



THE BOTTOM LINE

“profitability through sound environmental practices”

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MacRostie and Ravenswood Join Efforts in Wastewater Pretreatment System

MacRostie and Ravenswood Wineries are successfully operating a system devised to pre-treat the wastewater-streams of their Sonoma wineries. The two wineries have joined to form the Carneros Warehouse Winery Wastewater Group in response to pre-treatment water requirements in their Eighth Street Complex.

“It made sense to pool resources and brains to address this new technological challenge,” says Steve MacRostie, owner and winemaker of MacRostie Winery. Members of the Carneros Warehouse Winery Wastewater Group met several times to make a simple operating agreement.

Representatives of the MacRostie and Ravenswood Wineries jointly operate the pre-treatment water system, assess its member wineries for the costs of its operation, report the costs of operations to its members and report the qualitative results of the operation to Sonoma County Water Agency representatives.

The partnership between the wineries is simple. A Ravenswood representative provides the technical and mechanical expertise while a representative from MacRostie does the reporting and the administrative work.

“It is possible to find effective solutions to difficult environmental problems in innovative ways,” says MacRostie.

The pretreatment waste water system is a four-tank arrangement with a 36,150-gallon capacity. The four-tank system includes an aerobic and an anaerobic digester that work in sequence much like a pond system to degrade the biochemical elements in the wastewater.

Another component is a means of neutralizing the acidic balance of the winery effluent through the use of a pH-controlled introduction of caustic soda into the effluent as it enters the pretreatment system. Careful,

“It is possible to find effective solutions to difficult environmental problems in innovative ways.” Steve MacRostie, Owner and Winemaker

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North Bay Printer Goes Solar

ChromaGraphics, one of the fastest-growing North Bay printing companies has announced the installation and commissioning of a 10 kw photovoltaic solar electric system at their facility in Santa Rosa, California. The “E” shaped array consists of a 100-125 watt Kyocera high efficiency module. The net system output is enough to offset up to 15% of the annual electricity consumption while significantly reducing utility charges for their peak load demand.

ChromaGraphics was founded in 1975 by Walt & Donna Janssen and Don & Sandra

Herman. After a few years, ChromaGraphics outgrew the small 1,000 square foot building and moved into a larger facility in the Santa Rosa Business Park. “This diversification, did and still does provide an edge against our competition,” says Eric Janssen, Vice-President and Co-Owner. It wasn’t until 1995 that ChromaGraphics moved to its present facility of 17,000 square feet.

The solar electric system project was designed and managed by FRESH Energy Systems of Cobb, California.



PROFITABILITY THROUGH SOUND ENVIRONMENTAL PRACTICES

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A project developed by the
Sonoma County Economic
Development Board

SRJC Shows Commitment Through Environmental Initiatives

The Santa Rosa Junior College has been producing solar electricity since mid October of last year. By going solar, the Santa Rosa Junior College (SRJC) has earned a total of \$632,000 in rebates from PG&E. The SRJC accepted the PG&E rebate from their Board of Directors in November.

SRJC's solar array is composed of 116 panels producing 80 kW of total output. The photovoltaic (PV) panels sit on top of Lounibos Hall and generate enough power to supply electricity to about 80 average homes. The system was designed by North Bay Energy Services and managed by Atlas Pelizzari Electric.

Initial figures for the project showed cost-savings of \$30-\$40,000 a year in electricity. Payback for the project is projected at approximately 9 years.

Director of Facilities Operations Jay Carpenter says, "Not only will this sys-

tem help Santa Rosa Junior College save money, but it also modernizes our campus. Implementation of the solar system shows our commitment to the community and helps to increase awareness both among students and staff."

Besides implementation of the PV system, there have been numerous energy conservation upgrades campus-wide. These upgrades include installation of interior motion sensors to control interior

lighting. SRJC is currently looking into the possibility of implementing a large PV system at the new Doyle library.

Other environmental initiatives undertaken by the college include LEED

certification with the SRJC's new construction efforts as well as continual replacement of roofs with "cool roofs." Cool roofs are known for reducing the heat-island effect and for its energy savings.

Expected cost-savings of \$30-\$40,000 a year in electricity.



