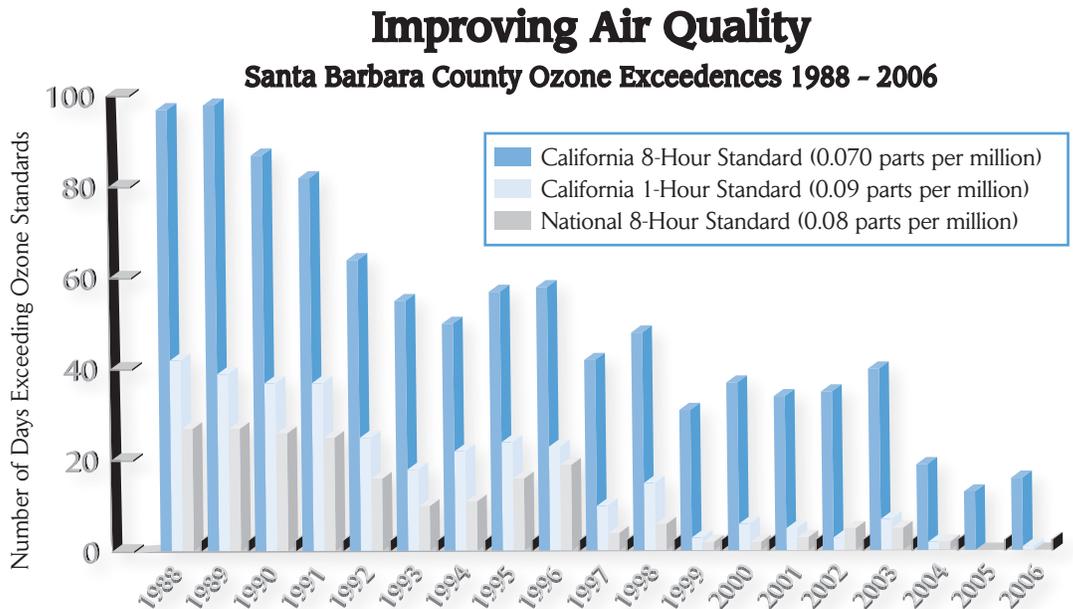


Planning for Clean Air

In February, APCD issued the draft 2007 Clean Air Plan, showing how the county will meet health-based standards for ozone, a principal component of smog. Santa Barbara County air currently meets the federal ozone standard and does not meet the state standards.

Ground-level ozone is formed when nitrogen oxides and reactive organic compounds react chemically in the presence of heat and sunlight. Ozone can inflame and damage the lining of our lungs; it can trigger asthma symptoms and a range of other respiratory symptoms, and can affect long-term lung development in children.

APCD's Clean Air Plan, required by federal and state law, includes controls for all categories that contribute to ozone-forming emissions: industrial processes; combustion sources; petroleum handling; solvent use; consumer products; waste burning; and mobile sources.



As shown in the chart, the number of unhealthy air quality days due to ozone in the county has been reduced by more than 95 percent, despite substantial increases in population and vehicle miles traveled during this time. We have already experienced our first ozone exceedance of 2007 however, an exceedance of the state eight-hour ozone standard, on March 13. For ozone levels updated hourly see "Today's Readings" on our website at www.OurAir.org.

Ozone levels measured at county air monitoring stations have been declining over the past decades, as shown in the chart. The Plan shows that onshore emissions of ozone-forming pollutants will continue to decrease through

2020, due primarily to on-road vehicle reductions. However, the Plan also notes that emissions from oceangoing marine vessels traveling through the Santa Barbara Channel are expected to double in the period from

2002 to 2020. These large ships, primarily container ships, burn bunker fuel oil, a particularly dirty fuel, in their main engines, generally without emissions controls.

(continued on page two)

Air Pollution Education Programs

APCD offers countywide classroom presentations for students with lessons on our atmosphere, air pollution, global climate change, and what we can do to make a difference. We visit school science nights and participate in a range of other school and community events.

APCD also works with the Santa Barbara County Education Office

to award grants to teachers to develop curricula incorporating lessons on our atmosphere, air pollution, and global climate change. In February, APCD Board Member Janet Wolf, 2nd District Supervisor, awarded APCD-sponsored grants for four projects at the annual Education Office Grants Recognition Dinner in Buellton. The teachers and their projects are described below.

CO2 Science: Is Carbon Dioxide a Harmful Air Pollutant?

