup>Conversion from Prime Farmland is primarily due to land left idle or used for dry land grain production for three or more update cycles.

<sup>2</sup>Conversion to Grazing Land due to land left idle for three or more updated cycles.

<sup>3</sup>Conversion to Unique Farmland and Farmland of Local Importance primarily due to the delineation of new irrigated crops and dry land grain production.

<sup>4</sup>Conversion to Other Land primarily due to the use of detailed digital imagery to delineate low density housing throughout the county.

<sup>19</sup> San Luis Obispo County Department of Agriculture, Land Use Program Overview, Retrieved from [http://www.slocounty.ca.gov/agcomm/land\\_use](http://www.slocounty.ca.gov/agcomm/land_use)

### San Luis Obispo County Agricultural Land by Category

Type of Land	2002	2004	2006	2008	2010
Important Farmland Subtotal	279,061	276,366	270,407	410,536	409,726
Grazing Land	749,786	750,811	742,004	1,183,042	1,181,015
Agricultural Land Total	1,028,847	1,027,177	1,012,411	1,593,578	1,590,741
Percent of Total County Land <sup>1</sup>	48.4%	48.3%	47.6%	74.9%	74.8%
Total Acres of Urban and Built up Land	41,361	42,126	43,729	44,392	45,017
Percent of Total County Land <sup>1</sup>	1.9%	2.0%	2.1%	2.1%	2.1%
Other Land	221,353	222,267	235,511	239,045	242,998
<b>Total Area Inventoried</b>	<b>1,302,168</b>	<b>1,302,173</b>	<b>1,302,173</b>	<b>1,887,536</b>	<b>1,887,536</b>

Source: California Department of Conservation, Division of Land Resource Protection, Farmland Conversion Reports, 2002-2010, Retrieved 2013. Note: Reports are published biennially (every two years), and are available four years after the time period covered.

Note: Data presented are the most recent available.

<sup>1</sup>County acreage used to calculate percentages is that used by San Luis Obispo Department of Planning: 2,126,339. The Farmland Mapping and Monitoring Program inventory for San Luis Obispo County only includes 1,302,173 acres (61 percent of the county's land area)

### Harvested Crop, Grazed Rangeland, and Total Acreage (in thousands), San Luis Obispo County

Type of Acreage	2006	2007	2008	2009	2010	2011	2012	06-12 % Change
Harvested Crop Acreage	110.5	98.6	108.2	102.6	103.4	103.5	103.8	-6.1%
Grazed Rangeland Acreage	1,047.8	1,031.1	1,034.9	1,035.1	1,031.0	1,033.3	1,027.1	-2.0%
<b>Total Acreage</b>	<b>1,158.3</b>	<b>1,129.7</b>	<b>1,143.1</b>	<b>1,137.7</b>	<b>1,134.4</b>	<b>1,136.8</b>	<b>1,130.9</b>	<b>-2.4%</b>

Source: San Luis Obispo Department of Agriculture/Weights and Measures, Annual Report, 2006-2012.

### San Luis Obispo County Land Inventory, July 2010

Government Lands	Acreage	Land Zoned as Recreation <sup>1</sup>	Land Zoned as Open Space <sup>1</sup>	Land in Other Zoning Designations
Federal Government Lands	463,177	3,251	193,336	266,590
State Government Lands	74,959	9,400	3,481	62,078
San Luis Obispo County Government Lands	11,629	5,568	1,639	4,422
City Government Lands	6,267	NA	NA	NA
Local Government Lands <sup>2</sup>	4,575	91	1,267	3,217
Other Government Lands <sup>3</sup>	10,711	968	6,661	3,082
<b>Government Lands Total Acreage</b>	<b>571,318</b>	<b>19,278</b>	<b>206,384</b>	<b>339,389</b>
Percent of Total Acreage of Government Lands	100.0%	3.4%	36.1%	59.4%



<b>Zoning – County Unincorporated<sup>4</sup></b>	<b>Acreage</b>	<b>Percent of Unincorporated County Acreage</b>
Agriculture	1,395,004	67.1%
Open Space	214,112	10.3%
Recreation	29,844	1.4%
<b>Total Acreage</b>	<b>1,638,960</b>	<b>78.9%</b>
<b>Lands Protected by Contract/Easement</b>	<b>Acreage</b>	<b>Percent of County Gross Acreage</b>
Agriculture - Williamson Act <sup>5</sup>	758,017	35.7%
Conservation Easement <sup>6</sup>	17,060	0.8%
Open Space Easement <sup>6</sup>	92,029	4.3%
Scenic Easement <sup>7</sup>	30	<0.1%
<b>Total Acreage</b>	<b>867,136</b>	<b>40.8%</b>
<b>Unincorporated County Acreage</b>	<b>2,077,599</b>	
<b>Incorporated Cities Acreage</b>	<b>48,640</b>	
<b>Total County Acreage (Gross)</b>	<b>2,126,239</b>	

Source: San Luis Obispo County Department of Planning and Building, 2010.

Note: Government land zoned in other category is not protected from development. Only open space or recreation land is protected from residential subdivision development, industrial complex development, and large-scale commercial development

<sup>1</sup>Does not include acreage of Recreation or Open Space Zoning within City Limits

<sup>2</sup>CSDs, Schools, Districts

<sup>3</sup>Monterey County Water Resource Agency

<sup>4</sup>Land zoned for agriculture, open space, or recreation is utilized for many purposes. "Recreational land" can include campgrounds, golf courses, etc.

