



San Joaquin County Environmentally Preferable Purchasing 2011 Annual Report

ACKNOWLEDGEMENTS

The San Joaquin County Green Committee would like to acknowledge and thank all County Departments who participated in the Green Committee meetings this past year and who assisted in providing input through the process of creating this report.

Special thanks to the numerous County staff who, as employees of the County, go about their jobs with an awareness of being “green” and sustainable, first as an individual making conscious choices to be sustainable and secondly realizing they are part of the County team and members of the community whose role is to lead by example and execute green practices in thought and deed.

Special thanks to the various department committee members who take on the work of managing meeting minutes, organizing departmental green focused sub-committees, arranging for guest speakers, and providing great work and leadership on various sub-committees including website, social media, newsletter, and more.

And finally, a thank you to the County Board of Supervisors and the CAO's office for allowing for the creation of the Green Committee and demonstrating to the citizens of San Joaquin County that they share an interest in helping to attain a sustainable future for San Joaquin County.

Note: In order to reduce the number of paper copies printed, this report is being made available for viewing online as part of the Board of Supervisors Agenda for April 10, 2012 and will be available at <http://www.co.san-joaquin.ca.us/green/default.aspx>

Pictured on the cover (top/bottom): the San Joaquin Agricultural Center and the County Administration Building. Both have solar arrays on their rooftops.

Table of Contents

Executive Summary	4
Green Committee Members	6
Policy	7
Program	7
Implementation	7
Challenges	8
Opportunities	9
Purchases and Savings	9
2011 Purchase Summary Highlights.....	10
Recycled Office Products.....	10
Operations and Maintenance Products.....	11
Resource Recovery Services.....	13
Other Departmental Contributions	13 - 27
Savings Summary	27
Supporting Program Elements.....	27
Green Committee	28
Website	28
Local Community/Suppliers	28
General Summary.....	28



San Joaquin County

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Executive Summary

San Joaquin County's "Green" Environmentally Preferable Purchasing Policy, adopted in February 2008, sets forth practices that promote environmental sustainability. Program objectives include the reduction of waste by increasing product efficiency and effectiveness; procuring products and services that minimize environmental impacts at work and within the community; and purchasing products (where practicable) which include recycled content, conserve resources, and reduce greenhouse gas emissions/carbon footprint. The County adopted this policy in collaboration with other civic and public agencies interested in the same cause.

In 2011 County Departments continued to increase their awareness and purchases of environmentally preferable products. Established and chaired by the Director of Purchasing and Support Services under the advice and guidance of The Board of Supervisors (BOS) and the County Administrator's Office (CAO), the County "Green" Committee provides a central resource for internal agencies primarily and for other organizations. The County desires to maintain a leadership position in awareness and achievement of environmental stewardship and practice, and to report on these activities.

Goals and objectives were established for the committee and departments. The Recycling, Energy, Air Conservation (REACON) certification program developed for business use by the Greater Stockton Chamber of Commerce was adopted and serves as a primary method for departments to model, assess and measure progress against specific measurement criteria. The program is broken into multiple categories, including water conservation, pollution prevention, energy conservation, solid waste reduction and recycling. While voluntary, departments through their committee members have been asked to initiate departmental committees to review the REACON assessment model with a five year plan to try and achieve certification. Any progress is good progress, and while resources – both human and time – are increasingly strained, many departments report progress in sustainability efforts either towards the goal of REACON certification or meeting their own internal sustainable efforts including the direction given in the County Environmentally Preferable Purchasing Policy.

Some of the reported achievements for this past year include:

- \$32,395 in energy cost savings realized from two solar projects;
- 30.25% of total office supply spend is being used to purchase recycled products;
- 98,180 pounds of metal was recycled
- 47,071 pounds of electronic waste was recycled
- \$12,000 in electric utility savings is occurring due to lamp replacement in Fleet Services.
- Public Works implemented a system for divisions to rent vehicles from a pool, allowing for cost avoidance of approximately \$725,000 by reducing fleet size, cost of maintenance and vehicle replacement.
- The Water Resources Division of Public Works coordinated the County's participation in the annual California Coastal Cleanup Day, removing litter and illegally dumped waste and coordinating recycling or proper disposal of materials collected.

- The Road and Engineering Division of Public Works used rubberized asphalt concrete – a mix of asphalt and recycled rubber tires – on several County roads. Energy saving LED signals have been installed in several locations.
- The Solid Waste Division of Public Works continues or originated several projects including achieving a landfill diversion rate greater than the AB 939 mandate of 50%; proceeding with a Landfill Gas-to-Energy project that will produce a maximum electrical power generation of 4.3 megawatts, leading to the County receiving 32% of gross sales (possibly \$600,000 per year) at project completion; and serving as a model for compliance with AB 1343, with the goal further expanding retail take-back partnerships providing free and convenient collection opportunities, allowing residents to reduce the distance (and emissions) needed to travel to properly dispose of common hazardous products.
- 302 tons of confidential documents were shredded and recycled producing \$50,439 in revenue.
- We maintained a nearly 100% of office supply orders being placed online, reducing paper, time, errors, and carbon emissions;
- The number of small (under \$50) supply orders was reduced by 17% and reduced freight costs of \$38,114 was achieved, producing a significant carbon offset from reduced truck trips.
- Expanded utilization of electronic document conversion and data storage, reducing paper usage, physical storage space required, cabinets needed, and faster access to documents. Our County appears to be ahead of the curve in internally managed and implemented electronic document systems (i.e. Questys) according to outside suppliers consulted and a reduction shown in mailed and printed pieces.
- Savings of approximately \$150,000 a year by expanded use of electronic diagnostic images stored electronically as opposed to purchasing, storing and disposing of radiologic film – and existing film is being recycled – at the Hospital and Correctional Health Care.
- Green Team San Joaquin and the San Joaquin County Public Works Solid Waste Division was honored as the 2011 Outstanding Closing the Loop award winner by the California Resource Recovery Association, lauding the group's partnership in promoting the Recycling Market Development Zone and local area green businesses.

There was participation in or attendance at several key events during the past year, including:

- REXPO; the Recycling Exposition sponsored by the Green Team San Joaquin at the Stockton Hilton;
- A presentation in regards to and promotion and participation in the Commute Connection/San Joaquin Council of Governments "Share the Ride" Rideshare Program;
- The Caltrans Small Business Exchange;
- The Recycling Build Infrastructure Now (BIN) Summit hosted by the Greater Stockton Chamber;
- Presentations made on the two-year paint project funded by CalRecycle showing the money to be saved and benefits gained from using quality, locally available recycled paint;

The County Green Committee – meeting bi-monthly – serves to provide direction and encouragement to departments and as a means to bring information forward from experts internal and external to the organization. Departmental sub-committees are now getting established and reports are being submitted on progress. Local suppliers are invited to discuss their offerings, demonstrate their products or share their companies vision for the future. Best practices are examined, challenges and opportunities discussed, and a means of input and information back out to the public through our website and social media resources is now occurring.

This report summarizes some of the achievements of San Joaquin County agencies in their implementation of the County Environmentally Preferable Purchasing Policy and Green Committee goals.