George Flores and Stephen Ryan at Pioneer Valley High School in the Santa Maria Joint Unified School District are helping students learn about air pollution, and leading them in research on carbon dioxide, measuring

(continued on page two)

Inside...

-  **Watch Your Smoke**
-  **Bike Race**
-  **Diesel Pollution Solutions**
-  **New State Pollution Regulations for Farms**
-  **Replacing Older Farm Equipment**
-  **Earth Day**

Regulating Pollution from Ships

As shown in APCD's Clean Air Plan, pollution from large ships going through the Santa Barbara Channel has the potential to threaten onshore air quality in our county. National and international regulatory agencies and organizations have been considering revisions to existing air pollution regulations and standards that apply to these ships.

In July 2005, the Marine Environment Protection Committee of the International Maritime Organization discussed the possibility of amending MARPOL (Marine Pollution)

Annex VI "Regulations for the Prevention of Air Pollution from Ships." The Committee assigned a subcommittee to complete a review of the current regulations and consider the potential for revisions.

The Committee will be meeting in April 2007 to discuss the subcommittee's report. The U.S. Environmental Protection Agency has already submitted its proposed amendments to the regulations. The final report on proposed amendments to Annex VI is expected later this year.

The following are expected to be

considered in the Committee's April meeting and final report:

- The potential for stricter nitrogen oxides (NOx) standards for ships that could be met with current and developing technologies.
- Whether further reductions of sulfur (SOx) emissions are needed.
- Whether volatile organic compound (VOC) reductions from cargo are needed.
- The possible inclusion of standards for particulate matter (PM).

- The possible inclusion of NOx and PM limits for existing engines.

For more information on marine shipping emissions, the impact on our county, and new developments, see this page on our website: www.sbcapcd.org/ig/shipemissions.htm.



Planning for Clean Air (cont'd)

While offshore pollution may not have the same impact on our air quality as onshore pollution, the Plan notes that the magnitude of the emissions expected from marine shipping could jeopardize the county's ability to meet the state ozone standards, and to continue to meet the federal ozone standard. There has been some progress in setting pollution standards for large ships (see article above), and if there is continued progress, the forecast of marine shipping emissions through 2020 will be adjusted accordingly.

Once the Plan has been adopted by the APCD Board, it will be forwarded to the California Air Resources Board and the U.S. Environmental Protection Agency for adoption.

Comments on the Plan are invited through March 28; to view the Plan, visit our website at www.OurAir.org

Air Pollution Education Programs (cont'd)

and recording levels of CO₂ at various locations, identifying its impacts, and finding ways to minimize its release.

Safe Lives: Global Climate Change, Air Pollution, and the Human Role

Teri Briggs at Goleta Family School in the Goleta Union School District is teaching students about air pollution and global climate change, and effects on the community and the world. Subjects covered in lessons include disaster preparedness, safety issues, and ways students can decrease their personal contributions to air pollution, including by walking or biking to school.

Solar Energy: Air Quality Outreach and Education

Rosalind Robertson at San Marcos High School in the Santa Barbara High School District is

teaching students about air pollution and solar energy, and the benefits of renewable energy, with lessons including use of a solar water pump, and interviews of local energy experts.

Global Warming Science Fair

Kristen Lewis of El Camino Middle School in the Lompoc Unified School District is leading students in development of science projects that showcase solutions to reduce harmful air pollution, culminating in display of projects at a global warming science fair this spring.

In previous years, APCD awarded air pollution education grants to David Greenelsh, Debbie Hart and Valerie Trenev at Alice Shaw School in Orcutt Union School District, and to Michael Shallenberger at La Cumbre Junior High School in Santa Barbara High School District.

Other APCD educational programs include: the interactive touch screen kiosk Robot Resource for Pollution Prevention (R2P2), now on permanent display at the Santa Maria Valley Discovery Museum; and a web-based Toolkit designed to help school communities, environmental officials and others make informed decisions about ways to reduce harmful diesel pollution from school buses. APCD also provides funds to help school districts purchase pollution control equipment and cleaner school buses.

For more information on APCD's programs for schools and teachers, visit www.sbcapcd.org/teachers.htm, or contact Mary Byrd at 961-8833 or byrdm@sbcapcd.org

Be a Good Neighbor... Watch Your Smoke!

APCD Board Roundup

Following are the highlights of the January Board meeting.

Note: the December APCD Board meeting was cancelled.

