

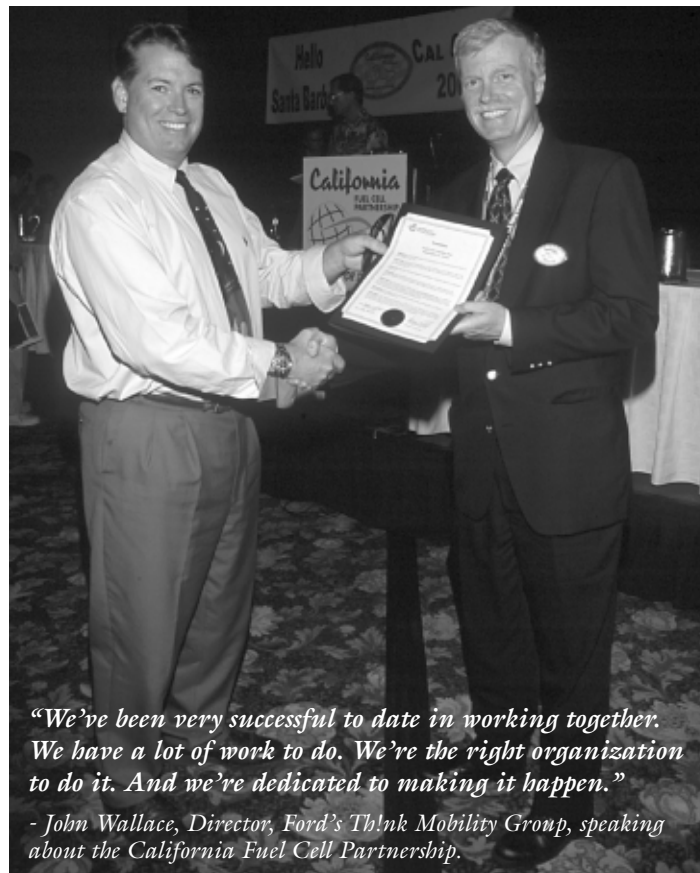
## Tomorrow's Technology Comes to Town Three Days, Three Counties, Three Hundred Miles

Santa Barbara County  
Air Quality News  
Issue 68  
September–October 2002

Six fuel cell cars arrived in Santa Barbara County on September 6 after traveling three hundred miles from Monterey over three days, in the *California Coast 2002 Fuel Cell Vehicle Road Rally*, organized by the California Fuel Cell Partnership.

Santa Maria Mayor Joe Centeno and Supervisor Tom Urbanske, Member of the APCD Board, welcomed the cars as they drove into Santa Maria in the morning, and Santa Barbara Mayor Marty Blum welcomed the cars at De La Guerra Plaza later in the day.

APCD General Source Division Manager Peter Cantle presented the Partnership with APCD's Board Resolution declaring September 6 "Fuel Cell Vehicles Day" in Santa Barbara. Said Cantle, "We are excited and enthused and honored to be here congratulating the Fuel Cell Partnership on this terrific accomplishment. APCD applauds the tremendous



*"We've been very successful to date in working together. We have a lot of work to do. We're the right organization to do it. And we're dedicated to making it happen."*  
- John Wallace, Director, Ford's Th!nk Mobility Group, speaking about the California Fuel Cell Partnership.

APCD General Source Division Manager Peter Cantle (left) presents John Wallace, Director of Ford's Th!nk Mobility Group, a member of the California Fuel Cell Partnership, with a copy of the APCD Board Resolution declaring September 6 "Fuel Cell Vehicles Day."

progress in development of this clean-air technology."

Community members got the chance to ride in and drive the fuel cell cars. Linc Johnson, Co-Director of the Center for the Study of Macular Degeneration at the University of California at Santa Barbara, drove Honda's fuel cell vehicle prototype. He reported: "The Honda was very responsive and handled well. It accelerated more smoothly than most gas-powered cars and was very quick. I enjoyed driving it."

