

Protecting Blue Whales and Blue Skies Slowing Ships Down in the Santa Barbara Channel

The District and partners are implementing an innovative voluntary program to slow ships down in the Santa Barbara Channel to reduce air pollution and protect whales from July 1, 2014 until later this year.

Shipping companies agree to slow ships to 12 knots or less for an incentive of \$2,500 per transit through the Channel; 32 trips, or transits through the Channel will be included in the trial program.

The proof-of-concept trial was developed by the District, the Channel Islands National Marine Sanctuary, and the Environmental Defense Center. Funding is provided by the District, the Ventura County Air Pollution Control District, and the Santa Barbara Foundation,



Elgin Pally of Maersk Line (above left to right) and TL Garrett, Vice President of the Pacific Merchant Shipping Association, which represents several of the shipping lines participating in the trial program, provided the shipping industry perspective at the forum.

and payments are managed by the National Marine Sanctuary Foundation. Seven global shipping

companies, COSCO, Hapag-Lloyd, K Line, Maersk Line, Matson, MOL, and United Arab Shipping Company participated in the initial phase.

A large number of ship transits occur every year to and from the Ports of LA and Long Beach through the Channel. Cargo and container ships emit large amounts of pollutants that can impact onshore air quality, and account for more than 50% of ozone-forming nitrogen oxides (NOx) in Santa Barbara County, and for 25% of NOx emissions in Ventura County. Reducing ship speeds significantly reduces emissions of NOx and other air pollutants.

The Channel is also home to endangered blue, fin, and humpback whales which feed and

“We have to remember that as shipping emissions seem to represent a larger slice of the pie, the entire pie is smaller. The Clean Air Act is working, and emissions onshore have been greatly reduced.”

*-TL Garrett
Vice President, Pacific Merchant Shipping Association*

travel in and around the shipping lanes, making them vulnerable to ship strikes. Reducing ship speeds reduces the chances of fatal ship strikes on whales.

The trial was designed to: assess potential air quality and whale protection benefits; test the

(continued on back)



Wayne Miller of the University of California at Riverside shared results from a study that measured ship stack emissions from ships underway in the Santa Barbara Channel, and showed that ship speed reduction to 12 knots significantly reduced air emissions, including emissions of NOx, particulate, and greenhouse gases.

Inside...

-  **Hot Weather Impacts Air Quality**
-  **Encouraging Clean-Fueled Vehicles**
-  **Dry or Wet Winter in 2014-2015?**
-  **Celebrating the County Education Office**
-  **New District Video**

Reducing Emissions from Ships (cont'd)

shipping industry's willingness to participate; refine ship tracking mechanisms; and lay the foundation for establishing a larger-scale program in the future. The partners are verifying ships speeds for the registered trips. Preliminary data analyzed through September 3rd indicated that fourteen of fifteen registered trips had successfully reduced speeds to 12 knots or less through the Channel. After the trial the partners will analyze the data, and provide results, and will continue to develop a larger-scale program.

The District and partners put on a community forum in September, co-sponsored by the University of California at Santa Barbara Bren School of Environmental Science and Management, to feature the trial program – see photos.

For more information, see www.OurAir.org

(Right) District Director Dave Van Mullem highlighted the air pollution reductions from slowing ships to speeds of 12 knots or less.



Steve Gaines (right), Dean of the UCSB Bren School of Environmental Science and Management moderated a panel discussion with (left to right) Brian Shafritz of the District, Sean Hastings of the Channel Islands National Marine Sanctuary, Kristi Birney of the Environmental Defense Center, and TL Garrett of the Pacific Merchant Shipping Association.



Brad Winney of Conserve.IO, presented an overview of Whale Alert, a new iPhone application that tracks and reports whale sightings, and Sean Herron (left), Sea Grant Fellow with the Channel Islands National Marine Sanctuary, provided an overview of whale research in the Channel.

Working to Reduce Shipping Emissions Since 1994

Large ships are responsible for substantial amounts of worldwide emissions of black carbon, nitrogen oxides (NOx), particulate matter, sulfur, air toxics, and greenhouse gases. The District first identified the contribution of marine shipping emissions to Santa Barbara County's air emissions inventory in its 1994 Clean Air Plan, and has been working on initiatives to reduce these emissions ever since.

In 2008 and 2009 the District was a party in two

lawsuits challenging the U.S. Environmental Protection Agency (EPA) to adopt standards for the control of air pollution from Category 3 marine vessel diesel engines pursuant to Section 213 of the federal Clean Air Act.

