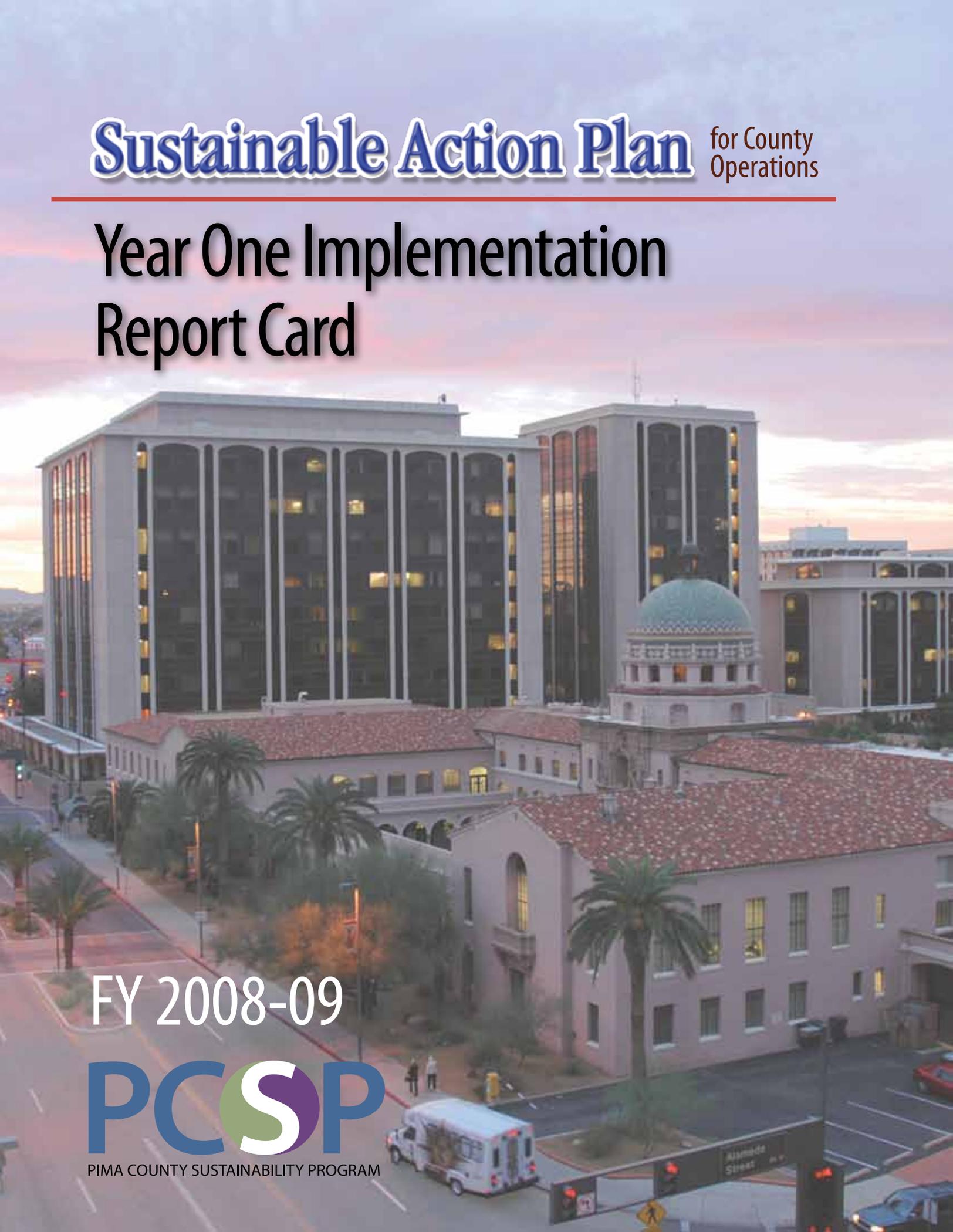


# Sustainable Action Plan for County Operations

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## Year One Implementation Report Card



FY 2008-09



PIMA COUNTY SUSTAINABILITY PROGRAM

## Sustainability and Accountability

# Making and Measuring Our Progress

The Board of Supervisors unanimously adopted the Sustainable Action Plan for County Operations in August 2008. Since then, staff has taken on a diverse range of activities and programs designed to integrate sustainable practices into virtually all facets of the way County government operates – from the cars we drive, to the energy and water we consume, to the construction of our buildings, to the products we purchase, to the way in which we view and handle our “used” materials.

