

A large, vibrant sunflower is the central focus of the top half of the page, set against a clear blue sky. The sunflower's yellow petals are bright and detailed, while its dark brown center is prominent. The background is a soft-focus field of similar sunflowers, creating a sense of depth and natural beauty.

Pima County Sustainable Action Plan for County Operations

Five Year Summary of Accomplishments 2008 – 2013

Success Highlights

Since 2008, the Sustainable Action Plan for County Operations has been successfully implemented through the collaboration of County Departments and the dedication and volunteer efforts of more than 200 County employees.

- Savings of **\$7,136,000** in energy costs to Pima County.
- Production of 7 megawatts of **renewable energy** for use in County facilities.
- Acquisition of **27,354 acres** of natural open space lands for conservation.
- Some 22 County parks are now served by **reclaimed water**.
- **Alternative fuel vehicles** comprise 44% of County fleet and 60% of the Sheriff's fleet.
- **Solar One Stop Center** opened in Public Works Building.
- Employee **alternative modes** of transportation increased by 41%.
- Installation of 16 **electric vehicle charging stations** for public and employee use.
- **LEED Silver standards** achieved for all new County facilities over 5,000 square feet.
- Pima County awarded **LEED for Homes** provider status by U.S. Green Building Council.
- Increase of 318% of purchase and use of **"eco-friendly"** office supplies.
- **Waste sent** to landfills from County facilities reduced by 46%.
- Increased employee participation in **health and wellness** programs by 64%.

Background and Introduction

In 2007 the Board of Supervisors adopted the Pima County Sustainability Initiatives, Resolution No. 2007-84. This far-reaching resolution promotes creating and maintaining a sustainable community that supports individual well-being and opportunity, sound resource conservation and stewardship, and a strong and diverse economy for all of its residents. The Pima County Board of Supervisors unanimously adopted the Sustainable Action Plan for County Operations (SAPCO) in August 2008 to implement the Sustainability Initiatives and in April 2012, the Board of Supervisors expanded the SAPCO by adopting the Health and Wellness Chapter.

Since 2008, County employees have taken on a diverse range of activities and programs designed to integrate sustainable practices into virtually all facets of the way Pima 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, to improving employee health, wellness, and productivity. As a result, Pima County has made great strides in achieving its vision for operating more sustainably while achieving considerable cost savings. This document summarizes the achievements made while implementing the SAPCO from 2008 to 2013.

5 Year Summary of Achievements

Fiscal Years (FY) 2008/2009 - FY 2012/2013

The annual SAPCO Report Cards offer more detailed information for each of the following focus areas or chapters.

- **Alternative Fuel Vehicles**

County Fleet: Fleet Services increased the number of vehicles in its fleet that are alternative fuel vehicles; 44% of the County fleet vehicles are now alternative fuel vehicles. The Sheriff's fleet is now made up of 60% alternative fuel vehicles.

Alternative Modes: Employees increased the percentage of trips using alternative modes of transportation for work commutes by 41% since 2010. The 2012 Employee Survey indicated that 27% of trips are made using alternate modes.

Safety and Fuel Efficient Driving: 100% of the employees who completed the Finance and Risk Management Department's online Defensive Driving

Course receive Driver Energy Conservation Awareness Training.

Bike Share: The Department of Transportation developed a bike sharing program for localized work trips to encourage bike use as a form of alternative transportation and to increase physical activity.

Charging Stations: Fleet Services and Pima County Public Library installed 16 electric vehicle charging stations at eight key locations within the community for the public and its fleet, helping to pave the way for a community-wide transition to cleaner fuels.

- **Green Building**

LEED Silver Standard: Facilities Management built all new occupied county facilities and new additions greater than 5,000 square feet to LEED Silver standards.

LEED for Homes: Development Services became the first public agency in the country to be awarded "LEED for Homes" provider status by the U.S. Green Building Council.

- **Green Purchasing**

Eco-Friendly Products: Employees increased the proportion of office supply dollars spent on eco-friendly products by 318% since 2008.

Energy Star: Facilities Management developed guidelines that require all new appliances purchased as part of construction/upgrade projects overseen by Facilities Management be Energy Star qualified.

Eco-Friendly Contracts: Facilities Management updated its janitorial service contracts to include non-toxic and environmentally friendly products.

