



Natural Environment Issues

Community Goals:

By the Year 2004, the water demand and supply will be in balance (sustainable yield).

By the Year 2004, environmental stewardship will increase within Santa Cruz County.

Community Hero: Ecology Action

Community Hero: Piet Canin, *Bike to Work Program*

By the Year 2004, open space, wetlands and protected habitats will be increased and improved.

Community Hero: Karen Christensen, *Santa Cruz County Resource Conservation District*

A Summary of Santa Cruz County's Natural Environment, 2004

Over the past ten years, Santa Cruz County has experienced some notable improvements to the natural environment. Santa Cruz County residents achieved modest gains in their goals to reduce water use. Most water districts reported a reduction in daily water use since 1994, although all had an increase in service connections.

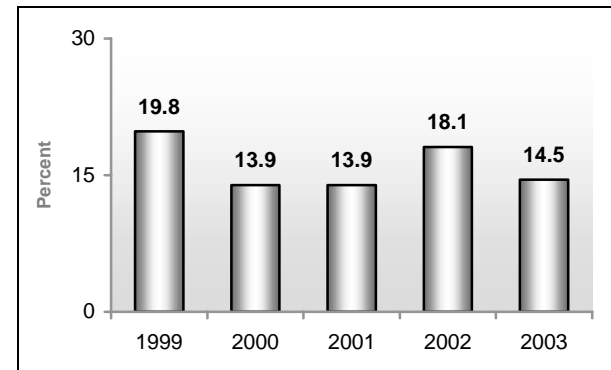


From 1989 to 2002, six out of 11 County waterways showed improvement in the percentage of impairment by pollutants.

Unfortunately, as of 2002, Carbonera Creek, San Lorenzo River, and Watsonville Slough were 100% impaired. The health of Aptos Creek also

declined significantly from 1989 to 2002, with 84% impairment in 2002 compared to 13% in 1989. Survey respondents' perceptions of how we are doing as a County to address drinking water quality show an overall decline, with 19.8% of the residents reporting that we are "getting better" in 1994 and 14.5% saying the same in 2003. The percentage of Latino and South County respondents reporting "getting better" has generally been higher than Caucasian, North County and San Lorenzo Valley respondents over the past ten years.

Water Quality



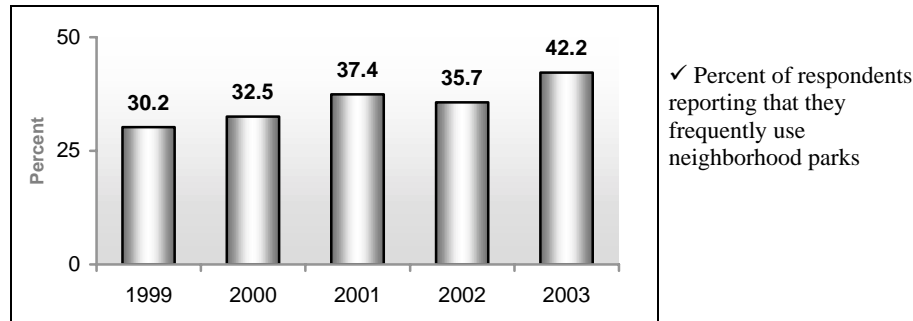
✓ Percent of respondents reporting that the County is getting better at addressing drinking water quality

In the area of habitat preservation, from 2000 to 2004 Santa Cruz County residents gained almost 7,000 protected acres through the actions of public and private agencies. In 2004, more than 27% of acreage in the County is protected, with 55 acres of open space per 1,000 residents.

When asked what one thing concerned surveyed residents the most about the natural environment, people have consistently cited overall pollution, air pollution, and water pollution as top concerns. Traffic and overpopulation have also been concerns for County residents.

Patterns of neighborhood park use have shifted during the past ten years, with more survey respondents reporting that they use neighborhood parks "frequently," and fewer respondents indicating that they "never" use them. In 1999, 30.2% of respondents indicated they used neighborhood parks "frequently" while in 2003, 42.2% said the same.

Park Use



Farmland acreage in the County declined by 24.8% from 1994 to 2003. The greatest declines were in field crops and pasture lands, where the County lost more than 70% of its acreage. Pesticide use decreased by 12.6% in Santa Cruz County from 1995 to 2002 in the amount of pesticides applied. There was also a 56.7% reduction in the number of applications during the same time period, indicating much larger amounts of pesticides delivered in many fewer applications. A similar pattern was observed in neighboring counties, although much less extreme.

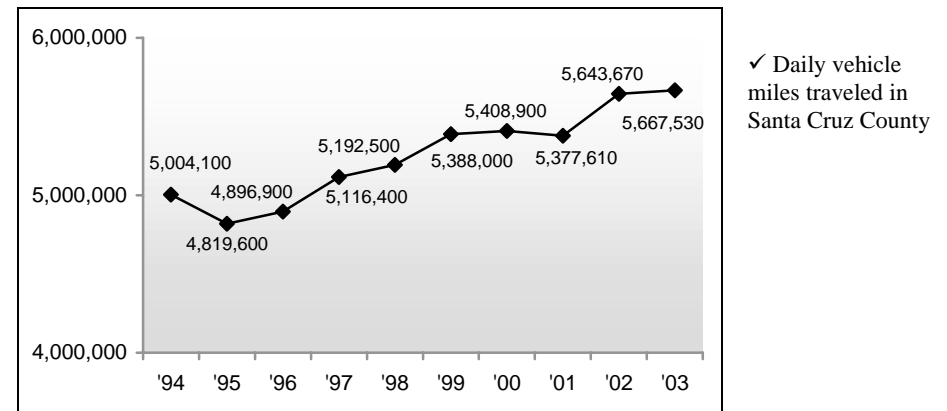
The number of organic farmers in the County increased 27.4% from 1998 to 2003, and Santa Cruz County has consistently had the largest number of organic farmers in the tri-county area. In 2003, Santa Cruz County had 97 organic farmers compared to Monterey (76) and San Benito (47) counties. However, San Benito had almost twice the number of acres planted with organic produce and Monterey County had more than three times the number of acres as compared to Santa Cruz County.

In 2003, there were six days where air quality exceeded state standards, five of those accounted for by high levels of particulate matter. In 1994, there were also six days that exceeded state air quality standards. Between 1995 and 1997, there were 12 days or more where air quality exceeded state standards. In 2003 there was one day when ozone levels exceeded safe levels compared to zero days in 1994. Countywide, in 2003 Davenport saw 5 days where particulate matter

exceeded state air quality standards. There was a 12.7% decrease in air quality complaints from 1996 to 2003.

The year 2003 saw a 24.3% increase in motor vehicle registrations from 1994, compared to a 12.0% increase in the population over 16 years of age. Vehicles per capita (adults) increased from 1.01 in 1994 to 1.12 in 2003. Statewide, car registrations increased by 25.5%, compared to a 15.2% increase in population. Daily vehicle miles traveled increased 13.3% in the County over the last ten years. Monterey, San Mateo, and Santa Clara counties saw a similar increase in daily vehicle miles traveled, San Benito County saw a 31.5% increase from 1994 to 2003.


Roadway Congestion



Annual rider ship on alternative transportation (Santa Cruz Metropolitan Transit, Highway 17 Express Bus, and Liftline) declined by 13.5% overall from 1994-95 to 2003-04. However, rider ship on Liftline increased 221.6% during the same time period. There was a very slight decrease in survey respondents who reported frequent use of alternative transportation other than their own car from 21.3% in 2000 to 19.5% in 2003. When asked what would encourage respondents to use alternative forms of transportation, the most common responses have been “nothing” and “convenience/more frequent bus schedule.”

Concern for the Environment

The natural environment is one of Santa Cruz County's greatest strengths.

 *What one thing concerns you the most about the natural environment?
(Selected Responses)*

Response	1999	2000	2001	2002	2003
Pollution	8.0	27.8	16.5	18.6	16.1
Water pollution	11.2	13.2	17.0	12.8	14.7
Air pollution (primarily car emissions)	14.8	9.8	18.9	14.6	13.0
No preservation of natural environment / Wildlife	8.3	10.5	7.7	7.0	10.2
Development of open space / Agricultural land	12.7	10.1	8.7	9.9	9.3
Overpopulation	5.2	11.6	14.7	9.3	8.5
Traffic / Too many cars	4.7	15.0	13.5	9.1	6.3
Pesticides / Herbicides	3.6	5.3	3.4	3.3	5.2
Litter	2.4	3.3	3.1	3.5	4.7
Water quality	7.4	12.1	5.8	4.3	4.7
Cutting down trees / Commercial logging	3.3	5.6	5.5	3.7	3.2
Water availability / Salt water intrusion	1.8	2.0	5.6	1.5	1.5

Year 2003: 682 respondents offering 820 responses.

Source: Santa Cruz County Community Assessment Project, *Telephone Survey*, 2003.

 **New data not available**

QUALITY OF LIFE INDICATOR 106

Habitat Preservation

The County takes special steps to protect acreage from development and reserves some land for special status plant and animal species, recreation, education, and research.

Summary of Protected County Habitat Acres

	Acres					Acres per 1,000 People				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Land Trusts ¹	3,690.1	4,386.1	4,386.2	4,658.4	4,362.5	14.5	17.1	17.0	17.9	16.8
Coastal Wetlands	899	899	899	899	899	3.5	3.5	3.5	3.5	3.5
County and City Parks	3,423.3	3,823.3	4,511.3	4,560.3	4,560.3	13.4	14.9	17.5	17.6	17.5
State Parks	43,903	43,912	43,912	43,912	43,974	172.1	170.8	169.9	169.0	169.0
Open Space Easement Lands	4,318	4,318	4,318	3,818	3,818	16.9	16.8	16.7	14.7	14.7
Williamson Act Lands	14,150	17,302	19,655	19,350	19,349	55.5	67.3	76.1	74.5	74.4
Fish and Game Lands ²	1,318	1,318	1,318	1,494	1,496	5.2	5.1	5.1	5.8	5.7
Total Protected Acres in County	71,701.4	75,958.4	78,999.5	78,691.7	78,458.8	281.1	295.4	305.7	302.9	301.5
Total Acres in County	286,739	286,739	286,739	286,739	286,739	1,124.0	1,115.3	1,109.7	1,103.7	1,102.0
Percent Protected Acres	25.0	26.5	27.6	27.4	27.4	-	-	-	-	-

Source: Land Trust of Santa Cruz County, Coastal Commission, Santa Cruz County Tax Assessor's Office, Trust for Public Lands, California Department of Fish and Game, and California State Parks, 2004. *Population figures for 1999-2003*: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail*, 1970-2040. Sacramento, CA, December 1998. *Population figures for 2004*: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail*, 2000-2050, Sacramento, California, May 2004.