This Sustainability Report Card charts the progress of the Action Plan’s first year of implementation. In all, County Departments tackled 93 action items programmed for FY 2009, resulting in significant accomplishments in waste reduction, energy conservation, green building, renewable energy, land conservation and management, green purchasing, alternative fuel vehicles, and water conservation and management.

This Report Card showcases some of those successes, and also provides feedback to County Supervisors, staff and the public on how the County is performing on 31 specific “success indicators.” The success indicators include measurable performance targets that allow the County to track its progress during each year of the 5-year action plan. They can also help guide the County in areas where it strives to improve its performance, particularly in response to the availability of resources or evolving policies, technologies and best practices.

To review or download copies of the Sustainable Action Plan for County Operations or this Sustainability Report Card, please go to [www.pima.gov](http://www.pima.gov) or visit your nearest Pima County Public Library.

Comments and suggestions are always welcome and may be directed to the Pima County Sustainability Steering Committee, attention Tedra Fox, at [tedra.fox@pima.gov](mailto:tedra.fox@pima.gov) or (520) 740-8766.



*Employees from 22 County Departments contributed their talents and expertise to the creation of the Sustainable Action Plan for County Operations, which received the “Innovation in Sustainability Award of Excellence” from the national Association for Operations Management (APICS).*

### Report Card Legend



**Achieved Target**



**In Process**



**Not Met**



**Not Applicable**

# Alternative Fuel Vehicles

Year One

Number	Success Indicator	Target	Score / Progress Report
1	Number of environmentally friendly fleet vehicles	100 vehicles, or 25% of vehicle fleet, by 2008; 30% of the fleet by 2009; and 50% of the fleet by 2010 (excluding Sheriff's vehicles)	 <p>Not Met</p> <p>The County purchased 88 hybrid and flex fuel vehicles, increasing the number of alternative-fuel vehicles in the fleet to 263 (or 15.2 %). Due to cost-cutting measures, the County suspended the purchase of additional vehicles this past winter. As a result, staff recommends that the goal of 30% be extended to FY 2013, and the goal of 50% be extended to FY 2017.</p>
2a	Education of County employees	100% of new employees using County vehicles trained on how to drive more efficiently and reduce vehicle miles traveled. 100% of employees enrolled in Defensive Driving class trained on how to drive more efficiently.	 <p>Achieved</p> <p>100% of employees that attend the County defensive driving course are trained on how to drive more efficiently and reduce vehicle miles traveled. All new employees are required to attend the training prior to driving a County vehicle.</p>
2b	Education of County employees	Articles promoting travel reduction, alternative fuel vehicles and fuel-efficient driving techniques published in employee newsletters and on County websites	 <p>Achieved</p> <p>The Pima County Department of Environmental Quality prepared articles promoting travel reduction and alternative modes of transportation for publication in the on-line employee newsletter "E-Scoop."</p>
3	Participation of County employees in trip reduction programs	Baseline: Historical participation rate of 25% Target: Achieve a minimum 30% participation by FY 2010	 <p>In Process</p> <p>Employees purchased a record high of 7,972 bus passes in FY 2009, up 612 from the previous year and up 3,413 since FY 2006.</p>

*County vehicles drove 322,710 fewer miles in FY 2009 than the previous year. This result is largely due to Fleet Services' aggressive review and removal of under utilized vehicles. Vehicles that were not used efficiently were eliminated from the fleet or reassigned to other Departments, saving \$1.4 million in vehicle replacement costs, \$51,610 in annual fuel costs, and reducing greenhouse gas emissions by 308 tons.*