<sup>5</sup> The California Land Conservation Act of 1965--commonly referred to as the Williamson Act--enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971.

<sup>6</sup>Cities and counties may accept or purchase easements from private landowners for open space and resource conservation purposes. Open space and conservation easements are, in effect, purchases of development rights. The deed transferring an easement to a local government must restrict the transferred property's use to open space or resource conservation activities.

<sup>7</sup>When a conservation easement includes the goal of preserving desirable views of an area, it is said to have a scenic conservation purpose. If preservation of scenic resources is the sole purpose of the conservation easement, it may be referred to as a scenic conservation easement or simply a scenic easement.

## Parks

In 2013, the majority of ACTION telephone survey respondents had visited their nearest park, trail, or beach at least once in the past 3 months. More than half of 2013 telephone survey respondents would like to see more hiking trails and bike paths in San Luis Obispo County. Nearly 75% of residents lived within walking distance to a park, playground or open space.

**☎ In the past three months, how many times have you visited any outdoor recreation locations in San Luis Obispo County such as a park, trail, or beach?**

Response	2010	2013
None	9.4%	8.1%
1-2 Times	12.0%	13.6%
3-5 Times	21.7%	20.8%
6-10 Times	17.5%	18.0%
11-25 Times	20.2%	19.8%
26-50 Times	8.4%	11.0%
More than 50 Times	10.8%	8.6%
<b>Total Respondents</b>	<b>1,098</b>	<b>1,099</b>

Source: ACTION for Healthy Communities, Telephone Survey, 2010 and 2013.  
 Note: This telephone survey question was not asked in 2006.

**☎ In the past three months, how many times have you visited any outdoor recreation locations in San Luis Obispo County such as a park, trail, or beach? By Region**

Response	North Coast		North County		San Luis Obispo		South County	
	2010	2013	2010	2013	2010	2013	2010	2013
None	7.6%	9.2%	7.4%	8.0%	10.5%	7.9%	11.3%	7.7%
1-2 Times	9.2%	7.8%	17.8%	18.1%	12.0%	9.3%	13.0%	14.9%
3-5 Times	16.2%	14.1%	27.4%	24.5%	21.5%	19.9%	25.2%	19.9%
6-10 Times	18.4%	16.8%	20.6%	20.1%	17.0%	13.8%	15.7%	20.1%
11-25 Times	20.7%	21.0%	17.7%	15.7%	22.5%	25.2%	18.8%	19.4%
26-50 Times	11.9%	16.9%	4.7%	7.7%	7.0%	14.1%	7.0%	9.7%
More than 50 Times	16.0%	14.3%	4.4%	5.7%	9.4%	9.8%	9.1%	8.3%
<b>Total Respondents</b>	<b>259</b>	<b>250</b>	<b>309</b>	<b>293</b>	<b>244</b>	<b>294</b>	<b>285</b>	<b>263</b>

Source: ACTION for Healthy Communities, Telephone Survey, 2010 and 2013.

**☎ Which of the following public recreation opportunities would you like to see more of in San Luis Obispo County?**

<b>Response</b>	<b>2010</b>	<b>2013</b>
Hiking trails	53.6%	54.5%
Bike paths	56.6%	52.5%
Natural areas	51.4%	47.3%
Parks	46.8%	45.0%
Senior centers	41.8%	36.7%
Playgrounds	39.9%	34.3%
Sports fields	29.9%	28.9%
Gyms	19.2%	20.1%
No new recreation opportunities needed	7.9%	8.0%
Swimming pools	2.1%	1.4%
Other	11.1%	10.3%
<b>Total Respondents</b>	<b>1,087</b>	<b>1,078</b>
<b>Total Responses</b>	<b>3,894</b>	<b>3,655</b>

Source: ACTION for Healthy Communities, Telephone Survey, 2010 and 2013.

Note: This was a multiple response question which enabled respondents to select more than one response.

Note: For additional information on regional breakdowns, please see Appendix D.

**Walking Distance to Park, Playground or Open Space, San Luis Obispo County**

<b>Response</b>	<b>2001</b>	<b>2003</b>	<b>2011-2012</b>	<b>01-12 Net Change</b>
Park Within Walking Distance	78.3%	78.3%	73.2%	-5.1
Park Not Within Walking Distance	21.7%	21.7%	26.8%	5.1

Source: California Health Interview Survey, 2001, 2003, and 2011-2012.

Note: Question was not asked in 2005, 2007, and 2009

Note: 2001 to 2009 CHIS data were collected over a 9-month period. Beginning June 15, 2011, CHIS data will be collected continuously over a two-year period. 2011-2012

CHIS data were collected from June 15, 2011 through January 14, 2013.

## Transportation to School

The most common way that children in San Luis Obispo County got to school was by car, followed by taking the school bus and then walking. The highest percentage of children that walked to school came from the North Coast and San Luis Obispo regions.