Note: Annual differences in acreage may be due to rounding and / or variations in estimates by landholders. Open space easements restrict the use of privately owned property to a particular use (generally, undeveloped) under the Open Space Easement Act of 1974. Property owners receive a property tax reduction as an incentive to preserve their property in an undeveloped condition. The Williamson Act of 1965 offered property tax reductions to private landowners contracting to preserve farmland. Each year, the County is reimbursed by the state for a portion of the tax revenue lost through Williamson Act and Open Space Easement contracts. Totals have been recalculated to reflect the addition of Open Space Easement Lands to this table, this year.

¹Total reflects a deduction of 5406 acres of Coast Dairy Land as that acreage is included in the Williamson Act Lands.

²Fish and Game owned 897 acres and administered 421 additional acres during years 1999-2001. In 2002-2003, Fish and Game owned 1,056 acres and administered an additional 442 acres.

Open Space – Acreage

Open Space in Santa Cruz County contributes to the community's quality of life.



Park Name	Steward	1999	2000	2001	2002	2003	2004
Adams Ranch	Land Trust	-	-	-	-	-	76.67
Anna Jean Cummings Park ¹	County	83	96.5	96.5	96.5	96.5	96.5
Aptos Village County Park	County	12.5	12.5	12.5	12.5	12.5	12.5
Arana Gulch	City	63	63	63	63	63	63
Bear Creek Redwoods	County / Special District	-	-	-	-	11	48.99
Bert Scott Estate	County	30	30	30	30	30	30
Big Basin	Sempervirens	250	250	250	250	250	250
Byrne Forest / Corralitos Mountains	Land Trust	322	322	322	322	322	3.22
Castle Rock	Sempervirens	-	-	11	11	11	11
Circle P Ranch	Land Trust	-	684	684	684	684	684
Coast Dairies Property	Land Trust	7,000	7,000	7,000	7,000	7,000	7,000
DeLaveaga	City	565	565	565	565	565	565
Freedom Lake	County	34	34	34	34	34	34
Glenwood Open Space	Land Trust / City of Scott's Valley	-	-	-	-	163.09	163.09
Greyhound Rock ²	State / County	70	70	70	70	70	70
Harvey West	City	55	55	55	55	55	55
Highlands Park	County	26.1	26.1	26.1	26.1	26.1	26.1
John's Canyon	Land Trust	60	60	60	60	60	60
Lighthouse Field	State / City	38	38	38	38	38	38
Lodato Park	City	49	49	49	49	49	49
Long Ridge Preserve	County / Special District	765.2	765.2	765.2	765.2	765.2	765.2
Miller Property	County	-	-	400	400	400	400

Open Space is defined and measured in this report as “parks and open space that are owned and administered by the local government, or land trust holdings that are ten acres or larger.”

Source: Land Trust of Santa Cruz County, Midpeninsula Regional Open Space District, Sempervirens Fund, Trust for Public Lands, County of Santa Cruz Parks, Open Space and Cultural Services, City of Santa Cruz Parks and Recreation Department, City of Scotts Valley Parks Department, and City of Watsonville Parks and Recreation Department, 2004.

¹Formerly O'Neil Ranch

²State owned and county managed.

QUALITY OF LIFE INDICATOR 107

Open Space – Acreage (continued)



Park Name	Steward	1999	2000	2001	2002	2003	2004
Moore Creek Corridor / Antonelli Pond	Land Trust	18.2	18.2	18.2	18.2	18.2	18.2
Moore Creek Preserve (Bombay) ²	City / Land Trust	246	246	246	246	246	246
Neary Lagoon	City	44	44	44	44	44	44
Pace Family Wilderness Preserve	County	80	80	80	80	80	80
Pinto Lake City Park	City	25	78	78	78	78	78
Pinto Lake County Park	County	183	183	183	183	183	183
Pogonip	City	640	640	640	640	640	640
Polo Grounds County Park	County	61.5	61.5	61.5	61.5	61.5	61.5
Quail Hollow Ranch	County	300	300	300	300	300	300
Ramsay Park	City	32	32	32	32	32	32
San Lorenzo River Redwoods	Sempervirens	-	1340	1,340	1,340	1,340	1,069
Scott Creek Beach and Bluffs	County	39.5	39.5	39.5	39.5	39.5	39.5
Sierra Azul Preserve	Special District	-	-	-	688	688	688
County and City Parks ³		3,356.8	3,423.3	3,823.3	4,511.3	4,560.3	4,560.3
Total Open Space Acres in County		11,092.0	12,498.5	13,593.5	14,281.5	14,493.6	14,299.3
Total Acres in County		286,739	286,739	286,739	286,739	286,739	286,739
Percent Open Space Acres		3.9	4.4	4.7	5.0	5.1	5.0
County Population		251,600	255,100	257,100	258,400	259,800	260,200
Open Space Acres per 1,000 residents		49.0	52.9	55.3	55.8	55.0	55.0

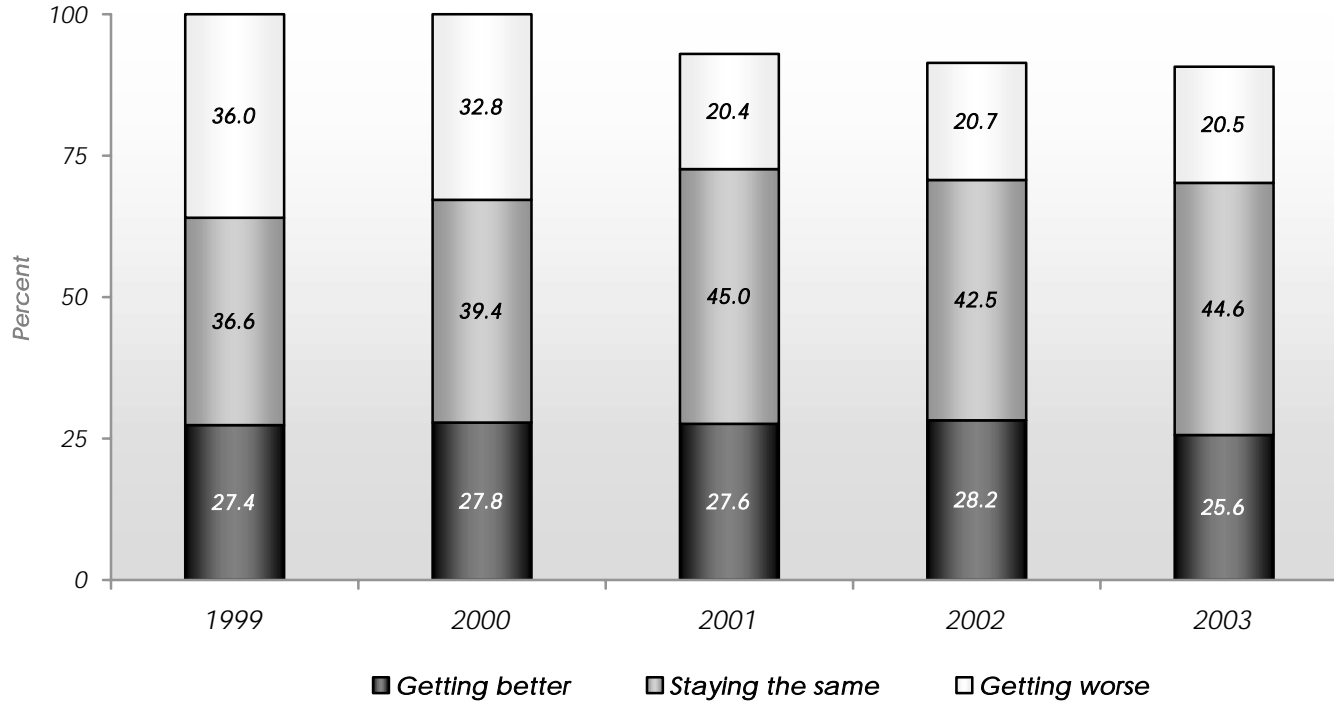
Source: Land Trust of Santa Cruz County, Midpeninsula Regional Open Space District, Sempervirens Fund, Trust for Public Lands, County of Santa Cruz Parks, Open Space and Cultural Services, City of Santa Cruz Parks and Recreation Department, City of Scotts Valley Parks Department, and City of Watsonville Parks and Recreation Department, 2004. *Population figures for 1999-2003*: State of California, Department of Finance, *Revised Historical City, County and State Population Estimates, 1991-2000, with 1990 and 2000 Census Counts*, Sacramento, California, March 2002. *Population figures for 2004*: State of California Department of Finance, *E-4 Population Estimates for Cities, Counties and the State, 2001-2004, with 2000 DRU Benchmark*, Sacramento, California, 2004.

²Land Trust of Santa Cruz has stewardship over 85 of 246 acres of Moore Creek Preserve (Bombay).

³Includes land held in partnership with other agencies.

Open Space


How are we doing as a County to preserve open space?



Total respondents	1999	2000	2001	2002	2003
Overall	541	627	704	680	701

Source: Santa Cruz County Community Assessment Project, *Telephone Survey*, 2003.

Note: Due to their low numbers, respondents who said “don’t know” are not included in the graph. See appendix for statistical testing for this question.

 **New data not available**

QUALITY OF LIFE INDICATOR 107

 Open Space

 Community Profile

Percent of respondents who think the County is “Getting better” at preserving open space:

By Ethnicity	1999	2000	2001	2002	*2003	2003 N
Caucasian	26.0	27.4	25.2	22.4	23.5	489
Latino	35.2	32.1	38.6	48.2	36.3	158

By Region	1999	2000	2001	2002	2003	2003 N
North County	26.6	22.1	26.9	24.7	20.7	235
South County	31.7	37.3	29.9	33.5	31.6	242
San Lorenzo Valley	22.0	28.7	26.1	26.5	27.0	224

By Age	1999	2000	2001	2002	2003	2003 N
18-24	17.7	21.1	29.1	28.5	16.9	109
25-44	29.1	27.7	26.8	27.6	27.3	229
45-64	26.7	31.8	30.6	30.4	26.9	252
65 and older	34.2	26.7	23.2	24.9	27.6	111

By Gender	1999	2000	2001	2002	2003	2003 N
Male	29.0	32.2	27.5	28.7	26.0	348
Female	25.9	24.7	27.7	27.6	25.2	354

By Income	1999	2000	2001	2002	2003	2003 N
\$34,999 per year or less	30.6	27.7	26.4	29.8	28.0	311
\$35,000 - \$65,499	32.4	27.3	27.2	25.3	23.8	164
\$65,500 and greater	19.5	30.9	26.5	29.4	24.2	176

Source: Santa Cruz County Community Assessment Project, *Telephone Survey*, 2003.

* Indicates statistically significant survey responses when reporting differences between sub-groups for the 2003 data. Absence of this symbol indicates no statistical significance difference between sub-groups for the 2003 data.

 **New data not available**

Significance Testing

Ethnicity: *Latinos* were significantly more likely to respond “Getting better” than were *Caucasians*.

Land Trust – Acreage

Land trusts work with private parties and public agencies to permanently protect land through purchase and/or donation.