SJC Environmentally Preferable Purchasing “Green” Committee

Chair: David Louis dlouis@sjgov.org (209) 468-3240

Members (as of March 2012):

Agricultural Commissioner	Terry King
Airport	Debbie Vasquez
Assessor /Recorder/Clerk	Mary Calderon
Auditor Controller	Adrian Van Houten
Behavioral Health Services	Carmen Murillo
Child Support Services	Craig Wishhusen
Child Support Services	Jose Daroy
Clerk of the Board	Lois Sahyoun
Communications	Pamela Sauseda
Community Development	Sunny Acevedo
Correctional Health Care	David Gonzales
Correctional Health Care	Lori Cyr
County Administrator's Office	Chris Rose
County Counsel	Kristina Rubianes
District Attorney	Lisa Schmidt
EEDD	John Solis
EEDD	Rick Aguilera
EEDD	Mark Ulm
EEDD	Tammy Aguilera
Environmental Health Agency	Robert McClellon
Environmental Health Agency	Laurie Brown
Environmental Health Agency	Michael Kith
Fleet Services	Dan McCann
General Services	David Castagna
General Services	Gabe Karam
General Services	Deprice Tillis
Human Resources	Cindy Clays
Human Resources	Tanya Hong-Moreno
Human Services Agency	Chris Woods
Human Services Agency	Annette DePauli
ISD	Sandra Dinardi
ISD	Gail Downer
ISD	Nick Celis
ISD	Ralph Cordero
Manteca Unified School District	Dawn Ghormley
Public Defender	Maria Montalvo
Public Health Services	Bruce Cosby
Public Works	Elisa Moberly
Public Works	Roger Janes
Public Works	Alison Hudson
Purchasing & Support Services	David Louis
Purchasing & Support Services	Jon Drake
Registrar of Voters	Annette Aina
San Joaquin General Hospital	David Freeman
San Joaquin Delta College	Maria Bernardino
Sheriff's Dept	Dina Jose
Sheriff's Dept	Patricia Horta-Skaff
Greater Stockton Chamber of Commerce	Frank Ferral
UC Cooperative Extension	Marcy Hachman
University of the Pacific (NAGT)	Dr. Shanna Eller
National Assn of Geosciences Teachers	Carol Brodie
PG&E	Theresa English-Soto
Youth Build San Joaquin	Nick Mueller

Environmentally Preferable Purchasing Program 2011 Annual Report

Policy

The County Administrative Environmental Purchasing Policy (Green Policy) Section 2700, Sub-Section 2737 reflects a long-term commitment to the purchase of environmentally preferable products. This policy was established in response to internal, political and public expectations for a basic framework for defining and achieving environmental purchasing goals. The policy seeks to conserve natural resources; preserve air, soil, and water quality; eliminate or reduce toxins that create hazards to workers and the community; reduce landfill disposal; increase the use of environmentally preferable products, and more. The Green Policy encourages all agencies of County government to revise their purchasing practices to reduce their negative impact on human health and the environment “whenever practicable.” Environmentally preferable procurement considers multiple attributes, such as toxicity, durability, recyclability and conservation of resources, while still fulfilling the basic requirements of price, performance and availability.

Program

The Environmental Purchasing Program is centralized in the Purchasing and Support Services Department and works with established, successful programs (i.e. Public Works/Solid Waste, Information Systems, etc.). We work together to promote environmental considerations in the purchasing decisions of County agencies. The program helps County personnel understand policy requirements, helps identify environmentally preferable products and services, and communicates specifications, contracts, and other practical information between County agencies, vendors, users, and other jurisdictions.

Green Committee

The San Joaquin County Environmentally Preferable “Green” Purchasing Committee (County Green Committee) was established in April of 2009. All Departments were invited to participate, and invitations were also sent to some outside agencies. The Committee assists County personnel with resources, information and technical assistance. The Green Committee advocate for sound practices, reviews policies, establishes goals and lends support. All agencies are interested in learning from one another and have a great deal to share. Membership may expand or contract each year.

Implementation

Successful implementation of the County’s Green Policy relies on effective communication with County agencies, our vendors, partner agencies, and the businesses and residents of San Joaquin County. It requires the participation and education of the people who make purchasing decisions. Purchasing staff works with the departments to locate and contract with vendors offering green products and services. The program’s collaborative approach relies on the expertise of County employees to evaluate procurement opportunities and revise procedures. Implementation includes:

- Communicating policy requirements and established procedures:
 - document policy implementation
 - provide product/service evaluations
 - provide technical assistance, including policy development and implementation strategies
- Identifying environmentally preferable products and services and establish agreements with vendors:
 - research and communicate information about price, performance, availability and potential benefits of environmentally preferable products
 - identify and contact local suppliers to demonstrate their products and be given every opportunity

- o to do business with the County
- o assist buyers and user agencies in the development of specifications and contracts
- Providing information on environmental issues, the County's progress towards sustainability, and successes experienced by County agencies and partners:
 - o host educational seminars and presentations
 - o create and maintain Internet and Intranet based "Green" websites
 - o publish an annual progress report, as requested by the Board of Supervisors, providing data, updates, and target goals and objectives
 - o provide technical assistance to other jurisdictions, businesses and nonprofit agencies
 - o produce e-mailed environmental purchasing articles and bulletins

County agencies have responded by developing ways to test, evaluate, and use environmentally preferable products, especially where they will reduce costs while still meeting performance standards. We are gradually bringing about greater understanding that every purchase has an impact, and every employee has opportunities to improve the environment. This effort is ongoing and continuous.

Plan and Goals

The Stockton Chamber of Commerce has a successful environmental initiative for Recycling, Energy, Air Conservation (REACON). The REACON Team is the outreach arm of the Chamber's Green Team San Joaquin. REACON is a collaboration between the Greater Stockton Chamber, private businesses, municipal and county solid waste divisions, economic development professionals, and the communities of San Joaquin County. Their purpose is to promote environmental stewardship solutions, to address environmental and economic development issues, and to create a nexus to enhance the delivery of Chamber services in Stockton and all of San Joaquin County.

In 2010, our Green Committee developed, discussed and approved a 5 year Implementation Plan that provides direction for the Committee and Departments. This plan included a discussion as to the most appropriate model that could help departments to identify a framework and specific goals and to measure meaningful progress toward achieving those goals. The REACON model was discussed and approved as a viable and critical part of our plans for identifying, measuring and reporting on green targets. If any departments are successful enough, specific levels of achievement can also result in achieving Green Sustainable Business Certification through a REACON assessment.

Areas of focus under this assessment include recycling, energy conservation, air pollution mitigation, and water conservation. Reducing product resources used, expanding and utilizing recycled materials, re-purposing surplus items and disposing of surplus and scrap in environmentally preferable ways are also targets for identification, measuring and reporting. Several departments have now begun this process and identified departmental green sub-committees. Whether REACON certification is achieved or not (some are affected by lack of funds or other significant issues related to specific areas, i.e. water conservation in leased facilities) progress is being made, and it is exciting to see the focus, pride and progress being made where possible. We hope to achieve at least one REACON Green Certification this year.

Challenges

A number of factors challenge efforts to increase environmental purchasing:

- a need for more staff time that can be allocated towards research, education and action plans;
- overall economic factors affecting public and private resource devotion;
- some users may not be familiar with many environmentally preferable products and are uncertain of the ways in which they might be effectively specified and applied in place of familiar products;
- developers of environmentally preferable products are often in the early stages of identifying the needs

of customers and establishing marketing and distribution capacity to meet them in a cost effective way;

- the use of environmentally preferable products must be effective and fiscally responsible;
- the lack of consensus-based standards for many product categories requires specifiers to define their own criteria for environmental preferability, and specifications must balance many attributes, such as consumption of water, energy and other natural resources, toxicity, recyclability, and recycled content;
- “greenwashing,” or false claims of meeting environmental standards, complicating consensus on acceptable products and terminology used in marketing claims; and
- collecting data on environmentally preferable purchases through existing accounting information systems can be time consuming and expensive.

Opportunities

The Program and County agencies are addressing these challenges by:

- working with other “green” agencies and key suppliers, including Green Team San Joaquin, local suppliers, etc.;
- participating in seminars, other green committees, recycling expositions and the educational community collaboratively and effectively;
- evaluating environmentally preferable product performance in new applications through testing and pilot programs; and identifying acceptable third-party certification standards.
- utilize technology and assemble application information and performance data from product users and manufacturers and disseminating this to potential users in the County;
- engaging staff and outside representatives to actively participate in our Green Committee;
- participating in efforts by government agencies, non-profit groups, trade associations, and others to develop consensus-based standards that will enable users to specify materials that are environmentally preferable as well as available, economical and effective;
- maintaining liaisons between agencies to facilitate policy implementation, contracting, and data collection;
- helping agencies develop specification and solicitation documents and contracts for environmentally preferable products whenever evaluations establish that product performance and cost are acceptable;
- helping potential suppliers understand County procurement processes and obtaining feedback from users to assist them in product development; and
- networking with other jurisdictions and organizations to share information about techniques, materials, and strategies to take advantage of each other’s successes and minimize duplication of effort.
- working with key suppliers to provide report data as part of their contracts.