BEA and Cisco Systems Launch SURE! Project

The Business Environmental Alliance (BEA) and Cisco Systems in Petaluma have formed a public-private partnership to pilot a new project. SURE! (Simple Undertakings to Relieve the Environment) is an electronic-based project designed to provide information on low or no-cost actions that individuals can take to improve the environment.

The program is an electronically distributed, one page, weekly tip containing suggestions for how employees (and their families) can practice conservation and reduce their impact on the environment.

For more information on the SURE! Project, please contact Efren Carrillo by phone at (707)565-7257 or email at bea@sonoma-county.org

Green Suppliers Network: An Industry-Government Collaboration

The Green Suppliers Network (GSN) is an umbrella program under which several partnerships will be conducted. The Suppliers' Partnership for the Environment, an automotive trade association, is the first such partnership and one that is exclusively centered on the automobile supply chain. GSN is the evolution and replication of the automobile model to other industry sectors.

GSN, a collaborative venture between industry, the EPA and the national account brand of the NIST (360vu) Manufacturing Extension Partnership (MEP), works with all levels of the manufacturing supply chain to achieve environmental and economic benefits.

GSN improves performance, minimizes waste generation and re-



moves institutional roadblocks. It achieves this by leveraging a national network of manufacturing technical assistance resources. With GSN support, suppliers can continuously improve their products and processes, increase energy efficiency, identify cost-saving opportunities, and optimize resources and technologies with

the aim of eliminating waste.

Key GSN features include:

Technical Reviews

A local 360vu MEP center will perform industry-specific, one-on-one reviews at the supplier's manufacturing facility. 360vu centers are responsible for providing business-focused solutions to industry processes as well as addressing environmental concerns. State environmental technical assistance offices provide additional support. EPA is not involved in any on-site technical assistance.

Lean and Clean

Using Lean & Clean manufacturing practices, your GSN review team will focus on incorporating energy and materials efficiency and process optimization into the supply chain, which in turn can lead to substantial environmental and economic benefits. The 360vu Review will produce process and value stream maps of a selected process.

Outreach

By partnering with and working through leading companies, the GSN approach can reach all tiers of the supply chain.

Metrics

Aggregate economic and environmental benefits are quantified through the simple and hassle-free data collection and reporting capabilities of

360vu Centers.

Continuous improvement

GSN establishes a permanent delivery mechanism to engage manufacturers and their suppliers in continuous environmental/economic improvement.

Removing Obstacles

GSN encourages suppliers to identify obstacles such as out-dated specifications or regulations, and provides a forum for identifying options for change.

Partnerships

GSN will partner with state, local and other federal agencies to bring the best technical, financial and research assistance to participating companies. GSN, which was piloted in the automotive industry, is reaching out to suppliers in the aerospace and healthcare industries. That model will continue to expand into additional industry sectors such as appliances, consumer products, and heavy equipment.

For additional information, please contact: Kris Pierre, Program Director, Green Suppliers Network at 202-564-8837 / pierre.kristin@epa.gov or Mark Schmit, Manager, NIST MEP National Accounts at (301)975-3255 / mark.schmit@nist.gov.

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slow throughput of 2 to 3 gallons per minute allows maintenance of a healthy population of microbes in the digesters. "The system is discharging water well within the specifications required by the County Water Agency of 1200 parts per million total suspended solids and 1200 parts per million bio-chemical oxidation demand," adds MacRostie.

MacRostie Winery and Vineyards is also currently working on a sustainable farming initiative in its estate at Wildcat Mountain in Carneros, and reports it is producing compelling wines from that vineyard.

For more information regarding wastewater treatment opportunities you are encouraged to visit the Carneros Warehouse Winery Wastewater Group facility, or contact Matt Wheeler at Wallace Swanson International at (925) 228-5801.

Developing an Effective Environmental Policy Statement

This guide will help you review the key elements for your company's environmental concerns, develop an environmental policy statement and determine the scope of your business goals. If you have never considered developing an environmental policy statement, now could be a good time to start.

What is an Environmental Policy Statement?

An environmental policy statement is a set of fundamental goals and principles which helps your company put its environmental commitments into practice. It is your company's declaration of commitment to the environment and its continual improvement.