Location	Year Acquired	1990	2000	2001	2002	2003	2004
Adams Ranch (conservation easement)	2003	-	-	-	-	76.67	76.67
Alfadel Lane (Soquel)	1983	2.5	2.5	2.5	2.5	2.5	2.5
Bear Creek Road (conservation easement)	1994	-	4.4	4.4	4.4	4.4	4.4
Big Basin	1993	-	250	250	250	250	250
Byrne Forest / Corralitos Mountains	1984	322	322	322	322	322	322
Castle Rock	2001	-	-	11	11	11	11
Circle P Ranch (conservation easement)	2001	-	-	684	684	684	684
Coast Dairies	1998	-	7,000	7,000	7,000	7,000	7,000
Davenport Bluffs	2001	-	-	1.0	1.0	1.0	1.0
El Dorado (conservation easement)	2003	-	-	-	-	2.3	2.3
Fairway Drive	2000	-	8.21	8.21	8.21	8.21	8.21
Glenwood – Lot E	2003	-	-	-	-	1.53	1.53
Glenwood Openspace (conservation easement)	2003	-	-	-	-	163.09	163.09
Greenspace (neighborhood park- Soquel)	1985	0.15	0.15	0.15	0.15	0.15	0.15
Highfield Greenbelt	1999	-	3.9	3.9	3.9	3.9	3.9
Johns Canyon (conservation easement)	1999	-	60	60	60	60	60
Moore Creek Corridor / Antonelli Pond	1982 / 1994	14.3	18.2	18.2	18.2	18.2	18.2
Moore Creek Preserve (Bombay)	1998	-	85	85	85	85	85
Rowell (conservation easement)	2002	-	-	-	0.14	0.14	0.14

Source: Land Trust of Santa Cruz County, Sempervirens Fund, and Trust for Public Land, 2004.

Note: Coast Dairies is held by Trust for Public Land; Big Basin, Castle Rock, and San Lorenzo River Redwoods are held by Sempervirens; all other parcels are held by the Land Trust of Santa Cruz County. The Trust for Public Land will turn over Coast Dairies to a long-term steward (State Parks / Bureau of Land Management) in the near future. The Land Trust of Santa Cruz County has stewardship over 85 of 246 acres of Moore Creek Preserve (Bombay), which is a City of Santa Cruz greenbelt. The San Lorenzo River Redwoods owned by the Sempervirens Fund may soon be turned over to Castle Rock State Park.

QUALITY OF LIFE INDICATOR 108

Land Trust – Acreage (continued)

Location	Year Acquired	1990	2000	2001	2002	2003	2004
San Lorenzo River Redwoods	2000	-	1,340	1,340	1,340	1,340	1,069
Shingle Mill Creek	2004	-	-	-	-	-	.07
Sumner (conservation easement)	2003	-	-	-	-	3.25	3.25
Swanton Road (conservation easement)	1986	1.7	1.7	1.7	1.7	1.7	1.7
Whitewater Cove (conservation easement)	2003	-	-	-	-	0.40	0.40
Total Land Trust Acres in County	-	340.7	9,096.1	9,792.1	2	10,064.44	9,768.51
Total Acres in County	-	286,739	286,739	286,739	286,739	286,739	286,739
Percent Land Trust Acres	-	0.1	3.2	3.4	3.4	3.5	3.4
County Population	-	236,015	255,100	257,100	258,400	259,800	260,200
Land Trust Acres per 1,000 residents	-	1.4	35.7	38.1	37.9	38.7	37.5

Source: Land Trust of Santa Cruz County, Sempervirens Fund, and Trust for Public Land, 2004. *Population figures for 1990-2003*: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail*, 1970-2040. Sacramento, CA, December 1998. *Population figures for 2004*: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail*, 2000-2050, Sacramento, California, May 2004.

Note: Coast Dairies is held by Trust for Public Land; Big Basin, Castle Rock, and San Lorenzo River Redwoods are held by Sempervirens; all other parcels are held by the Land Trust of Santa Cruz County. The Trust for Public Land will turn over Coast Dairies to a long-term steward (State Parks / Bureau of Land Management) in the near future. The Land Trust of Santa Cruz County has stewardship over 85 of 246 acres of Moore Creek Preserve (Bombay), which is a City of Santa Cruz greenbelt. The San Lorenzo River Redwoods owned by the Sempervirens Fund may soon be turned over to Castle Rock State Park.

State Park Acreage ¹

Park	1996	2000	2001	2002	2003	2004
Henry Cowell (Fall Creek)	4,259	4,320	4,320	4,320	4,320	4,320
Nisene Marks	10,062	10,188	10,188	10,188	10,188	10,222
Manresa	138	138	138	138	138	138
Santa Cruz Mission	2	2	2	2	2	2
Natural Bridges	53	59	59	59	59	59
New Brighton	166	163	166	166	166	166
Seacliff State Beach (Rio)	87	85	87	87	87	87
Sunset State Beach (Palm)	302	298	302	302	302	302
Twin Lakes	94	94	94	94	94	94
Wilder Ranch (Gray Whale)	6,805	6,903	6,903	6,903	6,903	6,903
Big Basin (Rancho del Oso) ²	20,000	18,004	18,004	18,004	18,004	18,032
Castle Rock ²	3,600	3,611	3,611	3,611	3,611	3,611
Lighthouse Field State Park ³	-	38	38	38	38	38
Total State Park Acres in County	45,658	43,903	43,912	43,912	43,912	43,974
Total Acres in County	286,739	286,739	286,739	286,739	286,739	286,739
Percent Park Acres	15.9	15.3	15.3	15.3	15.3	15.3
County Population	242,300	255,100	257,100	258,400	259,800	260,200
Park Acres per 1,000 residents	188.06	172.10	170.80	169.94	169.02	169.00

Source: California State Parks Department, 2004. *Population figures for 1996-2003*: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail*, 1970-2040. Sacramento, CA, December 1998. *Population figures for 2004*: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail*, 2000-2050, Sacramento, California, May 2004.

Note: Some differences in acreage between years may be due to rounding and variations in estimates by State Park Administration.

¹*Park land acreage is based on estimates only. Precise acreage data are not available.*

²*A portion of Big Basin lies in San Mateo County. A portion of Castle Rock lies in San Mateo County and Santa Clara County.*

³*Lighthouse Field State Park is owned by the State and maintained by the City of Santa Cruz.*

QUALITY OF LIFE INDICATOR 110

Miles of Recreation Trails

Recreation mileage has been set aside for non-motorized recreation activities such as hiking, biking, and horseback riding.

Recreation Trails by Location and Length in Miles

Park	1996	2000	2001	2002	2003	2004
Henry Cowell (Fall Creek)	36	36	36	35	35	35
Nisene Marks	22	27	27	25	25	25
Manresa	4	2	2	1	1	1.3
Santa Cruz Mission	0.1	0.1	0	0	0	0
Natural Bridges	1	1	1	1	1	1
New Brighton	2	2	2	1	0.5	0.5
Portola Redwoods	-	-	-	17	16.5	16.5
Seacliff State Beach (Rio)	2	1	1	1	0.4	0.4
Sunset State Beach (Palm)	2	2	2	1	1.45	1.45
Twin Lakes	2	2	2	2	2	2
Wilder Ranch	25	49	49	36	36	36
Big Basin	83	83	83	83	84	84
Castle Rock	35	35	35	27	27	27
Lighthouse Field State Park ¹	1	1	1	1	1	1
County Total²	215	241	241	231	231	231
Number of people per mile of recreation trail	1,097	1,070	1,078	1,127	1,125	1,126

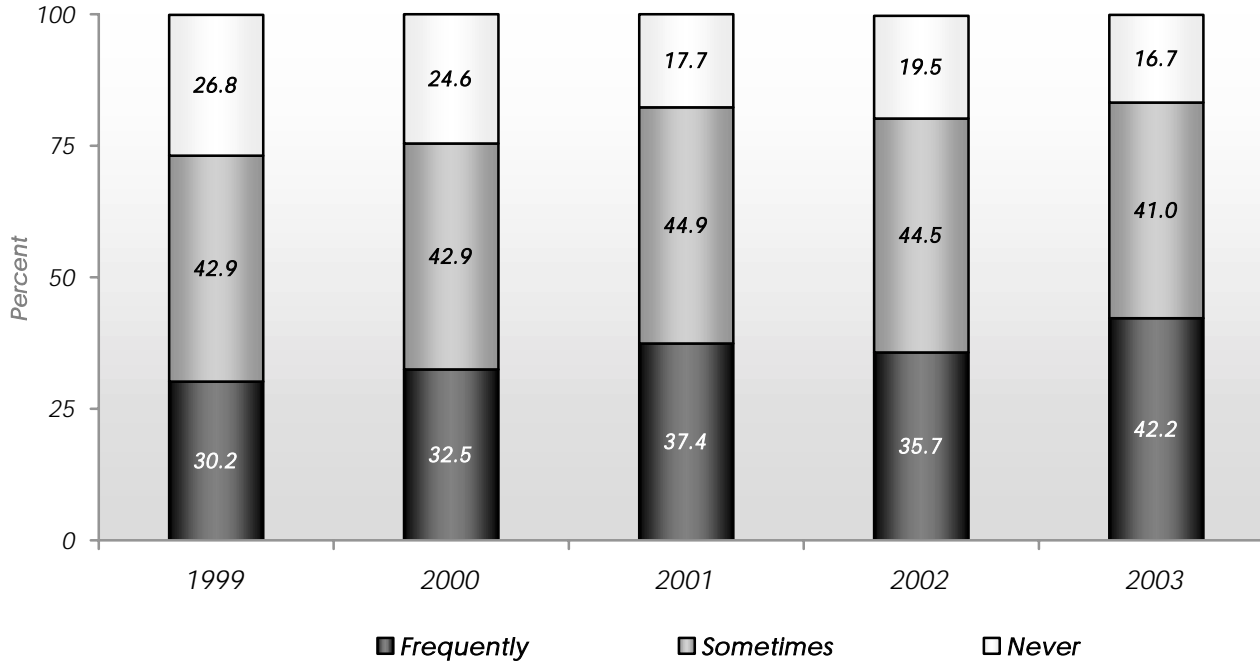
Source: California State Parks Department, 2004. *Population figures for 1996-2003*: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail*, 1970-2040. Sacramento, CA, December 1998. *Population figures for 2004*: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail*, 2000-2050, Sacramento, California, May 2004.

¹Owned by the State of California and maintained by the City of Santa Cruz.

²County Totals have been rounded.

 **Park Use**


How often do you or your family members use neighborhood parks?



Total respondents	1999	2000	2001	2002	2003
Overall	559	658	706	684	700

Source: Santa Cruz County Community Assessment Project, *Telephone Survey*, 2003.

Notes: Due to their low numbers, respondents who said “don’t know” are not included in the graph. See appendix for statistical testing for this question.