Recycled Paper Standards: The Green Purchasing Sustainability Team in conjunction with the Pima County Print Shop and Procurement Department established a standard requiring all departments to purchase 30% post-consumer recycled printer, copier, and multi-purpose paper.

- **Land Conservation and Management**

Open Space: Acquired 27,354 acres of additional land for open space conservation.

Monitoring Impacts: Multiple departments collaborated to develop a mechanism to monitor the impacts of County building projects on cultural resources sites, designated riparian habitat, and the Conservation Lands System.

• **Waste Reduction**

Landfill Waste Diversion: Facilities Management expanded the recycling program from 10 to over 65 facilities and increased materials accepted for recycling. The County reduced the quantity of waste sent to landfills by 46% compared to the 2008 baseline. In addition, efforts were made to reduce waste and increase recycling and composting at events held at County facilities or in partnership with the County.

• **Renewable Energy and Energy Efficiency**

Renewable Energy Portfolio: The County brought 7 megawatts of renewable energy into production, more than tripling its renewable energy capacity. The County now receives approximately 14% of its electricity from renewable sources and has nearly reached its 2025 target.

Energy Management: Facilities Management implemented energy management software to monitor and evaluate the cost and consumption for water, electricity, and gas; helping the County optimize resource consumption and identify areas where additional improvements in efficiency can be achieved.

Energy Efficiency: Facilities Management improved the energy efficiency of facilities by implementing a range of energy efficiency and conservation measures that resulted in significant energy cost savings.

• **Water Conservation and Management**

Regional Optimization Master Plan: Regional Wastewater Reclamation Department developed a regional plan for the treatment, handling, and reuse of biosolids and biogas produced by its wastewater treatment system and for the modernization of energy facilities at wastewater treatment facilities.

Reclaimed Water: Natural Resources, Parks and Recreation increased the number of County parks served by reclaimed water by 120% from 10 to 22 parks, reducing the strain on the region’s ground water supply while providing recreation areas for the community.

• **Reducing the Carbon Footprint of County Government**

Mitigation and Adaptation: The County took a proactive role in quantifying and managing its greenhouse gas emissions and preparing itself for the future impacts of climate change.

Monitoring Emissions: The County completed its second greenhouse gas emissions inventory in 2010 and is in the process of compiling data for publishing its second report.

Minimizing Emissions: The County established measurable targets for reducing its emissions and implemented a number of strategies to meet these targets including the following:

- Sourcing 15% of electricity used by all County facilities from renewable resources by 2025;
- Using alternative fuels in at least 25% of fleet vehicles and “right-sizing” its fleet;
- Systematically upgrading facilities with energy-conserving equipment;

5 Year Summary – Energy Expenses and Net Savings

Fiscal Year	2007/2008 Baseline	2008/2009 (Year 1)	2009/2010 (Year 2)	2010/2011 (Year 3)	2011/2012 (Year 4)	2012/2013 (Year 5)	Five Year Total Net Savings
Cost	\$15,100,000	\$12,400,000	\$13,856,535	\$12,728,263	\$13,579,168	\$15,800,131	
Annual Savings (compared to baseline)		\$2,700,000	\$1,243,465	\$2,371,737	\$1,520,832	(\$700,000 above baseline)	
Savings to Date		\$2,700,000	\$3,943,465	\$6,315,202	\$7,836,034	\$7,136,034	\$7,136,034

4 (SAPCO) Summary of Accomplishments and Achievements FY 2007/2008 – FY 2012/2013

- Implementing design standards to improve energy efficiency in all new County occupied buildings and new additions greater than 5,000 square feet;
- Rehabilitating, repurposing and adaptively using existing and historic buildings to conserve the embedded resources and energy from their construction;
- Minimizing the quantity of waste it produces and landfills;
- Implementing green purchasing specifications; and
- Collaborating with Pima Association of Governments and other subject matter experts to develop climate change adaptation and mitigation strategies.

the spread of obesity and related chronic disease. These efforts were made possible by a Communities Putting Prevention to Work grant, funded by the American Recovery and Reinvestment Act of 2009. The chapter was unanimously adopted by the Board of Supervisors in April 2012.

Employee Participation: Employees increased participation in preventive lifestyle and chronic disease management programs by 64% compared to the baseline. Human Resources expanded the range of programs to promote and improve employee health and wellness.