### How do/does your Elementary School child/children usually get to school? *By Region*

Response	Overall		North Coast		North County		San Luis Obispo		South County	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Driven to School	60.5%	65.5%	60.6%	44.9%	75.4%	72.9%	42.4%	60.5%	63.7%	66.2%
School Bus	14.2%	14.6%	9.1%	15.5%	6.1%	15.2%	22.0%	8.5%	19.4%	15.6%
Walk	19.3%	14.4%	19.7%	26.6%	14.3%	8.5%	25.4%	25.1%	16.8%	12.1%
Ride Bike	5.0%	3.4%	10.6%	13.0%	4.1%	0.0%	5.1%	6.0%	0.0%	3.0%
Public Transportation	1.0%	2.1%	0.0%	0.0%	0.0%	3.3%	5.1%	0.0%	0.0%	3.0%
<b>Total Respondents</b>	<b>145</b>	<b>170</b>	<b>31</b>	<b>29</b>	<b>45</b>	<b>60</b>	<b>27</b>	<b>33</b>	<b>41</b>	<b>42</b>

Source: ACTION for Healthy Communities, Telephone Survey, 2010 and 2013.

### How does/do your Middle or Junior High School child/children usually get to school? *By Region*

Response	Overall		North Coast		North County		San Luis Obispo		South County	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Driven to School	66.3%	51.8%	79.3%	33.0%	59.4%	70.4%	50.0%	24.2%	62.5%	40.6%
School Bus	14.7%	22.8%	0.0%	28.9%	20.3%	7.3%	15.0%	49.1%	27.5%	33.3%
Walk	12.7%	17.3%	10.3%	38.1%	15.6%	10.9%	20.0%	19.2%	10.0%	18.7%
Public Transportation	1.0%	1.5%	0.0%	0.0%	4.7%	0.0%	0.0%	0.0%	0.0%	7.3%
Ride Bike	5.1%	1.3%	10.3%	0.0%	0.0%	0.0%	15.0%	7.5%	0.0%	0.0%
<b>Total Respondents</b>	<b>66</b>	<b>88</b>	<b>13</b>	<b>14</b>	<b>30</b>	<b>35</b>	<b>9</b>	<b>17</b>	<b>19</b>	<b>17</b>

Source: ACTION for Healthy Communities, Telephone Survey, 2010 and 2013.

**☎ How does/do your High School child/children usually get to school? By Region**

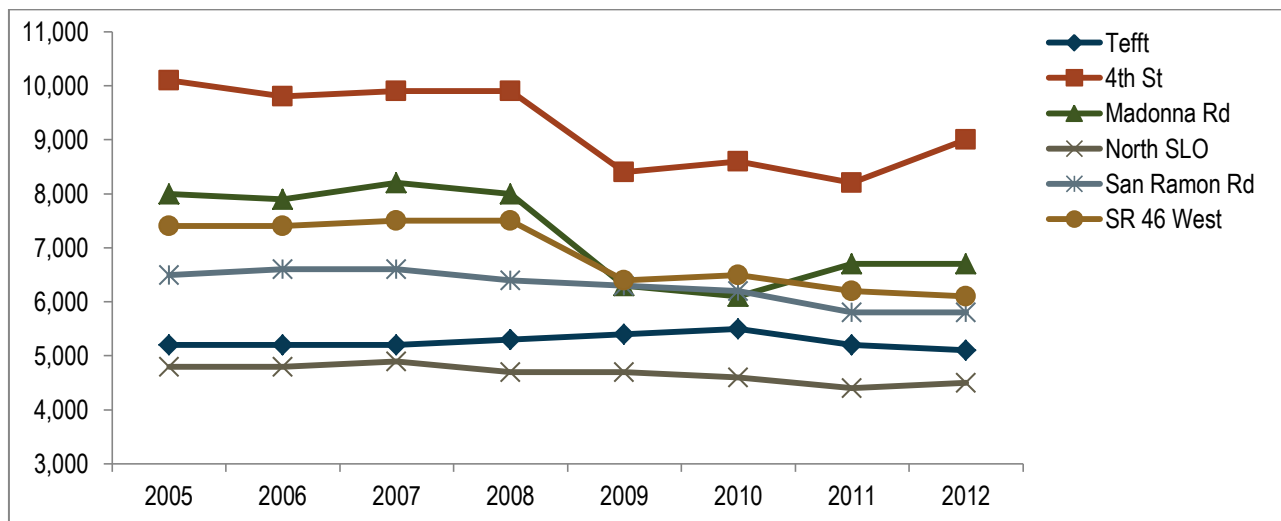
Response	Overall		North Coast		North County		San Luis Obispo		South County	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Driven to School	50.7%	45.1%	35.0%	72.8%	60.2%	40.4%	49.1%	29.7%	68.1%	48.9%
Drive Themselves to School	22.1%	19.3%	42.5%	11.9%	7.2%	19.8%	15.8%	18.3%	11.2%	23.2%
School Bus	9.6%	14.0%	0.0%	7.6%	4.8%	7.1%	24.6%	38.8%	9.6%	11.6%
Walk	8.4%	10.1%	7.7%	7.6%	20.5%	15.4%	5.3%	13.2%	6.4%	0.9%
Public Transportation	6.0%	2.9%	13.1%	0.0%	7.2%	4.3%	0.0%	0.0%	0.0%	3.9%
Ride Bike	5.0%	2.9%	1.6%	0.0%	0.0%	4.3%	5.3%	0.0%	4.8%	3.9%
<b>Total Respondents</b>	<b>122</b>	<b>125</b>	<b>28</b>	<b>17</b>	<b>39</b>	<b>46</b>	<b>26</b>	<b>25</b>	<b>29</b>	<b>33</b>

Source: ACTION for Healthy Communities, Telephone Survey, 2010 and 2013.