 **New data not available**

QUALITY OF LIFE INDICATOR 111

 Park Use

 Community Profile

Percent of respondents who said they or their family members use neighborhood parks “Frequently”:

By Ethnicity	1999	2000	2001	2002	2003	2003 N
Caucasian	28.1	33.3	38.4	37.7	45.4	488
Latino	42.7	30.3	35.8	32.9	34.1	158

By Region	1999	2000	2001	2002	2003	2003 N
North County	30.4	34.4	37.7	40.1	45.3	235
South County	30.1	29.7	35.2	30.2	37.3	241
San Lorenzo Valley	30.0	31.0	43.6	33.8	44.7	225

By Age	1999	2000	2001	2002	*2003	2003 N
18-24	25.6	27.2	41.3	49.5	41.0	109
25-44	40.7	38.5	50.6	42.6	56.5	229
45-64	26.4	32.3	35.1	33.0	37.7	251
65 and older	14.8	21.3	20.8	20.3	24.5	111

By Gender	1999	2000	2001	2002	2003	2003 N
Male	30.0	29.5	41.7	36.9	42.5	345
Female	30.2	34.5	33.0	34.6	42.0	355

By Income	1999	2000	2001	2002	2003	2003 N
\$34,999 per year or less	28.7	30.3	29.9	36.1	40.8	309
\$35,000 - \$65,499	33.3	30.9	39.9	37.0	44.2	164
\$65,500 and greater	28.9	38.7	45.5	36.9	45.3	175

Source: Santa Cruz County Community Assessment Project, *Telephone Survey*, 2003.

* Indicates statistically significant survey responses when reporting differences between sub-groups for the 2003 data. Absence of this symbol indicates no statistical significance difference between sub-groups for the 2003 data.

 **New data not available**

Significance Testing

Age: *25-44 year olds* were significantly more likely to respond that they “Frequently” used neighborhood parks than were *45-64 year olds* or those *65 and older*.

Farmland Acreage

Farmland in Santa Cruz County provides both revenue and open space for residents. Changes to agricultural land, including conversion to urban uses, is monitored by the California Department of Conservation.

Farmland Acreage by Type of Production

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	94-03 % Change
Berries	4,594	4,563	4,563	4,815	4,286	5,500 ¹	5,500 ¹	5,527 ¹	5,502	5,799	26.2
Tree and Fruit Vines	4,028	4,077	4,077	3,842	3,654	3,522	3,541	3,664	3,381	3,514	-12.8
Vegetables	11,606	11,766	12,590	12,726	10,955	9,996	9,159	9,658	8,366	9,409	-18.9
Nursery and Ornamental Crops	993	1,320	1,296	1,422	1,422	1,612	1,395	1,474	1,132 ¹	1,220	22.9
Field Crops and Pasture Land	8,700	8,700	8,700	8,700	8,600	8,350	8,400 ¹	7,900	3,110	2,553	-70.7
Total Acres	29,921	30,426	31,226	31,787	28,917	28,980¹	27,995¹	28,223¹	21,589	22,495	-24.8

Source: County Agricultural Commissioner, *Santa Cruz County Crop Report*, 2004.

¹Figures revised.

Definitions of Farmland

Prime Farmland is land that has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.

Farmland of Statewide Importance is land other than Prime Farmland that has a good combination of physical and chemical characteristics for the production of crops.

Unique Farmland is land which does not meet the criteria for Prime Farmland or Farmland of Statewide Importance, and that has been used for the production of specific high economic value crops.

Farmland of Local Importance is either currently producing crops or has the capability of production. This is land other than the three definitions above.

Grazing Land is land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock. The minimum mapping unit is 40 acres.

QUALITY OF LIFE INDICATOR 112

Farmland Acreage

Farmland in Santa Cruz County provides both revenue and open space for residents.

Santa Cruz County Land Use by Category

Type of Land	1990	1992	1994	1996	1998	2000	2002	90-02 Net Change
Total Important Farmland:	25,371	25,551	25,254	25,219	25,498	25,509 ¹	25,328	-43
- Prime Farmland	17,392	17,401	17,262	17,230	17,179	17,030 ¹	17,014	-378
- Statewide Importance	3,082	3,124	3,114	3,068	3,057	3,215 ¹	3,039	-43
- Unique	4,251	4,334	4,160	4,203	4,393	4,395 ¹	4,464	213
- Local Importance	646	692	718	718	869	869	811	165
Grazing Land	16,818	16,791	16,615	16,187	16,718	16,587	16,691	-127
Total Acres of Agricultural Land	42,189	42,342	41,869	41,406	42,216	42,096¹	42,019	-170
- Percent Agricultural Land	14.7	14.8	14.6	14.4	14.7	14.7	14.7	0
Total Acres of Urban and Built up Land	27,205	27,504	27,585	27,719	28,588	29,293	31,097	3,892
- Percent Urban and Built up Land	9.5	9.6	9.7	9.7	10.0	10.2 ¹	10.9	1.4

Agricultural Land Converted to Urban Use in Acres

Type of Land	1990-1992	1992-1994	1994-1996	1996-1998	1998-2000	2001-2002	90-02 Net Conversion
Prime Farmland	30	20	56	39	50	217	412
Statewide Importance	9	0	22	0	25	40	96
Unique	0	0	0	0	29	23	52
Local Importance	0	0	0	0	0	3	3
Grazing	0	0	0	49	45	53	147
Total Agricultural Acres Converted	39	20	78	88	149	336	710

Source: California Department of Conservation, Division of Land Resource Protection, *Farmland Conversion Reports*, 2004.

Notes: Reports are published biennially (every two years), and are available two years after the data they address. County acreage used to calculate percents is that used by the Department of Conservation: 286,739.

¹Figures revised.

California Central Coast Organic Farms

Organic Growers

County	1998	1999	2000	2001	2002	2003	98-03 % Change
Monterey	50	54	61	70	64	76	52.0
San Benito	29	33	40	37	39	47	62.1
San Luis Obispo	59	55	64	61	58	55	-6.8
Santa Clara	16	18	23	20	16	23	43.8
Santa Cruz	80	85	78	82	79	97	21.3
Total	234	245	266	265	250	298	27.4

Organic Acres

County	1998	1999	2000	2001	2002	2003	98-03 % Change
Monterey	2,974	6,771	5,699	10,745	9,050	10,940	267.9
San Benito	3,035	3,440	3,821	8,279	6,986	4,911	61.8
San Luis Obispo	3,845	4,188	1,821	2,289	2,228	2,059	-46.4
Santa Clara	419	493	549	639	525	497	18.6
Santa Cruz	1,254	2,349	2,224	3,718	2,918	2,464	96.5
Total	11,528	17,241	14,144	25,669	21,706	20,871	81.0

Organic Sales

County	1998	1999	2000	2001	2002	2003	98-03 % Change
Monterey	\$5,707,134	\$17,548,693	\$12,408,110	\$18,131,542	\$27,566,532	\$58,650,201	927.7
San Benito	12,133,852	11,918,282	12,260,914	14,778,100	10,916,086	17,859,085	47.2
San Luis Obispo	1,309,085	2,748,110	1,934,995	2,711,066	2,716,513	4,254,321	225.0
Santa Clara	1,122,313	4,350,473	2,062,778	2,039,840	2,001,865	3,332,370	196.9
Santa Cruz	7,702,761	12,221,869	12,367,946	13,634,922	18,350,845	40,948,891	431.6
Total	\$27,975,145	\$48,787,426	\$41,034,743	\$51,295,471	\$61,551,841	\$125,044,868	347.0

Source: California Department of Food and Agriculture, 2004.

Note: Caution should be used when interpreting data for Organic Sales amounts. Renewal dates for reporting sales vary and may include some months in the previous year or include parts of two crop years. Also, fluctuation may occur when selling products with a long storage life, resulting in low sales one year if crops aren't sold and high sales in another year if both harvests are sold.

QUALITY OF LIFE INDICATOR 114

Pesticide Use

County Pesticide Use, Pounds Applied

County	1995	1996	1997	1998	1999	2000	2001	2002	95-02 % Change
Santa Cruz	1,756,102	-	1,727,669	1,707,094	1,613,475	1,620,596	1,533,447	1,535,262	-12.6
Monterey	12,862,973	-	9,102,605	10,198,858	10,189,162	9,044,485	7,974,257	8,529,785	-33.7
Santa Clara	807,057	-	740,533	1,391,915	1,042,956	727,458	713,318	661,738	-18.0
San Mateo	281,382	-	421,002	424,967	327,671	225,399	221,161	223,207	-20.7

County Pesticide Use, Number of Applications

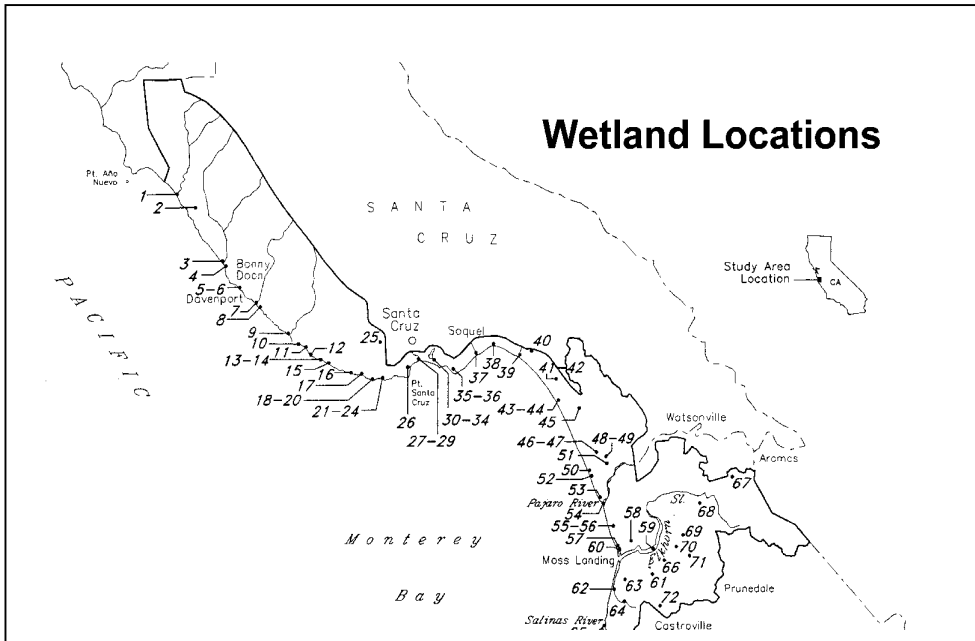
County	1995	1996	1997	1998	1999	2000	2001	2002	95-02 % Change
Santa Cruz	60,823	-	52,490	31,552	44,045	50,595	24,315	26,308	-56.7
Monterey	469,330	-	452,461	301,346	431,569	431,317	308,411	301,933	-35.7
Santa Clara	53,674	-	28,878	26,270	33,681	30,446	22,701	18,494	-65.5
San Mateo	35,759	-	30,402	25,495	30,905	20,482	17,686	17,513	-51.0

Source: Department of Pesticide Regulation, *Annual Pesticide Use Reports*, 2004.

Note: County totals not available for 1996.

Coastal Wetlands

Wetlands have a vital role in aquatic and terrestrial ecosystems, flood control, ground water recharge, and the maintenance of water quality.