• **Health and Wellness**

Health and Wellness Chapter: Human Resources, the Health Department, and the Office of Sustainability and Conservation developed the employee Health and Wellness Chapter for inclusion into the SAPCO to enhance employee wellness and prevent or reduce

Employee Health Tracking: Human Resources refined the methodology used to assess the health status of employees to improve health outcomes through targeted interventions, programs, and education.

Accountability and Reporting

Annual published report cards showcase successes and measurable progress on how the County is performing on specific “success indicators.” The success indicators include a measurable performance target that allows the County to track progress and help guide and improve performance, particularly in response to the availability of resources or evolving policies, technologies, and best practices. The County met or surpassed 54% of the targets.

Sustainability Targets - 5 Year Progress Summary

Sustainability Topic / Chapter	Year 1: Targets Met	Year 2: Targets Met	Year 3: Targets Met	Year 4: Targets Met	Year 5: Targets Met	Summary: Targets Met
Alternative Fuel	2/4	1/4	1/4	2/4	2/4	40%
Green Building	2/3	2/3	3/3	2/3	1/3	67%
Green Purchasing	Initiated	4/6	4/6	5/6	5/6	75%
Renewable Energy and Conservation	2/5	3/5	3/5	3/5	1/5	48%
Waste Reduction	1/2	1/2	0/2	0/2	1/2	30%
Water Conservation	1/6	1/6	Revised	3/7	3/7	29%
Land Conservation / Mgt.	4/4	3/4	3/4	4/4	4/4	90%
Carbon Footprint Reduction	Initiated	In Process	In Process	In Process	In Process	Not applicable
Health and Wellness	Not applicable	Not applicable	Not applicable	Initiated	2/7	In Process
Targets* Met/Surpassed	12/24 or 50%	15/30 or 50%	14/24 or 58%	19/31 or 61%	19/38 or 50%	54%

*The number of targets and indicators vary based on the implementation and adoption schedule.

As a result of the SAPCO, Pima County also adopted the following procedures and standards and provided for appropriate staffing to further its sustainability policies and goals.

Standards, Procedures, and Guidelines

LEED Silver Buildings: Adopted a building standard requiring that the County design and build all new occupied County buildings, including additions over 5,000 square feet, for which design is initiated after July 1, 2007, to achieve a minimum of LEED Silver certification level.

Anti-Idling Procedure – Administrative Procedure 49-4: Enacted to minimize idling in County vehicles.

Recycled Paper Purchasing – Administrative Procedure 3-29: This administrative procedure establishes a paper purchasing standard that requires all County departments purchase printer, copier, and multi-purpose paper that contains 30% post consumer recycled content, whenever possible.

Energy Conservation Guidelines: Implemented energy guidelines for its facilities to help increase conservation, improve efficiency, and reduce waste in its operations.

Green Purchasing Specifications: Adopted requirements into its Procurement Policy requiring that all County departments, when applicable, incorporate the objectives of Board of Supervisors Resolution 2007-84 into any set of specifications for the procurement of supplies, equipment, and services.

2011-2015 Action Plan for Water Sustainability and Resolution No. 2010-16. This project was led by the Regional Wastewater Reclamation Department in cooperation with the City of Tucson and has four interconnected elements: Water Supply, Demand Management, Comprehensive Integrated Planning and Respect for the Environment.

Personnel Expertise

The County recognizes the importance of having subject matter experts on staff to achieve its sustainability goals. A small number of County staff, cooperating Departments, and currently more than 200 employee volunteers have successfully implemented the SAPCO. The County created three dedicated staff positions, the Sustainability Manager, the Sustainability Program Coordinator, and Energy Manager, to ensure implementation, monitoring, and program improvements.

The County developed expertise from within its operations to ensure successful implementation and encourage the full engagement of its workforce. Opportunities for employee participation include volunteering in various capacities.

Steering Committee and Executive Committee: Provides assessment and recommendations for the SAPCO implementation and future sustainability initiatives or directives from County Administration and the Board of Supervisors. The Committees are composed of senior management, subject matter experts, and staff directly involved in the implementation of the SAPCO.

Saving Resources While Improving the Quality of Life for Residents

The Kino Environmental Restoration Project (KERP) is a prime example of how the County is improving the quality of life for its residents while maintaining the resources needed by future generations and saving taxpayer money. KERP combines the use of harvested stormwater and reclaimed water to support riparian habitat within the basin and to irrigate Kino Sports Complex ball fields plus landscaping at numerous buildings along Ajo Way. The vegetation and ponds at KERP consume 210 acre-feet of harvested stormwater annually, saving taxpayers more than \$1.56 million dollars since 2002 compared to the cost of reclaimed water. In addition, the excess stormwater diverted for sports complex and landscape irrigation has provided savings of \$425,000 compared to the cost of reclaimed water, or \$1.44 million compared to the cost of potable water.