Purchases and Savings

The County Green Committee, via the Chair, reports annually on the status of policy implementation and the environmental purchasing accomplishments of agencies. In the past year San Joaquin County departments again purchased over \$1,000,000 worth of green products and operating supplies, saving \$300,000 compared to the cost of conventional products. These products provide various environmental benefits, including resource efficiency, reduced toxicity, durability, recycled content, and the ability to be recycled.

Where possible, paper is eliminated and replaced with electronic storage and distribution methods. Recycled paper is used for many items, including packing and shipping containers, statements, forms, notifications,

business cards, general correspondence and reports. Other purchases include: remanufactured toner cartridges, office supplies, re-refined motor oil, vegetable based oil, ultra-low sulfur diesel, hybrid vehicles, plastic lumber, compost, and shredded wood-waste. In addition to their environmental benefits, many of these products are more economical than those they replace, and they perform well.

The information below summarizes environmentally preferable product purchases for 2011 that are identifiable. This data is obtained primarily from orders placed and “term” supply contracts, which are centrally administered goods and service contracts that enable County agencies to purchase materials at low and consistent prices. The data from one-time purchases where known, is included.

2011 Purchase Summary Highlights:

Office Products

The County contracts with OfficeMax to provide most office supplies. In an effort to reduce costs and our carbon footprint, OfficeMax and purchasing staff initiated a study of materials ordered and evaluated green alternatives that are equal to or better in terms of quality and equal to or less in cost. The study showed that we could replace over 10% of our items with recycled products. Orders placed were set to automatically default at time of order placements to the environmentally preferable product. This standard order default was implemented and to date has proven successful. Over 30% of our products purchased are now “green”. We are working with suppliers, key manufacturers and end users to take advantage of new products entering the market as soon as they become available.

- 30.25% of our total spend for office supply items was for recycled products. This maintains a peak reached last year as an upward trend since tracking began in 2006.
- The value of recycled office products purchased was \$340,929, down slightly due to reduced budgets.
- Savings for purchase of recycled vs. new is estimated at \$79,000.

Although exact cost saving detail is not readily extracted from current accounting systems, standard reports and files, it is important to identify the areas we are focusing on so that measures can be put into place that could capture more details for reporting. As we progress and are able to obtain and refine reporting detail, more of these categories will reflect actual savings.

Sometimes environmentally preferred products are equal to or slightly more in price compared to the original or virgin product, but global marketplace and development influences affect these products or categories constantly. Suppliers are asked to provide report data to us where feasible and are evolving their systems to be able to accommodate customer demands and to validate their own performance when it comes to being “green.”

Copy and Printer Paper

County agencies purchase recycled processed chlorine-free (PCF) copy paper with 30% or more post-consumer content if desired and where cost effective. The post-consumer content level meets the Federal Environmental Protection Agency’s (EPA) Comprehensive Procurement Guidelines. County purchases of white and colored recycled copy paper totaled around 19% of paper purchased, a 7% increase from the year before. Recycled paper is traditionally and still usually more expensive to purchase than non-recycled.

Using recycled content paper saves resources. According to the Paper Calculator, created by Environmental Defense, a national nonprofit organization, buying one million pounds of 30% recycled copy paper instead of virgin saves the equivalent of 3,600 trees and approximately 315,000 pounds of CO₂, equating to greenhouse gases produced by 29 cars in an average year.

Printing performed by the County Print Shop and through contracts administered by Purchasing and Support

Services for County departments is now required to use recycled paper whenever practicable. This includes all printing, from business cards to forms, reports and more. The recycled content of this paper can vary from 20% to 100% depending on the type of paper and the application, with a minimum of 30% being the target.

This past year has seen a reduction in the use of paper by way of departments implementing more electronic storage and communication procedures. This continued focus by departments to move away from printing where possible continues to result in less hard copy production, retention and storage.

Paper Products

In addition to recycled copy and printing papers, the County also maintains several contracts that allow agencies to purchase various recycled paper products. These include office supplies, such as envelopes, boxes, folders and notepads, and janitorial products, such as paper towels and tissues. The recycled content of this paper varies from 10% to 100% depending on the manufacturer and product type. Several unbleached and non-chlorine bleached products are available on contract.

Toner Cartridges

The County has purchased remanufactured toner cartridges for laser printers, fax machines and ink-jets for many years. Cartridges supplied under contract must meet original equipment manufacturers (OEM) standards and provide full performance guarantees. The current contract with our office supplies provider and our managed print provider provides good quality comparable products that, as usage continues to grow, will result in significant cost savings. The cost of new OEM cartridges can be as much as two times more expensive than remanufactured cartridges on contract. The County's specifications require spent cartridges to be properly remanufactured and all components to be properly recycled when their useful life is over, reducing the landfill disposal of hazardous material or shipment overseas. Used cartridges are recycled through a simple return process with the contracted delivery driver at any time. Purchasing and Support Services also provides a pick-up service, if sites desire. Implementation occurred this past year for a managed print service program where print devices can be maintained, print devices reduced, copies eliminated or reduced, and greater utilization and quality control of recycled consumables to occur.

Computers and Electronics

The majority of desktop computers purchased by the County are manufactured by one of two firms that are at the forefront of energy and materials efficiency (Dell and IBM/Lenovo). Information Systems Division (ISD) utilizes various tools for evaluating computer purchases, including the Electronic Products Environmental Assessment Tool (EPEAT). EPEAT is an environmental procurement tool sponsored by the Environmental Protection Agency (EPA) and managed by the Green Electronics Council. EPEAT is used by ISD to evaluate, compare and select desktop computers, laptops and monitors based on their environmental attributes. During 2010 and continuing into 2011, ISD established a new technology standard which requires that all personal computers (PCs) purchased by the County be designated as having achieved the EPEAT "Gold" rating.

Operations and Maintenance Products

Cleaners

The County, particularly through the Capital Projects team, has tested and used many cleaners that have been marketed as "green" with varying degrees of success. The market has improved dramatically for environmentally preferable cleaners in the past few years, as standards and certification programs have begun to emerge and more products have become certified. The use of environmental standards will help counter the unsubstantiated marketing claims, often called "greenwashing," that can be confusing to users.

We continue to monitor and evaluate various efforts around the country to facilitate the advancement of reliable standards, certifications, and labeling programs that can make it possible for jurisdictions and consumers to purchase chemistries that are demonstrably better for worker health and the environment than some we have used in the past.

In 2011, based on outcomes of those efforts, the County has awarded or extended contracts to key suppliers, including in some cases local suppliers and manufacturers products, which are Green Seal certified (an industry accepted product certification) or otherwise meet our environmental standards. We will continue to evaluate the performance and price of these certified products and services for approval and use.

Ongoing use shows good results. The use of ready-to-dilute systems are proving safer for workers, as they are not directly exposed to the chemicals, and this results in the use of less product to do the same job. Most are sold in concentrate form and then diluted with water, as appropriate for the application. Another benefit is typically a reduction of the number of different chemicals used in product base formulas from dozens to a few.

Outside contractors, including those providing custodial cleaning services to our Administration Building, the Courthouse, Public Works, and Canlis facilities, are on board with being “green” and adapting to customer and social demands and good stewardship without sacrificing quality. The use of microfiber cleaning cloths for all cleaning operations is required, and reports are that this change saves water and performs well.

Specifications in bids and Requests for Proposals for all goods and services now call out the requirements for providing “green” products where practicable and to the County’s satisfaction.

Solar Installations

The Robert J. Cabral building at our San Joaquin Agricultural Center utilizes solar panels to provide some of their energy needs, as does the County Administration Building. These two projects provided energy savings of \$32,395 last year.

Organics and Natural Vegetation Management

For over 5 years the County has utilized sheep herds to assist with vegetation management at our landfills. These sites have been difficult and fairly expensive to maintain using manpower and traditional fueled equipment. The sheep are a more efficient way to control the weeds than crews of human workers, present less risk of injury to the human staff, reduce the need for fueled equipment, and eliminate the need for chemical maintenance. The County’s use of sheep has generated interest from other jurisdictions and the community, and we are in the process of expanding the use of this natural method of range management.



Goal: Implementation of best management practices, including drought and pest resistant landscaping, use of less-toxic products, organic landscape maintenance, and use and preservation of native species.