## Roadway Congestion

Long commutes and increasing traffic increase stress and affect the health of community members<sup>20</sup>, it is also associated with contributing to air pollution. More than half (55%) of San Luis Obispo County community members who commute traveled less than 20 minutes to get to work in 2012, with only 5% requiring over an hour or more to commute. The growth in vehicle population and vehicle miles traveled (VMT) has outpaced the growth in population by about a 3 to 1 ratio, although this ratio has slowed in recent years.

### U.S. 101 Estimated Peak Hour Traffic Volume



Source: Annual Average Daily Traffic Annual Reports, Caltrans Traffic Data Branch (2005-2012)

<sup>20</sup> Gonzalez, O.I., Novaco, R.W. (2009). Commuting and Well-Being. *Technology and Well-Being*. Cambridge University Press.

### U.S. 101 Estimated Peak Hour Traffic Volume

	2005	2006	2007	2008	2009	2010	2011	2012
Tefft	5,200	5,200	5,200	5,300	5,400	5,500	5,200	5,100
4 <sup>th</sup> Street	10,100	9,800	9,900	9,900	8,400	8,600	9,200	9,000
Madonna Road	8,000	7,900	8,200	8,000	6,300	6,100	6,700	6,700
North SLO	4,800	4,800	4,900	4,700	4,700	4,600	4,400	4,500
San Ramon Road	6,500	6,600	6,600	6,400	6,300	6,200	5,800	5,800
SR 46 West	7,400	7,400	7,500	7,500	6,400	6,500	6,200	6,100

Source: Annual Average Daily Traffic Annual Reports, Caltrans Traffic Data Branch (2005-2012)

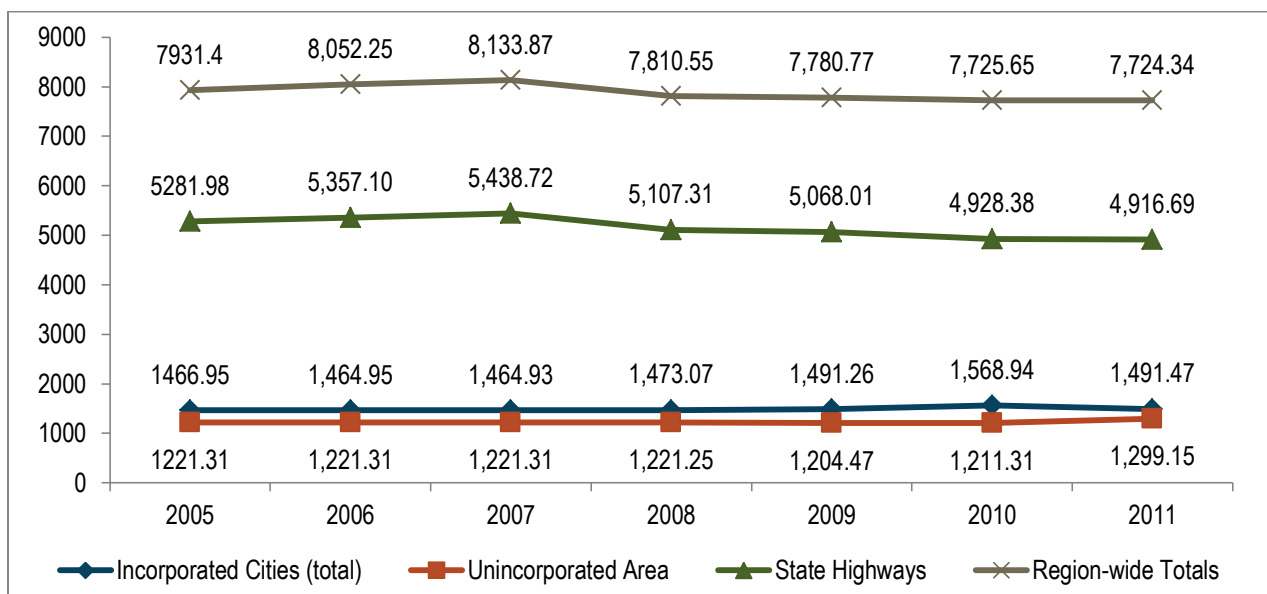
### Commute Time, Percent of Workers 16 and Over

Total	2006	2007	2008	2009	2010	2011	2012	06-12 Net Change
Less than 5 Minutes	7.8%	6.9%	6.9%	5.0%	5.1%	5.3%	4.6%	-3.2
5-9 Minutes	15.5%	17.0%	14.2%	17.9%	18.4%	15.4%	16.3%	0.8
10-19 Minutes	36.2%	33.5%	34.7%	33.8%	34.4%	35.5%	33.8%	-2.4
20-29 Minutes	18.8%	21.3%	21.0%	21.3%	19.5%	21.1%	19.5%	0.7
30-39 Minutes	11.9%	11.3%	13.3%	12.7%	10.3%	12.3%	12.0%	0.1
40-59 Minutes	5.7%	5.7%	5.8%	5.6%	8.2%	5.7%	8.3%	2.6
60-89 Minutes	2.3%	2.6%	2.5%	1.8%	1.8%	2.9%	3.1%	0.8
90 Minutes or More	1.8%	1.6%	1.6%	1.9%	2.3%	1.8%	2.3%	0.5

2006 n=114,033, 2007 n=109,995, 2008 n=117,504, 2009 n=111,574, 2010 n=108,663, 2011 n=107,390, 2012 n=117,936.