It provides a unifying vision of environmental principles that will guide the actions of employees and management. It spells out to your staff, suppliers, customers, shareholders, directors and the community where the company stands on environmental matters.

Why is an environmental policy statement valuable to my business?

Your company may not realize the full cost of its environmental impact. Just think about how much energy and water you use, the purchases you make, and the waste produced. Good environmental management can be a valuable investment in efficiency and could pay significant dividends to your company by reducing your overhead and boosting your bottom line.



Who should be involved?

To ensure success in your environmental policy statement, the statement needs to be truly company-wide. Input from a range of people in your organization should increase commitment and ownership of your company's environmental policy statement.

Commitment to environmental improvement is central and needs to come from the organization's leadership. The organization's leadership should define the company's environmental policy statement to ensure that:

- The environmental policy statement be communicated to all employees
- Everyone in the organization understands the environmental policy statement and what is expected of them
- The environmental policy statement be made available to the public

How do I get started?

As a first step, your company should document its existing commitments to sound environmental practices. It is likely that your company already has an environmental policy, even if it is not written. At a minimum, your company may already be committed to compliance of major environmental concerns.



As a second step, your policy should be related to your product and services. Keep your policy simple and understandable. Address your list of specific issues in general terms in your policy statement. For example, if chemicals in your water or air are a concern because they potentially impact the community, you could express a commitment to review, and where feasible, make changes in the chemicals used by your company.

Key Elements of the Statement

An environmental policy statement should clearly outline the company's commitment to environmental improvement. This section describes four key elements that will form the core of an effective policy statement. While there are several elements that could potentially be included, the following elements will be critical in the success of your policy statement.

Legal Compliance

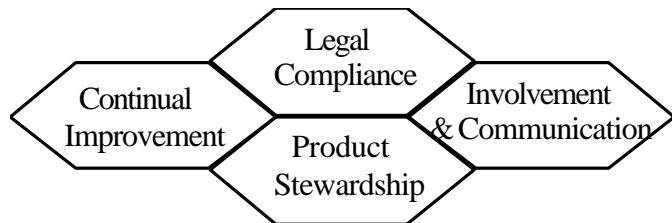
Compliance with legal requirements is a critical consideration in developing your policy statement. You will need to identify and ensure access to relevant laws and regulations, as well as other requirements to which your organization adheres. Any environmental policy statement should note that your company will strive to meet or exceed all applicable regulations.

Environmental regulations, laws and codes of practice will be regarded as setting the minimum standards of environmental performance.

Product Stewardship

The written commitment should make reference to implementation of measures necessary to reduce, prevent or eliminate environmental hazards and pressure. Objectives and targets may include reducing waste and the consumption of resources and/or re-designing of products to minimize their environmental impact at all stages of their life cycle— from design, to manufacturing, to customer use, and finally to disposal.

We will employ procedures specifically designed to prevent activities and/or conditions that pose a threat to human health, safety or the environment.



Continual Improvement

Having recognized that the company has impact on the environment, it is important to convey in the opening statement that the organization’s leadership is committed to a program of continual improvement.

We will employ procedures specifically designed to prevent activities and/or conditions that pose a threat to human health, safety or the environment.

Involvement & Communication

You should reference your company’s commitment to incorporating employee and customer input in your policy statement. A written statement should be made documenting that your company will communicate its environmental goals to employees, customers and other stakeholders.

We will communicate our commitment to our company’s quality to our employees and customers. We will solicit their input in meeting our environmental goals.

Environmental Policy Statement Checklist

- Our policy statement is defined by management
- Our employees participated in defining the policy
- Our employees are informed about the policy
- Our policy covers compliance with environmental legislation
- Our policy covers our commitment to continual improvement
- Our policy covers the four key elements

Environmental Policy Statement Policy Sample



Y.O.U.R. INC.

Y.O.U.R. Company is committed to managing environmental matters as an integral part of our business. In particular, it is our policy to assure the environmental integrity of our processes and facilities at all times and at all places. We will do so by adhering to the following principles:

Legal Compliance

Our products and operations will comply with all applicable regulations and requirements.