Kathy Johnson, attorney at Seed Mackall LLP in Santa Barbara, added, "We rode in three of the fuel cell cars, and my favorite was the Toyota. It was very quiet, and the interior was quite spacious. I particularly liked the graphics on the computer screen showing how the energy was flowing as the car was moving."

*(Continued on page two)*

## It's Official: Attaining Ozone Standard

On August 27, the U.S. Environmental Protection Agency published a determination that Santa Barbara County has attained the federal one-hour ozone standard. Ozone is a principal component of smog. This action sets the stage for full approval of APCD's 2001

Clean Air Plan and official redesignation of our county from a "serious" ozone nonattainment area to an attainment "maintenance" area, possibly early next year.

Our county continues to have days with ozone levels higher than both the state one-hour

ozone standard and the proposed federal eight-hour standard. We've come a long way, however. In past years we've seen days with ozone levels as high as 240 parts per billion. We haven't seen anything at even half that level in the past two years.

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**2002 Green Award Winners – see inside, Business Focus**

## Tomorrow's Technology (cont'd from page one)

At the town hall meeting in Santa Barbara, members of the California Fuel Cell Partnership, which includes auto manufacturers, energy companies, fuel cell technology companies, and government agencies, discussed new directions in technology development, and answered questions from the audience.

Fuel cells produce electrical energy through chemical reactions involving hydrogen and oxygen. Fuel cell vehicles do not need to be recharged; instead they are refueled with hydrogen, or a source of hydrogen. In response to questions from an audience member about safety, Lauren Segal, General Manager of Hydrogen Development at BP, a Partnership energy company member, remarked: "We handle thousands of tons of hydrogen a day, we're very familiar with working with it." Hydrogen is the most abundant molecule in the universe, she said, and since it is typically found in combination with carbon or oxygen, a variety of substances can serve as a source of hydrogen. She observed, "It's not yet clear what the best way is to deliver hydrogen. I believe

the world is watching closely what happens here in California."

Many at the town hall meeting cited the potential for fuel cell cars to use hydrogen taken from a renewable energy source. Segal described BP's approach in this area: "First and foremost we are an energy company. And that means we have a portfolio of solutions, including renewable energy solutions." She noted that the company is looking closely at a variety of hydrogen production and delivery options, is currently investigating methane recovery technologies, and has one of the largest solar energy companies in the world.

Some questions at the meeting addressed the challenges of setting up an infrastructure to deliver hydrogen fuel. Noted John Wallace, Director of Ford's Th!nk Mobility Group, a Partnership auto company member, "There is a resistance to change, especially when you have an existing fuel delivery infrastructure... To get past that resistance, you need two things. One, you have to get the technical and commercial capabilities in place. And two, you need some mechanism to



The fuel cell cars paraded down State Street and turned into De La Guerra Plaza, to reach the finish line of the California Coast 2002 Fuel Cell Vehicle Road Rally.



Above: Fuel cell vehicles from Hyundai, Honda, Toyota, Nissan, and Ford, and Daimler Chrysler were on display and available for ride and drives.



Left: Joe Irvin, Communications Manager for the California Fuel Cell Partnership.

date in working together. We have a lot of work to do. We're the right organization to do it. And we're dedicated to making it happen."

Alan Lloyd, Chairman of the California Air Resources Board, also remarked on the Partnership's ability to get the job done: "You can't put a dollar figure on what we've been able to achieve working together... The partners are sincere, and I see here a true spirit of cooperation." He added, "The state of California faces tremendous growth in the next few years, and that means more and more vehicles. What you see here today is a quantum leap forward in cleaning up vehicle emissions."

Most at the meeting agreed that consumers will be in the driver's seat in making the ultimate choice of tomorrow's vehicle technology. Said Segal: "Most of the benefits of these cleaner technologies are societal. Most of the choices are personal. It's the convergence of those two that we're talking about here."

provide pressure. If you put pressure on before the capabilities are in place, you will fail. And if you develop the capabilities but there's no pressure, it won't happen either. Our job as automakers is to develop the tools we need to get there, to get ready."

