

Environmental Protection and Energy



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About NACo – The Voice of America's Counties

The National Association of Counties (NACo) is the only national organization that represents county governments in the United States. Founded in 1935, NACo provides essential services to the nation's 3,066 counties. NACo advances issues with a unified voice before the federal government, improves the public's understanding of county government, assists counties in finding and sharing innovative solutions through education and research, and provides value-added services to save counties and taxpayers money. For more information about NACo, visit www.naco.org.

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Introduction

The NACo Achievement Award Program is a non-competitive awards program which seeks to recognize innovation in county government operations. With over 20 different categories, these awards cover a wide scope of county administration, ranging from arts to information technology. This publication presents select county programs in environmental protection and energy management. Descriptions of these 2008 award winning programs will be helpful for all counties seeking to establish similar initiatives.

Healthy Garden/Healthy Home

Population: 2,813,833
San Diego County, CA

The Healthy Garden/Healthy Home Program (HGHH) is a cooperative effort between the University of California (UC) Cooperative Extension/UC Statewide Integrated Pest Management Program and the County of San Diego, specifically the County's Department of Public Works Watershed Protection Program. The program was formed to support Integrated Pest Management (IPM) outreach and education for the County's Project Clean Water program.

The HGHH program was established in 2004 when the County of San Diego was awarded a Pesticide Research and Investigation of Source and Mitigation grant from the State Water Resources Control Board. The focus of the grant was to provide IPM education and training to county residents in order to reduce the use of pesticides in and around homes, and consequently, reduce the amount of home-use pesticides entering the local waterways.

A telephone survey conducted by the University of California Cooperative Extension's researchers found that 68 percent of households consider themselves to be gardening homes. Rainfall and runoff from irrigated landscapes transport a variety of pesticides into streams, lakes and bays; hindering important uses of local waterways. The goals of the program were twofold: (1) pollution prevention by educating community members and promotion of environmentally-sound behaviors in and around household yards; (2) development of a sustainable IPM education program. These goals were accomplished through the development and wide dissemination of consistent information about IPM principles and techniques pertinent to the San Diego region that aimed to encourage their adoption and application by San Diego area residents.

The program took a multi-pronged approach, employing numerous methods to reach a diverse audience. For example, Pest Tip Cards in English and Spanish were made available at several venues. Workshops were also held monthly to provide residents with the opportunity to learn from IPM experts. The most innovative aspect of the program was the development of easy-to-use kiosks with touch

screens that can be placed in high traffic areas at fairs or in stores.

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ClimateSmart Energy Sweep

Population: 291,288
Boulder County, CO

In February 2005, the Kyoto Protocol, which is an international agreement, was adopted in all developed countries except the U.S. and Japan. It set binding targets for developed countries to reduce greenhouse emissions to seven percent below 1990 levels by the year 2012. While the U.S. has not ratified this protocol, 780 local governments nationwide have already passed resolutions pledging to reduce greenhouse gas emissions from their government operations and throughout their communities. Boulder County and other local governments are not waiting for federal action to reduce harmful emissions.

As part of a greenhouse gas-reduction strategy, Boulder County and the City of Boulder launched the ClimateSmart Energy Sweep initiative to help bring residents on board and to provide them with the information and resources they need to take individual action. In partnership with the other municipalities in the county, the campaign includes a Web site designed to provide educational information and solicit individual pledges for what people are willing to do to reduce their own carbon footprints. Since its launch in September, more than 270 individuals and 100 businesses have pledged to reduce greenhouse gas emissions through the website.

One branch of the ClimateSmart initiative is a program to bring energy efficiency information and resources directly to people at their homes through "Neighborhood Energy Sweeps." The Neighborhood Energy Sweeps brought energy-saving kits right to the front doors of two selected lower-income neighborhoods in the county, including areas with a high population of Spanish-speaking residents. These kits contained compact fluorescent light bulbs (CFLs), water-saving tools and energy education materials. All of these materials even came in reusable cloth bags, perfect for recipients to use for grocery shopping, thus reducing waste generated by the use of plastic bags. Teams of volunteers, students and staff went door-to-door to neighborhoods in Boulder and Longmont, Colorado to deliver nearly 700 of these energy-saving kits. Kits were delivered by foot, bike and hybrid vehicle, keeping in line with the goal of carbon footprint reduction.

