

## Summer Brings Smog—and Energy Use

Summer brings our highest levels of smog — and energy use—of the year.

In Santa Barbara County, our peak smog season occurs from April to October. This year, April 1 marked our first smog exceedance of the year, when the Paradise Road monitoring station recorded an ozone level above the state standard. Ground-level ozone is a principal component of smog. Energy use also peaks in summer months. This can increase air pollution, as power plants operate additional hours, and standby diesel generators

are used to supply additional power.

Here are some suggestions for ways you can help keep our air clean, and our energy use down this summer.

**Drive less.** Try carpooling, biking, or taking the bus — and combine car trips when you do drive.

**Don't top off your tank.** Gasoline vapors contribute to the formation of ozone. Topping off a tank can cause gasoline spills, and damage the pump's vapor recovery system.

**Use a gas grill.** These cause much less pollution than a charcoal grill.

**Use a charcoal chimney starter if you are using a charcoal grill** and eliminate the need for lighter fluid, which releases toxic and smog-forming pollutants into the air.

**Practice Green Gardening.** If you use a landscaping service, use a certified Green Gardener (find one at [www.greengardener.org](http://www.greengardener.org)).

**Use compact fluorescent light bulbs.** These use much less

energy than incandescent bulbs.

**Keep sunny windows shaded** to reduce your need for fans or air conditioners, and make sure to air your home out when it cools off.

**Use major electric-powered appliances after 7 PM** to help keep demand on the system lower during peak hours.

*For today's air quality, and for more energy saving, pollution-reducing ideas, check out our website at [www.sbcapcd.org](http://www.sbcapcd.org)*

## State Releases First Environmental Education Plan



Left to right: Therese Brady, teacher at Ontiveros Elementary School in Santa Maria, Celeste Royer, Regional Manager for the California Regional Environmental Education Community (CREEC) Network, Judy Sims, teacher at Monte Vista Elementary School in Santa Barbara, and Wendy Motta, District Representative for State Senator Jack O'Connell.

Teachers and education supporters gathered recently in Santa Barbara to celebrate the launch of the California Plan for Environmental Education,

the first ever in the history of the state. The California Department of Education Office of Environmental Education led the development of the plan over a two-year

period, with assistance from the California Regional Environmental Education Community (CREEC) Network, the California Environmental Protection Agency, the Resources Agency, the California Integrated Waste Management Board, the California State Parks Foundation, the Golden State Environmental Education Consortium, and others.

"I have proof in my classroom that kids learn more in all subjects—in math, in language arts, as well as in science—when they are involved in environmental projects," said Therese Brady, teacher at Ontiveros Elementary School in Santa Maria, speaking at the recent event. Brady has won

many awards for her teaching, including: the Governor's Award for Environmental and Economic Leadership; the Sea World/Busch Gardens Award for Environmental Education, sponsored by the National Geographic Society; and the Disney Company

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## Environmental Education Plan (cont'd from page one)

Environmentality Challenge Award. She is a National Board Certified Teacher and has been honored as County Teacher of the Year.

Ontiveros School also received an Outstanding Service Award from the Green Award program in 1997 for the comprehensive recycling program Brady and her students began at the school in 1994. The school diverts 80% of its waste, and uses vermicomposting with food scraps. Students developed brochures on recycling and composting, which have been distributed throughout the county, and which are serving as models for brochures to be distributed statewide.

The Green Award recognizes voluntary activities in Santa Barbara County that result in

cleaner air or water, less waste, less traffic, conservation of energy and natural resources, or reduced use of hazardous materials. The Green Award Consortium, made up of APCD, the Community Environmental Council, Santa Barbara County Solid Waste and Utilities, Santa Barbara County Water Resources Agency, and Traffic Solutions, gives Green Awards to businesses and organizations during Pollution Prevention Week in September; from time to time, special recognition awards are given to schools.

Speaking at the event, Celeste Royer, Regional Manager for the CREEC Network, noted that Ontiveros School's achievement provides a good example of how the state can benefit from environmental

education: "Diverting 80% of your waste is a phenomenal achievement. Imagine if we could see that all across the state." CREEC, a clearinghouse for environmental education resources sponsored by the state Department of Education, held meetings around the state to solicit input during development of the plan; more than 700 people participated.

Judy Sims, teacher at Monte Vista School in Santa Barbara, noted that the state environmental education plan will help unify and consolidate efforts in this area. Her garden program has been recognized by State Superintendent of Public Instruction Delaine Eastin.

Said State Senator Jack O'Connell, "This plan will be a

tool teachers can use to improve the quality of education in our schools while developing critical thinking in students that can be applied throughout their lives."