Previous experiences with battery-electric cars do not necessarily apply to the situation with fuel cell cars, said Wallace: "Battery-electric vehicles are a limited vehicle. We made a strong effort to find a market for them, but that market has its limitations. With fuel cell vehicles, we feel we have a much greater potential to satisfy the market." He added, "This is a long-term solution. It's a great solution, but it's a long-term solution."

Wallace praised efforts of the California Fuel Cell Partnership: "We've been very successful to

For more information, see [www.fuelcellpartnership.org](http://www.fuelcellpartnership.org).

# Blochman School Welcomes New Propane School Bus



## APCD Board Roundup

Following are the highlights of the September Board meeting.

### September

- ✓ Approved grants for repowers of outboard boat engines, and purchase of a low-emissions main engine for a fishing vessel.
- ✓ Adopted a Resolution proclaiming September 16-22, 2002 National Pollution Prevention Week.
- ✓ Approved grant for the purchase of a new stationary low emissions diesel-powered water pump engine; and increased the total funds authorized for the Agricultural Water Pump Engine Program by \$200,000.
- ✓ Received an update on planning for a November 7 countywide conference on growth, economic development, and jobs/housing balance entitled "Building Stronger Communities."
- ✓ Received an update on actions by the USEPA and the California Air Resources Board on Santa Barbara County's 2001 Clean Air Plan.

**B**lochman Union School District recently welcomed a new propane-powered school bus, complete with fueling station, made possible through funding provided by APCD and the state Air Resources Board, and overseen by the California Energy Commission. APCD Engineer Ray McCaffrey estimated that the new bus, which refuels with propane from a storage tank onsite, is 75% cleaner in terms of smog-forming air pollution than the older diesel bus it replaced.

Kevin Mullery, Superintendent and Principal of Blochman School District thanked APCD and many others at a "ride the bus" barbecue celebrating the arrival of the new bus just in time for the school year. He estimated the fuel cost will average slightly lower than the fuel cost for the bus it replaced. The new bus holds 72 passengers, and will pick up the first student at 6:30 AM every school day.



*Driver-trainer Joe Serna (left) and APCD Engineer Ray McCaffrey look under the hood of the Blochman School District's new propane bus.*

He noted, "I really like the new bus. It's a beautiful piece of machinery, and has a lot of power...At first I was a little afraid of it, because it was new. But the more I hear from other people who are driving these, the more I hear that they are almost maintenance free."

McCaffrey explained that the California Air Resources Board's statewide Lower-Emissions School Bus Program provides school districts with 75 percent or more of the funding, but requires the school districts to make up the difference. APCD picked up the Blochman District's share (about \$20,000) and has also provided funding to Orcutt School District for two propane buses and to

Goleta Union School District for a compressed natural gas bus and a low-emission diesel bus fueled by ultra low-sulfur diesel fuel from its own onsite fueling facility. The Goleta School District will now be able to fuel all diesel buses in

its fleet with the new fuel, and may also fit some buses with particulate matter emission control traps, which can't be used with standard diesel fuel, due to its high sulfur content.

Said McCaffrey, "It's all part of a statewide effort to reduce kids' exposure to diesel exhaust and to help keep our air clean. Blochman School District, with lots of help from the local community, has done a great job in upgrading their transport fleet to newer, cleaner running buses. The APCD has been pleased to participate in this program with all local school districts."

*For more information on the program, including funding for particulate traps for 1994 and newer diesel buses, contact Ray McCaffrey at 961-8826, or [mccaffrey@sbcapcd.org](mailto:mccaffrey@sbcapcd.org).*



*(From left) Blochman School District Superintendent and Principal Kevin Mullery with bus drivers Vickie Bowman, Trudy Shank and Joe Serna, and APCD Engineer Ray McCaffrey*





## 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*

Mayor 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.*

#### October 17

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

#### November 21

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

#### December 19

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.