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Innovations in Managing Unconventional Household Hazardous Wastes

Population: 217,955
 Alachua County, FL

Alachua County's Innovations in Managing Unconventional Household Hazardous Wastes program was created to address current, newly emerging and legacy unconventional hazardous waste disposal issues in the area of electronic scrap (E-scrap), pharmaceutical waste disposal and home heating oil collection. The collection programs addressed each unconventional waste stream emerging issue with an emphasis on cost effectiveness for new and existing programs. Cost reduction improvements for E-scrap disposal were implemented. Unique new continuing services in the areas of pharmaceutical waste and home heating oil collection were developed by cross-training and utilizing existing county staff and lower community resources. Start-up funding was provided by state grants.

Proper disposal of E-scrap is needed because of the toxic metal content of this waste. Factors driving the E-scrap explosion are the short life cycle of modern electronics as well as recent trends towards flat-screen televisions and computer monitors. The E-Scrap Initiative is a pilot program for the de-manufacturing of electronic components utilizing community service workers. The initiative involved dismantling computer towers and central processing units and then source separating their internal components into several categories.

Residual home heating oil in underground, abandoned residential tanks represented a legacy issue, which needed a cost effective solution due to the threat to local groundwater resources posed by leaking heating oil. The lack of a convenient, affordable service to homeowners for the pump out of the heating oil from residential tanks for proper disposal required a solution. The Home Heating Oil Collection Initiative was started to remove abandoned heating oil tanks as a free service to homeowners. Residents just have to fill out an application package and the Environmental Protection Department will come and pump out the fuel oil and transport it for proper recycling.

Finally, disposal of unwanted pharmaceuticals is a new, emerging waste issue driven by growing national concern about impacts of low-level pharmaceutical related chemicals in the environment. Improper disposal by residents

is problematic. The Unwanted Pharmaceutical Disposal Initiative placed a lined steel solvent container with a funnel opening that was filled with a weakly acidic solution in selected pharmacies and retail locations in the county. Residents were instructed to pour their medicines into the container and to take their labeled medicine bottles with them.

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Designing & Operating a State-of-the-Art County Water Quality Laboratory

Population: 451,086
 Johnson County, Kansas

The Johnson County Water Quality Laboratory, a division of the Environmental Department, operated in a cramped and inefficient facility in a waste water treatment plant from 1967 until September 2006. By 2003, the aging infrastructure and inefficient design of the old lab had become a major limitation. Johnson County leadership felt that the county should build and own a new environmental laboratory designed to meet its needs for at least 25 years and be incorporated into a new "green" office building. A number of people, both within and outside of county government, collaborated in designing and producing an 8,800 square foot state-of-the-art environmental laboratory. The dedication and expertise of the lab's director were central to this process.

Planning for the new laboratory included updating nearly every process of analysis and communication of data involved in the operation of an environmental lab. The plan had components facilitating extensive automation and sustainable processes to increase efficiency, reduce waste and save on labor.

The new lab project provided an opportunity to create a new lab management paradigm. The lab had been drowning in paper, so a nearly paperless operating system was designed around the laboratory information management system. This system was shared with the Johnson County Waste Water Department, which gained access to all lab data and the ability to perform archival data searches and create reports or track operational parameters.

The new lab was designed to be a "best fit" for each Lab Technician's routine duties through an analysis of the "orbit of movement" required for each job. Counter heights and placement, knee holes, storage spaces, incubators, water, sinks, vacuum sources and ovens were all placed for

maximum utility to the operator. Sample and supply flow patterns were used to design the floor plan, the work island placement and the lighting.

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The Growing Home Campaign

Population: 754,292
Baltimore County, MD

The Growing Home Campaign is an innovative market based approach for expanding urban tree canopy on private residential properties for multiple environmental and socioeconomic benefits. As a successful partnership between Baltimore County and local retail nurseries, garden centers and homeowners, the campaign's goal is to motivate homeowners to plant 10,000 new trees. Growing Home addresses behavior change through (1) targeted homeowner education about planting native and other selected urban-tolerant trees in private yards, including the energy and other benefits of planting trees, recommendations for species selection, and guidance on planting and care of young trees, and (2) a financial incentive in the form of a 10 dollar coupon redeemable as a point-of-purchase discount from participating area nurseries and garden centers toward the cost of a qualifying tree costing 25 dollars or more. By reimbursing retailers for half of the coupon cost, the county utilizes the coupon data to track the success of the campaign for adding trees to targeted tree deficient areas.