January

- Approved funding increase for the APCD Old Car Buyback program.
- Approved application to receive additional state Carl Moyer Program funds up to \$825,000.
- Adopted and presented Resolutions of Appreciation to Susan Rose, Marty Mariscal, Donna Jordan, Margaret Connell, and Ed Skytt for their service on the APCD Board.
- Received and filed a report from the Air Pollution Control Officer on air quality and APCD programs, plus preview of issues Board may address this year.
- Appointed Eric Onnen to serve as Board Member representative to the South Central Coast Basinwide Control Council.
- Selected Board members: Salud Carbajal, Marty Blum, Russ Hicks, Will Schuyler, and Larry Lavagnino to serve on the APCD Hearing Board Nominating Committee in 2007.
- Selected Will Schuyler, Lupe Alvarez, and Marty Blum to serve on the APCD Executive Committee in 2007.

Every year, APCD receives calls from people who are concerned about the smoke they are breathing from their neighbors' fire pits, barbecues, fireplaces, or woodstoves.

Breathing smoke reduces lung function, aggravates heart and lung diseases, and can trigger asthma. Smoke can include the following air pollutants: fine particles that can get into our eyes and noses, and can stay trapped in sensitive areas of our lungs; cancer-causing substances, including benzene, formaldehyde and polycyclic aromatic hydrocarbons; carbon monoxide; and nitrogen oxides and hydrocarbons, both involved in the formation of ozone, a principal component of smog.

Here are some tips on how to be a good neighbor and watch your smoke.

- Don't burn trash. Don't burn any of these: wrapping paper, magazines, or any coated papers (including newspaper inserts, junk mail, etc.). And of course don't burn mattresses, furniture, plastics, or chemicals.
- If you can, use gas logs in fireplaces, and gas grills instead of charcoal barbecues.



Smoke includes a variety of types of air pollutants; breathing smoke reduces lung function, aggravates heart and lung diseases, and can trigger asthma.

If you're burning wood in a fireplace or woodstove, burn dry, seasoned wood, build small hot fires rather than large smoldering ones, and add wood slowly so the fire stays hot.

If you are burning charcoal, use a charcoal chimney starter to start your fire – don't use lighter fluid, or charcoal soaked in lighter fluid.

Think about your neighbor and notice how much smoke you're producing, and where it's going.

Clean your chimney. Schedule regular maintenance by a professional chimney sweep.

Save your fireplace or woodstove for special occasions.

The Pacific Hearth, Patio & Barbeque Association's Change 4 Clean Air program is offering incentive funds to help homeowners and residents in California replace old, higher-polluting woodstoves with new, less-polluting woodstoves. Upgrades for fireplaces are available too. The incentive program runs through March 31, 2007. For all the details, see www.change4cleanair.org/.

For more information on smoke, air pollution, and our health, see this page on our website: www.sbapcd.org/edu/fires.htm.



Bike Race

In February, the Amgen Tour of California bicycle race came to Santa Barbara County. Professional cycling teams, including several that compete in the Tour de France, competed in a time trial in Solvang in Stage 5, and lined up at the starting line in Santa Barbara for Stage 6 of the race. APCD's Santa Barbara Car Free project shared a booth with the Santa Barbara Bicycle Coalition at the starting line, where young cyclists learned about bike safety, and competed in their own kids bike race before the Stage 6 Start (pictured left).



APCD Board Calendar

Board of Directors

- Supervisor Salud Carbajal
*First District
Santa Barbara County*
- Supervisor Janet Wolf
*Second District
Santa Barbara County*
- Supervisor Brooks Firestone
*Third District
Santa Barbara County*
- Supervisor Joni Gray
*Fourth District
Santa Barbara County*
- Supervisor Joe Centeno
*Fifth District
Santa Barbara County*
- Mayor Pro Tem Russ Hicks
City of Buellton
- Councilmember Al Clark
City of Carpinteria
- Mayor Lupe Alvarez, Vice Chair
City of Guadalupe
- Mayor Pro Tem Will Schuyler, Chair
City of Lompoc
- Mayor Marty Blum
City of Santa Barbara
- Mayor Larry Lavagnino
City of Santa Maria
- Mayor Pro Tem Jim Richardson
City of Solvang
- Councilmember Eric Onnen
City of Goleta

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

May 17
Board of Supervisors'
Hearing Room
511 East Lakeside Parkway
Santa Maria, CA 93455

June 21
Board of Supervisors'
Hearing Room
105 East Anapamu Street
Santa Barbara, California 93101

August 16
Board of Supervisors'
Hearing Room
105 East Anapamu Street
Santa Barbara, California 93101

October 18
Board of Supervisors'
Hearing Room
105 East Anapamu Street
Santa Barbara, California 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.