### MTD and Santa Barbara Join the Million Mile Club

In September, Santa Barbara Metropolitan Transit District (MTD) and the City of Santa Barbara were inducted into the Electric Vehicle Association of the Americas' Million-Mile Club for electric bus-miles logged since 1991. MTD also unveiled a new high-performance 30-foot electric transit bus powered by advanced sodium-nickel chloride batteries, the first bus of its kind in North America.



*APCD's Planning and Technology Supervisor Tom Murphey (above, left) with Paul Griffith of the Santa Barbara Electric Transportation Institute and the new MTD electric transit bus.*



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Air Pollution Control District

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*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](mailto:bratzb@sbcapcd.org).

Our Vision: Clean Air





## 2002 Green Award Winners: A Tradition of Green Business Leadership



Five county businesses and organizations were honored for outstanding environmental efforts at the ninth annual Green Awards Presentation in September. Alan Nakashima of Santa Barbara County Public Works, Solid Waste and Utilities Division, a member of the Green Award Consortium, declared at the event, “These winners are proof that you can be environmentally responsible and profitable at the same time... They are an inspiration to others.”

Other members of the Consortium, which selects the winners every year, are APCD, Traffic Solutions, Santa Barbara County Water Agency, and the Community Environmental Council.



Green Award Consortium Members Alan Nakashima of Santa Barbara County Public Works, Solid Waste and Utilities Division, and Frances Gilliland of APCD.

Following tradition, 2001 winners introduced this year’s winners. Badaoui Mouderrès of Pacific Scientific, a winner last year, introduced *Seagate Removable Storage Solutions* of Santa Maria, a 2002 Green Award Winner, noting, “Eight days ago my son was born. And I’m confident that he and his friends will grow up in an environmentally conscious world with companies like Seagate, who are consciously working to improve our environment.”

Accepting the award, Teresa Alarcio of Seagate remarked, “It didn’t start out as a plan to do something for the environment. We started out looking for ways to save money, and it turned into a win-win for everyone.” Seagate is a leading manufacturer of computer tape drive and tape head products worldwide, with headquarters in Costa Mesa, CA, and offices in Penang, Malaysia, and Irvine, Scotland, in addition to Santa Maria. Seagate reduced its onsite use and storage of hazardous chemicals by 67 percent between January of 2001 and April of 2002. The company has replaced solvents with water-based cleaners, and has an established solid waste reduction and recycling plan.

Seagate also has reduced energy use from lighting, and instituted an internal “Presidential Award” program to encourage employees to make suggestions for ways to reduce impact on the environment.



(From left) Marshall Chrowstowski and Charles Asher of Pacifica Graduate Institute, a 2002 Green Award Winner, with Charlie Eckberg of Investec Real Estate Companies, a 1998 Green Award Winner, and Karen Feeney of the Community Environmental Council, member of the Green Award Consortium.

Dennis Thompson of Thompson-Naylor Architects, a winner last year, introduced *Blackbird Architects* in Santa Barbara, a 2002 winner, saying he was pleased to introduce an architectural firm: “As architects, I think we have a much larger impact than some other small businesses. Our buildings go on consuming water and energy long after our businesses have disappeared.”

Blackbird diverts 75 percent of office waste from the landfill

through recycling programs, and encourages alternative transportation through bike storage facilities, onsite showers, and shared office vehicles, including scooters and bikes. The office uses ventilation and natural lighting to cut energy

use in half as compared to a conventional office building, and permeable and planted parking surfaces minimize storm water runoff. The firm has U.S. Green Building Council LEED (Leadership in Energy and Environmental Design) certified staff, and employees use volunteer hours to: educate other architects, contractors and the public on green building practices

and to participate in a range of community green building and environmental initiatives.

Derek Carlson of MarBorg Industries, a 2001 winner, introduced *Hayward Building Systems* of Santa Maria, a 2002 winner, noting: “This is an exciting award for us to give. First, it’s a project that involves recycling construction products, and you know we love that. More importantly, this company has many other programs as well that are being recognized here.”