Homeowner outreach for the campaign includes an extensive network of watershed and environmental organizations, community associations, realtors, commercial media, participating retailers, and county agencies, such as: schools, libraries, senior centers, parks and recreation facilities. The county website is also an important resource for disseminating information about the program.

Baltimore County provides five dollars of the ten dollar discount. Participating retailers provide an equal match to the county discount in exchange for the benefits of participating as a designated Growing Home retailer. With county promotion of Growing Home, retailers benefit from the advertising campaign that acknowledges their participation in Bay-related restoration and brings customers into their establishments. The coupon concept is designed to provide a sufficient market incentive for citizens to purchase and plant trees in their yards. In this three-way partnership between the county, retailers, and homeowners, trees can be added in significant numbers to contribute to improved air and water quality, urban wildlife habitat and aesthetics. Ur-

ban trees, as documented by analytical tools such as American Forests' City Green, also provide significant long-term energy savings for residents when properly sited. It has also been well-documented that trees add to the value of residential properties.

To date, the campaign has leveraged 18 dollars of private sector investment for every dollar of county cost-share for coupons.

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Clean Energy Rewards Program

Population: 873,341
Montgomery County, MD

Despite the growing popularity of renewable energy supply, such as wind, solar, and biomass, there remains awareness and cost barriers which prevent people from purchasing it for their homes and businesses. Montgomery County, Maryland's Clean Energy Rewards Program not only promotes the benefits of renewable energy to citizens but emphasizes user friendliness and low cost. The program works with private sector energy suppliers to allow citizens to purchase county-certified renewable energy for homes and businesses directly through their utility bills. The program also provides citizens with financial rebates to reduce the cost if purchased.

The Clean Energy Rewards Program tracks reduced greenhouse gas emissions through actual purchases of renewable energy certificate (REC) products. As one component of a strategy to reduce carbon emissions, this program is extremely cost-effective. The county worked with energy suppliers and REC marketers to review their renewable energy purchasing options (called products) and help develop the county's program design and marketing strategy.

The county's program certifies products from energy suppliers and REC marketers as eligible for the county's financial incentive. All energy suppliers and REC marketers whose products met the requirements of the Clean Energy Rewards Program were solicited to participate and apply to become a county program-certified supplier. Certified products were identified by November 2006.

Throughout 2007, Montgomery County's program led to a six-fold increase in use by county residents and businesses that purchased clean, renewable energy, curbing carbon emissions by 11,500 tons. The county's energy-certification process ensures that the renewable energy is regionally-sourced, which promotes regional market growth in

renewable energy and improves air quality in this airshed. The program has also proven to be a cost-effective strategy to reduce carbon emissions that are responsible for climate change.

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Road Salt Management Program

Population: 238,314
Ottawa County, MI

The Road Salt Management Program was created to address the environmental impacts of road salt. The Ottawa County Planning Commission appointed a 16-member commission in May 2004, to assist the Ottawa County Road Commission (OCRC) in developing a Road Salt Management Plan to reduce road salt usage while maintaining safe road conditions. The plan is the result of a collaborative effort between the blueberry industry and the County Road Commission, as well as representatives from state, county, and non-profit agencies responsible for and interested in road and environmental issues. Initial tests have led to a reduction of sodium and chloride in several monitoring wells located in areas with reduced salt application.

The Road Salt Commission, the 16-member commission created to help the OCRC, wrote the report, "Recommendations for Salt Management." This report set a salt reduction goal for the county as a whole, as well as a salt reduction goal for environmentally sensitive areas. The goal for the county as a whole is to decrease the total amount of salt applied to all roads within the county by 25 percent within five years of the program's implementation.

The goal for the environmentally sensitive areas is to reduce the amount of salt applied by 75 percent over three years. Environmentally sensitive areas are marked by signs located just outside of the designated areas. The signs provide a reminder to snow plow drivers to reduce their salt application rates at those locations and alert the public of the reduced salt application in that area.