1	Waddell Creek Marsh And Estuary	15	Lombardi Gulch	28	Jessie St. Marsh	41	Bonita Drive Creek
2	Last Chance Road Marsh	16	Old Dairy Gulch Marsh	29	Seabright Cove Drainage Outlet	42	Seascape Pond
3	Scott Creek Marsh	17	Wilder Creek	30	Arana Gulch Marsh	43	Las Barrancas Drainage Outlet
4	Molino Creek Marsh	18	Younger Lagoon	31	Schwann's Lagoon	44	Manresa Drainage Outlet
5	Davenport Landing Marsh	19	Terrace Point Lower Ponds	32	Black's Pond	45	Ellicot Station Pond
6	Silverking Ponds	20	Terrace Point Upper Pond	33	Bonita Lagoon	46	Galligahn Slough
7	Sa Vicente Creek	21	De Anza Pond	34	Sunny Cove Drainage Outlet	47	Harkin's Slough
8	Liddell Creek	22	Natural Bridges Lagoon	35	Corcoran Lagoon	48	Hanson Slough
9	Laguna Creek	23	Antonelli Pond	36	Moran Lake	49	W. Branch Struve Slough
10	Sand Hill Bluff Marsh And Pond	24	Monarch Pond	37	Soquel Lake	50	Sunset Beach FW Marsh
11	Majors Creek	25	UCSC Inclusion Area 4, Seasonal Wetlands	38	Borregas Creek	51	Upper Watsonville Slough
12	Table Rock Wetland	26	Neary's Lagoon	39	Aptos Creek	52	Shorebird Pond
13	Baldwin Creek Marsh	27	San Lorenzo River	40	Valencia Lagoon	53	Lower Watsonville Slough
14	Four-Mile Beach					54	Pajaro River

1994

Total coastal wetland acres in County	899.2
Total acres in County	286,739
Percent of County in coastal wetlands	0.3
Coastal wetland acres per 1,000 residents	3.6

Source: California Coastal Commission, *ReCAP Pilot Project Findings and Recommendations*, 1994.

 **New data not available**

QUALITY OF LIFE INDICATOR 116

Health of County Waterways

The California Regional Water Quality Control Board monitors inventories of major County waterways for the degree to which they are impaired by pollutants.

Percent Impairment of County Waterways

Name	Total Size	% Impairment					Coho Salmon Habitat?
		1989	1994	1998	2001	2002	
Aptos Creek	10 miles	12.5	50.0	40.0	40.0	84.0	Yes
Carbonera Creek	10 miles	100.0	100.0	100.0	100.0	100.0	No
Lompico Creek	5 miles	100.0	100.0	100.0	100.0	90.0	No
Pajaro River	49 miles	0.0	0.0 ¹	100.0	100.0	65.3	No
San Lorenzo River	25 miles	20.0	60.0	100.0	100.0	100.0	Yes
Schwan Lake	32 acres	100.0	100.0	100.0	100.0	71.9	No
Shingle Mill Creek	2 miles	100.0	100.0	100.0	100.0	80.0	No
Soquel Lagoon	2 acres	100.0	100.0	100.0	100.0	60.0	No
Valencia Creek	7 miles	100.0	100.0	100.0	100.0	88.6	No
Waddell Creek (East Branch) ¹	4 miles	100.0	100.0	75.0	75.0	87.5	Yes ¹
Watsonville Slough	300 acres	100.0	100.0	100.0	100.0	100.0	No

Source: California Environmental Protection Agency, Regional Water Resources Control Board, *Recommended 303 (d) Lists and TMDL Priority Schedule*, 2004.

Note: Percentages are for those waterways that have a portion or all of their area/length listed as “impaired.” The State uses three categories to assess the waterway health. “Good” waterways support and enhance designated use with minor or no known impairment of water quality. “Intermediate” waterways support designated use with minor or moderate impairment. “Impaired” waterways do not support designated uses and have moderate to severe impairment of water quality. In 1994, the entire Pajaro River had signs of increasing pollution; water quality was listed as “intermediate,” but not yet “impaired.” By 1998, 100% of the Pajaro River was officially impaired.

¹*The steep gradient of the East Branch of Waddell Creek may be inhospitable to Coho Salmon; however they will use the lower portion of East Waddell on some years.*



New data not available

Health of County Waterways

Inventory of Impaired County Waterways, 2002

Waterway	Pollutant	Priority	Source
Aptos Creek	Pathogens	Medium	Urban runoff / Storm sewers
	Sedimentation	Low	Disturbed sites (land development) / Channel erosion
Carbonera Creek	Nutrients	Low	Non-point sources
	Pathogens	Medium	Urban runoff / Storm sewers / Non-point sources
	Sedimentation	High	Construction / Land development / Non-point sources
Lompico Creek	Nutrients	Low	Septage disposal
	Pathogens	Medium	Septage disposal / Natural sources / Non-point sources
	Sedimentation	High	Construction / Land development / Natural sources
Pajaro River	Fecal Coliform	Low	Pasture grazing – Riparian and/or upland / Natural sources / Non-point sources
	Nutrients	Medium	Agriculture / Irrigated crop production / Agricultural storm runoff / Agricultural subsurface drainage / Agriculture and irrigation tail water / Agricultural return flows / Urban runoff / Storm sewers / Waste water / Land disposal / Channelization / Removal of riparian vegetation / Non-point sources
	Sedimentation	Medium	Agriculture / Irrigated crop production / Range grazing – Riparian and/or Upland / Agricultural storm runoff / Resource extraction / Surface mining / Hydromodification / Channelization / Habitat modification / Removal of riparian vegetation / Streambed modification/destabilization / Channel erosion
San Lorenzo River	Nutrients	Low	Septage disposal / Non-point sources
	Pathogens	Medium	Urban runoff / Storm sewers / Septage disposal
	Sedimentation	High	Silviculture / Construction / Land development / Urban runoff / Storm sewers
Schwan Lake	Nutrients	Low	Non-point sources
	Pathogens	Medium	Urban runoff / Storm sewers / Natural sources
Shingle Mill Creek	Nutrients	Low	Septage disposal
	Sedimentation	High	Construction / Land development / Non-point sources
Soquel Lagoon	Nutrients	Low	Septage disposal / Non-point sources
	Pathogens	Medium	Urban runoff / Storm sewers / Natural sources / Non-point sources
	Sedimentation	Low	Construction / Land development
Valencia Creek	Pathogens	Medium	Agriculture / Septage disposal
	Sedimentation	Low	Agriculture / Construction / Land development
Waddell Creek (East Branch)	Nutrients	Low	Municipal point sources
Watsonville Slough	Pathogens	Medium	Urban runoff / Storm sewers / Unknown source(s) / Non-point sources
	Pesticides	Low	Agriculture / Irrigated crop production / Agricultural storm runoff / Agricultural irrigation tailwater / Non-point sources
	Sedimentation	Medium	Agriculture / Irrigated crop production / Agricultural storm runoff / Non-point sources

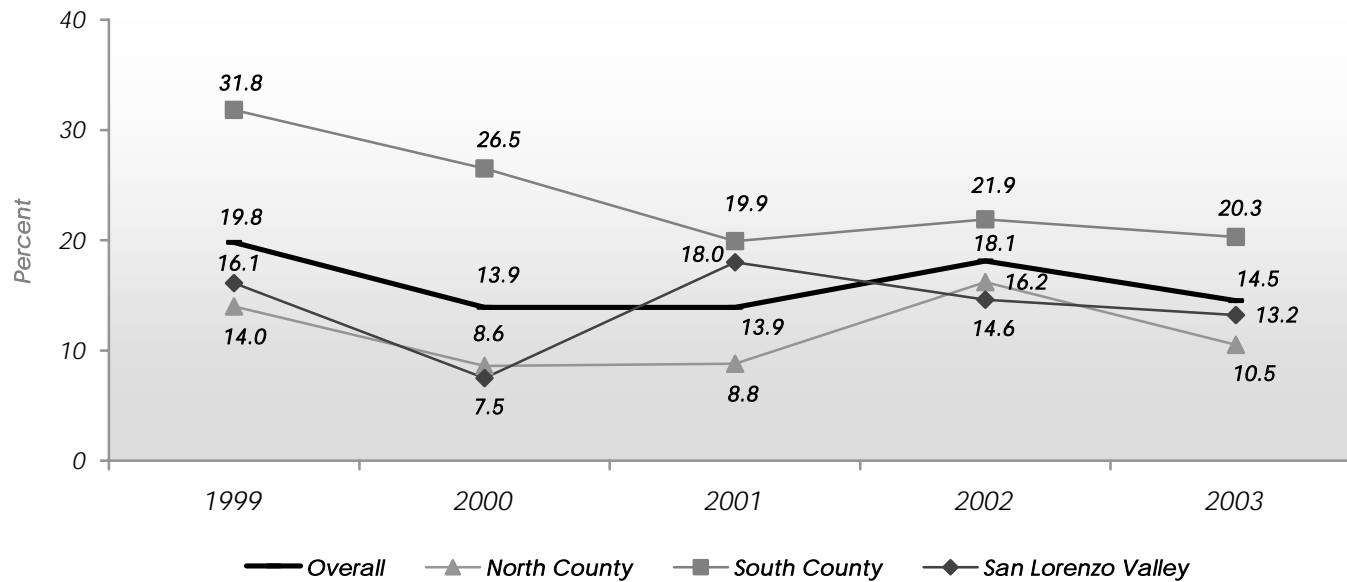
Source: California Environmental Protection Agency, Regional Water Resources Control Board, *Recommended 303(d) List and TMDL Priority Schedule*, 2003.

 **New data not available**

QUALITY OF LIFE INDICATOR 117

 **Water Quality**

*How are we doing as a County to address drinking water quality?
(Respondents answering “Getting better”)*



Total respondents	1999	2000	2001	2002	2003
Overall	500	584	694	682	691
North County	278	304	200	233	232
South County	154	170	286	227	239
San Lorenzo Valley	56	106	211	220	220

Source: Santa Cruz County Community Assessment Project, Telephone Survey, 2003.

Note: See appendix for statistical testing for this question.

 **New data not available**

Water Quality

Community Profile

Percent of respondents who think the County is “Getting better” at addressing drinking water quality:

By Ethnicity	1999	2000	2001	2002	*2003	2003 N
Caucasian	16.3	9.7	12.7	14.9	11.2	479
Latino	39.0	29.0	19.4	27.5	25.2	158

By Region	1999	2000	2001	2002	2003	2003 N
North County	14.0	8.6	8.8	16.2	10.5	232
South County	31.8	26.5	19.9	21.9	20.3	239
San Lorenzo Valley	16.1	7.5	18.0	14.6	13.2	220

By Age	1999	2000	2001	2002	2003	2003 N
18-24	29.3	21.2	10.9	21.3	21.9	107
25-44	19.1	15.5	12.7	20.6	13.7	225
45-64	17.9	11.0	14.3	15.6	13.5	248
65 and older	16.2	6.0	16.3	16.9	11.5	109

By Gender	1999	2000	2001	2002	2003	2003 N
Male	17.0	13.2	11.9	17.1	15.2	339
Female	21.9	14.4	15.9	19.0	13.9	352

By Income	1999	2000	2001	2002	2003	2003 N
\$34,999 per year or less	26.4	18.6	14.5	19.6	15.3	303
\$35,000 - \$64,499	14.6	12.7	12.6	17.5	16.8	163
\$65,500 and greater	14.6	8.4	11.3	18.0	11.7	172

Source: Santa Cruz County Community Assessment Project, *Telephone Survey*, 2003.