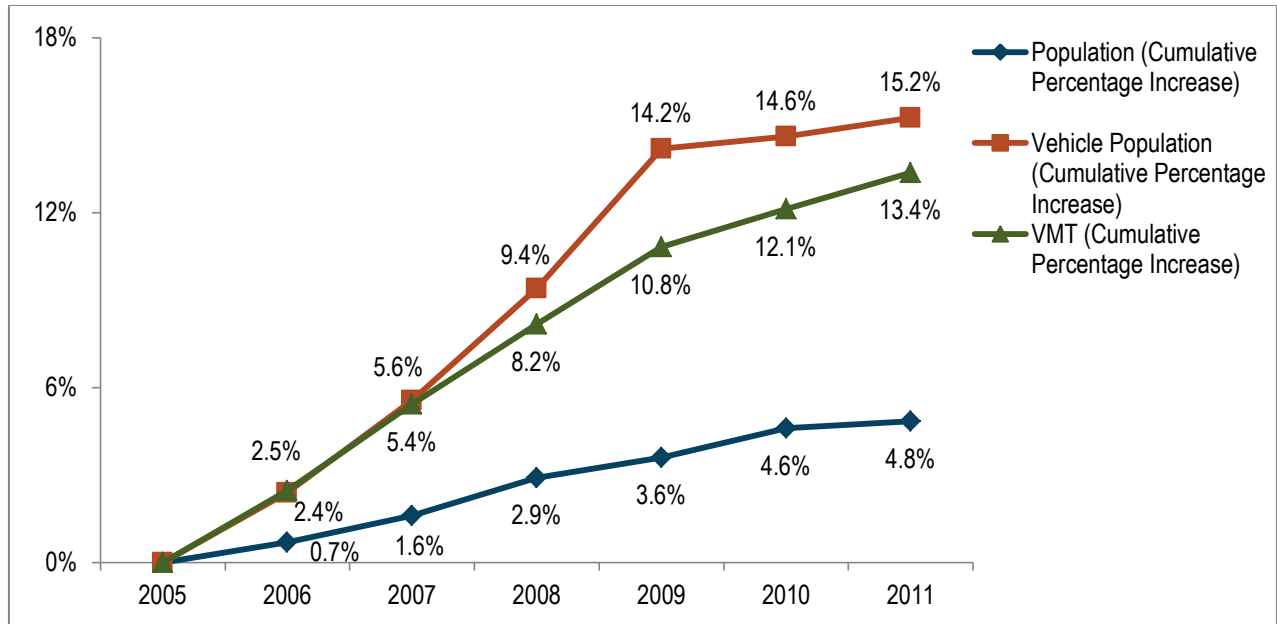
Source: United States Census Bureau, American Community Survey, 2013.

### Estimated Daily Vehicle Miles Traveled (in thousands), San Luis Obispo County



Source: California Public Road Data (HPMS), Caltrans Division of Transportation System Information (2005-2011 annual reports)

### Comparison of Increases in Population, Vehicle Population, and Vehicle Miles of Travel (VMT), San Luis Obispo County



Population Source: California Department of Finance, Demographic Research Unit

Vehicle Population and VMT Source: California Air Resources Board's EMFAC 2011-SG database

Note: 2005 was used as a baseline for calculating the cumulative percentage increase. In 2005, the population was 257,567, the vehicle population was 186,364, and the VMT was 6,494,086.

## Air Quality

Particulate matter and ozone appear to pose the greatest health danger to California's outdoor air. Long-term exposure to high concentrations of particulate matter and high levels of ozone (which creates smog), are linked to breathing and heart problems. Particulate matter is measured in two ways: by calculating the density of particles in the air of 2.5 microns or less in diameter (PM2.5) and of 10 microns or less (PM10).<sup>21</sup> Both sizes of particles easily penetrate the lungs and cause harm.<sup>22</sup> Ozone is also measured in two ways<sup>23</sup>: over a one-hour average (in California), and over an eight-hour period (for the federal government).<sup>24</sup>

In 2012, there were 0 days that exceeded the California ozone standard, down from 5 days in 2006. There were an estimated 3.1 days in 2012 when the particulate matter of 2.5 microns or less exceeded the national standard, up from 0 days in 2006.

<sup>21</sup> California Air Resource Board. Retrieved 2011 from <http://www.arb.ca.gov/research/aaqs/caaqs/pm/pm.htm>

<sup>22</sup> PM10 and PM2.5 are calculated on a 24 hour basis and on an annual basis. The annual standard for PM10 in California is 20 micrograms per cubic meter (20 ug/m3). The 24-hour average California standard for PM10 is 50 micrograms per cubic meter of air (50 ug/m3). The annual standard for PM2.5 in California is 12 micrograms per cubic meter of air (12 ug/m3). Air Resources Board. 2011. Retrieved 2011 from <http://www.arb.ca.gov/research/aaqs/caaqs/pm/pm.htm>.

<sup>23</sup> California Environmental Protection Agency, Air Resources Board. (2005). Ozone and health. Retrieved from <http://www.arb.ca.gov/research/aaqs/caaqs/ozone/ozone.htm>.