The OCRC integrated several of those recommendations into their own report titled, "Salt Management Plan." During the first three winters of this plan, the use of salt was reduced by approximately five percent or approximately 25.7 tons per salting occurrence, with no significant increase in the number of accidents. The OCRC also designated an "Integrated Road Salt Manager" to develop and oversee the implementation of the Road Salt Management Program.

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Multicultural Education and Outreach

Population: 1,116,200
Hennepin County, MN

Interest and concern around topics such as responsible waste management, toxicity reduction, global warming, and sustainability are growing. A challenge faced by the Hennepin County Department of Environmental Services (DES) is to produce and communicate useful, beneficial information to its customers and partners and to overcome barriers faced by non-English speaking and diverse communities who may require attention to cultural differences in how they receive, accept and use the information. DES has created a Multicultural Education and Outreach element to its environmental education and outreach effort to provide a connection to the diverse non-English speaking and underserved populations.

The service programs provided by DES through its staff are as follows: waste reduction and recycling; resource recovery; properly managing hazardous waste; air and energy; natural resources; and contaminated lands. DES recognizes the demographic changes occurring within Hennepin County. The Multicultural Education and Outreach Initiative strives to provide culturally sensitive literature in multiple languages that will engage the limited english-speaking communities and diverse populations while providing the above needed programs.

The Multicultural Education and Outreach staff has cultural and linguistic experience to facilitate education across the department, to its partners and customers. Staff provides assistance to customers as they navigate through service programs, develop understanding of environmental stewardship and connect with appropriate resources. The outreach work enables all citizens to understand DES' services in a native language and culturally pertinent manner by creating and/or using existing acceptable written and oral educational information, community presentations or trainings. This results in more self-sufficient retrieval of services and information and also impacts attitudes, behaviors, and lifestyles in communities previously unreachable.

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Agricultural Stewardship Program

Population: 1,419,369
Suffolk County, NY

Concerns about agricultural contaminants in ground and surface water were addressed by the Suffolk County Legislature in May 2004. Legislation was introduced and adopted to provide funding through the Suffolk County Water Protection Funds for development of a voluntary, incentive-based management plan to address fertilizer and pesticide leaching and runoff into ground and surface waters. Suffolk County Legislature designated Cornell Cooperative Extension as the coordinating agency to work in conjunction with Suffolk County Soil and Water Conservation District and the United States Department of Agriculture's Natural Resources Conservation Service. This collaboration was formed to provide cutting-edge research, education programs, technical advice, conservation planning, on-farm demonstration projects, and cost share initiatives.

The Agricultural Stewardship Program is modeled after New York State's Agricultural Environmental Management (AEM) Program that assists farmers in identifying practices with high potential for environmental risk. The Agricultural Stewardship Program provides alternative practices to reduce or eliminate the risk of environmental contamination. This whole farm management strategy actively engages the agricultural and horticultural industries in efficient and environmentally responsible crop production.

The overarching goal of the Agricultural Stewardship Program is to reduce the risk of point and non-point source contaminants to the region's sole source aquifer and concurrently promote the continued viability of Suffolk County's robust agricultural and horticultural industries. Since 2004, the program has used New York State's AEM five-tiered program as a foundation on which to build a comprehensive stewardship program. The program's goal is to attain 90 percent participation by farmers in Suffolk County within five years.

The Agricultural Stewardship Program has three components: Agricultural Environmental Management, federal and state grant programs, and the Environmental Education Program. These three components provide Suffolk County's commercial agricultural industry with opportunities to perfect management practices with grant and incentive monies, and with the most current research and information on crop science.

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Environmental Legacy Fund

Population: 1,419,369
Suffolk County, NY

In 2006, Suffolk County Executive Steve Levy recommended establishing, as part of the county's 2007-2009 Capital Program, the Environmental Legacy Fund. This fund would allow for the purchase of environmentally significant open space, farmlands, active parkland, and historic properties. The fund would also promote partnerships with other governmental entities and/or non-profit organizations which specialize in the acquisition of lands of this type. To be eligible for acquisition, the property is rated based upon it qualifying less than one of the identified categories. The acquisition may be in the form of a fee title or a lease interest, such as farmland development rights. The partnership requires a financial commitment from another governmental entity or non-profit organization of at least 50 percent of the total cost of the acquisition, since Suffolk County's contribution is limited to 50 percent.