Carpet

The County buys carpet, cushions, adhesives and installation services for small remodels and renovation work typically through cooperative purchase contracts. Many of the products available have various certifications for recycled content and other environmentally preferable elements, including low emissions of Volatile Organic Compounds (VOCs). Recycled carpet and related materials are constantly evaluated and selected where practical.

Tire Retreading

Tires have various speed and load ratings that must be complied with to ensure safe operations. Fleet will be testing specific re-capped tires on selected equipment and buses and will reduce to the extent possible the number of new tires purchased without compromising safety and needed performance. Solid Waste Division retreads tires for transfer trucks and off-road equipment, when possible.

Resource Recovery Services

County agencies have continued to transform waste into sources of revenue. When materials cannot be sold, they can still be diverted, resulting in lower disposal fees.

Electronics Recycling

County agencies have been recycling obsolete computers, television sets and other electronic equipment with a local recycling firm for several years. There is growing concern about the ultimate effects of landfill, disassembly, or incineration of computers and electronics, which contain a variety of heavy metals and other toxins. Of special concern are cathode ray tubes (CRTs) because they contain large amounts of lead. We dispose of our electronic equipment through a local recycler in a responsible manner, and provide residents with similar convenient and regularly scheduled proper disposal methods.

The County requires surplus computer equipment to be disposed of by following the procedures developed by Information Systems Division (ISD) for redistribution, transfer, or disposal as hazardous waste via the local recycler contracted by the County (Onsite Electronics Recycling). This contract includes strict requirements for recycling electronic components domestically and responsibly, meeting all regulatory and environmental regulations and/or guidelines.

Office Recycling Programs

County agencies recycle paper, cardboard, newspaper, aluminum cans, and plastic and glass bottles from all offices. These are collected by staff and/or outside local recyclers and sold (where possible) as feedstock for the manufacture of various recycled products. In 2011 we recycled almost 1.1 million pounds of paper material.

Departmental Contributions

All departments contribute towards County goals and objectives. A few examples submitted for this report are:

Stockton Metropolitan Airport

The Department of Aviation staff and Stockton Metropolitan Airport tenants actively participate in the recycling of and “greening” of the site that includes:

- Purchasing of recycled bond paper
- Recycling of all bond paper
- Copy machine defaults to duplex printing
- Terminal recycling receptacles available for utilization by passengers and patrons
- Restaurant proprietor recycles all glass, bottles, plastic, cans, etc.
- Department of Aviation staff recycles all plastic and cans as well as the daily newspaper
- Airport Maintenance provides containers for the recycling of oil to better accommodate Airport tenants
- Airport Terminal Hold Room Expansion was constructed with state-of-the-art energy saving features

With the current staff cutbacks, the Department of Aviation is unable to actively implement additional recycling efforts to date. The Airport is currently operating with one Crafts Maintenance Worker III and awaiting placement of a temporary Crafts Worker I position.

Assessor-Recorder-County Clerk

The Assessor-Recorder-County Clerk Department established a Green Subcommittee in 2010, which reviews department processes as they relate to green sustainability. A monthly email to all employees offers “green” ideas as well as soliciting ideas for improving the department’s processes.

The year 2011 saw these additional departmental improvements:

- Personal Property Audits are performed digitally, results emailed to taxpayers, and files submitted using laptops in the field, on audit trips, and in the office.
- The Exemptions/Boats/Aircraft section completed scanning Homeowner Exemption files and Aircraft files into Questys for interactive use.
- The Personal Property section has most statements online, greatly reducing paper and mailing needs. Greater numbers of taxpayer statements were electronically filed in 2011.
- The Transfer section now uses shared digital logs for mail, deed preparation totals, and the scheduling calendar.
- The Recording section has expanded the e-Recording volume, saving labor in the recording, scanning, and return mail sections functions as well as return postage.
- The proofing and correcting of digitized recorded documents has continued to improve and expand the digital public records now available.
- The Systems section oversees the continuing digitization of in-house documents using Questys.
- The Mapping section is now converting old maps and creating new assessment maps in GIS digital format.
- The Administration section chooses the greenest alternatives when ordering supplies, encourages recycling, and has expanded scanning files.

Auditor-Controller Department

The greatest move for the Auditor-Controller’s office was the authorization by the Board to implement the PeopleSoft Accounting and Personnel system and the MPTS property tax system. This allowed the Auditor to move away from the paperbound legacy systems to real-time online systems. Full implementation in 2011 resulted in:

- Departmental reports are online rather than printed and interoffice mailed.
- Special Districts and Agencies reports are emailed rather than printed and mailed.
- 86% of County payroll checks are electronically delivered reducing the use of check stock.
- The Auditor’s office now sends payroll remittance advice via e-mail rather than mailing a copy, saving tremendously on labor, postage and paper.
- Using Questys the Auditor’s office has scanned the supporting documents of a vendor payment so departments can review them rather than keeping copies or asking us for copies of the detail.
- Electronic vendor payments in the place of checks is being explored and test implementations will occur soon.

Behavioral Health Services (BHS)

During the year BHS has been working on adopting and expanding some of the green processes as follows:

- We have started our BHS sub-committee.
- Updating copiers to better, more efficient and multifunction copiers.
- Using the technology of the new copiers to scan and email files instead of copying and mailing or inter-office documents.

- Scanning and saving files electronically to save paper, storage needs and ease of pulling files when needed.
- Encouraging the Departments within BHS to copy and print double sided whenever feasible.
- We have a program in place to properly dispose of the hazard waste such as batteries and light bulbs.
- We have a contract with UOP for washing our vehicles where the water is used not only to wash the vehicles, but also to maintain the grounds.

Community Development Department

The County is in the process of updating the 2010 General Plan. The update will result in a 20 year (to 2030) blueprint for development in the County. A draft of the General Plan Vision and Guiding Principles document has been created and it will become part of the Plan (once approved) and will be used by the Planning Commission and Board of Supervisors to guide their decisions in carrying out General Plan goals and policies.

Some of the current draft Guiding Principles and proposed actions related to the “Green Team” are:

Resource Conservation and Sustainability

- Preserve environmental resources, including the Delta, waterways, habitat areas, fish and wildlife, and other significant resources for future generations.
- Promote alternative energy use, water conservation, waste reduction and recycling, and other sustainable practices.
- Encourage development patterns, transportation systems, “green” building practices, and renewable energy projects that reduce emissions and improve air quality.

Efficient Growth and Development

- Focus new, higher density growth within incorporated cities and adjacent fringe areas.
- Promote infill and redevelopment within incorporated communities.

Mobility and Connectivity

- Promote regional and interstate transit connections to reduce automobile trips.

We are anticipating that the work to update the General Plan 2030 will be completed in the Fall of 2011.

Correctional Health Care

Correctional Health’s contributions towards Green objectives include:

- Replaced the old X-ray equipment with new digital technology, using less energy and producing no chemical waste. Images are stored electronically as opposed to purchasing, storing and disposing of radiologic film. Significant savings is occurring though the means and staff time to measure the exact savings is difficult at this time.
- Recycled toner and ink cartridges are used and recycled.
- Batteries are properly recycled.
- Paper and cardboard is recycled.
- Placed recycling containers in the offices.
- Obtained and informed Purchasing about reusable surplus available.
- Purchased green products when economical.

Emergency Medical Services Agency (EMS)

The Emergency Medical Services Agency has contributed toward San Joaquin County's Green policy through the following measures:

- Purchasing products made from recycled materials when possible, i.e. paper, printer ink cartridges, calendars.
- Encourage recycling of used materials such as paper, plastic, toner, and batteries. Recycling collection containers are placed throughout the department.
- Conserve paper and printing resources by encouraging scanning of documents for record keeping or distribution.
- Maintain an up-to-date repository of policies and procedures for reference on the agency webpage, saving costs of printing, paper, and time.
- Maintaining an inner office network repository for documentation and storage and using email to share documents when possible.
- Printing documents using duplex so that they may use both sides of the paper.
- Encouraging staff to conduct or attend meetings through conference calls, rather than traveling by car, whenever possible.
- The department vehicle is a Ford Escape Hybrid, which has reduced fuel emissions.
- The department copy machine is set to activate sleep mode when not in use to conserve energy.
- Encourage staff to turn off lights in rooms and common areas when not in use.