*For more information on APCD's school programs, including presentations on air pollution, and demonstrations of a working solar panel/fuel cell model (see photo this page), and an alternate fuel vehicle, call (805) 961-8800, or visit [www.sbapcd.org/student.htm](http://www.sbapcd.org/student.htm).*

*For more information on the CREEC Network Region 8 (Santa Barbara, Ventura, San Luis Obispo, and Kern Counties), visit [www.creec.org/region8](http://www.creec.org/region8). To download the state plan for environmental education, see [www.californiaee.org](http://www.californiaee.org).*

## Earth Day

APCD participated in April's Earth Day events in Santa Maria, Goleta, and Santa Barbara, and in Lompoc at Vandenberg Air Force Base. Visitors to APCD's booths checked out a working solar panel/fuel cell model (see photo), learned about hybrid gas-electric vehicles, registered for Amtrak coupons, and received copies of the new Santa Barbara Car Free map (see article page three).

Fuel cells are devices that create electrical energy through chemical reactions involving hydrogen. APCD's model uses solar energy to split water molecules into hydrogen and oxygen, and then feeds the

hydrogen into a fuel cell that produces electricity to power a small fan. The byproducts of the fuel cell process are water and a small amount of heat. In large fuel cell applications, the heat is used for space or water heating, or can be used to generate additional electrical power.

A variety of types of fuel cells are in use today for power generation. The hydrogen can be extracted from many sources, including methanol, ethanol, natural gas, gasoline, and water (however, systems that can use one hundred percent solar power to obtain the hydrogen from water are not yet commercially viable).



*APCD demonstrated a working solar/fuel cell model (above, center) at Earth Day events.*

As fuel cells are quiet and produce no pollution, they can be used for distributed power generation, close to the areas where the power is needed. Fuel cells also can be used to power vehicles. Many major auto manufacturers have fuel

cell vehicle programs, and plan to market these vehicles starting in late 2003 and 2004.

*For more information, see [www.drivingthefuture.org](http://www.drivingthefuture.org), and [www.fuelcells.org](http://www.fuelcells.org)*

# Take a Vacation from Your Car



## APCD Board Roundup

Following are the highlights of the February, March, April and May Board meetings.

### February

- ✓ Executed grant agreements for purchase of a low-emissions agricultural water booster pump engine and repowering of five refuse trucks with low-NOx engines.
- ✓ Received and filed the 2001 Air Toxics “Hot Spots” Annual Report.
- ✓ Received a report on staff efforts to reduce emissions from marine vessels.

### March

- ✓ Executed grant agreements for purchase of six new low emissions natural gas engines with catalytic converters, and two catalytic converters for agricultural water booster pumps, and for purchase of new low-emissions boat engine.
- ✓ Authorized funding for an Outboard Engine Repower Program.
- ✓ Received an update on a countywide conference on growth, economic development, and jobs/housing balance to be held in October.

### April

- ✓ Adopted a resolution proclaiming April 21, 2002 as Earth Day 2002, May 2002 as Clean Air Month, and May 18-26 as Bike Week.
- ✓ Received a report on the “Take a Vacation from Your Car” project, also known as “Santa Barbara Car Free.”

### May

- ✓ Adopted revised Rule 401, Agricultural and Prescribed Burning.
- ✓ Received and filed report on APCD FY 2002-2003 budget, and scheduled a second hearing for June 20 to consider adoption.

In April, *Santa Barbara Car Free*, also known as the Take a Vacation from Your Car project, launched a “Discover Santa Barbara Car Free” vacation package featuring Sunday-Thursday discounts on hotels and area activities.

A recent survey by the Santa Barbara Conference and Visitors Bureau & Film Commission showed 78% of visitors to town arrived by personal car, rental vehicle, or recreational vehicle. The cooperative project led by APCD aims to encourage car free, carefree transportation to and around Santa Barbara.

Starting Earth Day, April 21, and continuing through the end of 2002, visitors can sign up for the vacation package discounts through one of six participating hotels: Fess Parker’s Doubletree Resort, the Franciscan Inn, the Hotel Santa Barbara, the Inn of the Spanish Garden, the Ramada Limited Hotel, and the Upham Hotel & Garden Cottages. Visitors who sign up receive a package of car free-bies, discounts on car free activities from the following: Condor Express, Cloud Climbers Jeep Tours, Cycles 4 Rent, Pedal & Paddle, Personal Tours LTD, Santa Barbara Adventure Company, Santa Barbara Old Town Trolley, Santa Barbara Sailing Center, Wheel Fun, and Wine Tours of Santa Barbara. The businesses participating in the promotion are all contributing the discounts.