Product Stewardship

We will employ management systems and procedures specifically designed to minimize the use of hazardous materials, energy and other natural resources, to minimize the generation of waste, and to enable recycling and reuse of materials.

Continual Improvement

We will continuously seek opportunities to improve environmental performance by establishing objectives and targets, measuring progress, and reporting our results.

Involvement and Communication

We will promote participation and communicate our commitment to responsible environmental management by:

- Promoting environmental responsibility among our employees by providing the necessary training and support to enable them to implement this policy.
- Informing suppliers of our environmental policy and encourage them to adopt effective environmental management practices.
- Soliciting the input from our employees, suppliers and customers in meeting our environmental goals and in turn offer assistance to meet their goals.

Pat Smith

Pat Smith, President, Y.O.U.R. Company

We would like to thank the following:

- www.inem.org/emas-toolkit/
- <http://writing.colostate.edu/references/documents/policy/>
- <http://www.epa.gov/opptintr/dfe/pubs/iems/tools/policy.pdf>
- <http://www.epa.gov/OW-OWM.html/iso14001/ems2001final.doc>

The forgoing information on environmental policy statements is presented for the convenience of the reader. The information provided here is not intended to replace an EMS strategy and should not be used as the sole source for environmental strategies. You should perform your own research and evaluation before making any business decision.

Environmental Preferable Purchasing, Products, and Practices

Introduction to EPP

In 1998, federal Executive Order 13101 required federal agencies to “green the government” through waste prevention and recycling and to expand markets for such products. In a nutshell, it states that environment + price + performance = EPP or Environmentally Preferable Purchasing.

Thus, environmental factors are to be included in normal purchasing practices as well as the typical considerations of safety, price, performance, and availability.

Environmental Factors

EPP in general pertains to waste and toxics reductions. Incineration puts toxics into our breathable air and still leaves toxic concentrated residues. Landfills con-

tain toxic stew of rain-soaked decomposing chemical trash. EPP considers the life cycle of products from use of nonrenewable or renewable natural materials, energy use, toxics created in manufacturing, water and air conservation, and deconstruction and disposal.

Multiple factors are compared and considered in minimizing these product impacts on the environment and human health. Certification and labeling is also underscored to assure that products live up to the environmentally preferred claims made about them.

Who is involved with EPP?

The EPP program is used by General Service Administration (GSA) agencies as well as by the Department of Defense. The program also is spreading to states, counties, and cities around the globe, as well as businesses and the pri-

vate sector in general.

Collection of Resources

The list below is an abbreviated list of resources to help municipalities, businesses, and households note the benefits of environmentally preferable purchasing, products, and practices. The listings are a collection of local and regional, national, and even international resources. These suggested measures can reduce costs as well.

The following list provides a foundation from which you can link to other resources and opportunities.

The information provided here is not intended to replace an EPP strategy and should not be used as the sole source for environmental strategies. You should perform your own research and evaluation before making any business decision.

Abbreviated Index of Resources for Environmental Preferable Purchasing

Agriculture

- SonomaZone: www.sonomazone.com/
- Sustainable Ag Network: www.sare.org/

Building and Construction

- SSU Env. Tech Cntr: www.sonoma.edu/ensp/etc
- US Green Building Council: www.usgbc.org/

Certification

- Green Seal: www.greenseal.org/
- Green Business Prgm: www.greenbiz.abag.ca.gov/
- GEN Eco-labeling: www.gen.gr.jp/whats.html

Food Service

- Eco-Desk Food Waste Composting Program: www.recyclenow.org/b_restaurant.html
- Green Rest. Certification: www.dinegreen.com/

Hazardous Material

- Eco-Desk Hazardous Waste and Disposal: www.recyclenow.org/b_hazardous.html
- Pollution Prevention: www.p2rx.org/

Landscaping

- Xeriscaping: www.ciwmb.ca.gov/organics/xeriscaping/
- T.R.E.E.S. Project: www.treepeople.org/trees/demo

Materials Acquisition, Exchange, Supplies

- SonoMax: www.recyclenow.org/sonomax/
- EPA Supplier Database: www.ergweb2.com/cpg/user/cpg_search.cfm
- USDA's BBCC: www.ars.usda.gov/bbcc/

Purchasing and Procurement Resources

- So.County: www.sonoma-county.org/general/purchase
- Procurement Policies for governments and businesses: www.arcadian.com.au/buyrecycled.htm

Tourism

- Green Seal Lodging Program: www.greenseal.org/greeninglodge.htm
- California Guide to EPP Lodging: www.ciwmb.ca.gov/EPP/Resources/

For more information on EPP, please visit the BEA website at www.sonoma-county.org/bea or call 565-7257.