*Pima County's Local Drought Impact Group meets regularly in one of the County's 26 videoconference centers. By using videoconferencing, the staff of the Arizona Department of Water Resources and Pima County Health Department collectively save 1,428 travel miles each year.*



*This Toyota Prius is one of 263 alternative fuel vehicles in the County fleet, up 88 from the previous year.*

# Green Building

Year One

Number	Success Indicator	Target	Score / Progress Report
4	Attendance at green building educational series	Minimum of 20 in attendance	 <p>Achieved</p> <p>Five breakfast meetings were held covering topics ranging from passive solar design to field experience with the LEED rating system.</p>
5	LEED Accreditation of County employees	Minimum of 30 Leadership in Energy and Environmental Design (LEED) Accredited Professionals by 2010	 <p>In Process</p> <p>The Development Services and Facilities Management Departments have a combined total of 9 LEED-accredited professionals. Employee layoffs and employee training budget cuts present a challenge to achieving this goal by 2010.</p>
6	Percentage of LEED Silver-Certified Buildings	100% of all new occupied County-funded buildings and 100% of all building additions greater than 5000 square feet.	 <p>Achieved</p> <p>The County's first LEED-Silver designed building, the Jackson Employment Center, was completed in FY 2009. Official LEED Certification is pending. The Consolidated Justice Court and the Pima County Wireless Integrated Network Buildings are currently being designed to achieve LEED Silver standards.</p>



*The Jackson Employment Center in South Tucson is the first County building designed to meet LEED Silver standards and the first to obtain 15% of its energy using rooftop solar panels. The building was completed by Facilities Management in FY 2009 and is now providing an array of employment services to clients.*

*The Renovation and Interiors Section of Facilities Management purchases many green products as seen in this workstation. All finishes and materials from paints to flooring are manufactured for low VOC content. Many products contain recycled content. Furniture is re-usable, ergonomically correct, lets in natural light and reduces the need for artificial lighting; Green Seal carpet tiles reduce noise, absorb shock and can be reused for renovation projects.*

# Green Purchasing

Year One

Number	Success Indicator	Target	Score / Progress Report
7	New and existing contracts include "green" specifications pursuant to Action No. 8.	100% of new contracts to include specifications by January 2009; all contracts in subsequent years to include green specifications, whenever applicable. 100% of existing contracts updated with green specifications by June 2010 (changed from January 2010 to accommodate contract cycles)	 In Process All Departments must comply with Board of Supervisors Procurement Policy D29.2 XIII (C) which requires contracts to optimize the County's sustainability initiatives to the maximum extent practicable. Procurement solicitations that include evaluation criteria must provide up to a 5 percent point bonus for proposals that advance sustainability.  In the third and fourth quarters of FY 2009, 569 contracts were renewed. Data collected on 392 contracts indicates that 21% of those already optimize "green" attributes, and another 2% were amended to include green specifications. Departments reported that the remaining contracts could not be further enhanced or were blanket service contracts to which green specifications were not applicable.
8	Percentage of green products purchased on Corporate Express	Baseline: Products purchased in 2008 Target: To be determined by Action No. 9.	 In Process A baseline was established using the percent of total funds spent on eco-friendly Corporate Express products in 2008 (9.1 percent or \$170,844).  The target established for FY 2010 eco-friendly purchases is 18%, nearly double the baseline percentage.
9	Purchase of Energy Star-rated appliances and equipment	100% of appliances and equipment purchased to meet Energy Star standards by June 2010	<b>na</b> Not applicable until June 2010. The County will develop a reporting mechanism to track progress in FY 2010.
10	Use of non-toxic products for janitorial services	100% of janitorial service contracts to be updated with non-toxic and environmentally-friendly product specifications by June 2009	 Not Met Janitorial service contracts do not expire until January 31, 2010 so the target was not met in FY 2009.  However, the contracts will be updated with non-toxic and environmentally friendly product specifications in 2010.
11	Availability of "green purchasing" training opportunities for employees.	Department Trainers to offer at least one training session a year for employees with purchasing responsibilities	 In Process The Procurement Department trained 47 green purchasing representatives from 22 Departments in January 2009, and those green purchasing representatives are expected to complete training for their colleagues by December 2009.
12	Purchase of recycled and/or Forest Stewardship Council paper	To be determined by Action No. 5.	 In Process The target established calls for 100% of County Departments to purchase 30% post-consumer recycled paper. A draft administrative policy has been prepared.  Although purchasing 100% post-consumer recycled paper is the ultimate goal, it was not adopted at this time because such paper is not compatible with the long-term operation and maintenance of the County's existing printers and copiers. New equipment purchases will consider the 100% post-consumer recycled paper goal.