<sup>24</sup> Ozone is measured in two ways: by measuring and averaging ozone levels over an 8 hour period and then calculating the number of days exceeding the US standard (0.075 parts per million); and by calculating a one-hour average (California has a one-hour average standard of 0.09 parts per million).

**Summary: Total Days Exceeding State Air Quality Standards**

Pollutant	2006	2007	2008	2009	2010	2011	2012
<b>San Luis Obispo County</b>							
1-Hour Ozone Standard	5	0	8	0	2	0	0
Particulate Matter (PM2.5)	0	0	0	2.0	0	0	3.1
<b>South Central Coast Basin<sup>1</sup></b>							
1-Hour Ozone Standard	23	9	24	15	6	4	4
Particulate Matter (PM2.5)	0	6.3	6.1	2.0	0	0	3.1

Source: Air Resource Board of California. (2013). iADAM: Air quality data statistics: Ozone, number of days above state one-hour standard, by monitoring site and by county, 2006 – 2012.

Air Resource Board of California. (2013). iADAM: Air quality data statistics: PM2.5, estimated number of days above the national 24-hour standard, by monitoring site and by county, 2006 – 2012.

Note: The number of days above the California 1-hour ozone standard per monitoring site will not add to the total days in San Luis Obispo County. The total days in San Luis Obispo County were calculated by adding together each day a monitoring site logged above the standard. If multiple sites logged the same day, it was only counted once.

<sup>1</sup>San Luis Obispo County falls into the South Central Coast Basin. Air basins are multi-county regions of the state that have similar meteorological and geographic conditions. Air basins boundaries typically follow county boundaries, but there are several instances within the state where air basin boundaries fall within a county, dividing the county between two or more air basins.

**Number of Days Above California 8-Hour Ozone Standard by Monitoring Site, San Luis Obispo County**

Monitoring site	2006	2007	2008	2009	2010	2011	2012
Atascadero- Lewis Avenue	4	1	3	0	0	0	0
Carrizo Plains School - 9640 Carrizo Highway (SR 58)	52	31	46	13	21	11	18
Morro Bay – Morro Bay Blvd.	0	0	1	0	1	0	0
Nipomo-Regional Park	0	0	1	0	2	1	0
Paso Robles – Santa Fe Avenue	7	1	0	0	3	0	0
Red Hills-3601 Gillis Canyon Road	*	32	65	21	28	19	33
San Luis Obispo – 3220 South Higuera St	0	0	2	0	0	0	0

Source: Air Resource Board of California. (2013). iADAM: Air quality data statistics: Ozone, number of days above state one-hour standard, by monitoring site and by county, 2006 – 2012.

Note: The number of days above the California 1-hour ozone standard per monitoring site will not add to the total days in San Luis Obispo County. The total days in San Luis Obispo County were calculated by adding together each day a monitoring site logged above the standard. If multiple sites logged the same day, it was only counted once.

Note: Monitoring sites listed above are the only monitoring sites in the county. California data is not available

.Note:\* There was insufficient (or no) data available to determine the value.



**Estimated Number of Days Above the National 24-Hour Particulate Matter (10) Standard by Monitoring Site, San Luis Obispo County**

Monitoring site	2006	2007	2008	2009	2010	2011	2012
Nipomo-Regional Park	0	0	0	0	0	0	0
Atascadero-Lewis Avenue	0	0	0	0	0	0	0
CDF Station -	*	*	*	*	1	0	3
San Luis Obispo-3220 South Higuera St	0	0	0	0	0	0	0
Paso Robles – Santa Fe Ave.	0	0	0	0	0	0	0
Mesa 2 – Highway 1	0	0	0	0	0	0	0

Source: Air Resource Board of California. (2013). iADAM: Air quality data statistics: PM10, estimated number of days above the national 24-hour standard, by monitoring site and by county, 2006 – 2012.

\* There were insufficient (or no) data available to determine the value.

Note: Monitoring sites listed above are the only monitoring sites in the county. California data is not available.

## Water Supply

Securing an adequate supply of water in the state of California, which often faces seasons of drought, is important. It is essential that citizens and service departments in San Luis Obispo County closely monitor their water supply, distribution, and consumption patterns. In general, the central coast faces many challenges to maintaining a sustainable water supply, including issues of remote and isolated areas having difficulties accessing a stable water supply, as well as tendencies to overuse water in drier or agriculturally based areas that are dependent on high levels of irrigation. In 2012, eight out of 19 communities reached a level III severity for their water supply and/or water system; signifying that their water demand exceeded their supply or their water delivery system had reached its capacity.

**Average Water Use per Connection (Acre-feet per Year)**

	2005	2006	2008	2009	2010	2011	2012	05 -12 % Change
<b>Incorporated Cities</b>								
Arroyo Grande	0.55	0.49	NA	0.52	NA	0.45	0.46	-16.4%
Atascadero	0.60	0.62	0.56	0.61	0.53	0.67	0.52	-13.3%
Grover Beach	0.47	NA	0.41	NA	0.35	0.34	NA	-
Morro Bay	0.26	0.25	0.26	0.25	0.24	0.22	0.23	-11.5%
Paso Robles	0.71	0.75	NA	0.72	0.62	0.61	0.63	-11.3%
Pismo Beach	0.40	0.44	0.42	0.41	0.38	NA	0.38	-5.0%
San Luis Obispo	0.45	NA	0.45	0.43	0.43	0.40	0.41	-8.9%