* Indicates statistically significant survey responses when reporting differences between sub-groups for the 2003 data. Absence of this symbol indicates no statistical significance difference between sub-groups for the 2003 data.

 **New data not available**

Significance Testing

Ethnicity: *Latinos* were significantly more likely to respond “Getting better” than were *Caucasians*.

QUALITY OF LIFE INDICATOR 118

Beach Closures

Beaches are often closed in response to elevated bacteria levels triggered by sewage spills, storm drain overflows, animals and waterfowl, and agricultural activities. Rainwater infiltration in the lagoons can cause sewage overflows that cause a beach closure.

Beach Closures, Number of Days Posted or Closed

Beach Name	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Capitola	24	-	4	-	3	-	17	42	45	36
Corcoran	-	-	-	-	1	4	-	-	-	-
Corcoran Lagoon	-	-	-	-	-	102	-	-	-	-
Cowell	-	-	-	-	-	7	15	6	36	-
Davenport	-	-	-	-	1	-	-	-	-	-
La Selva Beach	-	-	-	-	-	-	-	3	-	-
Lighthouse	-	-	-	-	-	-	2	-	-	-
Mitchell's Cove	-	-	-	-	-	-	3	-	-	-
Moran Lake	-	-	-	-	-	20	-	3	-	-
New Brighton Beach	-	-	-	-	-	-	-	-	-	3
Pajaro River Beach / Sunset	-	14	-	-	-	-	-	1	-	-
Pelton Avenue	-	-	-	-	2	-	-	-	-	-
Rio Del Mar	6	-	-	-	-	17	14	4	1	43
Santa Cruz (Main Beach)	-	-	-	-	-	-	5	2	23	-
Seabright	-	-	-	-	1	-	-	2	5	-
Seacliff State Beach	-	-	-	-	-	-	14	-	1	6
Twin Lakes Beach	-	-	-	-	-	-	-	2	1	-
County Total	30	14	4	0	8	150	70	65	112	88

Source: County of Santa Cruz Environmental Health Services, 2004.

Note: The dashes in this chart represent zero closures or days posted. The increase in closures in 1999 was directly related to a change in State standards for monitoring and posting closures. Additionally, four waterflow deltas (San Lorenzo Rivermouth, Schwan Lagoon, Soquel Creek, and Aptos Creek) have permanent postings, and Neary Lagoon has a seasonal posting during winter.

Non-Agricultural Water Use

Measures the annual use and production of water. These data, provided by the various water districts, are the best proxy for balancing non-agricultural use and need.



Annual Production, in Millions of Gallons

Water District	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	94-03 % Change
Central (rural Aptos)	NA	146	147	166	189	175	183	176	191	186	NA
Lompico	30	30	32	31	32	32	32	31	29	33	10.0
San Lorenzo Valley	600	620	663	674	607	654	661	685	690	693	15.5
Soquel Creek	1,751	1,717	1,763	1,917	1,665	1,762	1,756	1,769	1,829	1,807	3.2
Santa Cruz	3,863	3,728	4,069	4,257	3,861	4,031	3,959	3,934	3,880	3,863	0.0
Scotts Valley	530	538	624	682	614	612	631	659	672	662	24.9
Watsonville	2,196	2,200	2,264	2,362	2,325	2,472	2,487	2,481	2,503	2,488	13.3
County Total	NA	8,979	9,562	10,089	9,293	9,738	9,709	9,735	9,794	9,732	NA

Annual Usage, in Millions of Gallons

Water District	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	94-03 % Change
Central (rural Aptos)	NA	125	148	171	184	175	169	163	171	171	NA
Lompico	22	23	22	23	24	22	21	22	22	24	9.1
San Lorenzo Valley	509	531	562	600	533	576	581	594	591	594	16.7
Soquel Creek	1,563	1,581	1,638	1,740	1,571	1,641	1,695	1,668	1,719	1,670	6.8
Santa Cruz	3,412	3,510	3,731	4,022	3,603	3,764	3,727	3,709	3,575	3,534	3.6
Scotts Valley	532	537	592	680	607	610	628	631	667	539	1.3
Watsonville	2,102	2,071	2,180	2,318	2,164	2,372	2,371	2,348	2,373	2,306	9.7
Unincorporated areas ¹	NA	NA	NA	NA	3,019	3,308	3,386	NA	NA	NA	NA
County Total	NA	NA	NA	NA	11,705	12,468	12,578	NA	NA	NA	NA

Source: County Planning Department, 2000. Central, Lompico, San Lorenzo Valley, Soquel Creek, Santa Cruz, and Scotts Valley Water Districts, 2004. City of Watsonville, 2004.

¹Usage data for unincorporated areas includes some large institutional parcels, and is calculated based on the number of parcels in the County with land use codes indicating water use, utilizing an estimated water use factor based on land use. Production data is not available for unincorporated areas since usage is heavily from wells.

QUALITY OF LIFE INDICATOR 119

Non-Agricultural Water Use

Number of Service Connections

Water District	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	94-03 % Change
Central (rural Aptos)	NA	760	763	772	787	804	813	818	821	831	NA
Lompico ¹	493	493	493	493	493	493	494	497	497	498	1.0
San Lorenzo Valley	5,496	5,696	5,704	5,714	5,729	5,735	5,774	5,774	5,793	5,808	5.7
Soquel Creek	13,223	13,318	13,402	13,594	13,746	14,077	14,264	14,449	14,529	14,710	11.2
Santa Cruz	22,214	22,433	22,557	22,694	23,024	23,061	23,148	23,310	23,590	23,724	6.8
Scotts Valley	2,991	3,143	3,266	3,319	3,432	3,502	3,521	3,545	3,577	3,589	20.0
Watsonville	12,354	12,445	12,529	12,614	12,706	12,907	13,108	13,197	13,177	13,542	9.6
Unincorporated areas ²	NA	NA	NA	NA	11,184	11,066	11,328	NA	NA	NA	NA
County Total	NA	NA	NA	NA	71,101	71,645	72,450	NA	NA	NA	NA

Daily Usage per Connection, in Gallons

Water District	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	94-03 % Change
Central (rural Aptos)	NA	450.6	531.4	606.9	640.5	596.3	568.6	489	503	499	NA
Lompico	NA	NA	NA	NA	115	114	133	141	120	125	NA
San Lorenzo Valley	253.7	255.4	269.9	287.7	254.9	275.2	290.7	281.9	280	280	10.4
Soquel Creek	323.8	325.2	334.9	350.7	313.1	319.4	325.7	316.3	324	311	-4.0
Santa Cruz ³	420.8	428.7	453.2	485.6	428.7	447.2	441.1	436	415	408	-3.0
Scotts Valley	487.3	468.1	496.6	561.3	484.6	477.2	488.7	487.6	510	412	-15.5
Watsonville	466.2	455.9	476.7	503.5	466.6	460.3	495.6	487	493	466	0
Unincorporated areas ²	NA	NA	NA	NA	739.6	819.0	818.9	NA	NA	NA	NA
County Total	NA	NA	NA	NA	451.0	476.8	475.6	NA	NA	NA	NA

Source: County Planning Department, 2000. Central, Lompico, San Lorenzo Valley, Soquel Creek, Santa Cruz, and Scotts Valley Water Districts, 2004. City of Watsonville, 2004.

¹Connections with extremely low usage (seasonal/weekend homes) were eliminated to prevent erroneously low values.

²For the unincorporated areas, number of service connections is the number of parcels. Usage data includes some large institutional parcels, and is calculated based on the number of parcels in the County with land use codes indicating water use, using an estimated water use factor based on land use.

³The daily use figure for Santa Cruz includes all commercial, industrial, governmental and residential water usage. It included the entire University of California, which is one metered account. In 2004, the average residential water consumption was 305 gallons per day (gpd) for the single-family and multi-family accounts, and 226 gpd for the individually metered residential accounts.

Air Quality

Exposure to unhealthful levels of ozone can result in chest pain, coughing, nausea, shortness of breath, headaches, congestion, and throat irritation.

Summary: Total Days Exceeding State Air Quality Standards

Location	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Ozone	0	1	2	0	1	1	1	0	0	1
Particulate Matter (PM10)	6	12	13	12	4	6	0	6	4	5
Total	6	13	15	12	5	7	1	6	4	6

Source: California Air Resources Board, 2003.

Number of Days Exceeding Safe Levels of Ozone

Location	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Davenport	0	0	0	0	0	0	0	0	0	0
Scott Valley (Scotts Valley Dr.)	0	1	2	0	1	0	1	0	0	1
Scotts Valley (Vine Hill)	0	0	0	0	0	0	0	0	0	0
Watsonville (Airport Blvd)	0	0	0	0	0	0	0	0	0	0
Santa Cruz (Bostwick Lane)	0	0	0	0	0	0	0	0	0	0
Santa Cruz (Soquel Ave.)	0	0	0	0	0	1	0	0	0	0
County Total	0	1	2	0	1	1	1	0	0	1

Source: California Air Resources Board, 2000. Monterey Bay Unified Air Pollution Control District, 2004.

Note: The figures for ozone represent exceedances of the State Ambient Air Quality Standards (one hour average) and do not include exceedances of the National Standard (eight hour average). Two monitoring sites closed and were replaced with a new nearby site; the Scotts Valley Vine Hill site was replaced in 1994 by the Scotts Valley Drive site, and the Santa Cruz Bostwick Lane site was replaced by the Soquel Avenue site.

QUALITY OF LIFE INDICATOR 120

Air Quality

Number of Monitored Days Exceeding Safe Levels of Particulate Matter

Location	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Davenport	5	12	12	12	4	6	0	6	4	5
Scotts Valley (Vine Hill)	0	0	0	0	0	0	0	0	0	0
Watsonville (Airport Blvd)	1	0	0	0	0	0	0	0	0	0
Santa Cruz (Bostwick Lane)	0	0	1	0	0	0	0	0	0	0
Santa Cruz (Soquel Ave.)	0	0	0	0	0	0	0	0	0	0
County Total	6	12	13	12	4	6	0	6	4	5

Source: California Air Resources Board, 2000. Monterey Bay Unified Air Pollution Control District, 2004.

Note: The above figures represent monitored exceedances of the State 24-hour Ambient Air Quality Standard for PM₁₀. However, since PM₁₀ monitoring is only conducted once every six days, the actual number of exceedances can be much higher. PM₁₀ monitoring is conducted according to a national monitoring schedule established by the United States Environmental Protection Agency.