Sustainability (S)-Team Leads and S-Team

Members: Employee volunteers serve as subject matter experts to assist in integrating the goals of sustainability into all facets of the way Pima County government operates, and contributes to the annual reporting and monitoring of the SAPCO initiatives.

Green Purchasing Representatives: Trained volunteers in nearly all Departments act as Green Purchasing Representatives for their Departments to identify resources for developing “green specifications” in their Department’s supply contracts and purchases.

Eco-Champions: Eco-Champions help coordinate recycling and conservation activities in their respective Departments and actively encourage participation in sustainable practices.

Wellness Action Committee: The existing Wellness Action Committee incorporated sustainability principles into its charter to assist with on-site wellness activities and encourage healthy behaviors to improve workforce productivity.

Internal Programs: County Departments are adopting sustainability into their own framework of unique internal operations and strategic plans. Departments and offices will reduce their operations and maintenance costs, reduce emissions and waste, enhance their sustainability leadership, and cooperate with other Departments and the public. In FY 2012/2013 the Regional Wastewater Reclamation Department created a formal unit, the Sustainable Energy Management Office, to coordinate key elements and become a leader within wastewater operations. Because each Department may have unique and diversified sustainable opportunities the County is creating an organization that is committed to achieving excellence in operational sustainability and efficiency.

Measuring and Tracking of Progress

Sub-metered Buildings: Facilities Management installed separate sub-meters on facilities that previously did not have electricity or gas meters. As a result it is now able to accurately track electricity and gas use in nearly all County facilities, enhancing its ability to manage energy consumption in individual facilities.

Installed Energy Management Software: Facilities Management purchased energy management software to manage the over 1,500 utility bills the County receives from over 20 different vendors each month. The software is designed to help Pima County measure, manage, and save on utility bills through efficient auditing, accounting and bill payment processes, energy analysis, benchmarking, and reporting.

Installed Vehicle Monitoring Software: Fleet Services installed software in County Fleet vehicles to monitor driver behavior, reduce idling, and reduce the number of miles traveled.

Office Supply Tracking: The Procurement Department developed a system to track the proportion of office supply dollars spent on “green” versus “non-green” products. The system helps the County monitor progress and improve product offerings.

Employee and Community Outreach

New Employee Orientation: The Department of Environmental Quality incorporated information about County sustainability programs into the Human Resources “New Employee Orientation” that includes the Travel Reduction Program, and other sustainable programs and opportunities.

Employee Awareness: Human Resources, the Office of Sustainability and Conservation, and Environmental Quality provided incentives and encouraged participation in a number of contests, campaigns, and employee-only events to raise awareness and encourage employees to engage in sustainable and healthy practices.

Employee Vehicle Operators: Finance and Risk Management developed a training module that demonstrates how to drive more efficiently and reduce vehicle miles traveled. All new employees are required to receive this training before being permitted to operate a County vehicle.

Solar One Stop: Development Services, the Office of Sustainability and Conservation, and the County Administrator’s Office partnered with the City of Tucson to open the Solar One Stop Center in the lobby of the Public Works building and created the website www.Solaronestopaz.org.

Green Pueblo Map: Pima County joined with local partners to showcase our community's sustainability accomplishments and assets. This project encourages residents to make their mark by nominating sites for the dynamic ever-changing virtual map and be part of the growing international Green Map movement.

Pima Comprehensive Plan: The principles for sustainability are being imbedded into all aspects of the way Pima County government operates. The 10-year update of the Pima Prospers Comprehensive Plan is in process and will serve as a guide to the region's growth, conservation and community design for decades to come. The update includes the 3 pillars of sustainability – Social (quality of life, livable community), Environment (land use and conservation, water and energy resources), and Economic Prosperity. Pima Prospers' vision is to create a vibrant future for our region, and address how Pima County will:

- Both use and conserve our land, water and energy resources, most notably in our unincorporated areas on private and state trust land
- Fuel our economy
- Make efficient use of our existing infrastructure
- Enrich our quality of life
- Create healthy communities
- Respond to the needs of our rural communities and settlements, each unique.