Employment and Economic Development Department (EEDD)

The Employment and Economic Development Department has just implemented a Green policy requiring a reduction of staff travel within the County. The objective is to promote a travel policy that will reduce the carbon footprint. It shall be the responsibility of every staff to minimize the need for local travel within San Joaquin County during office hours by requiring the following:

- Avoid taking trips that are not mission critical.
- Identify the shortest route to your destination.
- Plan your site visits when you are out in the field to handle multiple visits to minimize the use of gasoline.
- For staff out in the field that have to schedule site monitoring visits, establish travel routes that will be more effective and efficient.
- Avoid daily trips.
- Have other staff who are already out in the area, drop off items for you.
- Respective Supervisors and Managers will monitor the mileage reimbursement reports to ensure we all work towards minimizing our travel activities and are minimizing the carbon footprint.

Increase Teleconference Calls Through WebEx

The department continues to expand its use of WebEx to conduct telephone conference call meetings with Partner Agencies and WorkNet Center staff to minimize the need for travel.

EEDD has extended an invitation to any County Departments that want to hold Regional Partner Agency meeting using the WebEx system.

Training activities with staff at all the WorkNet Centers are now participating in training activities via WebEx and eliminating the need for travel to other locations.

EEDD's Earth Day 2011

In conjunction with Earth Day 2011, San Joaquin County EEDD's Green Committee organized an event for staff to increase their knowledge in the areas of recycling, reducing and diverting waste.

Using a "passport" type activity, participating staff visited numerous vendor booths, including Allied Waste, the Solid Waste Division of San Joaquin County Public Works, Commute Connection, UCD Master Gardener program, Vision Paint Recycling and the Council of Government's Ride Share program. To encourage staff participation, the Green Committee procured prize donations (including passes to the Monterey Bay Aquarium) for those staff that visited each booth. EEDD Management contributed by providing donations for pizza and drinks (all served on recycled products) for all attendees.

Vendors provided information on appropriate methods for composting, where to appropriately dispose of different types of waste, and how to plant an eco-friendly garden. Staff participated in a "What Was I Before" activity featuring items that were recycled, including a ruler made from denim jeans and facial powder made from walnut shells. With Public Works e-waste truck on site, staff had the opportunity to dispose of old computers, televisions and small appliances. EEDD Management contributed by providing donations for pizza and drinks (all served on recycled products) for all attendees.

Scheduled to be a bi-annual event, the EEDD Green Committee will continue to recruit additional vendors to keep staff aware of the latest information in not only our "green" efforts at work, but also in our own homes.

Environmental Health Department

In 2011, the following Conservation, Solid Waste Reduction, Recycling and Pollution Prevention activities have been accomplished or are being planned by the San Joaquin County Environmental Health Department (EHD):

- The Environmental Stewardship Committee consisting of the EHD Director, two Program Coordinators, two Inspectors, Management Analyst II, and Administrative Secretary met routinely to discuss strategies for improving the department's green focus.
- The Committee made preliminary plans to replicate the department conservation, solid waste reduction, recycling and pollution prevention efforts at the new department building when the agency relocates in April 2012 to the County Hazelton Complex, 1868 E. Hazelton, Stockton. Plan to join similar efforts with the Public Works and Community Development departments in their related activities at the complex.
- Committed to following the County Environmentally Preferable Purchasing Policy.
- Regularly checked for and repaired plumbing leaks in the kitchen and restroom areas.
- Installed signage encouraging water conservation in the kitchen and restroom areas.
- Recycled used fluorescent tubes, batteries, electronics and other universal waste through the County's Household Hazardous Waste facility.
- Provided staff with information on the Commuter Ride Sharing Program and the Guaranteed Ride Home Program.
- Provided a secure area for employee bicycle storage for commuters.
- Purchased and used rechargeable appliances and equipment instead of using disposable batteries wherever possible.
- Maintained 25% of departmental vehicles as hybrids. Also returned four County vehicles to the motor pool, to save on vehicle and gasoline costs and to utilize the remaining vehicle fleet more efficiently.
- Regulated businesses, manufacturers and medical facilities for hazardous waste and chemical usage, encouraging use of less toxic materials whenever possible.

- Committed to posting signage near sinks, dumpsters and garbage cans reminding staff to avoid dumping hazardous chemicals down sinks, placing liquids in trash cans and dumpsters, and keeping dumpsters closed.
- Committed to suggesting that staff patronize businesses close to the EHD office to avoid unnecessary trips.
- Replaced aerosol products with non-aerosol products.
- Recycled used toner and ink cartridges and purchased recycled toner and ink.
- Used low-flow toilets, occupancy sensors for office lighting and programmable thermostats.
- Committed to conducting a solid waste, water conservation and utility assessment of our new office location to find new ways to conserve resources.
- Scanned documents and records instead of copying them for distribution and retention.
- Scanned thousands of department records in preparation for the department relocation as well as save on file storage space.
- Copied on both sides of the paper whenever possible, and copied in black and white as the default instead of color.
- Encouraged staff to share phone books, manuals, etc.
- Recycled cardboard in a separate dumpster and recycled paper, glass, plastic and aluminum at several locations throughout the EHD office.
- Committed to educating staff about recycling, conservation and solid waste reduction.
- Purchased recycled content products whenever possible.

General Services Department

The General Services Department (including Capital Projects, Facilities and Parks and Recreation) continues to succeed beyond their highly visible recent successes – the award winning Gold LEED certified County Administration Building and the San Joaquin County Agricultural Center. These buildings will continue to maximize use of natural lighting and accessibility to window areas, incorporate flexible work area configurations, include as many cost-effective “green building” features as possible, and facilitate convenient access to services.

The solar panel installation project at the San Joaquin County Agricultural Center (top picture on the cover of this report) has resulted in some impressive statistics. In 2011:

- The system generated between 9.8% and 27.1% of the energy consumed, averaging 18.7% of usage.
- The total savings has been \$20,512, an average of \$1,709 monthly.
- Greenhouse gas emissions were reduced by approximately 86 tons of CO₂, or the equivalent of removing 241 cars from the streets or the planting of 24 acres of trees.

In the past 12 months, the solar panel installation at the County Administration Building (lower picture on the cover of this report) has resulted in:

- Generation of 2.1% to 6.2% of energy consumed, averaging 4.1% of our usage.
- Total savings realized of \$11,883, an average of \$990 monthly.
- Greenhouse gas emissions were reduced by approximately 90 tons of CO₂, or the equivalent of removing 253 cars from the streets or the planting of 25 acres of trees.

In 2010, Facilities Management received an ARRA-EECBG Energy grant to replace Heating-Ventilation-Air Conditioning (HVAC) units and install variable frequency drives (VFDs) in numerous County facilities.

The scope of work for this project is to replace 73 HVAC units in 22 County buildings and install 9 VFDs and a 550-ton chiller at the Sheriff’s Complex. The objective is to achieve significant energy and cost savings by replacing old, outdated equipment with more energy efficient units. The majority of the old HVAC units have a

SEER (seasonal efficiency rating) of 8 to 10 while the new units are SEER 13 to 15 which will provide energy and costs savings of more than 20%. The VFDs at the Sheriff's complex delivers savings by controlling motors' speeds and therefore consuming only 25% as much power at 63% speed than at 100% speed. The new Chillers at the Jail are replacing 20-year old chillers and will be 36% more efficient.

The installation of the HVAC units and VFDs are 98% complete and the replacement of the chillers is in progress with expected completion of early April.



Old HVAC Unit at Public Works



New HVAC Unit at Public Works



Old Variable Frequency Drive at Jail



New Variable Frequency Drive at Jail

Staff is also working with local energy companies to replace outdated lighting and controls. A Request for Qualification process is also underway to evaluate the feasibility of securing additional renewable energy installations for seven additional County locations.

Health Services Agency (HSA)

2011 Accomplishments

- A link for HSA Subcommittee was created for Agency staff allowing employee access to HSA Subcommittee actions as well as giving employees the opportunity to submit "green" suggestions that could potentially be implemented throughout the Agency. There is also a link to the County Green Committee website that we encourage staff to visit.