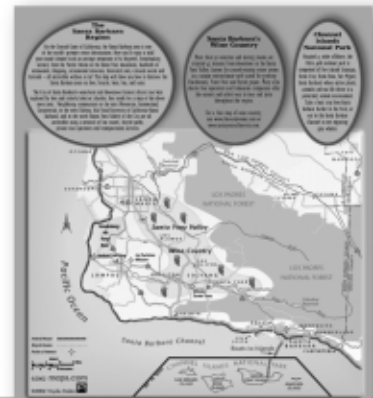
In April Santa Barbara Car Free also launched a new car free map (on right), currently being distributed by project partners around town and available for

download from the project website at [www.santabarbaracarfree.org](http://www.santabarbaracarfree.org). Other free maps, links and resources are also available on the website.

APCD distributed the new map at Earth Day events, and gave out two-for-one coupons for the Surfliner train donated to the project by Amtrak. The Surfliner runs along the coast between San Diego and San Luis Obispo. Brian Hart, Amtrak Marketing Manager for Santa Barbara and the Central Coast gave out two sets of two free roundtrip

Surfliner tickets at the Santa Barbara Earth Day event.

“Our goals are to reduce air pollution and traffic congestion, and at the same time highlight the positive features of alternative transportation,” noted APCD Director Doug Allard.







## APCD Board Calendar

### Air Pollution Control District Board

Supervisor Naomi Schwartz

*First District  
Santa Barbara County*

Supervisor Susan Rose

*Second District  
Santa Barbara County*

Supervisor Gail Marshall

*Third District  
Santa Barbara County*

Supervisor Joni Gray

*Fourth District  
Santa Barbara County*

Supervisor Tom Urbanske

*Fifth District  
Santa Barbara County*

Councilmember Russ Hicks

*City of Buellton*

Councilmember Dick Weinberg

*City of Carpinteria*

Councilmember Cynthia Brock

*City of Goleta*

Mayor Sam Arca

*City of Guadalupe*

Councilmember DeWayne Holmdahl

*City of Lompoc*

Councilmember Gregg Hart

*City of Santa Barbara*

Councilmember Larry Lavagnino

*City of Santa Maria*

Councilmember Ed Andrisek

*City of Solvang*

*All meetings start at 2 p.m.  
For final meeting agendas,  
call the APCD Board Clerk,  
961-8853.*

#### July 18

Board of Supervisors'  
Hearing Room  
511 East Lakeside Parkway  
Santa Maria, CA 93455

#### August 15

Board of Supervisors'  
Hearing Room  
105 East Anapamu Street  
Santa Barbara, CA 93101

#### September 19

Board of Supervisors'  
Hearing Room  
511 East Lakeside Parkway  
Santa Maria, CA 93455

#### October 17

Board of Supervisors'  
Hearing Room  
105 East Anapamu Street  
Santa Barbara, CA 93101

## Community Advisory Council

The APCD Community Advisory Council meets the second Wednesday of every month at the Days Motor Inn in Buellton. The public is welcome. For more information, call Linda Beard, 961-8853.

## Take a Vacation from Your Car!

See inside, page three.



Santa Barbara County  
Air Pollution Control District

#### Main Office

26 Castilian Drive  
Goleta, CA 93117  
(805) 961-8800

#### Business Assistance

(805) 961-8868

#### Daily Air Quality Report

www.sbcapcd.org

#### Complaints/Public Information

(805) 961-8800

#### World Wide Web

www.sbcapcd.org

#### E-Mail

apcd@sbcapcd.org

*On the Air* is a bimonthly newsletter published by the Community Programs Section of the Santa Barbara County Air Pollution Control District. For further information on items in this newsletter, or to be added to our subscription list, please call Bobbie Bratz, 961-8890 or Email bratzb@sbcapcd.org.

Our Vision: Clean Air



## Cleaner Outboards

Outboard engines produce significant amounts of smog-forming pollution, and release large amounts of unburned fuel and fuel vapors into the air and water. Until fairly recently, most outboard engines were 2-stroke engines that release large amounts of reactive organic compounds (ROCs). ROCs contribute to the formation of ground-level ozone, a primary component of smog. New 2-stroke and 4-stroke engines with electronically controlled direct fuel injection are up to ten times cleaner, releasing much less unburned fuel.

the engines that get the most use, for the greatest emission-reduction benefit,” notes APCD Program Manager Ray McCaffrey. He estimates the program will cut about 200 tons of ROC emissions over a five-year period.

The cleaner engines have worked out well in several boats at the University of

engines. APCD also helped fund replacement of three older 2-stroke gasoline-powered outboard engines used on UCSB dive boats; these were replaced with new, cleaner 2-stroke engines equipped with electronically controlled direct fuel injection. Use of the new engines will cut up to 50 tons of ROC emissions over ten years.

Marchiando adds that the new engines have worked “flawlessly,” are smoother and quieter, and are very reliable. “I really like working with the 2-stroke technology. A lot of people think you have to go to 4-stroke for a cleaner engine so it’s important for them to hear there are now much cleaner and more fuel-efficient 2-stroke outboard engines on the market also,” he says.