# Renewable Energy & Conservation

Year One

Number	Success Indicator	Target	Score / Progress Report
13	County expenditures for energy	<p>Baseline: Energy expenditures for FY 2006/2007 (Approximately \$9.4 million for electricity and \$4.4 million for gas)</p> <p>Target: No increase in energy expenditures over baseline year (i.e. through energy savings, neutralize the effect of future rate increases)</p>	 <p>Achieved</p> <p>Energy and natural gas expenses totaled \$12.4 million, which is \$2.7 million less than the \$15.1 million the County spent on energy in FY 2008.</p> <p>The County adopted a variety of energy efficiency measures, including turning off HVAC systems after regular business hours and eliminating unnecessary appliances at individual work stations, which were then donated to the Habistore (benefiting Habitat for Humanity).</p> <p>Staff recommends adjusting the baseline for this success indicator to reflect FY 2008 energy expenses, since the \$15.1 million reflects actual expenses while the FY 2007 amount was an approximation.</p>
	Energy consumed by County buildings and facilities	<p>Baseline: Establish baseline electrical use in FY 2008/2009</p> <p>Target: To be determined based on energy efficiency goals established in Action (2h) in FY 2010</p>	 <p>Achieved</p> <p>Baseline electrical use for FY 2009 was established at 50.16 MW or 100,327,840 kWh.</p> <p>Reduction targets will be established after a County energy audit is conducted in FY 2010.</p>
15	LEED Silver energy credits in County projects	<p>Baseline: Projects designed after June 30, 2008</p> <p>Target: All new buildings obtain a minimum of 65% of available energy credits in LEED-New Construction (NC)</p>	 <p>In Process</p> <p>The consolidated Justice Court and the Pima County Wireless Integrated Network (PCWIN) buildings are currently being designed to achieve LEED Silver standards.</p>
	Renewable energy use in County buildings, parks, and other facilities	<p>Baseline: Establish baseline in FY 2008/2009</p> <p>Target: Provide 5% renewable energy for County facilities by 2012; 10% renewable by 2017; and 15% by 2025</p>	 <p>In Process</p> <p>The FY 2009 baseline for the County's combined use of methane, solar and wind power is 1,588 kW. Construction of the Jackson Employment Center was completed during FY 2009, which features a rooftop 4.6 kW solar photo voltaic system. The County's use of renewable energy will increase dramatically in FY 2010. The County is under contract for a 1 MW solar photo voltaic (PV) facility at the Roger Road Wastewater Treatment Plant and another 3.2 MW of solar PV is under negotiation.</p> <p>In addition, the County has identified more than 3,000 acres of County-owned land that are potentially suitable for renewable energy facilities. These lands are outside of the Sonoran Desert Conservation Plan sensitive resource areas.</p>
17	Methane as an energy source	<p>Baseline: Methane use in FY 2006/2007 (169.84 million cubic feet)</p> <p>Target: Increase use by FY 2010/2011</p>	 <p>In Process</p> <p>Methane use dropped to 120.26 million cubic feet in FY 2009 due to equipment failures that have been repaired. The Regional Wastewater Reclamation Department has several projects underway to increase methane use. A methane-fired boiler was recently installed at the Roger Road facility and the gas cleaning system will be upgraded in FY 2010.</p> <p>In addition, the Regional Optimization Master Plan (ROMP) calls for using 100% of the methane produced by consolidating solid waste handling at the Ina Road facility. At present, RWRD meets more than 15% of its energy needs using renewable energy.</p>