- Old, outdated unusable Agency refrigerators are being replaced with newer, energy efficient refrigerators.
- Building windows are being weather-stripped for energy savings.

Projects In Progress

- HSA will soon be implementing the Desktop Computer Power Management Program offered through PG&E.
- The Agency is also working with PG&E to work toward implementation of server virtualization and consolidation resulting in energy savings.
- The Agency is progressing towards the use of unbleached paper towels as opposed to bleached paper towels.

REACON Review

- We continue to struggle with limited staff time and involvement.

Health Care Services Agency (HCSA)

The items below reflect the Health Care Services Agency (HCSA) support of the San Joaquin County's Green Policy:

- Purchase products made from recycled materials when possible, i.e. paper, printer ink cartridges, calendars.
- Encourage recycling of used materials such as paper, plastic, toner, and batteries via recycling collection containers in the department or through access to the recycling containers on the SJGH campus. Staff also recycles plastic and glass bottles.
- Encourage scanning and emailing of documents for record keeping or distribution.
- Utilize reference items such as policies and procedures and forms and templates on the County webpage.
- Encourage duplex printing documents.
- Encourage staff to participate in conference call meetings and training webinars, rather than traveling by car, whenever possible.
- Set department copy machine to energy save mode when not in use.
- Encourage staff to turn off lights and heating/cooling units in rooms and common areas when not in use.

Hospital (SJGH)

In 2010 SJGH implemented a Picture Archiving and Communications System (PACS) by which diagnostic images are stored electronically as opposed to purchasing, storing and disposing of radiologic film. Ongoing and expanded use produces savings of at least \$150,000 per year compared to past practice and is expected to increase near term.

New energy efficient cooling equipment for the SJGH computer server room has been installed. Savings on energy and water will occur as a result.

Consultation with PG&E was completed on an eleven component savings plan to include retrofitting high energy consumption equipment with new energy efficient technology. Energy savings is expected to be \$120,000 per year once fully implemented.

Build up and sediment from the three cooling towers have been removed, significantly increasing their efficiency. Old speed drives have been replaced with new, energy efficient models. Water treatment improvements have been made in conjunction with a new heating and cooling system. Unknown but substantial savings on energy and water costs are being realized.

Recycling containers for cans and bottles are used throughout the facility, with proceeds donated to the Patient Helping Fund.

Green waste has been taken out of the waste stream and stockpiled. Annually, the stockpiled waste is ground into mulch and put back into the landscaping.

Human Resources

Human Resources (HR) has taken advanced steps forward in the "Going Green" arena. We continue to have an overall mindset for taking care of our resources, and we regularly keep the following in mind:

- Ensuring paper, plastic, bottle and can recycling containers are strategically placed in the HR office
- Order recycled office products
- Thoughtful paperless environment, when possible
- Acquisition of environmentally/ energy efficient technology
- Limited large printers and copiers - use minimal multi-use machines designed for energy efficiency and use recyclable cartridges and other materials.
- Set machines on duplex and utilize recycled paper

HR has made great progress in the electronic records and viewing arena, which decreases our use of ordering paper, labor time for handling paper and efficiency in handling documents.

Below are examples of HR Going Green:

Application Process: Job Apps went live 08/25/09. This is a web-based program that the Recruitment Team utilizes to accept submittal of applications, access information electronically, and allow electronic referrals to departments. It also has the potential for electronic requisitioning which will be looked at in the near future. This integrated system gives the capability to review and do necessary processing electronically without printing and handling thousands of pieces of paper. For example, in 2011 there were 12,645 applications submitted to HR. Each application is on average 12 pages. That equates to 151,740 pieces of paper that HR would normally process. That has now been converted to a system where we store and access information electronically.

Application Referral to County Departments: Historically, SJC HR photocopied applications for all candidates referred to County Departments. Departments either picked up the applications or they were sent via inner office mail. We now refer all applications electronically. Departments can then make the decision to either view online or print.

Electronic Distribution of Employment Bulletin (EB): EB is produced on a bi-weekly basis. Historically, approximately 500 legal size bulletins were printed and mailed to County departments utilizing inner-office mail and to outside organizations via US Mail which equates to 13,000 pieces of paper annually. We now distribute to County Departments, outside organizations and laid off employees almost exclusively via email. Only about 30 bulletins are mailed to agencies which do not have email addresses.

Seniority Letters: We used to print two copies (5000-6000 letters depending on our current CS workforce). We now print one which is mailed and a copy is uploaded electronically into the individual personnel file.

Email Notices: For applicants who provide an email address (approximately 93% of applicants) we are able to email all notifications. For a typical recruitment, applicants could receive 3-5 notices from HR regarding the status of their application. If an e-mail address is provided, all notification regarding employment will be e-mailed. For perspective, in 2011 we received 12,645 applications.

Self-Serve Open Enrollment: In 2012 we had a special open enrollment in February, and information was sent to 3813 people. We had 234 online enrollment submissions (about 37%). For the first time, we also made an opt-out form available through the County website. Because we required a signature, employees were not able to use self-service for this and had to print the form and return it to us, but for this coming open enrollment in May, we are currently preparing for an electronic signature feature for those who use self-service and wish to opt-out. We received 171 opt-out forms. After each open enrollment, all OE and opt-out forms are scanned into Questys. For each of those who made changes through self-service, we generate OE Confirmation forms through PeopleSoft, and these are NOT printed, but scanned directly into Questys from the PDF file.

Personnel Files: The HR project to convert paper personnel files into an electronic platform began in August of 2008 and was completed in March 2009. Utilizing an outside vendor we shipped out 175 boxes of personnel files on a rolling schedule to be scanned into an electronic format. 6,518 personnel files were scanned resulting in nearly 700,000 images. While we have not "*eliminated*" paper, storage space required on site is now minimal. Benefits to this new electronic storage system include the instant electronic retrieval of file information, and allows for easy viewing versus making unnecessary copies to review.

Risk Management Files: As noted above, the HR project to convert paper personnel files into an electronic platform was successfully completed in March 2009. 2012 will focus on Risk Management documents to be scanned into electronic format.

Staff Development: When enrolling in a Staff Development course, the PeopleSoft system automatically prints reminders to the employee. Staff Development personnel forwards that pieces of paper to the Department who in turn forwards to the employee. Human Resources will work with ISD in 2012 to make this system paperless. The overall plan is to have notices sent via e-mail through the PeopleSoft system.

Power Management: The Information Systems Division is installing Power Management to all computers in 2012. This will allow for electricity saving goals by turning to energy savings modes automatically when the computer is not being used. This powers down both the computer and monitor.

HR staff followed the above goals in 2011, and will continue to do so in 2012 including:

- Recycle – use bottle/aluminum recycling, battery disposal boxes, used electronics, toner cartridges, etc.
- Go as paperless as possible with scanning projects
- Turn off monitors and electronics when not in use (coffeemakers, multi-use machines, etc.)
- Recycle empty ink pen containers
- Use the Administration Building restroom flushing mechanism properly

Human Services Agency (HSA)

HSA has made significant progress and has met several goals in the past year and prior. Some of these areas of achievement include:

- Motion sensor lighting controls in place.
- Contractors using greener products in providing services, i.e. janitorial cleaning products.
- Air filters are replaced regularly.
- A more efficient tankless water heater was installed to replace an inoperative water heater.
- Electronics are properly recycled, including donation to Computers for Classrooms program.

- Assets are tagged and scanned electronically into a database.
- Printer, fax machine and copier usage has been reduced in line with overall County direction.
- Usable surplus is obtained and reused through Purchasing.
- The Sheriff's Jail Industries Upholstery services are utilized to clean, repair, or re-upholster.
- Office supplies items are re-used whenever possible.
- A goal of a 40% reduction in paperwork/file reduction is well underway using the State C-IV system; online applications are available to clients.
- Paper, boxes, styrofoam, electronics, and toner cartridges are recycled properly using local resources.

