C L E A N T E X A S
E N V I R O N M E N T A L
NEWS you can use
Texas Commission on Environmental Quality ♦ MC-113 ♦ PO Box 13087 ♦ Austin, TX 78711-3087
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Take Care of Texas— It's the only one we've got.

The TCEQ is proud to announce its new statewide public education program, Take Care of Texas, designed to involve all Texans in lifestyle and habit changes that will help improve air and water quality, conserve water and energy, reduce waste, and save individuals a little money in the process. This campaign raises awareness of how each of us can make our state a better place to live, work, and play.

How can I Take Care of Texas?

To Take Care of Texas, your first step is to learn about ways to get involved. Below are five simple tips you can do every day to help Take Care of Texas.

1. Adjust Your Thermostat

Using a programmable air-conditioning thermostat or simply adjusting your thermostat during overnight hours or when no one is at home can reduce your cooling and heating costs. To reduce energy consumption, set the thermostat at 78 degrees or higher in the summer, and at 68 degrees or lower in the winter.

2. Recycle

On average, each Texan generates about 7 pounds of garbage every day. By recycling paper, metal, plastic, and other materials, you can reduce waste, help conserve energy, and preserve our state's natural resources.

3. Wash Full Loads, with Cold Water

Washing full loads, as opposed to partial loads, of laundry can save an average household more than 3,400 gallons of water each year. If all Texas households reduced their energy and water consumption by washing only full loads of laundry with cold water, it would reduce water consumption throughout Texas by more than 27 billion gallons each year. Using cold water for laundry instead of hot or warm water can also save the average household more than $30 annually.

4. Collect and Use Rainwater

Lawn and garden watering make up nearly 40 percent of total household water use during the summer. By collecting rainwater for use on your lawn, plants, flowers, trees, and shrubs during the peak summer months, you can save 1,300 gallons of water. If all Texas households collected rainwater for their watering needs, we could keep over 10 billion gallons of water in our aquifers, lakes, and rivers.

5. Drive the Speed Limit

By slowing down and avoiding aggressive driving, you can improve your fuel economy by 5 percent if driving in town, or by up to 33 percent on the highway. Slowing down and keeping to the speed limit also helps to reduce air emissions.

For more tips, please visit our web site: <www.takecareoftexas.org>. There you'll find a variety of materials that range from general information about environmental programs to specific, step-by-step instructions that address common environmental situations.

And the Winners are…

The TCEQ congratulates the 2007 winners of the Texas Environmental Excellence Awards (TEEA). Each year, TCEQ commissioners and the governor recognize the most outstanding environmental projects in waste reduction and pollution prevention. The 2007 winners were honored in Austin during the TEEA banquet at the TCEQ's Environmental Trade Fair and Conference,on May 2.

Read about the award winners below, and get inspired!

Youth

Gulf of Mexico Foundation, Science & Spanish Club Network

An after-school club that focuses on protecting the Gulf of Mexico bridges a language-barrier by offering environmental science lessons, projects and field trips—conducted in English and Spanish—to students in coastal communities of Texas and Mexico.

In 1995, a group of school children from Mexico participated in a program to study the Gulf of Mexico. That same group of students returned to Corpus Christi in 2000 and met with students from a local middle school to learn more about coastal environmental issues. To communicate, students found it easier to speak in both Spanish and English, which inspired the creation of the Science & Spanish Club Network (SSCN).

For children, there is no cost to join a club, an economic factor that attracts a broader range of youth, many of whom do not normally participate in extracurricular activities. The SSCN helps kids develop leadership skills and remain committed to safeguarding the Gulf of Mexico for years to come.

Special Award

Center for Environmental Resource Management, El Paso

Healthy Home Environments for the Paso del Norte (HHE) has made life a little safer for thousands of low-income people who live in unincorporated subdivisions with little or no infrastructure—called colonias—in El Paso, Sunland Park, New Mexico, and Ciudad Juarez, Mexico. HHE field workers teach families who don't have potable water and sewage services how to disinfect water, make use of waterless toilets, appropriately dispose of solid waste, and how to use less-toxic alternatives for household cleaning and insect control. Over 3,700 families have been trained and more than 25,000 educational materials have been distributed.

Recently, 200 residents and community volunteers removed more than 30 tons of trash in cleanup events. Participants in the project gain an increased awareness of the relationship between people and the environment, the importance of ecological sustainability, and land protection.

Small Business

Dan Fette Builders, Inc., Denton

Dan Fette Builders, Inc. and the Denton Affordable Housing Corporation (DAHC) cooperatively developed Nevada Court, a three-acre subdivision in Denton. New homes strictly follow Dan Fette's philosophy that the construction of a home should minimize the footprint it leaves on the environment. The builder focuses every aspect of construction on "smart design," energy efficiency, and innovative uses of resources—all standard features—and prices homes affordably by comparison at almost 40 percent less than the city's average.