Marc Lynn and Sylvester Sanford review energy data in the County's Central Plant Control Room. The Central Plant monitors, controls and manages over 30,000 Heating Ventilation and Air Conditioning (HVAC) points in over 30 County facilities. The Central Plant's Energy Management and Controls System was recently reprogrammed to implement the new policy of reduced HVAC hours in four County buildings, saving an estimated \$1,000 a day in electricity costs.



In FY 2009, Pima County executed two master agreements with Sun Edison and Solon America that could add a combined total of 6 MW of solar energy production to the County's energy portfolio during the next three years.



Pima County's first 1 MW solar facility will soon be under construction at a 10-acre site at the Roger Road Wastewater Treatment Plant. The agreement, with Solon America, will provide renewable energy to the treatment plant at a fixed price for 20 years. The agreement will meet 15% of the energy needs of the facility and save the County approximately \$2 million over the 20-year term.

# Waste Reduction

Year One

Number	Success Indicator	Target	Score / Progress Report
18	Amount of waste diverted from landfills	Baseline: Tons of landfill waste generated by County operations in FY 2007-2008. Target: 10% reduction by end of FY 2009; targets for future years to be established by Action No. 12	 <p>Achieved</p> <p>The County achieved approximately a 17% reduction in the amount of waste deposited in landfills in FY 2009, compared to the previous fiscal year. Total waste generated in FY 2008 was approximately 5,593 tons. Total waste generated in FY 2009 was approximately 4,638 tons. The reduction in landfill waste saved the County an estimated \$41,000 in FY 2009.</p>
19	Green events at County facilities	100% of special events to implement an Integrated Waste Management Plan beginning in FY 2010	 <p>In Process</p> <p>Draft Integrated Waste Management Plan (IWMP) guidelines have been prepared.</p>



*Pima County launched the "Recycle While You Work Campaign" in January 2009, increasing the County's recycling program from 10 to 65 facilities, greatly expanding the types of recyclable items collected, and saving approximately \$41,000 in waste hauling and landfill tipping fees during the first six months.*



*The Pima County Board of Supervisors voted to switch to an electronic distribution system for the Board agenda packets instead of paper copies resulting in an estimated savings of: 2.28 tons of paper (39 trees), 16,000 gallons of water, enough energy to power 14 homes for one month, 7.5 cubic yards of landfill space, and \$40,000 a year in paper and printing costs.*



