



**CAL POLY**

California Polytechnic  
State University  
San Luis Obispo, CA

# *Campus Sustainability Report Card*


## *2003 - 2004*

- *Land and Water Use*
- *Transportation*
- *Energy*
- *Procurement*
- *Education and Training*




**August 2, 2004**

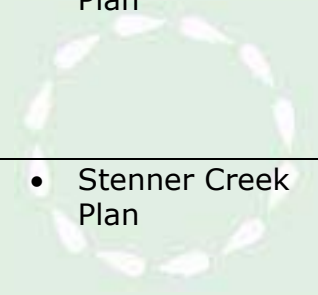
## Cal Poly Campus Sustainability Report Card – 2003/2004

Policy	Implementation	Result
<b>Land &amp; Water Use (Master Plan)</b>		
Transportation  	Circulation Study	<ul style="list-style-type: none"> <li>Initiated through the Cal Poly Master Plan, this study's focus is on the creation and implementation of an effective circulation system balancing the automobile with the pedestrian, bicycle and bus</li> <li>The study, in agreement with Master Plan circulation principles, outlines guiding framework for an effective circulation system as well as providing steps for implementation.</li> <li>Components of the study address vehicles, pedestrians, bicycles, service access, transit and parking</li> </ul>
	Adjusted Bus Routes	New routes and times were added to facilitate increased number of riders. (Increase in ridership to be documented fall, 2004).
	Additional Bike Racks and Lockers	<ul style="list-style-type: none"> <li>Bicycle racks to accommodate 24 additional bikes were purchased and installed.</li> <li>Bicycle Lockers to accommodate 230 additional bikes were purchased and installed. (There are now spaces for 1,964 bicycles on campus.)</li> </ul>
	Reduced number of Parking Spaces	Reduced number of spaces encourages alternatives to single passenger vehicle commuting.
	Rideshare Program	On-going: Reduces number of vehicles entering campus. Carpool programs provide emergency rides for doctor appointments etc.
	Cerro Vista Student Housing	Provided for 804 additional student residents –No parking was provided, resulting in reduction in commuter miles on/off campus.


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Land Use		
<p>Holistic Resource Management</p> 	Experimental Farm (SARC) – increased size.	<ul style="list-style-type: none"> <li>• Moving towards certification</li> <li>• Added new packing shed and greenhouse</li> <li>• Student enrollment in SEF (student experimental farm) classes increased by 50% (in some areas)</li> <li>• Summer internship expanded from 2 paid interns (Cal Poly students) to 5</li> <li>• CSA (community supported agriculture) program increased from 65 members to 85</li> <li>• Revenues from SEF Enterprise projects exceeded \$40,000 in 2003, expected to double in 2004 – production more than doubled</li> <li>• Enrollment in Organic Agriculture class doubled in 2004</li> <li>• Conference on Sustainable Agriculture for Pest Control Advisors to be held again</li> <li>• Green Festival held in collaboration with Environmental Horticulture (tied to Earth Day)</li> <li>• Integrated pest management and soil enhancement resulting in decreased use of pesticides and increase in soil productivity.</li> </ul>
	Intense Short Term Grazing	Sustain and improve soil health
	Swanton Pacific – Forest Stewardship Council – Certified Grower	Increase in old growth forest and increased biodiversity
	Cerro Vista Housing	Designed to trap runoff water for reuse and alleviation of erosion.
	Redefined structure site placement at Architecture Village	Mitigated erosion from storm water run off