Suffolk County has achieved and earned national recognition for the acquisition and preservation of environmentally sensitive lands which protect our environment and preserve the unique character of Suffolk County. Acquiring, preserving and protecting environmentally sensitive lands are especially important in light of the competitive real estate market and decreasing availability of such lands.

Because of the high price of land in Suffolk County, financial resources must be used in a creative fashion.

Leveraging funding with partnerships maximizes the county's ability to preserve and protect these environmentally sensitive lands.

The Environmental Legacy Fund provides 50 million dollars to be made available for other governmental entities and/or nonprofit groups. Their funding must be equivalent to the county's funding, or more. This creates a total of at least 100 million dollars dedicated to protecting and preserving open space, farmlands, parklands and historic properties.

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Regional EcoComplex and Resource Recovery Facility

Population: 141,685
Catawba County, NC

The purpose of Catawba County's Regional EcoComplex and Resource Recovery Facility is to promote economic development and create new jobs in the green energy, business, agricultural, and environmental sectors. The EcoComplex design provides a conduit for moving science from the lab to the real world, and promotes Western North Carolina as a center for green energy, agricultural, and environmental innovation and enterprise. The EcoComplex accommodates research involving all aspects related to biologically derived energy recovery and utilization, as well as the research of alternative fuels and minimization of greenhouse gases. This facility recovers all useable products and by-products by using shared relationships between private and public partners located in a close-knit defined area, the EcoComplex. Partners work together to use each others' waste products either as a source of energy or as a raw material for the production of their own product. In addition to these shared relationships, the EcoComplex is also focused on making and using "green" energy and on the economic development of Catawba County.

There are several partners in the shared relationships of the EcoComplex. The Blackburn Resource Recovery Facility is the largest component of the EcoComplex. It currently accepts approximately 750 tons of municipal and construction or demolition waste per day. Pallet One, Inc. is another partner in the close-knit defined area. It is the largest new pallet manufacturer in the U.S. Pallet One Inc. is currently operating at approximately 60 percent capacity and expects to reach 90 percent in its new pallet manufacturing facility and will begin recycling used pallets in the spring of 2008. Pallet One will use wood waste from Gregory Wood Products. These are two of the many partners operating together to make the EcoComplex work.

Since the implementation of this program, 154 new jobs have been created with an additional 115 jobs to follow as other entities are put into operation. In addition, the EcoComplex has also provided jobs for displaced local farmers by employing them to grow biodiesel feedstock crops that will be used by the University Research Facility.

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T.R.A.S.H. (Taking Responsible Action at School and Home)

Population: 559,062
Montgomery County, OH

The Montgomery County Solid Waste District, in collaboration with the local Boonshoft Museum of Discovery, has developed T.R.A.S.H. (Taking Responsibility Action at School and Home) as a part of the current Exhibits-To-Go program offered through Boonshoft. It is an in-school "traveling museum" that covers a variety of themes such as "Clean the Air", "Courting Justice", and "Revved Robots" among others. The program goes into the classroom to directly access each student through several interactive, hands-on activities. T.R.A.S.H. demonstrates the many processes of Recycling, Reducing, and Reusing (the "3R's"), and their effects on the planet and our environment. Students learn about renewable vs. non-renewable resources, categorize the types of recyclable materials, recognize the importance of landfills and the life cycles of various waste, and discover creative ways to recycle at home and in the classroom. Products, pictures and packaging are used to help students learn to make cents and sense by reusing.

T.R.A.S.H. is a curriculum with interactive activities that are brought directly to the school classrooms, enabling educators to introduce these important topics in an entertaining, creative and memorable manner. In addition, it fulfills the need for a means of communicating to today's youth the importance of protecting the environment and its resources as well as other ecologically-related topics. The benefits to the community are endless in that the information brought to the children is spread throughout their families and communities as well through the excitement generated by the program. Educators can take the knowledge they share with their students and expand on it by initiating in the participation of other free programs offered through the Recycling Resource Center and other environmental groups.

The program helps the county promote recycling and beautification within the local communities in Montgomery County.

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