# Water Conservation & Management

Year One

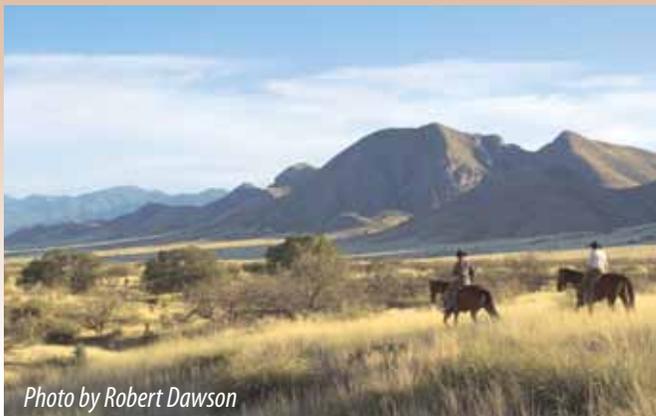
Number	Success Indicator	Target	Score / Progress Report
20	New buildings maximize LEED Silver water efficiency credits	Baseline: Projects designed after September 1, 2008. Target: All new buildings obtain at least 60% of the water efficiency credits available	 <p>Achieved</p> <p>The Consolidated Justice Court and the Pima County Wireless Integrated Network buildings are being designed to achieve this target. The Jackson Employment Center, built in FY 2009, achieved 60 percent of the LEED Water Efficiency Credits.</p>
21	Percentage of new County landscaping projects relying exclusively on rainwater harvesting, reclaimed water, greywater and/or other non-potable sources (includes landscaping for parks, buildings, roadways, and medians, but excludes turf).	Baseline: Projects designed after September 1, 2008. Target: 100% after initial establishment.	 <p>Not Met</p> <p>Six of seven County park landscaping projects (86%) were designed to use reclaimed water or water harvesting. One project, Robles Field, will have to use potable water because there are no plans to run reclaimed lines to the Three Points area. Transportation landscaping projects currently use a mix of water sources, including potable water when reclaimed water is not available. Pima County DOT has developed and implemented landscape guidelines that include guidance for the evaluation and inclusion of water harvesting in areas where it is feasible and practical.</p>
22	Water consumed by existing County buildings, ornamental landscaping, and roadway landscaping.	Baseline: Establish baseline in FY 2008/2009. Target: Reduce baseline water use by at least 5 percent by 2012; 10% by 2017; and 15% by 2025	 <p>Not Met</p> <p>The County was not able to establish baseline water use for FY 2009 because it receives 573 water bills from 22 different vendors each month. Facilities Management will oversee a county wide energy audit in FY 2010 which will assist in determining a baseline that can be used to measure the 5% reduction target for FY 2012.</p>
23	County parks served by reclaimed water.	Baseline: 900AF of water used in 2006 (includes potable, reclaimed, and non-potable sources) Target: Reduce baseline water use by at least 5 percent by 2012; 10% by 2017; and 15% by 2025	 <p>In Process</p> <p>Staff recommends changing the 2006 baseline to 739 AF to reflect updated water use data. Since the 2006 baseline year, County parks reduced water use by 2% or 18 AF. The Natural Resources, Parks and Recreation Department continues to use best practices and monitors water use carefully. The County also removed .2 acres of non-functional turf from Denny Dunn Park as part of its water conservation efforts.</p>
24	Water consumed by existing County park and recreation facilities.	Baseline: 10 parks served by reclaimed water in FY 2006-2007 (285 AF of reclaimed water) Target: 20 parks served by 2018 (subject to bond approval)	<p>na</p> <p>Target not applicable in FY 2009. However, four parks were designed in FY 2009 to use reclaimed water when it becomes available.</p>
25	Acre feet of effluent used for restoration and number of surface water rights and groundwater rights (including retired rights) used to protect or sustain the natural environment.	Target: To be determined by Action No. 26	<p>na</p> <p>Target not applicable to FY 2009. Target and reporting procedure to be developed in FY 2010.</p>