To reduce water usage, Fette uses a hot water on-demand system, low-flow toilets and showerheads, state-of-the-art rainwater-capture systems and xeriscaping. Finally, each home is positioned at an angle that decreases sunlight exposure during the summer and increases sunlight during the winter.

New homeowners love the smart design of their green homes, love the affordability of the homes to finally attain the American Dream, and love the environmental features that save them green dollars.

Large Business/Nontechnical

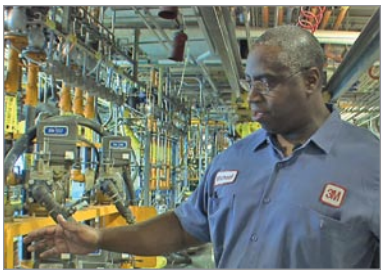
Atlas Copco Drilling Solutions, Inc., Garland

Atlas Copco Drilling Solutions, a drilling equipment manufacturer, demonstrated its commitment to the environment by spending nearly $1 million on lighting, more efficient air-conditioning systems that reduced electrical use by 25 percent and a motion-detection system that controls warehouse lighting, resulting in a savings of 2.4 million kilowatt-hours in one year.

As a manufacturer, the company tests its drill bits on huge blocks of granite, which led to scrap waste. The company sought an end-use of the materials with an organization that repurposes the scrap for road-base. A mulch manufacturer also reuses the wooden crates and wood pallets, and their cardboard is recycled into other paper products. By recycling materials, Atlas Copco's reduced its solid waste disposal amount by 65 percent. Management also found ways to cut water usage by 18 percent. Because of the savings, the company believes it will recoup its entire investment in less than three years.

Large Business/Technical

3M Company, Brownwood



Performance goals, set by 3M Corporate every five years, called for reducing emissions, material waste, and toxic and hazardous wastes, as well as improving energy efficiency and doubling pollution-prevention projects.

3M Brownwood accepted the challenge and developed strategies to successfully meet each of the targets. The team reduced volatile organic compound (VOC) emissions by 45 percent, reduced waste per pound of product by 25 percent, and improved energy efficiency per pound of product by 20 percent.

In addition, an incentive program rewards employees who develop systems that reduce or prevent pollution. Since 2001, Brownwood employees started more than 140 pollution prevention projects. These projects eliminated 398 tons of air pollution and 5,823 tons of solid/hazardous waste, and also reduced energy consumption by 150,000 MMBtu, with an annual savings of $16.3 million. Since 1990, the plant has reduced VOC air emissions by an astonishing 96 percent.

These achievements reflect the long tradition of environmental stewardship at the 3M Brownwood plant. 3M Brownwood is a Platinum member of TCEQ's CLEAN TEXAS Program, and a charter member of EPA's National Performance Track Program.

Innovative Technology
Leak Surveys, Inc., Early

After seeing first hand the threat of leaking gas, David Furry brainstormed to develop groundbreaking new technology that could detect gas-line leaks in fewer steps—literally. As a municipal gas system operator, Furry monitored gas lines for leaks and because there wasn't a more effective method, sometimes he and his crew walked the entire pipeline system—nearly 45 miles!

Furry developed the Hawk Leak Detection System, a new monitoring device that uses a cryogenically cooled infrared camera that shows leaking gas in real time. With the infrared camera mounted on a remotely controlled platform of a helicopter, workers fly at about 500 feet over the span of pipelines and quickly discover leaks. Inspections that used to take months to perform now take weeks.

In addition, businesses can use the Hawk System to detect volatile organic compound (VOC) leaks, which helps the environment through reduced emissions. This success has led businesses and environmental agencies across the United States as well as several countries to purchase the Hawk System, including the TCEQ, which currently operates three of the portable camera systems.

This new technology has changed the way businesses around the world monitor for emissions.

Gregg A. Cooke Memorial Award for Exceptional Environmental Excellence:
Sarah Metzger, Pasadena

An engineering coordinator at the City of Pasadena's Public Works department, Sarah Metzger works tirelessly to promote environmental stewardship in her community.

Metzger's greatest passion is educating others about the beautiful coastal environment in which she lives, and much of her effort is focused on schools. She gives presentations on the importance of preserving the ecosystem and guides field trips—on one outing, she led students to help mark storm drains as part of a citywide pollution-prevention program. Metzger also trains high school students on how to teach younger children about the environment.

To ensure the message lives beyond her visit, Metzger created outreach brochures, pamphlets, and videos. She began an Adopt-A-Waterway program to improve water quality, and she wrote the Construction Alliance Handbook, a pollution-prevention publication for builders in the Galveston Bay area. In the spring of 2006, she organized the city's first environmental fair.

Through her tireless volunteer efforts, Sarah Metzger has helped the people of Pasadena learn a little bit more about taking care of the world in which they live.

Individual
Rick Norwood, Fort Hood

In 2002, Rick Norwood, a retired programmer from the Texas Department of Transportation, began volunteering for The Nature Conservancy (TNC). He quickly became involved in a database development project between TNC and Fort Hood, the U.S. Army's installation near Killeen, to collect endangered songbird monitoring data.