## Green Award Winners (cont'd from page one)

Hayward recently built a 50,000-square-foot component manufacturing facility in Santa Maria to U.S. Green Building Council LEED standards. The facility is a model of water, energy, and resource conservation, and incorporates recycled materials and sustainable products. Rainwater collected in underground cisterns is used for landscape irrigation. Natural lighting and building features reduce thermal transfer and lower energy demands. Solar panels on the roof provide more than enough electricity to power the building; surplus electricity is fed back into the power grid and credited to the company. Permeable pavers in the parking lot allow rainwater to replenish the groundwater and on-site retention basins. Operations within the plant are also environmentally friendly. Precise cutting techniques minimize wood waste, sustainably forested timber can be specified in the manufacturing of the SolarTruss™, and a recycling program ensures that all wood waste is recycled into mulch or compost. The facility's heating system uses heat exchangers that warm outside intake air with exhaust hot air to reduce energy use.

Accepting the 2002 Green Award, Ed Knight of Hayward Building Systems remarked, "As we worked towards sustainability, there were times when we felt we were on a journey alone—as I'm sure many of you here have felt at times. Today, it's a pleasure for

us to be here and see all the faces, and to receive the emails and calls we've received in the past months, and we really appreciate that we are not on that journey alone."

In accepting the 2002 Green Award for *Cottage Health System (CHS)*, the parent organization of the Santa Barbara Cottage Hospital, Goleta Valley Cottage Hospital and Santa Ynez Valley Cottage Hospital, Ron Lafrican noted that many people had been a part of the environmental efforts recognized by the award, "We have a shared leadership model at Cottage, and it has really empowered employees to bring forward suggestions for environmental improvements." Suggestions have led to more efficient use of natural gas and water. Cottage Health System also has an employee commuter program that offers: a prize drawing for employees who use alternative means of transport at least eight times per month; half-price bus passes; match-lists for carpooling; emergency rides home; and a pre-tax flexible spending program for expenses on buses and vanpools. Employees also have implemented comprehensive recycling programs, and the Children's Center there uses the facility-wide recycling program to educate kids about the importance of recycling.

*Pacifica Graduate Institute*, a small graduate school for psychology and mythological studies in Carpinteria, was recognized as a 2002 Green



(From left) Green Award Consortium Member Alan Nakashima, Ron Lafrican of Cottage Health System, a 2002 Green Award winner, Christine Elliott, representing Congresswoman Lois Capps, and Cameron Benson, representing State Assemblywoman Hannah Beth-Jackson.

Award Winner for a number of its programs. Ed Van Wingerden of Everbloom, a winner last year, in his introduction related, "When I was contacted about presenting the award to Pacifica, I wanted to know more, so I set up a time to go to the school. And what I thought would be a thirty-minute interview turned into a two-hour educational tour. It is an incredible place." The grounds are landscaped with renewable, edible, drought-tolerant plants maintained with drip and minispray systems to save water, and integrated pest management strategies reduce the need for chemical pesticides. Pacifica has comprehensive recycling and energy conservation programs, and encourages staff to telecommute and work flexible schedules to reduce traffic demands in the area. Most impressive, said Van Wingerden, is the composting program, which produced more than 200 tons of finished compost last year: "They get as excited about compost as I do about insects eating other

insects. Their commitment to environmentally responsible stewardship of the land, and to continuing to work further in their endeavors is impressive."

Accepting the award, Charles Asher of Pacifica said to the Green Award Consortium: "Thank you from Pacifica for being a Consortium of Caring — for our life, and for the life of the natural world."

For more information on the Green Awards Program, see [www.sbapcd.org/grn/grnaward.htm](http://www.sbapcd.org/grn/grnaward.htm).

**Building Stronger Communities** is the title of a joint conference to be held by APCD and Santa Barbara County Association of Governments on November 7, 2002 from 8:30-4:30 at the Rancho Santa Barbara Marriott in Buellton.

For more information, see [www.sbapcd.org](http://www.sbapcd.org), or call Bobbie Bratz at 961-8890 or email [bratzb@sbapcd.org](mailto:bratzb@sbapcd.org).