Information Systems

Green efforts being put forth by Information Systems Division include:

- Information Systems Division has started operating the County Datacenters at 71 degrees, raising the temperature from the previous 68 degrees. This increase allows the County to operate the Datacenters effectively while reducing the cost and amount of cooling required. Industry guidelines show a 4% savings on cooling cost for each degree the set point temperature is raised. Based on this, the County should realize approximately 12% savings when compared to the previous cost of cooling the Datacenters.
- The County's new telephone system uses Voice over Internet Protocol (VoIP) technology which operates on the County's network equipment. The system has been configured to put the phones into "sleep" mode during non-business hours, thereby reducing the power consumption of the network equipment. When a VoIP phone is in sleep mode, the power consumption drops from 6.3 watts to 1.5 watts per hour. In San Joaquin County this translates to saving approximately 7,300 kilowatt hours per year.
- Information Systems Division is using "server virtualization" which minimizes the number of physical servers by dividing one physical server into multiple "virtual" server environments, thereby saving electricity. Currently ISD has 56 virtualized servers saving approximately 147,168 kilowatt hours per year as opposed to using individual physical servers.
- The Sample Ballot "opt out" program has been a success with voters opting out of being sent a sample ballot booklet. This will reduce paper use and printing costs to the County.
- The Registrar of Voters is now using recycled paper for the sample ballot booklets.
- The Registrar of Voters used to print as many as 12 posters for each polling location. Some are required to be posted by the Secretary of State, and others are merely informational. Rather than print 12 individual posters, we now print one that includes all the information required at each polling location.

Public Defender

In part, the Public Defender's Department continues to recycle batteries, cans and bottles, and paper and toner supplies. Our biggest steps this year have been in the break room where we are now using environmentally friendly dishwashing soap, collecting containers for holiday leftovers rather than using plastic wrap or foil, using paper plates with some recycled content, and using 100% recycled paper towels.

One of our biggest gains this year has been the removal of the snacks and candy bar vending machine in favor of a cereal bar. Staff is purchasing breakfast cereal packaged in 100% recycled paperboard, milk, and reusable bowls & spoons. This has provided several benefits, including reducing our carbon footprint in regards to electrical output and non-recyclable waste.

As to our long-term goal, that would be the REACON building certification. Our short term goal is to actively seek out items that we can recycle or use recycled products.

The Public Defender's Office continues past practices of being "green". Active participation continues on the County Green Committee, and additional progress has been made in several areas including:

- Collection and recycling of paper and batteries.
- Acquisition and use of rechargeable batteries where practical.
- Can/bottle recycling done regularly.
- Recycled papers are used when possible, and the use of NCR carbonless has been minimized.
- Electronic document generation and storage is used whenever possible.
- Recycled and biodegradable paper products, utensils, and cleaning materials are used.
- Recycled toner cartridges are used and recycled.

Public Works Department

Fleet Services: Fleet Services maintains 175 alternative fuel vehicles for employee use: 2 BiFuel Compressed Natural Gas (CNG)/Gasoline, 31 CNG, 140 Hybrid, and 2 Dedicated Electric. They are proposing to replace another 20 gas vehicles with Hybrids annually over the next three years. A Congestion Mitigation Air Quality (CMAQ) Grant will offset the hybrid cost over gasoline vehicle purchase (60 replacements and grant of \$360,000).



Fleet has on order two Electric vehicles (Nissan Leaf and Chevrolet Volt) to replace gasoline models as a test. Grants of \$40,000 were received to off-set the purchase price. They will add two charging stations to the Downtown Garage with the ability to add three more, if needed.



Re-refined oil is used in all County vehicles, and all oil, filters, antifreeze, and batteries are recycled. Fleet Services maintains a certified oil recycling center accepting oil, filters, and anti-freeze from local residents.

Public Works implemented a system for divisions to rent vehicles from a pool, allowing the department to reduce the size of its fleet and the cost of maintenance and new purchases. For example, Behavioral Health originally had 83 vehicles assigned. Since SJCars implementation, they have 30 assigned and use 24 from the rental system, paying only for the use. Their remaining 29 vehicles have been disposed or temporarily assigned to replace non-repairable vehicles. Replacement cost of approximately \$725,000 was avoided. Several hybrids were incorporated into the SJCars rental fleet. Fleet will continue to replace the gasoline powered with hybrid, electric, or plug-in electric, as funds become available.

Fleet has proposed using propane as an alternative fuel for pickups. They are looking again at CNG for the small cars; past problems of range and cost of repairs have seen improvement. They have switched over to the non-lead wheel weights for all tire balancing.

All the lights in the shop were replaced with energy efficient fluorescents through a PG&E rebate (\$14,020), saving more than 78,000 Kw per year. With an estimated \$12,000 a year in energy savings and cost of only \$3,000, the expense will be paid back in only 3 months.

Water Resources: Water Resources coordinates the County's participation in the annual California Coastal Cleanup Day. Each year community volunteers remove litter and illegally dumped waste from 10 or more sites. Special wastes and recyclable materials - including tires, appliances, paint, electronics, and wood – are separated on site from mixed waste and brought by Road Maintenance to a Solid Waste facility for recycling. Information on recycling provided to volunteers for the events also applies to their daily lives.

The Community Infrastructure Engineering Division now scans and electronically stores all Engineer Reports and other applicable documents and correspondence, reducing paper usage and storage. They recycle paper, cans, and applicable plastics. Lights are turned off during non-working hours. When driving on County business, CIE Staff prefers to use the County's electric and hybrid vehicles. Personal printers are turned off during non-working hours, and printer cartridges are recycled.

Road & Engineering Divisions: Rubberized Asphalt Concrete (RAC), a mix of asphalt and recycled waste tires, has been used on several County roads. RAC roads last longer, require less maintenance, reduce wear on vehicles and tires, and offer a sustainable alternative to landfilling tires. A rubberized chip seal process was used to repair roads at various locations. LED signals have been installed in several areas, reducing energy consumption.

Traffic Maintenance manages a Graffiti program to clean over 3000 signs per year, using approximately 40 gallons of non-chemical cleaners with a citrus or soy base. They contract with a company that refurbishes any usable aluminum. The refurbished aluminum is sent back and used to make new signs. Any signs that are beyond repair are recycled with the same company.

Solid Waste: Solid Waste ensures the County maintains its compliance with AB939 by achieving a diversion rate greater than the mandated 50%. Ongoing environmental programs and services include: hazardous waste disposal for households and small businesses; recycling of construction and demolition waste, green waste, asphalt, used oil and filters, paint, tires, agricultural chemical containers, mattresses, carpet, electronics, and appliances; landscape training and advice emphasizing water conservation and less toxic methods; and education and assistance for residents, schools, and businesses to improve environmental stewardship while improving cost efficiencies.

Solid Waste is proceeding with a Landfill Gas-to-Energy project at Foothill Sanitary Landfill, producing a maximum of 4.3 megawatts electrical power from the landfill gas. Construction at the landfill is expected to be substantially complete in December 2012, with full production in mid-2014. The County will receive 32% of gross sales, possibly \$600,000 per year. Landfill gas produced by the decomposition is approximately half as potent as natural gas.

The Solid Waste Division continues to establish partnerships with local retail stores to serve as collection sites for residential paint, universal waste, medical sharps and pharmaceuticals. Ten local paint stores located throughout the County accept latex paint for recycling and provide customers with instructions on purchasing the correct amount to minimize waste. The pilot program serves as a model for compliance with AB1343, which mandates the industry-supported statewide paint product stewardship program, scheduled to roll out this fall. Two stores are collecting universal waste batteries and fluorescent lighting, and two others are collecting medical sharps and pharmaceuticals. The goal is to further expand retail take-back partnerships providing free and convenient collection opportunities, allowing residents to reduce the distance (and emissions) needed to travel to properly dispose of common hazardous products.

The Solid Waste Division focuses on administrative and operational procedures that increase efficiency, reduce waste and save money. Information about proper hazardous waste disposal for local businesses is printed on the back of Environmental Health's annual statements to licensed businesses. A series of similar educational information is printed on the Solid Waste monthly invoice envelopes. Annual reports and grant documents for CalRecycle are now submitted to the State electronically. Monthly documents for the HHW program reports are scanned and saved electronically. A full-color scanner in the admin office allows documents to be scanned and filed electronically.