The EPA ultimately did adopt these standards, and also led a successful effort asking the International Maritime Organization to designate North America as an Emission Control Area (ECA), with standards for ship fuels and engines. These

standards apply to ships traveling up to 200 nautical miles off the coast of North America. The California Air Resources Board also issued a regulation that became effective before the ECA regulations, requiring ships traveling up to 24 nautical miles off the California coast to use lower-sulfur fuel.

The use of lower-sulfur fuels in ship engines significantly reduces emissions of particulate, sulfur, and air toxics, but does not produce significant reductions

of NOx emissions. Standards for cleaner ship engines will result in NOx reductions, however these standards apply only to new ship engines, meaning NOx reductions will be achieved slowly over many years. The District is interested in the potential for vessel speed reduction to produce NOx emission reductions in a near-term timeframe.

Celebrating Teachers and the County Education Office

On the Air

District Board Roundup

Following are the highlights of the 2014 Board meetings.

Note: January items were continued to a February meeting. Brief summaries of Board actions are below, for full information see www.OurAir.org.

February and March

- For calendar year 2014, elected Holly Sierra as Chair and Janet Wolf as Vice-Chair, selected Board member Richardson, Vice-Chair Wolf, and Chair Sierra to serve on the District Executive Committee, appointed Vice-Chair Wolf to serve as the representative to the South Central Coast Basinwide Control Council and selected Board members Carbajal, Bennett, Richardson, Adam and Patino to serve on the District Hearing Board Nominating Committee.
- Adopted Resolutions of Appreciation for Jon Mundt and Glenn Griffin upon the occasion of their retirements, and a Resolution of Appreciation to Roger Aceves for his service on the Air Pollution Control District Board of Directors.
- Received staff's analysis on the Offsets Workgroup options, and continued the direction of proceeding with meetings to develop rule revisions to address offsets.
- Adopted a Resolution of Appreciation for the Santa Barbara County Education Office for its partnership with the District on teacher grants programs since 2003.

May and June

- In Closed Session authorized County Counsel to file a letter of support for the South Coast Air Quality Management District petition to the Court of Appeal for immediate relief from a trial court order requiring the disclosure of the identity of confidential complainants.
- Reappointed David Schmarje to the District Hearing Board for a three-year term.
- Received and filed the Fiscal Year 2012-13 Financial Audit.
- Received an update on the California Energy Commission grant award to the Central

Coast – Charge Ahead Project (CC-CAP) for electric vehicle charging infrastructure.

- Received the Fiscal Year 2014-15 Proposed Budget, held public hearings (in May and June) to accept comments and adopted the budget.
- Received and filed information on the District's update of its Environmental Review Guidelines.
- Held a public hearing on proposed Rule 323.1, Architectural Coatings, and adopted the Rule.
- Received an update on a marine shipping Vessel Speed Reduction (VSR) incentive trial program in the Santa Barbara Channel; and authorized the Chair to execute a Memorandum of Agreement with the National Marine Sanctuary Foundation for the District to contribute funds to the VSR program.

August

- Approved \$500,000 in additional spending authority for the District's Off-Road Equipment Replacement Program.
- Executed District Grant Agreement for an Electric Vehicle Charging Station in the City of Goleta.
- Received and filed information on the District's update of its Environmental Review Guidelines.
- Received a presentation from Dr. Catherine Gautier-Downes on Global Warming and Climate Change.

October

- Approved filing of an amicus brief in Friends of the Dunes v. San Luis Obispo County Air Pollution Control District, Real Party in Interest, California Department of Parks and Recreation.
- Viewed new District video.
- Received an update on electric vehicle and alternative fuel vehicle programs.
- Received an update on the ship speed reduction trial program.

In March the District Board recognized the Santa Barbara County Education Office for its partnership with the District on teacher grants for environmental and science education projects for the past ten years.

The current "Care for Our Earth" teacher grants program, sponsored by the District, the Santa Barbara County Water Agency, and the Pacific Gas and Electric Company, provides mini grants of \$250 to teachers to implement projects in classrooms to conserve energy, save water, or cut traffic and pollution at school sites. The program is open to K-12 teachers around the county; deadline for applications is November 21st.

For more information, see www.OurAir.org.



District Director Dave Van Mullem (left) with Steve Keithley, Director of Teacher Programs and Support at the Santa Barbara County Education Office, with the District Board Resolution of Appreciation for the County Education Office's many years of support for environmental education programs.