Particulate Matter (PM₁₀) refers to the mixture of solid particles and liquid droplets found in the air that are less than 10 microns in size. Studies have linked high levels of particulate matter to aggravated asthma and acute respiratory symptoms, chronic bronchitis, decreased lung function, and premature death. The largest sources of PM₁₀ are dust from vehicles driving on paved roads, grinding operations, fuel combustion, agricultural burning, and wood stoves. In Davenport, high PM₁₀ readings are due to the concentration of sea salt in the air.

Air Quality

Air quality complaints are tallied on the number of irritants reported by County residents.

Air Quality-Related Neighborhood Complaints by Area

Location	1996	1997	1998	1999	2000	2001	2002	2003	96-03 % Change
Davenport	9	7	6	6	11	18	23	14	55.6
Bonny Doon	1	2	1	1	2	1	0	2	100.0
Ben Lomond / Felton / Boulder Creek	20	24	13	15	13	11	10	14	-30.0
Scotts Valley	7	11	4	2	9	0	3	4	-42.9
Santa Cruz	54	84	111	37	37	72	64	58	7.4
Capitola	4	2	2	2	4	2	2	0	-100.0
Soquel	10	9	4	8	8	3	11	7	-30.0
Aptos	8	7	4	5	0	3	7	8	0.0
Freedom / Corralitos	3	5	0	2	3	1	1	1	-66.7
Watsonville	26	32	18	23	25	25	19	16	-38.5
County Total	142	183	163	101	112	136	140	124	-12.7

Air Quality-Related Neighborhood Complaints by Type

Irritant	1996	1997	1998	1999	2000	2001	2002	2003	96-03 % Change
Smoke / Open burning / Fireplaces	30	51	43	39	31	18	41	38	26.7
Odor	36	43	97	24	42	66	63	59	63.9
Dust	11	17	16	17	20	30	17	15	36.4
Paint	6	10	12	8	3	5	3	3	-50.0
Phase II / Faulty gas nozzles	8	6	1	2	7	4	4	5	-37.5
Other (asbestos, etc)	8	6	5	11	9	13	12	4	-50.0
County Total	99	133	174	101	112	136	140	124	25.3

Source: Monterey Bay Unified Air Pollution Control District, 2004.

Note: A single phone call may refer to more than one irritant, and therefore those irritants are counted separately. Beginning in 1999, smoking vehicle complaints were no longer processed by the MBUAPD, and are referred to other departments.

QUALITY OF LIFE INDICATOR 121

Motor Vehicle Registrations

This is a proxy indicator of traffic congestion in Santa Cruz County. The number of vehicles per person provides an illustrative measure of how overall population increases compare with vehicle increases.

Santa Cruz County

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	94-03 % Change
Total	186,348	188,612	192,444	183,966	198,230	201,982	227,345	232,580	236,390	231,576	24.3
Population 16 and over	184,105	185,903	187,513	190,451	193,833	197,508	201,232	205,002	208,607	206,200	12.0
Vehicles per Capita	1.01	1.01	1.03	0.97	1.02	1.02	1.13	1.13	1.13	1.12	10.9

California

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	94-03 % Change
Total	22,843,527	23,247,363	23,724,871	22,522,604	24,105,233	24,753,847	26,727,544	27,627,105	28,686,309	28,658,748	25.5
Population 16 and over	23,816,718	23,960,449	24,179,607	24,595,265	24,975,339	25,393,255	25,824,932	26,258,516	26,697,667	27,437,447	15.2
Vehicles per Capita	0.96	0.97	0.98	0.92	0.97	0.97	1.03	1.05	1.07	1.04	8.3

Source: Department of Motor Vehicles, Forecasting Division, 2004. *Population figures for 1994-2002*: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail*, 1970-2040. Sacramento, CA, December 1998. *Population figures for 2003*: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail*, 2000-2050, Sacramento, California, May 2004.

Roadway Congestion

As an indicator of traffic volume, vehicle miles traveled (VMT) can be used as a proxy indicator of air quality. VMT also helps planners make decisions about transportation management and County growth.

Daily Vehicle Miles Traveled by Jurisdiction

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	94-03 % Change
Capitola	120,200	108,900	129,200	132,200	124,000	148,000	147,300	135,360	141,810	149,410	24.3
Santa Cruz	605,400	574,000	576,500	599,500	598,900	597,800	596,500	595,900	633,180	621,000	2.6
Scotts Valley	115,500	106,000	110,200	114,600	119,800	126,700	126,600	121,350	131,130	127,280	10.2
Watsonville	291,000	284,000	290,200	297,300	312,500	342,700	335,700	328,790	346,180	343,470	18.0
County— Unincorporated	1,269,700	1,235,500	1,251,800	1,285,500	1,328,900	1,376,200	1,362,700	1,326,030	1,411,340	1,384,660	9.1
State Highways	2,589,000	2,500,100	2,529,500	2,675,300	2,694,400	2,749,100	2,794,000	2,826,790	2,931,850	2,995,470	15.7
State Parks and Recreation	13,300	11,100	9,500	12,000	14,000	16,300	14,300	11,570	15,340	13,090	-1.6
University of California	-	-	-	-	-	31,200	31,800	31,830	32,830	33,150	NA
County Total	5,004,100	4,819,600	4,896,900	5,116,400	5,192,500	5,388,000	5,408,900	5,377,610	5,643,670	5,667,530	13.3

Daily Vehicle Miles Traveled, County Comparison

Other Local Counties	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	96-03 % Change
Monterey	-	-	8,694,900	9,217,300	9,331,900	9,841,500	9,930,100	9,685,050	10,450,690	10,101,160	16.2
San Benito	-	-	1,139,600	1,164,600	1,244,100	1,350,300	1,462,400	1,466,890	1,476,550	1,498,290	31.5
San Mateo	-	-	17,414,500	18,280,800	18,593,900	19,336,100	19,383,400	18,885,220	19,974,270	19,223,030	10.4
Santa Clara	-	-	37,945,100	38,410,600	39,940,100	40,979,600	41,135,900	41,444,740	42,674,740	42,213,520	11.2
Total	-	-	65,194,100	67,073,300	69,110,000	71,507,500	71,911,800	71,481,900	74,576,250	73,063,000	12.1

Source: California Department of Transportation (CalTrans), 2004.

Note: CalTrans calculates Vehicle Miles Traveled (VMT) by multiplying the length of each given road segment by its traffic volume in a day.

QUALITY OF LIFE INDICATOR 123

Alternative Transportation

Ridership statistics measure to what extent residents rely on alternative forms of transportation.

Annual Alternative Transportation Ridership by Selected Types

Type of Transport	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	94-04 % Change
Santa Cruz Metropolitan Transit District (SCMTD)	6,631,042	6,457,610 ¹	6,457,610 ¹	6,155,004 ¹	6,155,004 ¹	6,155,004 ¹	6,140,571 ¹	6,105,478	5,939,048	5,680,884	-14.3
Hwy 17 Express Bus	175,964	168,386 ¹	181,465	174,581	179,353	178,445	189,014	165,062	149,948	142,723	-18.9
Lifeline (Paratransit)	28,516	37,814	51,457	66,578	83,754	103,074	101,541	108,089	105,989	91,704	221.6
Total	6,835,522	6,663,810¹	6,690,532¹	6,396,163¹	6,418,111¹	6,436,523¹	6,431,126¹	6,378,629	6,194,985	5,915,311	-13.5

Source: Santa Cruz Metropolitan Transit District, 2004.

Note: Ridership refers to the number of trips taken in a specified time frame. There is currently no data available on the number of people who commute to work using carpool services or bicycles. See Census 2000 data in the Demographics section of this report for related commuting data.

¹Figure revised.

Bikeway Miles

Jurisdiction	1994	1997	1999	2002	2003	2004
Capitola	5.8	6.2	6.4	6.4	6.4	8.3
Santa Cruz	28.8	30.9	31.8	31.8	31.8	31.8
Scotts Valley	2.8	4.4	4.8	8.5	9.3	9.3
Watsonville	5.8	5.8	6.0	9.2	9.2	9.2
Unincorporated	24.7	26.4	26.7	28.1	NA	32.6
County Total	69.7	73.3	75.7	84.0	NA	91.2

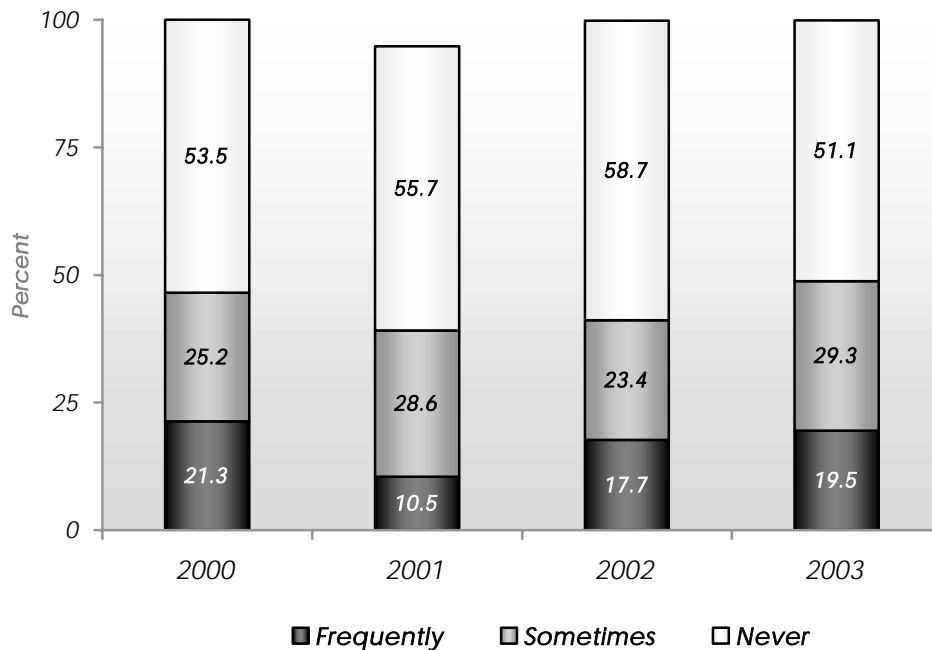
Sources: San Mateo City/County Association of Governments, 2000. Valley Transportation Authority, 2000. Santa Cruz County Regional Transportation Commission, 2004.

Note: Totals include only Class I bike paths and Class II bike lanes.

Alternative Transportation

Interest in using alternative transportation is important for planning new transit routes and alternate possibilities for transit.

How often do you use transportation other than your own car?



Total respondents	2000	2001	2002	2003
Overall	530	698	684	702

Note: Due to their low numbers, respondents who said "don't know" are not included in the graph. See appendix for results of statistical testing for these questions.