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Water Quality		
Water Quality Management Plan		Hired campus water specialist.
<ul style="list-style-type: none"> <li>• Brizzolara Creek Plan</li> </ul> 	<ul style="list-style-type: none"> <li>• Poly Canyon – rerouted run-off water away from creek. Erosion and sediment controls implemented at red rock pit and along Poly Canyon Road</li> <li>• Riparian re-vegetation continued along Brizzolara Creek</li> </ul>	Improved fish habitat, reduction in water pollution and stabilization of creek bank
<ul style="list-style-type: none"> <li>• Stenner Creek Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Riparian re-vegetation continued</li> <li>• Fish barrier removed</li> <li>• Control/removal of exotic, invasive plant species continued</li> </ul>	Continuing improvement of fish habitat, reduction in water pollution, stabilization of creek bank, reduction in flooding
<ul style="list-style-type: none"> <li>• Mare Motel construction</li> </ul>	Horses relocated	Construction of building and relocation of horses causes decrease in water pollution and an increase compost production
<ul style="list-style-type: none"> <li>• Bull Test Unit</li> </ul>	Built berm to contain water. Channeled water with downspouts to culvert; diverts runoff away from creek.	Decrease in water pollution to Brizzolara Creek
<ul style="list-style-type: none"> <li>• Car Wash Area</li> </ul>	Runoff water piped into sewer	Decrease in water pollution to Brizzolara Creek
Water Use		
Shepard Reservoir	Dredged to capture run-off to be used for irrigation of Sports Complex	Significantly reduced water taken from Whale Rock Reservoir
Cerro Vista Housing – Storm water mitigation	<ul style="list-style-type: none"> <li>• Created wetland</li> <li>• Dug detention basins and planted with vegetation</li> </ul>	Reduction in water run-off and improved water quality
Energy & Air Pollution		
	Used CSU combined buying power to purchase renewable energy	Improved air quality

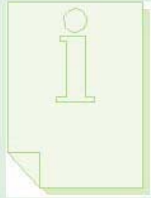


## Cal Poly Campus Sustainability Report Card – 2003/2004

Energy Use Table		2001/02	2002/03	Saved	Increased	Percentage
	<b>Electricity (Kilowatt Hours)</b>					
	Housing	4,434,940	2,905,880	1,529,060		34%
	ASI	1,452,637	1,738,901		-286,264	20%
	Foundation	2,982,683	3,079,346		-96,663	3%
	Total Non-General Fund	8,870,260	7,724,127			13%
	Total General Fund	25,088,159	26,388,790		-1,300,631	5%
	<b>Total Campus purchased utilities:</b>	<b><u>33,958,419</u></b>	<b><u>34,112,917</u></b>	<b><u>1,529,060</u></b>	<b><u>-1,683,558</u></b>	<b><u>0%</u></b>
				<b>Total: 2003</b>	<b>154,498</b>	<i>Increased KWH</i>
	<b>Gas (Therms)</b>					
	Housing	161,463	281,251		-119,788	74%
	ASI	85,885	90,721		-4,836	6%
	Foundation	92,537	85,251	7,286		8%
	Total Non-General Fund	339,885	457,223			5%
	General Fund	1,341,157	1,227,578	113,579		8%
	<b>Total Campus purchased utilities:</b>	<b><u>1,681,042</u></b>	<b><u>2,142,024</u></b>	<b><u>7,286</u></b>	<b><u>-124,624</u></b>	<b><u>27%</u></b>
			<b>Total: 2003</b>	<b>1,005,030</b>	<i>Increased Therms</i>	
<b>Water (CCF)</b>						
Housing	54,648	41,655	12,993		24%	
ASI	14,223	9,596	4,627		33%	
Foundation	25,679	22,799	2,880		11%	
General Fund	176,178	181,638		-5,460	3%	
<b>Total Campus purchased utilities:</b>	<b><u>270,728</u></b>	<b><u>255,688</u></b>	<b><u>20,500</u></b>	<b><u>-5,460</u></b>	<b><u>6%</u></b>	
			<b>Total: 2003</b>	<b>15,040</b>	<i>Saved Water</i>	
<b>Central Plant (Boiler Plant)</b>						
Housing	153,328	179,179				
ASI	33,083	31,310				
Foundation	51,012	69,906				
Total Non-General Fund	542,806	280,395				
General Fund	780,229	639,086				
			<b>Total: 2003</b>	<b>919,481</b>		
<b>Central Plant (Chiller Plant)</b>						
Housing	0	0				
ASI	61,417	26,015				
Foundation	96,374	72,264				
Total Non-General Fund	157,791	98,279				
General Fund	116,159	409,721				
			<b>Total: 2003</b>	<b>508,000</b>		