CARE for our
EARTH
at our Schools
Programs for Teachers



Board of Directors

Supervisor Salud Carbajal
First District
Santa Barbara County

Supervisor Janet Wolf, Vice-Chair
Second District
Santa Barbara County

Supervisor Doreen Farr
Third District
Santa Barbara County

Supervisor Peter Adam
Fourth District
Santa Barbara County

Supervisor Steve Lavagnino
Fifth District
Santa Barbara County

Councilmember Holly Sierra
Chair
City of Buellton

Councilmember Al Clark
City of Carpinteria

Mayor Michael T. Bennet
City of Goleta

Councilmember John Lizalde
City of Guadalupe

Mayor Pro Tem Ashley Costa
City of Lompoc

Mayor Helene Schneider
City of Santa Barbara

Mayor Alice Patino
City of Santa Maria

Mayor Jim Richardson
City of Solvang

District Board Calendar

All meetings start at 1:00 p.m.
For meeting agendas, call Sara Hunt,
961-8853, or see www.OurAir.org
Check the website for updated
information, as meetings can be
canceled or changed.

December 18, 2014

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

January 15, 2015

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

March 19, 2015

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

May 21, 2015

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

Community Advisory Council

The APCD Community Advisory Council meets as needed, often the 2nd Wednesday of the month, in Buellton. The public is welcome. For more information, call Sara Hunt, 961-8853.

A day in the life of...



View new District video

See the District's new four-and-a-half minute video "A Day in the Life of Santa Barbara County Air Pollution Control District" depicting District activities from the perspective of a staff member.

See the video on YouTube or at www.OurAir.org.

Printed using vegetable-based inks
on 100% recycled chlorine-free
paper that is manufactured using
wind-generated power.



On the Air is a quarterly
newsletter written by Mary Byrd,
published by the Community
Programs Section of the Santa
Barbara County Air Pollution
Control District.

Office
260 N. San Antonio Rd. Suite A
Santa Barbara, CA 93110-1315
(805) 961-8868
Business Assistance
Daily Air Quality Report
www.OurAir.org
Complaints/Public Information
(805) 961-8800
Air Quality Advisory Information
(805) 961-8802
World Wide Web
www.OurAir.org



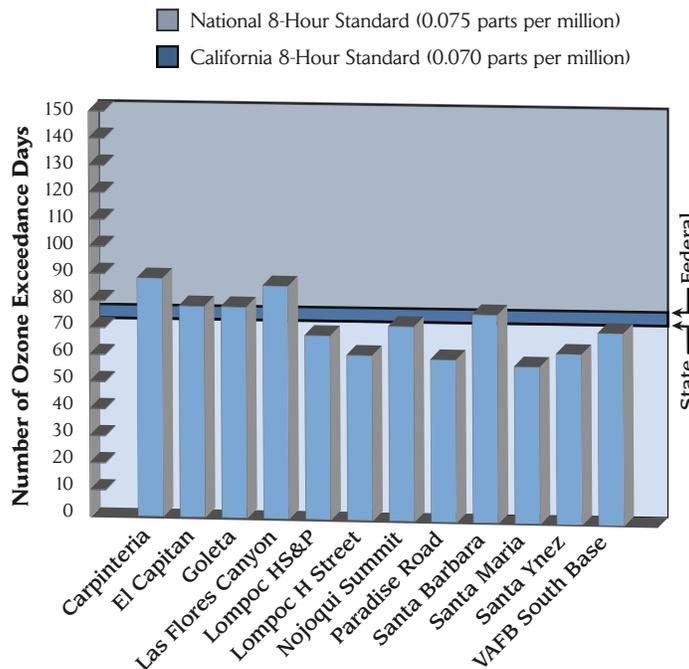
Hot Weather in October Impacts Air Quality District Monitoring Stations Record Ozone Levels above Standards

In October, District monitoring stations recorded levels of ozone above state and federal standards during an extended period of hot weather. Ozone, a primary component of smog, is formed when volatile organic compounds and nitrogen oxides react chemically in the presence of sunlight and heat.

On October 5, stations in Carpinteria, El Capitan, Goleta, Las Flores Canyon (near Gaviota), and Santa Barbara recorded exceedances of the state and federal eight-hour ozone standard (based on an eight-hour average).

Said District Director Dave Van Mullem, "It is not unusual for us to see ozone standards exceeded in September and October when we have a period of intense hot weather, but this year we've had more ozone exceedances than in each of the last three years."

Ozone Daily Eight Hour Maximums October 5, 2014



On October 5th, 2014, five monitoring stations exceeded both the state and federal eight-hour ozone standards, and one exceeded the state eight-hour ozone standard.