April 22, 2007

Do **YOUR**
Part on **EARTH DAY**
Ride **FREE... on MTD**



The South Coast Earth Day Festival, presented by the Community Environmental Council (CEC) and the UCSB Bren School of Environmental Science & Management, will be celebrated Sunday, April 22, 2007 at the Santa Barbara County Courthouse Sunken Gardens, from 10:00 am to 5:30 pm. This year, a number of partners have come together to support and promote free MTD bus and shuttle service on Sunday April 22. This first-ever cooperative initiative is supported by APCD, the Santa Barbara Car Free project, the Community Environmental Council, UCSB Bren School, Santa Barbara Metropolitan Transit District (MTD), SBCAG/Traffic Solutions, and the City of Santa Barbara.

Cars are a major source of smog pollution and greenhouses gases contributing to global climate change. One of the biggest steps anyone can take to reduce his or her personal contribution to air pollution is to drive less, and to carpool, walk, bike, or take the bus or train, more.

For more information on Earth Day and the Ride Free initiative, see www.SantaBarbaraCarFree.org; to find out about local Earth Day celebrations in other parts of the county, check with your local city, or visit this page on our website: www.sbcapcd.org/apcd/earthday.htm.



- Office**
260 N. San Antonio Rd. Suite A
Santa Barbara, CA 93110-1315
- 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 quarterly 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.

Printed on 100% recycled paper.

Our Vision Clean Air

Diesel Pollution Solutions

Studies show that diesel pollution harms lungs and hearts, producing short-term and long-term effects. Diesel particulate, known as diesel soot, is toxic, and is considered the number one airborne carcinogen in California.

Diesel pollution is particularly harmful to children. Results from a five-year New York University study, published last fall, indicated that diesel soot is a major contributor to the high rates of asthma in children in the South Bronx. Researchers used a mobile van lab to assess pollution levels, and tested air samples collected from special backpacks given to elementary school students. The major type of air pollutant associated with symptoms of asthma was elemental carbon, also known as black soot, a

primary component of diesel exhaust.

California is taking steps in a number of areas to reduce diesel pollution. The California Air Resources Board (ARB) identified diesel soot as a toxic air contaminant in 1998, requiring the development of the Diesel Risk Reduction Plan, which aims to reduce diesel emissions in the state by 85 percent by 2020. The Plan was adopted in 2000, and led to a series of state Airborne Toxic Control Measures to reduce pollution from diesel engines, including engines used in agricultural operations (see separate article).

Some measures are already in effect. Rules to limit idling of diesel vehicles took effect in 2003 and 2005. Drivers of

school buses and other heavy-duty vehicles are required to turn off their engines immediately whenever they are within 100 feet of a school. At any locations, when not engaged in work activities, trucks may not idle for more than five minutes, and buses may not idle for more than ten minutes. According to ARB data, the average diesel heavy-duty engine burns about one gallon of fuel per hour as it idles, and outreach to truck and bus operators has stressed the fuel-saving advantages of limiting idling. Other approved ARB measures include rules covering large diesel generators, trash

collection vehicles, public vehicle fleets, and auxiliary engines used on ships. Pending rules at ARB include measures affecting harbor craft, off-road fleet vehicles, and on-road private fleet vehicles.

The state's Carl Moyer program, established in 1999, approaches the problem of diesel pollution by providing incentives for the replacement of older, high-polluting diesel engines with lower-polluting engines in a range of types of vehicles and equipment, distributing funds through local air districts like APCD.

(continued on back)

New State Pollution Regulations for Farms

The California Air Resources Board (ARB) recently determined that diesel engines greater than 50 horsepower (hp) that are currently in use on farms must meet requirements of a state Airborne Toxic Control Measure expected to become effective this Spring.

Agricultural operations in the state were exempt from some state regulations that affected other types of businesses until relatively recently. In September of 2003, Senate Bill 700 was signed into law, repealing this exemption. This was something the state was required to do under terms

of a settlement with the U.S. Environmental Protection Agency; local air districts like the APCD are required to implement the new state law.

Working closely with a coalition of agricultural associations, APCD completed the first phase of SB 700 implementation in 2004, identifying farming operations that might require permits, based on how much air pollution they could create. Only two agricultural operations in Santa Barbara County were found to require permits in the initial phase of implementation of SB 700.