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Energy Use	Energy Conservation Projects					
	2003 – Housing Lighting Retrofit Project	Saved 665,000 KWH				
Air Pollution Table	<b>Campus Carbon Pollution</b>	<b>2001/02</b>	<b>2002/03</b>	<b>Saved</b>	<b>Increased</b>	<b>Percentage</b>
	<b>Electricity</b>	11,854,884	11,908,819		53,935	<b>0.45%</b>
	<b>Natural Gas</b>	5,497,007	7,004,418		1,507,411	<b>27%</b>
	<b>Total Carbons Emitted</b>	<b>17,351,891</b>	<b>18,913,237</b>		<b>1,561,346</b>	<b>90%</b>
	<ul style="list-style-type: none"> <li>Dairy Lagoon –captures methane</li> </ul>	Reduction of greenhouse gases and energy				
Energy Policy	Adopted Talloires Declaration	David Orr presentation on Earth Day				
<b>Solid and Hazardous Waste</b>						
Waste Diversion (Recycling)	Beverage containers, cardboard, glass, newspapers, office papers, plastics, scrap metal, Xeriscaping, on-site composting/mulching, food waste, tires, concrete, asphalt etc	Generated 10.5 M tons	Diverted 7.9 M tons	Disposed 2.5 M tons	Percentage 76%	
Hazardous Waste (Programs not included in calculations)	Electronic waste, batteries, used oil/antifreeze, paint, other hazardous waste	15.4 tons				
	Recycling (continued program)	Website information specific to recycling programs, contains information about what and how to recycle. Recycling awards etc.				
<b>Information – Methods of communication</b>						
Web Pages	Working for Sustainability (new)	Information about campus and community activities and events. Links to sustainable web sites.				

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<p>Miscellaneous Continued Programs</p> 	<p>Newspaper, ads, brochures, newsletters, fliers, fact sheets, outreach, seminars, workshops, waste information exchange, recycled goods procurement training, awards program/public awareness, speakers (staff available for presentations), technical assistance, college curriculum, waste audits, waste evaluations/survey etc.</p>	<p>Increased awareness and attention to recycling</p>
<p><b>Procurement Activities Implemented or continued (compliance with State Agency Buy Recycled Campaign - SABRC)</b></p>		
	<ul style="list-style-type: none"> <li>• Department-wide recycled content procurement policy</li> <li>• Department-wide automated procurement tracking system</li> <li>• Requirement of recycled-content product certification for all purchases</li> <li>• Annual submittal of SABRC report</li> <li>• Staff Recycled-content procurement training</li> <li>• Proactively working with RCP suppliers</li> <li>• Joint Purchase pools</li> </ul>	
<p><b>Education and Training</b></p>		
<p>Seminars</p> 	<p>CSI Conference – Concrete Masonry</p>	
	<p>David Orr Presentation</p>	<p>Signing of Talloires Declaration</p>
	<p>Construction Sciences Forum</p>	<p>Speakers:</p> <ul style="list-style-type: none"> <li>• Ed Mazria, Architect, New Mexico</li> <li>• Ken Radtkey, Blackburn Architects, Santa Barbara</li> </ul>
	<ul style="list-style-type: none"> <li>• 2000-01 Lighting Retrofit on main campus</li> </ul>	<p>Reduced electrical consumption equivalent to 1,000 homes</p>

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PAST		
Energy Use	Energy Conservation Projects	
	<ul style="list-style-type: none"> <li>• 1995 – Utilities Upgrade Project – Replaced wires &amp; transformers on campus. Built new sub station</li> </ul>	Reduced electrical losses – budget savings
	<ul style="list-style-type: none"> <li>• 1998 - New Central Plant – replaced steam boilers with hot water boilers and installed new insulated piping to all campus buildings</li> </ul>	Decrease in natural gas usage – 30%