Santa Barbara County does not attain the state eight-hour ozone standard, but is considered in attainment of the federal eight-hour ozone standard. The October federal exceedances will not change that federal attainment status. However, the federal ozone standard is currently being reviewed by the U.S. Environmental Protection Agency, and depending on where the standard is set, the county's attainment status could change.

For real-time air quality data, records of exceedances, and information on air quality standards, see www.OurAir.org.

Encouraging Clean-Fueled Vehicles

The District supports a number of efforts to encourage use of clean-fueled vehicles.

The District is represented on the steering committee of the Plug-in Central Coast initiative, a regional plug-in electric vehicle coordinating council for Ventura, Santa Barbara, and San Luis Obispo counties. The committee also includes representatives from C5 (the Clean Cities Coalition of the Central Coast), the



Demian Barnett, Peabody Principal, Molly Pearson, Santa Barbara County Air Pollution Control District Planning and Grants Supervisor, and Peabody family John and Barbara Gilner with their sons, Luke and John, with their EV at the charging station.

Dry or Wet Weather this Winter?

Rainfall clears the air, while dry conditions result in elevated levels of particles, as well as increased risk of wildfires that impact air quality.

The National Weather Service Los Angeles/Oxnard office updates predictions for the Winter of 2014-2015 periodically. The latest report's conclusions were as follows.

- ☁ It is still uncertain if an El Niño will develop.
- ☁ Chances of above normal rainfall are better than for other years during an El Niño.

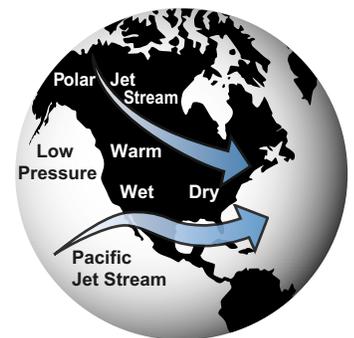
- ☁ An El Niño would not mean greater storm intensity.
- ☁ Historically, weak to moderate El Niño's have resulted in a range of outcomes, including extremes on both ends—wet or dry.

Said Eric Boldt, Warning Coordination Meteorologist with the National Weather Service Los Angeles/Oxnard, "With strong El Niños we have seen a lot of rainfall in Southern California. But when you start talking about weak to moderate El Niños, it's all over the map, it can be very wet or very dry."

He added, "In Southern California, winter is the time we get all our rain, and we only get about a half dozen storms in a winter. If storms miss us, or weaken considerably before reaching us, we can have a very dry winter. Last year we had one storm, and it gave us four to five inches of rainfall. Even with that storm we were much below normal annual rainfall levels. Without that one storm we would have been near an all-time record low."

For updated weather outlooks, visit <http://www.crh.noaa.gov/outlooks/lox>.

Typical El Niño Pattern



Clean-Fueled Vehicles (cont'd)

Community Environmental Council, and the Air Pollution Control Districts of Ventura and San Luis Obispo Counties.

This group has obtained grants for tri-county electric vehicle and alternative fuels planning from the U.S. Department of Energy and the California Energy Commission. In April 2014, the tri-county region was selected to receive a \$498,000 Energy Commission grant to install many more charging stations in Santa Barbara, Ventura, and San Luis Obispo Counties. Plug-in Central Coast has facilitated many charging station installations and there are currently 93 in Santa Barbara County and 266 in the tri counties region.

The group also developed a Plug-in Central Coast EV

Readiness Plan for the tri-counties area under a California Energy Commission grant as a resource for local jurisdictions, commercial and residential property owners, and fleet managers.

In May of 2011 the District began implementing a program to provide grant funding to support installation of publicly accessible electric vehicle charging stations. These grants have supported installation of seven stations in the county to date, including a station installed in May 2014 at Peabody Charter School (see photo).

Peabody Principal Demian Barnett said, "Installing an electric vehicle charger at Peabody makes so much sense and is aligned with our school values. With it, we can educate students, provide

a way for people to help the environment, and show that community partnerships like this one with the Santa Barbara County Air Pollution Control District can make a difference." The station is open to the public and will be used by local EV owners including parents, teachers, administrators, and visitors to the school.

District Director Dave Van Mullem noted, "In California, our electricity will be produced from cleaner and more renewable energy sources as time goes on, so we can truly say that the electric vehicle is a clean car that gets even cleaner over time. It's a great choice for our air, and public charging stations like this one will help more people make this choice."