The Green Team San Joaquin conducted a REACON assessment at North County Landfill and MRF, Lovelace MRF and Transfer Station, and the HHW facility. The entire lighting system is being reviewed with PG&E for upgrades using rebates. Security lights at the HHW Facility are turned on only at night. Staff shut off the AC at the end of the day, if in use. Warehouse lighting is only used when needed, utilizing natural light as much as possible.

The Solid Waste Division has undertaken a new initiative to reduce energy consumption by 7% over the next year. Through the PW Department's Green Committee, they will implement energy saving measures, educate staff, and lower costs. The initial focus will be on turning off computers and accessories when not in use and reducing phantom load.

Purchasing and Support Services

The Purchasing and Support Services Department continues to provide green support activities in many ways. Some of these include:

- Reviewing specifications to allow for alternative bids and proposals using approved recycled commodities, products, or service delivery methods, including packaging and energy usage.
- Participating in "green" webinars, expos, and green team meetings (internal and external) to identify best practices and sources.
- Webinars and phone-in "virtual" pre-bid/proposal conferences are used where practical.
- We identify and talk to local companies to identify green alternatives, and assist with providing business opportunities and supplier registration (now online and paper free).
- We provide pick up service for confidential documents for shredding and recycling, and all other papers for recycling. 302 tons of confidential documents were shredded and recycled producing \$50,439 in revenue.
- We collect and properly dispose of single-use and rechargeable batteries and small batches of chemicals being discarded through the Conditionally Exempt Small Quantity Generator Program.
- We generate electronic copies of documents and data wherever possible to reduce printing/copying.
- Recycled paper and products are used whenever practical.
- The department periodically hosts a trade show with a "green" theme where suppliers are allowed to set up displays and County staff is invited to participate to learn, ask questions, see demos, and obtain sample products.
- Centralized execution and management of several essential, core programs occurs, e.g. office supplies and credit card programs that provide green alternatives from leading edge suppliers and a reduction in time and trips made by staff to efficiently and cost effectively acquire some goods and services.
- Surplus property and scrap was managed with the goal of repurposing/reusing to internal County departments or made available to community based organizations; responsibly recycling; or scrapping.
- 98,180 pounds of metal was recycled locally.
- 47,071 pounds of electronic waste was recycled locally
- 826 pounds of glass, cans and bottles were collected and recycled from the Administration Building.
- 397 toner and ink cartridges were picked up and properly recycled from the Administration Building.
- 61,328 pounds of paper was picked up and properly recycled from the Administration Building.

Sheriff's Office

The Sheriff's Office has continued its efforts in being a "green" agency in the following areas:

- We purchase acid free cleaning products.
- The Distribution Center recycles cardboard, pallets, scrap metal, plastic and aluminum.
- Garden waste is collected for composting on site. This compost is later distributed throughout the facility grounds. This is a cost savings, as we don't have to pay for its removal.
- The Body Shop program uses waterborne based paints, which significantly reduce emissions.
- Whenever possible, the first choice is to purchase recycled toner cartridges. Old cartridges are recycled.
- Printing e-mails or other documents is encouraged only when absolutely necessary. Copiers are set to make two sided copies. Copiers are set in "energy saver" mode when not in use.
- The Upholstery shop offers services throughout the county to agencies and companies to refurbish furniture. At a cost savings to the agencies that utilize the service.
- Energy conservation is practiced by turning off lights and/or appliances not being used.
- Recycling containers for batteries, bottles and cans are placed strategically throughout the office.

Savings Summary

In 2011 the County has identified savings of hundreds of thousands by purchasing environmentally preferable products and by reduction, reuse, and/or recycling. Exact amounts are difficult to capture across the board for all items and areas, and where relevant data is unknown attempts will continue to the extent possible for subsequent annual reports. Revenue of \$50,439 for the sale of shredded paper (302 tons) and \$1,251 for scrap metal was also collected.

The Environmental Purchasing Program has helped agencies identify opportunities to purchase environmentally preferable products that not only perform well but also save money. In some cases the product simply costs less, while in other cases savings are achieved through avoided costs because the alternative product is more durable or more maintenance free. Examples:

- locally made and available recycled paint costs less and is of better quality;
- the cost of a remanufactured toner cartridge is often less than one-half the cost of a new cartridge;
- lumber made from recycled plastic avoids the consumption of virgin timber and can last longer;
- and it costs half as much to retread a worn tire as to buy a new one; in addition it only takes seven gallons of oil to produce retread vs. twenty-two gallons for a new one; and it helps divert thousands of tires from costly disposal.

Other areas of savings include a continued major shift by departments to document imaging, reducing the amount of physical space required to store paper documents and lessening the amount of time needed for retrieval. Energy savings and reduced water consumption are also significant areas where the County has achieved much success. As data becomes known, more specific information will be included in future reports.

Working with our office supply contractor we have identified environmentally preferable products that cost less that are now defaulted as standard items when orders are placed county-wide. It is anticipated that this more proactive approach during the next twelve months will save additional dollars and reduce carbon footprint.

Supporting Program Elements

The Environmental Purchasing Program helps County agencies develop practical ways to use recycled and

other environmentally preferable products and processes through several program elements.

Green Committee

The County's Green Committee will continue to grow, using a network of liaisons from departments and other outside agencies to provide direction and information on environmentally preferable products and processes. These liaisons will allow us to reach the people who do the daily work and who can help us understand the roles and functions within each unit. This allows us to communicate new evaluation opportunities, institutionalize the routine use of these materials, and share evaluation results and specifications among agencies. Successes can be celebrated, recognized and serve to acknowledge and demonstrate leadership to all.

Since the initial meeting in May of 2009, the Committee has discussed several topics and reviewed policy and direction. Several presentations have been made to the Committee from some key suppliers and other organizations, on topics ranging from office supplies and paper, environmentally preferable purchasing, copiers and document management, to activities related to the Greater Stockton Chamber of Commerce's "Green Team San Joaquin." Services are also looked at with an eye toward "green" practices that lessen equipment use, utilize less energy, lower carbon footprints and more.

Website

In 2009 a subcommittee was established to draft and provide for review and comment initial internal and external web pages that will serve as effective resources for staff and the public. This now established public web presence also provides links to other resources, ideas for sustainability, our policy, other information and opportunity for feedback. Great progress has been made recently on updating the site. In addition, social media sites are also being explored for green communications between agencies and the public. A significant upgrade and refresh of the website is scheduled as a goal this year.

Local Community/Suppliers

The local community should be looking to the County as a key resource for information on environmentally preferable purchasing. We have had many successful programs in place for years, and we will continue to demonstrate this leadership in the future. Suppliers, especially local vendors, are key to keeping us informed and are needed to partner with the County to achieve our goals. We will keep open lines of communication to collaborate towards establishing and meeting target goals and objectives.

One example of supplier involvement is contact and discussion via participation in annual trade shows, expositions and the like. When possible, staff attends and participates in relevant events, including the San Joaquin Green Team, the annual Recycling Product Exposition (REXPO), the State Green California Summit, the Responsible Purchasing Network, and more. Symposiums take place on topics such as sustainability, print/paper use reduction, environmentally preferred products and practices, productivity tips, and ergonomics.

Through association with the California Product Stewardship Council (CPSC), the County actively works to promote Extended Producer Responsibility (EPR) in California. EPR, or Product Stewardship, requires product manufacturers, government agencies, and consumers to share the responsibility of reducing the impact of product waste on our environment through all phases of the product's lifecycle, from better design to recycling programs. Kimbra Andrews, the Management Analyst administering the County's Hazardous Waste and Electronic Waste Recycling Programs, serves on CPSC's Board of Directors.

General Summary

Partnerships and sharing of knowledge with others including the public, our employees, Chambers of

Commerce, City of Stockton, local colleges, and local suppliers will benefit all concerned. These partnerships and exchanges are key to ongoing success. Goals, objectives, and measurements are occurring. Recognition of successes and getting the word out will help in sustainability efforts and demonstrate the strong leadership needed to achieve local, regional, statewide, federal and global success in environmental stewardship. Reduced funding, staffing and other resources presents us with challenges to making greater progress, but great progress has been made over the years and progress will continue into the foreseeable future.

Our motto remains: Green purchasing is smart purchasing.



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