Norwood devoted hundreds of hours to analyzing individual databases, some of which dated back to 1980. From these he created one all-encompassing program, called the Fort Hood Avian Management System, delivering the new version in 2005. He also used the same framework to develop another management database that organizes native-plant nursery information used by the conservancy's Southmost Preserve.

Today, significant populations of the endangered Black-capped Vireo and Golden-cheeked Warbler are found at Fort Hood. The Fort Hood Avian Management System facilitates the analysis of collected data, and Norwood continues to refine the program he first developed. The Nature Conservancy estimates that Norwood's volunteer work has saved the organization many hundreds of thousands in the cost of developing this important tool for monitoring and research.

Government
San Antonio River Basin Monitoring Network Partnership

With the common goal of protecting and preserving community waterways, local government, business, and community leaders in San Antonio joined forces to create an innovative network of monitoring stations in the upper San Antonio River basin called the San Antonio River Basin Monitoring Network (SARBMN). Since the fall of 2005, the program has been providing real-time data on the basin's water quality to scientists, regulators, and the public.

The program has saved the state nearly $400,000 in equipment, installation, monitoring, and maintenance costs. Currently six stations, with a seventh station pending, exist along rivers and creeks in San Antonio. This network includes one site hosted by the Witte Museum—and supported by contributions made by H-E-B and Texas Industries (TXI). As a natural science museum with a permanent water education exhibit, the Witte Museum allows school groups to experience hands-on water quality testing.

Equipment at each site measures various water quality conditions. The stations transmit readings every hour, 24-hours a day, which are posted on the TCEQ and U.S. Geological Survey web sites. If established trigger conditions are exceeded, automated e-mail messages notify staff of conditions.

The SARBMN partnership is a model for communities everywhere, demonstrating the power of working together on a common goal to benefit the community for years to come.

Education

Victoria Independent School District

Educators agree that students learn better from a hands-on experience that includes observing, investigating, and fact-finding in an exciting, natural environment. The Wetland Environmental Science Education Encounter (WE SEE) makes this possible for thousands of students through a collaborative partnership between the Victoria Independent School District and the local INVISTA manufacturing site. To date, WE SEE has educated almost 28,000 Texans about the importance of our wetlands.

WE SEE has a state-of-the-art education center located in the heart of a 53-acre wetland—a thriving ecosystem where researchers can conduct laboratory and field experiments. The center includes a partially enclosed education building where students can collect water samples from the facility's pier. WE SEE educator John Snyder assists 4th through 12th grade teachers with curriculums that cover science, nature, and environmental stewardship through hands-on investigations that correlate with state educational standards.

WE SEE serves as a model for education, industry, and government. The center hosted 3,000 business, government, and science professionals from around the world who seek to start their own wetland and environmental education programs. The wetland also helps return up to 3.2 million gallons of fresh water per day to the Guadalupe River. The center is an ongoing project, with the expectation that it will continue for as long as there is a need for environmental education.

Civic/Nonprofit

Keep El Paso Beautiful

When the Keep El Paso Beautiful organization promoted its citywide beautification program, residents wanted to participate, but many didn't own the tools necessary for routine cleanups.

By setting up public tool shed "lending libraries" across the city, the Keep El Paso Beautiful (KEPB) program empowers an entire community. Located at each El Paso Fire Department station, the sheds are open to the public, operate on a checkout system, are free, and are stocked with all the items needed for a beautification project.

The city estimates each shed contributes annually to the removal of 10 tons of trash and illegally dumped debris. The yearly beautification project of KEPB has grown from an estimated 45 cleanup projects a year in 2004 to more than 350 projects a year.

In early 2007, the program completed installing sheds at all 30 El Paso Fire Department stations, inspiring even more people to keep El Paso beautiful.

Agriculture

Texas Agricultural Experiment Station, El Paso
Project: Bacterial Source Tracking

Two state agencies tasked the Texas Agricultural Experiment Station (TAES) with using lab analysis to pinpoint whether agricultural activities, wildlife, or humans were responsible for particular bacteria found in specific watersheds. Using state-of-the-art DNA fingerprinting and antibiotic resistance typing methods for E. coli bacteria, researchers identified the sources of bacteria affecting numerous bodies of water in Texas. TAES used its cutting-edge analysis methods on water samples collected from the impaired watersheds of Lake Waco and Belton Lake, The Upper and Lower San Antonio River, Salado Creek, Leon River, and Peach Creek—all classified as "impaired" due to high levels of E. coli bacteria, potential indicators of fecal pollution.

Results showed that wildlife accounted for the greatest number of E. coli bacteria in the samples, with cattle being the second greatest contributor, and human sewage ranking third.

An additional benefit includes developing a statewide genetic library of E. coli bacteria and sharing the information with researchers across the state—and ultimately nationwide—may save millions of dollars on similar bacteria-tracking projects in the future.

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