Says McCaffrey, “Older outboard engines produce a great deal of air pollution. Significant technology improvements in the past few years have provided much cleaner and more fuel-efficient options. This program is designed to accelerate the replacement of some of the most heavily used and dirtiest engines, so we can benefit from the pollution reductions.”

*If you have an outboard engine that you think may qualify for the program, or for more information, contact Ray McCaffrey at (805) 961-8826 or [mccaffreyr@sbcapcd.org](mailto:mccaffreyr@sbcapcd.org)*



Older, high-polluting outboard engines used in chase boats in the UCSB Row Team Program at Lake Cachuma were replaced with cleaner, more fuel-efficient engines to reduce emissions of smog-forming pollutants.

APCD’s new Outboard Engine Repower Program will help boat operators replace older outboard engines with the cleaner engines. The program is designed for: commercial fishing or charter boats; boats owned by public agencies; and boats used for specific rental and emergency business purposes. “We’re focusing on

California at Santa Barbara (UCSB), funded with help from APCD in 1999 and 2000, as part of the “Clean Campus” initiative.

Four older 2-stroke engines used in safety or “chase” boats for the UCSB Row Team at Lake Cachuma were replaced with new cleaner 4-stroke

Terry Marchiando, Marine Technician with UCSB Biological Sciences, reports the new dive boat engines are working well. “The old outboards used to smoke a lot, so there was an immediate benefit when we installed the new engines; everyone noticed, you could really see a difference,” he notes. Gasoline consumption has been reduced by roughly 700 gallons per year using the new engines. They have operated with an average fuel economy of less than five gallons per hour, as compared with an average fuel economy of more than seven gallons per hour for the engines they replaced.



## Letter to APCD Permit Holders

Over the past seven years, the APCD has sent out customer service questionnaires to the businesses we permit and inspect. Your responses are very important to us. We use the information you provide to help us determine where we might need to make improvements in our services to you. The written comments and suggestions many of you include on the surveys often result in specific actions on our part.

For those of you who responded to our latest round of surveys, I thank you for the input and ask that you continue to let us know how we are doing. I also encourage those of you who haven't taken the opportunity, to complete and return our feedback form the next time you receive one. You can provide us with your name and contact information, or choose to remain anonymous.

I'd like to take this opportunity to update you on the results of the Inspection and Permit feedback forms sent out this past year, specifically for the time period of October 2000 through September 2001.

### Permit Services

We asked you to rate our permit engineers on helpfulness, knowledge, and how easy it was to understand the permitting process. Over 90% of those of you who responded considered the engineers as average or better. The majority of you considered our engineers' performance to be very good.

We also asked if your permit was issued within a reasonable amount of time. Fifty-four percent indicated permits were received as fast as expected.

### Inspection Services

We asked you to tell us about inspectors' helpfulness,

knowledge and professionalism. Eighty-one percent of those responding rated our inspectors average or better, with the majority rating them as very good.

You also let us know, based on your most recent experience with the APCD, if you would feel comfortable contacting us for assistance in the future. In fact, the majority said they would be very comfortable or extremely comfortable.

Some of the most valuable input we receive on our customer survey forms is the written comments, typically anonymous. These comments range from suggestions for improvement to feedback (mostly positive) about particular staff members to statements letting us know about the particular challenges faced by the small business person. These comments are shared with involved staff and used to improve our service.

Thank you again for giving us important feedback. We have a job to do and so do you. Your feedback helps us to do our job in a way that takes your needs into account.

If you have any questions about the customer service feedback forms in general or specific results, please feel free to contact me.

And thanks again!  
Doug Allard, APCD Director



## Laser Touch Put to the Test

California Air Resources Board (ARB) recently evaluated Laser Touch, an add-on device for paint spray guns designed to help the painter maintain proper distance from the gun to the product being painted. Maintaining the right distance from the paint target can reduce emissions of volatile organic compounds.

Laser Touch was first developed by the Iowa Waste Reduction Center. APCD hosted a demonstration of the Laser Touch at Bianchi Motors in Santa Barbara more than a year ago.

The ARB evaluation resulted in an Executive Order verifying the manufacturer's claim for this particular model:

*When using LT-B512 with an Accuspray Model 19 high volume low pressure paint spray gun, in accordance with the Laser Touch manufacturer's instructions, the volume of a single-stage polyurethane enamel was decreased by an average of 15 percent and therefore a corresponding volatile organic compound emissions reduction*

*of an average 15 percent can be assumed.*

*To learn more, call APCD's Business Assistance Line at 961-8868, or visit [www.arb.ca.gov/eqpr/lasertouch.htm](http://www.arb.ca.gov/eqpr/lasertouch.htm).*

*To learn about the Iowa Waste Reduction Center, visit [www.iwrc.org](http://www.iwrc.org).*