	2005	2006	2008	2009	2010	2011	2012	05 -12 % Change
<b>Unincorporated Communities</b>								
Avila Beach	0.22	0.21	0.26	0.23	NA	0.21	0.24	9.1%
Cambria	0.19	NA	0.17	0.18	0.17	0.17	0.17	-10.5%
Cayucos	0.22	NA	0.18	0.16	0.18	0.18	0.13	-40.9%
Heritage Ranch	0.31	0.35	0.32	0.34	0.30	0.31	0.31	0.0%
Los Osos	0.42	0.41	0.39	0.39	0.30	0.28	0.28	-33.3%
Nipomo Mesa Area	0.76	0.74	0.72	NA	0.61	0.63	0.66	-13.2%
Oceano	0.45	NA	0.42	0.43	NA	NA	0.46	2.2%
San Miguel	NA	0.51	0.49	NA	NA	0.40	0.39	-
San Simeon	0.45	NA	0.36	0.38	NA	NA	0.38	-15.6%
Santa Margarita	0.36	0.37	0.32	0.30	NA	NA	0.32	-11.1%
Shandon	0.43	0.46	0.38	0.37	NA	NA	0.38	-11.6%
Templeton	0.60	0.62	0.61	0.64	0.54	0.54	0.57	-5.0%

Source: San Luis Obispo Department of Planning and Building, Resource Management System Annual Summary Report 2009, 2010.

Note: Los Osos water use per connection is an average of rates reported from three different water purveyors.

**Water Use by San Luis Obispo County Residents, 2012**

<b>Water District</b>	<b>Average Single Family Water Use (Gallons/Year)</b>	<b>Average Single Family Water Bill (\$/Month)</b>
<b>South County</b>		
Avila (CSD only)	NA	\$39.50
Arroyo Grande	137,632	\$67.44
San Luis Obispo	62,832	\$42.99
Nipomo Golden State	209,644	\$65.39
Nipomo CSD	195,540	\$59.87
Pismo Beach	NA	\$75.00
Oceano	139,060	\$31.90
<b>North County</b>		
Atascadero	134,400	\$39.40
Paso Robles	130,900	\$36.50
San Miguel	NA	\$34.53
Santa Margarita	NA	\$44.61
Shandon	NA	\$41.40
Templeton	182,500	\$39.01
Heritage Ranch	62,832	\$33.91
<b>North Coast</b>		
Cambria	NA	\$60.12
Cayucos	NA	\$51.62
Morro Bay	43,316	\$66.96

Source: San Luis Obispo County Department of Planning and Building, Annual Summary Report, 2012.

Note: CSD is Community Services District. Grover Beach did not report water use for 2009. Los Osos is serviced by three different water purveyors, so a calculation for average single family water use is not available, but the average single family water bill rate ranged from between \$42-\$54/month.

**Total Water Use in Acre-feet per Year (AF/Y)**

<b>Water District</b>	<b>FY 2005-2006</b>	<b>FY 2006-2007</b>	<b>FY 2007-2008</b>	<b>FY 2008-2009</b>	<b>FY 2009-2010</b>	<b>FY 2010-2011</b>	<b>FY 2011-2012</b>
<b>South County</b>							
Arroyo Grande	3,075	3,245	3,475	3,333	3,097	2,939	3,006
Avila (CSD)	51	NA	76	77	76	79	82
Pismo Beach	2,112	NA	2,018	2,125	1,963	NA	1,837
San Luis Obispo	5,972	6,439	6,418	6,295	5,833	5,909	6,000
<b>North County</b>							
Atascadero	6,115	6,850	6,590	6,194	5,509	6,963	5,639
Heritage Ranch	625	616	564	NA	553	551	545
Paso Robles	7,444	8,130	NA	7,353	6,391	6,320	6,609
Santa Margarita	194	NA	170	161	172	167	174
Shandon	156	151	125	122	105	NA	131
Templeton	1,540	NA	1,558	1,641	1,425	1,420	1,480
<b>North Coast</b>							
Cambria	730	785	710	707	674	679	707
Morro Bay	1,384	NA	1,420	1,369	1,317	1,223	1,240
San Simeon	NA	NA	90	86	NA	NA	80

Source: San Luis Obispo County Department of Planning and Building, Annual Summary Report, 2005-2012.

Note: CSD is Community Services District. Data were unavailable for both Grover Beach and Los Osos in 2009.

**Community Water Supply and Distribution, 2012**

Community	RLOS <sup>1</sup>		Reason
	Supply	System	
Avila Beach	None	None	
Arroyo Grande	None	None	
Atascadero	None	None	
Cambria	III	None	Supply uncertainty during drought, need for additional water source in case of main well failure
Cayucos	None	III	LOS III based previously on CSA#10A allocation, but as of 2010 CSA has subscribed to 25 acre-feet/year from the Nacimiento Water Project, and this increase in supply removed the RLOS III severity rating for their water system.
Grover Beach	None	None	
Heritage Ranch	None	None	
Los Osos	III	None	Seawater intrusion accelerating, need to implement Basin Management Plan and aggressive water conservation plan to reduce basin pumping
Morro Bay	None	None	
Nipomo Mesa	III	None	LOS III Certified by Board of Supervisors
Oceano	None	None	
Paso Robles	None	None	
Pismo Beach	None	None	
San Luis Obispo	None	None	
San Miguel	III	None	
San Simeon	III	III	Supply insecure for isolated coastal community, securing additional water supplies remains problematic
Santa Margarita	None	II	Supply uncertainty during drought
Shandon	III	None	
Templeton	I	None	

Source: San Luis Obispo County Department of Planning and Building, Annual Resource Summary Report, 2010-12.