# Land Conservation & Management

Year One

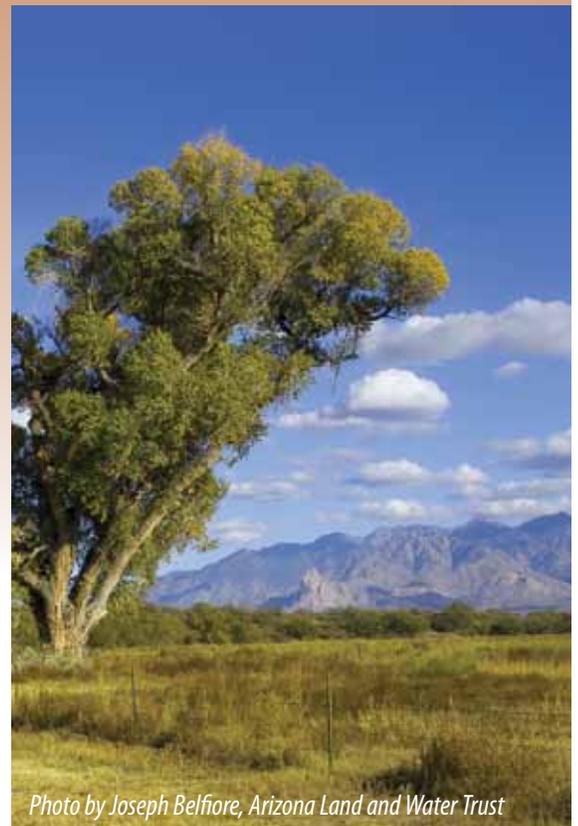
Number	Success Indicator	Target	Score / Progress Report
26	Acreage of Conservation Lands System conserved	Acres conserved greater than acres impacted	 <p>Achieved</p> <p>The County acquired 15, 582 acres within the Conservation Lands System. Departments are developing a system to track impacts of County building projects on the CLS, Cultural Resources sites and Designated Riparian Habitat.</p>
27	Number of Cultural Resources Sites conserved	Acres conserved greater than sites impacted	 <p>Achieved</p> <p>A significant number of Cultural Resources Sites were conserved through County land acquisitions.</p>
28	Acreage of Designated Riparian Habitat conserved	Acres conserved greater than acres impacted	 <p>Achieved</p> <p>A significant number of acres of Designated Riparian Habitat were conserved through County land acquisitions.</p>
29	Education of County Employees	To be established by Action No. 1	 <p>Achieved</p> <p>Target is to provide annual training to employees. County resource specialists developed an environmental education curriculum and trained 68 project managers in FY 2009.</p> <p>Public works also published a new "Project Management Manual" that includes a well-defined process for ensuring that Departments identify and address environmental and cultural resource issues at the earliest stages of project planning.</p>

*In December 2008, the County purchased a portion of the historic Sopori Ranch, located south of Green Valley and east of Arivaca. This purchase of 4,000 acres, along with 10,000 acres of grazing leases on State Trust land, expands a system of Federal and County conserved lands from Three-Points to the Mexico border.*



*Photo by Robert Dawson*

*Pima County acquired a 5,000-acre portion of Sands Ranch, which lies between the Las Cienegas National Conservation Area and the Whetstone Mountains. The property supports valuable native grasslands, making it a potential candidate for the reintroduction of the native prairie dog species that once inhabited the region.*