Awards

Innovation in Sustainability Award of Excellence: Pima County received the National 2009 Innovation in Sustainability Award of Excellence from the Association for Operations Management for its development of the Sustainable Action Plan for County Operations. The award recognizes organizations for their achievements in minimizing the impact of supply-chain activities on the environment and for keeping sustainability at the forefront of operations management.

Pima County Employee Recognition and Sustainability Summit: In 2012, eight employees and their Departments were recognized by the County Administrator for their outstanding contributions to the SAPCO. At the first Pima County Sustainability Summit for employees, over 70 attendees representing most Departments heard presentations from colleagues and Mr. Huckelberry.

Environmental Stewardship Award of Merit:

Pima County received the 2013 Southern Arizona Environmental Stewardship Award of Merit from the nonprofit Arizona Forward. The County was recognized for demonstrating dedication to environmental sustainability through its implementation of the SAPCO.

Alternative Transportation Infrastructure

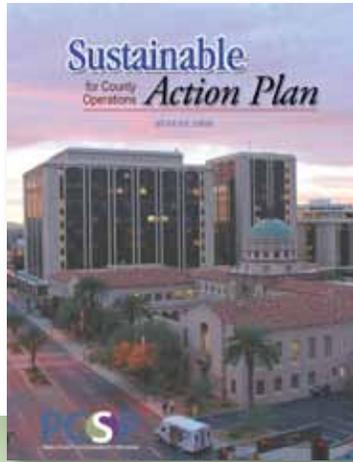
Pima County is developing The Loop around metro Tucson with links to Marana, Oro Valley, and South Tucson. Pima County residents and visitors on foot, bikes, skates, and horses can enjoy the more than 100 miles of shared-use paths that have already been completed. If it doesn't have a motor, it's good to go on The Loop. When completed, The Loop will total 131 miles and connect the Rillito, Santa Cruz, and Pantano River Parks with the Julian Wash and Harrison Greenways.

Fiscal Sustainability and Environmental Stewardship

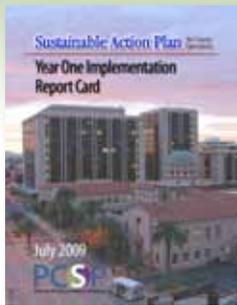
By choosing to make its operations more sustainable through the passage of the Sustainability Resolution and adoption of the Sustainable Action Plan, the County has demonstrated true leadership in helping to ensure that both current and future generations can meet their needs. The SAPCO has served as a vehicle for ensuring the County's fiscal sustainability while promoting environmental stewardship.

Through the initiatives these documents set forth, the County has made significant strides in making its operations more sustainable. Through energy cost savings and water conservation, Pima County continues to operate in a lean and efficient way while creating and retaining jobs, improving employee health, reducing and managing waste more effectively, and protecting and preserving our natural environment for future generations.

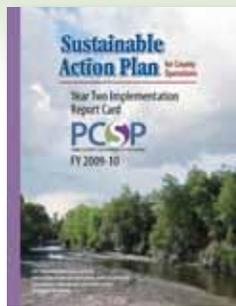




**Sustainable Action Plan
for County Operations**



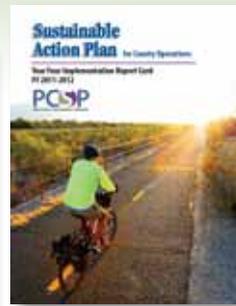
FY 2008-2009



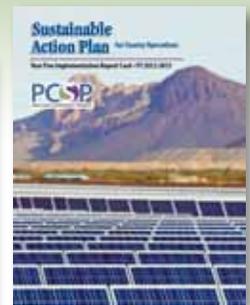
FY 2009-2010



FY 2010-2011



FY 2011-2012



FY 2012-2013



Pima County Board of Supervisors

- Ally Miller, District 1
- Ramón Valadez, District 2
- Sharon Bronson, Chair, District 3
- Ray Carroll, District 4
- Richard Elías, District 5

County Administrator
Chuck Huckelberry

Comments and suggestions are always welcome and may be directed to the Pima County Sustainable Steering Committee, attention Robin Johnson, Sustainability Manager, at robin.johnson@pima.gov or (520)724-9492.

www.pima.gov



This publication is printed on paper made from 55% recycled fiber content, with 30% post-consumer waste paper, in accordance with Sustainable Action Plan success indicator number 12.