 **New data not available**

What would encourage you to use alternative forms of transportation? (Selected responses)

Response	2000	2001	2002	2003
Nothing / Wouldn't use it / Not now / Have children	45.4	16.5	19.9	16.3
More frequent bus schedule / Convenience	9.2	15.1	15.6	15.9
Already use it	12.7	5.2	10.8	13.5
Easier access	2.8	6.3	5.0	5.9
If car broke down	4.4	8.9	9.7	4.5
Expense of gasoline	2.1	4.0	1.5	3.4
More / Safer / Better bike paths	2.3	4.3	2.0	3.0
Light rail / Train	2.3	2.8	3.1	2.3
Free transit	2.3	1.9	0.9	1.0
Rapid transit	2.1	2.3	1.2	0.5
Total Respondents	566	681	661	691

Source: Santa Cruz County Community Assessment Project, *Telephone Survey*, 2003.

QUALITY OF LIFE INDICATOR 124

Endangered Species - Plants

Biodiversity is a proxy for habitat health, and loss of species indicates the extent to which natural ecosystems are changing or being changed. The listed plant and animal species found within Santa Cruz County appear on State and Federal lists of threatened or endangered species.

Common Name	State Status	Federal Status
Ben Lomond Spineflower		Endangered
Ben Lomond Wallflower		Endangered
Dudley's Lousewort	Rare	
Marsh Sandwort	Endangered	
Monterey Spineflower		Threatened
Robust Spineflower		Endangered
San Francisco Popcorn-flower	Endangered	
Sand Gilia	Threatened	
Santa Cruz Cypress	Endangered	Endangered
Santa Cruz Tarplant	Endangered	Threatened
Santa Cruz Wallflower	Endangered	
Scott's Valley Polygonum	Candidate	Endangered
Scott's Valley Spineflower		Endangered
Tisestrom's Lupine		Endangered
White-rayed Pentachaeta	Endangered	Endangered

Source: California Department of Fish and Game, *Natural Diversity Database*, 2004. U.S. Fish and Wildlife Service, *Species Lists*, 2004.

Endangered Species – Animals

Type	Common Name	State Status	Federal Status
Amphibian	California Red-legged Frog		Threatened
	California Tiger Salamander		Endangered
	Santa Cruz Long-toed Salamander	Endangered	Endangered
Bird	Bald Eagle		Threatened
	Bank Swallow	Threatened	
	Brown Pelican		Endangered
	California Black Rail	Threatened	
	California Clapper Rail		Endangered
	Marbled Murrelet	Endangered	Threatened
	Western Snowy Plover		Threatened
	Yellow-Billed Cuckoo		Candidate
Fish	Coho Salmon – Central California Esu	Endangered	
	Tidewater Goby		Endangered
Insect	Mount Hermon (=Barbate) June Beetle		Endangered
	Ohlone Tiger Beetle		Endangered
	Zayante Band-winged Grasshopper		Endangered
Mammal	Southern Sea Otter		Threatened
Reptile	San Francisco Garter Snake	Endangered	Endangered

Source: California Department of Fish and Game, *Natural Diversity Database*, 2004. U.S. Fish and Wildlife Service, *Species Lists*, 2004.

QUALITY OF LIFE INDICATOR 125

Ecological Restoration

Projects to assess, repair, or restore at-risk habitats – listed here by locations and purpose – are a proxy both for environmental protection activities and for additional project funding.

Location	Project Description
Aptos Creek Clean Streams Program	Provide data that pertain to the water quality objectives set by the State Water Quality Control Board and to the anadromous fisheries present in Aptos and Valencia Creeks.
Arana Gulch Clean Streams Pilot Project	Train and utilize volunteers to participate in monitoring the health of the Arana Gulch Watershed through water quality sampling, habitat assessment, and participation in restoration activities.
Biodiversity in the Santa Cruz Mountains	Inventory, identify, and describe the elements of biodiversity in the Santa Cruz Mountains (species, communities, and ecosystems) and assess the threats to those elements.
Central Coast Sustainable Landscapes Project	Define quantifiable techniques for measuring the sustainability of oak woodlands in the central coast region.
County of Santa Cruz Road Crossing and Salmonid Passage Assessment	Complete an initial assessment of all County road crossings on salmonid streams. Evaluate passage conditions at up to 70 stream crossings that may be passage impediments for salmonids.
Ellicott Slough National Wildlife Refuge Upland Habitat Restoration Project - Weed Control	Restore upland habitat for the endangered Santa Cruz long-toed salamander.
Hanson Aggregates - Felton Plant Revegetation Program	To revegetate completed mining areas, including the establishment of special status plant species
Kings Creek Sediment Control Project	Siltation in coastal watersheds has been repeatedly documented in many studies as a leading obstacle to steelhead and salmonid reproduction. A major source of siltation in the San Lorenzo River Watershed is erosion/runoff from unpaved roads.
Pajaro River Watershed Council CRMP	Coordinate interests, identify natural resource issues, develop solutions, and implement projects ensuring a sustainable and quality watershed.
Poison Hemlock Eradication / Coastal Scrub Restoration at Younger Lagoon	Eradicate non-native, invasive plants.
San Lorenzo River Caretakers CRMP	Watershed enhancement for the purpose of improving water quality, fisheries, land management, erosion, and flood control.
San Lorenzo River Total Maximum Daily Load Development	This study will provide more information for the Regional Water Quality Control Board to describe the nature and extent of impairments. It will result in the development of a sediment TMDL.
San Lorenzo River Watershed – Implementation of Erosion and Sedimentation Control (7-090-253-0)	This project will assist in the implementation of Santa Cruz County's updated San Lorenzo River Watershed Management Plan.

Source: California Resources Agency, *Natural Resource Projects Inventory- CERPI*, 2004.

Ecological Restoration (continued)

Location	Project Description
San Lorenzo River Watershed – Management Plan (4-133-250)	Update the 1979 San Lorenzo River Management Plan and implement coordinated measures to protect and improve water quality.
Santa Cruz County Klamathweed Biological Control Project	Biological control of klamathweed, a noxious weed of rangelands and right-of-ways in Santa Cruz County.
Santa Cruz County Puncturevine Biological Control Project	Biological control of puncturevine, a noxious weed of rangelands and right-of-ways in Santa Cruz County.
Santa Cruz County Yellow Starthistle Biological Control Project	Biological control of yellow starthistle, a noxious weed of rangelands and right-of-ways in Santa Cruz County.
Santa Cruz Tarplant Restoration; French Broom & English Ivy Eradication	Eradicate French Broom and English Ivy, allowing the recovery of the Santa Cruz Tarplant.
Santa Cruz Urban Watch Storm Drain Monitoring Program	Use trained volunteers to monitor dry weather storm drain activity in selected outflow areas from July through October, and to identify common pollutants/contaminants within the storm drains in the study area.
Soquel Lagoon Management and Enhancement Plan	Protect the aquatic habitat in the lagoon, educate city employees and local residents in good management practices for the watershed, and provide biological information for use in schools.
Soquel Watershed Group (CRMP) - Clear Streams Project	Train and utilize volunteers to participate in monitoring the health of the Soquel Creek watershed through water quality sampling, habitat assessment, and restoration activities
Watsonville Slough Watershed	Reduce annual rate of erosion to "T" as defined by NRCS, with associated benefits including enhanced water quality, enhanced wetland, and endangered species habitat.
Wilder Creek Restoration Project	Decrease erosion/stream sedimentation; improve fish passage; improve spawning habitat.
Wilder Ranch State Park, Gray Whale Ranch Property, Exotic Plants Removal (0464)	The property contains three unique plant communities: northern interior cypress forest, northern maritime chaparral, and maritime coast range ponderosa pine forest, three listed species, and six special interest animal species. Remove exotic plants such as French broom acacia, pampas grass, eucalyptus and catoneaster from the Gray Whale Ranch Property.

Source: California Resources Agency, *Natural Resource Projects Inventory- CERPI*, 2004.

QUALITY OF LIFE INDICATOR 126

Waste Reduction

Waste disposal tables monitor average landfill disposal per person and the amount of waste that is diverted from landfills.

Total Annual Tons of Waste Disposal

	1995	1996	1997	1998	1999	2000	2001	2002	2003	95-03 % Change
Capitola	14,801	12,325	12,018	11,554	12,304	11,753	11,031	10,842	11,229	-24.1
Santa Cruz	72,076	72,546	75,604	71,549	69,477	81,106	70,791 ²	60,922	64,618	-10.3
Scotts Valley	14,033	12,284	11,549	14,609	13,764	12,691	11,536	11,836	12,923	-7.9
Watsonville	33,648	33,756	34,068	39,642	40,269	42,423	36,761	36,097	37,504	11.5
Unincorporated Areas	101,799	105,544	106,945	112,603	113,109	121,726	116,836	120,810	115,899	13.9
County Total	236,357	236,455	240,184	249,957	248,923	269,699	246,954²	240,507	242,173	2.5

Estimated Pounds of Waste Disposed Per Person, Per Day (Residential Disposal Rate)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	95-03 % Change
Capitola	3.2	2.6	2.5	2.4	2.6	2.7	2.5	2.4	2.5	-21.9
Santa Cruz	3.9	3.9	4.1	3.8	3.6	4.2	3.7	3.2	3.3	-15.4
Scotts Valley	1.2	1.0	0.9	1.1	1.1	0.9	0.8	0.8	0.9	-25.0
Watsonville	3.0	3.0	2.8	3.2	3.2	2.9	2.3	1.6	1.7	-43.3
Unincorporated Areas	1.6	1.6	1.7	1.7	1.7	1.9	1.8	1.9	1.8	12.5
State Total¹	2.5	2.4	2.4	2.4²	2.4	2.4	2.5	2.4	2.5	0.0

Source: California Integrated Waste Management Board, 2004. *Population figures for 1995-2002*: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail*, 1970-2040. Sacramento, CA, December 1998. *Population figures for 2003*: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail*, 2000-2050, Sacramento, California, May 2004.

Note: The residential disposal rate is calculated by taking the total annual waste disposal (in tons) multiplied by the annual residential generation rate and then divided by the population. That number is then converted from tons to pounds. "Tons Per Person" figures reflect disposal trends that are adjusted for population growth and are for illustrative purposes only.

¹Indicates estimated figures.

²Indicates revised figure.

Waste Reduction

Waste Diversion Rates

Jurisdiction	1995	1996	1997	1998	1999	2000	2001	2002
Capitola	-	-	-	-	0.44	0.48	0.51	0.51
Santa Cruz	0.35	0.36	0.36	0.41	0.47	0.48	0.48	0.52
Scotts Valley	0.59	0.62	0.64	0.55	0.59	0.64	0.67	0.65
Watsonville	0.25	0.26	0.35	0.32	0.67	0.66	0.72	0.72
Unincorporated Areas	0.21	0.20	0.21	0.19	0.46	0.50	0.55 ¹	0.51
County Total	0.33	0.35	0.36	0.35	0.37	NA	NA	NA
Statewide Total	0.28	0.31	0.32	0.33	0.37	0.42	0.42	0.48

Source: California Integrated Waste Management Board, 2004.

Note: Official Board-approved diversion rates are not available for the City of Capitola prior to 1999, nor are they available for Santa Cruz County overall after 1999. In 1989 the California Integrated Waste Management Board mandated that California cities reduce their generated waste by 25% by 1995, and 50% by 2000.