Note: Water Supply is measured by safe yield/extractions. Water systems are measured by percent of capacity.

<sup>1</sup>RLOS stands for “Recommended Level of Severity.” Levels include:

**Level of Severity I:** When projected water demand over the next 9 years equals or exceeds the estimated dependable supply.

**Level of Severity II:** When projected water demand over the next 7 years equals or exceeds the estimated dependable supply.

**Level of Severity III:** When the existing water demand equals or exceeds the dependable supply.

## Water Quality

Water quality is a topic of major concern for residents of San Luis Obispo County, with 69% of ACTION telephone survey respondents reporting being “very or somewhat concerned” about water quality in their area.

Ocean water quality monitoring is vital to ensuring the health protection of the millions who recreate in coastal waters. The grades represent the risk of adverse health effects to beachgoers. The better the grade a beach receives, the lower the risk of illness. The Beach Report Card includes an analysis of water quality for three time periods: summer dry season (the months covered under AB 411 in California – April through October), winter dry weather (November 2011 through March 2012) and year-round wet weather conditions. In 2011-12, beach quality reached a “C” or better for 95% to 100% of days in each time period. The number of annual violations for state and public small water systems has increased from 75 in 2005-06 to 95 in 2011-12.

### Beach Quality, Percentage of Days Receiving “C” or Better

Beach Type	2009-2010	2010-2011	2011-2012
Summer Dry	100%	95%	100%
Winter Dry	95%	94%	100%
Wet Weather	90%	79%	95%

Source: Beach Report Card, Heal the Bay 2009-2012

Note: Grades refer to the possibility of getting sick from contaminants from swimming at the beach for 1 day. The higher the grade, the lower the chance of getting sick. Beach quality was measured at 19 different locations around San Luis Obispo County.

### Samples from State Small Water Systems<sup>1</sup> and Small Public Water Systems<sup>2</sup>

Fiscal Year Activity Dates	Number of Violations	Number of Regular Inspection Visits or Samples	Items Checked at Each Inspection	Inspection Visits Times Items Checked	Violation Rate	Compliance Rate
FY 2005-2006	75	1,767	1	1,767	4.2%	95.8%
FY 2006-2007	84	1,828	1	1,828	4.6%	95.4%
FY 2007-2008	52	1,809	1	1,809	2.9%	97.1%
FY 2008-2009	60	1,867	1	1,867	3.2%	96.8%
FY 2009-2010	67	1,812	1	1,821	3.7%	96.3%
FY 2010-2011	89	2,039	1	2,039	4.4%	95.6%
FY 2011-2012	95	2,047	1	2,047	4.6%	95.4%

Source: California Department of Public Health, San Luis Obispo County Department of Public Health, Environmental Health Division, 2007 and 2010.

Note: Each fiscal year begins July 1 and ends June 30 of each year.

Note: The sample data provided comes from 154 water systems. The samples are taken in order to represent the water quality provided to the consumer. Sample locations are not located at specific well heads. Often times there are multiple wells providing water to a water system so the number of wells themselves is not determinable.

<sup>1</sup> 5-14 Service Connections.

<sup>2</sup> 15-199 Service Connections, Non-community, and Non-transient-Non-community (NTNC) Systems.

## Energy Use

Energy consumption has remained fairly steady over the last eight years in San Luis Obispo County, with the exception of the agricultural sector. The 2012 agricultural electricity consumption was 219,218 megawatts per hour, a 26% increase from 2006.

### Electricity Consumption by Sector (in Megawatts per hour), San Luis Obispo County

Sector	2006	2007	2008	2009	2010	2011	2012	06-12 % Change
Residential	674,499	671,649	684,643	669,587	652,520	649,913	656,708	-2.6%
Commercial	603,680	693,742	600,039	614,916	602,325	591,594	595,613	-1.3%
Industrial	106,680	108,824	120,075	111,840	105,971	110,855	97,216	-8.9%
Agricultural	174,129	271,205	224,522	210,209	191,682	205,468	219,218	25.9%
<b>Total</b>	<b>1,558,987</b>	<b>1,745,420</b>	<b>1,629,279</b>	<b>1,606,552</b>	<b>1,552,497</b>	<b>1,557,829</b>	<b>1,568,755</b>	<b>0.6%</b>

Source: California Energy Commission, Electricity Resources Data Group, 2013.

### Electricity Consumption by Account, by Sector (in Megawatts per hour), San Luis Obispo County

Sector	2006	2007	2008	2009	2010	2011	2012	06-12 % Change
Residential	6.0	6.0	6.1	6.0	5.9	5.8	5.8	-3.3%
Commercial	65.6	70.2	59.0	62.5	62.7	62.1	63.4	-3.4%
Industrial	133.6	124.4	129.6	128.8	128.7	136.5	122.6	-8.2%
Agricultural	59.3	88.1	70.3	64.3	58.6	61.4	63.9	7.8%

Source: California Energy Commission, Electricity Resources Data Group, 2013.