Business Water Project

The Business Water Project (BWP) helps Sonoma County businesses improve their bottom line by adopting water-efficient, cost-effective practices.

The program follows four steps, making it easy for businesses to lower their costs by voluntarily reducing their water usage as well as their wastewater production (including reducing levels of Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) present in wastewater).

Step 1: A free Water-Usage Assessment conducted by a qualified independent contractor chosen by each business.

Step 2: A voluntary Action Plan for the reduction of water use and wastewater production (as well as TSS and BOD), focusing on ways the business can lower water and wastewater bills.

Step 3: Post-assessment assistance to help put water and wastewater reduction ideas into practice.

Step 4: Public awareness campaign highlighting participating businesses and their contributions to a water-efficient Sonoma County.

Since its creation in mid-2002, the BWP has helped eighteen Sonoma County businesses identify their current water-related costs and their opportunities to save money through water conservation. Highlights of the findings include:

- Installing water-efficient spray nozzles on kitchen sprayers could save a Windsor grocery store as much as \$5,000 per year in water and sewer charges, for an initial investment of less than \$500.
- A “no-cost” solution of adjusting the settings on a small Sonoma hotel’s laundry cycles has led to a reduction in water usage that could add up to \$250 per year in savings.
- A new high-efficiency washing machine could save a Petaluma athletic club approximately \$1,800 per year in water and sewer charges. The City of Petaluma is offering rebates on high-efficiency washers for commercial customers.
- By replacing four old toilets with new ultra-low flow models, a Sonoma hotel could save \$430 per year. The Sonoma Valley County Sanitation District is offering rebates on ULF toilets for commercial customers.

Business Financing

The California State’s Commerce and Economic Development Program has a number of financial assistance programs to help your business achieve its environmental goals. Here are four programs that may help your business improve its bottom line.

Pollution Control Financing

- The Pollution Control Financing Authority, located in the State Treasurer’s Office, provides businesses in California with an affordable method of financing pollution abatement equipment, waste disposal and resource recovery facilities for the management of environmental pollution hazards.

Environmental Loans

- There are various loan programs to help companies clean up the environment and implement environmentally friendly programs.

Hazardous Waste Reduction Loans

- Hazardous Waste Reduction Loans assist small businesses to reduce waste generation or to reduce the hazardous properties of waste generated through the acquisition or installation of equipment, facilities or use of different processes for this program.

Recycling Loans

- Any business or local government agency located in a Recycling Zone utilizing post-consumer or secondary waste material in their production process may apply for a recycling loan.

For more information regarding these programs, please visit the State’s Commerce and Economic Development Program at www.commerce.ca.gov or call (916) 324-6992.

PROFITABILITY THROUGH SOUND ENVIRONMENTAL PRACTICES

www.sonoma-county.org/beat



THE BOTTOM LINE

The Business Water Project has helped eighteen Sonoma County businesses identify their current water-related costs and their opportunities to save money through water conservation. Highlights of the findings include:

- ◆ Installing water-efficient spray nozzles could save a Windsor grocery store as much as **\$5,000 per year in water and sewer charges**, for an initial investment of less than \$500.
- ◆ A “no-cost” solution of adjusting the settings on a small Sonoma hotel’s laundry cycles has led to a reduction in water usage that could add **up to \$250 per year in savings**.
- ◆ A new high-efficiency washing machine could save a Petaluma athletic club approximately **\$1,800 per year in water and sewer charges**.
- ◆ By replacing four old toilets with new ultra-low flow models, a Sonoma hotel could **save \$430 per year**.

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www.sonoma-county.org/bea

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