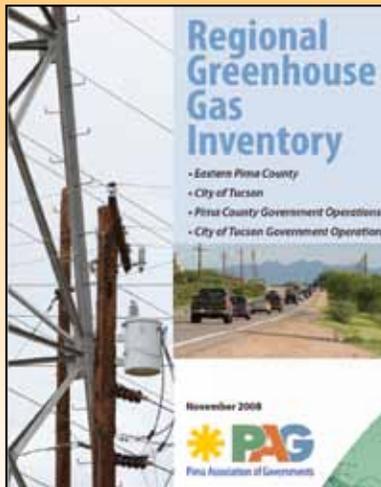


*Photo by Joseph Belfiore, Arizona Land and Water Trust*

# Carbon Footprint Reduction

Year One

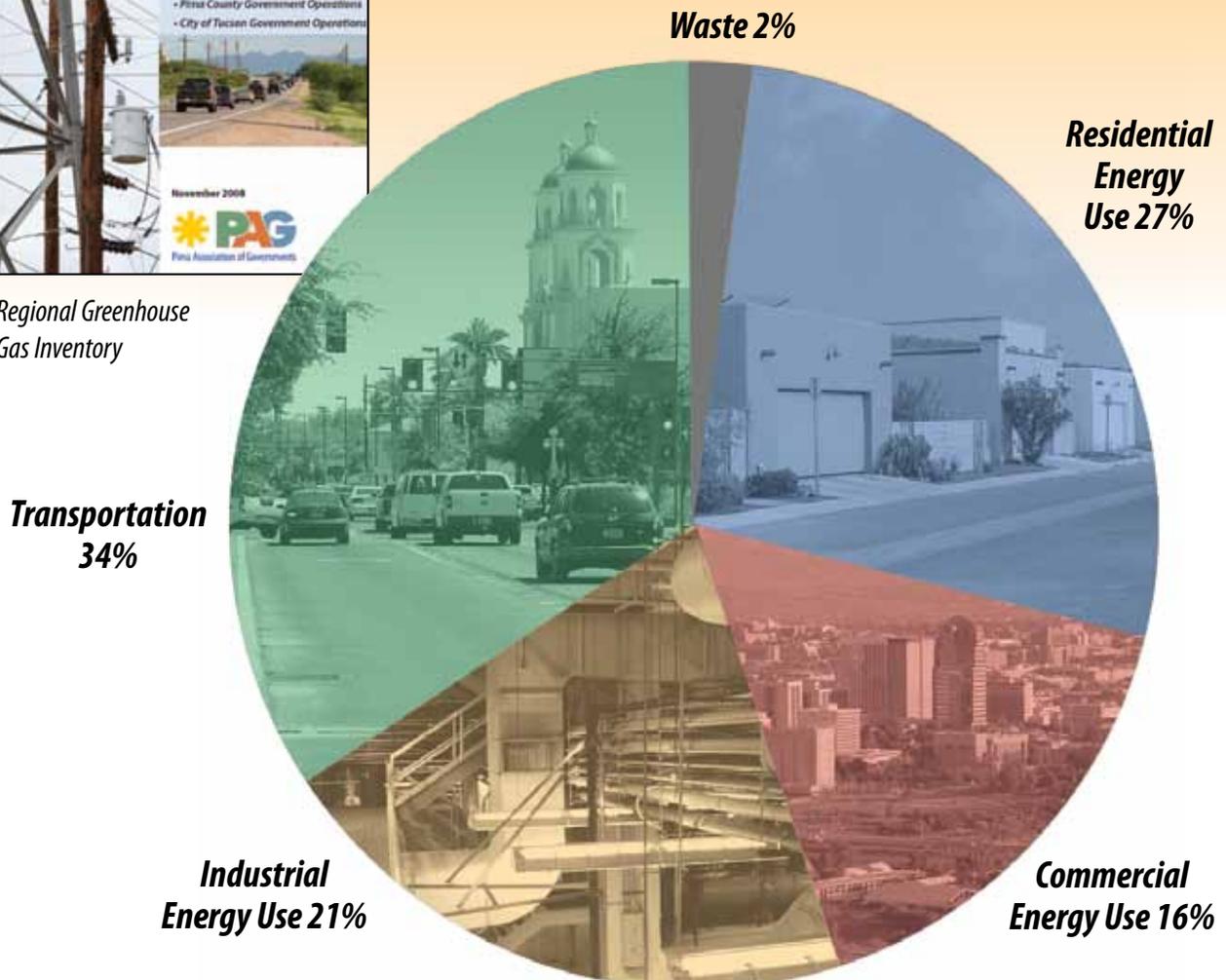
Number	Success Indicator	Target	Score / Progress Report
30	Reduction in the carbon footprint of County Government	To be determined by Action No. 1, and continually monitored and refined, as necessary	 <p>In Process</p> <p>A greenhouse gas inventory was completed but a reduction target has not been established pending the completion of a comprehensive energy plan to be funded by federal Energy Efficiency and Conservation Block Grant funds.</p> <p>The County adopted several programs in FY 2009 that should have resulted in greenhouse gas emission reductions, including the expansion of the County recycling program from 10 to 65 facilities, the implementation of energy conservation measures by the Facilities Management Department, a reduction in vehicle travel, and the replacement of larger capacity trucks with more fuel-efficient vehicles as part of Fleet Services "right-sizing" effort.</p>



Regional Greenhouse Gas Inventory

Pima County and the City of Tucson, in partnership with the Pima Association of Governments, completed a regional greenhouse gas emissions inventory in FY 2009. Major contributors to greenhouse gas emissions in the County are shown below.

## Major Contributors to Greenhouse Gas Emissions



Transportation  
34%

Industrial  
Energy Use 21%

Commercial  
Energy Use 16%

Residential  
Energy  
Use 27%

Waste 2%



# PCOSP

PIMA COUNTY SUSTAINABILITY PROGRAM

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