(continued on back)

Funds to Replace Older Farm Equipment



APCD recently provided funds to help Fairview Gardens in Goleta replace an older tractor (top) with a much less polluting one (bottom). Use of the new tractor will reduce about 1 ton of smog pollutants over the next 3 years. The Farm Manager reported that the first time the new tractor was used, it operated so efficiently it reduced more than an hour of operation time, cutting additional pollution.

Diesel Pollution Solutions (cont'd)

In Fiscal Year 2005-2006, using state Moyer funds and other funds, APCD provided \$1.2 million for the purchase of cleaner boat engines, farm engines, equipment, and schoolbuses, and for the purchase and scrap of older light-duty vehicles through the Old Car Buyback Program.

APCD established a program to provide funds to businesses for the purchase of cleaner engines in 1988, many years before the establishment of the state program. Since its inception, APCD's Innovative Technologies Program has distributed \$17.5

million and eliminated 2,700 tons of air pollution, much of it diesel engine pollution.

Another important milestone in reducing diesel pollution occurred last year, when fueling stations in California were required to switch to ultra low sulfur diesel. Use of this fuel in diesel engines immediately reduces sulfate emissions across the board. Even more importantly, the fuel makes it possible to use advanced pollution controls, including diesel oxidation catalysts and particulate filter traps, with diesel engines for the first time. The higher sulfur

content of traditional diesel fuel interferes with the operation of pollution-control equipment.

A range of additional regulations and programs are planned or already in effect in California, including initiatives to reduce diesel emissions from other types of vehicles and equipment, as well as at the ports, and in the movement of goods.

For more information on diesel activities at the state level, see www.arb.ca.gov/diesel/diesel.htm; for more information on APCD's funding programs, see www.OurAir.org.

Regulations for Farms (cont'd)

Other state regulations also now apply to farms. As part of its Diesel Risk Reduction Plan, the ARB required new stationary diesel engines greater than 50 hp used in agricultural operations installed after January 1, 2005 to meet emission standards outlined in an Airborne Toxic Control Measure.

In addition, the ARB determined that existing diesel engines greater than 50 hp currently in agricultural use have to meet limits for emissions of particulate matter, and other requirements. An in-use stationary diesel agricultural engine is defined as a diesel-fueled engine located at a fixed site for the purposes of growing crops, or raising fowl or animals. An estimated 9,000 to 11,000 of these engines are in operation in California; many are used to power irrigation water pumps.

of these engines based on their emissions; the oldest and dirtiest engines (pre-1996 vintage) are scheduled to be replaced no later than December 31, 2010. The measure also requires existing diesel engines greater than 50 hp in use on farms to be registered with the APCD by March 1, 2008. APCD is hosting workshops this year to help agricultural operators understand and comply with the new state regulations.

APCD also has provided funds to help farmers purchase equipment with cleaner engines for many years, and is currently working

with farmers on projects. These can include, but are not limited to, replacement of diesel equipment with electric-powered equipment. We encourage all owners of Agricultural Diesel Engines greater than 50 hp to contact the APCD and apply for grant funding to clean up their engines.

For more information on the state's control measure, see www.arb.ca.gov/diesel/ag/inuseag.htm. For more information on APCD's incentive funding programs, see www.OurAir.org.



APCD Grants for Local Businesses

Funds for Cleaner Engines

Applications for APCD grant funds for cleaner engines are now available. Equipment that is eligible for grants for repowers or retrofits includes:

On-Road Vehicles

Off-Road Vehicles/Equipment

Agricultural Water Pumps

School Buses

Marine Engines

Other (Forklifts, Locomotives and more)

Contact Information:
Anthony Fournier at
(805) 961-8874
adf@sbcapcd.org.

For more information visit:
www.sbcapcd.org/itg/itg.htm.

APCD's Business Assistance Program



Our Business Assistance Representatives offer help to businesses over the phone and by email, and we also provide educational site visits to help owners understand and comply with our rules and requirements. The site visits are educational, not regulatory, and are conducted by a business assistance representative, not an APCD inspector. A site visit can help business owners: understand and comply with our permit conditions, rules and record keeping requirements; learn about new regulations that might be coming up; and find out about ways to prevent pollution.

Find out more:

Visit this page on our website: www.sbcapcd.org/biz/business.htm
Call the Business Assistance Line at 961-8868, Email business@sbcapcd.org.

The control measure sets a schedule for the replacement